

Appendix K Tustin Unified School District Education Center Project Traffic Impact Study

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**TUSTIN UNIFIED
SCHOOL DISTRICT**
**EDUCATION CENTER
PROJECT**
TRAFFIC IMPACT STUDY

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1. Project Description

Tustin Unified School District is proposing the construction of a new education center and an outdoor event space (Figure 1). The 8.51-acre proposed project site is currently vacant and is located at the west corner of the intersection of Legacy Road and Valencia Avenue.

The proposed education center would be approximately 44,945 square feet and include offices, work stations, workrooms, conference rooms, a training center, a Board Room, file storage rooms, a lounge, restrooms, a kitchen, a custodial closet, a data/tech/sound room, and a mail room. Outdoor patios with seating would be located adjacent to the building on the north, south, and east sides. The building would be intended to accommodate District personnel for various services. The new education center would accommodate the relocation of 83 employees from the existing District office at 300 South C Street in the City of Tustin and 27 employees would be relocated from the District's existing educational support center at 1151 San Juan Street, Room 4, in the City of Tustin. The proposed project would not generate new employees. The educational support center would continue to operate with a reduced number of staff at this location.

The proposed outdoor event center would include an outdoor auditorium with a shaded stage near the northeast corner of the project site. Concrete block benches for seating would fan out from the stage to the southwest. The outdoor event space would function primarily as an accessory space to other functions at the District Education Center which may include outdoor professional development functions, additional outdoor dining, and a space for presentations associated with District functions. In addition to the District's use of the outdoor event center, the outdoor events center can also be used by the community.

Direct vehicle access to the project site is provided by Legacy Road, which borders the project site to the south. Another component of the proposed construction plan includes two parking lots to serve the education center. One parking lot would be a public parking lot for visitors and staff consisting of 148 parking stalls. The other parking lot would be a secured parking lot reserved for staff parking and would consist of 108 parking stalls. Both parking lots would feature a subset of parking stalls with EV chargers. The lots would have a combined striped capacity of 256 stalls.

The project in full (including landscaping efforts) is estimated to occupy about 5.25 acres of the project site. The remaining 3.26 acres on the southwestern side of the project site would remain vacant with no known or planned development.



Figure 1 Proposed site plan diagram.

2. Methodology

2.1 Intersection Analysis

The performance criteria used for evaluating traffic volumes and capacities within the study area are based on peak hour intersection volumes. Using peak hour intersection turning movement volumes and the intersection lane geometry, intersection capacity utilization (ICU) values are calculated for the AM and PM peak hours in Synchro. The ICU values represent volume to capacity (V/C) ratios for the peak hour period. This provides a suitable measure of system performance. The traffic analysis examines the AM and PM peak hours since this is the time period where the majority of increased or new trips are anticipated to occur due to the proposed project.

2.2 Determination of Significant Impacts

Consistent with City of Tustin’s traffic study guidelines, the ICU analysis methodology was applied to determine the traffic level of service (LOS) at all of the study’s signalized intersections. Traffic levels of service (LOS) are designated A through F, with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Table 1 summarizes the criteria for the intersection LOS calculations and the relationship between ICU and LOS.

Table 1 Level of Service Rating.

Level of Service (LOS)	ICU
A	0.00-0.60
B	0.61-0.70
C	0.71-0.80
D	0.81-0.90
E	0.91-1.00
F	Above 1.00

Each intersection’s LOS was determined by the calculated ICU. For any intersection that would have an ICU at or above a 0.91 (i.e., LOS E and F), the LOS would not be acceptable. All project intersections with an ICU below 0.91 have an acceptable LOS for that given scenario.

2.3 Average Daily Traffic Analysis

Average daily traffic (ADT) data was collected as a part of this study in three locations. Existing roadway segment volumes are summarized from 24-hour counts which can be found in Appendix A. The annual traffic growth rate was assumed to be 1 percent per year, and “with project” scenario ADT volumes were calculated using estimated trips from the ITE Trip Generation Manual for the land use code 528 School District Office.

3. Study Area Intersections and Roadway Segments

Key nearby intersections and roadway segments adjacent to the project site were selected for analysis. These intersections and roadway segments are depicted in Figure 2 and Figure 3 and include:

3.1 Study Intersections

1. Legacy Road and Valencia Avenue
2. Tustin Ranch Road and Valencia Avenue
3. Kensington Park Drive and Edinger Avenue

3.2 Roadway Segments

1. Valencia Avenue, between Legacy Road and Columbus Square
2. Valencia Avenue, between Legacy Road and Tustin Ranch Road
3. Kensington Park Drive, between Valencia Avenue and Georgia Street

Traffic data for each study intersection was collected on Thursday, May 15, 2025, during the AM peak period (7:00 am – 9:00 am) and during the PM peak period (4:00 pm – 6:00pm). Average Daily Traffic (ADT) data for each study roadway segment was also collected for a full 24-hour period on Thursday, May 15, 2025.



LEGEND

- 1) Legacy Road and Valencia Avenue
- 2) Tustin Ranch Road and Valencia Avenue
- 3) Kensington Park Drive and Edinger Avenue

Project Site

Intersection Locations

Figure 2: Project Site and Intersection Locations



LEGEND

- A) Valencia Avenue, between Legacy Road and Columbus Square
 - B) Valencia Avenue, between Legacy Road and Tustin Ranch Road
 - C) Kensington Park Drive between Valencia and Georgia St
-  Project Site  Roadway Segment Locations

Figure 3: Project Site and Roadway Segment Locations

4. Traffic Study Periods and Scenarios

This study analyzes traffic conditions for a range of scenarios. In more detail, traffic operations for the study area intersections and roadway segment were evaluated for each of the following scenarios:

- Existing Conditions (2025) without Project
- Opening Year (2028) without Project
- Existing Conditions (2025) with Project
- Opening Year (2028) with Project

Daily traffic conditions were analyzed for a 24-hour period for each study area roadway segment. For intersections, the AM and PM peak hours are defined as the highest one hour of traffic occurring during the AM and PM peak periods.

For the purpose of this analysis, the project opening year for background traffic conditions is 2028. This is because the proposed project's construction period is scheduled to end in January 2028. An ambient growth rate of 1% per year was used to forecast the future volumes. The analysis at the study area intersections focuses on weekday AM and PM peak hour trips.

5. Existing Conditions

This section presents the Existing Conditions (2025) in the project study area. This scenario will serve as the base for which all subsequent scenarios are assessed. Descriptions of the existing roadway network and intersection level of service analysis results for the Existing Year (2025) No Project scenario are included in this section.

5.1 Existing Roadway Network

Selected roadways that are in the vicinity of the project area are described in this section. Items of note include existing geometry, pedestrian and bicycle facilities, speed limit, parking facilities, and adjacent land uses. The selected roadways are as follows:

5.1.1 Valencia Avenue

Valencia Avenue is a four-lane two-way divided roadway that runs east and west and is located east of the project site. The posted speed limit is 45 miles per hour, except for in the area directly adjacent to Legacy Magnet School, where the posted speed limit decreases to 25 miles per hour. On the segment of Valencia Avenue between Legacy Road and Columbus Square, there is only a sidewalk on the westbound side. However, on the segment of Valencia Avenue between Legacy Road and Tustin Ranch Road, there are sidewalks on both sides of the road. There are dedicated bike lanes on both sides of the road, and parking is not permitted on the roadway shoulder. The adjacent businesses and apartment complexes provide off-street parking on their lots. The surrounding land use is a mix of residential, commercial, and institutional.

5.1.2 Legacy Road

Legacy Road is a three-lane two-way roadway that runs north and south and is located southwest of the project site. The posted speed limit is 25 miles per hour. Sidewalks and dedicated bike lanes are located on the both sides of the road. Parking is not permitted on the roadway shoulder, but the surrounding institutional buildings provide off-street parking on their lots. The surrounding land use is primarily institutional.

5.1.3 Tustin Ranch Road

Tustin Ranch Road is a six-lane two-way divided roadway that runs north and south to the east of the project site. The posted speed limit is 50 miles per hour. Sidewalks and bike lanes are provided on both sides of the road. Parking is not permitted on the roadway shoulder. The surrounding land use is primarily commercial and institutional.

5.1.4 Edinger Avenue

Edinger Avenue is a six-lane two-way road that runs east and west and is located on the north side of Valencia Avenue, northeast of the project site. The posted speed limit is 50 miles per hour. Sidewalks (a mix of paved and unpaved segments) are located on both the east and west sides of Edinger Avenue. The roadway has a dedicated bike lane traveling in each direction. There are also train tracks that run parallel to the westbound side of the road. Parking is not permitted on the roadway shoulder. The surrounding land use is primarily residential and commercial.

5.1.5 Kensington Park Drive

Kensington Park Drive is a five-lane two-way road that runs north and south and is located off the north side of Valencia Avenue, northeast of the project site. The posted speed limit is 40 miles per hour. Sidewalks are located on the east and west sides of Kensington Park Drive. The roadway has a dedicated bike lane traveling in each direction. Parallel parking is not permitted on the roadway shoulder. The land use is residential on the southbound side of the road and commercial on the northbound side.

5.2 Average Daily Traffic

The average daily traffic (ADT) volumes for the study area roadway segments under Existing Conditions are summarized in Table 2. Existing roadway segment volumes are summarized from 24-hour counts which can be found in Appendix A.

Table 2 Roadway Average Daily Traffic (ADT).

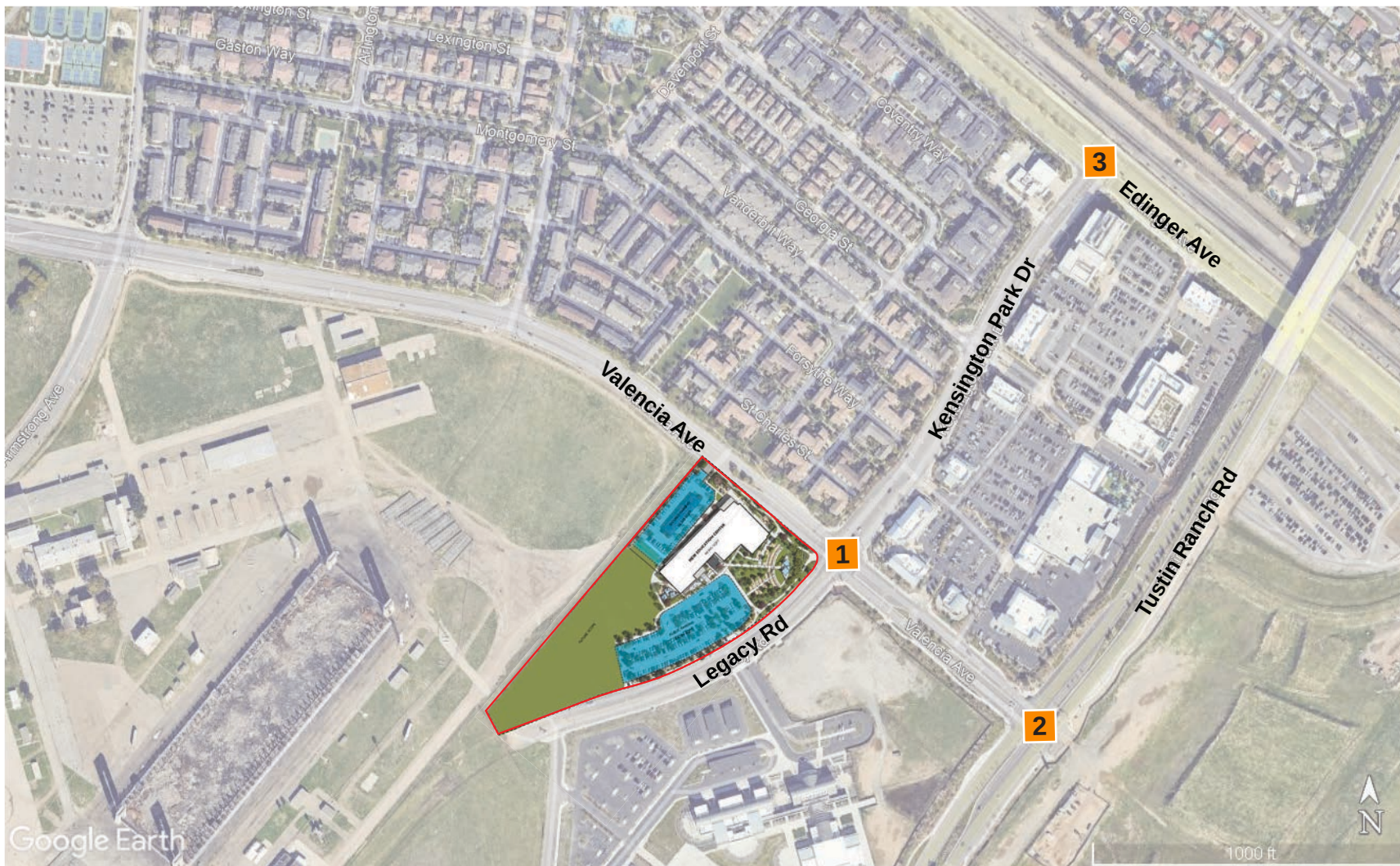
Roadway	Source	Date	EXISTING ADT
Valencia Ave, between Legacy Rd and Columbus Sq	AimTD LLC	5/15/25	10,706
Valencia Ave, between Legacy Rd and Tustin Ranch Rd	AimTD LLC	5/15/25	12,057
Kensington Park Dr, between Valencia and Georgia St	AimTD LLC	5/15/25	7,430

5.3 Intersection Levels of Service

Intersection performance was determined using the methods outlined in Section 2. Table 3 summarizes the existing levels of service at the study intersections. The complete Synchro analysis output summaries for the AM and PM peak hours are reported in Appendices C and D. All three study intersections currently operate at an acceptable level of service during both the AM and PM peak hours. Existing study intersection geometries are shown in Figure 4. Additionally, Existing Year (2025) No Project AM and PM peak hour turning movement volumes are shown in Figure 5.

Table 3 Existing Intersection Levels of Service.

Intersection	Time of Day	Existing	
		ICU	LOS
Legacy Rd and Valencia Ave	AM peak hour	0.568	B
	PM peak hour	0.427	A
Tustin Ranch Rd and Valencia Ave	AM peak hour	0.610	B
	PM peak hour	0.595	B
Kensington Park Dr and Valencia Ave	AM peak hour	0.367	A
	PM peak hour	0.511	A



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- Study Intersection
- ✕ AM Peak Hour Volume
- ✕ PM Peak Hour Volume
- Project Site

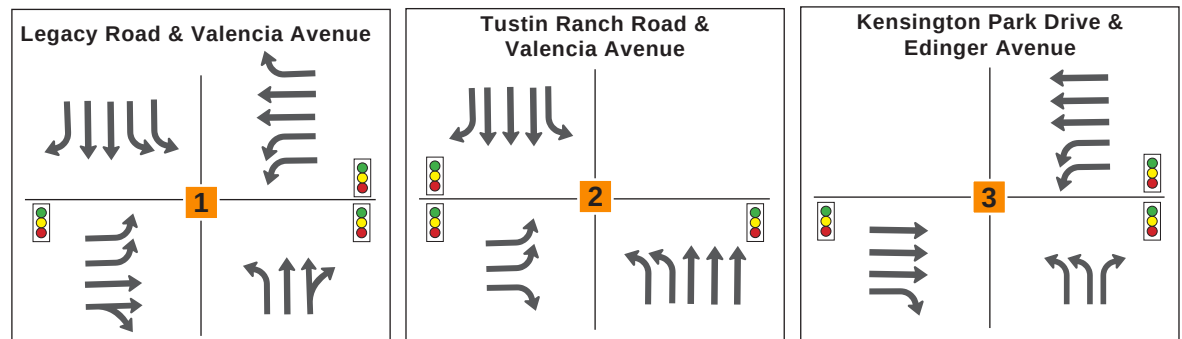


Figure 4: Existing Intersection Geometry



LEGEND

- Study Intersection
- AM Peak Hour Volume
- PM Peak Hour Volume
- Project Site

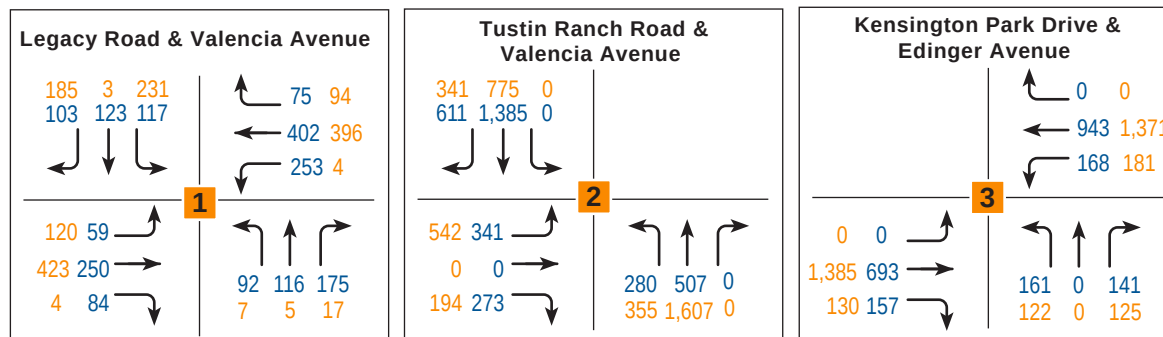


**Figure 5: Existing Year (2025)
Intersection No Project Volumes AM-PM**

6. Opening Year (2028) No Project

This section presents the roadway ADT and intersection peak hour traffic operations for the Opening Year (2028) No Project scenario. Year 2028 traffic volumes were developed by applying a 1 percent annual growth rate to Existing Year (2025) counts. Results for the average daily traffic and intersection level of service for the Opening Year (2028) No Project scenario are presented in this section.

6.1 Average Daily Traffic

The average daily traffic for the study area roadway segment in the Opening Year (2028) No Project scenario is presented in Table 4.

Table 4 Estimated ADT Opening Year with No Project.

Roadway	EXISTING ADT	2028 (No Project)
Valencia Ave, between Legacy Rd and Columbus Sq	10,706	11,030
Valencia Ave, between Legacy Rd and Tustin Ranch Rd	12,057	12,422
Kensington Park Dr, between Valencia and Georgia St	7,430	7,655

6.2 Intersection Levels of Service

A summary of the AM and PM peak hour intersection level of service analysis results for the Opening Year (2028) No Project scenario is presented in Table 5. The complete Synchro analysis output summaries for the AM and PM peak hours are reported in Appendices E and F. Opening Year (2028) No Project AM and PM peak hour turning movement volumes are shown in Figure 6. All three intersections are forecasted to operate at acceptable levels of service during the Opening Year No Project conditions.

Table 5 Opening Year (2028) No Project Intersection LOS.

Intersection	Time of Day	Existing		2028 (No Project)		Δ ICU
		ICU	LOS	ICU	LOS	
Legacy Rd and Valencia Ave	AM peak hour	0.568	B	0.580	B	0.012
	PM peak hour	0.427	A	0.433	A	0.006
Tustin Ranch Rd and Valencia Ave	AM peak hour	0.610	B	0.624	B	0.014
	PM peak hour	0.595	B	0.611	B	0.016
Kensington Park Dr and Valencia Ave	AM peak hour	0.367	A	0.375	A	0.008
	PM peak hour	0.511	A	0.522	A	0.011



LEGEND

- Study Intersection
- X AM Peak Hour Volume
- X PM Peak Hour Volume
- Project Site

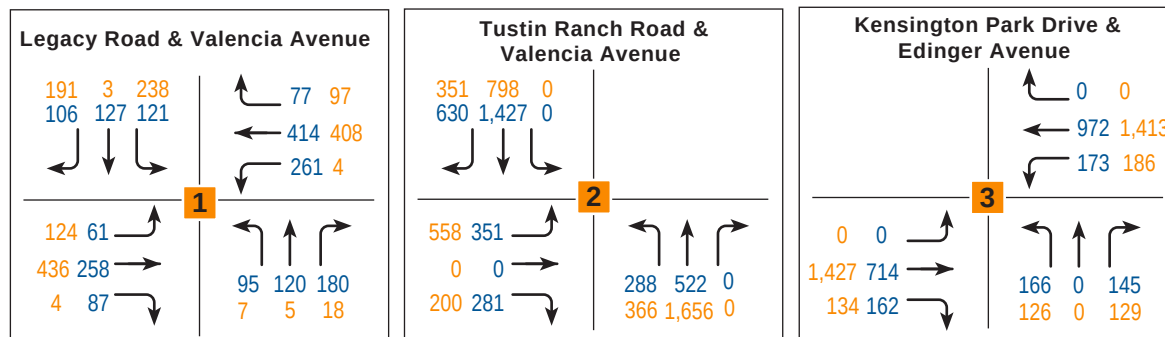


**Figure 6: Opening Year (2028)
Intersection No Project Volumes AM-PM**

7. Project Conditions

7.1 Trip Generation and Distribution

The trip generation for the Tustin District Office Project was estimated using rates published in the ITE Trip Generation Manual 12th Edition. The proposed project would create additional office-related opportunities for District personnel. These activities would take place during regular work hours and generate trips during the AM and PM peak hours of weekdays.

The project is expected to generate 646 trips on weekdays. The project is expected to generate 106 trips during the AM peak hour, with 76% (81 vehicles) entering the site and 24% (25 vehicles) exiting the site. During the PM peak hour, the project is expected to generate 92 trips, with 17% (16 vehicles) entering the site and 83% (76 vehicles) exiting the site.

The number of trips resulting from the proposed project were estimated using the ITE Trip Generation Manual 12th Edition values for Land Use Code 528 School District Office. The estimates for the weekday AM Peak, weekday PM Peak, and weekday daily conditions are presented in Appendix B. It is acknowledged that an outdoor event center is also being built as part of this project, but the number of additional trips generated by the outdoor event center was not included in this analysis because the project description establishes that the outdoor event center would be typically be utilized by district staff already on-site during weekday daytime hours and the community outside of peak AM and PM hours and on weekends. As such, no significant weekday AM or PM peak hour impacts to traffic are anticipated.

7.2 VMT Project Impacts

The vehicle miles travelled (VMT) screening analysis for the Tustin education center was completed following the City of Tustin's VMT Guidelines for CEQA (adopted May 2024). These guidelines identify a set of screening criteria to apply to new projects to determine if the project can be screened out (identified to have a less-than-significant impact on VMT) or if the project's effect on VMT requires more involved analysis to determine if the project would create a significant impact and would require measures to mitigate VMT impacts.

The project's performance under each of the screening criteria identified by the City of Tustin is detailed below:

- 100% Affordable Housing – The project is not a housing project and not eligible to be screened out under this category.
- Located within ½ mile of qualifying transit – The project is located outside of a ½ mile radius of the Tustin Metrolink station and is not eligible to be screened out under this category.
- Locally Serving Land Use – The City of Tustin identifies local serving civic uses as locally serving uses that are not required to conduct more detailed VMT analysis. These uses include libraries, civic centers, and community facilities. A school district office, including a small community center, would qualify under this criteria.
- Located in a low VMT area – The City has identified several transportation analysis zones (TAZ) where household per capita VMT or VMT per employee is lower than the citywide average. If a project is located in one of these VMT areas it can be screened out from further

VMT analysis. The proposed project is not located in a low VMT area and is not eligible to be screened out under this category.

- New project daily trips below 500 ADT – Smaller projects are assumed to have a less-than-significant impact on VMT and can be screened out from further analysis. The new education center would involve relocating some of the District's existing administrative uses to the new site. Because the proposed project is a relocation of an existing use, with some expansion, the project is anticipated to result in a net increase of less than 500 new daily trips. As highlighted in Section 7.1 of this report, the project would be anticipated to generate 646 daily trips in its new location. A significant portion of these daily trips would involve the relocation of existing trips as the district plans to relocate 83 employees from the existing District office at 300 South C Street in Tustin and 27 employees from the district's existing educational support center at 1151 San Juan Street in Tustin. The ITE Trip Generation Manual, 12th Edition estimates 5.08 daily trips per employee for the school district office land use type. Applying this rate to the 110 employees being relocated results in a forecast of 559 daily trips that would be relocated trips rather than new vehicle trips. The relocation of these existing vehicle trips would reduce the estimated net new daily trips generated by the project to 87 vehicle trips, well below 500 trips per day, allowing the project to qualify under this criterion.

Based on review of the screening criteria above, the proposed project satisfies two of the criteria adopted by the City of Tustin. Therefore, the project's impact on a VMT is anticipated to be less-than-significant.

8. Existing Year (2025) With Project

This section presents the ADT of the Existing Year (2025) With Project scenario. With Project traffic volumes were developed by adding the anticipated ADT trips to Existing Year (2025) count. Results for the average daily traffic and intersection level of service for the Existing Year (2025) With Project scenario are presented in this section.

8.1 Average Daily Traffic

The average daily traffic (ADT) volumes for the study area roadway segments under Existing Year (2025) With Project conditions are summarized in Table 6. Existing roadway segment volumes are summarized from 24-hour counts which can be found in Appendix A.

Table 6 Estimated ADT Existing Year with Project

Roadway	EXISTING ADT	2025 (With Project)
Valencia Ave, between Legacy Rd and Columbus Sq	10,706	11,352
Valencia Ave, between Legacy Rd and Tustin Ranch Rd	12,057	12,703
Kensington Park Dr, between Valencia and Georgia St	7,430	8,076

8.2 Intersection Levels of Service

A summary of the AM and PM peak hour intersection level of service analysis results for the Existing Year (2025) With Project scenario are presented in Table 7. The complete Synchro analysis output summaries for the AM and PM peak hours are reported in Appendices G and H. Existing Year (2025) With Project AM and PM peak hour turning movement volumes are shown in Figure 7. All three intersections are forecasted to operate at acceptable levels of service during the Existing Year (2025) With Project conditions.

Table 7 Existing Year (2025) With Project Intersection LOS

Intersection	Time of Day	Existing		2025 (With Project)		Δ ICU
		ICU	LOS	ICU	LOS	
Legacy Rd and Valencia Ave	AM peak hour	0.568	B	0.600	B	0.032
	PM peak hour	0.427	A	0.429	A	0.002
Tustin Ranch Rd and Valencia Ave	AM peak hour	0.610	B	0.616	B	0.006
	PM peak hour	0.595	B	0.605	B	0.010
Kensington Park Dr and Valencia Ave	AM peak hour	0.367	A	0.372	A	0.005
	PM peak hour	0.511	A	0.512	A	0.001



LEGEND

- Study Intersection
- X AM Peak Hour Volume
- X PM Peak Hour Volume
- Project Site

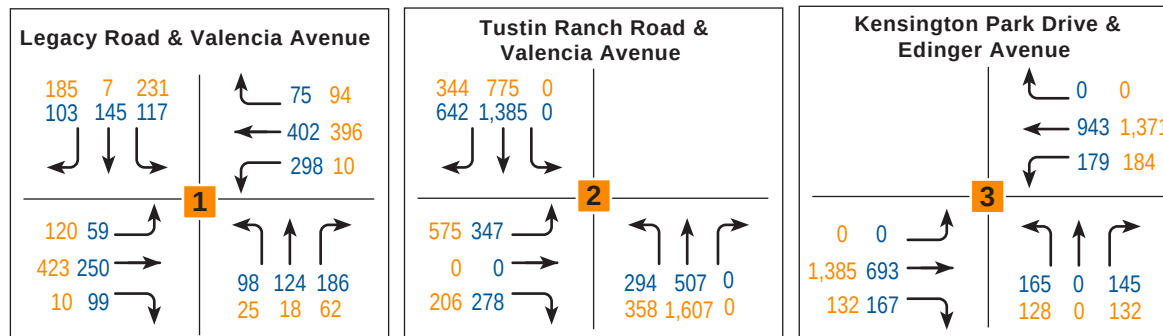


**Figure 7: Existing Year (2025)
Intersection With Project Volumes AM-PM**

9. Opening Year (2028) With Project

This section presents the ADT and LOS estimates of the Opening Year (2028) With Project scenario.

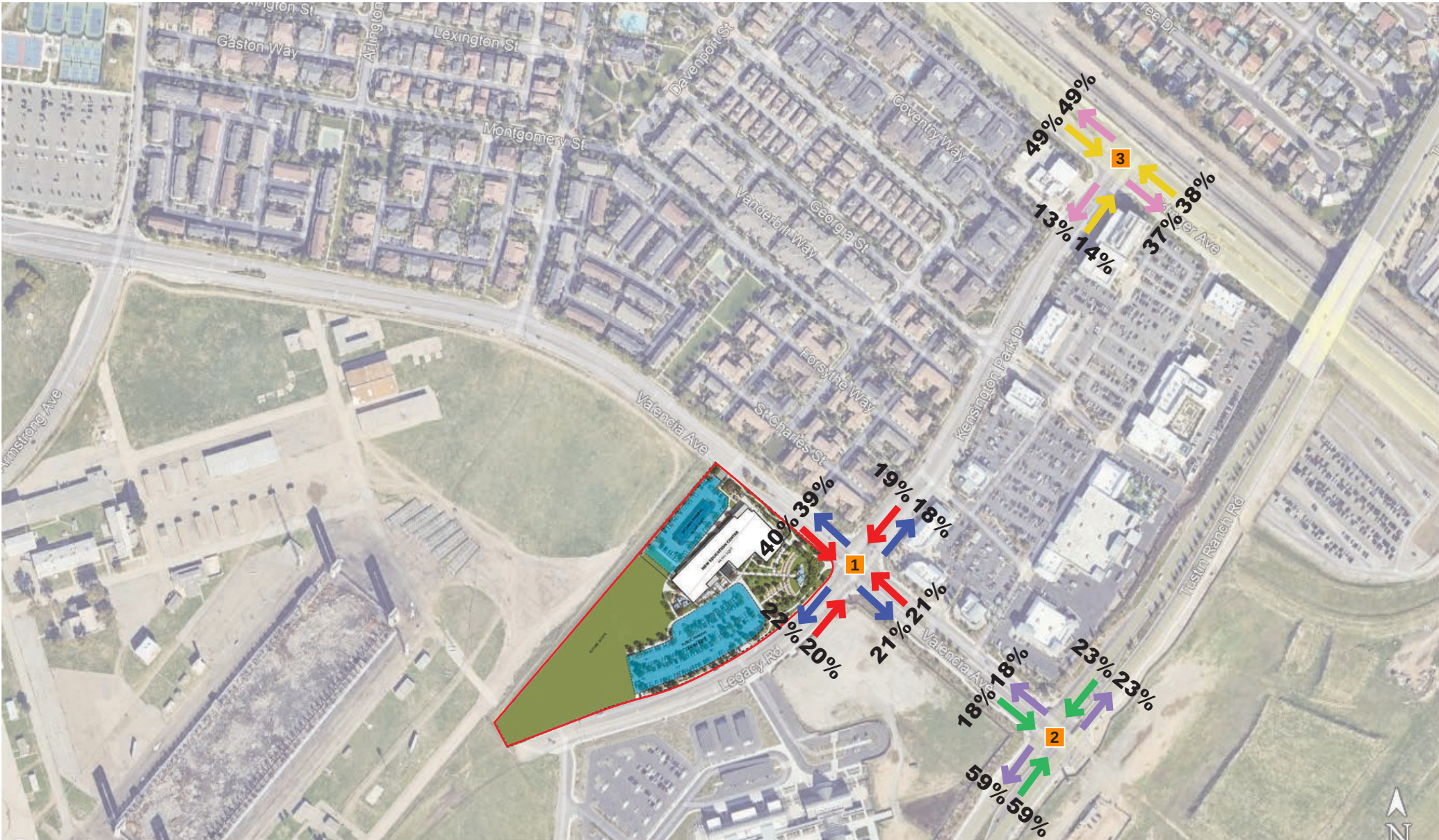
9.1 Average Daily Traffic

The project is expected to generate 646 trips throughout the day (weekday). As previously mentioned, this was calculated using the ITE Trip Generation Manual values for Land Use Code 528 School District Office. The ADT is assumed to grow at a 1 percent rate per year. Existing roadway segment volumes are summarized from 24-hour counts which can be found in Appendix A.

The estimated intersection trip distributions assuming the additional traffic volumes projected due to the Project are shown in Figure 8 (AM) and Figure 9 (PM). Table 8 below shows the estimated additional ADT volumes for each roadway segment, by scenario. The last column of Table 8 shows ADT estimates for the Opening Year (2028) With Project scenario.

Table 8 Estimated Project ADT Impacts

Roadway	EXISTING ADT	2028 (No project)	2025 (With Project)	2028 (With Project)
Valencia Ave, between Legacy Rd and Columbus Sq	10,706	11,030	11,352	11,676
Valencia Ave, between Legacy Rd and Tustin Ranch Rd	12,057	12,422	12,703	13,068
Kensington Park Dr, between Valencia and Georgia St	7,430	7,655	8,076	8,301



1 Legacy Rd and Valencia Ave

2 Tustin Ranch Rd and Valencia Ave

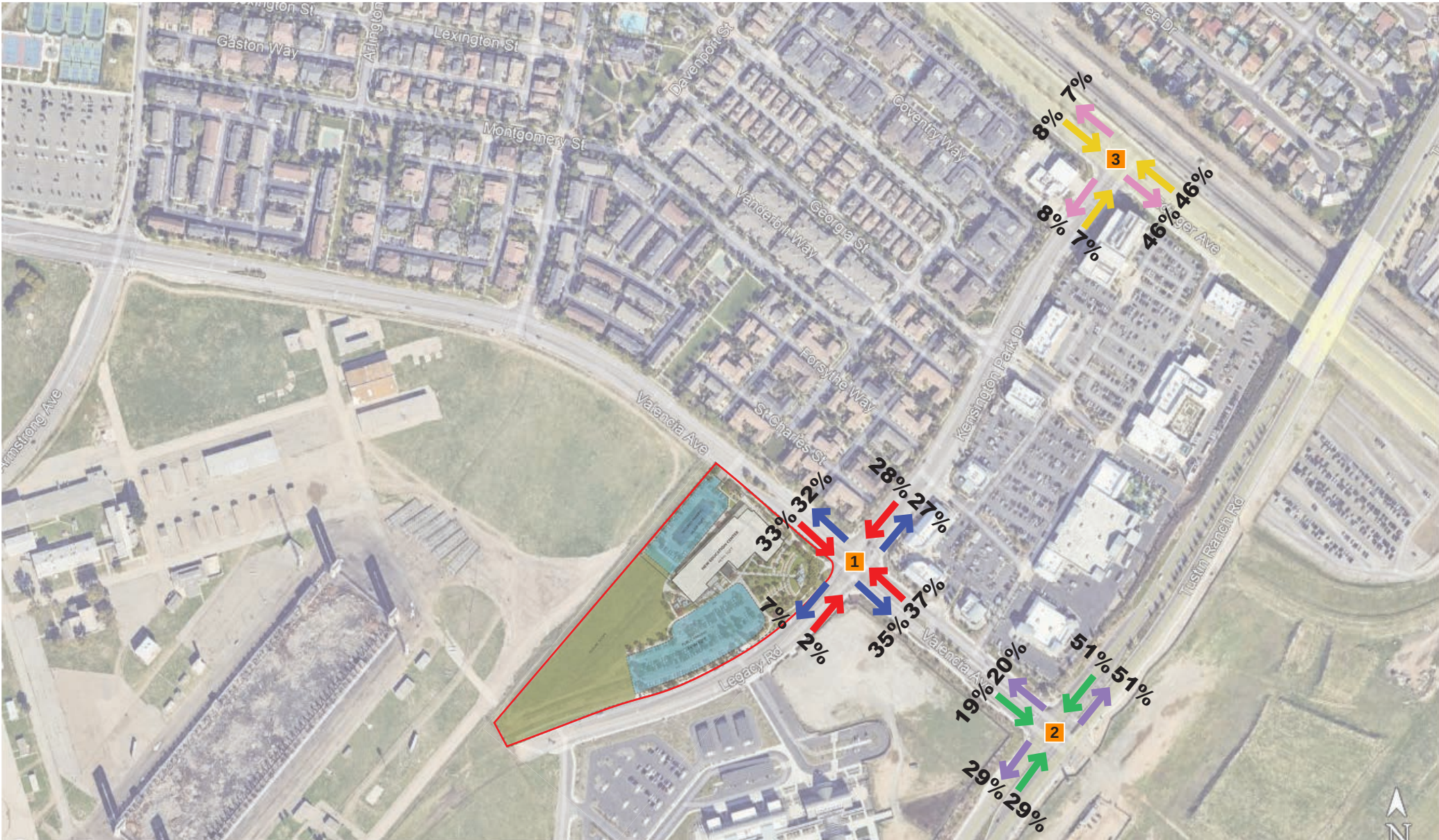
3 Kensington Park Rd and Edinger Ave

Red arrow: AM peak hour - Entering
 Blue arrow: AM peak hour - Exiting

Green arrow: AM peak hour - Entering
 Purple arrow: AM peak hour - Exiting

Yellow arrow: AM peak hour - Entering
 Pink arrow: AM peak hour - Exiting

Figure 8: Estimated Trip Distribution AM



1 Legacy Rd and Valencia Ave

2 Tustin Ranch Rd and Valencia Ave

3 Kensington Park Rd and Edinger Ave

Red square: AM peak hour - Entering
Blue square: AM peak hour - Exiting

Green square: AM peak hour - Entering
Purple square: AM peak hour - Exiting

Yellow square: AM peak hour - Entering
Pink square: AM peak hour - Exiting

Figure 9: Estimated Trip Distribution PM

9.2 Intersection Levels of Service

A summary of the AM and PM peak hour intersection level of service analysis results for the Opening Year (2028) With Project scenario is presented in Table 9. The complete Synchro analysis output summaries for the AM and PM peak hours are reported in Appendices I and J. Opening Year (2028) With Project AM and PM peak hour turning movement volumes are shown in Figure 10. All three intersections are forecasted to operate at acceptable levels of service during the Opening Year With Project conditions.

Table 9 Opening Year (2028) With Project Intersection LOS

Intersection	Time of Day	2028 (No Project)		2028 (With Project)		Δ ICU
		ICU	LOS	ICU	LOS	
Legacy Rd and Valencia Ave	AM peak hour	0.580	B	0.612	B	0.032
	PM peak hour	0.433	A	0.435	A	0.002
Tustin Ranch Rd and Valencia Ave	AM peak hour	0.624	B	0.631	B	0.007
	PM peak hour	0.611	B	0.621	B	0.010
Kensington Park Dr and Valencia Ave	AM peak hour	0.375	A	0.380	A	0.005
	PM peak hour	0.522	A	0.523	A	0.001



LEGEND

- Study Intersection
- X AM Peak Hour Volume
- X PM Peak Hour Volume
- Project Site

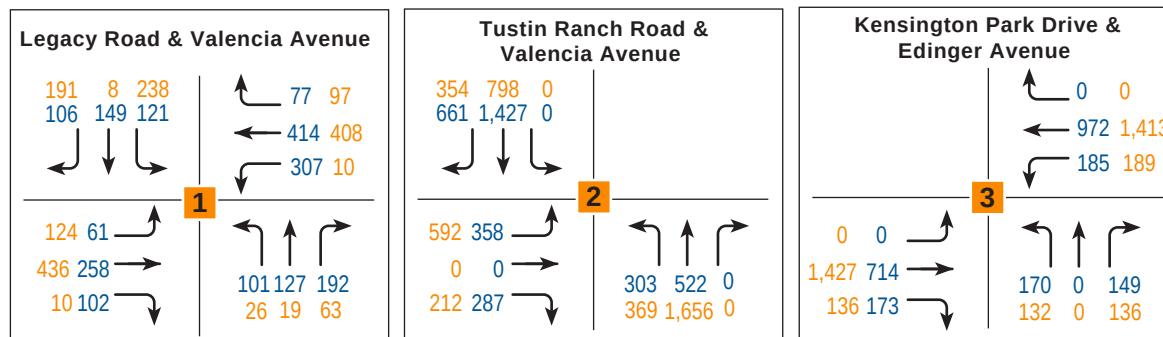


**Figure 10: Opening Year (2028)
Intersection With Project Volumes AM-PM**

10. Conclusions

Below are the summary tables for the ICU percentage and corresponding LOS, separated by intersection.

Table 10 Legacy Rd and Valencia Ave ICU Summary, by time of day

Legacy Rd and Valencia Ave					
Time of day	Summary type	2025 (No Project)	2025 (With Project)	2028 (No Project)	2028 (With Project)
AM peak hour	ICU	0.568	0.600	0.580	0.612
	LOS	B	B	B	B
PM peak hour	ICU	0.427	0.429	0.433	0.435
	LOS	A	A	A	A

Table 11 Tustin Ranch Rd and Valencia Ave ICU Summary, by time of day

Tustin Ranch Rd and Valencia Ave					
Time of day	Summary type	2025 (No Project)	2025 (With Project)	2028 (No Project)	2028 (With Project)
AM peak hour	ICU	0.610	0.616	0.624	0.631
	LOS	B	B	B	B
PM peak hour	ICU	0.595	0.605	0.611	0.621
	LOS	B	B	B	B

Table 12 Kensington Park Dr and Valencia Ave ICU Summary, by time of day

Tustin Ranch Rd and Valencia Ave					
Time of day	Summary type	2025 (No Project)	2025 (With Project)	2028 (No Project)	2028 (With Project)
AM peak hour	ICU	0.367	0.372	0.375	0.380
	LOS	A	A	A	A
PM peak hour	ICU	0.511	0.512	0.522	0.523
	LOS	A	A	A	A

Based on the results of the level of service analysis, the proposed project for Tustin Unified School District can be implemented without significantly impacting any of the study intersections or roadway segments. All three study intersections operate at an acceptable level of service under both Existing Year (2025) and Opening Year (2028) With Project scenarios. Since there were no significant impacts with the addition of the project, mitigation measures were not necessary based on the analysis.

Appendix A—Turning Movement & Roadway Segment Counts

INTERSECTION TURNING MOVEMENT COUNTS

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

T112224

DATE:
Thu, May 15, 25

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Tustin
Legacy Rd
Valencia Ave

PROJECT #:
LOCATION #:
CONTROL:

SC5406
1
SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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	NORTHBOUND (NE) Legacy Rd			SOUTHBOUND (SW) Kensington Park Dr			EASTBOUND (SE) Valencia Ave			WESTBOUND (NW) Valencia Ave			
LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 1	EL 2	ET 2	ER 0	WL 2	WT 2	WR 1	TOTAL

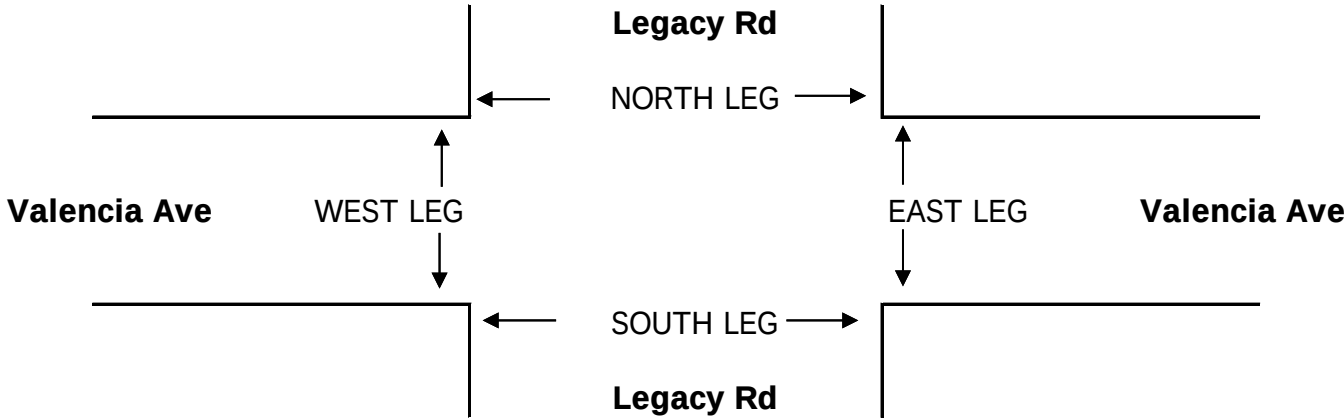
U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

AM	7:00 AM	0	0	3	17	2	13	7	28	4	16	41	9	140
	7:15 AM	17	14	29	26	35	26	6	30	19	83	60	14	359
	7:30 AM	24	20	32	28	17	33	12	39	7	36	90	19	357
	7:45 AM	9	11	33	32	20	23	12	83	23	50	157	27	480
	8:00 AM	24	29	52	23	40	24	23	72	29	68	82	13	479
	8:15 AM	35	56	58	34	46	23	12	56	25	99	73	16	533
	8:30 AM	17	24	32	29	18	30	15	54	4	16	87	16	342
	8:45 AM	0	3	3	29	4	37	12	50	3	5	114	18	278
	VOLUMES	126	157	242	218	182	209	99	412	114	373	704	132	2,972
	APPROACH %	24%	30%	46%	36%	30%	34%	16%	66%	18%	31%	58%	11%	
PM	APP/DEPART	525	/	388	609	/	669	625	/	876	1,213	/	1,039	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	92	116	175	117	123	103	59	250	84	253	402	75	1,853
	APPROACH %	24%	30%	46%	34%	36%	30%	15%	64%	21%	34%	55%	10%	
	PEAK HR FACTOR	0.643			0.833			0.792			0.781			0.864
	APP/DEPART	383	/	250	343	/	460	393	/	546	734	/	597	0
	4:00 PM	4	8	13	62	1	45	27	90	0	1	54	25	330
	4:15 PM	3	2	4	47	2	42	22	94	3	3	62	16	300
	4:30 PM	4	1	7	55	0	45	31	101	2	1	71	24	342
	4:45 PM	0	1	7	63	1	45	29	92	1	1	78	18	336
	5:00 PM	3	1	3	49	1	48	40	114	0	2	99	22	382
	5:15 PM	0	2	0	64	1	47	20	116	1	0	148	30	429
	5:30 PM	1	0	0	50	0	36	30	106	0	0	94	26	343
	5:45 PM	0	1	1	49	1	51	23	93	0	1	92	21	333
	VOLUMES	15	16	35	439	7	359	222	806	7	9	698	182	2,803
	APPROACH %	23%	24%	53%	55%	1%	45%	21%	78%	1%	1%	78%	20%	
	APP/DEPART	66	/	420	805	/	23	1,036	/	1,287	896	/	1,073	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	7	5	17	231	3	185	120	423	4	4	396	94	1,496
	APPROACH %	24%	17%	59%	55%	1%	44%	22%	77%	1%	1%	79%	19%	
	PEAK HR FACTOR	0.604			0.935			0.884			0.694			0.868
	APP/DEPART	29	/	219	419	/	11	548	/	677	500	/	589	0

0	0	0	4
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0	0	0	1	1
0	0	0	0	0
0	0	0	3	3
0	0	0	0	0
0	0	1	1	2
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	1	7	8

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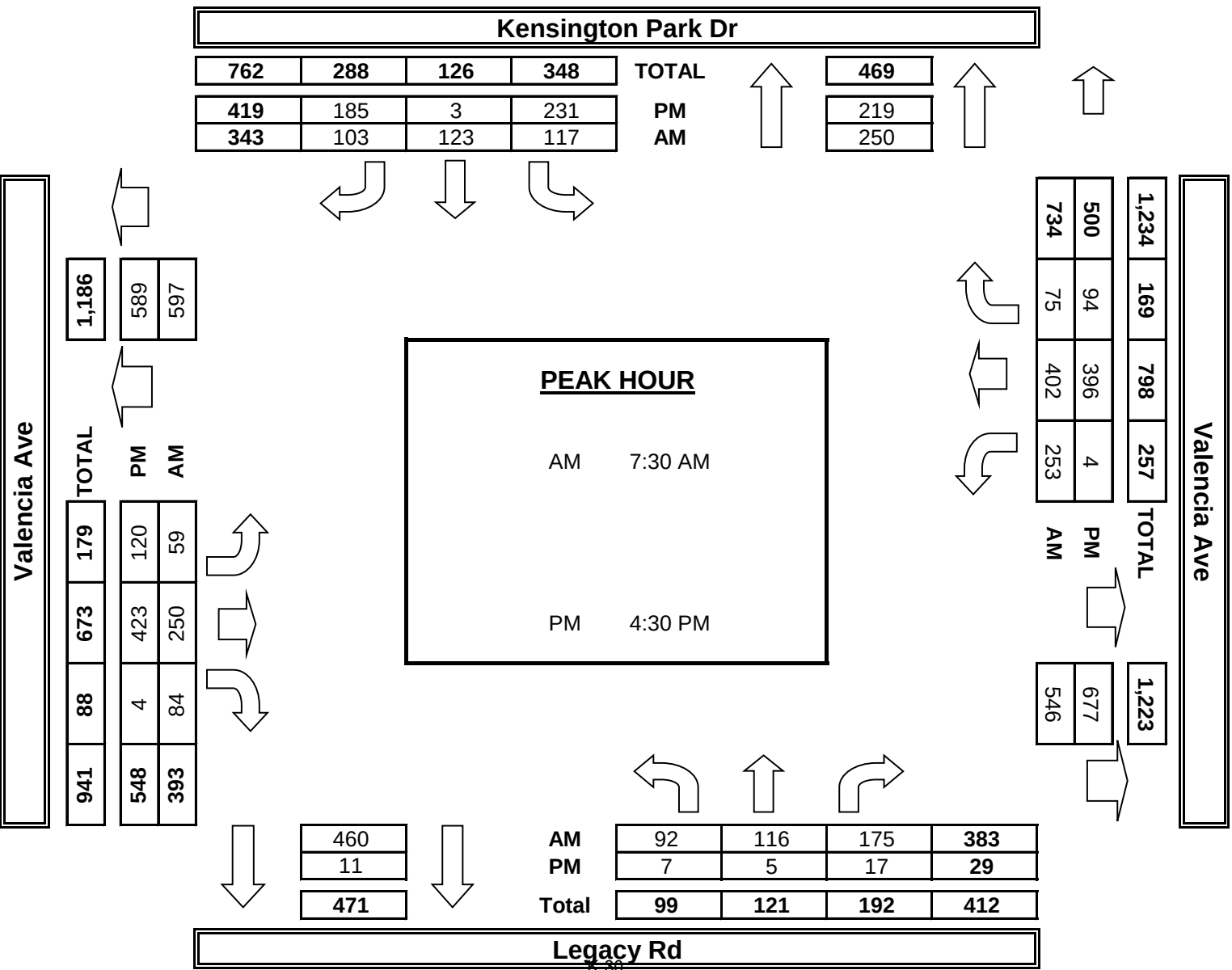
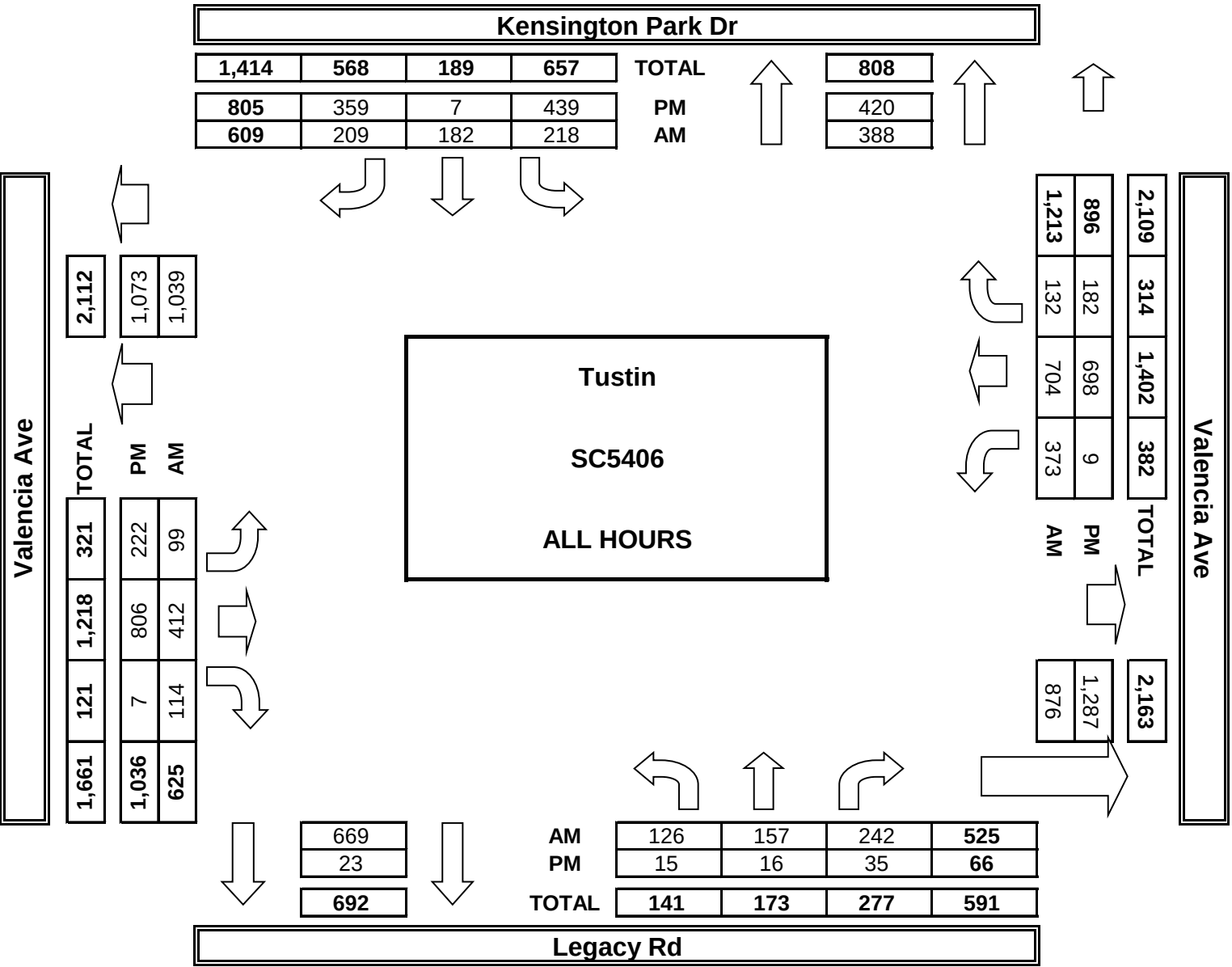
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
BEGIN PEAK HR	

ALL PED + BIKE & SCOOTER				
N LEG	S LEG	E LEG	W LEG	TOTAL
0	1	0	0	1
5	9	7	8	29
4	0	7	0	11
13	4	23	6	46
6	4	22	4	36
12	9	26	8	55
0	2	1	2	5
2	1	0	1	4
42	30	86	29	187
7:30 AM				
2	1	2	1	6
0	0	0	0	0
2	2	0	1	5
1	0	0	0	1
2	0	1	0	3
2	0	0	0	2
1	5	2	4	12
0	0	0	0	0
10	8	5	6	29
4:30 PM				

PEDESTRIAN CROSSINGS				
N LEG	S LEG	E LEG	W LEG	TOTAL
0	0	0	0	0
2	6	4	6	18
3	0	5	0	8
11	3	22	3	39
6	2	21	2	31
10	8	23	5	46
0	2	1	1	4
1	1	0	1	3
33	22	76	18	149
30	13	71	10	124
1	0	2	0	3
0	0	0	0	0
1	1	0	1	3
1	0	0	0	1
1	0	1	0	2
0	0	0	0	0
1	1	1	2	5
0	0	0	0	0
5	2	4	3	14
3	1	1	1	6

BICYCLE & SCOOTER CROSSINGS				
NL	SL	EL	WL	TOTAL
0	1	0	0	1
3	3	3	2	11
1	0	2	0	3
2	1	1	3	7
0	2	1	2	5
2	1	3	3	9
0	0	0	1	1
1	0	0	0	1
9	8	10	11	38
1	1	0	1	3
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
0	4	1	2	7
0	0	0	0	0
5	6	1	3	15

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T112224

DATE:

Thu, May 15, 25

LOCATION:

NORTH & SOUTH:

Tustin Ranch Rd

EAST & WEST:

Valencia Ave

PROJECT #:

SC5406

LOCATION #:

2

CONTROL:

SIGNAL

NOTES:

AM

PM

MD

OTHER

OTHER

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S ▼

	NORTHBOUND (NE) Tustin Ranch Rd			SOUTHBOUND (SW) Tustin Ranch Rd			EASTBOUND (SE) Valencia Ave			WESTBOUND Valencia Ave			
LANES:	NL 2	NT 3	NR X	SL 1	ST 3	SR 1	EL 2	ET X	ER 1	WL X	WT X	WR X	TOTAL

AM	7:00 AM	21	68	0	0	155	78	35	0	23	0	0	0	380
	7:15 AM	42	112	0	0	231	141	39	0	38	0	0	0	603
	7:30 AM	66	113	0	0	338	122	88	0	43	0	0	0	770
	7:45 AM	100	157	0	0	321	169	80	0	67	0	0	0	894
	8:00 AM	55	115	0	0	375	156	87	0	85	0	0	0	873
	8:15 AM	59	122	0	0	351	164	86	0	78	0	0	0	860
	8:30 AM	34	122	0	0	343	126	81	0	54	0	0	0	760
	8:45 AM	29	102	0	0	379	141	62	0	34	0	0	0	747
	VOLUMES	406	911	0	0	2,493	1,097	558	0	422	0	0	0	5,898
	APPROACH %	31%	69%	0%	0%	69%	30%	57%	0%	43%	0%	0%	0%	
APP/DEPART	1,318	/	1,479	3,600	/	2,916	980	/	0	0	/	1,503	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	280	507	0	0	1,385	611	341	0	273	0	0	0	3,402	
APPROACH %	36%	64%	0%	0%	69%	31%	56%	0%	44%	0%	0%	0%		
PEAK HR FACTOR	0.767			0.936			0.892			0.000			0.951	
APP/DEPART	788	/	852	2,000	/	1,659	614	/	0	0	/	891	0	
PM	4:00 PM	57	377	0	0	151	65	112	0	57	0	0	0	819
	4:15 PM	65	376	0	0	198	65	121	0	44	0	0	0	869
	4:30 PM	66	379	0	0	201	84	147	0	49	0	0	0	926
	4:45 PM	71	388	0	0	198	66	115	0	46	0	0	0	884
	5:00 PM	106	417	0	0	181	70	138	0	49	0	0	0	961
	5:15 PM	112	423	0	0	195	121	142	0	50	0	0	0	1,043
	5:30 PM	97	354	0	0	204	84	114	0	56	0	0	0	909
	5:45 PM	75	312	0	0	186	69	122	0	58	0	0	0	822
	VOLUMES	649	3,026	0	0	1,514	624	1,011	0	409	0	0	0	7,249
	APPROACH %	18%	82%	0%	0%	70%	29%	71%	0%	29%	0%	0%	0%	
APP/DEPART	3,675	/	4,052	2,153	/	1,923	1,421	/	0	0	/	1,274	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	355	1,607	0	0	775	341	542	0	194	0	0	0	3,822	
APPROACH %	18%	82%	0%	0%	69%	30%	74%	0%	26%	0%	0%	0%		
PEAK HR FACTOR	0.917			0.884			0.939			0.000			0.914	
APP/DEPART	1,962	/	2,157	1,124	/	969	736	/	0	0	/	696	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	1
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	3	0	0	3
1	0	0	0	1
0	0	0	0	0
0	4	0	0	4
1	10	0	0	11

1	4	0	0
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0	1	0	0	1
0	3	0	0	3
0	2	0	0	2
0	2	0	0	2
0	2	0	0	2
0	2	0	0	2
0	2	1	0	3
0	1	0	0	1
0	15	1	0	16

0	8	0	0
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Tustin Ranch Rd

NORTH LEG

Valencia Ave

WEST LEG

SOUTH LEG

Tustin Ranch Rd

EAST LEG

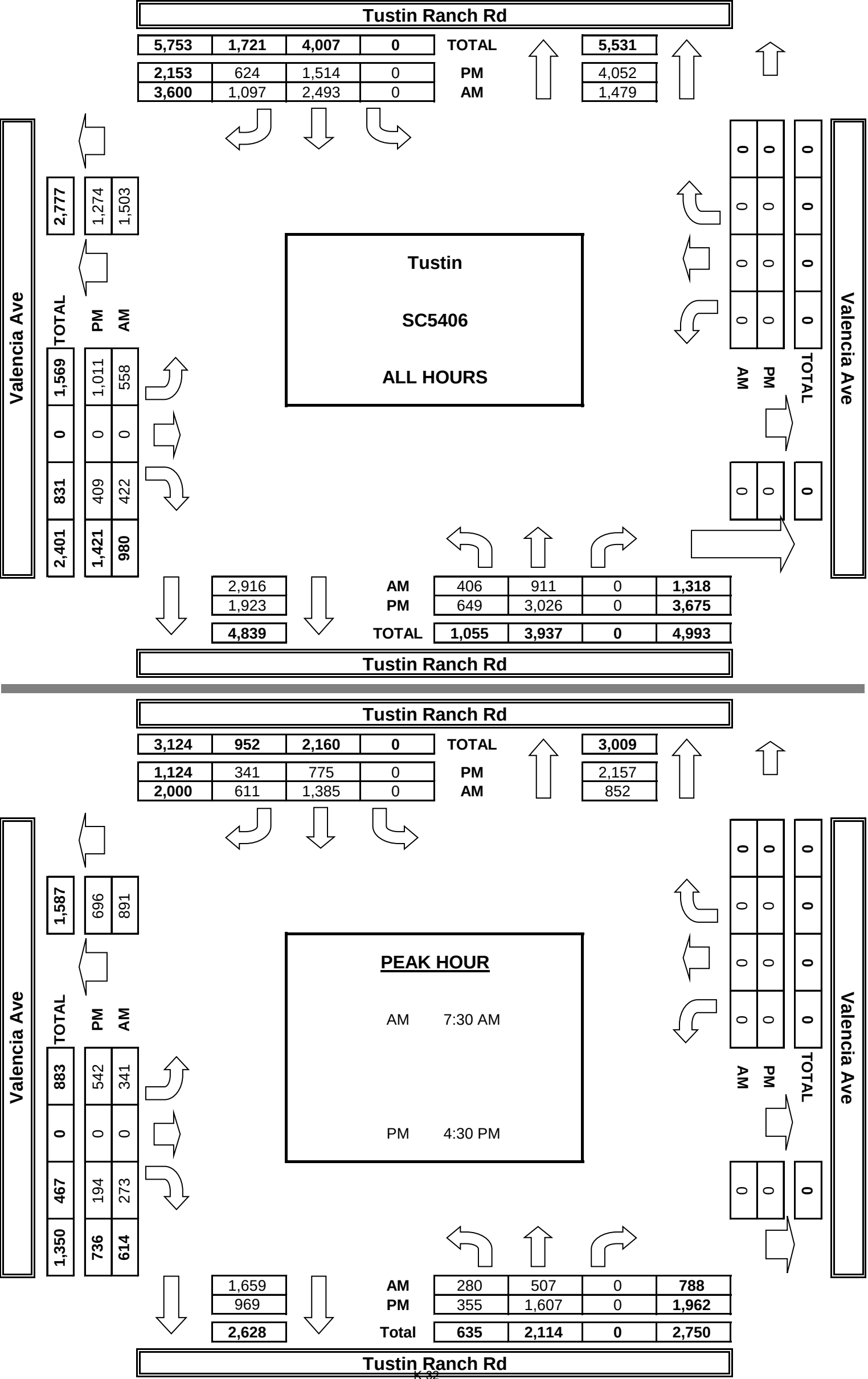
Valencia Ave

AM	7:00 AM	0	1	3	3	7
	7:15 AM	0	2	0	1	3
	7:30 AM	0	1	0	1	2
	7:45 AM	2	4	6	1	13
	8:00 AM	0	2	0	3	5
	8:15 AM	0	3	3	3	9
	8:30 AM	1	2	0	1	4
	8:45 AM	3	0	0	2	5
	TOTAL	6	15	12	15	48
	BEGIN PEAK HR	7:30 AM				
PM	4:00 PM	0	0	1	2	3
	4:15 PM	0	1	0	2	3
	4:30 PM	0	3	1	3	7
	4:45 PM	0	0	0	1	1
	5:00 PM	1	0	1	0	2
	5:15 PM	2	0	0	8	10
	5:30 PM	1	2	3	0	6
	5:45 PM	0	0	0	1	1
	TOTAL	4	6	6	17	33

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

BICYCLE & SCOOTER CROSSINGS				
NL	SL	EL	WL	TOTAL
0	1	3	3	7
0	1	0	1	2
0	1	0	1	2
2	3	5	1	11
0	2	0	2	4
0	3	3	3	9
0	2	0	1	3
1	0	0	1	2
3	13	11	13	40
0	0	1	1	2
0	0	0	1	1
0	1	1	0	2
0	0	0	1	1
0	0	1	0	1
2	0	0	8	10
0	2	3	0	5
0	0	0	1	1
2	3	6	12	23

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T112224

DATE:

Thu, May 15, 25

LOCATION:

Tustin

PROJECT #:

SC5406

NORTH & SOUTH:

Kensington Park Dr

EAST & WEST:

Edinger Ave

LOCATION #:

3

CONTROL:

SIGNAL

NOTES:

AM

PM

MD

OTHER

OTHER

◀ W

▶ E

▲ N

▼ S

	NORTHBOUND (NE) Kensington Park Dr			SOUTHBOUND Kensington Park Dr			EASTBOUND (SE) Edinger Ave			WESTBOUND (NW) Edinger Ave			
LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 3	ER 1	WL 2	WT 3	WR X	TOTAL

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

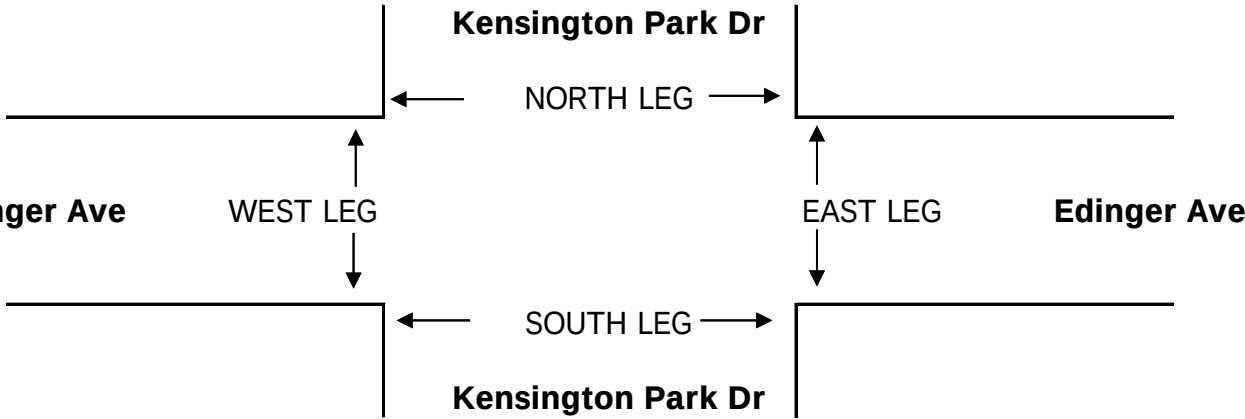
AM	7:00 AM	18	0	15	0	0	0	0	112	22	15	93	0	275
	7:15 AM	32	0	21	0	0	0	0	140	28	34	171	0	426
	7:30 AM	36	0	46	0	0	0	0	168	25	31	213	0	519
	7:45 AM	33	0	30	0	0	0	0	188	37	32	234	0	554
	8:00 AM	32	0	32	0	0	0	0	179	38	33	248	0	562
	8:15 AM	59	0	47	0	0	0	0	164	54	51	248	0	623
	8:30 AM	37	0	32	0	0	0	0	162	28	52	213	0	524
	8:45 AM	25	0	17	0	0	0	0	164	26	41	226	0	499
	VOLUMES	272	0	240	0	0	0	0	1,277	258	289	1,646	0	4,081
	APPROACH %	53%	0%	47%	0%	0%	0%	0%	83%	17%	14%	81%	0%	
PM	APP/DEPART	512	/	0	0	/	547	1,535	/	1,616	2,034	/	1,918	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	161	0	141	0	0	0	0	693	157	168	943	0	2,328
	APPROACH %	53%	0%	47%	0%	0%	0%	0%	82%	18%	14%	80%	0%	
	PEAK HR FACTOR	0.712			0.000			0.944			0.955			0.921
	APP/DEPART	302	/	0	0	/	325	850	/	899	1,176	/	1,104	0
	4:00 PM	49	0	22	0	0	0	0	164	36	37	356	0	664
	4:15 PM	42	0	36	0	0	0	0	164	32	57	336	0	667
	4:30 PM	43	0	26	0	0	0	0	186	40	77	323	0	695
	4:45 PM	33	0	25	0	0	0	0	226	22	46	347	0	699
PM	5:00 PM	40	0	42	0	0	0	0	405	37	27	352	0	903
	5:15 PM	25	0	27	0	0	0	0	402	26	57	341	0	878
	5:30 PM	24	0	31	0	0	0	0	352	45	51	331	0	834
	5:45 PM	25	0	32	0	0	0	0	235	33	55	316	0	696
	VOLUMES	281	0	241	0	0	0	0	2,134	271	407	2,702	0	6,111
	APPROACH %	54%	0%	46%	0%	0%	0%	0%	89%	11%	13%	85%	0%	
	APP/DEPART	524	/	0	0	/	680	2,405	/	2,448	3,182	/	2,983	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	122	0	125	0	0	0	0	1,385	130	181	1,371	0	3,340
	APPROACH %	49%	0%	51%	0%	0%	0%	0%	91%	9%	11%	87%	0%	
	PEAK HR FACTOR	0.753			0.000			0.857			0.965			0.922
	APP/DEPART	247	/	0	0	/	311	1,515	/	1,536	1,578	/	1,493	0

0	0	0	4	4
0	0	0	4	4
0	0	0	9	9
0	0	0	20	20
0	0	0	17	17
0	0	0	9	9
0	0	0	19	19
0	0	0	17	17
0	0	0	99	99

0	0	0	65
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2	0	0	16	18
0	0	0	10	10
0	0	0	14	14
0	0	0	12	12
0	0	0	3	3
0	0	0	11	11
0	0	0	0	0
0	0	0	7	7
2	0	0	73	75

0	0	0	26
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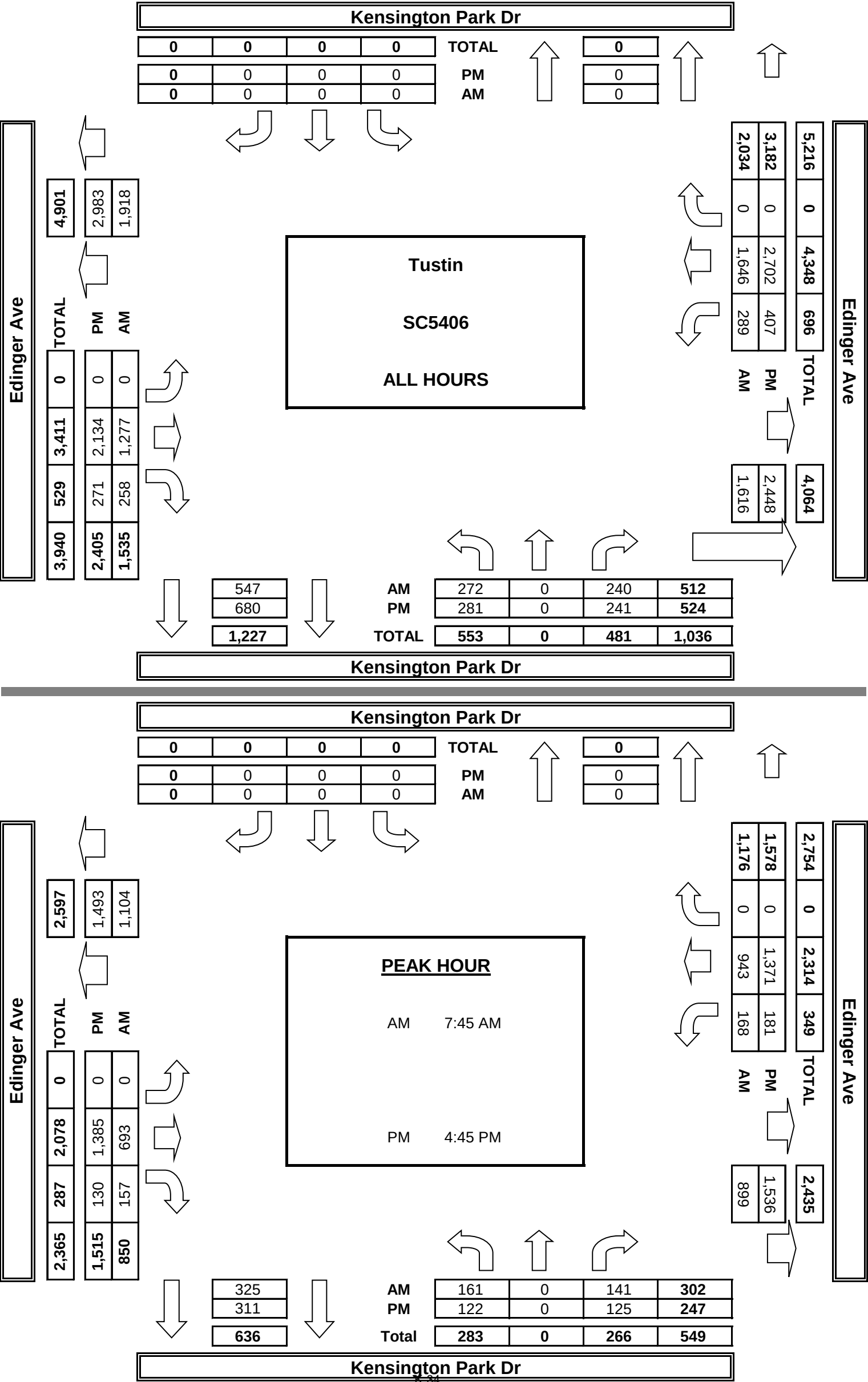
AM	7:00 AM	
	7:15 AM	
	7:30 AM	
	7:45 AM	
	8:00 AM	
	8:15 AM	
	8:30 AM	
	8:45 AM	
	TOTAL	
BEGIN PEAK HR		
PM	4:00 PM	
	4:15 PM	
	4:30 PM	
	4:45 PM	
	5:00 PM	
	5:15 PM	
	5:30 PM	
	5:45 PM	
	TOTAL	
BEGIN PEAK HR		

ALL PED + BIKE & SCOOTER				
N LEG	S LEG	E LEG	W LEG	TOTAL
2	0	0	0	2
1	5	0	0	6
2	5	0	0	7
2	2	2	0	6
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
1	1	0	0	2
8	17	2	0	27
7:45 AM				
2	0	1	0	3
2	3	0	0	5
2	3	2	0	7
2	2	0	0	4
0	2	0	0	2
2	0	2	0	4
1	3	0	0	4
1	3	0	0	4
12	16	5	0	33
4:45 PM				

PEDESTRIAN CROSSINGS				
N LEG	S LEG	E LEG	W LEG	TOTAL
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	2	0	0	2
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	0	2	0	2
0	1	0	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	2	0	0	2
0	4	4	0	8
0	1	1	0	2

BICYCLE & SCOOTER CROSSINGS				
NL	SL	EL	WL	TOTAL
2	0	0	0	2
1	4	0	0	5
2	4	0	0	6
2	2	2	0	6
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
1	1	0	0	2
8	15	2	0	25
2	0	0	0	2
2	2	0	0	4
2	3	0	0	5
2	1	0	0	3
0	2	0	0	2
2	0	1	0	3
1	3	0	0	4
1	1	0	0	2
12	12	1	0	25

AimTD LLC
TURNING MOVEMENT COUNTS



AM Period	EB		WB			PM Period	EB		WB		
0:00	5		3			12:00	81		81		
0:15	1		5			12:15	81		80		
0:30	0		4			12:30	70		98		
0:45	0	6	2	14	20	12:45	72	304	92	351	655
1:00	1		0			13:00	66		96		
1:15	0		1			13:15	70		68		
1:30	1		1			13:30	58		86		
1:45	0	2	0	2	4	13:45	66	260	103	353	613
2:00	0		0			14:00	51		111		
2:15	1		0			14:15	84		106		
2:30	2		1			14:30	152		82		
2:45	1	4	1	2	6	14:45	85	372	75	374	746
3:00	1		0			15:00	100		87		
3:15	0		1			15:15	125		131		
3:30	0		0			15:30	92		122		
3:45	1	2	0	1	3	15:45	101	418	99	439	857
4:00	3		2			16:00	112		104		
4:15	0		1			16:15	127		105		
4:30	3		6			16:30	131		126		
4:45	9	15	9	18	33	16:45	122	492	118	453	945
5:00	3		7			17:00	155		141		
5:15	8		11			17:15	130		200		
5:30	9		22			17:30	137		138		
5:45	15	35	21	61	96	17:45	119	541	145	624	1165
6:00	20		35			18:00	123		128		
6:15	22		36			18:15	116		124		
6:30	23		34			18:30	138		87		
6:45	35	100	46	151	251	18:45	103	480	71	410	890
7:00	39		54			19:00	52		77		
7:15	54		101			19:15	48		54		
7:30	58		138			19:30	46		69		
7:45	121	272	200	493	765	19:45	44	190	57	257	447
8:00	122		125			20:00	43		49		
8:15	91		129			20:15	35		41		
8:30	76		138			20:30	23		45		
8:45	63	352	153	545	897	20:45	31	132	43	178	310
9:00	64		110			21:00	41		35		
9:15	46		74			21:15	24		26		
9:30	38		79			21:30	21		31		
9:45	44	192	66	329	521	21:45	25	111	27	119	230
10:00	72		58			22:00	22		24		
10:15	55		50			22:15	11		17		
10:30	46		62			22:30	6		13		
10:45	42	215	72	242	457	22:45	4	43	10	64	107
11:00	66		99			23:00	5		7		
11:15	101		79			23:15	2		7		
11:30	84		78			23:30	4		13		
11:45	68	319	66	322	641	23:45	5	16	4	31	47
Total Vol.	1514		2180		3694	3359		3653		7012	

AM				PM			
Split %	41.0%	59.0%	34.5%		47.9%	52.1%	65.5%
Peak Hour	7:45	7:30	7:45		16:45	17:00	17:00
Volume	410	592	1002		544	624	1165
P.H.F.	0.84	0.74	0.78		0.88	0.78	0.88

Thursday, May 15, 2025					CITY: Tustin			PROJECT: SC5406				
ADT2 Valencia Ave between Legacy Rd and Tustin Ranch Rd.							Prepared by AimTD LLC tel. 714 253 7888					
AM Period		EB		WB		PM Period		EB		WB		
0:00		4		3		12:00		110		72		
0:15		1		4		12:15		90		64		
0:30		1		3		12:30		86		74		
0:45		0	6	2	12	18	12:45	101	387	88	298	685
1:00		1		0		13:00		76		72		
1:15		0		1		13:15		78		63		
1:30		0		1		13:30		93		84		
1:45		1	2	0	2	4	13:45	116	363	105	324	687
2:00		1		1		14:00		83		93		
2:15		1		0		14:15		93		91		
2:30		2		1		14:30		163		111		
2:45		0	4	0	2	6	14:45	92	431	104	399	830
3:00		1		1		15:00		191		138		
3:15		0		2		15:15		140		118		
3:30		2		0		15:30		159		97		
3:45		1	4	0	3	7	15:45	134	624	73	426	1050
4:00		3		3		16:00		166		81		
4:15		0		2		16:15		145		81		
4:30		2		6		16:30		166		99		
4:45		13	18	12	23	41	16:45	162	639	97	358	997
5:00		7		6		17:00		167		124		
5:15		11		10		17:15		182		180		
5:30		11		24		17:30		156		120		
5:45		19	48	34	74	122	17:45	143	648	114	538	1186
6:00		21		27		18:00		137		116		
6:15		29		33		18:15		141		115		
6:30		31		37		18:30		158		79		
6:45		36	117	48	145	262	18:45	118	554	69	379	933
7:00		48		66		19:00		78		71		
7:15		85		157		19:15		67		44		
7:30		99		145		19:30		65		57		
7:45		149	381	235	603	984	19:45	56	266	57	229	495
8:00		147		163		20:00		49		43		
8:15		151		191		20:15		55		36		
8:30		115		119		20:30		38		47		
8:45		82	495	137	610	1105	20:45	43	185	42	168	353
9:00		81		104		21:00		42		31		
9:15		68		73		21:15		39		28		
9:30		69		79		21:30		22		24		
9:45		82	300	73	329	629	21:45	24	127	25	108	235
10:00		80		60		22:00		30		22		
10:15		72		50		22:15		19		20		
10:30		74		60		22:30		6		16		
10:45		66	292	70	240	532	22:45	10	65	15	73	138
11:00		76		103		23:00		7		11		
11:15		121		69		23:15		5		13		
11:30		102		74		23:30		4		11		
11:45		87	386	70	316	702	23:45	4	20	1	36	56
Total Vol.		2053		2359		4412		4309		3336		7645
							Daily Totals					
							EB		WB		Combined	
							6362		5695		12057	
AM							PM					
Split %		46.5%		53.5%		36.6 %		56.4%		43.6%		63.4 %
Peak Hour		7:45		7:30		7:30		16:30		17:00		16:45
Volume		562		734		1280		677		538		1188
P.H.F.		0.93		0.78		0.83		0.93		0.75		0.82
cs@aimtd.com							Tell. 714 253 7888					

Thursday, May 15, 2025				CITY: Tustin				PROJECT: SC5406							
ADT3 Kensington Park Drive between Valencia Ave and Georgia St								Prepared by AimTD LLC tel. 714 253 7888							
AM Period	NB		SB			PM Period	NB		SB						
0:00	3		2			12:00	73		122						
0:15	2		3			12:15	65		87						
0:30	0		2			12:30	65		104						
0:45	0	5	0	7	12	12:45	60	263	84	397	660				
1:00	0		0			13:00	37		85						
1:15	0		0			13:15	57		67						
1:30	1		0			13:30	38		85						
1:45	0	1	1	1	2	13:45	64	196	79	316	512				
2:00	1		1			14:00	41		67						
2:15	0		0			14:15	52		94						
2:30	0		0			14:30	51		80						
2:45	1	2	1	2	4	14:45	46	190	72	313	503				
3:00	1		0			15:00	116		114						
3:15	1		0			15:15	76		96						
3:30	0		2			15:30	109		96						
3:45	0	2	0	2	4	15:45	57	358	100	406	764				
4:00	1		0			16:00	60		108						
4:15	1		0			16:15	40		91						
4:30	2		3			16:30	56		100						
4:45	5	9	4	7	16	16:45	48	204	109	408	612				
5:00	1		6			17:00	63		98						
5:15	2		6			17:15	52		112						
5:30	8		10			17:30	56		86						
5:45	16	27	13	35	62	17:45	45	216	101	397	613				
6:00	6		15			18:00	44		82						
6:15	12		21			18:15	51		84						
6:30	11		19			18:30	47		79						
6:45	17	46	28	83	129	18:45	43	185	57	302	487				
7:00	16		32			19:00	27		54						
7:15	34		87			19:15	22		51						
7:30	51		78			19:30	27		56						
7:45	50	151	75	272	423	19:45	31	107	40	201	308				
8:00	65		87			20:00	24		39						
8:15	84		103			20:15	26		42						
8:30	55		77			20:30	13		25						
8:45	33	237	70	337	574	20:45	15	78	28	134	212				
9:00	36		58			21:00	19		24						
9:15	32		59			21:15	18		28						
9:30	29		50			21:30	11		18						
9:45	26	123	61	228	351	21:45	12	60	17	87	147				
10:00	41		47			22:00	11		17						
10:15	42		47			22:15	7		13						
10:30	38		70			22:30	10		6						
10:45	38	159	67	231	390	22:45	8	36	10	46	82				
11:00	63		66			23:00	6		3						
11:15	55		84			23:15	4		4						
11:30	56		76			23:30	2		2						
11:45	59	233	77	303	536	23:45	2	14	4	13	27				
Total Vol.	995		1508		2503		1907		3020		4927				
								Daily Totals							
						NB		SB		Combined					
						2902		4528		7430					
AM						PM									
Split %	39.8%		60.2%		33.7 %	38.7%		61.3%		66.3 %					
Peak Hour	11:45		11:45		11:45	15:00		16:30		15:00					
Volume	262		390		652	358		419		764					
P.H.F.	0.90		0.80		0.84	0.77		0.94		0.83					
cs@aimtd.com						Tell. 714 253 7888									



Appendix B— ITE Trip Generation Outputs

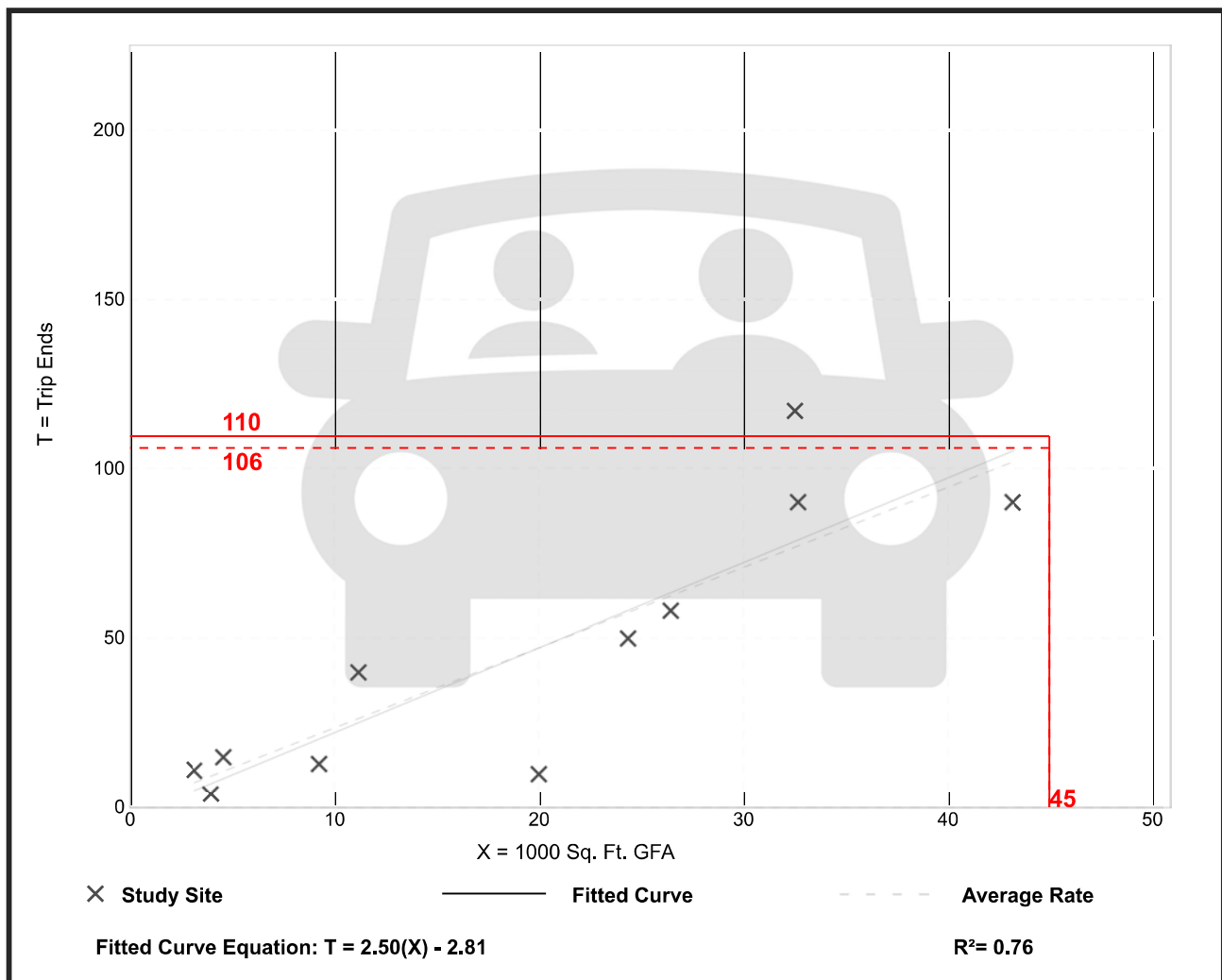
School District Office (528)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 11
 Avg. 1000 Sq. Ft. GFA: 19
 Directional Distribution: 76% entering, 24% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.36	0.50 - 3.60	0.94

Data Plot and Equation



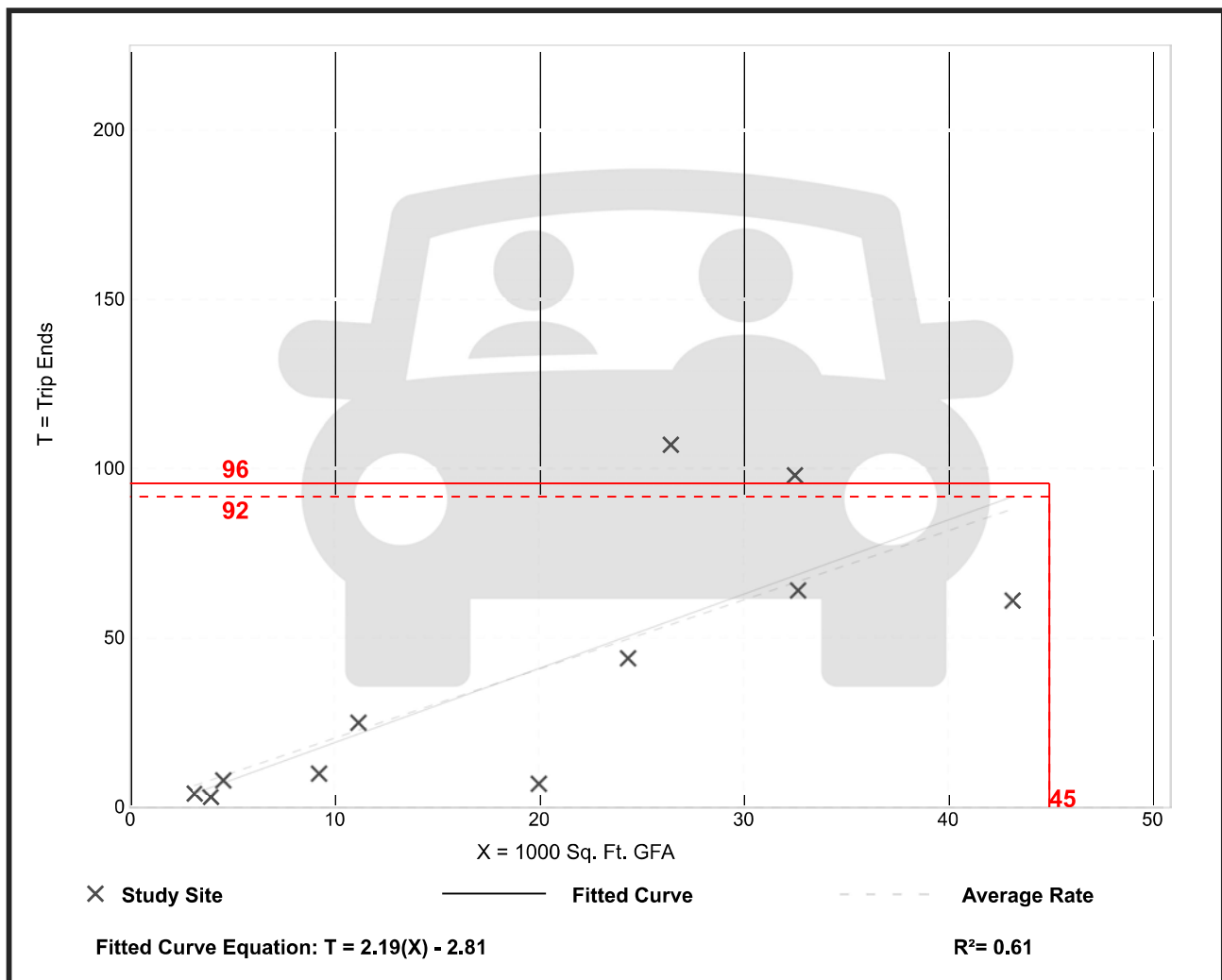
School District Office (528)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 11
 Avg. 1000 Sq. Ft. GFA: 19
 Directional Distribution: 17% entering, 83% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.04	0.35 - 4.05	1.10

Data Plot and Equation



School District Office (528)

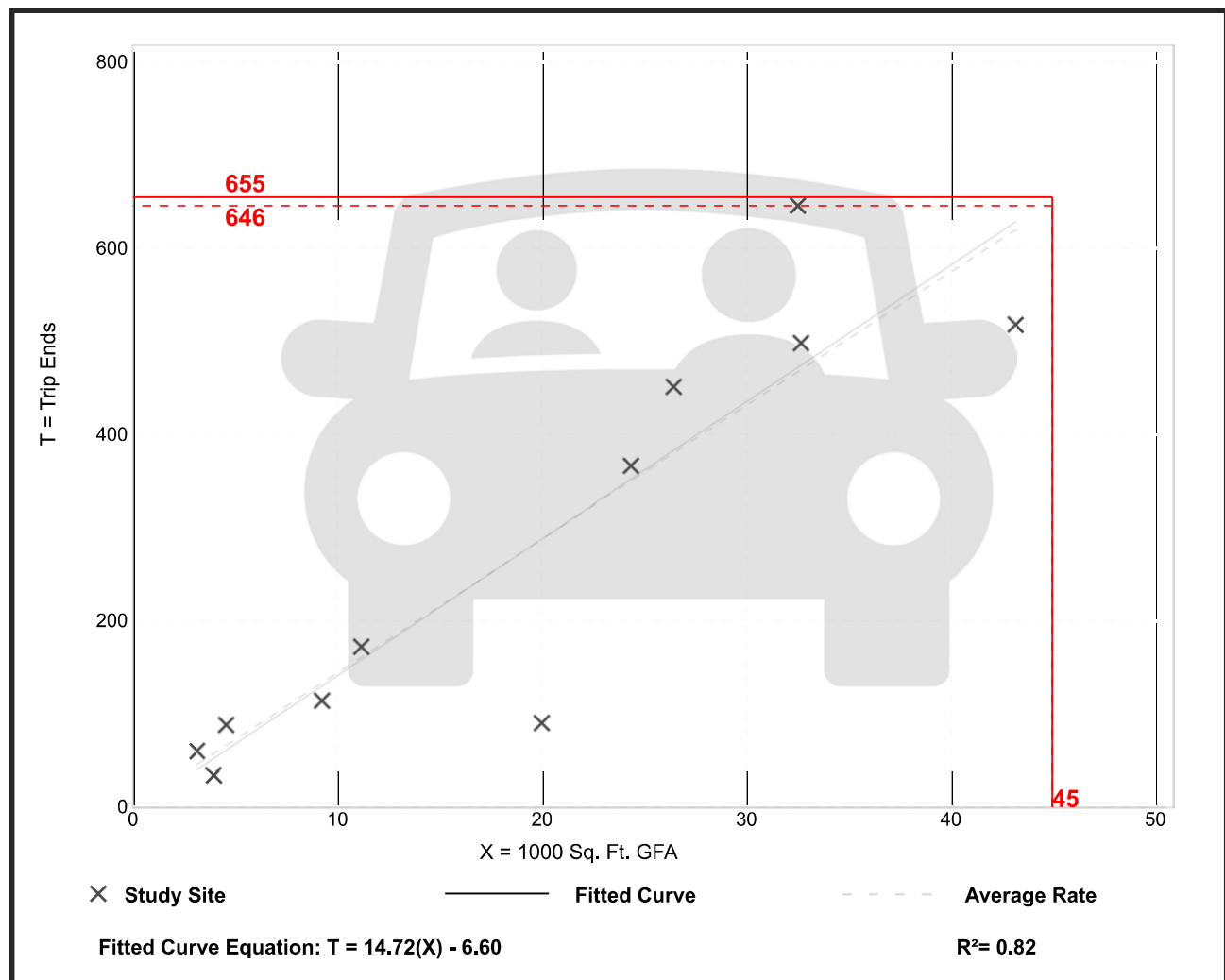
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. 1000 Sq. Ft. GFA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.37	4.50 - 19.87	4.42

Data Plot and Equation





Appendix C—Synchro Reports [2025 Existing – AM Peak Hour]

Intersection Capacity Utilization

3: Legacy Rd & Valencia Ave

07/02/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	59	250	84	253	402	75	92	116	175	117	123	103
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	59	334	0	253	402	75	92	291	0	117	123	103
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.91	0.85	0.95	1.00	0.85
Saturated Flow (vph)	3136	3115	0	3136	3237	1445	1615	1547	0	3136	3237	1445
Ped Intf Time (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
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	2.3	12.9	0.0	9.7	14.9	6.2	6.8	22.6	0.0	4.5	4.6	8.6
Adj Reference Time (s)	9.5	17.4	0.0	14.2	19.4	10.7	11.3	27.1	0.0	9.5	9.5	13.1
Permitted Option												
Adj Saturation A (vph)	105	1557		105	1618		108	1547		105	1618	
Reference Time A (s)	33.9	12.9		145.2	14.9		102.5	22.6		67.1	4.6	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	33.9			145.2			102.5			67.1		
Adj Reference Time (s)	38.4			149.7			107.0			71.6		
Split Option												
Ref Time Combined (s)	2.3	12.9		9.7	14.9		6.8	22.6		4.5	4.6	
Ref Time Seperate (s)	2.3	9.6		9.7	14.9		6.8	9.0		4.5	4.6	
Reference Time (s)	12.9	12.9		14.9	14.9		22.6	22.6		4.6	4.6	
Adj Reference Time (s)	17.4	17.4		19.4	19.4		27.1	27.1		9.5	9.5	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	31.5		36.6									
Permitted Option (s)	149.7		107.0									
Split Option (s)	36.8		36.6									
Minimum (s)	31.5		36.6		68.1							
Right Turns	NWR	SWR										
Adj Reference Time (s)	10.7	13.1										
Cross Thru Ref Time (s)	27.1	19.4										
Oncoming Left Ref Time (s)	9.5	11.3										
Combined (s)	47.3	43.8										
Intersection Summary												
Intersection Capacity Utilization			56.8%		ICU Level of Service			B				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

07/02/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↱	↱	↰↱	↰↱↰↱	↰↱↰↱	↱
Volume (vph)	341	273	280	507	1385	611
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	341	273	280	507	1385	611
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		22.7	10.7	13.1	35.9	50.7
Adj Reference Time (s)		27.2	15.2	17.6	40.4	55.2
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	195.7		160.7	13.1	35.9	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				160.7	35.9	
Adj Reference Time (s)				165.2	40.4	
Split Option						
Ref Time Combined (s)	13.0		10.7	13.1	35.9	
Ref Time Seperate (s)	13.0		10.7	13.1	35.9	
Reference Time (s)	13.0		13.1	13.1	35.9	
Adj Reference Time (s)	17.5		17.6	17.6	40.4	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		55.6			
Permitted Option (s)	Err		165.2			
Split Option (s)	17.5		58.0			
Minimum (s)	17.5		55.6		73.2	
Right Turns	SER	SWR				
Adj Reference Time (s)	27.2	55.2				
Cross Thru Ref Time (s)	40.4	0.0				
Oncoming Left Ref Time (s)	0.0	15.2				
Combined (s)	67.6	70.5				

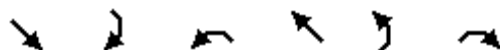
Intersection Summary

Intersection Capacity Utilization 61.0% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

07/07/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↰	↑↑↑	↰	↑
Volume (vph)	693	157	168	943	161	141
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	693	157	168	943	161	141
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	18.0	13.0	6.4	24.4		11.7
Adj Reference Time (s)	22.5	17.5	10.9	28.9		16.2
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	18.0		96.4	24.4	92.4	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	18.0			96.4		
Adj Reference Time (s)	22.5			100.9		
Split Option						
Ref Time Combined (s)	18.0		6.4	24.4	6.2	
Ref Time Seperate (s)	18.0		6.4	24.4	6.2	
Reference Time (s)	18.0		24.4	24.4	6.2	
Adj Reference Time (s)	22.5		28.9	28.9	10.7	
Summary	NW SE		NE	Combined		
Protected Option (s)	33.4		NA			
Permitted Option (s)	100.9		Err			
Split Option (s)	51.4		10.7			
Minimum (s)	33.4		10.7	44.0		
Right Turns	SER	NER				
Adj Reference Time (s)	17.5	16.2				
Cross Thru Ref Time (s)	0.0	22.5				
Oncoming Left Ref Time (s)	10.9	0.0				
Combined (s)	28.5	38.7				
Intersection Summary						
Intersection Capacity Utilization			36.7%	ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						



Appendix D—Synchro Reports [2025 Existing – PM Peak Hour]

Intersection Capacity Utilization

3: Legacy Rd/Kensington & Valencia Ave

08/17/2025

																		
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations																		
Volume (vph)	120	423	4	4	396	94	7	5	17	231	3	185						
Pedestrians																		
Ped Button																		
Pedestrian Timing (s)																		
Free Right	No			No			No			No								
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700						
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5						
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0						
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120						
Volume Combined (vph)	120	427	0	4	396	94	7	22	0	231	3	185						
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00						
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.88	0.85	0.95	1.00	0.85						
Saturated Flow (vph)	3136	3232	0	3136	3237	1445	1615	1503	0	3136	3237	1445						
Ped Intf Time (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						
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00								
Protected Option Allowed	Yes			Yes			Yes			Yes								
Reference Time (s)	4.6	15.9	0.0	0.2	14.7	7.8	0.5	1.8	0.0	8.8	0.1	15.4						
Adj Reference Time (s)	9.5	20.4	0.0	9.5	19.2	12.3	9.5	9.5	0.0	13.3	9.5	19.9						
Permitted Option																		
Adj Saturation A (vph)	105	1616		105	1618		108	1503		105	1618							
Reference Time A (s)	68.9	15.9		2.3	14.7		7.8	1.8		132.6	0.1							
Adj Saturation B (vph)	NA	NA		NA	NA		0	1503		0	3237							
Reference Time B (s)	NA	NA		NA	NA		8.5	1.8		16.8	0.1							
Reference Time (s)		68.9			14.7			7.8			16.8							
Adj Reference Time (s)		73.4			19.2			12.3			21.3							
Split Option																		
Ref Time Combined (s)	4.6	15.9		0.2	14.7		0.5	1.8		8.8	0.1							
Ref Time Seperate (s)	4.6	15.7		0.2	14.7		0.5	0.4		8.8	0.1							
Reference Time (s)	15.9	15.9		14.7	14.7		1.8	1.8		8.8	8.8							
Adj Reference Time (s)	20.4	20.4		19.2	19.2		9.5	9.5		13.3	13.3							
Summary	NW SE		NE SW		Combined													
Protected Option (s)	29.9		22.8															
Permitted Option (s)	73.4		21.3															
Split Option (s)	39.5		22.8															
Minimum (s)	29.9		21.3		51.2													
Right Turns	NWR		SWR															
Adj Reference Time (s)	12.3		19.9															
Cross Thru Ref Time (s)	9.5		19.2															
Oncoming Left Ref Time (s)	9.5		9.5															
Combined (s)	31.3		48.5															
Intersection Summary																		
Intersection Capacity Utilization	42.7%			ICU Level of Service			A											
Reference Times and Phasing Options do not represent an optimized timing plan.																		

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

07/02/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↱	↱	↰↱	↰↱↰↱	↰↱↰↱	↱
Volume (vph)	542	194	355	1607	775	341
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	542	194	355	1607	775	341
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		16.1	13.6	41.6	20.1	28.3
Adj Reference Time (s)		20.6	18.1	46.1	24.6	32.8
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	311.1		203.7	41.6	20.1	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				203.7	20.1	
Adj Reference Time (s)				208.2	24.6	
Split Option						
Ref Time Combined (s)	20.7		13.6	41.6	20.1	
Ref Time Seperate (s)	20.7		13.6	41.6	20.1	
Reference Time (s)	20.7		41.6	41.6	20.1	
Adj Reference Time (s)	25.2		46.1	46.1	24.6	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		46.1			
Permitted Option (s)	Err		208.2			
Split Option (s)	25.2		70.7			
Minimum (s)	25.2		46.1		71.4	
Right Turns	SER	SWR				
Adj Reference Time (s)	20.6	32.8				
Cross Thru Ref Time (s)	24.6	0.0				
Oncoming Left Ref Time (s)	0.0	18.1				
Combined (s)	45.2	50.9				

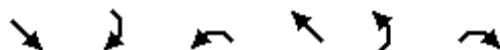
Intersection Summary

Intersection Capacity Utilization 59.5% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

07/07/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↰↱	↑↑↑	↰↱	↑
Volume (vph)	1385	130	181	1371	122	125
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	1385	130	181	1371	122	125
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	35.9	10.8	6.9	35.5		10.4
Adj Reference Time (s)	40.4	15.3	11.4	40.0		14.9
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	35.9		103.9	35.5	70.0	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	35.9			103.9		
Adj Reference Time (s)	40.4			108.4		
Split Option						
Ref Time Combined (s)	35.9		6.9	35.5	4.7	
Ref Time Seperate (s)	35.9		6.9	35.5	4.7	
Reference Time (s)	35.9		35.5	35.5	4.7	
Adj Reference Time (s)	40.4		40.0	40.0	9.5	
Summary	NW SE		NE	Combined		
Protected Option (s)	51.8		NA			
Permitted Option (s)	108.4		Err			
Split Option (s)	80.4		9.5			
Minimum (s)	51.8		9.5	61.3		
Right Turns	SER	NER				
Adj Reference Time (s)	15.3	14.9				
Cross Thru Ref Time (s)	0.0	40.4				
Oncoming Left Ref Time (s)	11.4	0.0				
Combined (s)	26.7	55.3				

Intersection Summary

Intersection Capacity Utilization 51.1% ICU Level of Service A
Reference Times and Phasing Options do not represent an optimized timing plan.



Appendix E—Synchro Reports [2028 No Project – AM Peak Hour]

Intersection Capacity Utilization

3: Legacy Rd & Valencia Ave

08/17/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	61	258	87	261	414	77	95	120	180	121	127	106
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	61	345	0	261	414	77	95	300	0	121	127	106
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.91	0.85	0.95	1.00	0.85
Saturated Flow (vph)	3136	3114	0	3136	3237	1445	1615	1547	0	3136	3237	1445
Ped Intf Time (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
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	2.3	13.3	0.0	10.0	15.3	6.4	7.1	23.3	0.0	4.6	4.7	8.8
Adj Reference Time (s)	9.5	17.8	0.0	14.5	19.8	10.9	11.6	27.8	0.0	9.5	9.5	13.3
Permitted Option												
Adj Saturation A (vph)	105	1557		105	1618		108	1547		105	1618	
Reference Time A (s)	35.0	13.3		149.8	15.3		105.9	23.3		69.4	4.7	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)		35.0			149.8			105.9			69.4	
Adj Reference Time (s)		39.5			154.3			110.4			73.9	
Split Option												
Ref Time Combined (s)	2.3	13.3		10.0	15.3		7.1	23.3		4.6	4.7	
Ref Time Seperate (s)	2.3	9.9		10.0	15.3		7.1	9.3		4.6	4.7	
Reference Time (s)	13.3	13.3		15.3	15.3		23.3	23.3		4.7	4.7	
Adj Reference Time (s)	17.8	17.8		19.8	19.8		27.8	27.8		9.5	9.5	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	32.3		37.3									
Permitted Option (s)	154.3		110.4									
Split Option (s)	37.6		37.3									
Minimum (s)	32.3		37.3		69.6							
Right Turns	NWR		SWR									
Adj Reference Time (s)	10.9		13.3									
Cross Thru Ref Time (s)	27.8		19.8									
Oncoming Left Ref Time (s)	9.5		11.6									
Combined (s)	48.2		44.7									
Intersection Summary												
Intersection Capacity Utilization			58.0%		ICU Level of Service			B				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

08/17/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↱	↱	↰↱	↰↱↲	↰↱↲	↱
Volume (vph)	351	281	288	522	1427	630
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	351	281	288	522	1427	630
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		23.3	11.0	13.5	37.0	52.3
Adj Reference Time (s)		27.8	15.5	18.0	41.5	56.8
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	201.4		165.3	13.5	37.0	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				165.3	37.0	
Adj Reference Time (s)				169.8	41.5	
Split Option						
Ref Time Combined (s)	13.4		11.0	13.5	37.0	
Ref Time Seperate (s)	13.4		11.0	13.5	37.0	
Reference Time (s)	13.4		13.5	13.5	37.0	
Adj Reference Time (s)	17.9		18.0	18.0	41.5	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		57.0			
Permitted Option (s)	Err		169.8			
Split Option (s)	17.9		59.5			
Minimum (s)	17.9		57.0		74.9	
Right Turns	SER	SWR				
Adj Reference Time (s)	27.8	56.8				
Cross Thru Ref Time (s)	41.5	0.0				
Oncoming Left Ref Time (s)	0.0	15.5				
Combined (s)	69.3	72.3				

Intersection Summary

Intersection Capacity Utilization 62.4% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

08/17/2025

						
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑↑	↑
Volume (vph)	714	162	173	972	166	145
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	714	162	173	972	166	145
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	18.5	13.5	6.6	25.2		12.0
Adj Reference Time (s)	23.0	18.0	11.1	29.7		16.5
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	18.5		99.3	25.2	95.3	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	18.5			99.3		
Adj Reference Time (s)	23.0			103.8		
Split Option						
Ref Time Combined (s)	18.5		6.6	25.2	6.4	
Ref Time Seperate (s)	18.5		6.6	25.2	6.4	
Reference Time (s)	18.5		25.2	25.2	6.4	
Adj Reference Time (s)	23.0		29.7	29.7	10.9	
Summary	NW SE		NE	Combined		
Protected Option (s)	34.1		NA			
Permitted Option (s)	103.8		Err			
Split Option (s)	52.7		10.9			
Minimum (s)	34.1		10.9	45.0		
Right Turns	SER	NER				
Adj Reference Time (s)	18.0	16.5				
Cross Thru Ref Time (s)	0.0	23.0				
Oncoming Left Ref Time (s)	11.1	0.0				
Combined (s)	29.1	39.5				
Intersection Summary						
Intersection Capacity Utilization		37.5%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						



Appendix F—Synchro Reports [2028 No Project – PM Peak Hour]

Intersection Capacity Utilization

3: Legacy Rd & Valencia Ave

08/17/2025

																		
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations																		
Volume (vph)	124	436	4	4	408	97	7	5	18	238	3	191						
Pedestrians																		
Ped Button																		
Pedestrian Timing (s)																		
Free Right	No			No			No			No								
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700						
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5						
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0						
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120						
Volume Combined (vph)	124	440	0	4	408	97	7	23	0	238	3	191						
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00						
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.88	0.85	0.95	1.00	0.85						
Saturated Flow (vph)	3136	3232	0	3136	3237	1445	1615	1500	0	3136	3237	1445						
Ped Intf Time (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						
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00								
Protected Option Allowed	Yes			Yes			Yes			Yes								
Reference Time (s)	4.7	16.3	0.0	0.2	15.1	8.1	0.5	1.8	0.0	9.1	0.1	15.9						
Adj Reference Time (s)	9.5	20.8	0.0	9.5	19.6	12.6	9.5	9.5	0.0	13.6	9.5	20.4						
Permitted Option																		
Adj Saturation A (vph)	105	1616		105	1618		108	1500		105	1618							
Reference Time A (s)	71.2	16.3		2.3	15.1		7.8	1.8		136.6	0.1							
Adj Saturation B (vph)	NA	NA		NA	NA		0	1500		0	3237							
Reference Time B (s)	NA	NA		NA	NA		8.5	1.8		17.1	0.1							
Reference Time (s)		71.2			15.1			7.8			17.1							
Adj Reference Time (s)		75.7			19.6			12.3			21.6							
Split Option																		
Ref Time Combined (s)	4.7	16.3		0.2	15.1		0.5	1.8		9.1	0.1							
Ref Time Seperate (s)	4.7	16.2		0.2	15.1		0.5	0.4		9.1	0.1							
Reference Time (s)	16.3	16.3		15.1	15.1		1.8	1.8		9.1	9.1							
Adj Reference Time (s)	20.8	20.8		19.6	19.6		9.5	9.5		13.6	13.6							
Summary	NW SE		NE SW		Combined													
Protected Option (s)	30.3		23.1															
Permitted Option (s)	75.7		21.6															
Split Option (s)	40.5		23.1															
Minimum (s)	30.3		21.6		51.9													
Right Turns	NWR		SWR															
Adj Reference Time (s)	12.6		20.4															
Cross Thru Ref Time (s)	9.5		19.6															
Oncoming Left Ref Time (s)	9.5		9.5															
Combined (s)	31.6		49.5															
Intersection Summary																		
Intersection Capacity Utilization	43.3%			ICU Level of Service			A											
Reference Times and Phasing Options do not represent an optimized timing plan.																		

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

08/17/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↱	↱	↰↱	↰↱↰↱	↰↱↰↱	↱
Volume (vph)	558	200	366	1656	798	351
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	558	200	366	1656	798	351
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		16.6	14.0	42.9	20.7	29.1
Adj Reference Time (s)		21.1	18.5	47.4	25.2	33.6
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	320.2		210.1	42.9	20.7	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				210.1	20.7	
Adj Reference Time (s)				214.6	25.2	
Split Option						
Ref Time Combined (s)	21.3		14.0	42.9	20.7	
Ref Time Seperate (s)	21.3		14.0	42.9	20.7	
Reference Time (s)	21.3		42.9	42.9	20.7	
Adj Reference Time (s)	25.8		47.4	47.4	25.2	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		47.4			
Permitted Option (s)	Err		214.6			
Split Option (s)	25.8		72.6			
Minimum (s)	25.8		47.4		73.3	
Right Turns	SER	SWR				
Adj Reference Time (s)	21.1	33.6				
Cross Thru Ref Time (s)	25.2	0.0				
Oncoming Left Ref Time (s)	0.0	18.5				
Combined (s)	46.3	52.2				

Intersection Summary

Intersection Capacity Utilization 61.1% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

08/17/2025

						
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑↑	↑
Volume (vph)	1427	134	186	1413	126	129
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	1427	134	186	1413	126	129
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	37.0	11.1	7.1	36.6		10.7
Adj Reference Time (s)	41.5	15.6	11.6	41.1		15.2
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	37.0		106.7	36.6	72.3	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	37.0			106.7		
Adj Reference Time (s)	41.5			111.2		
Split Option						
Ref Time Combined (s)	37.0		7.1	36.6	4.8	
Ref Time Seperate (s)	37.0		7.1	36.6	4.8	
Reference Time (s)	37.0		36.6	36.6	4.8	
Adj Reference Time (s)	41.5		41.1	41.1	9.5	
Summary	NW SE		NE	Combined		
Protected Option (s)	53.1		NA			
Permitted Option (s)	111.2		Err			
Split Option (s)	82.6		9.5			
Minimum (s)	53.1		9.5	62.6		
Right Turns	SER	NER				
Adj Reference Time (s)	15.6	15.2				
Cross Thru Ref Time (s)	0.0	41.5				
Oncoming Left Ref Time (s)	11.6	0.0				
Combined (s)	27.2	56.7				
Intersection Summary						
Intersection Capacity Utilization		52.2%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						



Appendix G—Synchro Reports [2025 With Project – AM Peak Hour]

Intersection Capacity Utilization

3: Legacy Rd/Kensington & Valencia Ave

08/17/2025

																		
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations																		
Volume (vph)	59	250	99	298	402	75	98	124	186	117	145	103						
Pedestrians																		
Ped Button																		
Pedestrian Timing (s)																		
Free Right	No			No			No			No								
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700						
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5						
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0						
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120						
Volume Combined (vph)	59	349	0	298	402	75	98	310	0	117	145	103						
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00						
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.91	0.85	0.95	1.00	0.85						
Saturated Flow (vph)	3136	3099	0	3136	3237	1445	1615	1547	0	3136	3237	1445						
Ped Intf Time (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						
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00								
Protected Option Allowed	Yes			Yes			Yes			Yes								
Reference Time (s)	2.3	13.5	0.0	11.4	14.9	6.2	7.3	24.0	0.0	4.5	5.4	8.6						
Adj Reference Time (s)	9.5	18.0	0.0	15.9	19.4	10.7	11.8	28.5	0.0	9.5	9.9	13.1						
Permitted Option																		
Adj Saturation A (vph)	105	1550		105	1618		108	1547		105	1618							
Reference Time A (s)	33.9	13.5		171.0	14.9		109.2	24.0		67.1	5.4							
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA							
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA							
Reference Time (s)		33.9			171.0			109.2			67.1							
Adj Reference Time (s)		38.4			175.5			113.7			71.6							
Split Option																		
Ref Time Combined (s)	2.3	13.5		11.4	14.9		7.3	24.0		4.5	5.4							
Ref Time Seperate (s)	2.3	9.7		11.4	14.9		7.3	9.6		4.5	5.4							
Reference Time (s)	13.5	13.5		14.9	14.9		24.0	24.0		5.4	5.4							
Adj Reference Time (s)	18.0	18.0		19.4	19.4		28.5	28.5		9.9	9.9							
Summary	NW SE		NE SW		Combined													
Protected Option (s)	33.9		38.0															
Permitted Option (s)	175.5		113.7															
Split Option (s)	37.4		38.4															
Minimum (s)	33.9		38.0		72.0													
Right Turns	NWR		SWR															
Adj Reference Time (s)	10.7		13.1															
Cross Thru Ref Time (s)	28.5		19.4															
Oncoming Left Ref Time (s)	9.5		11.8															
Combined (s)	48.8		44.2															
Intersection Summary																		
Intersection Capacity Utilization	60.0%			ICU Level of Service			B											
Reference Times and Phasing Options do not represent an optimized timing plan.																		

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

08/17/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	←←	→	←←	↑↑↑	↑↑↑	→
Volume (vph)	347	278	294	507	1385	642
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	347	278	294	507	1385	642
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		23.1	11.2	13.1	35.9	53.3
Adj Reference Time (s)		27.6	15.7	17.6	40.4	57.8
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	199.1		168.7	13.1	35.9	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				168.7	35.9	
Adj Reference Time (s)				173.2	40.4	
Split Option						
Ref Time Combined (s)	13.3		11.2	13.1	35.9	
Ref Time Seperate (s)	13.3		11.2	13.1	35.9	
Reference Time (s)	13.3		13.1	13.1	35.9	
Adj Reference Time (s)	17.8		17.6	17.6	40.4	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		56.1			
Permitted Option (s)	Err		173.2			
Split Option (s)	17.8		58.0			
Minimum (s)	17.8		56.1		73.9	
Right Turns	SER	SWR				
Adj Reference Time (s)	27.6	57.8				
Cross Thru Ref Time (s)	40.4	0.0				
Oncoming Left Ref Time (s)	0.0	15.7				
Combined (s)	68.0	73.6				

Intersection Summary

Intersection Capacity Utilization 61.6% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

08/17/2025

						
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑↑	↑
Volume (vph)	693	167	179	943	165	145
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	693	167	179	943	165	145
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	18.0	13.9	6.8	24.4		12.0
Adj Reference Time (s)	22.5	18.4	11.3	28.9		16.5
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	18.0		102.7	24.4	94.7	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	18.0			102.7		
Adj Reference Time (s)	22.5			107.2		
Split Option						
Ref Time Combined (s)	18.0		6.8	24.4	6.3	
Ref Time Seperate (s)	18.0		6.8	24.4	6.3	
Reference Time (s)	18.0		24.4	24.4	6.3	
Adj Reference Time (s)	22.5		28.9	28.9	10.8	
Summary	NW SE		NE	Combined		
Protected Option (s)	33.8		NA			
Permitted Option (s)	107.2		Err			
Split Option (s)	51.4		10.8			
Minimum (s)	33.8		10.8	44.6		
Right Turns	SER	NER				
Adj Reference Time (s)	18.4	16.5				
Cross Thru Ref Time (s)	0.0	22.5				
Oncoming Left Ref Time (s)	11.3	0.0				
Combined (s)	29.7	39.0				
Intersection Summary						
Intersection Capacity Utilization		37.2%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						



Appendix H—Synchro Reports [2025 With Project – PM Peak
Hour]

Intersection Capacity Utilization

3: Legacy Rd/Kensington & Valencia Ave

08/17/2025

																		
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations																		
Volume (vph)	120	423	10	10	396	94	25	18	62	231	7	185						
Pedestrians																		
Ped Button																		
Pedestrian Timing (s)																		
Free Right	No			No			No			No								
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700						
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5						
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0						
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120						
Volume Combined (vph)	120	433	0	10	396	94	25	80	0	231	7	185						
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00						
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.88	0.85	0.95	1.00	0.85						
Saturated Flow (vph)	3136	3226	0	3136	3237	1445	1615	1502	0	3136	3237	1445						
Ped Intf Time (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						
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00								
Protected Option Allowed	Yes			Yes			Yes			Yes								
Reference Time (s)	4.6	16.1	0.0	0.4	14.7	7.8	1.9	6.4	0.0	8.8	0.3	15.4						
Adj Reference Time (s)	9.5	20.6	0.0	9.5	19.2	12.3	9.5	10.9	0.0	13.3	9.5	19.9						
Permitted Option																		
Adj Saturation A (vph)	105	1613		105	1618		108	1502		105	1618							
Reference Time A (s)	68.9	16.1		5.7	14.7		27.9	6.4		132.6	0.3							
Adj Saturation B (vph)	NA	NA		NA	NA		0	1502		0	3237							
Reference Time B (s)	NA	NA		NA	NA		9.9	6.4		16.8	0.3							
Reference Time (s)		68.9			14.7			9.9			16.8							
Adj Reference Time (s)		73.4			19.2			14.4			21.3							
Split Option																		
Ref Time Combined (s)	4.6	16.1		0.4	14.7		1.9	6.4		8.8	0.3							
Ref Time Seperate (s)	4.6	15.7		0.4	14.7		1.9	1.4		8.8	0.3							
Reference Time (s)	16.1	16.1		14.7	14.7		6.4	6.4		8.8	8.8							
Adj Reference Time (s)	20.6	20.6		19.2	19.2		10.9	10.9		13.3	13.3							
Summary	NW SE		NE SW		Combined													
Protected Option (s)	30.1		24.2															
Permitted Option (s)	73.4		21.3															
Split Option (s)	39.8		24.2															
Minimum (s)	30.1		21.3		51.4													
Right Turns	NWR		SWR															
Adj Reference Time (s)	12.3		19.9															
Cross Thru Ref Time (s)	10.9		19.2															
Oncoming Left Ref Time (s)	9.5		9.5															
Combined (s)	32.7		48.5															
Intersection Summary																		
Intersection Capacity Utilization	42.9%			ICU Level of Service					A									
Reference Times and Phasing Options do not represent an optimized timing plan.																		

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

08/17/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↰	↰	↰↰	↰↰↰	↰↰↰	↰
Volume (vph)	575	206	358	1607	775	344
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	575	206	358	1607	775	344
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		17.1	13.7	41.6	20.1	28.6
Adj Reference Time (s)		21.6	18.2	46.1	24.6	33.1
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	330.0		205.5	41.6	20.1	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				205.5	20.1	
Adj Reference Time (s)				210.0	24.6	
Split Option						
Ref Time Combined (s)	22.0		13.7	41.6	20.1	
Ref Time Seperate (s)	22.0		13.7	41.6	20.1	
Reference Time (s)	22.0		41.6	41.6	20.1	
Adj Reference Time (s)	26.5		46.1	46.1	24.6	
Summary	SE		NE SW	Combined		
Protected Option (s)	NA		46.1			
Permitted Option (s)	Err		210.0			
Split Option (s)	26.5		70.7			
Minimum (s)	26.5		46.1	72.6		
Right Turns	SER	SWR				
Adj Reference Time (s)	21.6	33.1				
Cross Thru Ref Time (s)	24.6	0.0				
Oncoming Left Ref Time (s)	0.0	18.2				
Combined (s)	46.2	51.3				

Intersection Summary

Intersection Capacity Utilization 60.5% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

08/17/2025

						
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑↑	↑
Volume (vph)	1385	132	184	1371	128	132
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No				No	
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	1385	132	184	1371	128	132
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	35.9	11.0	7.0	35.5	11.0	
Adj Reference Time (s)	40.4	15.5	11.5	40.0	15.5	
Permitted Option						
Adj Saturation A (vph)	1544	105		1544	105	
Reference Time A (s)	35.9	105.6		35.5	73.5	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)	35.9			105.6		
Adj Reference Time (s)	40.4			110.1		
Split Option						
Ref Time Combined (s)	35.9	7.0		35.5	4.9	
Ref Time Seperate (s)	35.9	7.0		35.5	4.9	
Reference Time (s)	35.9	35.5		35.5	4.9	
Adj Reference Time (s)	40.4	40.0		40.0	9.5	
Summary	NW SE	NE		Combined		
Protected Option (s)	51.9	NA				
Permitted Option (s)	110.1	Err				
Split Option (s)	80.4	9.5				
Minimum (s)	51.9	9.5		61.4		
Right Turns	SER	NER				
Adj Reference Time (s)	15.5	15.5				
Cross Thru Ref Time (s)	0.0	40.4				
Oncoming Left Ref Time (s)	11.5	0.0				
Combined (s)	27.0	55.9				
Intersection Summary						
Intersection Capacity Utilization		51.2%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						



Appendix I—Synchro Reports [2028 With Project – AM Peak
Hour]

Intersection Capacity Utilization

3: Legacy Rd/Kensington & Valencia Ave

08/17/2025

																		
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations																		
Volume (vph)	61	258	102	307	414	77	101	127	192	121	149	106						
Pedestrians																		
Ped Button																		
Pedestrian Timing (s)																		
Free Right	No			No			No			No								
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700						
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5						
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0						
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120						
Volume Combined (vph)	61	360	0	307	414	77	101	319	0	121	149	106						
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00						
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.91	0.85	0.95	1.00	0.85						
Saturated Flow (vph)	3136	3099	0	3136	3237	1445	1615	1547	0	3136	3237	1445						
Ped Intf Time (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						
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00								
Protected Option Allowed	Yes			Yes			Yes			Yes								
Reference Time (s)	2.3	13.9	0.0	11.7	15.3	6.4	7.5	24.8	0.0	4.6	5.5	8.8						
Adj Reference Time (s)	9.5	18.4	0.0	16.2	19.8	10.9	12.0	29.3	0.0	9.5	10.0	13.3						
Permitted Option																		
Adj Saturation A (vph)	105	1550		105	1618		108	1547		105	1618							
Reference Time A (s)	35.0	13.9		176.2	15.3		112.6	24.8		69.4	5.5							
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA							
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA							
Reference Time (s)		35.0			176.2			112.6			69.4							
Adj Reference Time (s)		39.5			180.7			117.1			73.9							
Split Option																		
Ref Time Combined (s)	2.3	13.9		11.7	15.3		7.5	24.8		4.6	5.5							
Ref Time Seperate (s)	2.3	10.0		11.7	15.3		7.5	9.9		4.6	5.5							
Reference Time (s)	13.9	13.9		15.3	15.3		24.8	24.8		5.5	5.5							
Adj Reference Time (s)	18.4	18.4		19.8	19.8		29.3	29.3		10.0	10.0							
Summary	NW SE		NE SW		Combined													
Protected Option (s)	34.7		38.8															
Permitted Option (s)	180.7		117.1															
Split Option (s)	38.3		39.3															
Minimum (s)	34.7		38.8		73.4													
Right Turns	NWR		SWR															
Adj Reference Time (s)	10.9		13.3															
Cross Thru Ref Time (s)	29.3		19.8															
Oncoming Left Ref Time (s)	9.5		12.0															
Combined (s)	49.6		45.2															
Intersection Summary																		
Intersection Capacity Utilization	61.2%			ICU Level of Service			B											
Reference Times and Phasing Options do not represent an optimized timing plan.																		

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

08/17/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↱	↰	↰↱	↰↱↰	↰↱↰	↰
Volume (vph)	358	287	303	522	1427	661
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	358	287	303	522	1427	661
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		23.8	11.6	13.5	37.0	54.9
Adj Reference Time (s)		28.3	16.1	18.0	41.5	59.4
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	205.5		173.9	13.5	37.0	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				173.9	37.0	
Adj Reference Time (s)				178.4	41.5	
Split Option						
Ref Time Combined (s)	13.7		11.6	13.5	37.0	
Ref Time Seperate (s)	13.7		11.6	13.5	37.0	
Reference Time (s)	13.7		13.5	13.5	37.0	
Adj Reference Time (s)	18.2		18.0	18.0	41.5	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		57.6			
Permitted Option (s)	Err		178.4			
Split Option (s)	18.2		59.5			
Minimum (s)	18.2		57.6		75.8	
Right Turns	SER	SWR				
Adj Reference Time (s)	28.3	59.4				
Cross Thru Ref Time (s)	41.5	0.0				
Oncoming Left Ref Time (s)	0.0	16.1				
Combined (s)	69.8	75.5				

Intersection Summary

Intersection Capacity Utilization 63.1% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

08/17/2025

						
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑↑	↑
Volume (vph)	714	173	185	972	170	149
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No				No	
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	714	173	185	972	170	149
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	18.5	14.4	7.1	25.2		12.4
Adj Reference Time (s)	23.0	18.9	11.6	29.7		16.9
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	18.5		106.2	25.2	97.6	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	18.5			106.2		
Adj Reference Time (s)	23.0			110.7		
Split Option						
Ref Time Combined (s)	18.5		7.1	25.2	6.5	
Ref Time Seperate (s)	18.5		7.1	25.2	6.5	
Reference Time (s)	18.5		25.2	25.2	6.5	
Adj Reference Time (s)	23.0		29.7	29.7	11.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	34.6		NA			
Permitted Option (s)	110.7		Err			
Split Option (s)	52.7		11.0			
Minimum (s)	34.6		11.0	45.6		
Right Turns	SER	NER				
Adj Reference Time (s)	18.9	16.9				
Cross Thru Ref Time (s)	0.0	23.0				
Oncoming Left Ref Time (s)	11.6	0.0				
Combined (s)	30.4	39.9				
Intersection Summary						
Intersection Capacity Utilization		38.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						



Appendix J—Synchro Reports [2028 With Project – PM Peak
Hour]

Intersection Capacity Utilization

3: Legacy Rd/Kensington & Valencia Ave

08/17/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	124	436	10	10	408	97	26	19	63	238	8	191
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	124	446	0	10	408	97	26	82	0	238	8	191
Lane Utilization Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.88	0.85	0.95	1.00	0.85
Saturated Flow (vph)	3136	3226	0	3136	3237	1445	1615	1504	0	3136	3237	1445
Ped Intf Time (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
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	Yes			Yes			Yes			Yes		
Reference Time (s)	4.7	16.6	0.0	0.4	15.1	8.1	1.9	6.5	0.0	9.1	0.3	15.9
Adj Reference Time (s)	9.5	21.1	0.0	9.5	19.6	12.6	9.5	11.0	0.0	13.6	9.5	20.4
Permitted Option												
Adj Saturation A (vph)	105	1613		105	1618		108	1504		105	1618	
Reference Time A (s)	71.2	16.6		5.7	15.1		29.0	6.5		136.6	0.3	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1504		0	3237	
Reference Time B (s)	NA	NA		NA	NA		9.9	6.5		17.1	0.3	
Reference Time (s)		71.2			15.1			9.9			17.1	
Adj Reference Time (s)		75.7			19.6			14.4			21.6	
Split Option												
Ref Time Combined (s)	4.7	16.6		0.4	15.1		1.9	6.5		9.1	0.3	
Ref Time Seperate (s)	4.7	16.2		0.4	15.1		1.9	1.5		9.1	0.3	
Reference Time (s)	16.6	16.6		15.1	15.1		6.5	6.5		9.1	9.1	
Adj Reference Time (s)	21.1	21.1		19.6	19.6		11.0	11.0		13.6	13.6	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	30.6		24.6									
Permitted Option (s)	75.7		21.6									
Split Option (s)	40.7		24.6									
Minimum (s)	30.6		21.6		52.2							
Right Turns	NWR		SWR									
Adj Reference Time (s)	12.6		20.4									
Cross Thru Ref Time (s)	11.0		19.6									
Oncoming Left Ref Time (s)	9.5		9.5									
Combined (s)	33.1		49.5									
Intersection Summary												
Intersection Capacity Utilization			43.5%		ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection Capacity Utilization

3: Tustin Ranch Road & Valencia Ave

08/17/2025



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↰↰	↰	↰↰	↰↰↰	↰↰↰	↰
Volume (vph)	592	212	369	1656	798	354
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	592	212	369	1656	798	354
Lane Utilization Factor	0.97	1.00	0.97	0.91	0.91	1.00
Turning Factor (vph)	0.95	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	3136	1445	3136	4631	4631	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			Yes	Yes	
Reference Time (s)		17.6	14.1	42.9	20.7	29.4
Adj Reference Time (s)		22.1	18.6	47.4	25.2	33.9
Permitted Option						
Adj Saturation A (vph)	105		105	1544	1544	
Reference Time A (s)	339.8		211.8	42.9	20.7	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				211.8	20.7	
Adj Reference Time (s)				216.3	25.2	
Split Option						
Ref Time Combined (s)	22.7		14.1	42.9	20.7	
Ref Time Seperate (s)	22.7		14.1	42.9	20.7	
Reference Time (s)	22.7		42.9	42.9	20.7	
Adj Reference Time (s)	27.2		47.4	47.4	25.2	
Summary	SE		NE SW		Combined	
Protected Option (s)	NA		47.4			
Permitted Option (s)	Err		216.3			
Split Option (s)	27.2		72.6			
Minimum (s)	27.2		47.4		74.6	
Right Turns	SER	SWR				
Adj Reference Time (s)	22.1	33.9				
Cross Thru Ref Time (s)	25.2	0.0				
Oncoming Left Ref Time (s)	0.0	18.6				
Combined (s)	47.3	52.5				

Intersection Summary

Intersection Capacity Utilization 62.1% ICU Level of Service B
Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection Capacity Utilization

4: Kensington & Edinger Ave

08/17/2025

						
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑↑	↑
Volume (vph)	1427	136	189	1413	132	136
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1700	1700	1700	1700	1700	1700
Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	1427	136	189	1413	132	136
Lane Utilization Factor	0.91	1.00	0.97	0.91	0.97	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	4631	1445	3136	4631	3136	1445
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	37.0	11.3	7.2	36.6		11.3
Adj Reference Time (s)	41.5	15.8	11.7	41.1		15.8
Permitted Option						
Adj Saturation A (vph)	1544		105	1544	105	
Reference Time A (s)	37.0		108.5	36.6	75.8	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	37.0			108.5		
Adj Reference Time (s)	41.5			113.0		
Split Option						
Ref Time Combined (s)	37.0		7.2	36.6	5.1	
Ref Time Seperate (s)	37.0		7.2	36.6	5.1	
Reference Time (s)	37.0		36.6	36.6	5.1	
Adj Reference Time (s)	41.5		41.1	41.1	9.6	
Summary	NW SE		NE	Combined		
Protected Option (s)	53.2		NA			
Permitted Option (s)	113.0		Err			
Split Option (s)	82.6		9.6			
Minimum (s)	53.2		9.6	62.8		
Right Turns	SER	NER				
Adj Reference Time (s)	15.8	15.8				
Cross Thru Ref Time (s)	0.0	41.5				
Oncoming Left Ref Time (s)	11.7	0.0				
Combined (s)	27.5	57.3				
Intersection Summary						
Intersection Capacity Utilization		52.3%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						