SLATER AVENUE MIXED-USE

TRAFFIC IMPACT ANALYSIS

Prepared For:

Slater Investments, LLC
P.O. Box 905
3857 Birch St.
Newport Beach, CA 92660

Prepared By:

ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.

2 Park Plaza, Suite 1120
Irvine, CA 92614
(949) 794-1180

Contact: Meghan Macias, TE
meghan@epdsolutions.com

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1 EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) evaluates the potential transportation-related impacts of the proposed Slater Avenue Mixed-use project located at the northeast corner of San Mateo Street and Slater Avenue in the City of Fountain Valley. The project would replace the existing office building and restaurant located at the project site. The proposed development is comprised of a total of 270 dwelling units inclusive of 33 affordable housing units, and 5,000 square feet of indoor and 2,000 square feet of outdoor restaurant space. Access to the project site would be provided from one driveway on San Mateo Street. Based on the Institute of Transportation Engineers, *Trip* Generation 10th Edition vehicle trip generation rates, the project would generate approximately 994 net daily trips including 53 net trips during the AM peak hour and 45 net trips during the PM peak hour.

Eight study area intersections were evaluated including the project driveway during the AM and PM peak hours, which are defined as the hours with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing Conditions
- Existing plus Project Conditions
- Opening Year Baseline (Project Completion Year 2023)
- Opening Year plus Project

Existing traffic conditions were evaluated based on new traffic counts conducted at the existing study area intersections on Thursday, May 27, 2021. A Covid-pandemic-factor of 75% was obtained and applied to AM peak hour counts, and a 52% factor was obtained and applied to PM peak hour counts. Opening Year Baseline (2023) traffic volumes were developed by applying a growth rate of 2 percent per year to the existing (2021) traffic volumes and adding traffic generated by other approved and pending development projects. A total of five projects in the City of Fountain Valley were included in the Opening Year Baseline.

Development of the proposed mixed-use project would result in a significant impact at the intersections of Brookhurst Street/Slater Avenue and San Mateo Street/Warner Ave in both the Existing Plus Project and Opening Year Plus Project conditions. The following improvements are recommended to mitigate impacts to less than significant:

- #1- Brookhurst Street/Slater Avenue-

  It is recommended that the second eastbound-through lane be restriped to an eastbound shared through-right lane.

- #7- San Mateo Street/Warner Avenue-

  It is recommended that a signal be installed at this intersection as the Peak Hour Signal Warrant is met for the Existing baseline conditions.

2 INTRODUCTION

This Traffic Impact Analysis (TIA) evaluates the potential transportation-related impacts of the proposed Slater Avenue Mixed-use project. The scope of work for this TIA was prepared in coordination with the City of Fountain Valley and a copy of the correspondence with the City is provided in Appendix A. The TIA was prepared using methodologies and significance criteria consistent with the draft *City of Fountain Valley Transportation Impact Assessment Guidelines for Land Use Projects in CEQA and for General Plan Consistency*, the City of Fountain Valley General Plan, and applicable provisions of the California Environmental Quality Act (CEQA).

2.1 Project Description

The proposed project is located on an approximately 3.34-acre site at the northeast corner of the intersection of San Mateo Street and Slater Avenue in the City of Fountain Valley. The location of the project is shown in Figure 1, and the project site plan is shown in Figure 2.

The project site is currently in use and utilized as 52,000 square feet of office space and 6,500 square feet of restaurant space. The project proposes to remove the existing on-site structures and construct 270 multi-family dwelling units (which would include 33 affordable housing units), and 5,000 square feet of indoor and 2,000 square feet of outdoor restaurant space. The residential project would include amenities for the use of residents such as a fitness center and golf simulator. Access to the project site would be provided from one driveway on San Mateo Street.

Figure 1: Project Location

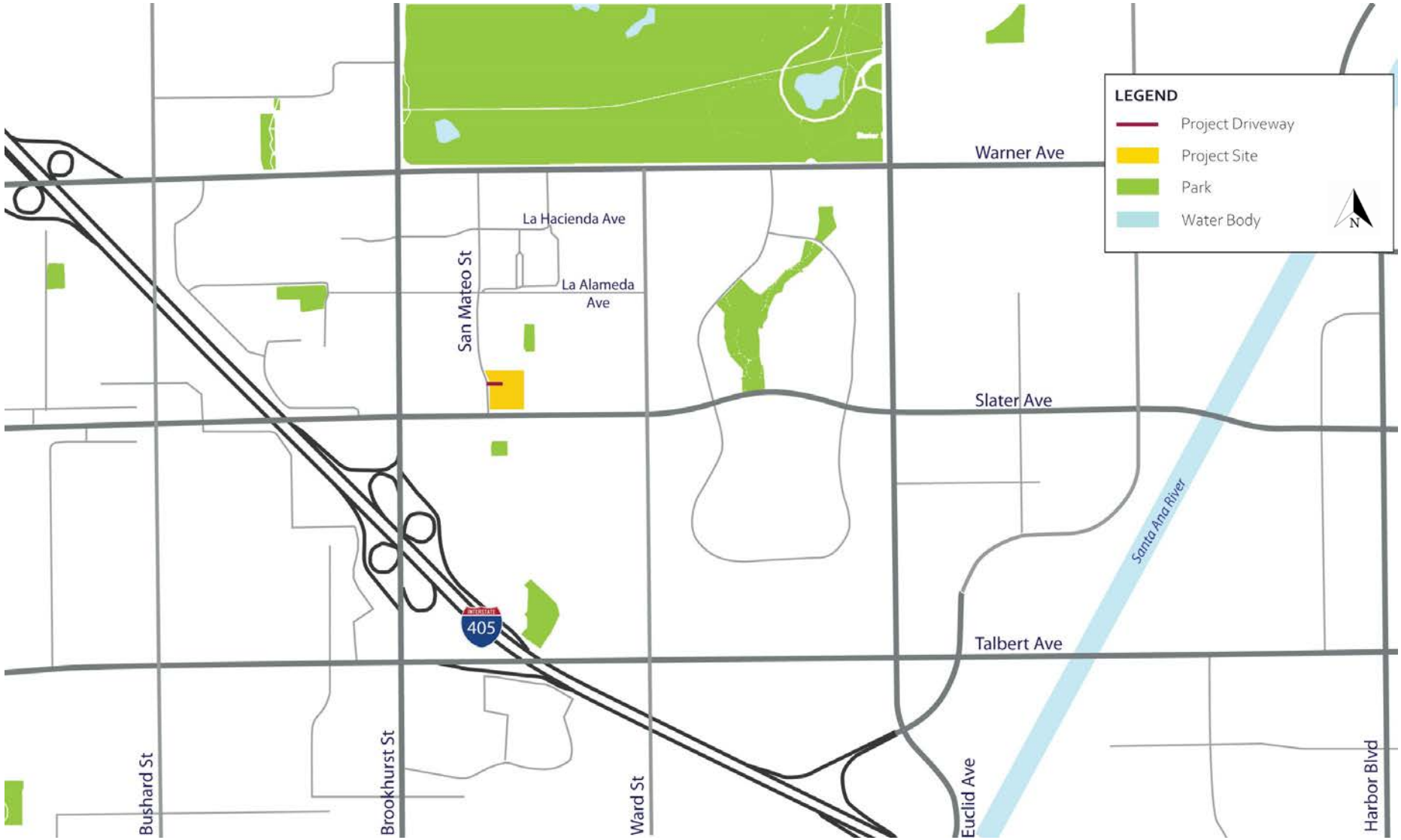
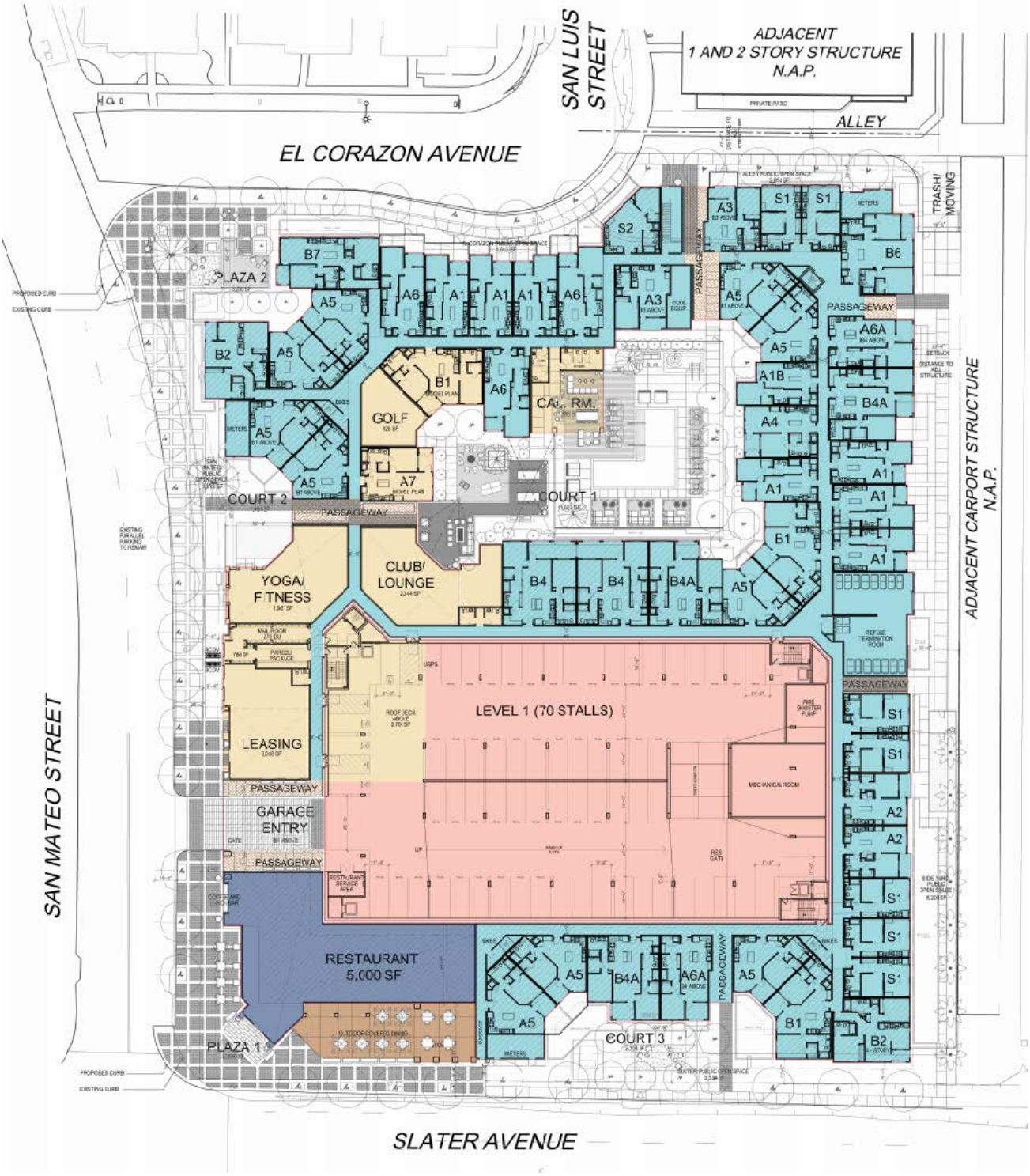


Figure 2: Project Site Plan



2.2 Study Area and Analysis Scenarios

The study area includes a total of eight intersections, six signalized intersections and two unsignalized, serving project traffic. The following intersections were included in the analysis:

1. Brookhurst Street/Slater Avenue
2. Slater Avenue/San Mateo Avenue
3. Ward Street/Slater Avenue
4. Brookhurst Street/La Alameda Avenue
5. Brookhurst Street/La Hacienda Avenue
6. Brookhurst Street/Warner Avenue
7. San Mateo Street/Warner Avenue
8. San Mateo Avenue/Project Driveway 1

The location of the study area intersections is shown on Figure 3 – Project Study Area. Traffic counts at intersections 1 – 7 were collected on Thursday, May 27, 2021. As many schools and businesses remain closed due to the Covid-19 pandemic, the existing counts required appropriate adjustments to represent typical weekday traffic volumes. For this reason, the approach volumes from the counts collected in 2021 were compared to the approach volumes from counts taken in 2015 obtained from *the Fountain Valley Crossings Specific Plan Traffic Study* report to estimate appropriate Covid-pandemic-factor. As per the approach volume comparison, a 75% escalation factor was obtained and applied to AM peak hour counts, and a 52% escalation factor was obtained and applied to PM peak hour counts. All traffic count data and the calculation of the Covid-pandemic-factor are provided in *Appendix B*. The projected existing 2021 counts with Covid-pandemic-factor applied were compared to the available 2015 counts from *the Fountain Valley Crossings Specific Plan Traffic Study,* and to the available 2017 counts provided by the City. The comparison also attached in *Appendix B* shows that the projected existing 2021 counts with Covid-pandemic-factor applied are more conservative as compared to the 2015 and 2017 counts.

Study area intersections were evaluated during the AM and PM peak hours, which are defined as the hour with the highest traffic volumes during the 7 AM to 9 AM and 4 PM to 6 PM peak commute periods. AM and PM peak hour traffic operations were evaluated for the following scenarios:

- Existing Conditions
- Existing plus Project Conditions
- Cumulative Baseline (Project Completion Year 2023)
- Cumulative plus Project

Forecast traffic volumes for the Opening Year (2023) conditions were developed by applying a growth rate of 2 percent per year to the existing (2021) traffic counts and adding traffic from nearby cumulative development projects (approved and not yet built and those under review). Cumulative projects were provided by the City of Fountain Valley Planning Department and are included in the Cumulative analysis.

Figure 3: Project Study Area

2.3 Methodology

Intersection operations are evaluated using Level of Service (LOS), which is a measure of the delay experienced by drivers on a roadway facility. LOS A indicates free-flow traffic conditions and is generally the best operating conditions. LOS F is an extremely congested condition and is the worst operating condition from the driver's perspective. In this report, LOS at signalized intersections is calculated using the Intersection Capacity Utilization (ICU) methodology, while LOS at unsignalized intersections is calculated using the Highway Capacity Manual (HCM), 6th Edition methodology.

The ICU methodology is a planning-level operational methodology and provides an estimate of the volume to capacity (v/c) ratio at a signalized intersection. The overall v/c ratio for the intersection is the sum of the individual v/c ratio for each critical movement, plus an additional factor for the clearance interval (yellow plus all red time). The ICU calculations for this analysis utilize a lane capacity of 1,700 vehicles per hour per lane and a clearance interval of 5 seconds. The LOS at the intersection is determined according to the values shown in Table 1.

Table 1. Relationship between ICU and LOS

LOS	ICU (V/C Ratio)
A	≤ 0.60
B	0.61 to ≤ 0.70
C	0.71 to ≤ 0.80
D	0.81 to ≤ 0.90
E	0.91 to ≤ 1.00
F	>1.00

Unsignalized intersections are categorized as either all-way stop control (AWSC) or two-way stop control (TWSC). For TWSC intersections, LOS is determined based on the delay for each minor-street movement, as well as the major-street left-turns. At AWSC intersections, LOS is determined based on the average delay per vehicle. The relationship between delay and LOS at unsignalized intersections is shown in Table 2.

Table 2. Relationship between Delay and LOS an Unsignalized Intersection

LOS	Delay (seconds)
A	0-10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

2.4 Significance Criteria

The City of Fountain Valley General Plan Circulation Element identifies LOS D as the worst-acceptable operating level for City roadway facilities. An impact would occur if the project causes:

- A signalized or unsignalized intersection operating at an acceptable LOS to degrade to an unacceptable LOS; or
- The project causes an increase of 0.01 or greater at a signalized intersection already operating at unacceptable LOS E or F; or
- The project adds measurable delay to an unsignalized intersection operating at unacceptable LOS E or F.

3 BASELINE CONDITIONS

This section discusses the baseline (without project) conditions. Baseline conditions are those conditions that exist within the study area in the existing condition and that are forecast to occur in the future, without the proposed project.

3.1 Existing Transportation System

Arterials providing access to the project site include Slater Avenue, San Mateo Street, Brookhurst Street, Ward Street and Warner Ave. The characteristics of each roadway are discussed below:

- Brookhurst Street and Warner Avenue are classified as a Major Arterial in the City's General Plan Circulation Element. Both streets are six-lane divided roadways with a posted speed limit of 45 MPH. Both roadways have sidewalks on both sides of the roadway. Transit service is provided along Brookhurst Street by OC Bus Route 35.
- Slater Avenue is classified as a Primary Arterial in the City's General Plan Circulation Element. Slater Avenue is a four-lane divided roadway with a posted speed limit of 40 MPH. There are sidewalks on both sides of the roadway. Class II bike lanes are provided on both sides of Slater Avenue.
- Ward Street is classified as an Augmented Primary Arterial in the City's General Plan Circulation Element. Ward Street is a four-lane undivided roadway with a posted speed limit of 40 MPH. Class II bike lanes are provided on both sides of Ward Street.
- San Mateo Street is a local street with a speed limit of 30 mph. Sidewalks and residential driveways are present on both sides of these roadways.

3.2 Existing Traffic Volumes and Levels of Service

As discussed in Section 2.2, traffic counts were collected at the existing study area intersections shown in Figure 3 – Project Study Area. A Covid-pandemic-factor of 75% was obtained and applied to AM peak hour counts, and a 52% factor was obtained and applied to PM peak hour counts. Existing baseline traffic volumes are shown in Figure 4 and Figure 5. The existing Levels of Service at the study area intersections were determined using the methodology described in section 2.3. Table 3 shows the existing AM and PM peak hour levels of service at study intersections. As shown in Table 3, all intersections operate at satisfactory LOS D or better in the existing condition except for the intersections of Brookhurst Street/Slater Avenue, and San Mateo Street/Warner Avenue that operate at LOS E and F, respectively.

It is to be noted that the intersection of San Mateo Street/Warner Avenue is a two-way stop controlled (TWSC) intersection, and the northbound left and right turning movements experience high delay. In the Existing baseline conditions, this intersection was noted to experience delay of 10,000 seconds for both AM and PM peak hours. This is the maximum representable delay using HCM 6th Edition methodology. Any delay 10,000 seconds or greater would be represented as 10,000 seconds by HCM 6th Edition methodology. For this reason, it would not be possible to ascertain accurate impacts in terms of delay due to the proposed project as changes in delay are not measurable over 10,000 seconds. EPD therefore identified San Mateo Street/Warner Avenue as an impacted intersection for all with-project scenarios as the project would add trips to an existing intersection experiencing unsatisfactory level of service. All LOS calculations are provided in *Appendix C*.

Figure 4: Existing Baseline AM Peak Hour Traffic Volumes

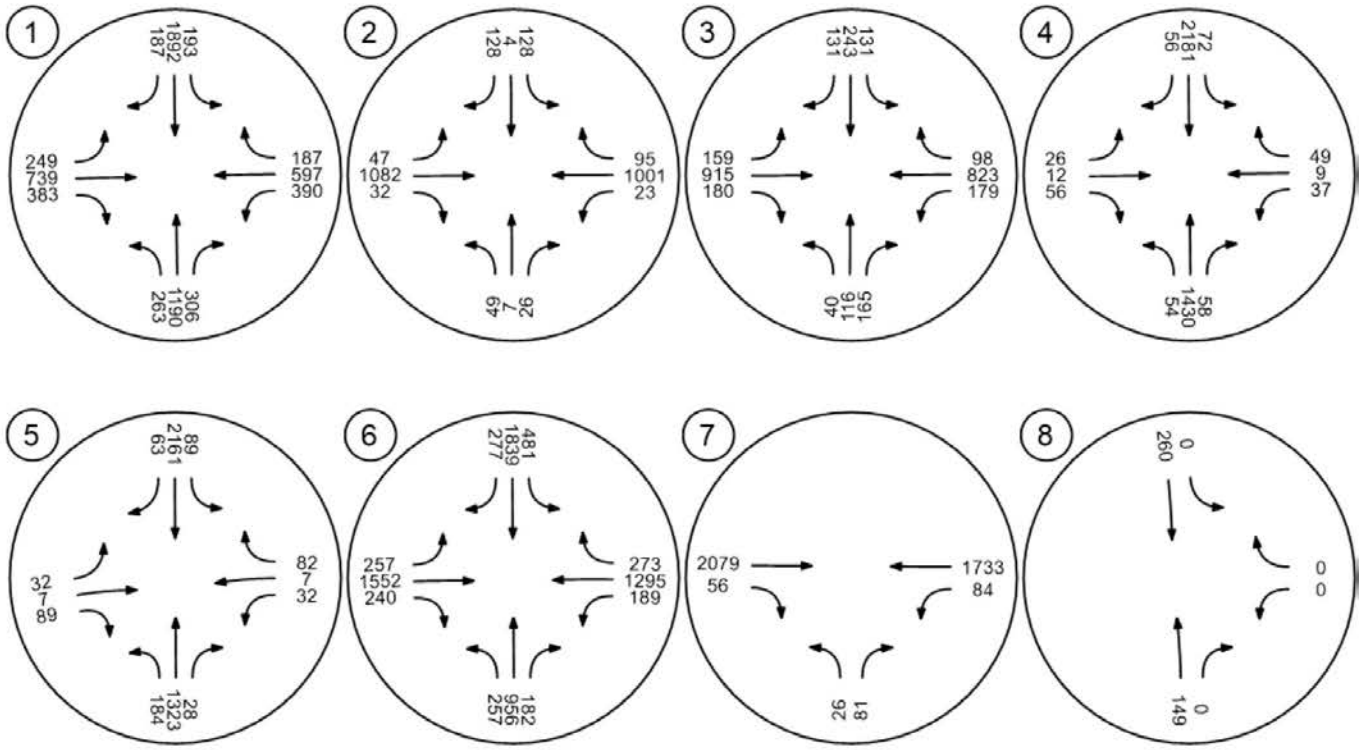


Figure 5: Existing Baseline PM Peak Hour Traffic Volumes

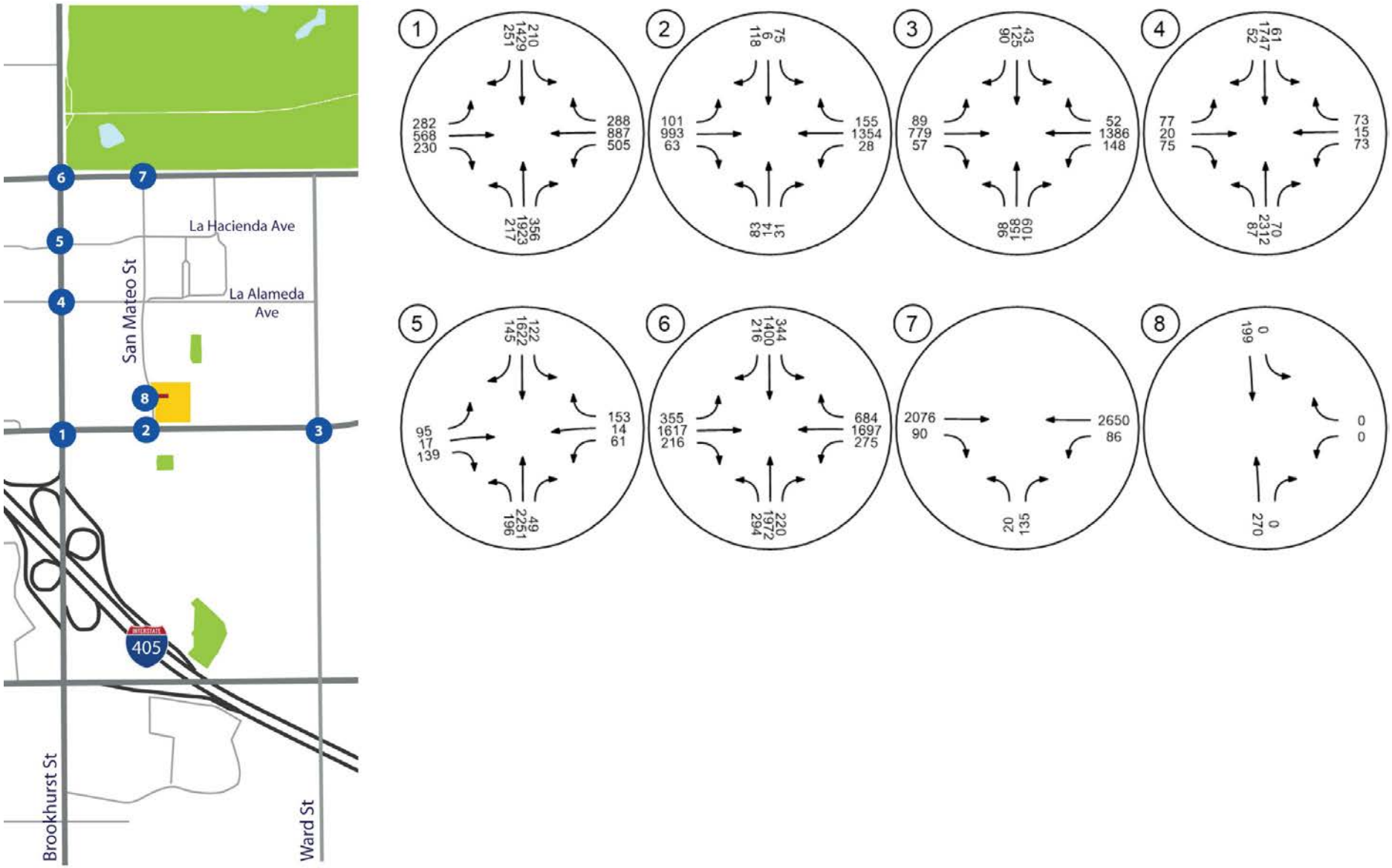


Table 3. Existing AM and PM Peak Hour Levels of Service

Intersection	Control	AM Peak		PM Peak	
		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]
1. Brookhurst St/Slater Ave	Signal	0.830	D	0.911	E
2. Slater Ave/San Mateo Ave	Signal	0.498	A	0.658	B
3. Ward St/Slater Ave	Signal	0.577	A	0.628	B
4. Brookhurst St/La Alameda Ave	Signal	0.576	A	0.667	B
5. Brookhurst St/La Hacienda Ave	Signal	0.672	B	0.750	C
6. Brookhurst St/Warner Ave	Signal	0.838	D	1.047	F
7. San Mateo St/Warner Ave	TWSC	10000.0	F	10000.0	F
8. San Mateo Ave/Project Dwy 1	TWSC	-	-	-	-

=Unsatisfactory Intersection Operation TWSC = Two-Way Stop Controlled

[1] ICU in Volume/Capacity Ratio, Delay in Seconds

[2] Level of Service

3.3 Opening Year Baseline (2023) Traffic Volumes and LOS

Opening Year Baseline (2023) traffic volumes were developed by applying a growth rate of 2 percent per year to the existing (2021) traffic volumes and adding traffic generated by other approved and pending development projects. A total of five projects in the City of Fountain Valley were included in the Opening Year Baseline. The locations of the cumulative projects are shown in Figure 6. The project trip generation for each cumulative project was calculated using trip rates from the Institute of Transportation Engineers, *Trip* Generation, 10th Edition. Table 4 shows the trip generation for each cumulative project.

The traffic volumes generated by the cumulative projects were distributed to the study area intersections and are illustrated in Figure 7 and Figure 8. As noted in Section 2.2 – Study Area and Analysis Scenarios, forecast traffic volumes for the Cumulative Baseline condition were developed by applying a growth rate of 2 percent per year to the 2021 traffic counts and adding traffic from cumulative projects. The Opening Year Baseline traffic volumes are illustrated in Figure 9 and Figure 10.

Table 5 shows the Cumulative Baseline AM and PM peak hour levels of service at study intersections. As shown in Table 5, all intersections operate at satisfactory LOS D or better in the Opening Year Baseline condition except for the intersections of Brookhurst Street/Slater Avenue, and San Mateo Street/Warner Avenue which operate at LOS E and F, respectively. As previously discussed in section 3.2, it would not be possible to ascertain accurate impacts in terms of delay due to the proposed project as changes in delay are not measurable over 10,000 seconds. This intersection was therefore assumed as an impacted intersection for all with-project scenarios as the project would add trips to an existing intersection experiencing LOS F conditions.

Figure 6: Location of Cumulative Projects

Table 4. Cumulative Projects Trip Generation

Land Use		Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Trip Rates									
High-Turnover (Sit-Down) Restaurant[1]		TSF	112.180	5.467	4.473	9.940	6.057	3.713	9.770
Bank[2]		TSF	12.130	11.721	10.819	22.540	13.464	12.936	26.400
Office[3]		TSF	9.740	0.998	0.162	1.160	0.184	0.966	1.150
Project Trip Generation									
1. Fountain Valley Retail Project (18050 Brookhurst St.)									
Proposed Restaurant	5.535	TSF	621	30	25	55	34	21	54
Proposed Bank	5.015	TSF	61	59	54	113	68	65	132
Proposed Office	5.335	TSF	52	5	1	6	1	5	6
		Total	*734*	*94*	*80*	*174*	*102*	*91*	*193*
2. Moiola Park Residences[4]									
Single Family Homes	74	DU	699	14	41	55	46	27	73
3. Villa Asteria - 9801 Starfish Residences[5]									
Single Family Homes	7	DU	66	1	4	5	4	3	7
4. Villa Serena Residential[6]									
Garden Homes	12	DU	148	3	10	13	8	5	13
5. Fountain Valley Crossings[7]									
Specific Plan			7,890	694	213	907	198	651	849
Total Trip Generation			10,270	806	348	1,154	358	777	1,135

TSF = Thousand Square Feet, VFP = Vehicle Fueling Positions

[1] Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition,* 2017. Land Use Code 932 High-Turnover (Sit-Down) Restaurant.

[2] Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition,* 2017. Land Use Code 911 Walk-in Bank.

[3] Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition,* 2017. Land Use Code 710 General Office Building.

[4] Trip generation from the Moiola Park Residences Traffic Impact Analysis, EPD Solutions, September 23, 2020.

[5] Trip generation from the Starfish Avenue Residential Project Trip Generation and Vehicle Miles Traveled Screening Analysis, Gandini Group, February 20, 2021.

[6] Trip generation from the Villa Serena 12-Unit Residential Community Traffic Impact Analysis, Stantec, January 11, 2019.

[7] Trip generation from the Fountain Valley Crossings Specific Plan Traffic Impact Analysis, Fehr and Peers, December, 2016.

Figure 7: Cumulative Projects AM Peak Hour Trip Assignment

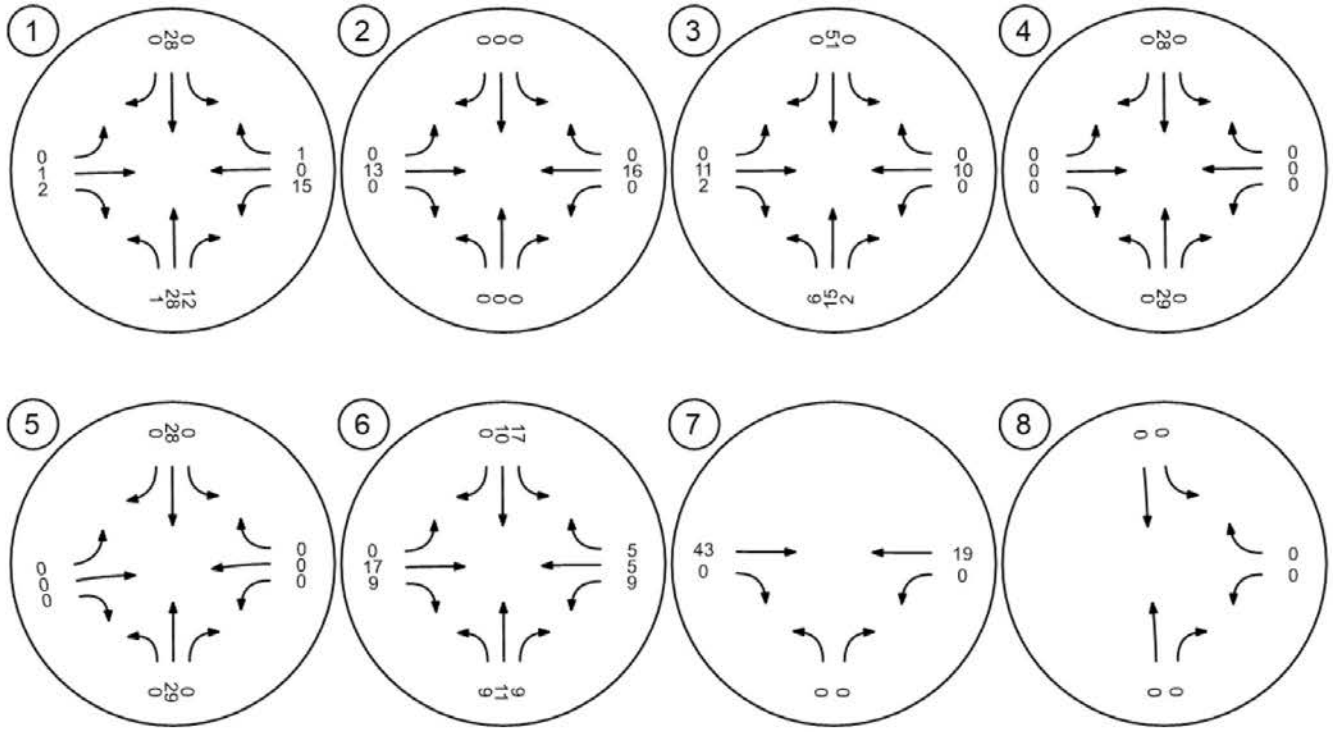


Figure 8: Cumulative Projects PM Peak Hour Trip Assignment

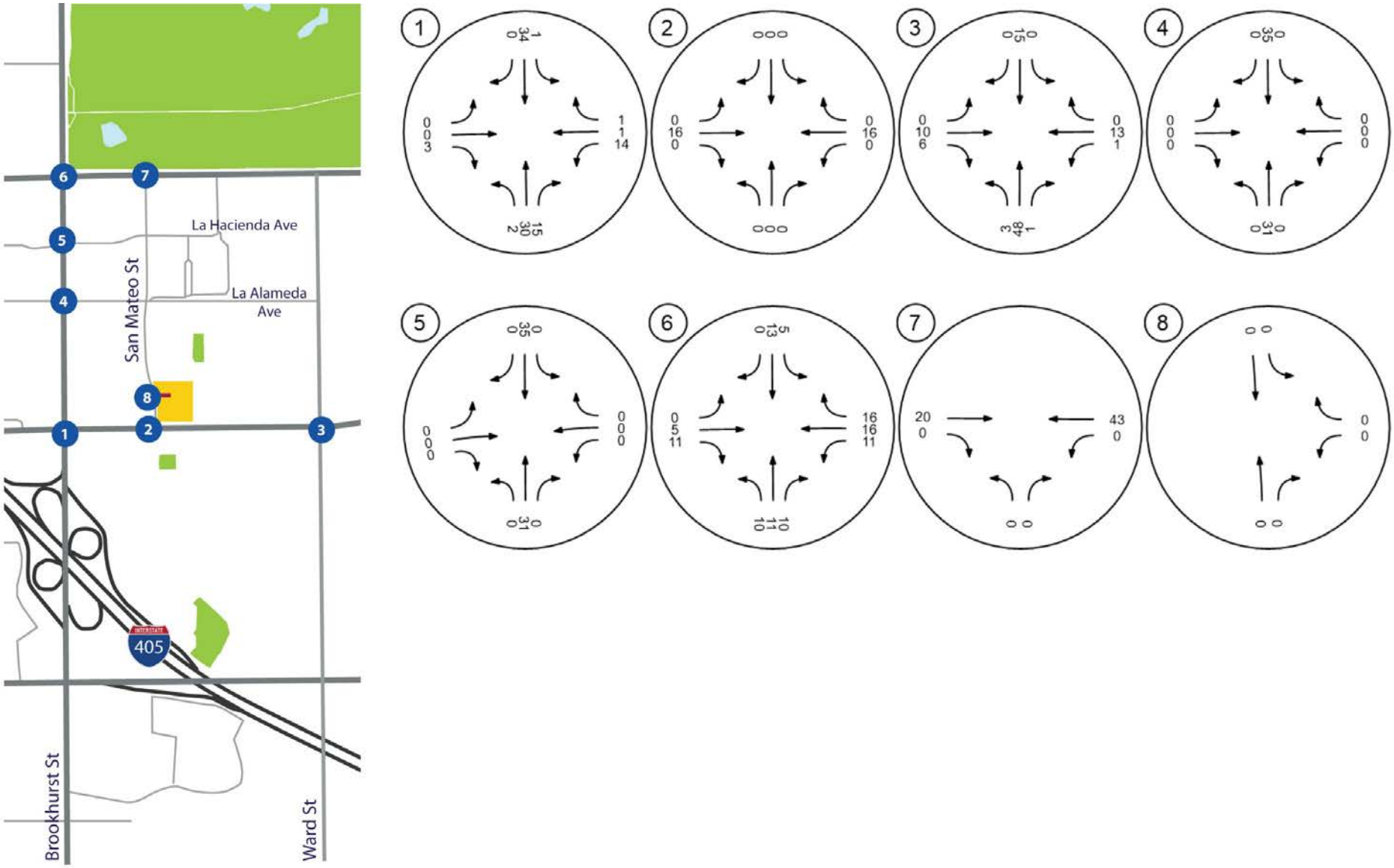


Figure 9: Opening Year AM Peak Hour Volumes

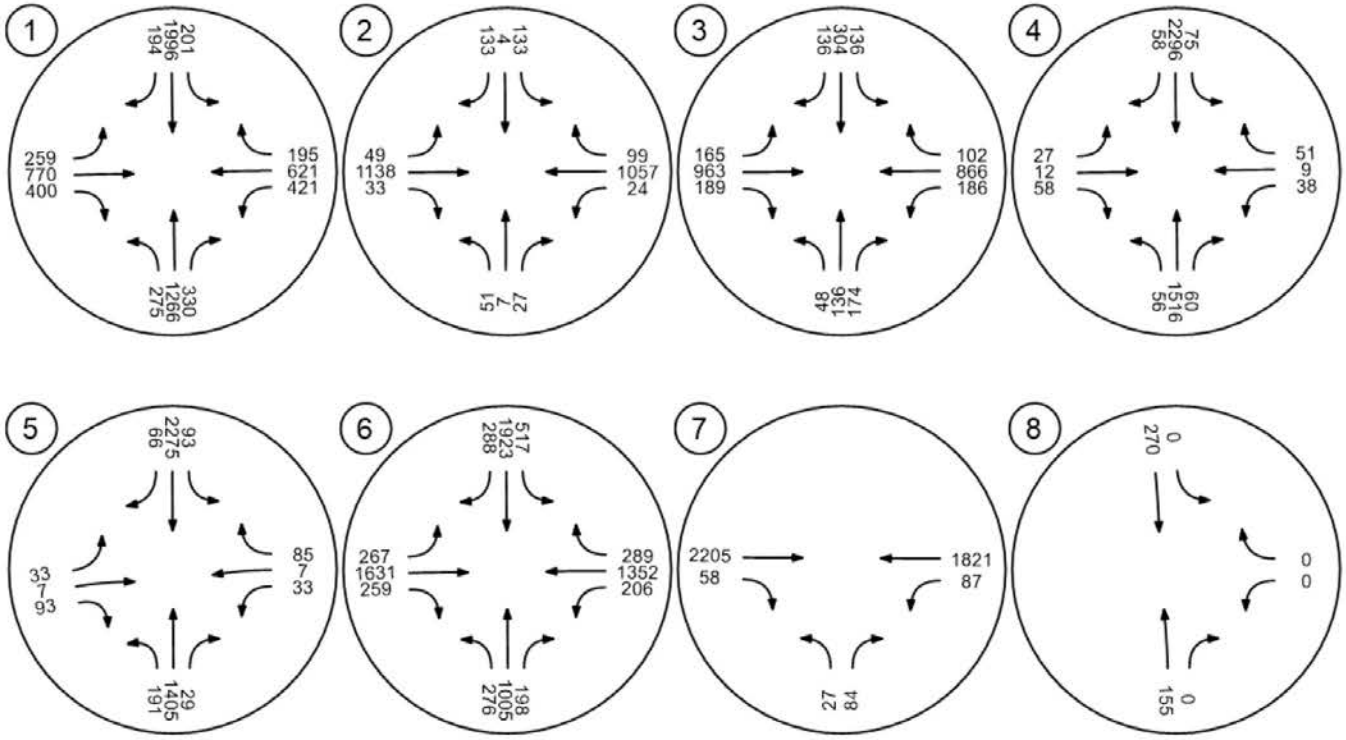


Figure 10: Opening Year PM Peak Hour Volumes

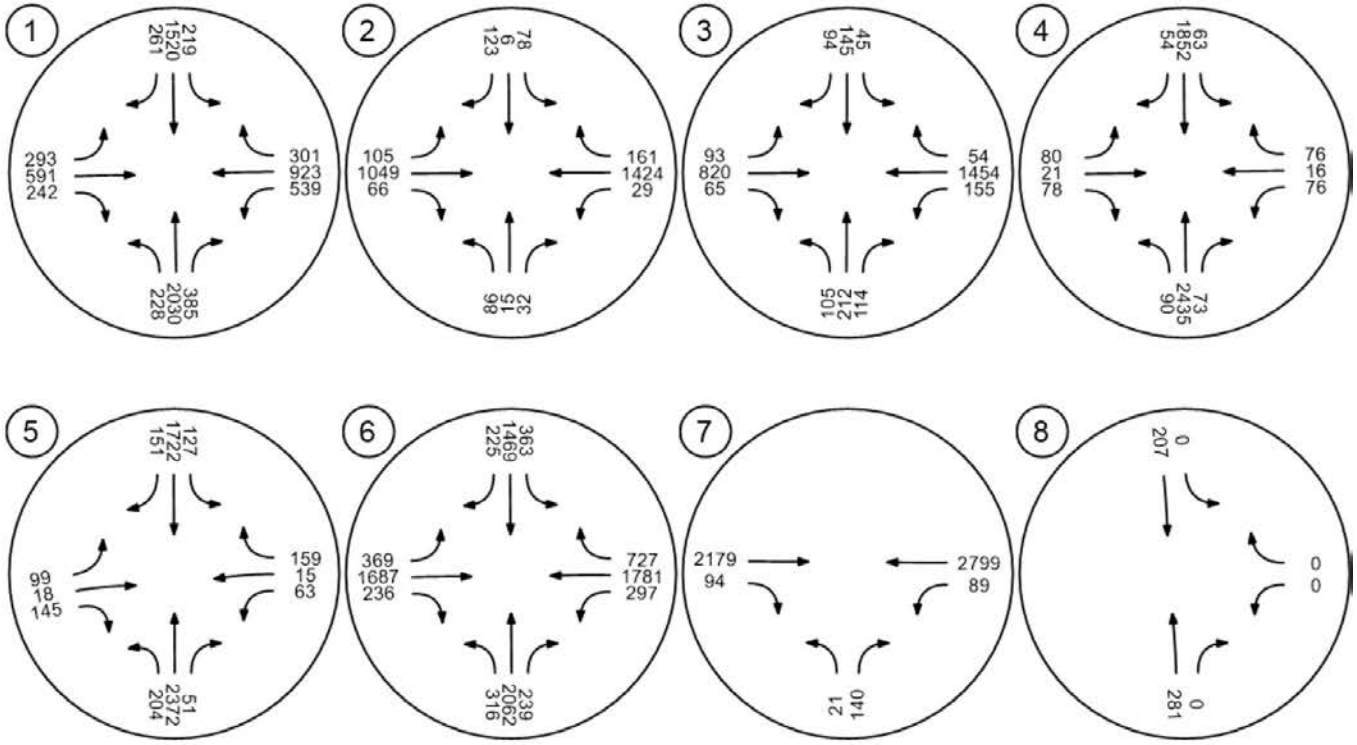


Table 5. Opening Year Baseline AM and PM Peak Hour Levels of Service

Intersection	Control	AM Peak		PM Peak	
		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]
1. Brookhurst St/Slater Ave	Signal	0.875	D	0.954	E
2. Slater Ave/San Mateo Ave	Signal	0.523	A	0.689	B
3. Ward St/Slater Ave	Signal	0.605	B	0.663	B
4. Brookhurst St/La Alameda Ave	Signal	0.604	B	0.699	B
5. Brookhurst St/La Hacienda Ave	Signal	0.704	C	0.787	C
6. Brookhurst St/Warner Ave	Signal	0.883	D	1.102	F
7. San Mateo St/Warner Ave	TWSC	10000.0	F	10000.0	F
8. San Mateo Ave/Project Dwy 1	TWSC	-	-	-	-

=Unsatisfactory Intersection Operation TWSC = Two-Way Stop Controlled

[1] ICU in Volume/Capacity Ratio, Delay in Seconds

[2] Level of Service

4 PROPOSED PROJECT

4.1 Project Trip Generation

The proposed development is comprised of a total of 270 dwelling units inclusive of 33 affordable housing units, and 5,000 square feet of indoor and 2,000 square feet of outdoor restaurant space. The existing uses comprise of 52,000 square feet of office space and 6,500 square feet of restaurant space. As per information received from the applicant regarding pre-Covid pandemic occupancy rate, a 95 percent occupancy rate was assumed for the existing office space. Based on the Institute of Transportation Engineers, *Trip* Generation 10th Edition vehicle trip generation rates, the project would generate approximately 994 net daily trips including 53 (-17 inbound, 70 outbound) net trips during the AM peak hour and 45 (55 inbound, -10 outbound) net trips during the PM peak hour. Please note that for the purpose of analysis using *Vistro,* a total of 0 inbound and 70 outbound trips were assumed in the AM peak hour, and 55 inbound and 0 outbound trips were assumed during the PM peak hour. This approach is more conservative and hence does not affect the conclusions of this report.

4.2 Project Trips

The project trips were distributed to the surrounding roadways based on the location of the project in relation to local and regional land uses and transportation facilities. Approximately seven percent of trips would travel north on San Mateo Street, three percent would travel north on Brookhurst Street, 15 percent would travel west on Slater Avenue, 15 would travel east on Slater Avenue, 25 would travel south on Brookhurst Street to access I-405 northbound, 25 percent would travel south on Brookhurst to access I-405 southbound, and 10 percent would travel south on Brookhurst Street beyond I-405. Project trips were assigned to the study area intersections by multiplying the net project trip generation by the trip distribution percent at each location. The project trip distribution is shown in Figure 11. Project trips during the AM and PM peak hours are shown in Figure 12 and Figure 13.

Table 6. Project Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Multifamily Housing (Mid-Rise)[1]		DU	5.44	0.09	0.27	0.36	0.27	0.17	0.44
High-Turnover (Sit-Down) Restaurant[2]		TSF	112.18	5.25	4.29	9.54	6.06	3.71	9.77
General Office Building[3]		TSF	9.740	1.00	0.16	1.16	0.18	0.97	1.15
Project Trip Generation									
Multifamily Housing (Mid-Rise)[1]	270	DU	1469	25	72	97	72	46	118
Internal Capture[5]			-125	-1	-7	-8	-5	-6	-11
High-Turnover (Sit-Down) Restaurant[2]	7	TSF	785	37	30	67	42	26	68
Pass By Trips[4]							*-18*	*-11*	*-29*
Internal Capture[6]			*-108*	*-7*	*-1*	*-8*	*-6*	*-5*	*-11*
			2021	54	94	148	86	50	135
Existing Uses on Site									
General Office Building[3]	49.4		481	49	8	57	9	48	57
Internal Capture[7]			-97	-7	-5	-12	0	-1	-1
High-Turnover Restaurant (Silky Sullivans)[2]	6.5		729	34	28	62	39	24	63
Pass By Trips[4]							*-17*	*-10*	*-27*
Internal Capture[8]			-86	-5	-7	-12	-1	-1	-2
			1027	71	24	95	30	60	90
Net Trip Generation			994	-17	70	53	55	-10	45

DU = Dwelling Unit

TSF = Thousand Square Feet

[1] Trip rates from the Institute of Transporation Engineers, *Trip Generation, 10th Edition,* 2017, Land Use Code 221-Multifamily Housing (Mid-Rise)

[2] Trip rates from the Institute of Transporation Engineers, *Trip Generation, 10th Edition,* 2017, Land Use Code 932- High-Turnover (Sit-Down) Restaurant

[3] Trip rates from the Institute of Transporation Engineers, *Trip Generation, 10th Edition,* 2017, Land Use Code 710-General Office Building. A 95% occupancy was assumed for the general office building totaling an area of 52,000 square feet.

[4] PM Peak Period Pass-By trip rates of 47% for Land Use Code 932- High-Turnover (Sit-Down) Restaurant, from the Institute of Transporation Engineers, Trip Generation, 10th Edition, 2017.

[5] Internal capture of 8.50% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 4%, AM outbound - 10%. Internal capture of PM inbound - 7%, PM outbound -13%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

[6] Internal capture of 13.75% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 19%, AM outbound - 3%. Internal capture of PM inbound - 14%, PM outbound -19%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

[7] Internal capture of 20.25% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 14%, AM outbound - 63%. Internal capture of PM inbound - 2%, PM outbound -2%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

[8] Internal capture of 11.75% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 15%, AM outbound - 25%. Internal capture of PM inbound - 3%, PM outbound -4%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

Figure 11: Project Trip Distribution

Figure 12: Project Trip Assignment AM Peak Hour

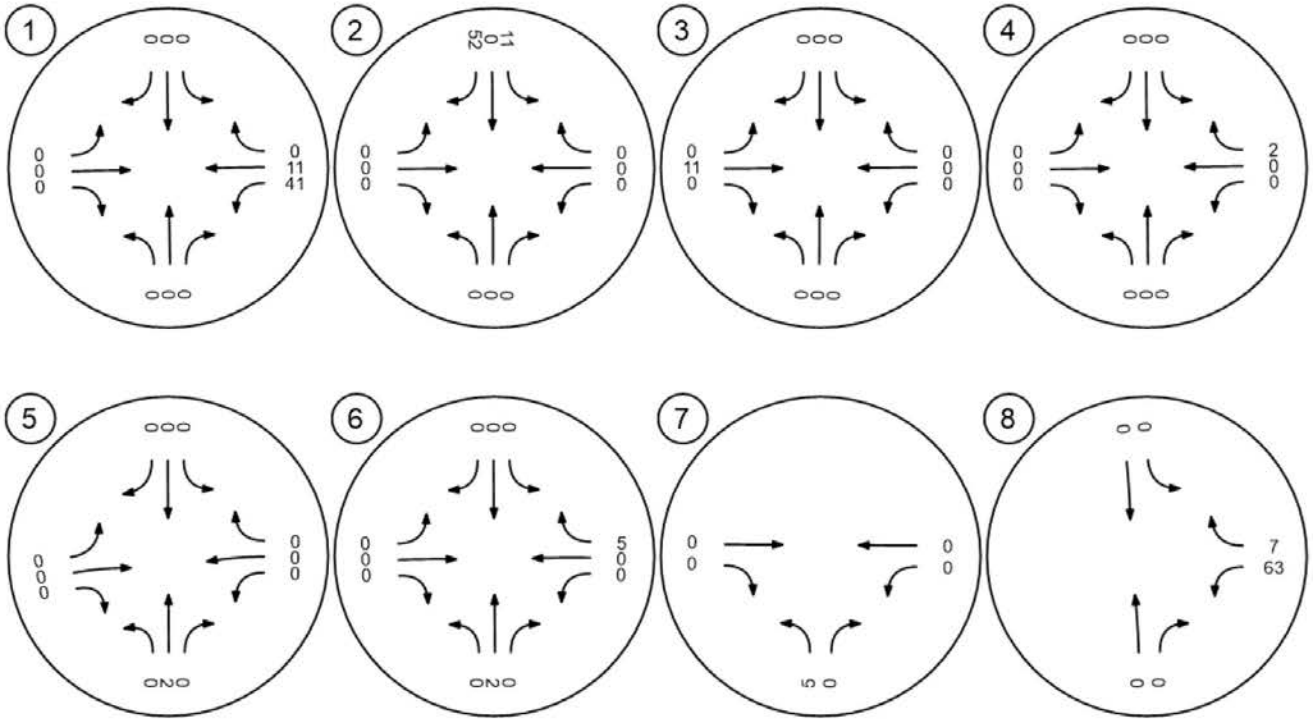
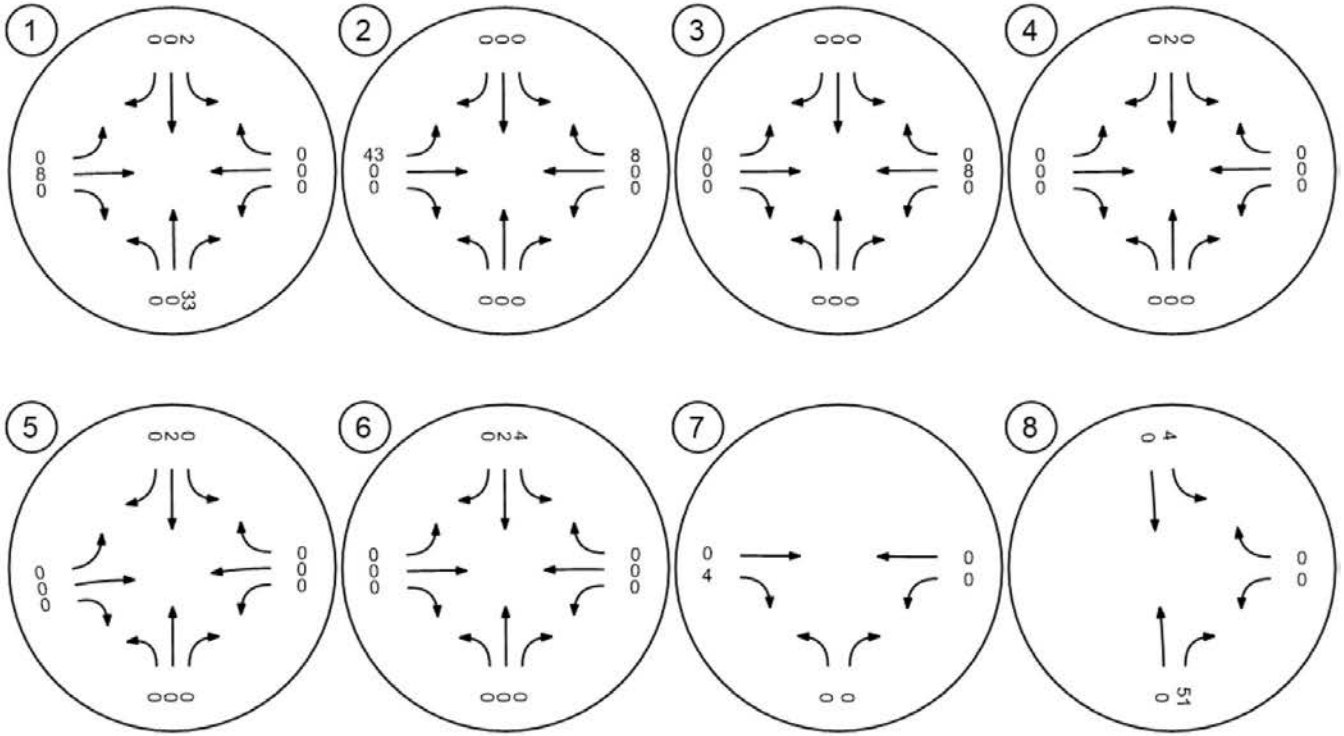


Figure 13: Project Trip Assignment PM Peak Hour



5 PROJECT IMPACTS

5.1 Existing Plus Project Traffic Volumes and Intersection Operations

Existing plus Project traffic volumes were determined by adding the project trips to Existing Baseline traffic volumes. The Existing plus Project weekday AM and PM peak hour traffic volumes are shown in Figure 14 and Figure 15.

An intersection operations analysis was conducted for the study area to evaluate the Existing plus Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously in Section 2.3 - Methodology. Table 7 provides a comparison between the Existing Without and With Project conditions. As shown in Table 7, all of the study area intersections would continue to operate with satisfactory LOS in the Existing condition with addition of project traffic except for the intersections of Brookhurst Street/Slater Avenue, and San Mateo Street/Warner Avenue which would operate at LOS E or F. A significant impact would occur at the intersection of Brookhurst Street/Slater Avenue due to the increase in delay of 0.013 during the AM peak hour. As discussed in Section 3.2, it would not be possible to ascertain accurate impacts in terms of delay at the intersection of San Mateo Street/Warner Avenue as changes in delay are not measurable over 10,000 seconds. This intersection was therefore assumed as an impacted intersection as the project would add trips to an existing intersection experiencing LOS F conditions.

Table 7. Existing Baseline and Existing plus Project Peak Hour Levels of Service

Intersection	Signal Control	Existing				Existing plus Project				Increase in V/C Ratio		Impact?	
		AM Peak		PM Peak		AM Peak		PM Peak					
		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	AM	PM	AM	PM
1. Brookhurst St/Slater Ave	Signal	0.830	D	0.911	E	0.843	D	0.912	E	0.013	0.001	Yes	No
2. Slater Ave/San Mateo Ave	Signal	0.498	A	0.658	B	0.513	A	0.687	B	0.015	0.029	No	No
3. Ward St/Slater Ave	Signal	0.577	A	0.628	B	0.581	A	0.630	B	0.004	0.002	No	No
4. Brookhurst St/La Alameda Ave	Signal	0.576	A	0.667	B	0.576	A	0.667	B	0.000	0.000	No	No
5. Brookhurst St/La Hacienda Ave	Signal	0.672	B	0.750	C	0.672	B	0.750	C	0.000	0.000	No	No
6. Brookhurst St/Warner Ave	Signal	0.838	D	1.047	F	0.838	D	1.048	F	0.000	0.001	No	No
7. San Mateo St/Warner Ave	TWSC	10000.0	F	10000.0	F	10000.0	F	10000.0	F	-	-	Yes	Yes
8. San Mateo Ave/Project Dwy 1	TWSC	-	-	-	-	11.8	B	7.9	A	-	-	No	No

=Unsatisfactory Intersection Operation TWSC = Two-Way Stop Controlled

[1] ICU in Volume/Capacity Ratio, Delay in Seconds

[2] Level of Service

Figure 14: Existing Plus Project AM Peak Hour Traffic Volumes

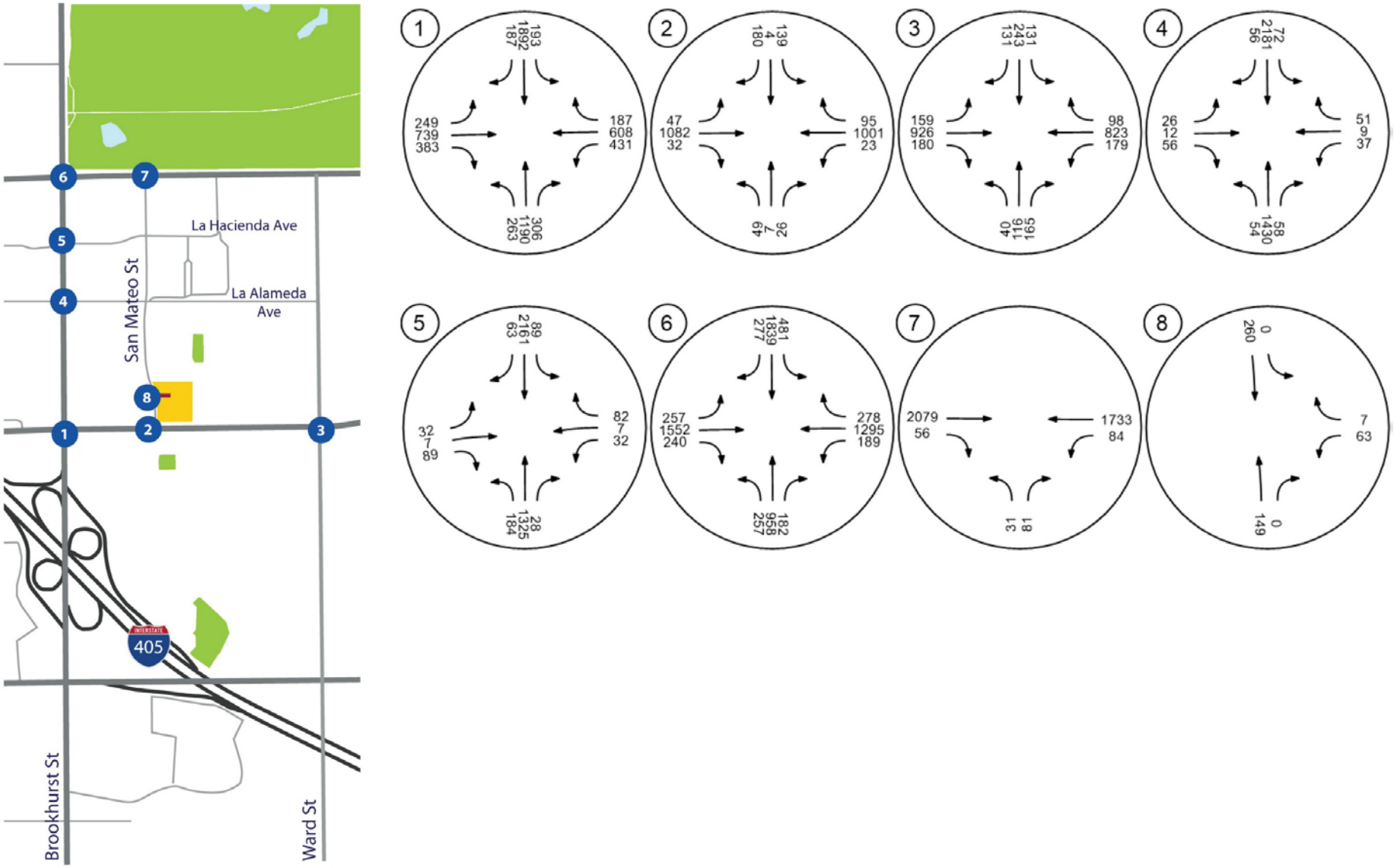
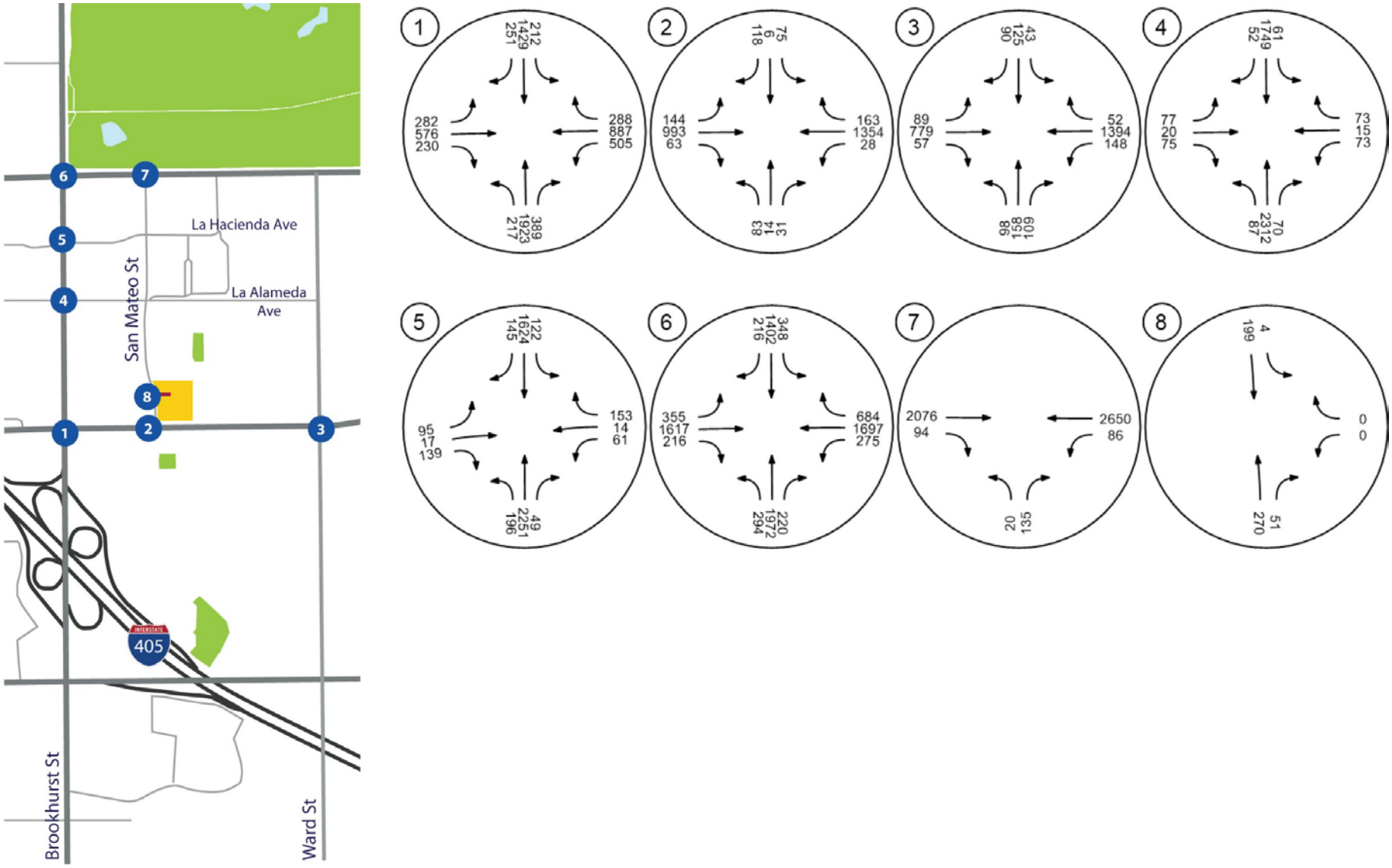


Figure 15: Existing Plus Project PM Peak Hour Traffic Volumes



5.2 Opening Year Plus Project Traffic Volumes and Intersection Operations

Opening Year plus Project traffic volumes were determined by adding the project trips to Opening Year Without Project traffic volumes. The Opening Year plus Project weekday AM and PM peak hour traffic volumes at the study intersections are shown in Figure 16 and Figure 17.

An intersection operations analysis was conducted for the study area to evaluate the Opening Year plus Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously in Section 2.3 - Methodology. Table 8 provides a comparison between the Opening Year Without and With Project conditions. As shown in Table 8, all of the study area intersections would continue to operate with satisfactory LOS in the Opening Year condition with addition of project traffic except for the intersections of Brookhurst Street/Slater Avenue and San Mateo Street/Warner Avenue which would operate at LOS E or F. A significant impact would occur at the intersection of Brookhurst Street/Slater Avenue due to the increase in delay of 0.013 during the AM peak hour. As discussed in Section 3.2, it would not be possible to ascertain accurate impacts in terms of delay at the intersection of San Mateo Street/Warner Avenue as changes in delay are not measurable over 10,000 seconds. This intersection was therefore assumed as an impacted intersection as the project would add trips to an existing intersection experiencing LOS F conditions.

Table 8. Opening Year Baseline and Opening Year plus Project Peak Hour Levels of Service

Intersection	Signal Control	Opening				Opening plus Project				Increase in V/C Ratio		Impact?	
		AM Peak		PM Peak		AM Peak		PM Peak					
		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	AM	PM	AM	PM
1. Brookhurst St/Slater Ave	Signal	0.875	D	0.954	E	0.888	D	0.955	E	0.013	0.001	Yes	No
2. Slater Ave/San Mateo Ave	Signal	0.523	A	0.689	B	0.537	A	0.718	C	0.014	0.029	No	No
3. Ward St/Slater Ave	Signal	0.605	B	0.663	B	0.609	B	0.666	B	0.004	0.003	No	No
4. Brookhurst St/La Alameda Ave	Signal	0.604	B	0.699	B	0.604	B	0.699	B	0.000	0.000	No	No
5. Brookhurst St/La Hacienda Ave	Signal	0.704	C	0.787	C	0.704	C	0.787	C	0.000	0.000	No	No
6. Brookhurst St/Warner Ave	Signal	0.883	D	1.102	F	0.883	D	1.104	F	0.000	0.002	No	No
7. San Mateo St/Warner Ave	TWSC	10000.0	F	10000.0	F	10000.0	F	10000.0	F	-	-	Yes	Yes
8. San Mateo Ave/Project Dwy 1	TWSC	-	-	-	-	11.9	B	7.9	A	-	-	No	No

=Unsatisfactory Intersection Operation TWSC = Two-Way Stop Controlled

[1] ICU in Volume/Capacity Ratio, Delay in Seconds

[2] Level of Service

Figure 16: Opening Year Plus Project AM Peak Hour Traffic Volumes

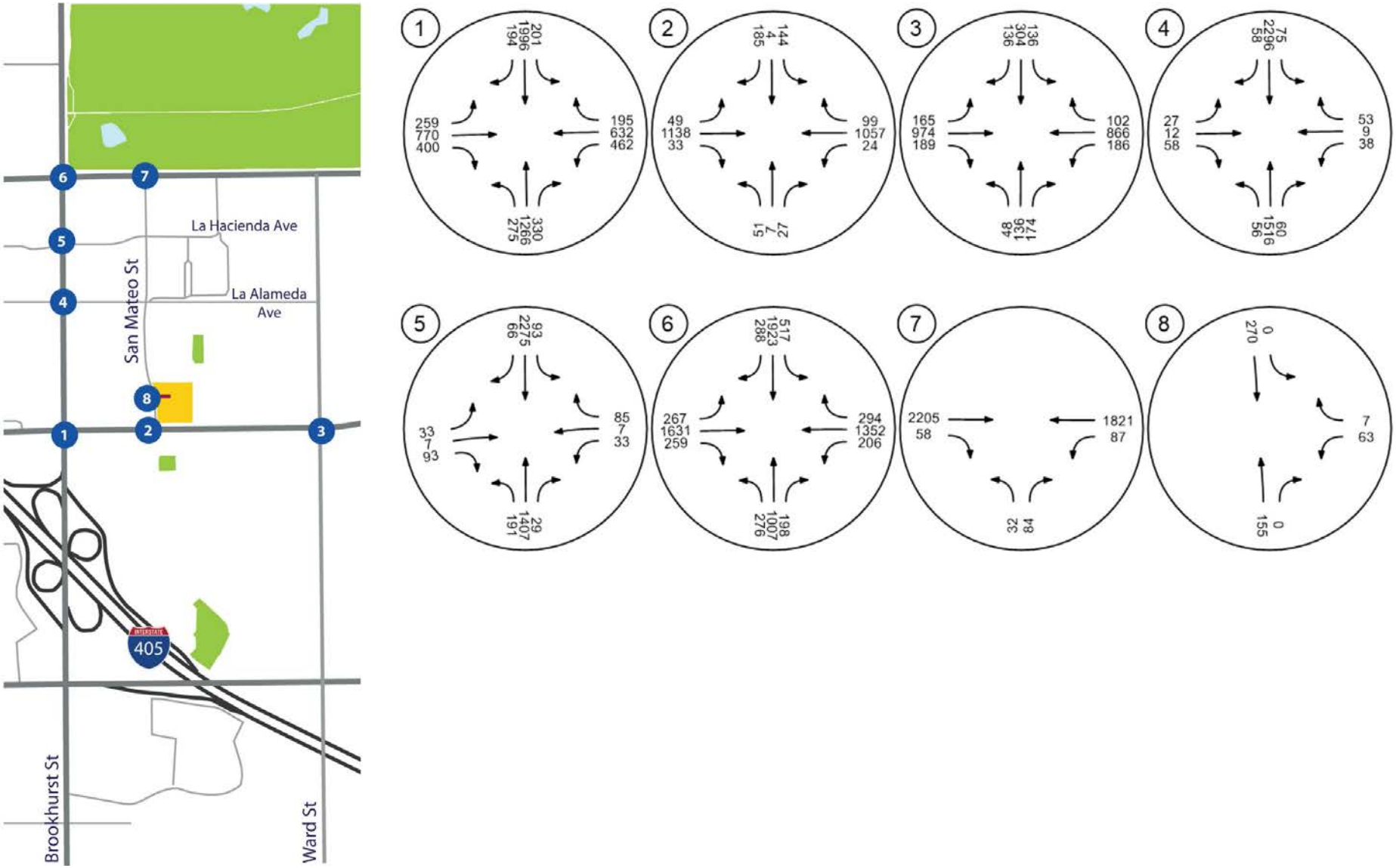
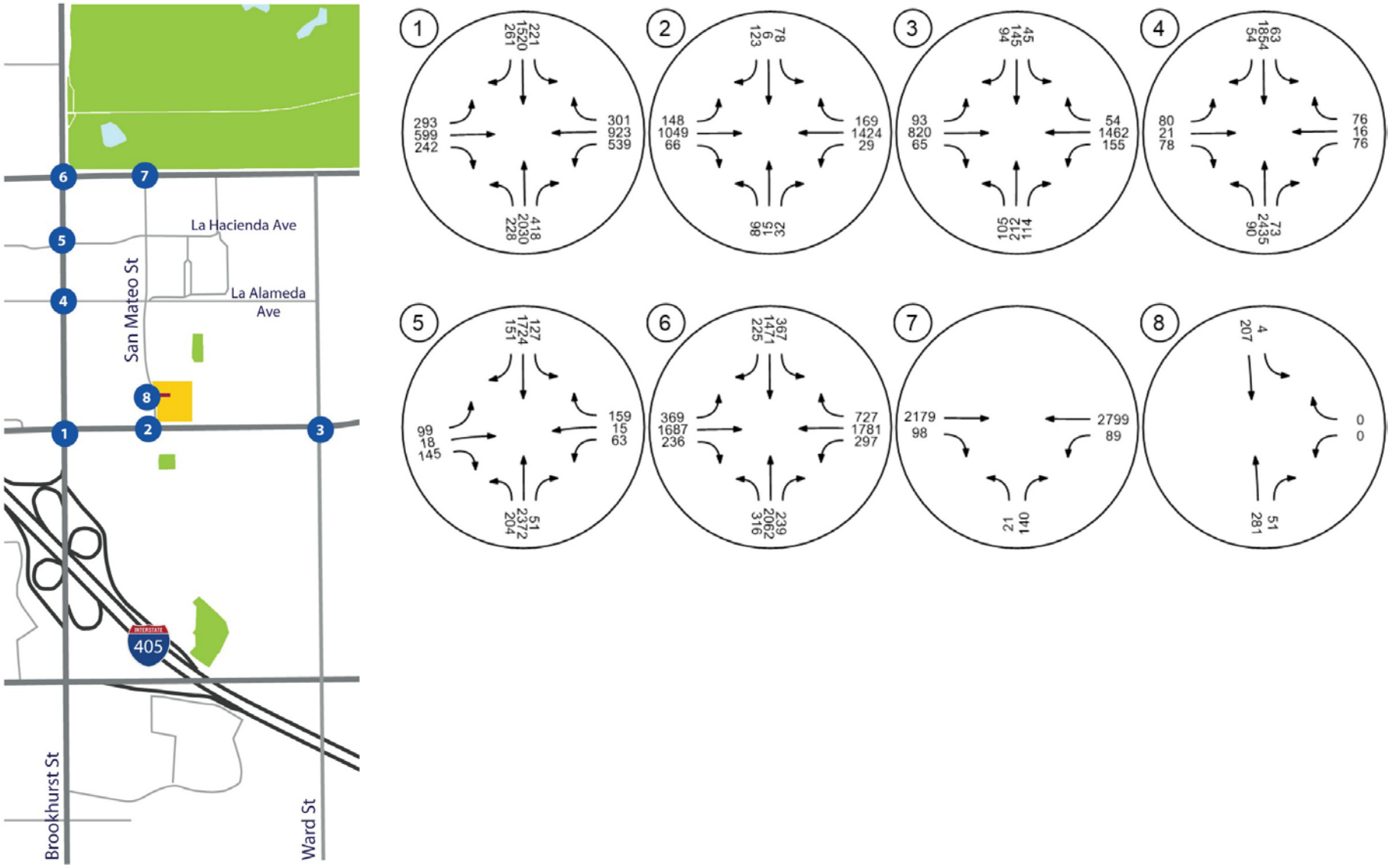


Figure 17: Opening Year Plus Project PM Hour Traffic Volumes



6 PROJECT MITIGATION AND FAIR SHARE

6.1 Recommended Improvements

Development of the proposed mixed-use project would result in a significant impact at the intersection of Brookhurst Street/Slater Avenue in the AM peak hour and at the intersection of San Mateo Street/Warner Avenue in both the AM and PM peak hours. The following improvements are recommended:

- #1- Brookhurst Street/Slater Avenue-

  It is recommended that the second eastbound-through lane be restriped to an eastbound shared through-right lane.

- #7- San Mateo Street/Warner Avenue-

  It is recommended that a signal be installed at this intersection as the peak hour Signal Warrant is met for the Existing baseline conditions. Signal Warrant Analysis for Existing baseline conditions for this intersection is attached in *Appendix D* of this TIA.

The improvements recommended above would mitigate the project impact to less than significant. Tables 9 and 10 show the mitigated project impact in the Existing plus Project and Opening Year (2023) plus Project Conditions.

Table 9. Mitigated Existing Plus Project AM Peak Hour Traffic Volumes

Intersection	Signal Control	Existing				Existing plus Project				Increase in V/C Ratio		Impact?		Mitigation Measure	Mitigated Existing plus Project				Increase in V/C Ratio		Impact?	
		AM Peak		PM Peak		AM Peak		PM Peak							AM Peak		PM Peak					
		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	AM	PM	AM	PM		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	AM	PM	AM	PM
1. Brookhurst St/Slater Ave	Signal	0.830	D	0.911	E	0.843	D	0.912	E	0.013	0.001	Yes	No	2nd EBT to EBTR	0.837	D	-	-	0.007	-	No	-
7. San Mateo St/Warner Ave	TWSC	10000.0	F	10000.0	F	10000.0	F	10000.0	F	-	-	Yes	Yes	Add Signal	0.562	A	0.643	B	-	-	No	No

=Unsatisfactory Intersection Operation TWSC = Two-Way Stop Controlled

[1] ICU in Volume/Capacity Ratio, Delay in Seconds

[2] Level of Service

Table 10. Mitigated Opening Year Plus Project AM Peak Hour Traffic Volumes

Intersection	Signal Control	Opening				Opening plus Project				Increase in V/C Ratio		Impact?		Mitigation Measure	Mitigated Opening plus Project				Increase in V/C Ratio		Impact?	
		AM Peak		PM Peak		AM Peak		PM Peak							AM Peak		PM Peak					
		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	AM	PM	AM	PM		ICU/ Delay[1]	LOS[2]	ICU/ Delay[1]	LOS[2]	AM	PM	AM	PM
1. Brookhurst St/Slater Ave	Signal	0.875	D	0.954	E	0.888	D	0.955	E	0.013	0.001	Yes	No	2nd EBT to EBTR	0.882	D	-	-	0.007	-	No	-
7. San Mateo St/Warner Ave	TWSC	10000.0	F	10000.0	F	10000.0	F	10000.0	F	-	-	Yes	Yes	Add Signal	0.593	A	0.677	B	-	-	No	No

=Unsatisfactory Intersection Operation TWSC = Two-Way Stop Controlled

[1] ICU in Volume/Capacity Ratio, Delay in Seconds

[2] Level of Service

6.2 Fair Share

The fair share for Opening Year project impacts at the intersections of Brookhurst Street/Slater Avenue and San Mateo Street/Warner Avenue is shown in Table 11 below.

Table 11. Mitigated Opening Year Plus Project AM Peak Hour Traffic Volumes

Intersection	Existing	Project	2023	2023 with Project	Total New Traffic 2023	Project % of New Traffic 2023	Recommended Improvements
AM Peak Hour							
1. Brookhurst St/Slater Ave	6576	52	6928	6980	404	12.87%	2nd EBT to EBTR
7. San Mateo St/Warner Ave	4059	5	4282	4287	228	2.19%	Add Signal
PM Peak Hour							
1. Brookhurst St/Slater Ave	7146	92	7532	7624	478	19.25%	2nd EBT to EBTR
7. San Mateo St/Warner Ave	5057	4	5322	5326	269	1.49%	Add Signal
Shading indicates higher fair-share percent of either AM or PM peak hours.							

7 Queueing

7.1 Parking Access

The Parking Structure will have one access point for both public restaurant parking and residential parking through the driveway on San Mateo Street/Slater Avenue. This access will be gated but open during business hours. Residents will have 24-hour gate entry via key card access. Residential parking areas will be further gated inside the parking structure and will be accessible only through key card access. Restaurant and public parking stalls will be clearly marked within the structure. Residential parking spaces will be assigned. Guest parking for the residences will be on the rooftop level of the parking structure. Electric charging stations will be provided on every residential level inside the structure.

7.2 Queueing Analysis using Crommelin Methodology

As mentioned in the section above, the parking structure will have one access point for both public parking and residential parking through the driveway on San Mateo/Slater Avenue. Although this access is gated, it will remain open during the business hours and hence no queueing is expected on the project driveway at the intersection of San Mateo Street/Slater Avenue. To ensure that residential vehicle queues do not back up within the parking structure, a queuing analysis was prepared using the methodology contained in Entrance-Exit Design and Control for Major Parking Facilities[1] (Crommelin Methodology). This analysis applies to the internal residential gate. The external gate was not analyzed as it would remain open during business hours and would therefore not experience queuing. This methodology uses a ratio of the average arrival rate and the average service rate to determine the number of vehicles that would be queued behind the access gate.

The arrival rate would be the number of vehicles that enter through the gates during a typical peak hour. The arrival rate would be the same as the inbound residential trip generation of the project. As discussed in the trip generation in Section 4.1, there would be 25 passenger vehicles entering the gate during the AM peak hour and 72 passenger vehicles entering the gate during the PM peak hour. The service rate is the number of vehicles per hour that can be served by the gate. The gates are designed to open or close in 25 seconds. A two second clearance time was assumed for the passenger vehicles to enter the gate. This would bring the total entry time per vehicle to 27 seconds. Utilizing this information, a service rate of 133 passenger vehicles per hour was obtained given the number of vehicles entering the structure during the PM peak hour. To determine the potential queue, the Traffic Intensity is calculated and compared to the graph “Reservoir Needs vs. Traffic Intensity” from the Crommelin report as shown in Figure 18. The Traffic Intensity is shown in Table 11.

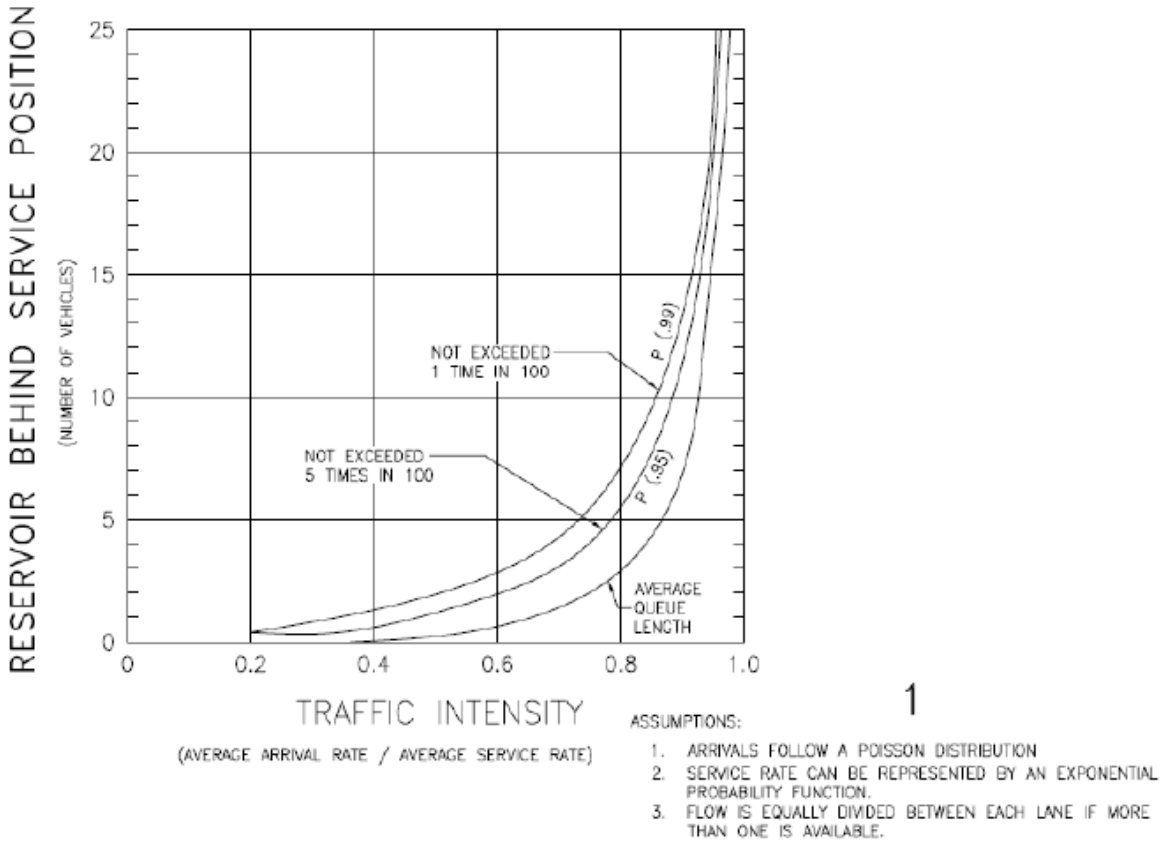
[1] *Entrance-Exit Design and Control for Major Parking Facilities*, Robert W. Crommelin, P.E., October 5, 1972..

Table 12. Gate Closed Traffic Intensity Calculation

	Average Arrival Rate	Average Service Rate	Traffic Intensity[1]
AM Peak Hour (Hour of Highest Inbound Volume)			
Residential Gate	72	133	0.54

[1] Traffic Intensity = Average Arrival Rate ÷ Average Service Rate.

Figure 18: Reservoir Needs vs Traffic Intensity



The expected traffic intensity of 0.54 would correspond to a provision of a two-car reservoir queuing at a given point of time during the peak hours. The parking structure allows for a queuing of 110 feet from the residential parking access gate within the structure. This length would be able to accommodate a queue of four passenger vehicles exceeding the two-car reservoir requirement without causing an overflow to the entrance of the parking structure.

APPENDIX A – TRAFFIC STUDY SCOPING CORRESPONDENCE

From: Kyle Hilton <Kyle.Hilton@fountainvalley.org>
Sent: Monday, May 24, 2021 4:49 PM
To: Abby Pal <abby@epdsolutions.com>; Temo Galvez <Temo.Galvez@fountainvalley.org>
Cc: Meghan Macias <meghan@epdsolutions.com>; Rafik Albert <rafik@epdsolutions.com>
Subject: RE: Fountain Valley Residential Project TIA

[NON-EPD]
Hi Abby,

I am in concurrence that trip generation and distribution will be analyzed in the proposed TIA and the study intersections, analysis scenarios, on site-circulation and queuing analysis are accurate as proposed per our discussion.

Regards,

Kyle Hilton
Associate Engineer
City of Fountain Valley, Public Works
714-593-4516

From: Abby Pal
Sent: Thursday, May 20, 2021 3:14 PM
To: Temo Galvez <Temo.Galvez@fountainvalley.org>; Kyle Hilton <Kyle.Hilton@fountainvalley.org>
Cc: Meghan Macias <meghan@epdsolutions.com>; Rafik Albert <rafik@epdsolutions.com>
Subject: Fountain Valley Residential Project TIA

Hi Kyle and Temo,

Thanks for taking the time to meet with EPD yesterday afternoon and providing direction on the TIA requirements.

As per our discussion yesterday, the applicant is still working out the total number of residential units but the number is unlikely to exceed 304 units, which as per the City TIA guidelines triggers the requirement of an LOS analysis. We also confirmed that the proposed project will have gates, and hence require queuing analysis.

Please review the outline attached below and confirm that we are covering all requirements for TIA study as required by the City.

Please let us know of your concurrence ASAP as we plan to take traffic counts early next week.

Requesting a list of Cumulative Projects applicable to the proposed development for Cumulative Scenario Analysis. Trip gen and trip distribution attached.

Project Description: *The existing site is comprised of 52,000 square feet of office space with 58 individual office suites, and 6,000 square feet of restaurant area (Silky Sullivans). The proposed project would redevelop the existing site with residential development of 304 units of market rate housing, 1300 square foot leasing office, and 7,200 square feet of restaurant space.*

Trip Generation: *The project would generate approximately 1,187 net new daily trips including 65 net new trips during the AM peak hour and 62 net new trips during the PM peak hour, as per ITE trip rates.*

Trip Distribution: *Approximately 25 percent of trips would travel north on I-405, 25 percent would travel south on I-405, 7 percent would travel north on San Mateo Avenue, 3 percent would travel north on Brookhurst Street, 10 percent would travel south on Brookhurst Street, 15 percent would travel west on Slater Avenue, and 15 percent would travel east on Slater Avenue.*

Study Intersections:

1. *Brookhurst Street/Slater Avenue*
2. *San Mateo Street/Slater Avenue*
3. *Ward Street/Slater Avenue*
4. *San Mateo Street/Ward Ave*
5. *Brookhurst Street/La Alameda Ave*
6. *Brookhurst Street/La Hacienda Ave*
7. *Brookhurst Street/Warner Ave*
8. *San Mateo Street/West Project Driveway*
9. *South Project Driveway/Slater Avenue*

Analysis Scenarios:

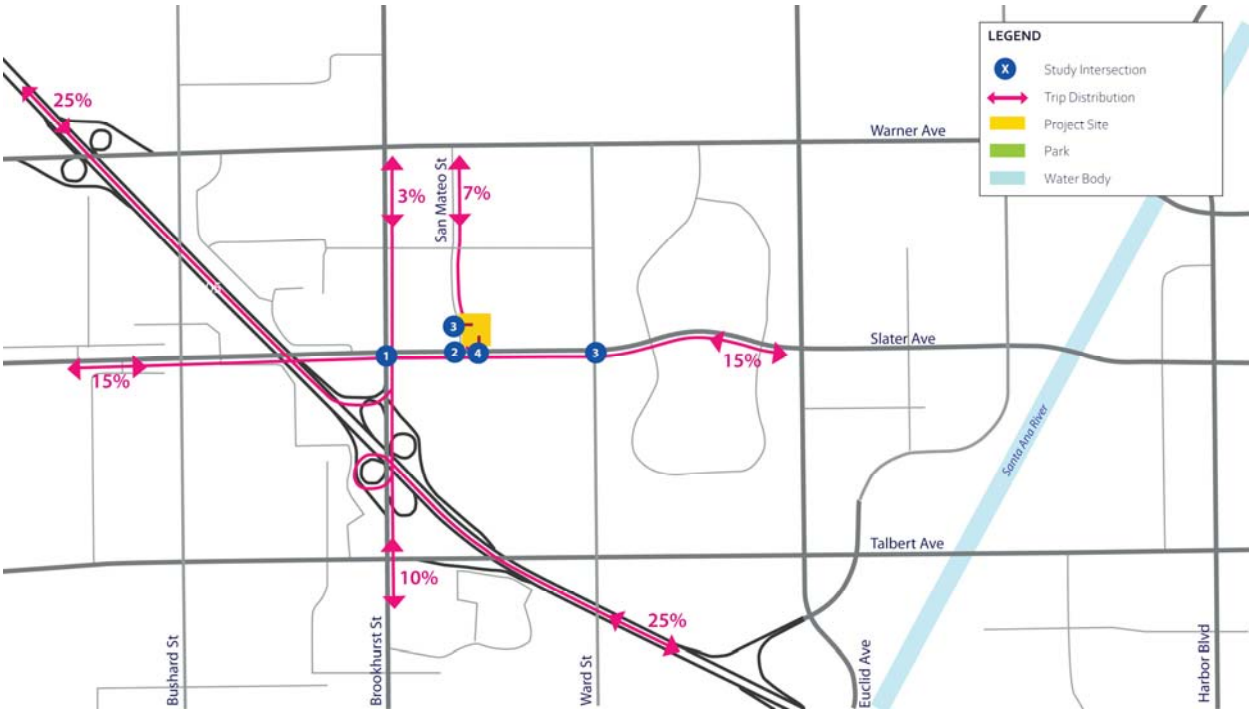
- Existing Conditions
- Existing plus Project Conditions
- Cumulative Baseline (Project Completion Year 2023)
- Cumulative plus Project

On-site Circulation: inclusive of driveway spacing, access points, pedestrian connections etc.

Queueing Analysis: for project driveways with opening and closing gates.

Best,

Abby Pal
E | P | D SOLUTIONS, INC.
abby@epdsolutions.com
949.794.1193 direct
412.636.2713 cell
2 Park Plaza Suite 1120
Irvine, CA 92614
www.epdsolutions.com


LEGEND
Study Intersection
Trip Distribution
Project Site
Park
Water Body
Warner Ave
Slater Ave
Talbert Ave
San Mateo St
Bushard St
Brookhurst St
Ward St
Euclid Ave
Harbor Blvd
Santa Ana River
25%
3%
7%
15%
15%
10%
25%

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Multifamily Housing (Mid-Rise)[1]		DU	5.44	0.09	0.27	0.36	0.27	0.17	0.44
High-Turnover (Sit-Down) Restaurant[2]		TSF	112.18	5.25	4.29	9.54	6.06	3.71	9.77
General Office Building[3]		TSF	9.740	1.00	0.16	1.16	0.18	0.97	1.15
Project Trip Generation									
Multifamily Housing (Mid-Rise)[1]	304	DU	1654	28	81	109	82	52	134
Internal Capture[5]			-132	-1	-8	-9	-5	-6	-11
High-Turnover (Sit-Down) Restaurant[2]	7.2	TSF	808	38	31	69	44	27	70
Pass By Trips[4]							*-19*	*-11*	*-30*
Internal Capture[6]			*-115*	*-8*	*-1*	*-9*	*-6*	*-5*	*-11*
			2214	57	103	160	96	56	152
Existing Uses on Site									
General Office Building[3]	49.4		481	49	8	57	9	48	57
Internal Capture[7]			-97	-7	-5	-12	0	-1	-1
High-Turnover Restaurant (Silky Sullivans)[2]	6.5		729	34	28	62	39	24	64
Pass By Trips[4]							*-17*	*-10*	*-27*
Internal Capture[8]			-86	-5	-7	-12	-1	-1	-2
			1027	71	24	95	30	60	90
Net Trip Generation			1187	-14	79	65	66	-4	62

DU = Dwelling Unit

TSF = Thousand Square Feet

[1] Trip rates from the Institute of Transporation Engineers, *Trip Generation, 10th Edition,* 2017, Land Use Code 221-Multifamily Housing (Mid-Rise)

[2] Trip rates from the Institute of Transporation Engineers, *Trip Generation, 10th Edition,* 2017, Land Use Code 932- High-Turnover (Sit-Down) Restaurant

[3] Trip rates from the Institute of Transporation Engineers, *Trip Generation, 10th Edition,* 2017, Land Use Code 710-General Office Building. A 95% occupancy was assumed for the general office building totaling an area of 52,000 square feet.

[4] PM Peak Period Pass-By trip rates of 47% for Land Use Code 932- High-Turnover (Sit-Down) Restaurant, from the Institute of Transporation Engineers, Trip Generation, 10th Edition, 2017.

[5] Internal capture of 8% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 4%, AM outbound - 10%. Internal capture of PM inbound - 6%, PM outbound -12%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

[6] Internal capture of 14.25% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 21%, AM outbound - 3%. Internal capture of PM inbound - 14%, PM outbound -19%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

[7] Internal capture of 20.25% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 14%, AM outbound - 63%. Internal capture of PM inbound - 2%, PM outbound -2%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

[8] Internal capture of 11.75% assumed for Daily trips obatined from an average of AM and PM peak hour internal trip capture percentages. Internal capture of AM inbound - 15%, AM outbound - 25%. Internal capture of PM inbound - 3%, PM outbound -4%. Peak hour internal capture rates were obtained from NCHRP Report 684 Internal Capture Estimator.

APPENDIX B – TRAFFIC COUNTS AND COUNT COMPARISON

Historic traffic volume data was obtained from the Fountain Valley Crossing Specific Plan Traffic Study (2015 counts) and from the City (2017 counts). The historic traffic count data was not available for every intersection in the study area for both 2015 and 2017 count data.

The following 2015 intersection counts were obtained from Fountain Valley Crossings Specific Plan Traffic study:

- Ward St/Slater Ave
- Brookhurst St/Warner Ave

The following 2017 intersection counts were provided by the City:

- Slater Ave/San Mateo Ave
- Ward St/Slater Ave
- Brookhurst St/La Alameda Ave
- Brookhurst St/La Hacienda Ave

EPD therefore collected new existing traffic counts at study intersection to preserve consistency of the counts and balanced flow at adjacent intersections. The traffic counts were adjusted using a Covid factor that was determined through comparison of the 2021 traffic counts with 2015 traffic counts from the Fountain Valley Crossings Specific Plan Traffic Study. The derivation of the AM ans PM covid factors through the comparison of 2015 counts projected to 2021 (with 2% growth rate applied) and existing 2021 counts collected by EPD is shown in the tables below. As noted on page 3 of the traffic study, a 75% escalation factor was applied to AM peak hour counts and a 52% escalation factor was applied to the PM peak hour counts.

2015 APPROACH From Fountain Valley Crossings Specific Plan TIA										
	AM Vol					PM Vol				
	NB	SB	EB	WB	Total Approach Vol	NB	SB	EB	WB	Total Approach Vol
Brookhurst St/Warner Ave	1029	2680	1909	1156	6774	1996	1410	1316	2559	7281
Ward St/Slater St	375	477	1245	829	2926	763	261	734	1368	3126

2021 APPROACH-Projected from 2015 with 2% Growth Rate										
	AM Vol					PM Vol				
	NB	SB	EB	WB	Total Approach Vol	NB	SB	EB	WB	Total Approach Vol
Brookhurst St/Warner Ave	1152.48	3001.6	2138.08	1294.72	7586.88	2235.52	1579.2	1473.92	2866.08	8154.72
Ward St/Slater St	420	534.24	1394.4	928.48	3277.12	854.56	292.32	822.08	1532.16	3501.12

2021 APPROACH-Existing										
	AM Vol					PM Vol				
	NB	SB	EB	WB	Total Approach Vol	NB	SB	EB	WB	Total Approach Vol
Brookhurst St/Warner Ave	797	1484	1171	1004	4456	1625	1281	1430	1736	6072
Ward St/Slater St	183	289	717	628	1817	238	169	604	1037	2048

Covid Factor Calculation		
	AM Vol Growth Rate	PM Vol Growth Rate
Brookhurst St/Warner Ave	1.70	1.34
Ward St/Slater St	1.80	1.71
AVG	**1.75**	**1.53**

The resulting existing Covid-adjusted baseline was higher than both the 2015 and 2017 traffic counts, and hence more conservative.

Intersection	2015 Intersection Volumes (Fountain Valley Crossings TIA)		2017 Intersection Volumes (City Provided)		2021 Existing Slater Ave Mixed-Use Intersection Volumes (Covid factor applied)	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
1. Brookhurst St/Slater Ave	-	-	-	-	6576	7146
2. San Mateo Ave/Slater Ave	-	-	2046	2541	2622	3021
3. Ward St/Slater Ave	2926	3126	2693	3073	3180	3134
4. Brookhurst St/La Alameda Ave	-	-	3324	3670	4040	4662
5. Brookhurst St/La Hacienda Ave	-	-	3252	3677	4097	4864
6. Brookhurst St/Warner Ave	6774	7281	-	-	7798	9290
7. San Mateo St/Warner Ave	-	-	-	-	4059	5057

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE:	LOCATION:	Fountain Valley	PROJECT #:	SC
Thu, May 27, 21	NORTH & SOUTH:	Brookhurst	LOCATION #:	1
	EAST & WEST:	Slater	CONTROL:	SIGNAL

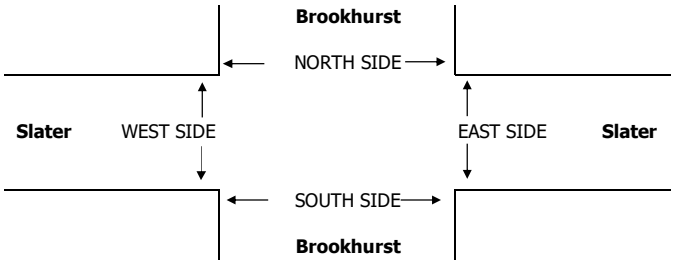
NOTES:

Queue SB AM

AM / PM / MD / OTHER / OTHER — N ▲ / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Brookhurst			SOUTHBOUND Brookhurst			EASTBOUND Slater			WESTBOUND Slater				U-TURNS				
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	24	113	46	21	208	17	13	48	43	43	33	10	619	2	0	2	0	4
	7:15 AM	30	122	33	12	246	14	14	48	47	58	56	8	688	3	0	1	0	4
	7:30 AM	42	129	40	29	236	22	20	94	56	62	69	13	812	4	1	3	0	8
	7:45 AM	47	184	47	33	236	27	23	112	52	62	98	29	950	1	1	4	0	6
	8:00 AM	29	169	48	26	289	27	37	104	51	54	86	30	950	1	0	4	0	5
	8:15 AM	30	153	45	24	296	26	45	89	50	59	95	27	939	2	0	5	0	7
	8:30 AM	44	174	35	27	260	27	37	117	66	48	62	21	918	6	0	4	0	10
	8:45 AM	40	179	37	22	267	27	32	75	40	47	75	26	867	4	1	4	0	9
	VOLUMES	286	1,223	331	194	2,038	187	221	687	405	433	574	164	6,743	23	3	27	0	53
	APPROACH %	16%	66%	18%	8%	84%	8%	17%	52%	31%	37%	49%	14%						
	APP/DEPART	1,840	/	1,584	2,419	/	2,899	1,313	/	1,209	1,171	/	1,051	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	150	680	175	110	1,081	107	142	422	219	223	341	107	3,757					
	APPROACH %	15%	68%	17%	8%	83%	8%	18%	54%	28%	33%	51%	16%						
	PEAK HR FACTOR		0.904			7.000			0.890			0.888		0.989					
	APP/DEPART	1,005	/	913	1,298	/	1,533	783	/	706	671	/	605	0					
PM	4:00 PM	33	307	50	32	286	47	32	66	32	71	129	45	1,130	5	4	6	0	15
	4:15 PM	39	303	46	34	222	48	30	89	23	82	142	63	1,121	5	1	3	2	11
	4:30 PM	24	296	60	32	240	40	48	99	41	95	162	51	1,188	4	1	3	0	8
	4:45 PM	44	297	60	44	211	41	42	98	23	77	150	43	1,130	4	1	2	0	7
	5:00 PM	34	356	54	30	246	47	40	81	30	85	131	48	1,182	0	1	2	0	3
	5:15 PM	40	308	59	31	237	36	54	93	56	73	137	46	1,170	2	1	4	2	9
	5:30 PM	39	305	59	25	208	56	58	109	42	78	135	45	1,159	3	1	3	0	7
	5:45 PM	54	357	57	34	241	40	38	74	33	48	104	40	1,120	5	3	2	0	10
	VOLUMES	307	2,529	445	262	1,891	355	342	709	280	609	1,090	381	9,200	28	13	25	4	70
	APPROACH %	9%	77%	14%	10%	75%	14%	26%	53%	21%	29%	52%	18%						
	APP/DEPART	3,281	/	3,240	2,508	/	2,804	1,331	/	1,407	2,080	/	1,749	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	142	1,257	233	137	934	164	184	371	150	330	580	188	4,670					
	APPROACH %	9%	77%	14%	11%	76%	13%	26%	53%	21%	30%	53%	17%						
	PEAK HR FACTOR		0.919			0.956			0.868			0.891		0.983					
	APP/DEPART	1,632	/	1,622	1,235	/	1,422	705	/	739	1,098	/	887	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	0	0	1	2	0	0	0	1	1	1	0	0	0	1
	7:15 AM	1	3	0	1	5	0	0	0	0	0	1	3	0	1	5
	7:30 AM	5	1	1	0	7	1	1	1	0	3	4	0	0	0	4
	7:45 AM	2	1	0	1	4	2	1	0	1	4	0	0	0	0	0
	8:00 AM	3	3	4	1	11	2	2	4	1	9	1	1	0	0	2
	8:15 AM	3	3	3	2	11	3	1	3	2	9	0	2	0	0	2
	8:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	8:45 AM	0	5	0	0	5	0	3	0	0	3	0	2	0	0	2
	TOTAL	16	16	8	6	46	9	8	8	5	30	7	8	0	1	16
	AM BEGIN PEAK HR			7:45 AM			8	4	7	4	23					
PM	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:15 PM	3	2	1	2	8	0	1	0	1	2	3	1	1	1	6
	4:30 PM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	4:45 PM	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
	5:00 PM	3	1	0	0	4	1	1	0	0	2	2	0	0	0	2
	5:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:45 PM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	TOTAL	9	8	1	3	21	3	5	0	2	10	6	3	1	1	11
	PM BEGIN PEAK HR			4:30 PM			2	2	0	1	5					

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Thu, May 27, 21

LOCATION: Fountain Valley
NORTH & SOUTH: San Mateo
EAST & WEST: Slater

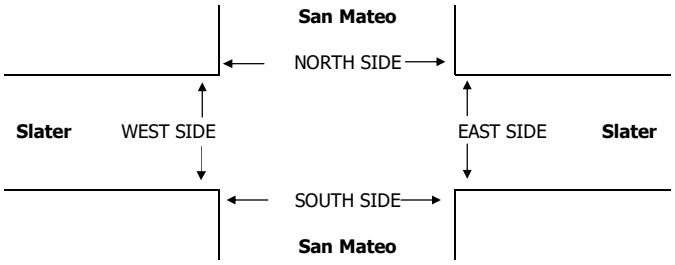
PROJECT #: SC
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND San Mateo			SOUTHBOUND San Mateo			EASTBOUND Slater			WESTBOUND Slater				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	0	1	9	0	18	10	84	10	3	81	9	229	0	0	0	0	0
AM	7:15 AM	1	0	4	6	0	11	5	96	4	4	92	10	233	0	0	1	2	3
AM	7:30 AM	12	1	4	17	1	23	5	142	3	3	118	1	330	0	0	2	2	4
AM	7:45 AM	8	2	3	27	0	19	7	169	7	6	159	19	426	0	0	1	1	2
AM	8:00 AM	2	1	8	23	0	22	9	159	3	4	166	22	419	0	0	0	1	1
AM	8:15 AM	6	0	0	6	1	9	6	148	5	0	129	12	322	0	0	0	0	0
AM	8:30 AM	7	1	4	8	1	22	9	145	7	3	98	15	320	0	0	0	2	2
AM	8:45 AM	10	3	0	8	4	18	12	109	7	1	123	4	299	0	0	1	0	1
AM	VOLUMES	50	8	24	104	7	142	63	1,052	46	24	966	92	2,578	0	0	5	8	13
AM	APPROACH %	61%	10%	29%	41%	3%	56%	5%	91%	4%	2%	89%	9%						
AM	APP/DEPART	82	/	158	253	/	69	1,161	/	1,188	1,082	/	1,163	0					
AM	BEGIN PEAK HR		7:30 AM																
AM	VOLUMES	28	4	15	73	2	73	27	618	18	13	572	54	1,497					
AM	APPROACH %	60%	9%	32%	49%	1%	49%	4%	93%	3%	2%	90%	8%						
AM	PEAK HR FACTOR		0.691			0.804			0.906			0.832		0.879					
AM	APP/DEPART	47	/	82	148	/	29	663	/	710	639	/	676	0					
PM	4:00 PM	8	3	4	6	2	14	10	145	8	4	249	16	469	0	0	1	2	3
PM	4:15 PM	7	0	4	10	2	10	17	138	5	5	245	23	466	0	0	2	1	3
PM	4:30 PM	11	2	3	14	0	27	15	178	12	3	255	24	544	0	0	2	1	3
PM	4:45 PM	12	3	3	14	3	13	23	147	17	4	192	21	452	0	0	2	0	2
PM	5:00 PM	20	3	6	5	0	22	16	149	7	8	231	34	501	0	0	0	2	2
PM	5:15 PM	11	1	8	16	1	15	12	175	5	3	207	22	476	0	0	1	2	3
PM	5:30 PM	9	1	3	15	2	14	10	178	6	3	219	24	484	0	0	1	1	2
PM	5:45 PM	5	1	1	6	1	13	16	136	3	4	181	30	397	0	0	0	0	0
PM	VOLUMES	83	14	32	86	11	128	119	1,246	63	34	1,779	194	3,789	0	0	9	9	18
PM	APPROACH %	64%	11%	25%	38%	5%	57%	8%	87%	4%	2%	89%	10%						
PM	APP/DEPART	129	/	318	225	/	99	1,428	/	1,373	2,007	/	1,999	0					
PM	BEGIN PEAK HR		4:30 PM																
PM	VOLUMES	54	9	20	49	4	77	66	649	41	18	885	101	1,973					
PM	APPROACH %	65%	11%	24%	38%	3%	59%	9%	86%	5%	2%	88%	10%						
PM	PEAK HR FACTOR		0.716			0.793			0.922			0.890		0.907					
PM	APP/DEPART	83	/	171	130	/	58	756	/	723	1,004	/	1,021	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	2	0	2	0	4	1	0	1	0	2	1	0	1	0	2
AM	7:15 AM	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1
AM	7:30 AM	7	0	1	0	8	2	0	1	0	3	5	0	0	0	5
AM	7:45 AM	2	2	0	0	4	2	1	0	0	3	0	1	0	0	1
AM	8:00 AM	4	0	1	0	5	2	0	1	0	3	2	0	0	0	2
AM	8:15 AM	1	3	1	0	5	1	1	0	0	2	0	2	1	0	3
AM	8:30 AM	1	1	2	0	4	1	1	2	0	4	0	0	0	0	0
AM	8:45 AM	0	3	2	0	5	0	1	2	0	3	0	2	0	0	2
AM	TOTAL	18	10	9	0	37	10	4	7	0	21	8	6	2	0	16
AM	AM BEGIN PEAK HR			7:30 AM			7	2	2	0	11					
PM	4:00 PM	0	0	3	1	4	0	0	3	0	3	0	0	0	1	1
PM	4:15 PM	3	0	0	3	6	0	0	0	0	0	3	0	0	3	6
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	1	1	1	0	3	0	0	0	0	0	1	1	1	0	3
PM	5:00 PM	1	3	5	1	10	1	2	3	0	6	0	1	2	1	4
PM	5:15 PM	1	1	1	0	3	0	1	1	0	2	1	0	0	0	1
PM	5:30 PM	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1
PM	5:45 PM	1	1	2	0	4	1	1	2	0	4	0	0	0	0	0
PM	TOTAL	7	7	13	5	32	2	4	10	0	16	5	3	3	5	16
PM	PM BEGIN PEAK HR			4:30 PM			1	3	4	0	8					

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Thu, May 27, 21

LOCATION: Fountain Valley
NORTH & SOUTH: Ward
EAST & WEST: Slater

PROJECT #: SC
LOCATION #: 3
CONTROL: SIGNAL

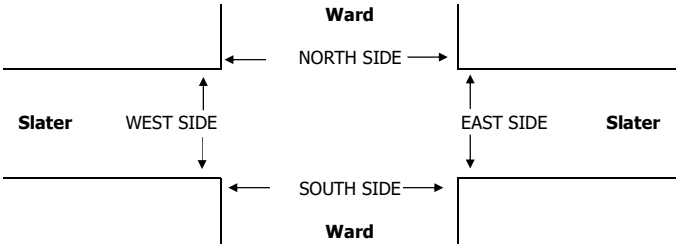
NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

Add U-Turns to Left Turns

		NORTHBOUND Ward			SOUTHBOUND Ward			EASTBOUND Slater			WESTBOUND Slater				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	5	6	3	20	20	8	69	1	10	57	1	203	0	0	1	0	1
	7:15 AM	2	5	8	2	15	13	5	80	16	12	74	0	232	0	0	3	0	3
	7:30 AM	2	4	18	16	23	11	12	126	27	22	91	1	353	0	0	2	0	2
	7:45 AM	10	22	39	31	50	14	22	171	29	26	127	16	557	0	0	2	0	2
	8:00 AM	7	26	23	18	46	33	48	112	27	40	156	38	574	0	0	3	0	3
	8:15 AM	4	14	14	10	20	17	9	114	20	14	96	1	333	0	0	2	0	2
	8:30 AM	4	3	7	3	27	11	15	110	16	18	68	4	286	0	0	3	0	3
	8:45 AM	4	20	15	4	22	9	11	98	11	15	105	3	317	0	0	1	0	1
	VOLUMES	36	99	130	87	223	128	130	880	147	157	774	64	2,855	0	0	17	0	17
	APPROACH %	14%	37%	49%	20%	51%	29%	11%	76%	13%	16%	78%	6%						
	APP/DEPART	265	/	276	438	/	527	1,157	/	1,097	995	/	955	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	23	66	94	75	139	75	91	523	103	102	470	56	1,817					
	APPROACH %	13%	36%	51%	26%	48%	26%	13%	73%	14%	16%	75%	9%						
	PEAK HR FACTOR		0.644			0.745			0.807			0.671		0.791					
	APP/DEPART	183	/	204	289	/	344	717	/	692	628	/	577	0					
PM	4:00 PM	12	19	24	7	18	17	16	114	8	40	240	10	525	0	0	0	0	0
	4:15 PM	14	29	15	6	19	19	12	123	10	16	241	8	512	0	0	4	0	4
	4:30 PM	26	24	13	8	23	11	15	138	9	22	230	8	527	0	0	3	0	3
	4:45 PM	12	31	19	7	22	12	15	134	10	19	195	8	484	0	0	2	0	2
	5:00 PM	22	39	18	9	19	14	9	134	9	11	192	10	486	0	0	1	0	1
	5:15 PM	24	27	24	5	23	13	14	130	12	24	178	7	481	0	0	2	0	2
	5:30 PM	25	22	18	3	15	13	11	148	14	21	193	3	486	0	0	0	0	0
	5:45 PM	27	19	13	3	25	9	16	122	11	17	174	6	442	0	0	0	0	0
	VOLUMES	162	210	144	48	164	108	108	1,043	83	170	1,643	60	3,943	0	0	12	0	12
	APPROACH %	31%	41%	28%	15%	51%	34%	9%	85%	7%	9%	88%	3%						
	APP/DEPART	516	/	366	320	/	417	1,234	/	1,235	1,873	/	1,925	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	64	103	71	28	82	59	58	509	37	97	906	34	2,048					
	APPROACH %	27%	43%	30%	17%	49%	35%	10%	84%	6%	9%	87%	3%						
	PEAK HR FACTOR		0.944			0.960			0.932			0.894		0.972					
	APP/DEPART	238	/	186	169	/	216	604	/	608	1,037	/	1,038	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	26	1	3	0	30	25	1	3	0	29	1	0	0	0	1
	7:45 AM	16	3	0	6	25	16	1	0	3	20	0	2	0	3	5
	8:00 AM	29	0	0	0	29	28	0	0	0	28	1	0	0	0	1
	8:15 AM	1	2	1	0	4	0	1	1	0	2	1	1	0	0	2
	8:30 AM	5	4	3	2	14	5	4	3	2	14	0	0	0	0	0
	8:45 AM	1	2	1	1	5	1	1	1	1	4	0	1	0	0	1
	TOTAL	78	14	8	9	109	75	9	8	6	98	3	5	0	3	11
	AM BEGIN PEAK HR			7:30 AM			69	3	4	3	79					
PM	4:00 PM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
	4:15 PM	6	0	0	1	7	2	0	0	0	2	4	0	0	1	5
	4:30 PM	4	0	0	0	4	4	0	0	0	4	0	0	0	0	0
	4:45 PM	21	2	2	3	28	16	0	0	0	16	5	2	2	3	12
	5:00 PM	4	2	1	3	10	1	0	1	1	3	3	2	0	2	7
	5:15 PM	8	0	1	3	12	7	0	1	2	10	1	0	0	1	2
	5:30 PM	7	4	0	1	12	7	0	0	1	8	0	4	0	0	4
	5:45 PM	7	3	0	0	10	5	2	0	0	7	2	1	0	0	3
	TOTAL	58	11	4	12	85	43	2	2	5	52	15	9	2	7	33
	PM BEGIN PEAK HR			4:00 PM			23	0	0	1	24					

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Thu, May 27, 21

LOCATION: Fountain Valley
NORTH & SOUTH: San Mateo
EAST & WEST: Warner

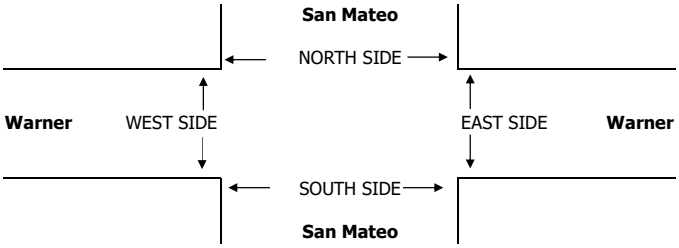
PROJECT #: SC
LOCATION #: 4
CONTROL: STOP N

NOTES:
Queue WB PM

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND San Mateo			SOUTHBOUND San Mateo			EASTBOUND Warner			WESTBOUND Warner				U-TURNS				
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 3	ER 0	WL 1	WT 3	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	6	0	0	0	0	185	2	7	144	0	344	0	0	0	0	0
	7:15 AM	3	0	6	0	0	0	0	230	2	18	208	0	467	0	0	0	2	2
	7:30 AM	6	0	6	0	0	0	0	255	3	12	245	0	527	0	0	0	1	1
	7:45 AM	2	0	9	0	0	0	0	369	5	10	254	0	649	0	0	0	0	0
	8:00 AM	5	0	17	0	0	0	0	283	12	10	225	0	552	0	0	0	0	0
	8:15 AM	2	0	14	0	0	0	0	281	12	16	266	0	591	0	0	0	0	0
	8:30 AM	3	0	11	0	0	0	0	272	9	9	196	0	500	0	0	0	0	0
	8:45 AM	1	0	13	0	0	0	0	296	9	14	219	0	552	0	0	0	0	0
	VOLUMES	22	0	82	0	0	0	0	2,171	54	96	1,757	0	4,182	0	0	0	3	3
	APPROACH %	21%	0%	79%	0%	0%	0%	0%	98%	2%	5%	95%	0%						
	APP/DEPART	104	/	0	0	/	147	2,225	/	2,256	1,853	/	1,779	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	15	0	46	0	0	0	0	1,188	32	48	990	0	2,319					
	APPROACH %	25%	0%	75%	0%	0%	0%	0%	97%	3%	5%	95%	0%						
	PEAK HR FACTOR		0.693			0.000			0.816			0.920		0.893					
	APP/DEPART	61	/	0	0	/	79	1,220	/	1,235	1,038	/	1,005	0					
PM	4:00 PM	4	0	23	0	0	0	0	308	10	10	410	0	765	0	0	0	1	1
	4:15 PM	6	0	22	0	0	0	0	347	12	4	446	0	837	0	0	0	1	1
	4:30 PM	6	0	17	0	0	0	0	340	10	14	419	0	806	0	0	0	0	0
	4:45 PM	2	0	14	0	0	0	0	362	14	16	425	0	833	0	0	0	0	0
	5:00 PM	3	0	28	0	0	0	0	304	9	10	429	0	783	0	0	0	0	0
	5:15 PM	2	0	29	0	0	0	0	351	26	16	459	0	883	0	0	0	1	1
	5:30 PM	3	0	22	0	0	0	0	326	7	10	419	0	787	0	0	0	0	0
	5:45 PM	7	0	11	0	0	0	0	286	15	26	365	0	710	0	0	0	1	1
	VOLUMES	33	0	166	0	0	0	0	2,624	103	106	3,372	0	6,404	0	0	0	4	4
	APPROACH %	17%	0%	83%	0%	0%	0%	0%	96%	4%	3%	97%	0%						
	APP/DEPART	199	/	0	0	/	205	2,727	/	2,794	3,478	/	3,405	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	13	0	88	0	0	0	0	1,357	59	56	1,732	0	3,305					
	APPROACH %	13%	0%	87%	0%	0%	0%	0%	96%	4%	3%	97%	0%						
	PEAK HR FACTOR		0.815			0.000			0.939			0.941		0.936					
	APP/DEPART	101	/	0	0	/	114	1,416	/	1,446	1,788	/	1,745	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	7:15 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	7:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:45 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	5	0	0	5	0	4	0	0	4	0	1	0	0	1
	8:30 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:45 AM	1	2	0	0	3	0	2	0	0	2	1	0	0	0	1
	TOTAL	2	13	0	2	17	0	12	0	2	14	2	1	0	0	3
	AM BEGIN PEAK HR	7:30 AM					0	6	0	0	6					
PM	4:00 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	4:15 PM	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
	4:30 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	4:45 PM	0	4	0	0	4	0	4	0	0	4	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:45 PM	2	1	0	0	3	0	0	0	0	0	2	1	0	0	3
	TOTAL	3	12	0	0	15	0	8	0	0	8	3	4	0	0	7
	PM BEGIN PEAK HR	4:30 PM					0	5	0	0	5					

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Thu, May 27, 21

LOCATION: Fountain Valley
NORTH & SOUTH: Brookhurst
EAST & WEST: La Alameda

PROJECT #: SC
LOCATION #: 5
CONTROL: SIGNAL

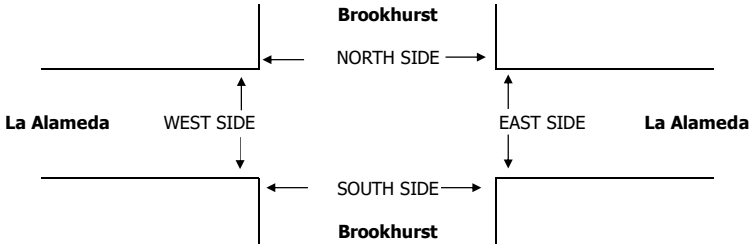
NOTES:
Queue NB/SB AM/PM

AM
PM
MD
OTHER
OTHER

N
W
E
S

Add U-Turns to Left Turns

		NORTHBOUND Brookhurst			SOUTHBOUND Brookhurst			EASTBOUND La Alameda			WESTBOUND La Alameda				U-TURNS				
	LANES:	NL 1	NT 3	NR 1	SL 1	ST 3	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	118	12	12	211	7	1	0	7	5	0	6	385	2	0	0	0	2
	7:15 AM	2	132	3	11	276	8	0	2	5	7	0	6	452	0	0	0	0	0
	7:30 AM	5	153	7	11	301	4	4	1	12	12	2	3	515	0	2	0	0	2
	7:45 AM	6	212	8	8	318	8	7	2	11	5	0	9	594	0	0	0	0	0
	8:00 AM	8	210	7	12	285	3	1	3	8	6	2	6	551	1	0	0	0	1
	8:15 AM	11	192	10	10	333	11	3	0	5	6	1	6	588	1	1	0	0	2
	8:30 AM	6	203	8	11	310	10	4	2	8	4	2	7	575	3	1	0	0	4
	8:45 AM	8	184	21	9	282	5	2	3	10	12	1	7	544	0	1	0	0	1
	VOLUMES	52	1,404	76	84	2,316	56	22	13	66	57	8	50	4,204	7	5	0	0	12
	APPROACH %	3%	92%	5%	3%	94%	2%	22%	13%	65%	50%	7%	43%						
	APP/DEPART	1,532	/	1,481	2,456	/	2,446	101	/	168	115	/	109	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	31	817	33	41	1,246	32	15	7	32	21	5	28	2,308					
	APPROACH %	4%	93%	4%	3%	94%	2%	28%	13%	59%	39%	9%	52%						
	PEAK HR FACTOR		0.975			0.931			0.675			0.964		0.971					
	APP/DEPART	881	/	862	1,319	/	1,304	54	/	79	54	/	63	0					
PM	4:00 PM	7	359	8	10	291	6	11	3	12	16	4	10	737	1	1	0	0	2
	4:15 PM	16	369	11	10	290	9	10	3	14	12	2	9	755	3	3	0	0	6
	4:30 PM	21	366	11	6	289	11	7	1	13	16	1	16	758	3	2	0	0	5
	4:45 PM	8	370	9	11	279	10	13	3	16	11	4	14	748	1	2	0	0	3
	5:00 PM	12	406	15	13	284	4	20	6	6	9	3	9	787	4	2	0	0	6
	5:15 PM	11	381	14	16	278	8	9	1	5	12	1	10	746	1	4	0	0	5
	5:30 PM	25	351	12	9	285	7	14	1	11	12	2	6	735	4	4	0	0	8
	5:45 PM	15	415	14	8	285	8	11	1	4	6	1	11	779	5	1	0	0	6
	VOLUMES	115	3,017	94	83	2,281	63	95	19	81	94	18	85	6,045	22	19	0	0	41
	APPROACH %	4%	94%	3%	3%	94%	3%	49%	10%	42%	48%	9%	43%						
	APP/DEPART	3,226	/	3,216	2,427	/	2,478	195	/	177	197	/	174	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	57	1,511	46	40	1,142	34	50	13	49	48	10	48	3,048					
	APPROACH %	4%	94%	3%	3%	94%	3%	45%	12%	44%	45%	9%	45%						
	PEAK HR FACTOR		0.932			0.984			0.875			0.803		0.968					
	APP/DEPART	1,614	/	1,618	1,216	/	1,250	112	/	90	106	/	90	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	1	0	3	4	0	1	0	1	2	0	0	0	2	2
	7:15 AM	2	0	2	3	7	2	0	2	2	6	0	0	0	1	1
	7:30 AM	0	0	4	1	5	0	0	4	0	4	0	0	0	1	1
	7:45 AM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	8:00 AM	0	1	2	1	4	0	1	2	1	4	0	0	0	0	0
	8:15 AM	0	0	6	0	6	0	0	6	0	6	0	0	0	0	0
	8:30 AM	0	1	2	0	3	0	1	1	0	2	0	0	1	0	1
	8:45 AM	4	3	1	2	10	4	3	0	2	9	0	0	1	0	1
	TOTAL	6	6	18	12	42	6	6	16	8	36	0	0	2	4	6
	AM BEGIN PEAK HR			7:45 AM			0	2	10	3	15					
PM	4:00 PM	3	0	0	3	6	3	0	0	2	5	0	0	0	1	1
	4:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:30 PM	1	0	1	0	2	1	0	1	0	2	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:00 PM	1	0	0	1	2	1	0	0	0	1	0	0	0	1	1
	5:15 PM	0	0	1	2	3	0	0	0	2	2	0	0	1	0	1
	5:30 PM	2	0	0	3	5	2	0	0	3	5	0	0	0	0	0
	5:45 PM	3	1	0	1	5	3	1	0	1	5	0	0	0	0	0
	TOTAL	11	2	2	10	25	11	1	1	8	21	0	1	1	2	4
	PM BEGIN PEAK HR			4:15 PM			3	0	1	0	4					

INTERSECTION TURNING MOVEMENT COUNTS

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

T218

DATE: Thu, May 27, 21

LOCATION: Fountain Valley
NORTH & SOUTH: Brookhurst
EAST & WEST: La Hacienda

PROJECT #: SC
LOCATION #: 6
CONTROL: SIGNAL

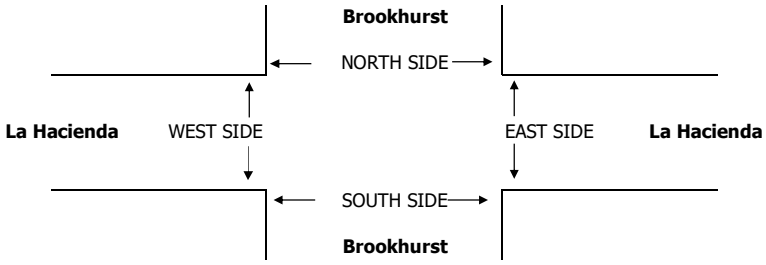
NOTES:
Queue NB PM

AM / PM / MD / OTHER / OTHER

N ▲ S ▼ W ◄ E ►

Add U-Turns to Left Turns

		NORTHBOUND Brookhurst			SOUTHBOUND Brookhurst			EASTBOUND La Hacienda			WESTBOUND La Hacienda				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	8	125	2	12	241	1	2	0	2	6	0	7	406	2	1	0	0	3
	7:15 AM	12	137	3	6	298	4	2	0	3	3	2	12	482	0	2	0	0	2
	7:30 AM	9	157	2	3	315	4	3	0	0	5	0	11	509	2	0	0	0	2
	7:45 AM	26	205	3	14	315	4	3	0	8	3	2	13	596	1	4	0	0	5
	8:00 AM	27	185	6	10	280	12	4	2	8	6	0	10	550	0	1	0	0	1
	8:15 AM	24	161	5	17	352	10	8	1	14	4	2	14	612	0	2	0	0	2
	8:30 AM	28	205	2	10	288	10	3	1	21	5	0	10	583	2	0	0	0	2
	8:45 AM	20	176	1	17	289	6	4	1	19	9	3	9	554	2	1	0	0	3
	VOLUMES	154	1,351	24	89	2,378	51	29	5	75	41	9	86	4,292	9	11	0	0	20
	APPROACH %	10%	88%	2%	4%	94%	2%	27%	5%	69%	30%	7%	63%						
	APP/DEPART	1,529	/	1,477	2,518	/	2,503	109	/	107	136	/	205	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	105	756	16	51	1,235	36	18	4	51	18	4	47	2,341					
	APPROACH %	12%	86%	2%	4%	93%	3%	25%	5%	70%	26%	6%	68%						
	PEAK HR FACTOR		0.933			0.872			0.730			0.863		0.956					
	APP/DEPART	877	/	828	1,322	/	1,307	73	/	64	69	/	142	0					
PM	4:00 PM	30	323	7	19	261	24	19	1	23	10	2	20	739	0	3	0	0	3
	4:15 PM	28	358	4	30	250	18	13	3	23	8	2	24	761	2	10	0	0	12
	4:30 PM	42	366	9	10	257	25	18	1	35	11	2	18	794	4	1	0	0	5
	4:45 PM	31	360	7	20	258	28	16	5	22	7	4	22	780	2	2	0	0	4
	5:00 PM	27	386	7	17	300	20	15	2	20	12	1	24	831	1	1	0	0	2
	5:15 PM	31	358	7	19	233	25	12	1	32	11	3	29	761	0	3	0	0	3
	5:30 PM	39	367	11	24	269	22	19	3	17	10	1	25	807	2	0	0	0	2
	5:45 PM	40	332	11	15	267	18	16	1	32	18	4	22	776	3	0	0	0	3
	VOLUMES	268	2,850	63	154	2,095	180	128	17	204	87	19	184	6,249	14	20	0	0	34
	APPROACH %	8%	90%	2%	6%	86%	7%	37%	5%	58%	30%	7%	63%						
	APP/DEPART	3,181	/	3,182	2,429	/	2,400	349	/	214	290	/	453	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	128	1,471	32	80	1,060	95	62	11	91	40	9	100	3,179					
	APPROACH %	8%	90%	2%	6%	86%	8%	38%	7%	55%	27%	6%	67%						
	PEAK HR FACTOR		0.971			0.916			0.911			0.866		0.956					
	APP/DEPART	1,631	/	1,639	1,235	/	1,196	164	/	117	149	/	227	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:15 AM	1	0	2	1	4	1	0	1	0	2	0	0	1	1	2
	7:30 AM	0	0	3	1	4	0	0	3	0	3	0	0	0	1	1
	7:45 AM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	8:00 AM	0	1	2	0	3	0	1	2	0	3	0	0	0	0	0
	8:15 AM	0	1	4	1	6	0	1	4	1	6	0	0	0	0	0
	8:30 AM	0	0	2	0	2	0	0	1	0	1	0	0	1	0	1
	8:45 AM	1	0	2	2	5	1	0	1	2	4	0	0	1	0	1
	TOTAL	2	2	16	7	27	2	2	13	5	22	0	0	3	2	5
	AM BEGIN PEAK HR			7:45 AM			0	2	8	2	12					
PM	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:15 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	4:30 PM	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:15 PM	1	0	2	3	6	1	0	1	3	5	0	0	1	0	1
	5:30 PM	1	0	1	1	3	1	0	1	1	3	0	0	0	0	0
	5:45 PM	0	0	0	3	3	0	0	0	3	3	0	0	0	0	0
	TOTAL	2	4	5	8	19	2	3	3	7	15	0	1	2	1	4
	PM BEGIN PEAK HR			4:45 PM			2	1	2	4	9					

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Thu, May 27, 21

LOCATION: Fountain Valley
NORTH & SOUTH: Brookhurst
EAST & WEST: Warner

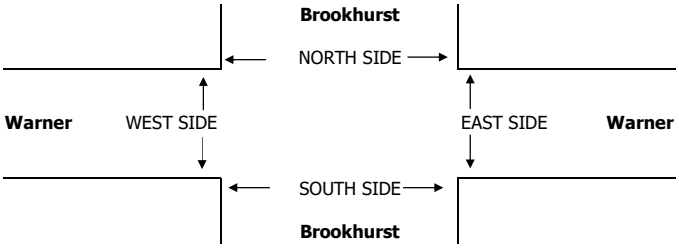
PROJECT #: SC
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND Brookhurst			SOUTHBOUND Brookhurst			EASTBOUND Warner			WESTBOUND Warner				U-TURNS				
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	14	82	21	35	186	26	22	143	15	17	127	22	710	1	0	1	3	5
	7:15 AM	20	104	16	63	281	33	19	155	31	16	166	17	921	1	1	2	1	5
	7:30 AM	35	132	24	60	262	51	29	178	26	20	189	26	1,032	1	0	3	2	6
	7:45 AM	48	136	25	97	264	51	42	280	28	28	194	43	1,236	2	0	1	2	5
	8:00 AM	32	155	29	55	244	24	39	209	40	22	166	40	1,055	1	0	3	0	4
	8:15 AM	32	123	26	63	281	32	37	220	43	38	191	47	1,133	0	1	2	1	4
	8:30 AM	31	166	22	72	262	29	25	202	33	27	122	33	1,024	0	1	2	0	3
	8:45 AM	29	134	22	78	221	23	31	248	35	27	159	36	1,043	1	0	0	2	3
	VOLUMES	241	1,032	185	523	2,001	269	244	1,635	251	195	1,314	264	8,154	7	3	14	11	35
	APPROACH %	17%	71%	13%	19%	72%	10%	11%	77%	12%	11%	74%	15%						
	APP/DEPART	1,458	/	1,529	2,793	/	2,443	2,130	/	2,351	1,773	/	1,831	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	147	546	104	275	1,051	158	147	887	137	108	740	156	4,456					
	APPROACH %	18%	69%	13%	19%	71%	11%	13%	76%	12%	11%	74%	16%						
	PEAK HR FACTOR		0.922			0.900			0.836			0.909		0.901					
	APP/DEPART	797	/	841	1,484	/	1,295	1,171	/	1,270	1,004	/	1,050	0					
PM	4:00 PM	46	324	35	47	228	36	55	252	46	37	276	101	1,483	2	2	4	2	10
	4:15 PM	61	311	46	58	202	41	48	256	37	45	298	106	1,509	1	3	1	0	5
	4:30 PM	46	300	34	64	207	32	57	267	40	44	264	117	1,472	2	1	3	1	7
	4:45 PM	51	336	40	58	252	41	54	264	36	44	280	103	1,559	1	1	2	3	7
	5:00 PM	54	312	36	51	223	27	64	259	30	58	268	106	1,488	2	1	3	4	10
	5:15 PM	41	341	34	52	233	41	57	267	35	34	297	121	1,553	2	0	1	1	4
	5:30 PM	46	306	35	56	201	28	67	240	41	53	242	124	1,439	3	0	5	4	12
	5:45 PM	44	296	23	50	255	31	51	226	29	37	221	114	1,377	0	1	1	3	5
	VOLUMES	389	2,526	283	436	1,801	277	453	2,031	294	352	2,146	892	11,880	13	9	20	18	60
	APPROACH %	12%	79%	9%	17%	72%	11%	16%	73%	11%	10%	63%	26%						
	APP/DEPART	3,198	/	3,860	2,514	/	2,442	2,778	/	2,759	3,390	/	2,819	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	192	1,289	144	225	915	141	232	1,057	141	180	1,109	447	6,072					
	APPROACH %	12%	79%	9%	18%	71%	11%	16%	74%	10%	10%	64%	26%						
	PEAK HR FACTOR		0.951			0.912			0.982			0.960		0.974					
	APP/DEPART	1,625	/	1,962	1,281	/	1,234	1,430	/	1,432	1,736	/	1,444	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	0	2	2	5	1	0	1	1	3	0	0	1	1	2
	7:15 AM	0	0	3	1	4	0	0	3	0	3	0	0	0	1	1
	7:30 AM	1	0	1	0	2	0	0	1	0	1	1	0	0	0	1
	7:45 AM	2	0	2	2	6	1	0	2	2	5	1	0	0	0	1
	8:00 AM	0	0	4	0	4	0	0	4	0	4	0	0	0	0	0
	8:15 AM	0	2	2	1	5	0	2	2	1	5	0	0	0	0	0
	8:30 AM	0	2	8	0	10	0	2	7	0	9	0	0	1	0	1
	8:45 AM	3	2	3	0	8	1	2	2	0	5	2	0	1	0	3
	TOTAL	7	6	25	6	44	3	6	22	4	35	4	0	3	2	9
	AM BEGIN PEAK HR			7:30 AM			1	2	9	3	15					
PM	4:00 PM	2	0	1	3	6	2	0	0	2	4	0	0	1	1	2
	4:15 PM	2	0	1	0	3	2	0	1	0	3	0	0	0	0	0
	4:30 PM	2	2	0	1	5	2	0	0	1	3	0	2	0	0	2
	4:45 PM	2	1	2	0	5	1	1	2	0	4	1	0	0	0	1
	5:00 PM	3	0	2	2	7	3	0	2	2	7	0	0	0	0	0
	5:15 PM	5	0	2	4	11	5	0	2	2	9	0	0	0	2	2
	5:30 PM	2	0	0	1	3	2	0	0	0	2	0	0	0	1	1
	5:45 PM	5	4	2	1	12	2	3	2	0	7	3	1	0	1	5
	TOTAL	23	7	10	12	52	19	4	9	7	39	4	3	1	5	13
	PM BEGIN PEAK HR			4:30 PM			11	1	6	5	23					

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:					
Thu, Jun 1, 17	LOCATION:	Fountain Valley	PROJECT #:	SC1199	
	NORTH & SOUTH:	Brookhurst	LOCATION #:	8	
	EAST & WEST:	Alameda	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Brookhurst			SOUTHBOUND Brookhurst			EASTBOUND Alameda			WESTBOUND Alameda			
	LANES:	NL 1	NT 3	NR 1	SL 1	ST 3	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	3	144	11	30	540	3	1	2	9	13	1	0	757
	7:15 AM	4	182	10	26	530	3	6	3	9	5	1	11	790
	7:30 AM	11	233	15	15	531	2	0	4	15	17	0	11	854
	7:45 AM	12	254	12	27	516	4	5	6	18	12	2	10	878
	8:00 AM	6	244	20	18	431	7	5	5	15	8	0	9	768
	8:15 AM	15	232	21	22	478	10	3	8	12	10	5	8	824
	8:30 AM	10	204	20	15	499	7	8	0	12	11	2	6	794
	8:45 AM	16	244	16	18	487	8	1	3	15	7	2	5	822
	VOLUMES	77	1,737	125	171	4,012	44	29	31	105	83	13	60	6,487
	APPROACH %	4%	90%	6%	4%	95%	1%	18%	19%	64%	53%	8%	38%	
	APP/DEPART	1,939	/	1,829	4,227	/	4,213	165	/	324	156	/	121	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	44	963	68	82	1,956	23	13	23	60	47	7	38	3,324
	APPROACH %	4%	90%	6%	4%	95%	1%	14%	24%	63%	51%	8%	41%	
	PEAK HR FACTOR		0.967			0.940			0.828			0.821		0.946
	APP/DEPART	1,075	/	1,016	2,061	/	2,072	96	/	171	92	/	65	0
MIDDAY	11:00 AM	22	287	9	4	293	6	11	5	6	16	2	6	667
	11:15 AM	9	294	7	5	290	3	8	2	9	7	3	11	648
	11:30 AM	24	315	13	6	307	6	7	1	4	14	2	10	709
	11:45 AM	26	365	13	11	296	7	14	0	11	20	4	12	779
	12:00 PM	26	355	17	5	326	7	10	2	14	17	1	12	792
	12:15 PM	24	317	14	13	305	8	14	4	8	14	3	4	728
	12:30 PM	33	352	15	9	339	7	7	2	11	22	2	14	813
	12:45 PM	22	347	12	21	298	4	14	6	16	19	0	14	773
	VOLUMES	186	2,632	100	74	2,454	48	85	22	79	129	17	83	5,909
	APPROACH %	6%	90%	3%	3%	95%	2%	46%	12%	42%	56%	7%	36%	
	APP/DEPART	2,918	/	2,809	2,576	/	2,707	186	/	187	229	/	206	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	109	1,389	59	38	1,266	29	45	8	44	73	10	42	3,112
	APPROACH %	7%	89%	4%	3%	95%	2%	46%	8%	45%	58%	8%	34%	
	PEAK HR FACTOR		0.963			0.939			0.933			0.822		0.957
	APP/DEPART	1,557	/	1,480	1,333	/	1,414	97	/	101	125	/	117	0
PM	4:00 PM	19	477	16	9	313	9	12	2	9	24	3	25	918
	4:15 PM	17	500	23	5	310	1	12	1	8	23	1	15	916
	4:30 PM	22	453	15	8	334	5	13	2	7	30	3	27	919
	4:45 PM	12	472	16	8	317	7	6	2	10	28	7	32	917
	5:00 PM	16	472	26	7	284	6	8	2	9	35	3	30	898
	5:15 PM	20	457	19	5	325	10	14	6	10	35	1	32	934
	5:30 PM	26	439	20	10	302	5	11	4	5	29	7	26	884
	5:45 PM	12	409	16	11	286	5	25	3	12	21	5	25	830
	VOLUMES	144	3,679	151	63	2,471	48	101	22	70	225	30	212	7,216
	APPROACH %	4%	93%	4%	2%	96%	2%	52%	11%	36%	48%	6%	45%	
	APP/DEPART	3,974	/	4,001	2,582	/	2,793	193	/	227	467	/	195	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	70	1,902	70	30	1,274	22	43	7	34	105	14	99	3,670
	APPROACH %	3%	93%	3%	2%	96%	2%	51%	8%	40%	48%	6%	45%	
	PEAK HR FACTOR		0.945			0.955			0.913			0.813		0.998
	APP/DEPART	2,042	/	2,047	1,326	/	1,425	84	/	104	218	/	94	0

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Fountain Valley	PROJECT #:	SC1199
Thu, Jun 1, 17	NORTH & SOUTH:	Brookhurst	LOCATION #:	9
	EAST & WEST:	La Hacienda	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

		NORTHBOUND Brookhurst			SOUTHBOUND Brookhurst			EASTBOUND La Hacienda			WESTBOUND La Hacienda			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	3	0	1	3	0	1	1	0	0	1	0	
AM	7:00 AM	15	146	1	9	537	2	2	0	5	8	1	12	738
	7:15 AM	8	177	0	23	541	3	3	0	14	9	0	19	797
	7:30 AM	9	226	3	5	554	4	2	0	7	10	1	15	836
	7:45 AM	13	260	3	18	537	7	5	0	10	2	0	12	867
	8:00 AM	22	213	6	30	418	7	8	0	11	6	1	23	745
	8:15 AM	27	220	1	28	482	9	10	1	13	4	0	9	804
	8:30 AM	20	193	5	19	513	8	7	1	11	3	3	7	790
	8:45 AM	17	230	3	23	468	6	5	0	15	11	0	18	796
	VOLUMES	131	1,665	22	155	4,050	46	42	2	86	53	6	115	6,373
	APPROACH %	7%	92%	1%	4%	95%	1%	32%	2%	66%	30%	3%	66%	
	APP/DEPART	1,818	/	1,830	4,251	/	4,198	130	/	171	174	/	174	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	71	919	13	81	1,991	27	25	1	41	22	2	59	3,252
	APPROACH %	7%	92%	1%	4%	95%	1%	37%	1%	61%	27%	2%	71%	
	PEAK HR FACTOR		0.909			0.932			0.698			0.692		0.938
	APP/DEPART	1,003	/	1,008	2,099	/	2,056	67	/	90	83	/	98	0
MIDDAY	11:00 AM	38	269	4	17	257	19	8	1	27	8	4	12	664
	11:15 AM	44	267	5	14	272	12	8	2	34	8	4	20	690
	11:30 AM	47	303	4	15	267	18	9	3	27	8	2	13	716
	11:45 AM	47	342	6	22	279	13	12	2	25	5	2	14	769
	12:00 PM	46	311	1	17	299	14	9	1	29	10	1	11	749
	12:15 PM	58	283	7	14	292	23	17	1	40	12	4	11	762
	12:30 PM	48	313	6	10	317	23	6	2	29	3	2	13	772
	12:45 PM	38	330	4	12	328	13	12	0	28	3	1	7	776
	VOLUMES	366	2,418	37	121	2,311	135	81	12	239	57	20	101	5,898
	APPROACH %	13%	86%	1%	5%	90%	5%	24%	4%	72%	32%	11%	57%	
	APP/DEPART	2,821	/	2,611	2,567	/	2,622	332	/	159	178	/	506	0
	BEGIN PEAK HR		12:00 PM											
	VOLUMES	190	1,237	18	53	1,236	73	44	4	126	28	8	42	3,059
	APPROACH %	13%	86%	1%	4%	91%	5%	25%	2%	72%	36%	10%	54%	
	PEAK HR FACTOR		0.971			0.965			0.750			0.722		0.986
	APP/DEPART	1,445	/	1,330	1,362	/	1,394	174	/	68	78	/	267	0
PM	4:00 PM	29	485	4	17	296	23	10	2	35	7	4	5	917
	4:15 PM	31	459	3	21	249	12	13	0	24	8	2	24	846
	4:30 PM	35	471	3	18	301	24	13	1	29	6	2	19	922
	4:45 PM	37	458	4	18	301	17	15	1	18	15	5	14	903
	5:00 PM	31	496	5	20	284	18	12	1	27	13	11	16	934
	5:15 PM	17	476	4	31	311	19	10	1	24	7	5	13	918
	5:30 PM	26	458	9	34	280	20	9	5	25	9	6	28	909
	5:45 PM	24	414	9	17	282	12	15	5	20	14	5	27	844
	VOLUMES	230	3,717	41	176	2,304	145	97	16	202	79	40	146	7,193
	APPROACH %	6%	93%	1%	7%	88%	6%	31%	5%	64%	30%	15%	55%	
	APP/DEPART	3,988	/	3,977	2,625	/	2,595	315	/	216	265	/	405	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	120	1,901	16	87	1,197	78	50	4	98	41	23	62	3,677
	APPROACH %	6%	93%	1%	6%	88%	6%	33%	3%	64%	33%	18%	49%	
	PEAK HR FACTOR		0.957			0.943			0.884			0.788		0.984
	APP/DEPART	2,037	/	2,023	1,362	/	1,341	152	/	97	126	/	216	0

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Fountain Valley	PROJECT #:	SC1199
Thu, Jun 1, 17	NORTH & SOUTH:	San Mateo	LOCATION #:	16
	EAST & WEST:	Slater	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND San Mateo			SOUTHBOUND San Mateo			EASTBOUND Slater			WESTBOUND Slater			
	LANES:	NL 0	NT 1	NR 0	SL 1	ST 0.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	10	0	2	15	1	32	5	170	7	4	116	9	371
	7:15 AM	7	0	2	19	4	20	8	205	5	4	116	8	398
	7:30 AM	10	0	3	21	1	43	12	205	5	0	203	9	512
	7:45 AM	9	3	8	30	1	25	10	277	9	1	164	16	553
	8:00 AM	15	3	9	38	2	22	18	253	8	5	125	30	528
	8:15 AM	17	3	2	15	0	18	16	184	10	4	156	28	453
	8:30 AM	10	2	1	8	0	23	14	183	7	3	141	13	405
	8:45 AM	9	0	4	7	3	24	7	183	10	5	120	7	379
	VOLUMES	87	11	31	153	12	207	90	1,660	61	26	1,141	120	3,599
	APPROACH %	67%	9%	24%	41%	3%	56%	5%	92%	3%	2%	89%	9%	
	APP/DEPART	129	/	220	372	/	96	1,811	/	1,847	1,287	/	1,436	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	51	9	22	104	4	108	56	919	32	10	648	83	2,046
	APPROACH %	62%	11%	27%	48%	2%	50%	6%	91%	3%	1%	87%	11%	
	PEAK HR FACTOR		0.759			0.831			0.851			0.874		0.925
	APP/DEPART	82	/	148	216	/	45	1,007	/	1,046	741	/	807	0
MIDDAY	11:00 AM	14	3	6	12	2	16	8	104	7	1	118	12	303
	11:15 AM	13	2	3	20	1	12	17	112	9	2	105	14	310
	11:30 AM	7	0	4	6	1	14	27	127	9	7	139	16	357
	11:45 AM	20	4	3	12	2	14	23	123	14	4	132	14	365
	12:00 PM	22	2	5	17	3	16	12	155	5	8	152	11	408
	12:15 PM	10	0	8	16	3	20	14	181	13	3	139	6	413
	12:30 PM	12	0	4	36	2	26	20	179	17	3	123	8	430
	12:45 PM	7	0	8	25	2	11	28	169	10	8	153	25	446
	VOLUMES	105	11	41	144	16	129	149	1,150	84	36	1,061	106	3,032
	APPROACH %	67%	7%	26%	50%	6%	45%	11%	83%	6%	3%	88%	9%	
	APP/DEPART	157	/	249	289	/	127	1,383	/	1,344	1,203	/	1,312	0
	BEGIN PEAK HR		12:00 PM											
	VOLUMES	51	2	25	94	10	73	74	684	45	22	567	50	1,697
	APPROACH %	65%	3%	32%	53%	6%	41%	9%	85%	6%	3%	89%	8%	
	PEAK HR FACTOR		0.672			0.691			0.929			0.859		0.951
	APP/DEPART	78	/	119	177	/	72	803	/	808	639	/	698	0
PM	4:00 PM	15	3	6	16	5	40	7	152	9	4	256	22	535
	4:15 PM	9	2	2	12	1	22	19	145	5	4	286	23	530
	4:30 PM	9	3	4	20	2	29	14	148	13	2	300	35	579
	4:45 PM	17	2	4	22	3	36	24	165	11	4	307	33	628
	5:00 PM	25	9	9	17	2	28	26	145	16	3	322	37	639
	5:15 PM	15	5	3	25	0	26	20	159	6	1	338	40	638
	5:30 PM	12	3	4	21	4	20	24	141	9	1	334	63	636
	5:45 PM	10	2	3	12	2	20	25	143	6	1	351	51	626
	VOLUMES	112	29	35	145	19	221	159	1,198	75	20	2,494	304	4,811
	APPROACH %	64%	16%	20%	38%	5%	57%	11%	84%	5%	1%	89%	11%	
	APP/DEPART	176	/	468	385	/	112	1,432	/	1,380	2,818	/	2,851	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	69	19	20	85	9	110	94	610	42	9	1,301	173	2,541
	APPROACH %	64%	18%	19%	42%	4%	54%	13%	82%	6%	1%	88%	12%	
	PEAK HR FACTOR		0.628			0.836			0.933			0.932		0.994
	APP/DEPART	108	/	267	204	/	58	746	/	717	1,483	/	1,499	0

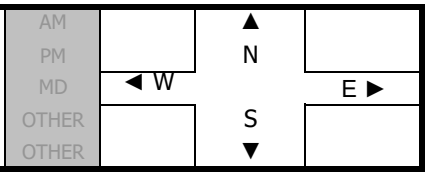
INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Fountain Valley	PROJECT #:	SC1199
Wed, May 31, 17	NORTH & SOUTH:	Ward	LOCATION #:	17
	EAST & WEST:	Slater	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER



	NORTHBOUND Ward			SOUTHBOUND Ward			EASTBOUND Slater			WESTBOUND Slater			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM													
7:00 AM	4	16	12	7	42	20	12	137	16	15	61	2	344
7:15 AM	4	30	14	14	53	19	9	165	21	20	77	5	431
7:30 AM	10	45	18	8	53	23	19	200	28	26	116	3	549
7:45 AM	7	35	33	21	68	26	23	205	35	55	159	3	670
8:00 AM	3	53	71	43	79	10	36	251	31	42	125	8	752
8:15 AM	11	56	32	12	57	18	38	183	36	69	189	21	722
8:30 AM	3	43	40	5	49	17	19	111	25	35	83	10	440
8:45 AM	7	42	17	10	44	21	16	143	26	25	89	6	446
VOLUMES	49	320	237	120	445	154	172	1,395	218	287	899	58	4,354
APPROACH %	8%	53%	39%	17%	62%	21%	10%	78%	12%	23%	72%	5%	
APP/DEPART	606	/	538	719	/	949	1,785	/	1,753	1,244	/	1,114	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	31	189	154	84	257	77	116	839	130	192	589	35	2,693
APPROACH %	8%	51%	41%	20%	61%	18%	11%	77%	12%	24%	72%	4%	
PEAK HR FACTOR		0.736			0.792			0.853			0.731		0.895
APP/DEPART	374	/	334	418	/	579	1,085	/	1,077	816	/	703	0
MIDDAY													
1:00 PM	18	34	20	3	25	13	16	127	22	26	147	12	463
1:15 PM	13	30	19	1	23	14	11	137	19	22	103	4	396
1:30 PM	16	36	31	9	28	9	9	112	20	23	136	8	437
1:45 PM	11	33	25	16	34	19	13	128	19	30	131	4	463
2:00 PM	17	41	26	8	36	15	22	111	21	26	164	13	500
2:15 PM	22	43	31	6	28	8	25	123	21	42	173	8	530
2:30 PM	20	49	39	8	39	13	19	123	16	26	136	6	494
2:45 PM	20	47	38	16	29	15	21	138	14	41	231	13	623
VOLUMES	137	313	229	67	242	106	136	999	152	236	1,221	68	3,906
APPROACH %	20%	46%	34%	16%	58%	26%	11%	78%	12%	15%	80%	4%	
APP/DEPART	679	/	504	415	/	629	1,287	/	1,296	1,525	/	1,477	0
BEGIN PEAK HR		2:00 PM											
VOLUMES	79	180	134	38	132	51	87	495	72	135	704	40	2,147
APPROACH %	20%	46%	34%	17%	60%	23%	13%	76%	11%	15%	80%	5%	
PEAK HR FACTOR		0.910			0.921			0.945			0.771		0.862
APP/DEPART	393	/	299	221	/	339	654	/	667	879	/	842	0
PM													
4:00 PM	32	101	24	6	38	10	20	127	10	34	259	22	683
4:15 PM	34	87	38	3	35	5	13	96	12	32	304	15	674
4:30 PM	45	87	25	3	29	11	22	150	13	36	269	10	700
4:45 PM	41	106	33	2	32	14	13	134	36	35	316	26	788
5:00 PM	33	105	28	6	32	15	35	151	13	46	273	18	755
5:15 PM	52	126	24	4	42	11	16	132	29	35	303	14	788
5:30 PM	45	84	26	5	40	13	16	123	23	35	321	11	742
5:45 PM	54	98	41	4	26	11	29	130	17	31	298	14	753
VOLUMES	336	794	239	33	274	90	164	1,043	153	284	2,343	130	5,883
APPROACH %	25%	58%	17%	8%	69%	23%	12%	77%	11%	10%	85%	5%	
APP/DEPART	1,369	/	1,074	397	/	711	1,360	/	1,315	2,757	/	2,783	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	171	421	111	17	146	53	80	540	101	151	1,213	69	3,073
APPROACH %	24%	60%	16%	8%	68%	25%	11%	75%	14%	11%	85%	5%	
PEAK HR FACTOR		0.870			0.931			0.906			0.950		0.975
APP/DEPART	703	/	565	216	/	398	721	/	668	1,433	/	1,442	0

APPENDIX C – LEVEL OF SERVICE CALCULATIONS

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Existing AM.pdf

Scenario 1 Existing AM
1/28/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst St/Slater Ave	Signalized	ICU 2	SB Thru	0.830	-	D
2	Slater Ave/San Mateo Ave	Signalized	ICU 2	EB Thru	0.498	-	A
3	Ward St/Slater Ave	Signalized	ICU 2	WB Thru	0.577	-	A
4	Brookhurst St/La Alameda Ave	Signalized	ICU 2	SB Thru	0.576	-	A
5	Brookhurst St/La Hacienda Ave	Signalized	ICU 2	SB Thru	0.672	-	B
6	Brookhurst St/Warner Ave	Signalized	ICU 2	SB Thru	0.838	-	D
7	San Mateo St/Warner Ave	Two-way stop	HCM 6th Edition	NB Right	0.938	10,000.0	F
8	San Mateo Ave/Project Dwy 1	Two-way stop	HCM 6th Edition	SB Thru	0.003	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Brookhurst St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	195.00	100.00	140.00	195.00	100.00	100.00	195.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	298	77	48	473	47	62	185	96	98	149	47
Total Analysis Volume [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Pedestrian Volume [ped/h]	8			9			5			8		
Bicycle Volume [bicycles/h]	8			7			1			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.23	0.18	0.06	0.37	0.09	0.15	0.22	0.23	0.11	0.18	0.11
Intersection LOS	D											
Intersection V/C	0.830											

Intersection Level Of Service Report
Intersection 2: Slater Ave/San Mateo Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.498

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	49	7	26	128	4	128	47	1082	32	23	1001	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	7	26	128	4	128	47	1082	32	23	1001	95
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	2	7	32	1	32	12	271	8	6	250	24
Total Analysis Volume [veh/h]	49	7	26	128	4	128	47	1082	32	23	1001	95
Pedestrian Volume [ped/h]	4			10			0			7		
Bicycle Volume [bicycles/h]	6			8			0			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.05	0.05	0.08	0.08	0.08	0.03	0.33	0.33	0.01	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.498											

Intersection Level Of Service Report
Intersection 3: Ward St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	116	165	131	243	131	159	915	180	179	823	98
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	116	165	131	243	131	159	915	180	179	823	98
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	29	41	33	61	33	40	229	45	45	206	25
Total Analysis Volume [veh/h]	40	116	165	131	243	131	159	915	180	179	823	98
Pedestrian Volume [ped/h]	9			75			6			8		
Bicycle Volume [bicycles/h]	5			3			3			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.08	0.08	0.08	0.11	0.11	0.09	0.27	0.11	0.11	0.27	0.27
Intersection LOS	A											
Intersection V/C	0.577											

Intersection Level Of Service Report
Intersection 4: Brookhurst St/La Alameda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.576

Intersection Setup

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

Volumes

Name												
Base Volume Input [veh/h]	54	1430	58	72	2181	56	26	12	56	37	9	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	1430	58	72	2181	56	26	12	56	37	9	49
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	358	15	18	545	14	7	3	14	9	2	12
Total Analysis Volume [veh/h]	54	1430	58	72	2181	56	26	12	56	37	9	49
Pedestrian Volume [ped/h]	6			6			8			16		
Bicycle Volume [bicycles/h]	0			0			4			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.28	0.03	0.04	0.44	0.44	0.02	0.06	0.06	0.02	0.06	0.06
Intersection LOS	A											
Intersection V/C	0.576											

Intersection Level Of Service Report
Intersection 5: Brookhurst St/La Hacienda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.672

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	195.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	184	1323	28	89	2161	63	32	7	89	32	7	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	184	1323	28	89	2161	63	32	7	89	32	7	82
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	331	7	22	540	16	8	2	22	8	2	21
Total Analysis Volume [veh/h]	184	1323	28	89	2161	63	32	7	89	32	7	82
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.26	0.26	0.05	0.44	0.44	0.02	0.08	0.08	0.02	0.07	0.07
Intersection LOS	B											
Intersection V/C	0.672											

Intersection Level Of Service Report
Intersection 6: Brookhurst St/Warner Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.838

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	0	2	0	0	2	0	1
Entry Pocket Length [ft]	210.00	100.00	165.00	250.00	100.00	100.00	150.00	100.00	100.00	200.00	100.00	205.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	257	956	182	481	1839	277	257	1552	240	189	1295	273
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	257	956	182	481	1839	277	257	1552	240	189	1295	273
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	239	46	120	460	69	64	388	60	47	324	68
Total Analysis Volume [veh/h]	257	956	182	481	1839	277	257	1552	240	189	1295	273
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.19	0.11	0.14	0.36	0.16	0.08	0.30	0.14	0.06	0.25	0.16
Intersection LOS	D											
Intersection V/C	0.838											

Intersection Level Of Service Report
Intersection 7: San Mateo St/Warner Ave

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.938

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	145.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	26	81	2079	56	84	1733
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	81	2079	56	84	1733
Peak Hour Factor	0.6930	0.6930	0.8160	0.8160	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	29	637	17	23	471
Total Analysis Volume [veh/h]	38	117	2548	69	91	1884
Pedestrian Volume [ped/h]	12		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.94	0.03	0.00	1.55	0.02
d_M, Delay for Movement [s/veh]	10000.00	10000.00	0.00	0.00	432.11	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	22.02	22.02	0.00	0.00	8.21	0.00
95th-Percentile Queue Length [ft/ln]	550.38	550.38	0.00	0.00	205.13	0.00
d_A, Approach Delay [s/veh]	10000.00		0.00		19.91	
Approach LOS	F		A		C	
d_I, Intersection Delay [s/veh]	334.81					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 8: San Mateo Ave/Project Dwy 1

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

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

Volumes

Name						
Base Volume Input [veh/h]	149	0	0	260	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	149	0	0	260	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	0	0	65	0	0
Total Analysis Volume [veh/h]	149	0	0	260	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.51	0.00	11.01	9.01
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.01	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Existing AM.pdf
Scenario 1 Existing AM
1/28/2022

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Brookhurst St/Slater Ave	263	1190	306	193	1892	187	249	739	383	390	597	187	6576

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Slater Ave/San Mateo Ave	49	7	26	128	4	128	47	1082	32	23	1001	95	2622

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Ward St/Slater Ave	40	116	165	131	243	131	159	915	180	179	823	98	3180

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Brookhurst St/La Alameda Ave	54	1430	58	72	2181	56	26	12	56	37	9	49	4040

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Brookhurst St/La Hacienda Ave	184	1323	28	89	2161	63	32	7	89	32	7	82	4097

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Brookhurst St/Warner Ave	257	956	182	481	1839	277	257	1552	240	189	1295	273	7798

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
7	San Mateo St/Warner Ave	26	81	2079	56	84	1733	4059

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
8	San Mateo Ave/Project Dwy 1	149	0	0	260	0	0	409

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Existing PM.pdf

Scenario 2 Existing PM
1/28/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst St/Slater Ave	Signalized	ICU 2	NB Thru	0.911	-	E
2	Slater Ave/San Mateo Ave	Signalized	ICU 2	WB Thru	0.658	-	B
3	Ward St/Slater Ave	Signalized	ICU 2	WB Thru	0.628	-	B
4	Brookhurst St/La Alameda Ave	Signalized	ICU 2	NB Thru	0.667	-	B
5	Brookhurst St/La Hacienda Ave	Signalized	ICU 2	NB Thru	0.750	-	C
6	Brookhurst St/Warner Ave	Signalized	ICU 2	WB Right	1.047	-	F
7	San Mateo St/Warner Ave	Two-way stop	HCM 6th Edition	NB Right	1.045	10,000.0	F
8	San Mateo Ave/Project Dwy 1	Two-way stop	HCM 6th Edition	NB Thru	0.003	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Brookhurst St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.911

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	195.00	100.00	140.00	195.00	100.00	100.00	195.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	217	1923	356	210	1429	251	282	568	230	505	887	288
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	217	1923	356	210	1429	251	282	568	230	505	887	288
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	481	89	53	357	63	71	142	58	126	222	72
Total Analysis Volume [veh/h]	217	1923	356	210	1429	251	282	568	230	505	887	288
Pedestrian Volume [ped/h]	5			3			2			0		
Bicycle Volume [bicycles/h]	3			6			1			1		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.38	0.21	0.06	0.28	0.15	0.17	0.17	0.14	0.15	0.26	0.17
Intersection LOS	E											
Intersection V/C	0.911											

Intersection Level Of Service Report
Intersection 2: Slater Ave/San Mateo Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	83	14	31	75	6	118	101	993	63	28	1354	155
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	83	14	31	75	6	118	101	993	63	28	1354	155
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	4	8	19	2	30	25	248	16	7	339	39
Total Analysis Volume [veh/h]	83	14	31	75	6	118	101	993	63	28	1354	155
Pedestrian Volume [ped/h]	4			2			0			10		
Bicycle Volume [bicycles/h]	3			5			5			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.08	0.08	0.04	0.07	0.07	0.06	0.31	0.31	0.02	0.44	0.44
Intersection LOS	B											
Intersection V/C	0.658											

Intersection Level Of Service Report
Intersection 3: Ward St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.628

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	98	158	109	43	125	90	89	779	57	148	1386	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	158	109	43	125	90	89	779	57	148	1386	52
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	40	27	11	31	23	22	195	14	37	347	13
Total Analysis Volume [veh/h]	98	158	109	43	125	90	89	779	57	148	1386	52
Pedestrian Volume [ped/h]	2			43			5			2		
Bicycle Volume [bicycles/h]	9			15			7			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.08	0.08	0.03	0.06	0.06	0.05	0.23	0.03	0.09	0.42	0.42
Intersection LOS	B											
Intersection V/C	0.628											

Intersection Level Of Service Report
Intersection 4: Brookhurst St/La Alameda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

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

Volumes

Name												
Base Volume Input [veh/h]	87	2312	70	61	1747	52	77	20	75	73	15	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	87	2312	70	61	1747	52	77	20	75	73	15	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	578	18	15	437	13	19	5	19	18	4	18
Total Analysis Volume [veh/h]	87	2312	70	61	1747	52	77	20	75	73	15	73
Pedestrian Volume [ped/h]	1			11			8			1		
Bicycle Volume [bicycles/h]	1			0			2			1		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.45	0.04	0.04	0.35	0.35	0.05	0.10	0.10	0.04	0.09	0.09
Intersection LOS	B											
Intersection V/C	0.667											

Intersection Level Of Service Report
Intersection 5: Brookhurst St/La Hacienda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.750

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	195.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	196	2251	49	122	1622	145	95	17	139	61	14	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	196	2251	49	122	1622	145	95	17	139	61	14	153
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	563	12	31	406	36	24	4	35	15	4	38
Total Analysis Volume [veh/h]	196	2251	49	122	1622	145	95	17	139	61	14	153
Pedestrian Volume [ped/h]	2			2			5			13		
Bicycle Volume [bicycles/h]	0			0			2			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.45	0.45	0.07	0.35	0.35	0.06	0.15	0.15	0.04	0.13	0.13
Intersection LOS	C											
Intersection V/C	0.750											

Intersection Level Of Service Report
Intersection 6: Brookhurst St/Warner Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.047

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	0	2	0	0	2	0	1
Entry Pocket Length [ft]	210.00	100.00	165.00	250.00	100.00	100.00	150.00	100.00	100.00	200.00	100.00	205.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	294	1972	220	344	1400	216	355	1617	216	275	1697	684
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	294	1972	220	344	1400	216	355	1617	216	275	1697	684
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	74	493	55	86	350	54	89	404	54	69	424	171
Total Analysis Volume [veh/h]	294	1972	220	344	1400	216	355	1617	216	275	1697	684
Pedestrian Volume [ped/h]	6			3			4			22		
Bicycle Volume [bicycles/h]	0			4			2			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.39	0.13	0.10	0.27	0.13	0.10	0.32	0.13	0.08	0.33	0.40
Intersection LOS	F											
Intersection V/C	1.047											

Intersection Level Of Service Report
Intersection 7: San Mateo St/Warner Ave

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.045

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	145.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	20	135	2076	90	86	2650
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	135	2076	90	86	2650
Peak Hour Factor	0.8150	0.8150	0.9390	0.9390	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	41	553	24	23	704
Total Analysis Volume [veh/h]	25	166	2211	96	91	2816
Pedestrian Volume [ped/h]	12		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.05	0.02	0.00	1.07	0.03
d_M, Delay for Movement [s/veh]	10000.00	10000.00	0.00	0.00	207.51	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	26.57	26.57	0.00	0.00	6.24	0.00
95th-Percentile Queue Length [ft/ln]	664.27	664.27	0.00	0.00	155.89	0.00
d_A, Approach Delay [s/veh]	10000.00		0.00		6.50	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	356.87					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 8: San Mateo Ave/Project Dwy 1

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

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

Volumes

Name						
Base Volume Input [veh/h]	270	0	0	199	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	270	0	0	199	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	0	0	50	0	0
Total Analysis Volume [veh/h]	270	0	0	199	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.78	0.00	11.51	9.68
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Existing PM.pdf

Scenario 2 Existing PM
1/28/2022

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Brookhurst St/Slater Ave	217	1923	356	210	1429	251	282	568	230	505	887	288	7146

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Slater Ave/San Mateo Ave	83	14	31	75	6	118	101	993	63	28	1354	155	3021

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Ward St/Slater Ave	98	158	109	43	125	90	89	779	57	148	1386	52	3134

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Brookhurst St/La Alameda Ave	87	2312	70	61	1747	52	77	20	75	73	15	73	4662

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Brookhurst St/La Hacienda Ave	196	2251	49	122	1622	145	95	17	139	61	14	153	4864

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Brookhurst St/Warner Ave	294	1972	220	344	1400	216	355	1617	216	275	1697	684	9290

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
7	San Mateo St/Warner Ave	20	135	2076	90	86	2650	5057

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
8	San Mateo Ave/Project Dwy 1	270	0	0	199	0	0	469

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening AM.pdf

Scenario 5 Opening Year AM
1/28/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst St/Slater Ave	Signalized	ICU 2	SB Thru	0.875	-	D
2	Slater Ave/San Mateo Ave	Signalized	ICU 2	EB Thru	0.523	-	A
3	Ward St/Slater Ave	Signalized	ICU 2	WB Thru	0.605	-	B
4	Brookhurst St/La Alameda Ave	Signalized	ICU 2	SB Thru	0.604	-	B
5	Brookhurst St/La Hacienda Ave	Signalized	ICU 2	SB Right	0.704	-	C
6	Brookhurst St/Warner Ave	Signalized	ICU 2	SB Thru	0.883	-	D
7	San Mateo St/Warner Ave	Two-way stop	HCM 6th Edition	NB Right	1.063	10,000.0	F
8	San Mateo Ave/Project Dwy 1	Two-way stop	HCM 6th Edition	SB Thru	0.003	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Brookhurst St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.875

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	195.00	100.00	140.00	195.00	100.00	100.00	195.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	28	12	0	28	0	0	1	2	15	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	275	1266	330	201	1996	194	259	770	400	421	621	195
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	317	83	50	499	49	65	193	100	105	155	49
Total Analysis Volume [veh/h]	275	1266	330	201	1996	194	259	770	400	421	621	195
Pedestrian Volume [ped/h]	8			9			5			8		
Bicycle Volume [bicycles/h]	8			7			1			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.25	0.19	0.06	0.39	0.10	0.15	0.23	0.24	0.12	0.18	0.11
Intersection LOS	D											
Intersection V/C	0.875											

Intersection Level Of Service Report
Intersection 2: Slater Ave/San Mateo Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.523

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	49	7	26	128	4	128	47	1082	32	23	1001	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	13	0	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	7	27	133	4	133	49	1138	33	24	1057	99
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	2	7	33	1	33	12	285	8	6	264	25
Total Analysis Volume [veh/h]	51	7	27	133	4	133	49	1138	33	24	1057	99
Pedestrian Volume [ped/h]	4			10			0			7		
Bicycle Volume [bicycles/h]	6			8			0			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.05	0.05	0.08	0.08	0.08	0.03	0.34	0.34	0.01	0.34	0.34
Intersection LOS	A											
Intersection V/C	0.523											

Intersection Level Of Service Report
Intersection 3: Ward St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.605

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	116	165	131	243	131	159	915	180	179	823	98
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	15	2	0	51	0	0	11	2	0	10	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	136	174	136	304	136	165	963	189	186	866	102
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	34	44	34	76	34	41	241	47	47	217	26
Total Analysis Volume [veh/h]	48	136	174	136	304	136	165	963	189	186	866	102
Pedestrian Volume [ped/h]	9			75			6			8		
Bicycle Volume [bicycles/h]	5			3			3			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.09	0.08	0.13	0.13	0.10	0.28	0.11	0.11	0.28	0.28
Intersection LOS	B											
Intersection V/C	0.605											

Intersection Level Of Service Report
Intersection 4: Brookhurst St/La Alameda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

Intersection Setup

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

Volumes

Name												
Base Volume Input [veh/h]	54	1430	58	72	2181	56	26	12	56	37	9	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	1516	60	75	2296	58	27	12	58	38	9	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	379	15	19	574	15	7	3	15	10	2	13
Total Analysis Volume [veh/h]	56	1516	60	75	2296	58	27	12	58	38	9	51
Pedestrian Volume [ped/h]	6			6			8			16		
Bicycle Volume [bicycles/h]	0			0			4			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.30	0.04	0.04	0.46	0.46	0.02	0.06	0.06	0.02	0.06	0.06
Intersection LOS	B											
Intersection V/C	0.604											

Intersection Level Of Service Report
Intersection 5: Brookhurst St/La Hacienda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	195.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	184	1323	28	89	2161	63	32	7	89	32	7	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	191	1405	29	93	2275	66	33	7	93	33	7	85
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	351	7	23	569	17	8	2	23	8	2	21
Total Analysis Volume [veh/h]	191	1405	29	93	2275	66	33	7	93	33	7	85
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.28	0.28	0.05	0.46	0.46	0.02	0.08	0.08	0.02	0.07	0.07
Intersection LOS	C											
Intersection V/C	0.704											

Intersection Level Of Service Report
Intersection 6: Brookhurst St/Warner Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.883

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	0	2	0	0	2	0	1
Entry Pocket Length [ft]	210.00	100.00	165.00	250.00	100.00	100.00	150.00	100.00	100.00	200.00	100.00	205.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	257	956	182	481	1839	277	257	1552	240	189	1295	273
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	11	9	17	10	0	0	17	9	9	5	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	276	1005	198	517	1923	288	267	1631	259	206	1352	289
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	251	50	129	481	72	67	408	65	52	338	72
Total Analysis Volume [veh/h]	276	1005	198	517	1923	288	267	1631	259	206	1352	289
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.20	0.12	0.15	0.38	0.17	0.08	0.32	0.15	0.06	0.27	0.17
Intersection LOS	D											
Intersection V/C	0.883											

Intersection Level Of Service Report
Intersection 7: San Mateo St/Warner Ave

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.063

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	145.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	26	81	2079	56	84	1733
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	43	0	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	84	2205	58	87	1821
Peak Hour Factor	0.6930	0.6930	0.8160	0.8160	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	30	676	18	24	495
Total Analysis Volume [veh/h]	39	121	2702	71	95	1979
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.06	0.03	0.00	1.91	0.02
d_M, Delay for Movement [s/veh]	10000.00	10000.00	0.00	0.00	602.50	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	22.65	22.65	0.00	0.00	9.42	0.00
95th-Percentile Queue Length [ft/ln]	566.23	566.23	0.00	0.00	235.58	0.00
d_A, Approach Delay [s/veh]	10000.00		0.00		27.60	
Approach LOS	F		A		D	
d_I, Intersection Delay [s/veh]	330.98					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 8: San Mateo Ave/Project Dwy 1

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

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

Volumes

Name						
Base Volume Input [veh/h]	149	0	0	260	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	0	0	270	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	0	0	68	0	0
Total Analysis Volume [veh/h]	155	0	0	270	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.53	0.00	11.14	9.04
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.09	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening AM.pdf

Scenario 5 Opening Year AM
1/28/2022

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Brookhurst St/Slater Ave	275	1266	330	201	1996	194	259	770	400	421	621	195	6928

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Slater Ave/San Mateo Ave	51	7	27	133	4	133	49	1138	33	24	1057	99	2755

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Ward St/Slater Ave	48	136	174	136	304	136	165	963	189	186	866	102	3405

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Brookhurst St/La Alameda Ave	56	1516	60	75	2296	58	27	12	58	38	9	51	4256

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Brookhurst St/La Hacienda Ave	191	1405	29	93	2275	66	33	7	93	33	7	85	4317

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Brookhurst St/Warner Ave	276	1005	198	517	1923	288	267	1631	259	206	1352	289	8211

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
7	San Mateo St/Warner Ave	27	84	2205	58	87	1821	4282

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
8	San Mateo Ave/Project Dwy 1	155	0	0	270	0	0	425

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening PM.pdf

Scenario 6 Opening Year PM
1/28/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst St/Slater Ave	Signalized	ICU 2	NB Thru	0.954	-	E
2	Slater Ave/San Mateo Ave	Signalized	ICU 2	WB Thru	0.689	-	B
3	Ward St/Slater Ave	Signalized	ICU 2	WB Thru	0.663	-	B
4	Brookhurst St/La Alameda Ave	Signalized	ICU 2	NB Thru	0.699	-	B
5	Brookhurst St/La Hacienda Ave	Signalized	ICU 2	NB Thru	0.787	-	C
6	Brookhurst St/Warner Ave	Signalized	ICU 2	WB Right	1.102	-	F
7	San Mateo St/Warner Ave	Two-way stop	HCM 6th Edition	NB Right	1.148	10,000.0	F
8	San Mateo Ave/Project Dwy 1	Two-way stop	HCM 6th Edition	NB Thru	0.003	0.0	A

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

Intersection Level Of Service Report
Intersection 1: Brookhurst St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.954

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	195.00	100.00	140.00	195.00	100.00	100.00	195.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	217	1923	356	210	1429	251	282	568	230	505	887	288
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	30	15	1	34	0	0	0	3	14	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	228	2030	385	219	1520	261	293	591	242	539	923	301
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	508	96	55	380	65	73	148	61	135	231	75
Total Analysis Volume [veh/h]	228	2030	385	219	1520	261	293	591	242	539	923	301
Pedestrian Volume [ped/h]	5			3			2			0		
Bicycle Volume [bicycles/h]	3			6			1			1		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.40	0.23	0.06	0.30	0.15	0.17	0.17	0.14	0.16	0.27	0.18
Intersection LOS	E											
Intersection V/C	0.954											

Intersection Level Of Service Report
Intersection 2: Slater Ave/San Mateo Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	83	14	31	75	6	118	101	993	63	28	1354	155
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	16	0	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	15	32	78	6	123	105	1049	66	29	1424	161
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	4	8	20	2	31	26	262	17	7	356	40
Total Analysis Volume [veh/h]	86	15	32	78	6	123	105	1049	66	29	1424	161
Pedestrian Volume [ped/h]	4			2			0			10		
Bicycle Volume [bicycles/h]	3			5			5			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.08	0.08	0.05	0.08	0.08	0.06	0.33	0.33	0.02	0.47	0.47
Intersection LOS	B											
Intersection V/C	0.689											

Intersection Level Of Service Report
Intersection 3: Ward St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	98	158	109	43	125	90	89	779	57	148	1386	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	48	1	0	15	0	0	10	6	1	13	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	212	114	45	145	94	93	820	65	155	1454	54
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	53	29	11	36	24	23	205	16	39	364	14
Total Analysis Volume [veh/h]	105	212	114	45	145	94	93	820	65	155	1454	54
Pedestrian Volume [ped/h]	2			43			5			2		
Bicycle Volume [bicycles/h]	9			15			7			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.10	0.10	0.03	0.07	0.07	0.05	0.24	0.04	0.09	0.44	0.44
Intersection LOS	B											
Intersection V/C	0.663											

Intersection Level Of Service Report
Intersection 4: Brookhurst St/La Alameda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.699

Intersection Setup

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

Volumes

Name												
Base Volume Input [veh/h]	87	2312	70	61	1747	52	77	20	75	73	15	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	35	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	2435	73	63	1852	54	80	21	78	76	16	76
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	609	18	16	463	14	20	5	20	19	4	19
Total Analysis Volume [veh/h]	90	2435	73	63	1852	54	80	21	78	76	16	76
Pedestrian Volume [ped/h]	1			11			8			1		
Bicycle Volume [bicycles/h]	1			0			2			1		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.48	0.04	0.04	0.37	0.37	0.05	0.11	0.11	0.04	0.10	0.10
Intersection LOS	B											
Intersection V/C	0.699											

Intersection Level Of Service Report
Intersection 5: Brookhurst St/La Hacienda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	195.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	196	2251	49	122	1622	145	95	17	139	61	14	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	35	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	2372	51	127	1722	151	99	18	145	63	15	159
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	593	13	32	431	38	25	5	36	16	4	40
Total Analysis Volume [veh/h]	204	2372	51	127	1722	151	99	18	145	63	15	159
Pedestrian Volume [ped/h]	2			2			5			13		
Bicycle Volume [bicycles/h]	0			0			2			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.48	0.48	0.07	0.37	0.37	0.06	0.15	0.15	0.04	0.14	0.14
Intersection LOS	C											
Intersection V/C	0.787											

Intersection Level Of Service Report
Intersection 6: Brookhurst St/Warner Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.102

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	0	2	0	0	2	0	1
Entry Pocket Length [ft]	210.00	100.00	165.00	250.00	100.00	100.00	150.00	100.00	100.00	200.00	100.00	205.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	294	1972	220	344	1400	216	355	1617	216	275	1697	684
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	11	10	5	13	0	0	5	11	11	16	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	2062	239	363	1469	225	369	1687	236	297	1781	727
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	79	516	60	91	367	56	92	422	59	74	445	182
Total Analysis Volume [veh/h]	316	2062	239	363	1469	225	369	1687	236	297	1781	727
Pedestrian Volume [ped/h]	6			3			4			22		
Bicycle Volume [bicycles/h]	0			4			2			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.40	0.14	0.11	0.29	0.13	0.11	0.33	0.14	0.09	0.35	0.43
Intersection LOS	F											
Intersection V/C	1.102											

Intersection Level Of Service Report
Intersection 7: San Mateo St/Warner Ave

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.148

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	145.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	20	135	2076	90	86	2650
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	20	0	0	43
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	140	2179	94	89	2799
Peak Hour Factor	0.8150	0.8150	0.9390	0.9390	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	43	580	25	24	744
Total Analysis Volume [veh/h]	26	172	2321	100	95	2974
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.15	0.02	0.00	1.25	0.03
d_M, Delay for Movement [s/veh]	10000.00	10000.00	0.00	0.00	280.74	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	27.45	27.45	0.00	0.00	7.27	0.00
95th-Percentile Queue Length [ft/ln]	686.36	686.36	0.00	0.00	181.70	0.00
d_A, Approach Delay [s/veh]	10000.00		0.00		8.69	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	352.79					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 8: San Mateo Ave/Project Dwy 1

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

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

Volumes

Name						
Base Volume Input [veh/h]	270	0	0	199	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	281	0	0	207	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	70	0	0	52	0	0
Total Analysis Volume [veh/h]	281	0	0	207	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.81	0.00	11.68	9.75
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.72	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening PM.pdf

Scenario 6 Opening Year PM
1/28/2022

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Brookhurst St/Slater Ave	228	2030	385	219	1520	261	293	591	242	539	923	301	7532

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Slater Ave/San Mateo Ave	86	15	32	78	6	123	105	1049	66	29	1424	161	3174

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Ward St/Slater Ave	105	212	114	45	145	94	93	820	65	155	1454	54	3356

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Brookhurst St/La Alameda Ave	90	2435	73	63	1852	54	80	21	78	76	16	76	4914

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Brookhurst St/La Hacienda Ave	204	2372	51	127	1722	151	99	18	145	63	15	159	5126

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Brookhurst St/Warner Ave	316	2062	239	363	1469	225	369	1687	236	297	1781	727	9771

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
7	San Mateo St/Warner Ave	21	140	2179	94	89	2799	5322

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
8	San Mateo Ave/Project Dwy 1	281	0	0	207	0	0	488

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening AM+Proj.pdf

Scenario 7 Opening Year AM Plus Project
1/28/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst St/Slater Ave	Signalized	ICU 2	SB Thru	0.888	-	D
2	Slater Ave/San Mateo Ave	Signalized	ICU 2	EB Thru	0.537	-	A
3	Ward St/Slater Ave	Signalized	ICU 2	EB Thru	0.609	-	B
4	Brookhurst St/La Alameda Ave	Signalized	ICU 2	SB Thru	0.604	-	B
5	Brookhurst St/La Hacienda Ave	Signalized	ICU 2	SB Right	0.704	-	C
6	Brookhurst St/Warner Ave	Signalized	ICU 2	SB Thru	0.883	-	D
7	San Mateo St/Warner Ave	Two-way stop	HCM 6th Edition	NB Right	1.096	10,000.0	F
8	San Mateo Ave/Project Dwy 1	Two-way stop	HCM 6th Edition	WB Left	0.108	11.9	B

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

Intersection Level Of Service Report
Intersection 1: Brookhurst St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.888

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	195.00	100.00	140.00	195.00	100.00	100.00	195.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	28	12	0	28	0	0	1	2	56	11	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	275	1266	330	201	1996	194	259	770	400	462	632	195
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	317	83	50	499	49	65	193	100	116	158	49
Total Analysis Volume [veh/h]	275	1266	330	201	1996	194	259	770	400	462	632	195
Pedestrian Volume [ped/h]	8			9			5			8		
Bicycle Volume [bicycles/h]	8			7			1			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.25	0.19	0.06	0.39	0.10	0.15	0.23	0.24	0.14	0.19	0.11
Intersection LOS	D											
Intersection V/C	0.888											

Intersection Level Of Service Report
Intersection 2: Slater Ave/San Mateo Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.537

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	49	7	26	128	4	128	47	1082	32	23	1001	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	11	0	52	0	13	0	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	7	27	144	4	185	49	1138	33	24	1057	99
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	2	7	36	1	46	12	285	8	6	264	25
Total Analysis Volume [veh/h]	51	7	27	144	4	185	49	1138	33	24	1057	99
Pedestrian Volume [ped/h]	4			10			0			7		
Bicycle Volume [bicycles/h]	6			8			0			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.05	0.05	0.08	0.11	0.11	0.03	0.34	0.34	0.01	0.34	0.34
Intersection LOS	A											
Intersection V/C	0.537											

Intersection Level Of Service Report
Intersection 3: Ward St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.609

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	40	116	165	131	243	131	159	915	180	179	823	98
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	15	2	0	51	0	0	22	2	0	10	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	136	174	136	304	136	165	974	189	186	866	102
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	34	44	34	76	34	41	244	47	47	217	26
Total Analysis Volume [veh/h]	48	136	174	136	304	136	165	974	189	186	866	102
Pedestrian Volume [ped/h]	9			75			6			8		
Bicycle Volume [bicycles/h]	5			3			3			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.09	0.08	0.13	0.13	0.10	0.29	0.11	0.11	0.28	0.28
Intersection LOS	B											
Intersection V/C	0.609											

Intersection Level Of Service Report
Intersection 4: Brookhurst St/La Alameda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

Intersection Setup

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

Volumes

Name												
Base Volume Input [veh/h]	54	1430	58	72	2181	56	26	12	56	37	9	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	29	0	0	28	0	0	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	1516	60	75	2296	58	27	12	58	38	9	53
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	379	15	19	574	15	7	3	15	10	2	13
Total Analysis Volume [veh/h]	56	1516	60	75	2296	58	27	12	58	38	9	53
Pedestrian Volume [ped/h]	6			6			8			16		
Bicycle Volume [bicycles/h]	0			0			4			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.30	0.04	0.04	0.46	0.46	0.02	0.06	0.06	0.02	0.06	0.06
Intersection LOS	B											
Intersection V/C	0.604											

Intersection Level Of Service Report
Intersection 5: Brookhurst St/La Hacienda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	195.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	184	1323	28	89	2161	63	32	7	89	32	7	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	191	1407	29	93	2275	66	33	7	93	33	7	85
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	352	7	23	569	17	8	2	23	8	2	21
Total Analysis Volume [veh/h]	191	1407	29	93	2275	66	33	7	93	33	7	85
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.28	0.28	0.05	0.46	0.46	0.02	0.08	0.08	0.02	0.07	0.07
Intersection LOS	C											
Intersection V/C	0.704											

Intersection Level Of Service Report
Intersection 6: Brookhurst St/Warner Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.883

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	0	2	0	0	2	0	1
Entry Pocket Length [ft]	210.00	100.00	165.00	250.00	100.00	100.00	150.00	100.00	100.00	200.00	100.00	205.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	257	956	182	481	1839	277	257	1552	240	189	1295	273
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	13	9	17	10	0	0	17	9	9	5	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	276	1007	198	517	1923	288	267	1631	259	206	1352	294
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	252	50	129	481	72	67	408	65	52	338	74
Total Analysis Volume [veh/h]	276	1007	198	517	1923	288	267	1631	259	206	1352	294
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.20	0.12	0.15	0.38	0.17	0.08	0.32	0.15	0.06	0.27	0.17
Intersection LOS	D											
Intersection V/C	0.883											

Intersection Level Of Service Report
Intersection 7: San Mateo St/Warner Ave

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.096

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	145.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	26	81	2079	56	84	1733
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	43	0	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	84	2205	58	87	1821
Peak Hour Factor	0.6930	0.6930	0.8160	0.8160	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	30	676	18	24	495
Total Analysis Volume [veh/h]	46	121	2702	71	95	1979
Pedestrian Volume [ped/h]	12		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.10	0.03	0.00	1.96	0.02
d_M, Delay for Movement [s/veh]	10000.00	10000.00	0.00	0.00	627.96	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	23.54	23.54	0.00	0.00	9.54	0.00
95th-Percentile Queue Length [ft/ln]	588.40	588.40	0.00	0.00	238.45	0.00
d_A, Approach Delay [s/veh]	10000.00		0.00		28.76	
Approach LOS	F		A		D	
d_I, Intersection Delay [s/veh]	344.97					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 8: San Mateo Ave/Project Dwy 1

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.108

Intersection Setup

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

Volumes

Name						
Base Volume Input [veh/h]	149	0	0	260	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	63	7
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	155	0	0	270	63	7
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	0	0	68	16	2
Total Analysis Volume [veh/h]	155	0	0	270	63	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.11	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.53	0.00	11.92	9.81
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.39	0.39
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	9.72	9.72
d_A, Approach Delay [s/veh]	0.00		0.00		11.71	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.66					
Intersection LOS	B					

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening AM+Proj.pdf

Scenario 7 Opening Year AM Plus Project
1/28/2022

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Brookhurst St/Slater Ave	275	1266	330	201	1996	194	259	770	400	462	632	195	6980

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Slater Ave/San Mateo Ave	51	7	27	144	4	185	49	1138	33	24	1057	99	2818

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Ward St/Slater Ave	48	136	174	136	304	136	165	974	189	186	866	102	3416

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Brookhurst St/La Alameda Ave	56	1516	60	75	2296	58	27	12	58	38	9	53	4258

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Brookhurst St/La Hacienda Ave	191	1407	29	93	2275	66	33	7	93	33	7	85	4319

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Brookhurst St/Warner Ave	276	1007	198	517	1923	288	267	1631	259	206	1352	294	8218

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
7	San Mateo St/Warner Ave	32	84	2205	58	87	1821	4287

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
8	San Mateo Ave/Project Dwy 1	155	0	0	270	63	7	495

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening PM+Proj.pdf

Scenario 8 Opening Year PM Plus Project
1/28/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst St/Slater Ave	Signalized	ICU 2	NB Thru	0.955	-	E
2	Slater Ave/San Mateo Ave	Signalized	ICU 2	WB Right	0.718	-	C
3	Ward St/Slater Ave	Signalized	ICU 2	WB Thru	0.666	-	B
4	Brookhurst St/La Alameda Ave	Signalized	ICU 2	NB Thru	0.699	-	B
5	Brookhurst St/La Hacienda Ave	Signalized	ICU 2	NB Thru	0.787	-	C
6	Brookhurst St/Warner Ave	Signalized	ICU 2	WB Right	1.104	-	F
7	San Mateo St/Warner Ave	Two-way stop	HCM 6th Edition	NB Right	1.187	10,000.0	F
8	San Mateo Ave/Project Dwy 1	Two-way stop	HCM 6th Edition	SB Left	0.003	7.9	A

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

Intersection Level Of Service Report
Intersection 1: Brookhurst St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.955

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	1	1	0	0	2	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	195.00	100.00	140.00	195.00	100.00	100.00	195.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	217	1923	356	210	1429	251	282	568	230	505	887	288
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	30	48	3	34	0	0	8	3	14	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	228	2030	418	221	1520	261	293	599	242	539	923	301
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	508	105	55	380	65	73	150	61	135	231	75
Total Analysis Volume [veh/h]	228	2030	418	221	1520	261	293	599	242	539	923	301
Pedestrian Volume [ped/h]	5			3			2			0		
Bicycle Volume [bicycles/h]	3			6			1			1		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.40	0.25	0.07	0.30	0.15	0.17	0.18	0.14	0.16	0.27	0.18
Intersection LOS	E											
Intersection V/C	0.955											

Intersection Level Of Service Report
Intersection 2: Slater Ave/San Mateo Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	83	14	31	75	6	118	101	993	63	28	1354	155
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	43	16	0	0	16	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	15	32	78	6	123	148	1049	66	29	1424	169
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	4	8	20	2	31	37	262	17	7	356	42
Total Analysis Volume [veh/h]	86	15	32	78	6	123	148	1049	66	29	1424	169
Pedestrian Volume [ped/h]	4			2			0			10		
Bicycle Volume [bicycles/h]	3			5			5			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.08	0.08	0.05	0.08	0.08	0.09	0.33	0.33	0.02	0.47	0.47
Intersection LOS	C											
Intersection V/C	0.718											

Intersection Level Of Service Report
Intersection 3: Ward St/Slater Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.666

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	215.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	98	158	109	43	125	90	89	779	57	148	1386	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	48	1	0	15	0	0	10	6	1	21	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	212	114	45	145	94	93	820	65	155	1462	54
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	53	29	11	36	24	23	205	16	39	366	14
Total Analysis Volume [veh/h]	105	212	114	45	145	94	93	820	65	155	1462	54
Pedestrian Volume [ped/h]	2			43			5			2		
Bicycle Volume [bicycles/h]	9			15			7			2		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.10	0.10	0.03	0.07	0.07	0.05	0.24	0.04	0.09	0.45	0.45
Intersection LOS	B											
Intersection V/C	0.666											

Intersection Level Of Service Report
Intersection 4: Brookhurst St/La Alameda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.699

Intersection Setup

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

Volumes

Name												
Base Volume Input [veh/h]	87	2312	70	61	1747	52	77	20	75	73	15	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	37	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	2435	73	63	1854	54	80	21	78	76	16	76
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	609	18	16	464	14	20	5	20	19	4	19
Total Analysis Volume [veh/h]	90	2435	73	63	1854	54	80	21	78	76	16	76
Pedestrian Volume [ped/h]	1			11			8			1		
Bicycle Volume [bicycles/h]	1			0			2			1		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.48	0.04	0.04	0.37	0.37	0.05	0.11	0.11	0.04	0.10	0.10
Intersection LOS	B											
Intersection V/C	0.699											

Intersection Level Of Service Report
Intersection 5: Brookhurst St/La Hacienda Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	195.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	196	2251	49	122	1622	145	95	17	139	61	14	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	0	0	37	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	2372	51	127	1724	151	99	18	145	63	15	159
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	593	13	32	431	38	25	5	36	16	4	40
Total Analysis Volume [veh/h]	204	2372	51	127	1724	151	99	18	145	63	15	159
Pedestrian Volume [ped/h]	2			2			5			13		
Bicycle Volume [bicycles/h]	0			0			2			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.48	0.48	0.07	0.37	0.37	0.06	0.15	0.15	0.04	0.14	0.14
Intersection LOS	C											
Intersection V/C	0.787											

Intersection Level Of Service Report
Intersection 6: Brookhurst St/Warner Ave

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 2	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.104

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	0	2	0	0	2	0	1
Entry Pocket Length [ft]	210.00	100.00	165.00	250.00	100.00	100.00	150.00	100.00	100.00	200.00	100.00	205.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	294	1972	220	344	1400	216	355	1617	216	275	1697	684
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	11	10	9	15	0	0	5	11	11	16	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	2062	239	367	1471	225	369	1687	236	297	1781	727
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	79	516	60	92	368	56	92	422	59	74	445	182
Total Analysis Volume [veh/h]	316	2062	239	367	1471	225	369	1687	236	297	1781	727
Pedestrian Volume [ped/h]	6			3			4			22		
Bicycle Volume [bicycles/h]	0			4			2			3		

Intersection Settings

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

Phasing & Timing

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.40	0.14	0.11	0.29	0.13	0.11	0.33	0.14	0.09	0.35	0.43
Intersection LOS	F											
Intersection V/C	1.104											

Intersection Level Of Service Report
Intersection 7: San Mateo St/Warner Ave

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.187

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	145.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	20	135	2076	90	86	2650
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	20	4	0	43
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	140	2179	98	89	2799
Peak Hour Factor	0.8150	0.8150	0.9390	0.9390	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	43	580	26	24	744
Total Analysis Volume [veh/h]	26	172	2321	104	95	2974
Pedestrian Volume [ped/h]	12		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	1.19	0.02	0.00	1.29	0.03
d_M, Delay for Movement [s/veh]	10000.00	10000.00	0.00	0.00	298.66	0.00
Movement LOS	F	F	A	A	F	A
95th-Percentile Queue Length [veh/ln]	27.45	27.45	0.00	0.00	7.44	0.00
95th-Percentile Queue Length [ft/ln]	686.36	686.36	0.00	0.00	186.01	0.00
d_A, Approach Delay [s/veh]	10000.00		0.00		9.25	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	352.84					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 8: San Mateo Ave/Project Dwy 1

Control Type:	Two-way stop	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

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

Volumes

Name						
Base Volume Input [veh/h]	270	0	0	199	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	51	4	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	281	51	4	207	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	70	13	1	52	0	0
Total Analysis Volume [veh/h]	281	51	4	207	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.94	0.00	12.01	9.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.25	0.25	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.15		10.96	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	A					

Vistro File: C:\...\Vistro_3Updated.vistro
Report File: C:\...\Opening PM+Proj.pdf

Scenario 8 Opening Year PM Plus Project
1/28/2022

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Brookhurst St/Slater Ave	228	2030	418	221	1520	261	293	599	242	539	923	301	7575

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	Slater Ave/San Mateo Ave	86	15	32	78	6	123	148	1049	66	29	1424	169	3225

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	Ward St/Slater Ave	105	212	114	45	145	94	93	820	65	155	1462	54	3364

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	Brookhurst St/La Alameda Ave	90	2435	73	63	1854	54	80	21	78	76	16	76	4916

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	Brookhurst St/La Hacienda Ave	204	2372	51	127	1724	151	99	18	145	63	15	159	5128

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6	Brookhurst St/Warner Ave	316	2062	239	367	1471	225	369	1687	236	297	1781	727	9777

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
7	San Mateo St/Warner Ave	21	140	2179	98	89	2799	5326

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
8	San Mateo Ave/Project Dwy 1	281	51	4	207	0	0	543

Mitigation

Option 1: MIT of Brookhurst St/Slater Ave

Number	1											
Intersection	Brookhurst St/Slater Ave											
Control Type	Signalized											
Analysis Method	ICU 2											
Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Total Analysis Volume [veh/h]	263	1190	306	193	1892	187	249	739	383	431	608	187

Intersection Settings

Cycle Length [s]	100											
Lost time [s]	5.00											
Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
so, Base Saturation Flow per Lane [pc/h/ln]	1700	1700	1700	1700	1700	1700	1700		1700	1700	1700	1700

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.23	0.18	0.06	0.37	0.09	0.15	0.22	0.22	0.13	0.18	0.11
Critical Movement	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
Intersection LOS	D											
Intersection V/C	0.837											

Option 1: MIT of Brookhurst St/Slater Ave

Number	1											
Intersection	Brookhurst St/Slater Ave											
Control Type	Signalized											
Analysis Method	ICU 2											
Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	263	1190	306	193	1892	187	249	739	383	390	597	187
Total Analysis Volume [veh/h]	275	1266	330	201	1996	194	259	770	400	462	632	195

Intersection Settings

Cycle Length [s]	100											
Lost time [s]	5.00											
Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
so, Base Saturation Flow per Lane [pc/h/ln]	1700	1700	1700	1700	1700	1700	1700		1700	1700	1700	1700

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.25	0.19	0.06	0.39	0.10	0.15	0.23	0.23	0.14	0.19	0.11
Critical Movement	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
Intersection LOS	D											
Intersection V/C	0.882											

Unmitigated

Number	7					
Intersection	San Mateo St/Warner Ave					
Control Type	Two-way stop					
Analysis Method	HCM 6th Edition					
Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Base Volume Input [veh/h]	26	81	2079	56	84	1733
Total Analysis Volume [veh/h]	31	81	2079	56	84	1733

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Capacity Analysis

Calculated Rank	3	2	1	1	2	1
v_c, Conflicting Flow Rate	2980	1080	0	0	2147	0
v_c, Stage 1	2119	1080	0	0	2135	0
v_c, Stage 2	861	0	0	0	12	0
c_p,x, Potential Capacity [veh/h]	27	184	0	0	105	0
c_p,x, Stage 1 [veh/h]	48	1543	0	0	2474	0
c_p,x, Stage 2 [veh/h]	339	918	0	0	1160	0
c_m,x, Movement Capacity [veh/h]	5	181	100000	100000	104	100000
c_m,x, Stage 1 [veh/h]	47	0	0	0	0	0
c_m,x, Stage 2 [veh/h]	65	0	0	0	0	0
c_T, Total Capacity [veh/h]	36	181	100000	100000	104	100000

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.87	0.45	0.02	0.00	0.81	0.02
d_M, Delay for Movement [s/veh]	348.93	268.15	0.00	0.00	116.49	0.00
Movement LOS	F	F	A	A	F	A
Critical Movement	Yes	No	No	No	No	No
95th-Percentile Queue Length [veh/ln]	8.36	8.36	0.00	0.00	4.50	0.00
95th-Percentile Queue Length [ft/ln]	209.01	209.01	0.00	0.00	112.46	0.00
d_A, Approach Delay [s/veh]	290.50		0.00		5.39	
Approach LOS	F		A		A	
V/C_I, Worst Movement V/C Ratio	0.87					
d_I, Worst Movement Control Delay [s/veh]	348.93					
d_I, Intersection Delay [s/veh]	10.41					
Intersection LOS	F					

Option 1: Signal San Mateo St/Warner Ave

Number	7					
Intersection	San Mateo St/Warner Ave					
Control Type	Signalized					
Analysis Method	ICU 2					
Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Base Volume Input [veh/h]	26	81	2079	56	84	1733
Total Analysis Volume [veh/h]	31	81	2079	56	84	1733

Intersection Settings

Cycle Length [s]	100					
Lost time [s]	5.00					
Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	2	0	0	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
so, Base Saturation Flow per Lane [pc/h/ln]	1700		1700		1700	1700

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.07	0.42	0.42	0.05	0.34
Critical Movement	No	Yes	Yes	No	Yes	No
Intersection LOS	A					
Intersection V/C	0.562					

Option 1: Signal of San Mateo St/Warner Ave

Number	7					
Intersection	San Mateo St/Warner Ave					
Control Type	Signalized					
Analysis Method	ICU 2					
Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Base Volume Input [veh/h]	20	135	2076	90	86	2650
Total Analysis Volume [veh/h]	20	135	2076	94	86	2650

Intersection Settings

Cycle Length [s]	100					
Lost time [s]	5.00					
Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	2	0	0	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
so, Base Saturation Flow per Lane [pc/h/ln]	1700		1700		1700	1700

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.09	0.43	0.43	0.05	0.52
Critical Movement	No	Yes	No	No	No	Yes
Intersection LOS	B					
Intersection V/C	0.643					

Option 1: Signal San Mateo St/Warner Ave

Number	7					
Intersection	San Mateo St/Warner Ave					
Control Type	Signalized					
Analysis Method	ICU 2					
Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Base Volume Input [veh/h]	26	81	2079	56	84	1733
Total Analysis Volume [veh/h]	32	84	2205	58	87	1821

Intersection Settings

Cycle Length [s]	100					
Lost time [s]	5.00					
Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	2	0	0	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
so, Base Saturation Flow per Lane [pc/h/ln]	1700		1700		1700	1700

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.07	0.44	0.44	0.05	0.36
Critical Movement	No	Yes	Yes	No	Yes	No
Intersection LOS	A					
Intersection V/C	0.593					

Option 1: Signal San Mateo St/Warner Ave

Number	7					
Intersection	San Mateo St/Warner Ave					
Control Type	Signalized					
Analysis Method	ICU 2					
Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Base Volume Input [veh/h]	20	135	2076	90	86	2650
Total Analysis Volume [veh/h]	21	140	2179	98	89	2799

Intersection Settings

Cycle Length [s]	100					
Lost time [s]	5.00					
Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	6	0	2	0	0	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
so, Base Saturation Flow per Lane [pc/h/ln]	1700		1700		1700	1700

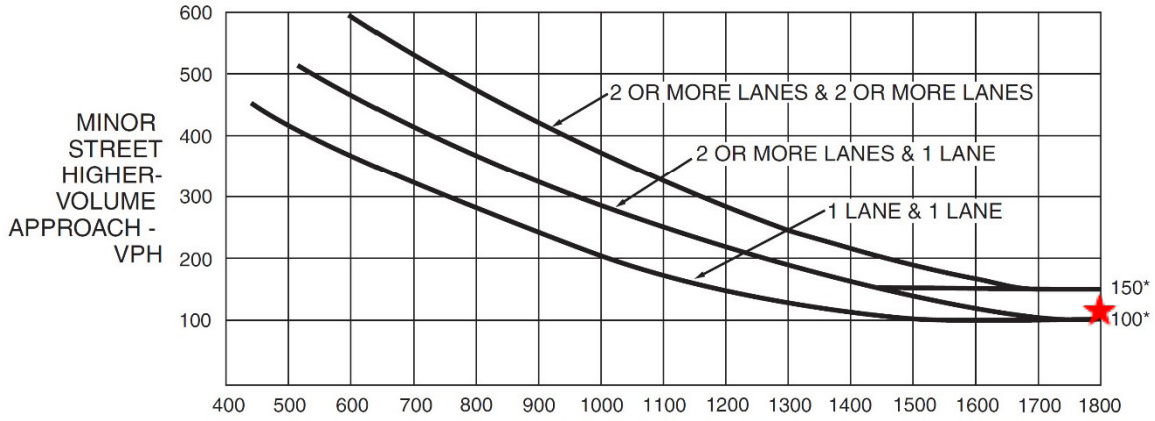
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.09	0.45	0.45	0.05	0.55
Critical Movement	No	Yes	No	No	No	Yes
Intersection LOS	B					
Intersection V/C	0.677					

APPENDIX D – SIGNAL WARRANT ANALYSIS

San Mateo St/Warner Ave
Existing AM Peak Hour Plus Project
Minor Street Approach – 107 vehicles
Major Street (Both Approaches) – 3,952 vehicles
Meets Warrant - Yes

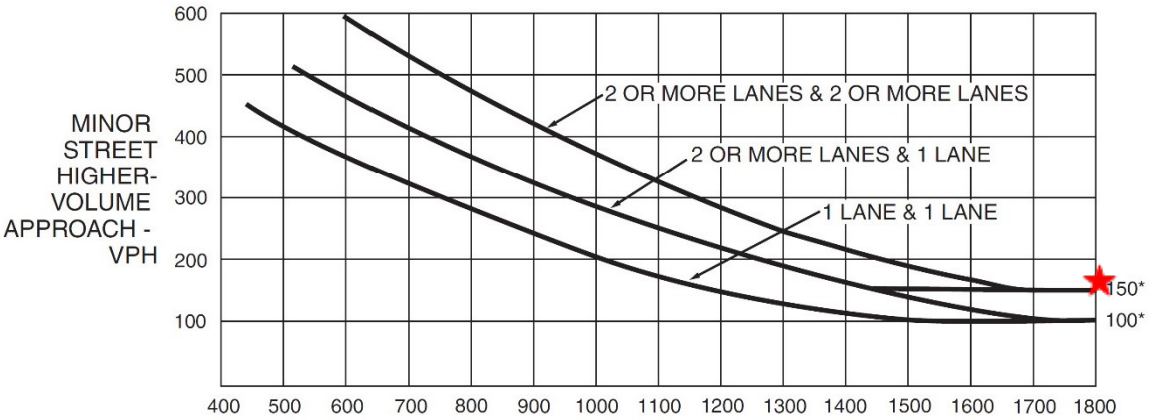
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

San Mateo St/Warner Ave
Existing PM Peak Hour Plus Project
Minor Street Approach - 155 vehicles
Major Street (Both Approaches) – 4,902 vehicles
Meets Warrant - Yes

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.