CASE NUMBER:
DPR 21-00015

PLACENTIA AVENUE INDUSTRIAL TRAFFIC IMPACT ANALYSIS (REVISED)

City of Perris

May 7, 2024

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

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City of Perris

May 7, 2024

prepared by

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Project No. 19484

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EXECUTIVE SUMMARY

The purpose of this study is to evaluate the potential for transportation impacts resulting from development of the proposed project both in the context of the City of Perris' discretionary authority for conformance with locally established operational standards and the California Environmental Quality Act (CEQA). Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with terms related to transportation engineering.

This study was prepared in consultation with City of Perris staff and in accordance with the procedures and methodologies for assessing transportation impacts established by the City of Perris. To assess the project's conformance with local operational standards, this study evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. For CEQA purposes, this study also evaluates the significance of project-related transportation impacts as measured by vehicle miles traveled (VMT) relative to thresholds established by the City of Perris as the lead agency and, if necessary, identifies any feasible mitigation measures to mitigate any significant impacts.

Project Description

The project is located on the northeast corner of Wilson Avenue and Placentia Avenue in the City of Perris. The project site is currently vacant. The project APN's are 300-170-003, 004, 005, 006, 010, 011, 012, 013, 014, 015, 016, and 017.

The 27.25-acre project site is proposed to include a 578,265 square foot high-cube fulfillment center warehouse building. The project site is proposed to provide three access driveways on Wilson Avenue. The project north driveway and project south driveway will be truck only restricted to southbound left turns in and westbound right turns out only. The project central driveway will be a full access automobile only access. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2026.

The project involves a Specific Plan Amendment to the Perris Valley Commerce Center Specific Plan for the proposed vacation of a paper street connecting Wilson Avenue to Murrieta Road and the vacation of a portion of Murrieta Road north of Placentia Avenue.

Existing Conditions

The study intersections currently operate within acceptable Levels of Service (D or better) during the peak hours for Existing conditions.

Project Trip Generation

The proposed project is forecast to generate 1,047 daily vehicle trips, including 85 vehicle trips during the AM peak hour and 95 vehicle trips during the PM peak hour. The proposed project is forecast to generate approximately 1,252 daily PCE trips, including 101 PCE trips during the AM peak hour and 107 PCE trips during the PM peak hour.

Levels of Service/Operational Analysis Findings (Non-CEQA)

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project conditions. Therefore, the proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Existing Plus Project conditions and no off-site improvements or corrective measures are recommended.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) With Project conditions. Therefore, the proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Opening Year (2026) With Project conditions and no off-site improvements or corrective measures are recommended.

Based upon the projected peak hour traffic volumes and limited access of most of the project driveways, traffic signals would not be expected to be warranted at these locations.

Queuing Analysis Findings

Adequate spacing is forecast to be provided at the driveway study intersections on Wilson Avenue to accommodate southbound left turn queues within the two-way left turn lane median.

VMT Analysis Findings (CEQA)

The proposed project is presumed to have a less than significant impact on VMT since it satisfies one or more of the VMT screening criteria established by the City of Perris (the project site is located in a low VMT area). No additional VMT modeling or mitigation measures are required.

1. INTRODUCTION

This section introduces the proposed project and the general scope of the analysis.

PROJECT DESCRIPTION

The project is located on the northeast corner of Wilson Avenue and Placentia Avenue in the City of Perris. The project site is currently vacant. The project APN's are 300-170-003, 004, 005, 006, 010, 011, 012, 013, 014, 015, 016, and 017. Figure 1 shows the project location map.

The 27.25-acre project site is proposed to include a 578,265 square foot high-cube fulfillment center warehouse building. The project site is proposed to provide three access driveways on Wilson Avenue. The project north driveway and project south driveway will be truck only restricted to southbound left turns in and westbound right turns out only. The project central driveway will be a full access automobile only access. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2026. Figure 2 illustrates the project site plan.

The project involves a Specific Plan Amendment to the Perris Valley Commerce Center Specific Plan for the proposed vacation of a paper street connecting Wilson Avenue to Murrieta Road and the vacation of a portion of Murrieta Road north of Placentia Avenue.

SCOPE OF ANALYSIS

The scope of this analysis was determined in consultation with City of Perris staff as documented in the City-approved scoping agreement provided in Appendix B.

Study Area

Based on the study intersections identified in the approved scoping agreement, the study area consists of the following study intersections within City of Perris jurisdiction:

Study Intersections[1]	Jurisdiction
1. Redlands Avenue (NS) at Rider Street (EW)	City of Perris
2. Redlands Avenue (NS) at Placentia Avenue (EW)	City of Perris
3. Wilson Avenue (NS) at Rider Street (EW)	City of Perris
4. Wilson Avenue (NS) at Placentia Avenue (EW)	City of Perris
5. Wilson Avenue (NS) at Project North Driveway (EW)	City of Perris
6. Wilson Avenue (NS) at Project Central Driveway (EW)	City of Perris
7. Wilson Avenue (NS) at Project South Driveway (EW)	City of Perris

Notes:
1. (NS) = North-South roadway; (EW) = East-West roadway

Analysis Scenarios

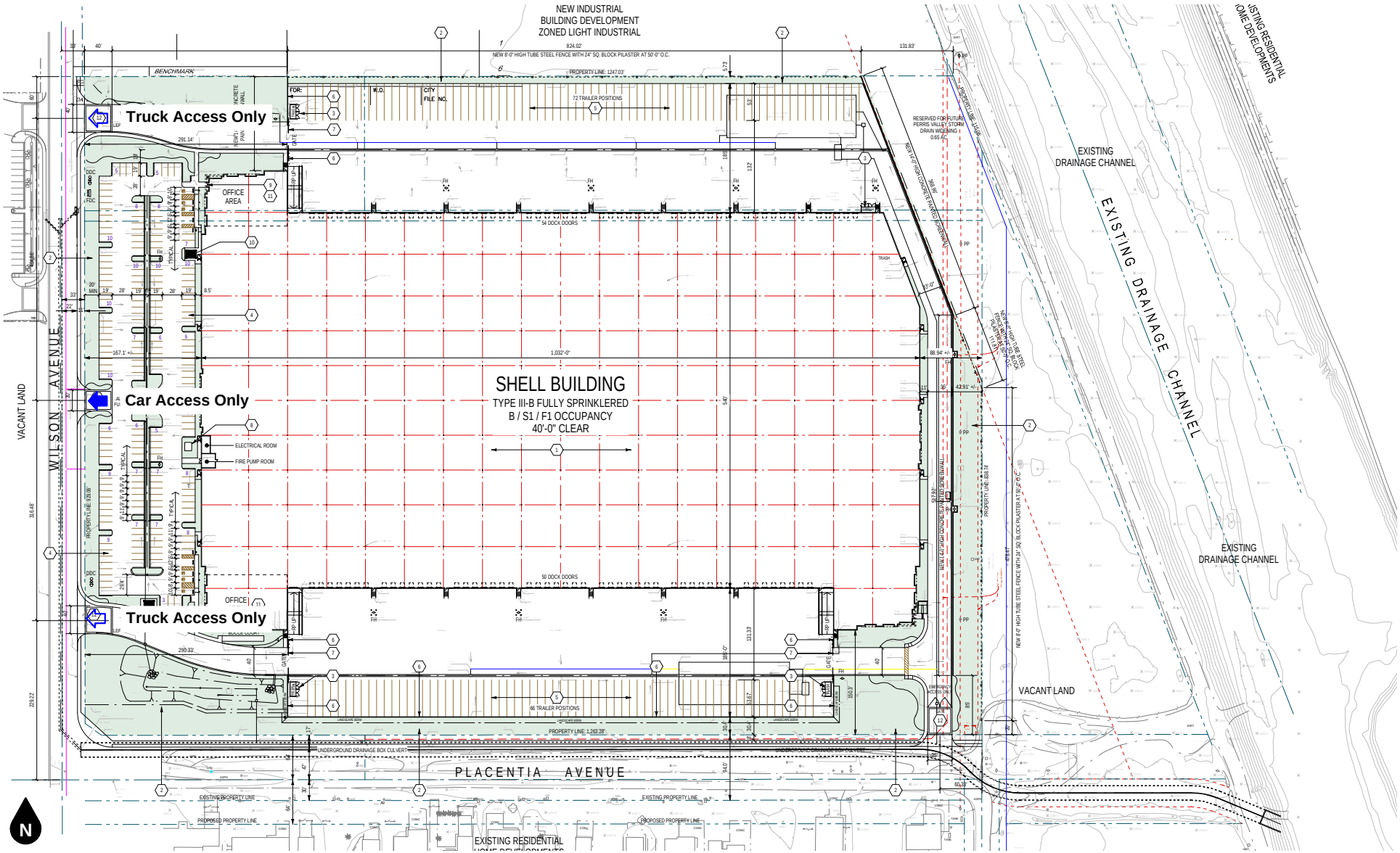
The following scenarios are analyzed for weekday AM and PM peak hour conditions:

- Existing (2024)
- Existing Plus Project (2024)
- Opening Year (2026) Without Project
- Opening Year (2026) With Project

Legend

- (#) Study Intersection
- (#) Project Driveway Truck Only
- (#) Project Driveway Auto Only

Figure 1
Project Location Map



Legend

- Full Access Driveway
- Right Turns Out And Left Turns In Only Access Driveway

Figure 2
Site Plan

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies.

LEVEL OF SERVICE ANALYTICAL METHODOLOGY (NON-CEQA)

Level of Service analysis is performed for assessing conformance with General Plan and operational standards established by the applicable agencies. In accordance with current CEQA provisions, a project's effect on automobile delay (as measured by Level of Service) shall not constitute a significant environmental impact.

Intersection Delay Methodology

The technique used to assess the performance of intersections is known as the intersection delay methodology based on the procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 7th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst individual movement (or movements sharing a single lane). Intersection delay and Level of Service calculations were performed using the Vistro software.

Performance Standards

The City of Perris has established the following target Levels of Service:

- LOS "D" along all City maintained roads (including intersections) and LOS "D" along I-215 and SR 74 (including intersections with local streets and roads). An exception to the local road standard is LOS "E", at intersections of any Arterials and Expressways with SR 74, the Ramona-Cajalco Expressway or at I-215 freeway ramps.

- LOS "E" may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

Substantial Operational Deficiency Criteria

The following criteria are used to determine whether a project causes a substantial operational deficiency and should be required to provide improvements or corrective measures.

In the City of Perris, a project is considered to result in a substantial operational deficiency at a study intersection if one or more of the following conditions are satisfied:

- A project-related traffic impact is considered direct when a study intersection operates at an acceptable Level of Service for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more and causes the intersection to operate at an unacceptable Level of Service for existing plus project conditions.

- A project-related traffic impact is considered direct when a study intersection operates at an unacceptable Level of Service for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more.

- A cumulative impact is considered direct when a study intersection is forecast to operate at an acceptable Level of Service without the project and with the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more and causes the intersection to operate at an unacceptable Level of Service.

- A cumulative impact is considered an indirect traffic impact when a study intersection is forecast to operate at an unacceptable Level of Service with the addition of cumulative/background traffic and the project contributes 50 or more AM or PM peak hour project trips and causes the intersection delay to increase by 2 seconds or more.

If a project is forecast to result in a substantial operational deficiency, recommended corrective measures are identified that would reduce the project's effect to a level that does not exceed the specified deficiency criteria. Corrective measures can be in many forms, including the construction of physical improvements (e.g., addition of travel lanes, traffic control modifications, etc.) or the implementation of transportation demand management measures.

VEHICLE MILES TRAVELED ANALYTICAL METHODOLOGY (CEQA)

The metric used to evaluate the transportation impact of land use and transportation projects under CEQA is known as vehicle miles traveled (VMT). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. Additional information and a detailed project assessment is provided in the Vehicle Miles Traveled section presented later in this report.

3. EXISTING CONDITIONS

This section describes the existing transportation setting in the project vicinity.

EXISTING ROADWAY SYSTEM

Figure 3 identifies the lane geometry and intersection traffic controls for Existing conditions based on a field survey of the study area. Regional access to the project site is provided by the Interstate 215 (I-215) Freeway located approximately 1.75 miles west of the project site. Key roadways providing local circulation include Redlands Avenue, Wilson Avenue, Rider Street, and Placentia Avenue

GENERAL PLAN CONTEXT

Figure 4 shows the City of Perris General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Perris standard roadway cross-sections are illustrated on Figure 5.

TRUCK ROUTES

The City of Perris General Plan truck routes are illustrated on Figure 6. Existing truck routes in the project vicinity are shown on Figure 6. There are currently designated truck routes along Redlands Avenue north of Rider Street. Therefore, all trucks will need to proceed north on Wilson Avenue from the project site, and then west on Rider Street to Redlands Avenue.

TRANSIT SERVICE

Figure 7 shows Existing public transit facilities and routes in the project vicinity. As shown on Figure 7, the study area is currently not served by the Riverside Transit Agency (RTA) bus service near the project site.

BICYCLE AND PEDESTRIAN FACILITIES

The City of Perris Active Transportation Plan bikeways are illustrated on Figure 8. There are currently no existing bicycle lanes along Wilson Avenue adjacent to the project site.

Existing pedestrian facilities in the project vicinity are shown on Figure 9. Sidewalks are not currently provided on Wilson Avenue or Placentia Avenue along the project site frontage.

EXISTING INTERSECTION VOLUMES

Figure 10 and Figure 11 show the Existing AM and PM peak hour intersection turning movement volumes. Existing peak hour intersection volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in February 2024 during typical weekday conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest total volume and may vary at other intersections.

The intersection movement counts separated trucks and cars by axle. A passenger car equivalent (PCE) factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axel trucks was applied to the intersection

movement counts. These PCE factors are from the County of Riverside *Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled* (December 2020). Intersection turning movement count worksheets are provided in Appendix C.

It should be noted that the north leg of Wilson Avenue and Rider Street (Intersection #3) was recently constructed as a driveway for the Rider 2 & 4 project, but the project was not operational at the time of traffic count collection. Thus, there are no volumes on the north leg for existing conditions.

EXISTING LEVELS OF SERVICE

The intersection Levels of Service for Existing conditions are shown in Table 1. Existing intersection Level of Service calculation worksheets are provided in Appendix D.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions.

Table 1
Existing Intersection Levels of Service

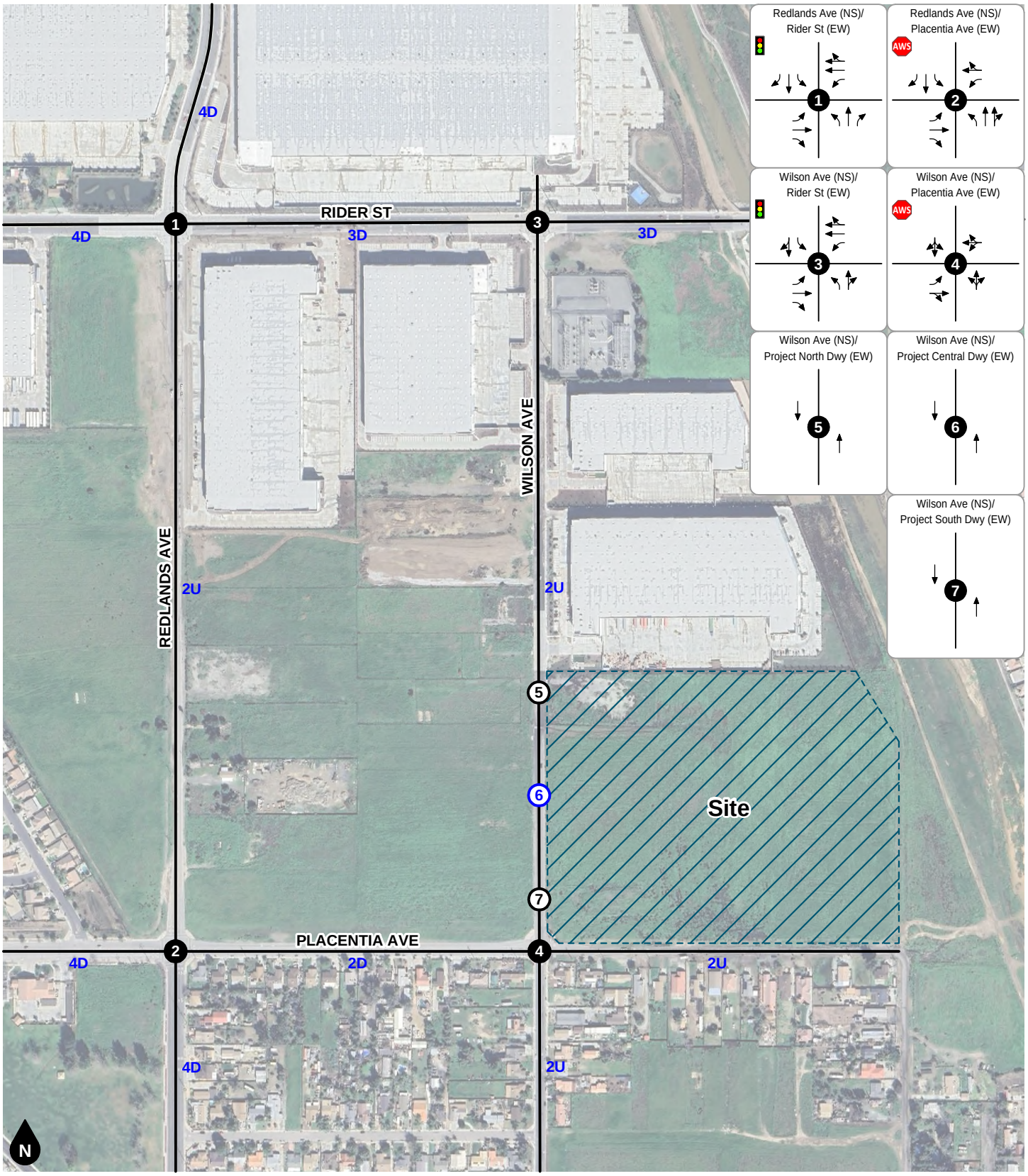
Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Redlands Ave at Rider St	TS	19.5	B	19.6	B
2. Redlands Ave at Placentia Ave	AWS	12.3	B	10.9	B
3. Wilson Ave at Rider St	TS	14.6	B	11.7	B
4. Wilson Ave at Placentia Ave	AWS	9.5	A	8.4	A

Notes:

(1) TS = Traffic Signal; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service



Legend
- Traffic Signal
- AWS All Way Stop
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane

Figure 3
Existing Lane Geometry and Intersection Traffic Controls

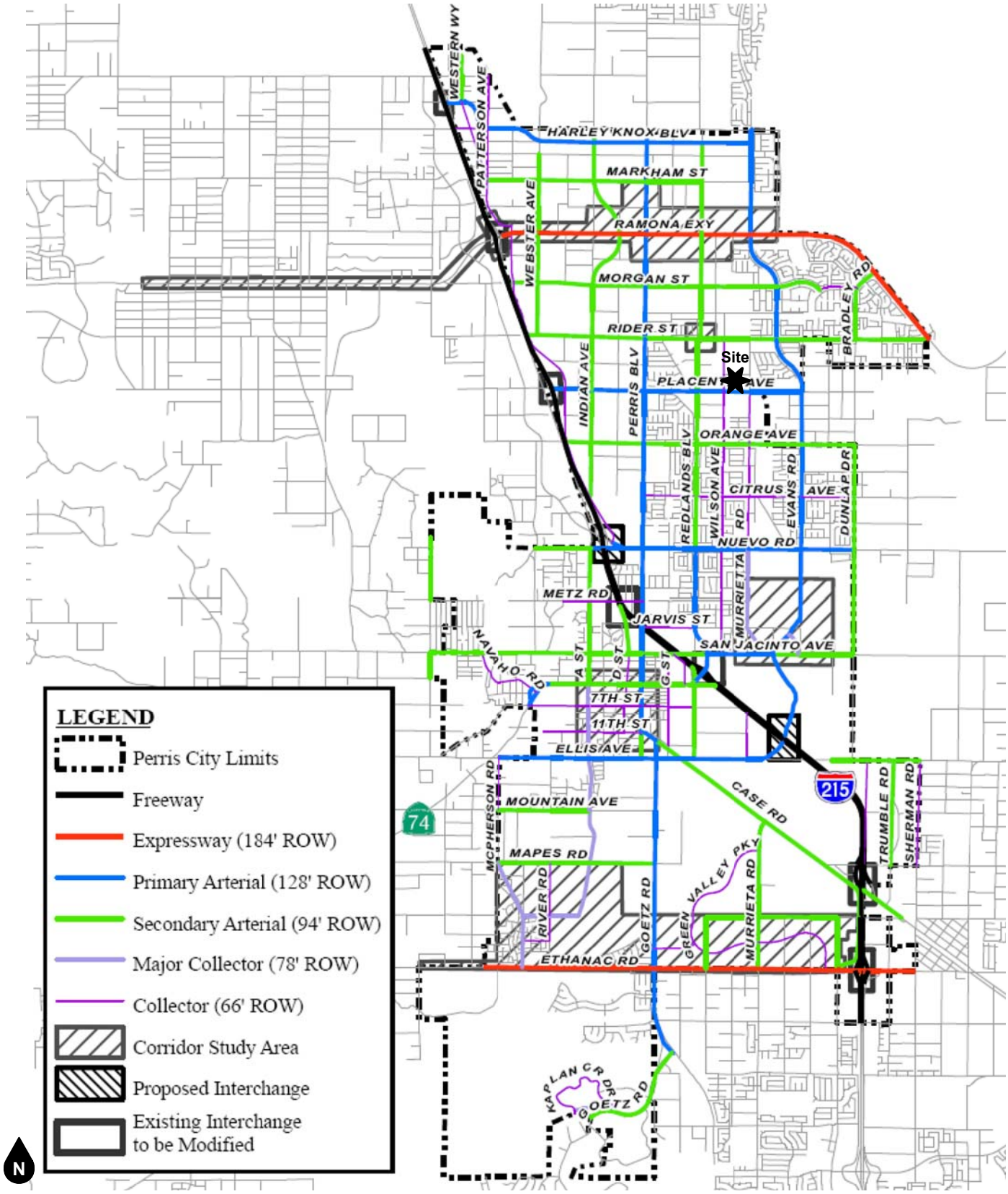


Figure 4
City of Perris General Plan Circulation Element

Source: City of Perris

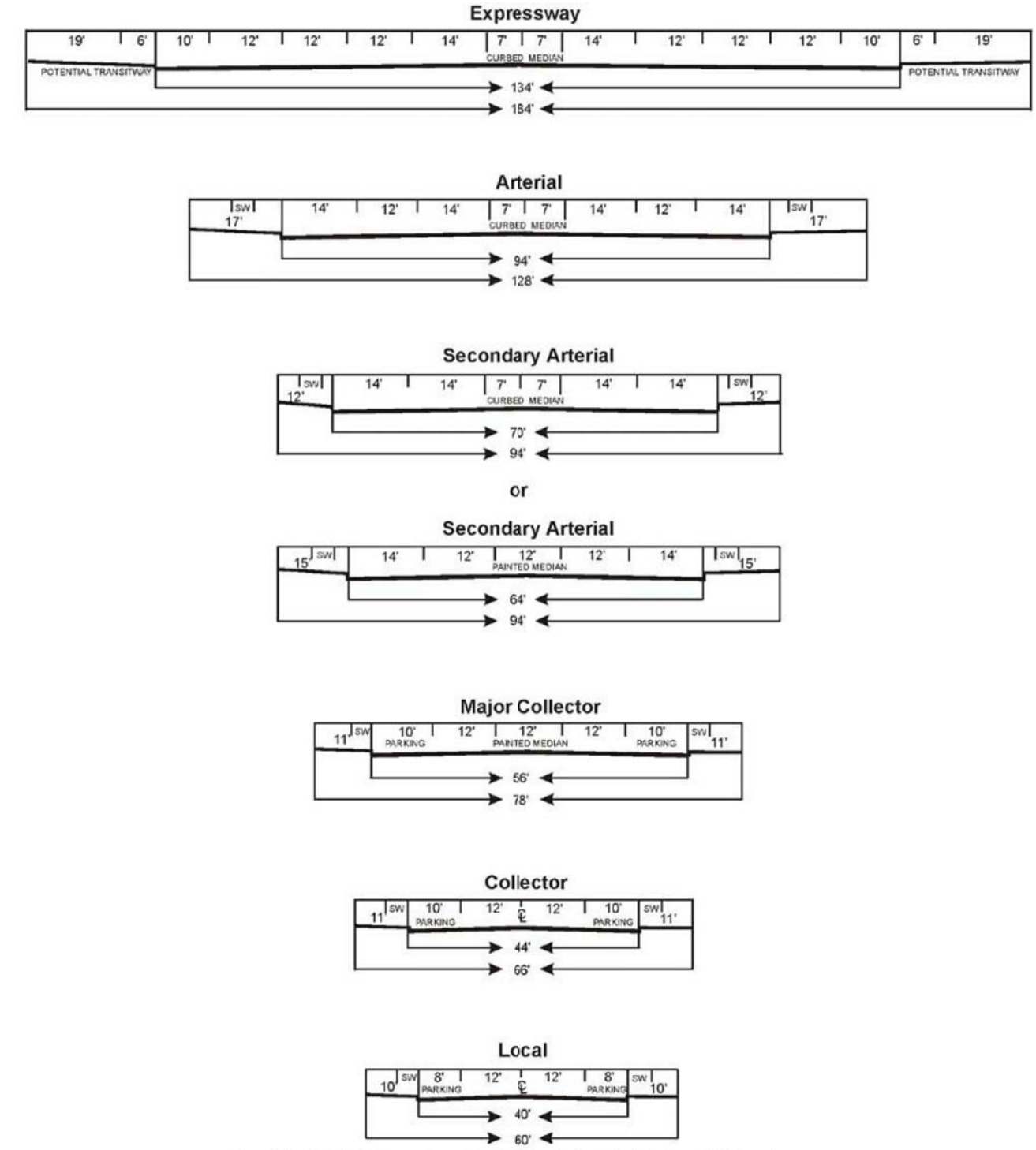
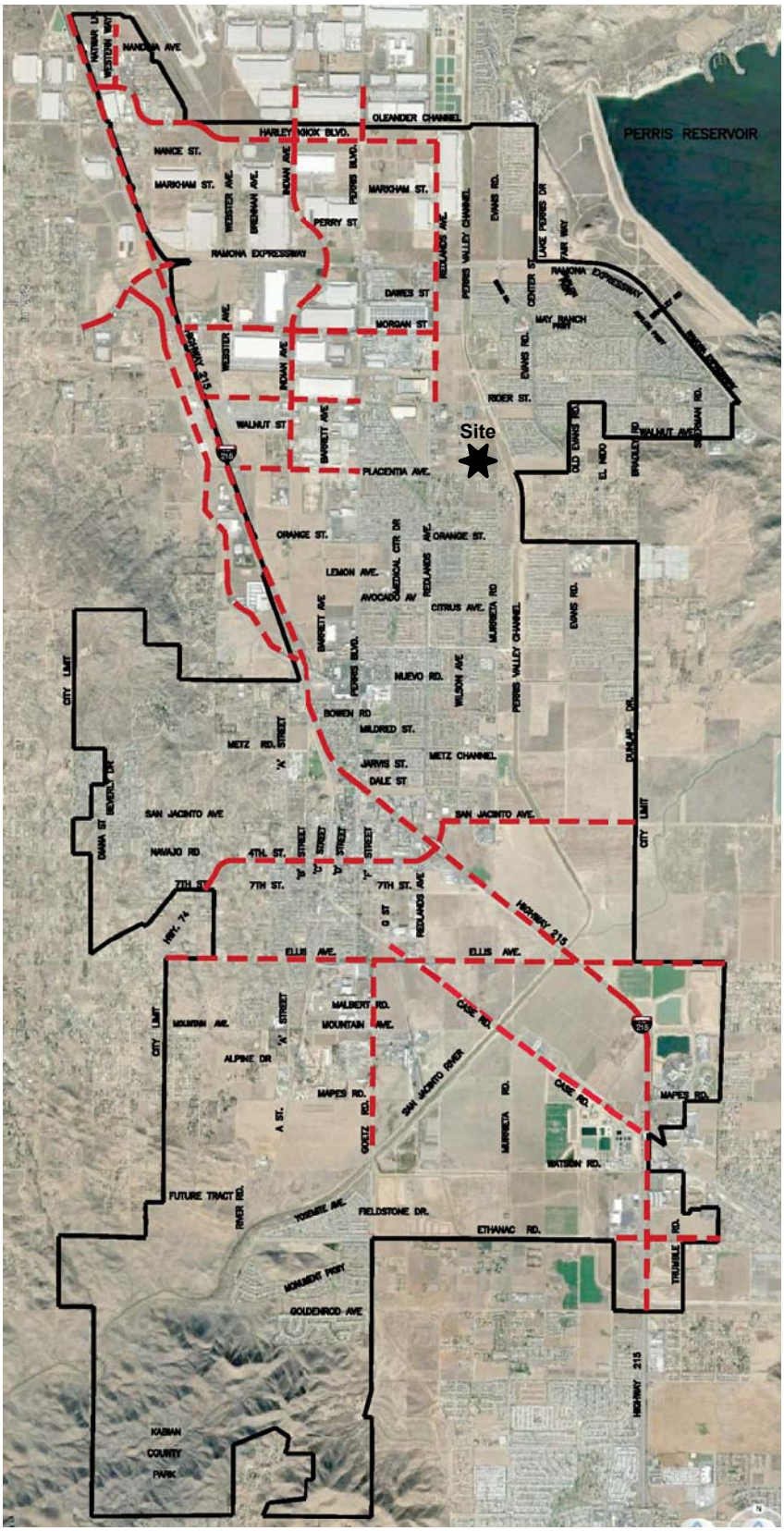


Figure 5
City of Perris General Plan Roadway Cross-Sections

Source: City of Perris



Legend

TRUCK ROUTES

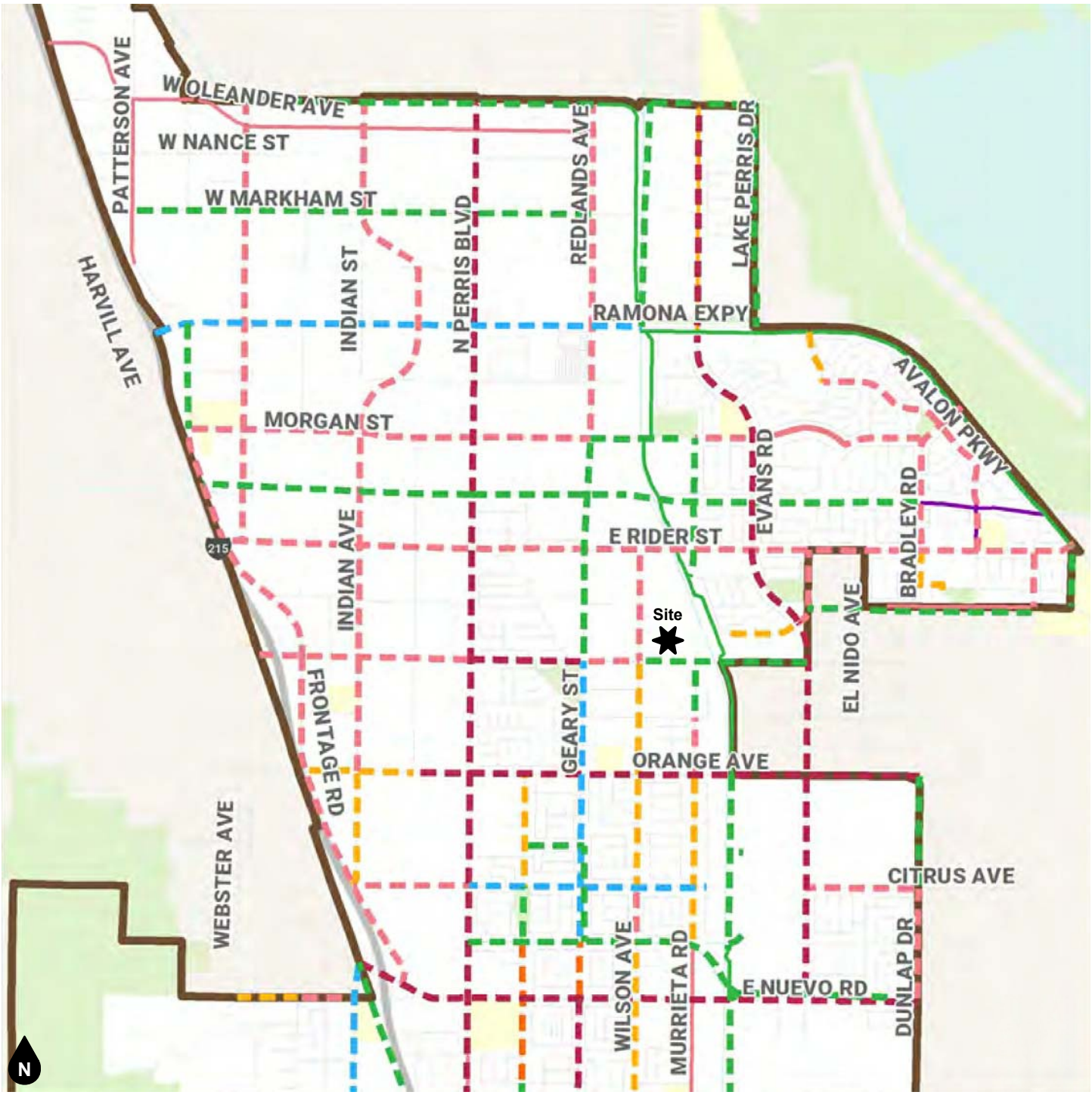
PERRIS CITY LIMITS

Source: City of Perris

Figure 6
City of Perris General Plan Truck Routes

Figure 7
Existing Transit Routes

Source: Riverside Transit Agency

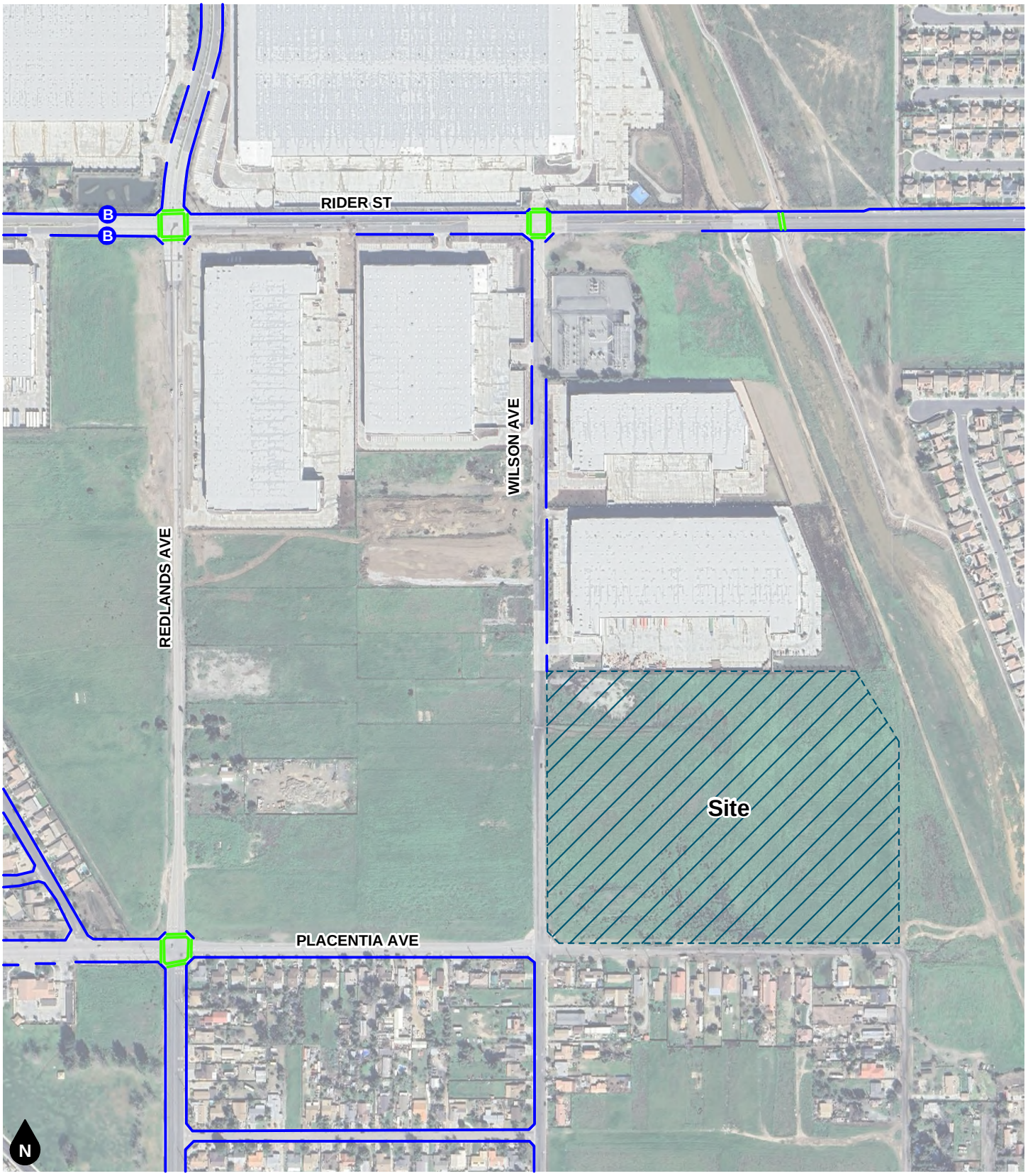


Existing / Recommended Bikeways

- Shared-Use Path (Class I)
- Bicycle Lane (Class II)
- Buffered Bike Lane (Class IIB)
- Bicycle Route (Class III)
- Bicycle Boulevard (Class IIIB)
- Separated Bikeway (Class IV)
- Walking Trail

Source: City of Perris

Figure 8
City of Perris General Plan Bikeway Systems



Legend
- Sidewalk
- Cross Walk
- B Bus Stop

Figure 9
Exsting Pedestrian Facilities

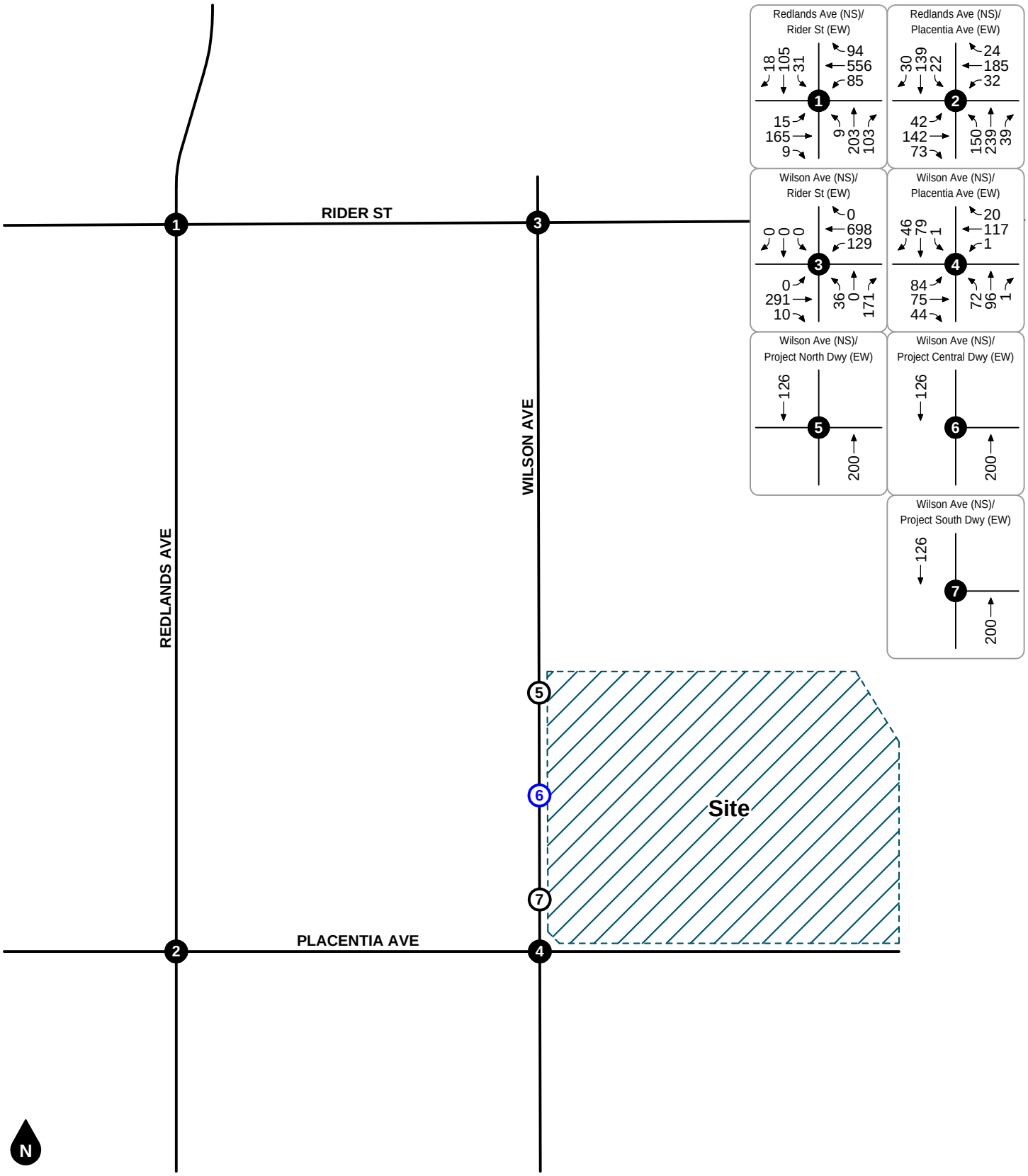
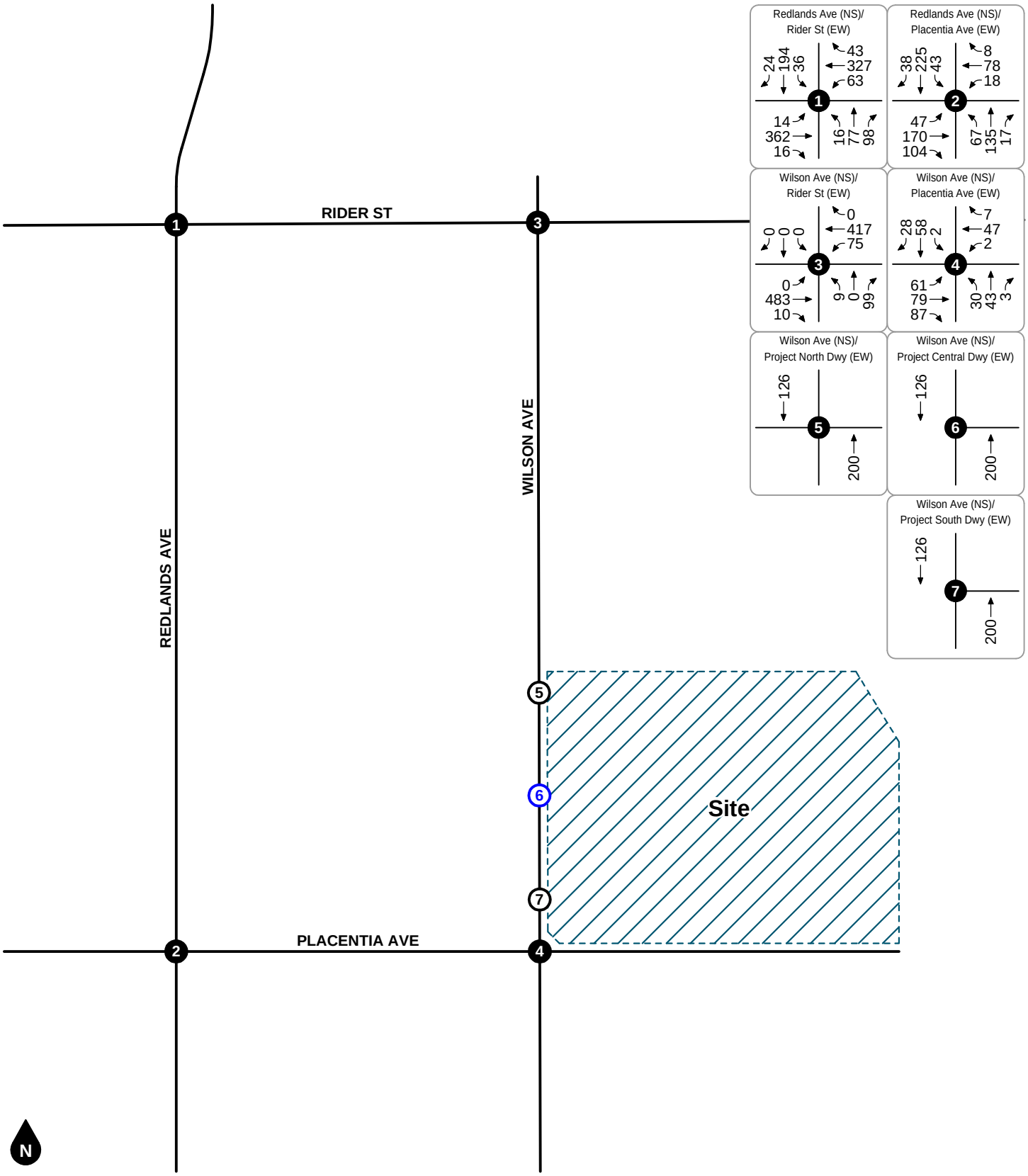


Figure 10
Existing (PCE-Adjusted)
AM Peak Hour Intersection Turning Movement Volumes



Legend

- (#) Study Intersection
- (#) Project Driveway Truck Only
- (#) Project Driveway Auto Only

Figure 11
Existing (PCE-Adjusted)
PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated on figures contained in this section.

PROJECT TRIP GENERATION

Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). ITE land use code 155 (High-Cube Fulfillment Center Non-Sort) was determined to adequately represent the proposed use and were selected for calculation of the project trip generation forecast. The number of trips generated is determined by multiplying the trip generation rates and directional distributions by the land use quantity.

As shown in Table 2, the proposed project is forecast to generate 1,047 daily vehicle trips, including 85 vehicle trips during the AM peak hour and 95 vehicle trips during the PM peak hour.

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips. The percentage of truck trips was obtained from the ITE *Trip Generation Manual Supplement* (11th Edition, 2021). The truck mix by axle type was determined based on South Coast Air Quality Management District (SCAQMD) recommendations for high-cube warehousing facilities without cold-storage. Truck trips were converted to PCE trips based on the following factors: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with four or more axles.

As also shown in Table 2, this equates to 1,252 daily PCE trips, including 101 PCE trips during the AM peak hour and 107 PCE trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Figure 12 shows the forecast project trip distribution patterns for passenger cars. Figure 13 and Figure 14 show the forecast directional distribution patterns for the project generated truck trips. The project trip distribution patterns were developed using engineering judgment in consultation with City of Perris staff and are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity.

Project AM and PM peak hour intersection turning movement volumes expected from the project are depicted on Figure 15 and Figure 16, respectively.

SITE ACCESS

This analysis assumes the following improvements will be constructed by the project and adjacent properties to provide project site access, as necessary based on Wilson Avenue City of Perris General Plan classification as a Collector (66-foot right-of-way):

- Wilson Avenue (NS) at Project North Driveway (EW) [Study Intersection #5]
  - Construct one inbound lane and one outbound lane with westbound stop-control for truck access only
  - Northbound: one through lane
  - Southbound: one through lane and one two-way left turn lane
  - Westbound: one right turn lane

- Wilson Avenue (NS) at Project Central Driveway (EW) [Study Intersection #6]
  - Construct one inbound lane and one outbound lane with westbound stop-control for passenger car access only
  - Northbound: one shared through/right turn lane
  - Southbound: one through lane and one two-way left turn lane
  - Westbound: one shared left/right turn lane

- Wilson Avenue (NS) at Project South Driveway (EW) [Study Intersection #7]
  - Construct one inbound lane and one outbound lane with westbound stop-control for truck access only
  - Northbound: one through lane
  - Southbound: one through lane and one two-way left turn lane
  - Westbound: one right turn lane

A conceptual striping plan along Wilson Avenue including the LCI Wilson Project located across Wilson Avenue is shown on Figure 17. This figure shows the lane configurations and geometrics for the project driveways along Wilson Avenue. Wilson Avenue is classified as a Collector (66-foot right-of-way).

Table 2
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 578.265 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Daily Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	61	14	75	34	53	87	914
Trucks							
2-Axle Trucks	1	1	2	1	1	2	22
3-Axle Trucks	1	1	2	1	1	2	28
4+ Axle Trucks	3	3	6	2	2	4	83
Subtotal	5	5	10	4	4	8	133
Total Vehicle Trips Generated	**66**	**19**	**85**	**38**	**57**	**95**	**1,047**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	61	14	75	34	53	87	914
Trucks								
2-Axle Trucks	1.5	2	2	4	2	2	4	33
3-Axle Trucks	2.0	2	2	4	2	2	4	56
4+ Axle Trucks	3.0	9	9	18	6	6	12	249
Subtotal		13	13	26	10	10	20	338
Total PCE Trips Generated		**74**	**27**	**101**	**44**	**63**	**107**	**1,252**

Notes:
(1) TSF = Thousand Square Feet

(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse used for truck mix.

(3) PCE = Passenger Car Equivalent

(4) Source: County of Riverside *Transportation Analysis Guidelines for Level of Service and Vehcile Miles Traveled* (December 2020).

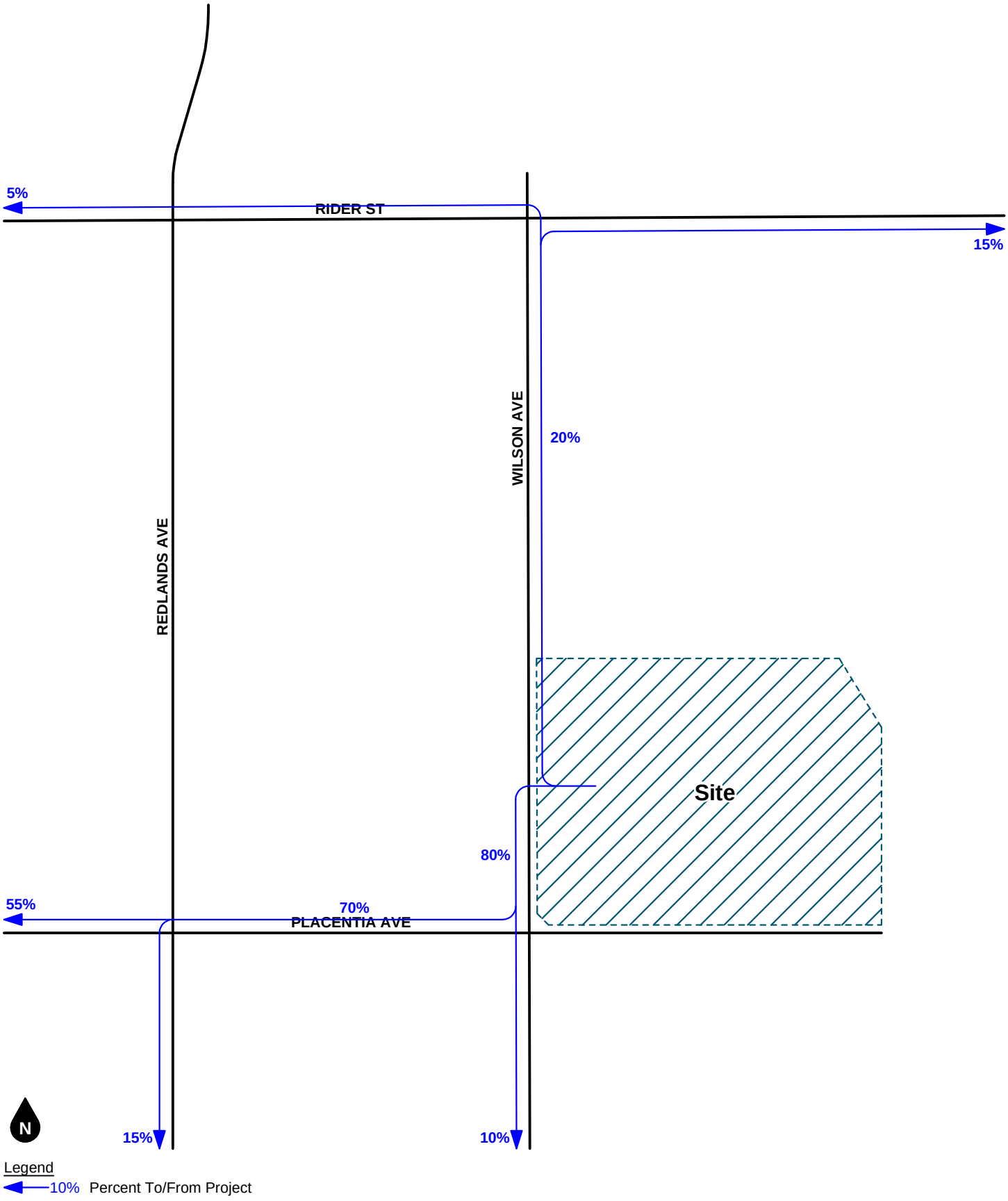


Figure 12
Project Trip Distribution - Passenger Car

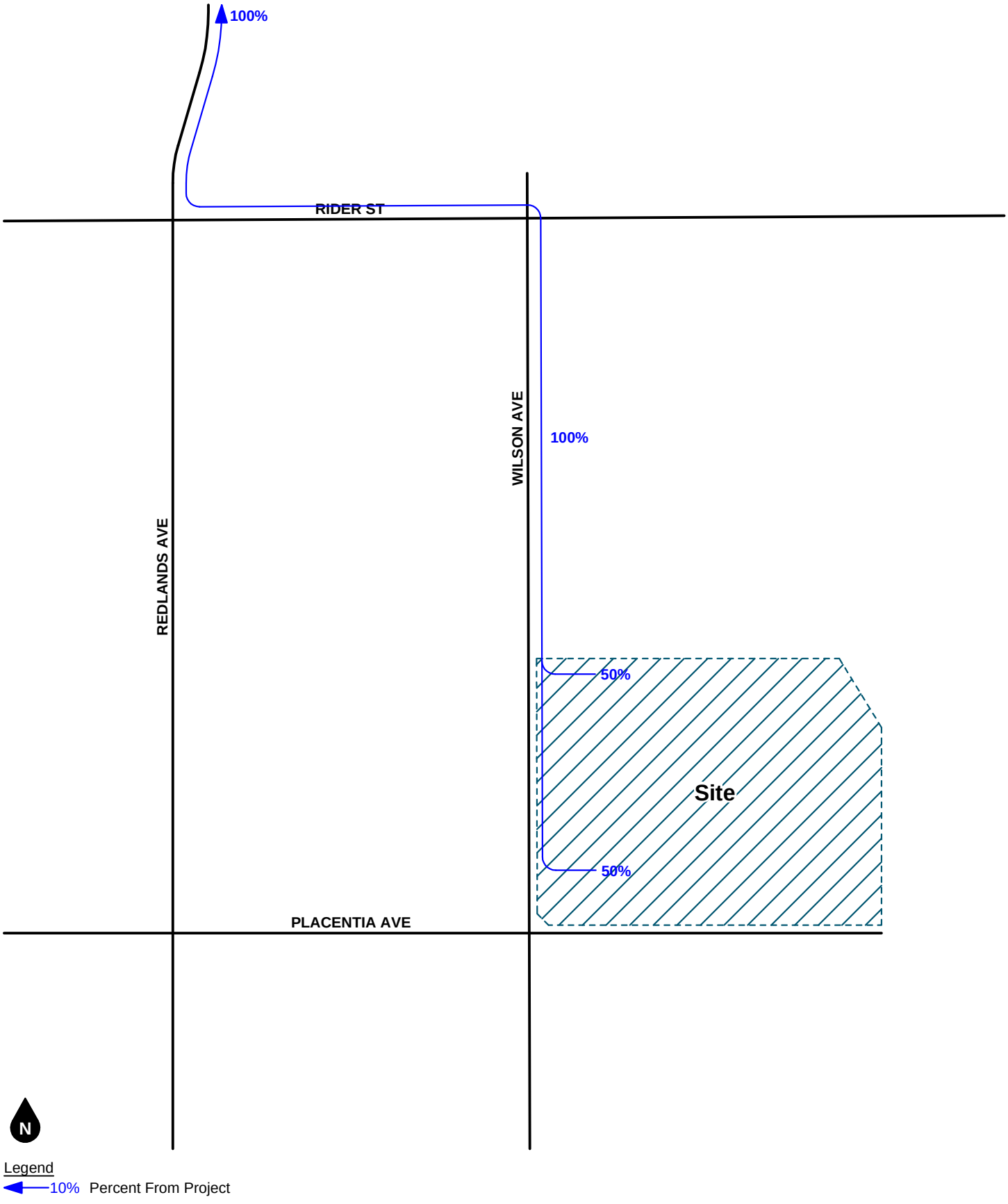


Figure 13
Project Outbound Trip Distribution - Trucks

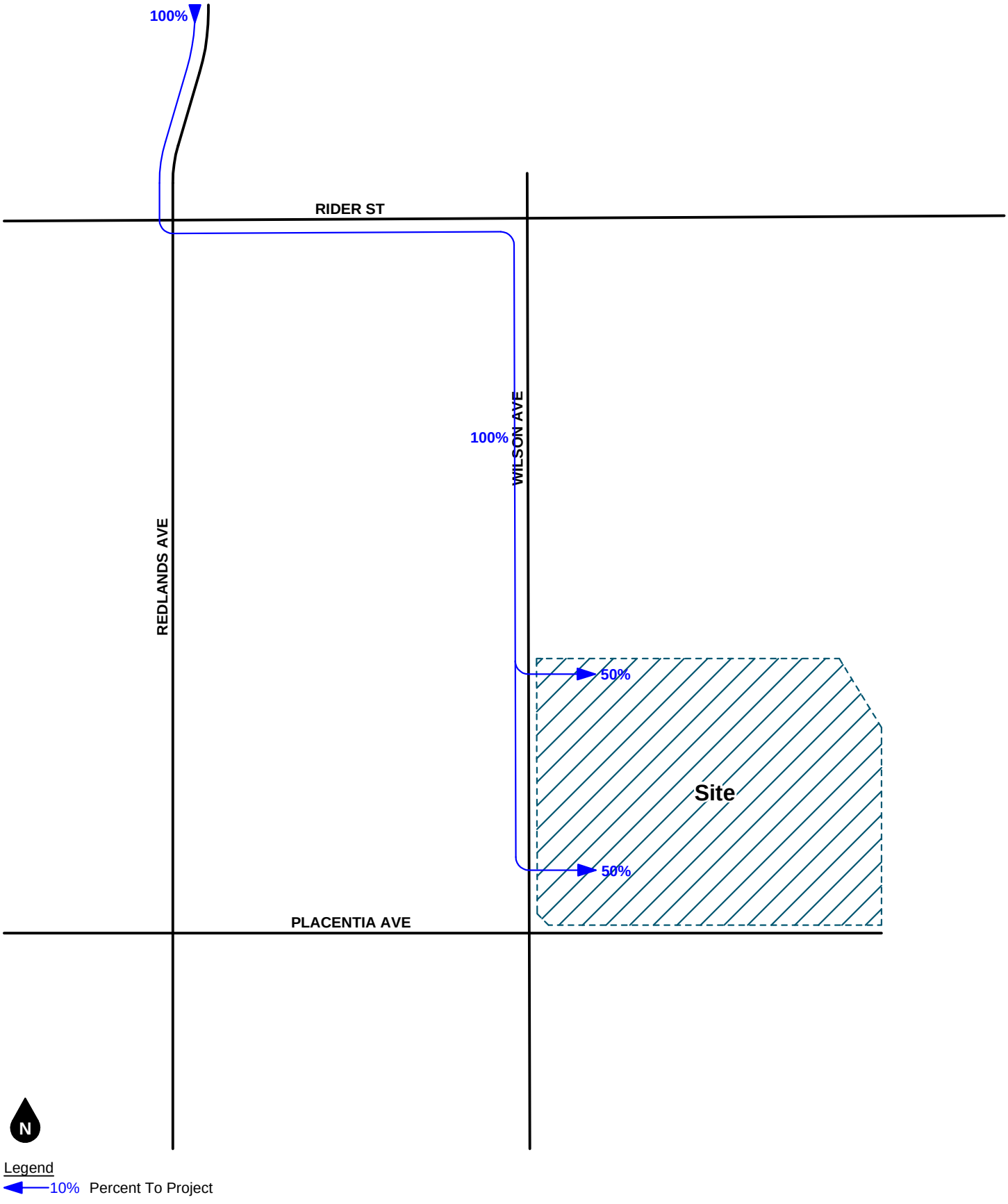
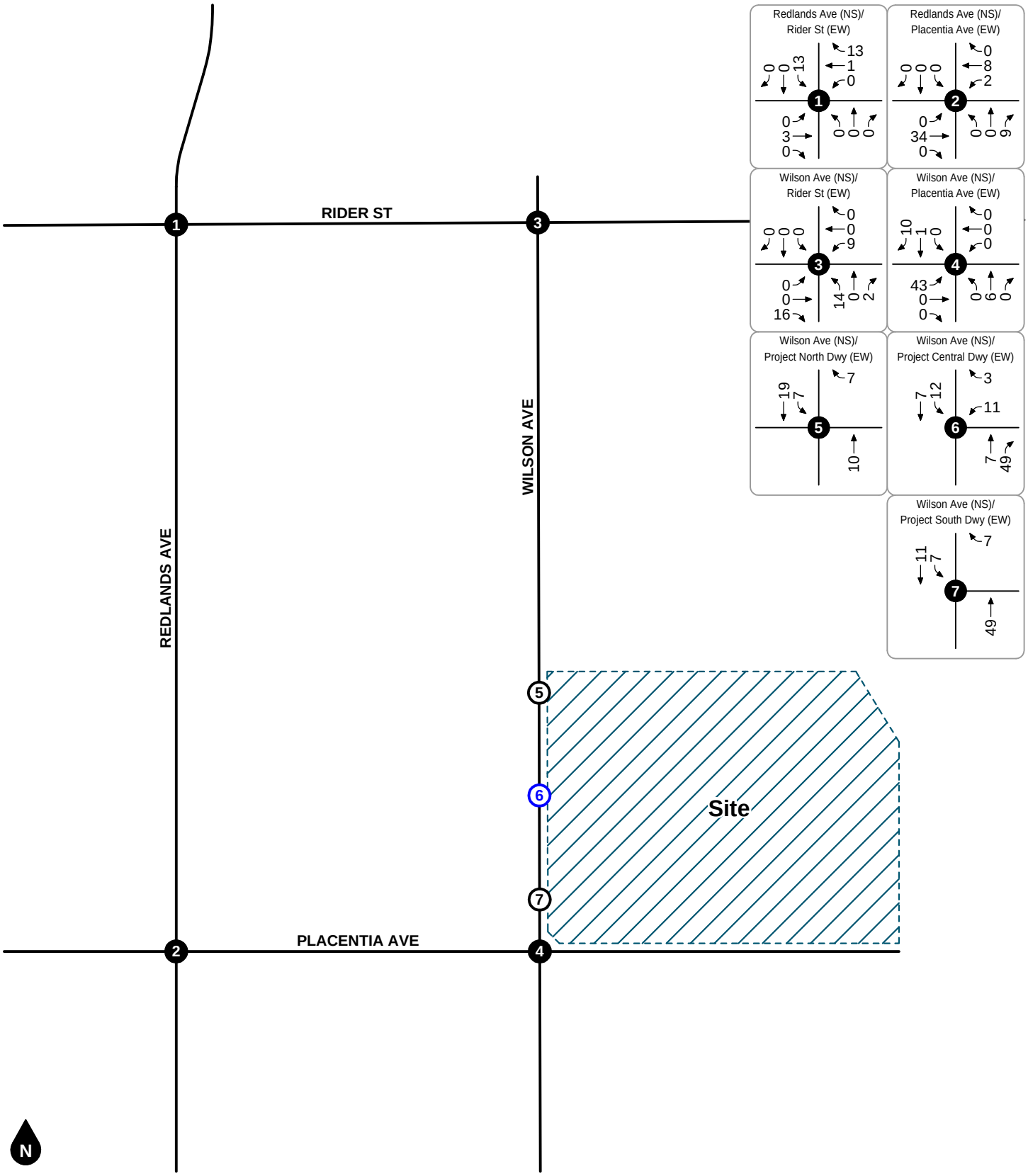


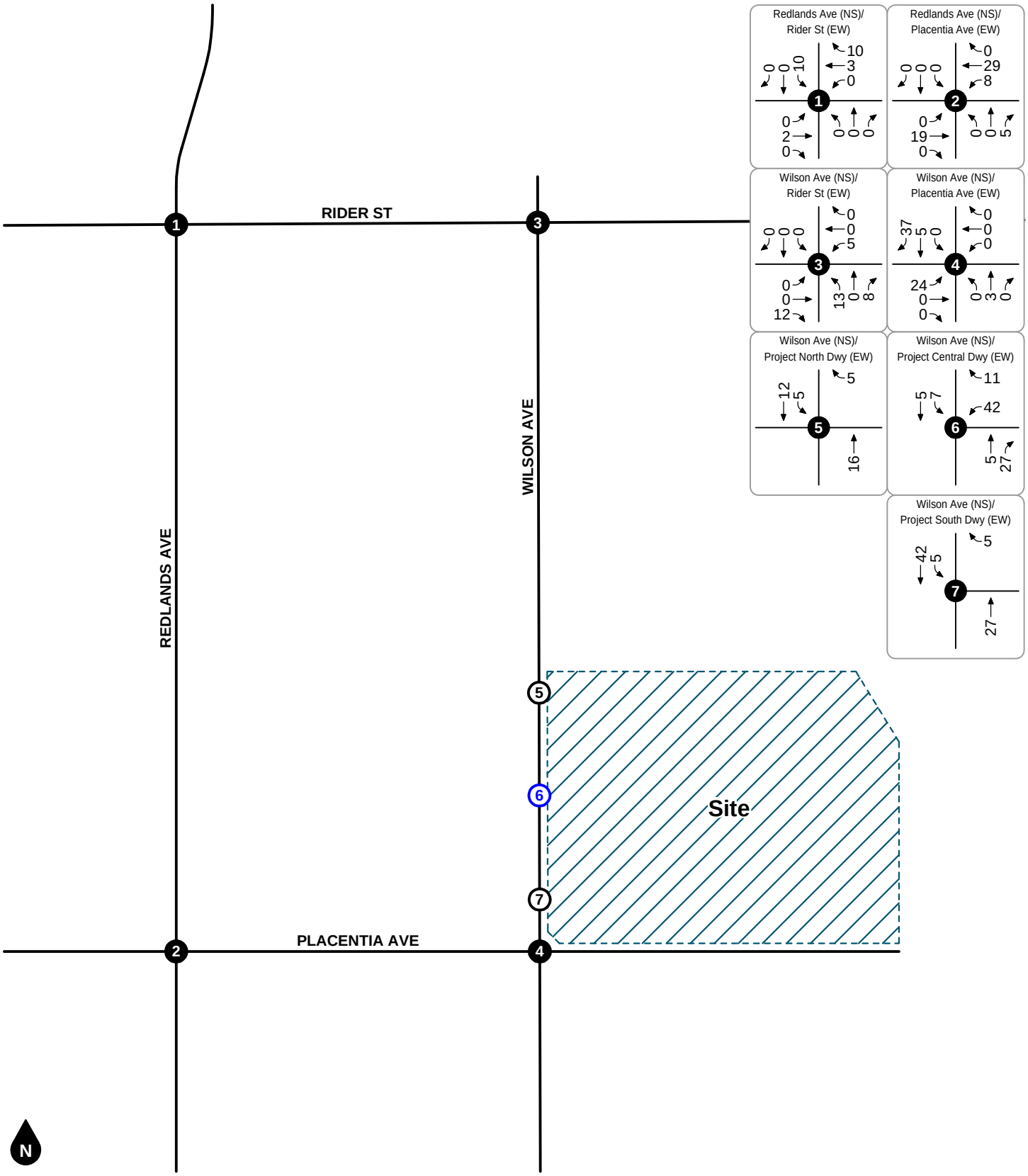
Figure 14
Project Inbound Trip Distribution - Trucks



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

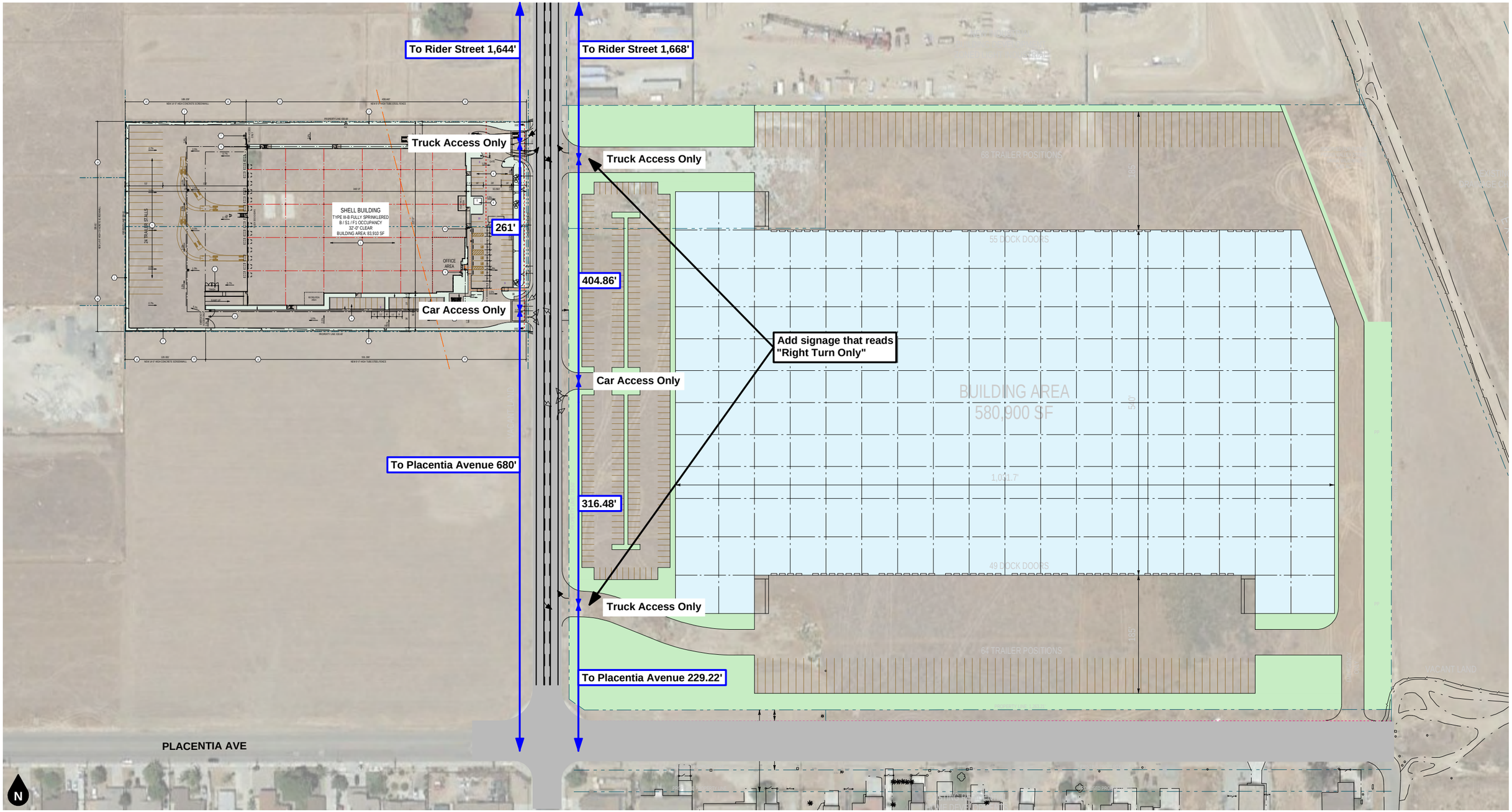
Figure 15
Project AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

Figure 16
Project PM Peak Hour Intersection Turning Movement Volumes



Legend

Passenger Car Only Movement

Primary Truck Only Movement

Figure 17
Wilson Avenue Conceptual Striping Plan

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated on figures contained in this section.

CUMULATIVE TRIPS

Ambient Growth Rate

To account for ambient growth on roadways, existing 2024 roadway volumes were increased by a growth rate of three percent (3%) per year over two years for Opening Year (2026) conditions. This equates to a total growth factor of approximately 1.0609. The ambient growth rate was conservatively applied to all movements at the study intersections.

Other Development

To account for trips generated by future development, trips generated by pending or approved other development projects in the City of Perris were added to the study area. Table 3 shows the other development trip generation and Figure 18 exhibits the other development location map.

Figure 19 and Figure 20 show the forecast AM and PM peak hour intersection turning movement volumes for trips generated by other developments.

ANALYSIS SCENARIO VOLUME FORECASTS

Existing Plus Project

Existing Plus Project volume forecasts were developed by adding the project generated trips to Existing volumes. Existing Plus Project AM and PM peak hour intersection turning movement volumes are shown on Figure 21 and Figure 22.

Opening Year (2026) Without Project

Opening Year (2026) Without Project volume forecasts were developed by adding ambient growth and other development trips to Existing volumes. Opening Year (2026) Without Project AM and PM peak hour intersection turning movement volumes are shown on Figure 23 and Figure 24.

Opening Year (2026) With Project

Opening Year (2026) With Project volume forecasts were developed by adding project generated trips to the Opening Year (2026) Without Project forecast. Opening Year (2026) With Project AM and PM peak hour intersection turning movement volumes are shown on Figure 25 and Figure 26.

Table 3 (1 of 2)
Other Development Trip Generation

Map ID	Project Name	Land Use	Quantity	Units[1]	Trips Generated[2]						
					AM Peak Hour			PM Peak Hour			
					In	Out	Total	In	Out	Total	Daily
1	LCI Wilson	Warehousing	83.910	TSF							
		- Cars			10	3	13	4	9	13	93
		- Trucks			3	3	6	3	3	6	128
2	Redlands Avenue West	High-Cube Warehouse	334.447	TSF							
		- Cars			37	9	46	19	30	49	442
		- Trucks			10	3	13	3	3	6	415
3	Redlands Avenue East	High-Cube Warehouse	254.511	TSF							
		- Cars			28	7	35	15	23	38	336
		- Trucks			10	3	13	3	3	6	318
4	Stratford Ranch	Single-Family Residential	270	DU	49	140	189	160	94	254	2,546
5	McKay Indus	High-Cube Warehouse	232.000	TSF							
		- Cars			24	6	30	14	21	35	367
		- Trucks			3	3	6	3	3	6	135
6	Expressway Industrial	High-Cube Warehouse	347.000	TSF							
		- Cars			36	9	45	20	32	52	548
		- Trucks			10	10	20	3	3	6	204
7	Patriot Ind	High-Cube Warehouse	286.000	TSF							
		- Cars			30	7	37	17	26	43	452
		- Trucks			10	10	20	3	3	6	168
8	First Sinclair	High-Cube Warehouse	423.000	TSF							
		- Cars			46	11	57	26	40	66	689
		- Trucks			13	13	26	3	3	6	257
9	Puliam Indus	Light Industrial	16.000	TSF							
		- Cars			10	1	11	9	10	19	74
		- Trucks			0	0	0	0	0	0	10
10	Burge Indus 1	Light Industrial	18.000	TSF							
		- Cars			12	2	14	2	10	12	83
		- Trucks			0	0	0	0	0	0	10
11	Burge Indus 2	Light Industrial	43.354	TSF							
		- Cars			28	4	32	4	24	28	200
		- Trucks			0	0	0	0	0	0	25
12	Calvio Ind 1 & 2	Light Industrial	73.000	TSF							
		- Cars			47	6	53	40	47	87	337
		- Trucks			0	0	0	0	0	0	42
13	7-Eleven Auto Carwash	Super Convenience Market	4.100	TSF	64	64	128	61	61	122	2,404

Table 3 (2 of 2)
Other Development Trip Generation

Map ID	Project Name	Land Use	Quantity	Units[1]	Trips Generated[2]						
					AM Peak Hour			PM Peak Hour			
					In	Out	Total	In	Out	Total	Daily
14	Rider 2 & 4	High-Cube Warehouse	1,353.586	TSF							
		- Cars			142	34	176	80	125	205	2,139
		- Trucks			35	35	70	16	16	32	792
15	Chartwell Ind	Warehousing	141.000	TSF							
		- Cars			16	5	21	6	15	21	157
		- Trucks			3	3	6	3	3	6	214
16	First Indus (Goodwin)	High-Cube Warehouse	338.000	TSF							
		- Cars			35	8	43	20	31	51	534
		- Trucks			10	10	20	3	3	6	199
17	Wilson Ind 2	Warehousing	155.000	TSF							
		- Cars			18	5	23	7	17	24	172
		- Trucks			3	3	6	6	3	9	236
18	First Industrial - Wilson	Warehousing	185.000	TSF							
		- Cars			21	6	27	8	20	28	205
		- Trucks			3	3	6	10	8	18	285
19	May Ranch	Multi-Family Residential	308	DU	30	93	123	30	93	123	2,076
20	Gas Station, Car Wash, & Hotel	Hotel	12.000	TSF	n/a[3]	n/a	n/a	n/a	n/a	n/a	n/a
		Commercial Retail	10.000	TSF							
21	Redlands Indus	Warehousing	121.100	TSF							
		- Cars			14	4	18	5	13	18	134
		- Trucks			3	3	6	3	3	6	186
22	Nova Homes	PDO	76	DU	37	16	53	45	26	71	717
23	Mosque	Mosque	12.000	TSF	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24	Habit & QSR's	Commercial	8.000	TSF	n/a	n/a	n/a	n/a	n/a	n/a	n/a
25	Tommy's Carwash & QSR	Commercial	8.500	TSF	n/a	n/a	n/a	n/a	n/a	n/a	n/a
26	Walmart Fueling	Commercial	0.440	TSF	n/a	n/a	n/a	n/a	n/a	n/a	n/a
27	Citrus Court	PDO	111	DU	20	57	77	66	38	104	1,046
Total					**870**	**599**	**1,469**	**720**	**862**	**1,582**	**19,375**

Notes:
(1) TSF = Thousand Square Feet; DU = Dwelling Units

(2) ITE = Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.

(3) n/a = Not available. Not enough info to determine trip generation. These projects would also contribute nominal trips to the study area.

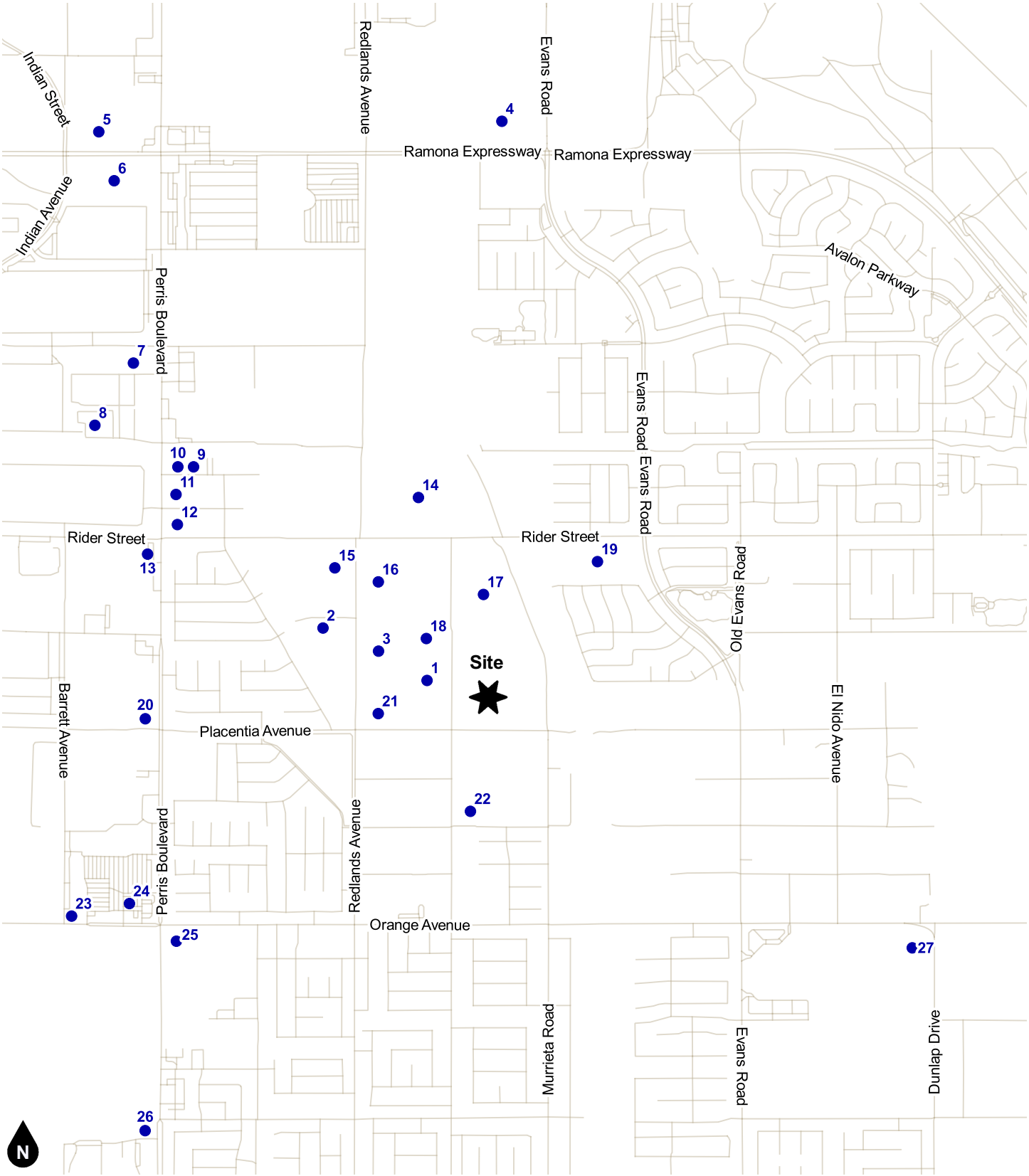
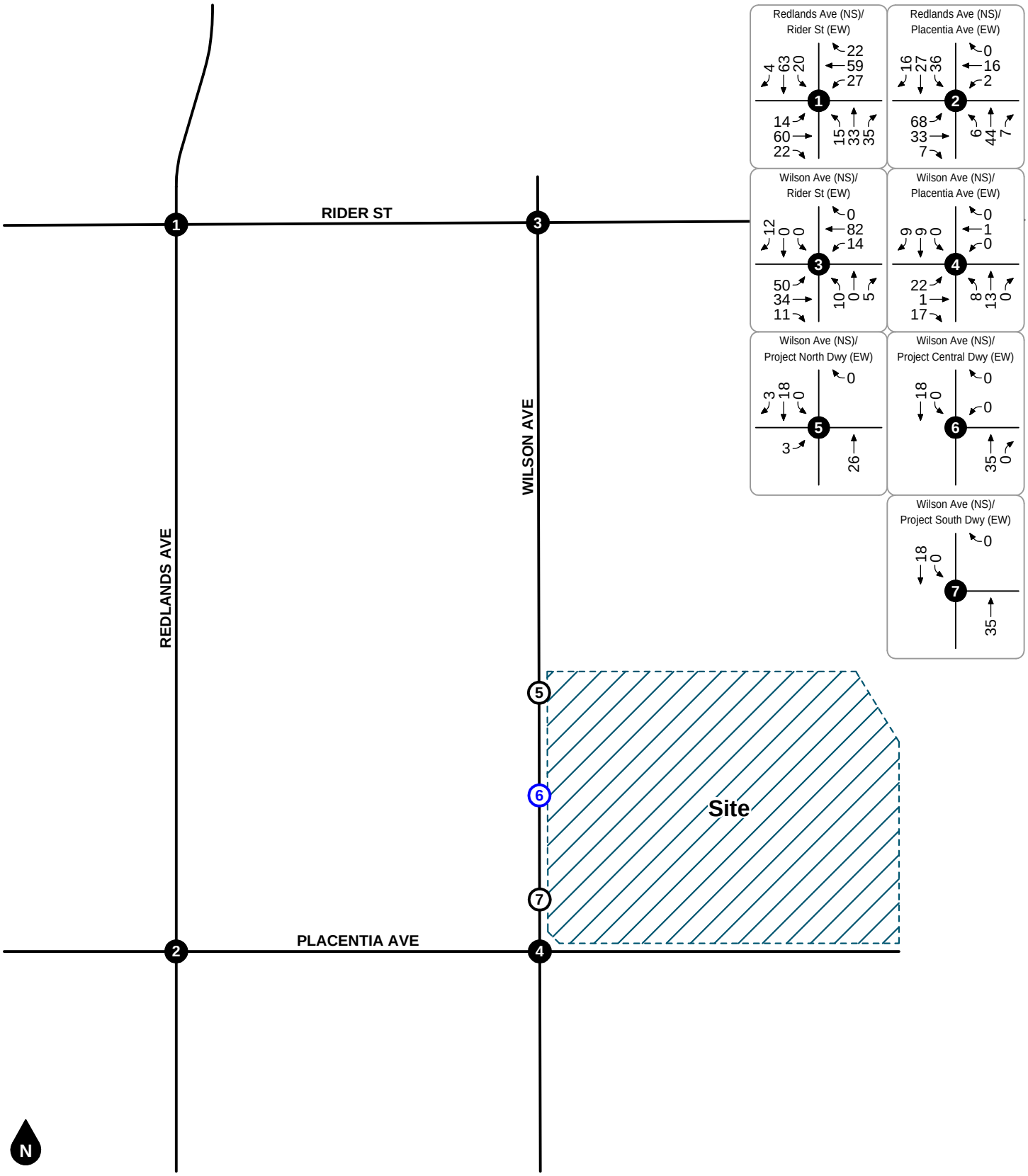


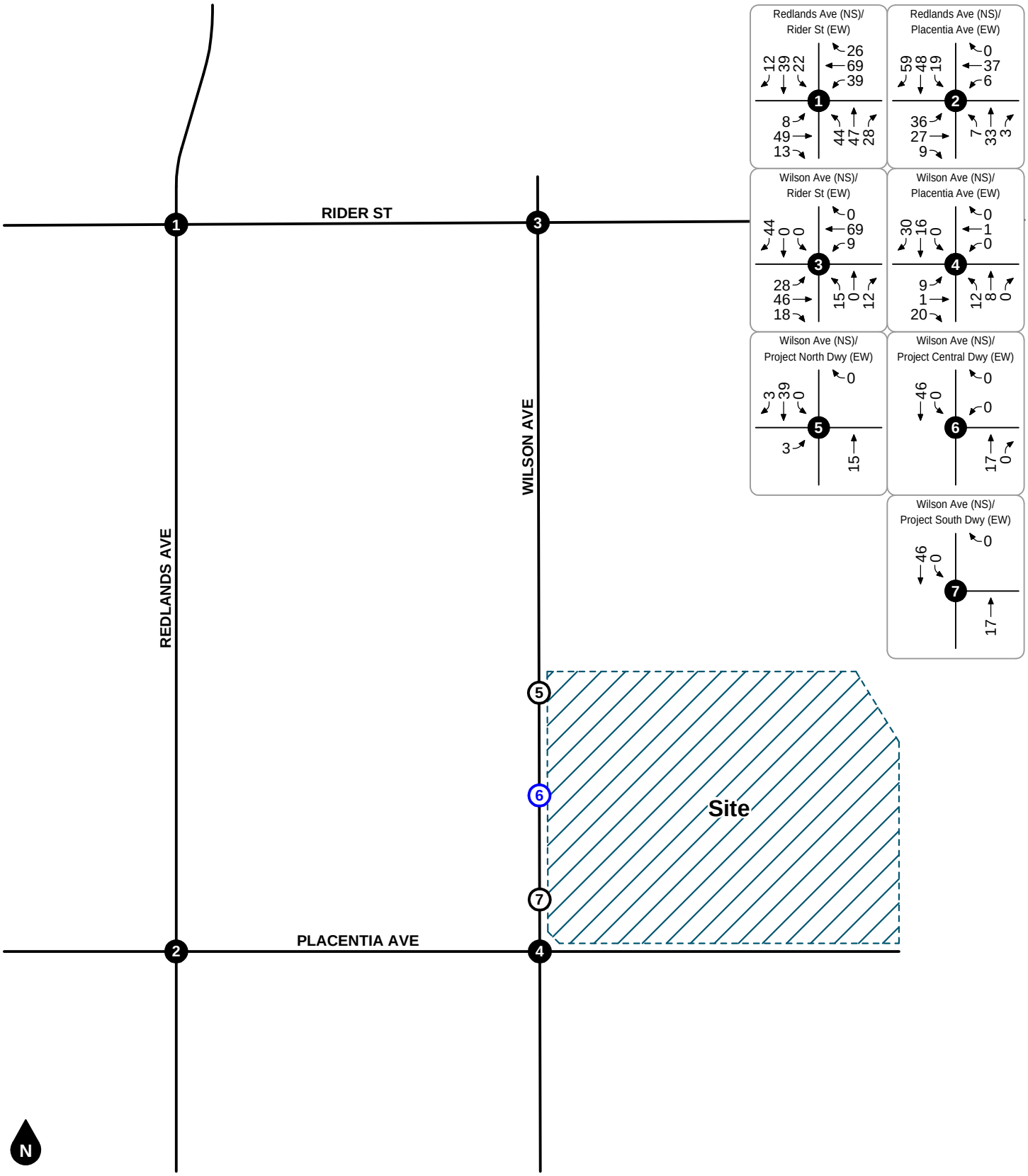
Figure 18
Other Development Location Map



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

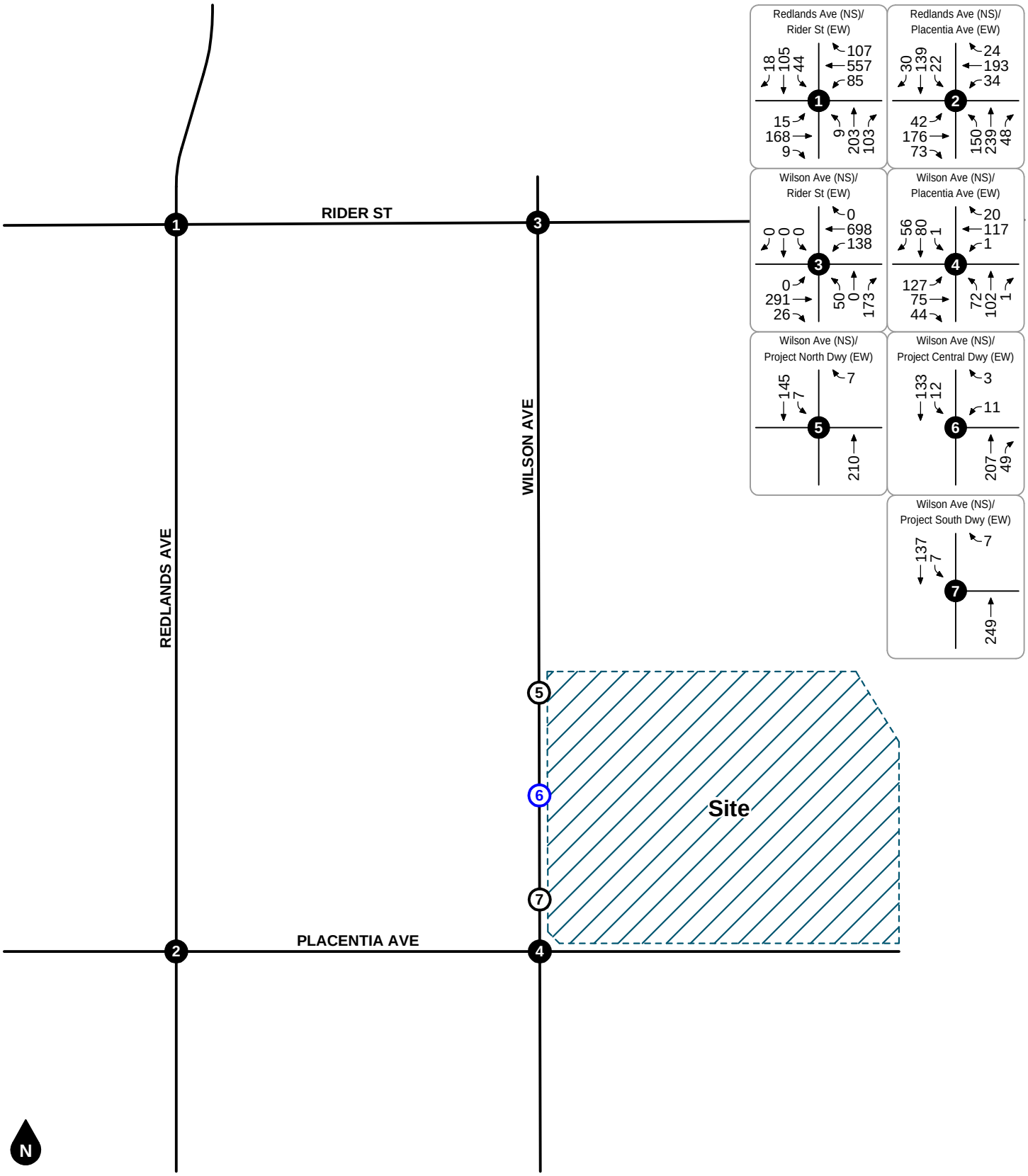
Figure 19
Other Development
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

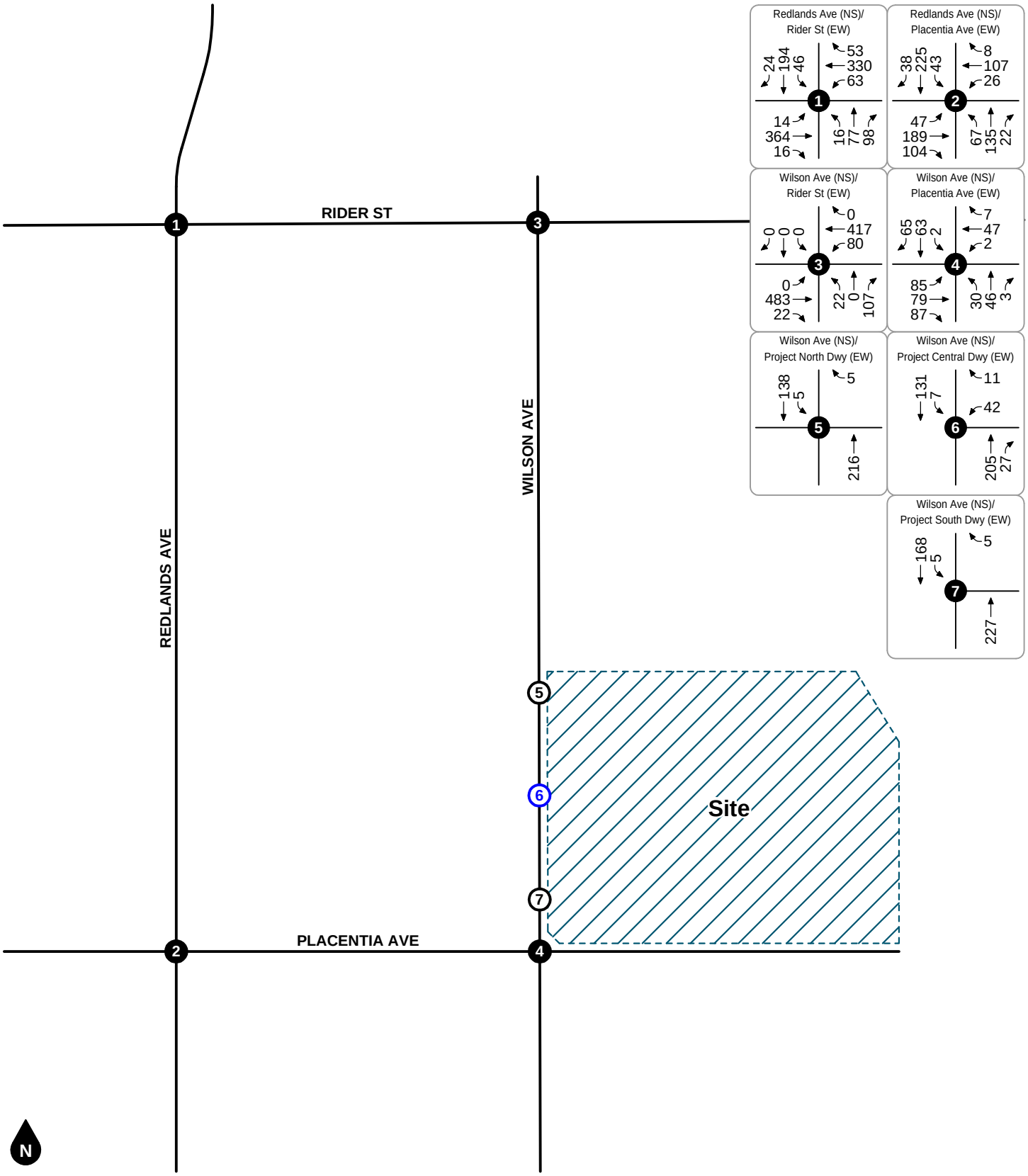
Figure 20
Other Development
PM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

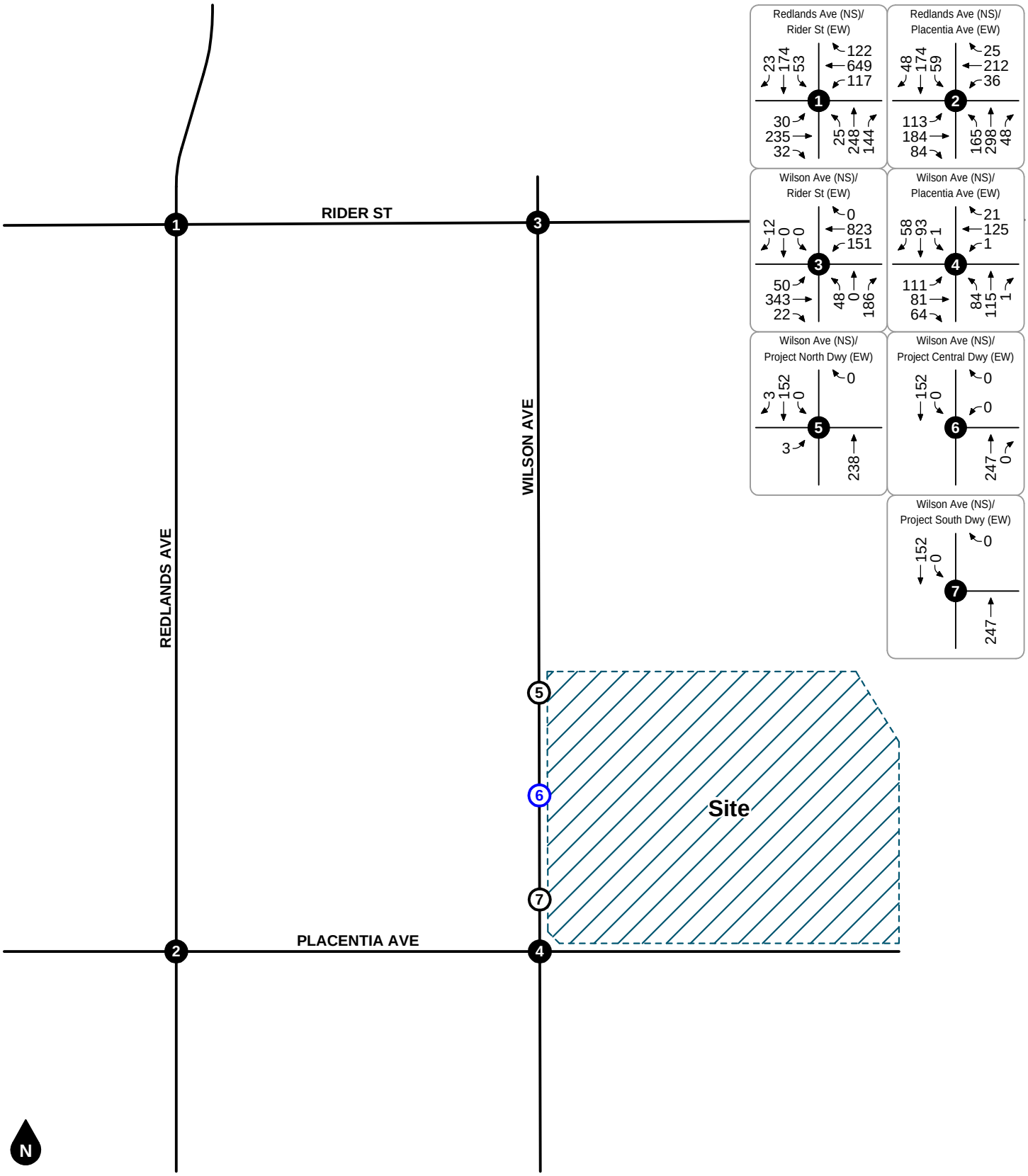
Figure 21
Existing Plus Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

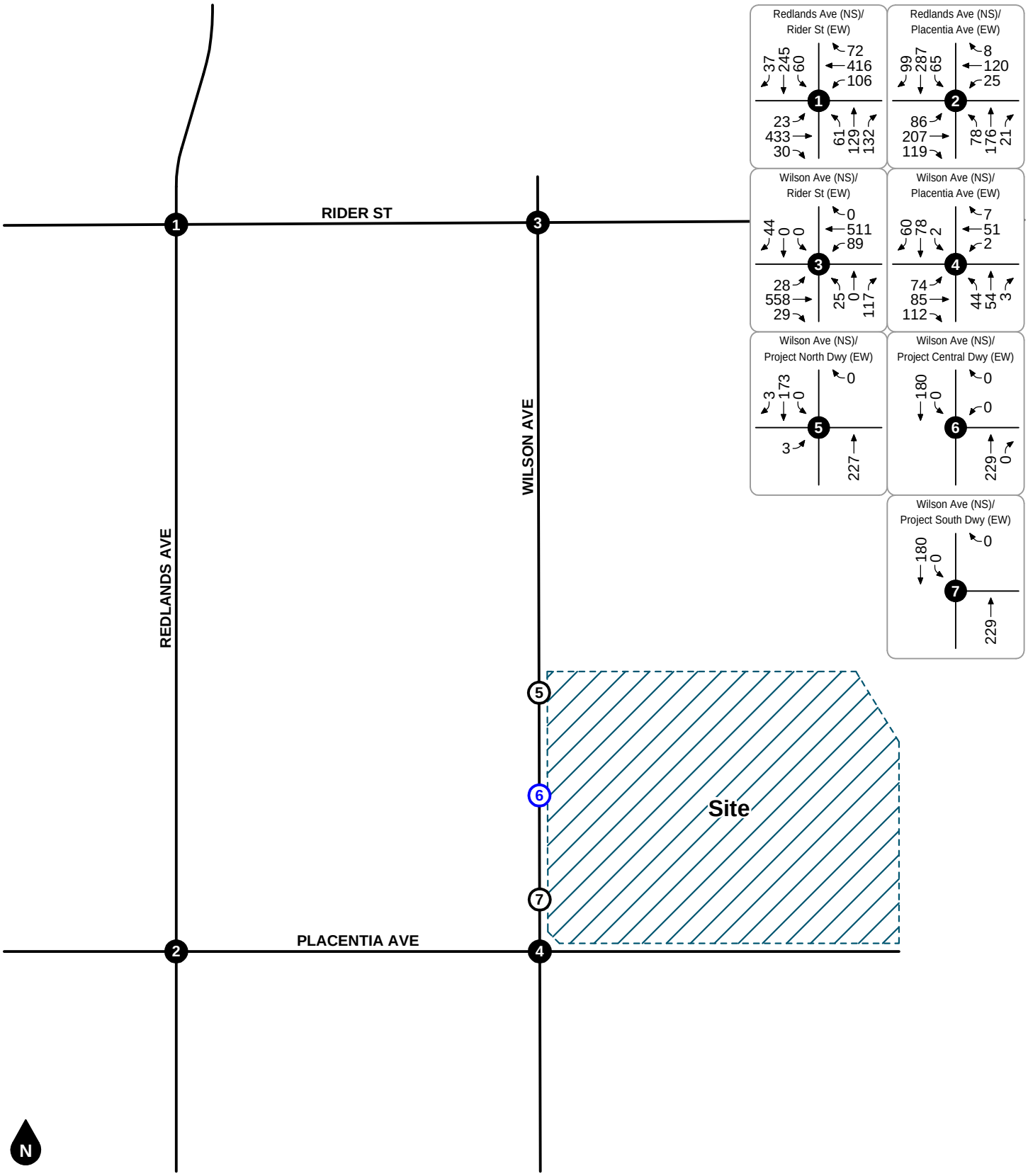
Figure 22
Existing Plus Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

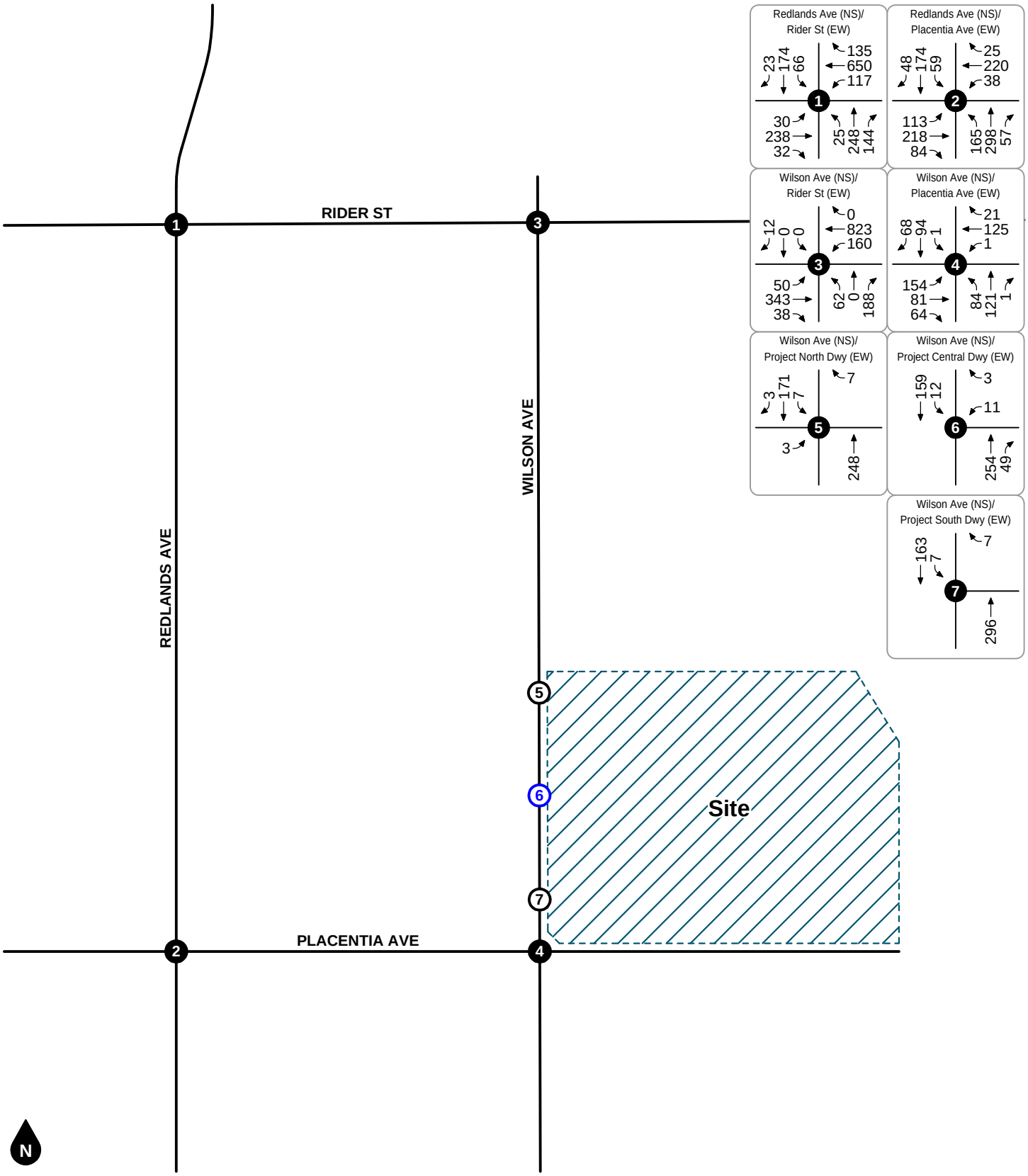
Figure 23
Opening Year (2026) Without Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- (#) Study Intersection
- (#) Project Driveway Truck Only
- (#) Project Driveway Auto Only

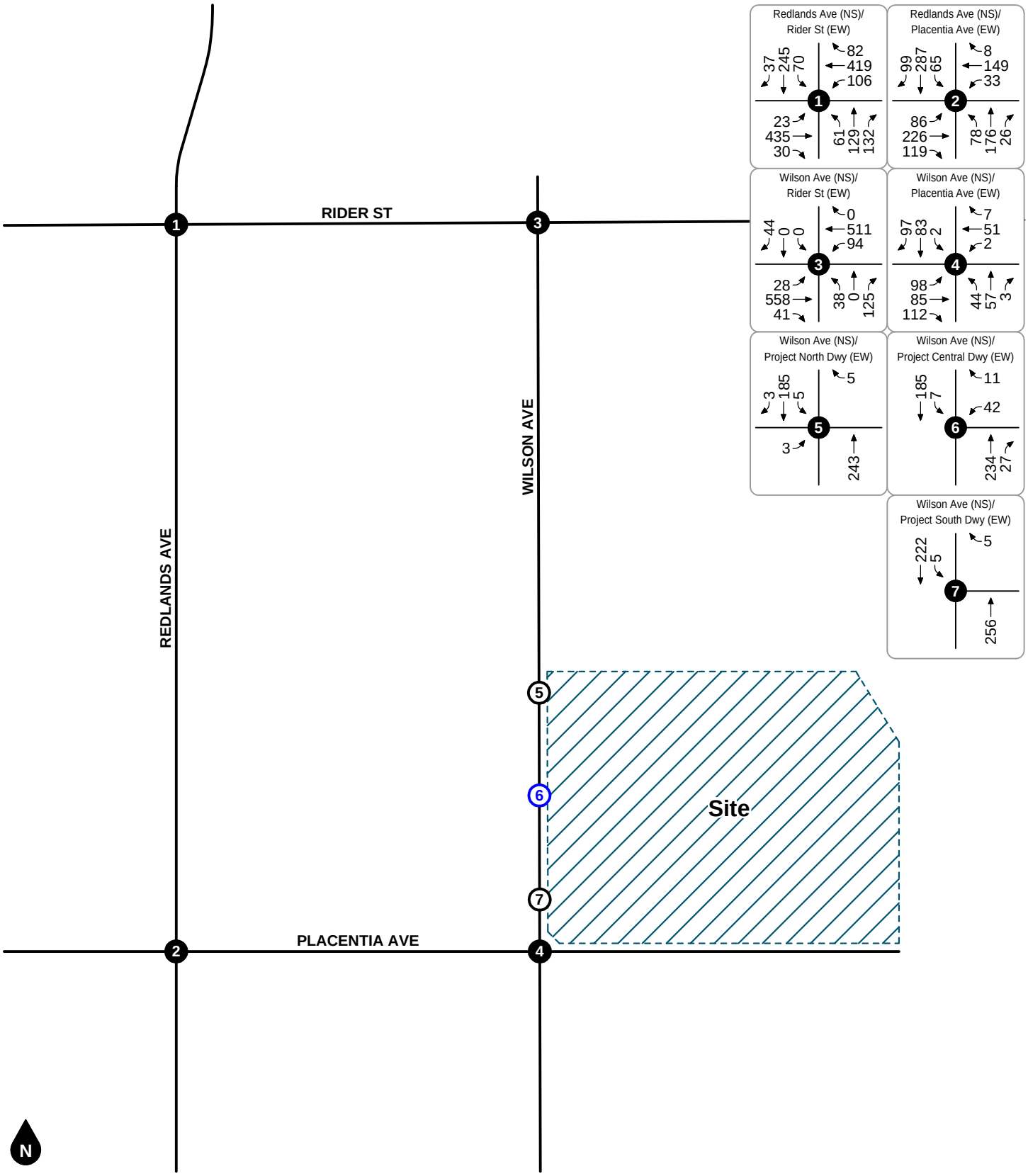
Figure 24
Opening Year (2026) Without Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

Figure 25
Opening Year (2026) With Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

- # Study Intersection
- # Project Driveway Truck Only
- # Project Driveway Auto Only

Figure 26
Opening Year (2026) With Project
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE OPERATIONAL ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

EXISTING PLUS PROJECT

The intersection Levels of Service for Existing Plus Project conditions are shown in Table 4. As shown in Table 4, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project conditions. Therefore, the proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Existing Plus Project conditions and no off-site improvements or corrective measures are recommended.

OPENING YEAR (2026) WITHOUT PROJECT

The intersection Levels of Service for Opening Year (2026) Without Project conditions are shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) Without Project conditions.

OPENING YEAR (2026) WITH PROJECT

The intersection Levels of Service for Opening Year (2026) With Project conditions are shown in Table 6. As shown in Table 6, the study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) With Project conditions. Therefore, the proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Opening Year (2026) With Project conditions and no off-site improvements or corrective measures are recommended.

It should be noted that since all study area intersections are forecasted to operate at acceptable Levels of Service, a traffic signal warrant analysis for unsignalized intersections is not necessary.

Table 4
Existing Plus Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	Existing				Existing Plus Project				Change in Peak Hour Delay	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	AM	PM
1. Redlands Ave at Rider St	TS	19.5	B	19.6	B	19.8	B	19.7	B	+0.3	+0.1
2. Redlands Ave at Placentia Ave	AWS	12.3	B	10.9	B	12.8	B	11.3	B	+0.5	+0.4
3. Wilson Ave at Rider St	TS	14.6	B	11.7	B	14.9	B	12.2	B	+0.3	+0.5
4. Wilson Ave at Placentia Ave	AWS	9.5	A	8.4	A	9.9	A	8.6	A	+0.4	+0.2
5. Wilson Ave at Project North Dwy	CSS	--	--	--	--	9.4	A	9.4	A	--	--
6. Wilson Ave at Project Central Dwy	CSS	--	--	--	--	10.5	B	10.6	B	--	--
7. Wilson Ave at Project South Dwy	CSS	--	--	--	--	9.7	A	9.5	A	--	--

Notes:

(1) TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 5
Opening Year (2026) Without Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Redlands Ave at Rider St	TS	22.3	C	22.5	C
2. Redlands Ave at Placentia Ave	AWS	13.8	B	12.8	B
3. Wilson Ave at Rider St	TS	17.3	B	14.3	B
4. Wilson Ave at Placentia Ave	AWS	10.3	B	8.9	A

Notes:

(1) TS = Traffic Signal; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

Table 6
Opening Year (2026) With Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	Opening Year (2026) Without Project				Opening Year (2026) With Project				Change in Peak Hour Delay	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	AM	PM
1. Redlands Ave at Rider St	TS	22.3	C	22.5	C	22.5	C	22.6	C	+0.2	+0.1
2. Redlands Ave at Placentia Ave	AWS	13.8	B	12.8	B	14.4	B	13.2	B	+0.6	+0.4
3. Wilson Ave at Rider St	TS	17.3	B	14.3	B	17.6	B	14.9	B	+0.3	+0.6
4. Wilson Ave at Placentia Ave	AWS	10.3	B	8.9	A	10.8	B	9.2	A	+0.5	+0.3
5. Wilson Ave at Project North Dwy	CSS	--	--	--	--	12.1	B	12.2	B	--	--
6. Wilson Ave at Project Central Dwy	CSS	--	--	--	--	10.8	B	11.1	B	--	--
7. Wilson Ave at Project South Dwy	CSS	--	--	--	--	10.0	A	9.7	A	--	--

Notes:

(1) TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

7. SITE ACCESS AND CIRCULATION

This section includes a description of project improvements necessary to provide site access.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project and adjacent properties to provide project site access, as necessary based on Wilson Avenue City of Perris General Plan classification as a Collector (66-foot right-of-way):

- Wilson Avenue (NS) at Project North Driveway (EW) [Study Intersection #5]
  - Construct one inbound lane and one outbound lane with westbound stop-control for truck access only
  - Northbound: one through lane
  - Southbound: one through lane and one two-way left turn lane
  - Westbound: one right turn lane

- Wilson Avenue (NS) at Project Central Driveway (EW) [Study Intersection #6]
  - Construct one inbound lane and one outbound lane with westbound stop-control for passenger car access only
  - Northbound: one shared through/right turn lane
  - Southbound: one through lane and one two-way left turn lane
  - Westbound: one shared left/right turn lane

- Wilson Avenue (NS) at Project South Driveway (EW) [Study Intersection #7]
  - Construct one inbound lane and one outbound lane with westbound stop-control for truck access only
  - Northbound: one through lane
  - Southbound: one through lane and one two-way left turn lane
  - Westbound: one right turn lane

This analysis also assumes the project shall comply with the following or similar conditions as part of the City of Perris standard development review process:

- A construction work site traffic control plan shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and shall be submitted to the City for review and approval prior to the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction related trips shall be restricted to off-peak hours to the extent possible.

- All on-site and off-site roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable State/Federal engineering standards to the satisfaction of the City of Perris.

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Perris.

- Adequate emergency vehicle access shall be provided to the satisfaction of the Riverside County Fire Authority.

- The final grading, landscaping, and street improvement plans shall demonstrate that sight distance requirements are met in accordance with applicable City of Perris/California Department of Transportation sight distance standards.

WILSON AVENUE QUEUING ANALYSIS

Table 7 summarizes results of the queuing analysis for southbound left turns at the project driveway study intersections on Wilson Avenue to ensure that adequate storage is available within the two-way left turn lane median. The values represent the projected queue length. The queuing analysis is based on the 95th-percentile queue length conducted as part of the Highway Capacity Manual intersection delay analysis using the Vistro software (see Appendix D).

As shown in Table 7, adequate spacing is forecast to be provided at the driveway study intersections on Wilson Avenue to accommodate southbound left turn queues within the two-way left turn lane median.

Note that the calculated storage lengths are based on passenger vehicles with a length of 25 feet. Since these driveways will be used by trucks, a minimum storage length of 75 feet is recommended to accommodate a 73.5-foot long WB-67 truck. Wilson Avenue adjacent to these proposed driveways is proposed to have a two-way left-turn median that provides adequate storage capacity for two to four trucks between driveways. Thus, adequate spacing is forecast to be provided at the project driveway study intersections on Wilson Avenue for southbound left turning movements.

Queuing for the truck access only driveway for the future development on the opposite side of Wilson Avenue is not forecast to interfere with southbound left turn movements for the proposed project's north driveway (truck access only). Since the northerly driveway for the future development on the opposite side of Wilson Avenue will provide truck access only, and truck routes only allow for site access from southbound Wilson Avenue, there are no northbound left-turning trucks expected to conflict with southbound left turning trucks entering the project north driveway.

Queuing for the passenger car only driveway for the future development on the opposite side of Wilson Avenue is not forecast to interfere with southbound left turn movements for the proposed project's central driveway (passenger cars only). Since the proposed project is forecast to result in nominal queues (less than one passenger car length) for the southbound left turn entering the project central driveway, the much smaller development on the opposite side of Wilson Avenue is also expected to generate nominal queues for the northbound left turn entering that development's southerly driveway. There is more than sufficient spacing between these two driveways to accommodate the conflicting northbound and southbound left turn forecasted queue lengths (see Figure 17).

DRIVEWAY SPACING

According to Table 4.0-2 of the Perris Valley Commerce Center Specific Plan, the driveway spacing for a Collector (Wilson Avenue) is 330 feet. The distance from Placentia Avenue to the project central driveway (full access driveway, auto only) is 545.70 feet. The restricted truck accesses range from 229 feet to 380 feet from either the project central driveway or Placentia Avenue. The proposed development deviates from the 330-foot Collector standards for southerly truck access; however, the deviation is not expected to result in substantial disruptions to traffic flow along Wilson Avenue due to the low volume (10 to 14 two-way trips during the AM/PM peak hours) and restricted turning movements (right turn out and left turn in only).

Additionally, based on the results of the queuing analysis, adequate spacing is forecast to be provided at the driveway study intersections on Wilson Avenue.

SPECIFIC PLAN AMENDMENT

Figure 27 shows the proposed vacation for the Perris Valley Commerce Center Specific Plan of a paper street connecting Wilson Avenue to Murrieta Road and the vacation of a portion of Murrieta Road north of Placentia Avenue.

The Proposed Project includes the vacation of a paper street connecting Wilson Avenue to Murrieta Road and the vacation of the portion of Murrieta Road north of Placentia Avenue. A Specific Plan Amendment is required to remove these streets from the Perris Valley Commerce Center Specific Plan. PVCCSP Amendment 15 will modify Figure 3.0-1 Circulation Plan Map, Figure 3.0-4 Mass Transit Routes, Figure 3.0-5 Trails System Map, Figure 3.0-7 Existing EMWD Water Map, Figure 3.0-8 Existing EMWD Sewer Map, Figure 3.0-9 Existing EMWD Recycled Water Map, Figure 3.0-12 Existing Natural Gas Map, Figure 3.0-13 Existing Electrical Map, Figure 3.0-14 Existing Telephone Map, Figure 3.0-15 Electrical Cable TV Map, and Figure 5.0-7 Perris Valley Storm Channel Trail to remove the paper street connecting Wilson Avenue to Murrieta Road and 80-foot of right-of-way on Murrieta Road north of Placentia Avenue from the PVCCSP.

The paper street connecting Wilson Avenue and Murrieta Road serves APNs 300-170-004 and 300-170-006, which would otherwise be landlocked. These parcels are included in the proposed tentative tract map and would no longer need street frontage.

The portion of Murrietta Road north of Placentia Avenue is shown on the PVCCSP Circulation Element as crossing the Perris Valley Storm Drain Channel to the north and continuing to Rider Street. However, implementation of this portion of Murrietta Road is infeasible/not necessary for the following reasons:

- The May Ranch Specific Plan, located on the northeast side of the Perris Valley Story Drain Channel, shows the alignment of what would be the northerly extension of Murrieta Road as “Future 135’ Wide Easement to be dedicated to Flood Control District”.

- There is no corresponding roadway connection of Murrieta Road on the north side of the channel in May Ranch. The single-family homes along what would be a northerly extension of Murietta Road to Rider Street are oriented with their rear property lines to this planned road alignment and would not take access from Murietta Road north of the Perris Valley Storm Drain Channel.

- This connection is parallel to and duplicative of the existing connection of Wilson Avenue at Rider Street.

- There are existing high voltage power lines and an easement in favor of Southern California Edison in the proposed footprint of Murrieta Road, precluding construction of the street. The proposed design preserves the existing SoCal Edison easement.

- This portion of Murrietta Road is not in the General Plan Circulation Element.

The property owner of the easterly half-width of Murrieta Road has agreed to cooperate on the vacation of Murrieta Road and an “Authorization to Act on Behalf of Owner” has been included in this submittal.

Table 7
Queuing Analysis

Study Intersection	Turning Movement	Opening Year (2026) With Project[1]		Available Storage Length[2]	Adequate Storage?
		AM Peak Hour	PM Peak Hour		
5. Wilson Ave at Project North Dwy	Southbound Left Turn Lane	75 Feet	75 Feet	100 Feet	Yes
6. Wilson Ave at Project Central Dwy	Southbound Left Turn Lane	<25 Feet	< 25 Feet	370 Feet	Yes
7. Wilson Ave at Project South Dwy	Southbound Left Turn Lane	75 Feet	75 Feet	280 Feet	Yes

Notes:

(1) Queuing analysis based on 95th-Percentile queue length reported on LOS worksheets; see Appendix D.

(2) Available storage lengths based on distance between driveways per project site plan.

Legend

Proposed Roadway Vacation

Figure 27
Specific Plan Amendment Roadway Vacation

8. VEHICLES MILES TRAVELED (VMT)

BACKGROUND

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

VMT ASSESSMENT AND SCREENING

The project VMT impact has been assessed in accordance with guidance from the *City of Perris Transportation Impact Analysis Guidelines for CEQA* (May 12, 2020) ["the City TIA Guidelines"]. The transportation guidelines provide a framework for "screening thresholds" for certain projects that are expected to cause a less than significant impact without conducting a detailed VMT study.

The project requirements for evaluation of transportation impacts under CEQA was assessed using the City of Perris VMT Scoping Form for Land Use Projects as appended to the City of Perris TIA Guidelines and included in Appendix B of this traffic analysis. As documented in the VMT Scoping Form, the proposed project satisfies the following VMT screening criteria:

A.	Is the project 100% affordable housing?	No
B.	Is the project within half mile of qualifying transit?	No
C.	Is the project a local serving land use?	No
D.	Is the project in a low VMT area?	Yes
E.	Are the project's net daily trips less than 500 ADT?	No

Therefore, the proposed project is presumed to have a less than significant impact on VMT since it satisfies one or more of the VMT screening criteria established by the City of Perris (the project site is in a low VMT area). The project is located in a TAZ that generates 9.95 VMT per employee which is below the City average VMT per employee of 11.62. No additional VMT modeling or mitigation measures are required.

9. CONCLUSIONS

This section summarizes the findings and recommended improvements, or mitigation measures (if any) identified in previous sections of this study.

PROJECT TRIP GENERATION

The proposed project is forecast to generate 1,047 daily vehicle trips, including 85 vehicle trips during the AM peak hour and 95 vehicle trips during the PM peak hour. The proposed project is forecast to generate approximately 1,252 daily PCE trips, including 101 PCE trips during the AM peak hour and 107 PCE trips during the PM peak hour.

LEVELS OF SERVICE/OPERATIONAL ANALYSIS FINDINGS (NON-CEQA)

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project conditions. Therefore, the proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Existing Plus Project conditions and no off-site improvements or corrective measures are recommended.

The study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2026) With Project conditions. Therefore, the proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Opening Year (2026) With Project conditions and no off-site improvements or corrective measures are recommended.

Based upon the projected peak hour traffic volumes and limited access of most of the project driveways, traffic signals would not be expected to be warranted at these locations.

QUEUING ANALYSIS FINDINGS

Adequate spacing is forecast to be provided at the driveway study intersections on Wilson Avenue to accommodate southbound left turn queues within the two-way left turn lane median.

VMT ANALYSIS FINDINGS (CEQA)

The proposed project is presumed to have a less than significant impact on VMT since it satisfies one or more of the VMT screening criteria established by the City of Perris (the project site is located in a low VMT area). No additional VMT modeling or mitigation measures are required.

APPENDICES

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Volume Count Worksheets
Appendix D Level of Service Worksheets

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper).

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the "Flashing Don't Walk" interval, it signals the end of pedestrian entry into the crosswalk following the "Walk" indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate. This

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TRUCK: A heavy motor vehicle generally used for transporting goods.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

SCOPING AGREEMENT

MEMORANDUM OF UNDERSTANDING

TO: CITY OF PERRIS

FROM: Bryan Crawford, Senior Transportation Planner | GANDDINI GROUP, INC.

DATE: February 8, 2024

SUBJECT: Placentia Avenue Industrial (DPR 21-00015) Traffic Impact Analysis Scoping

INTRODUCTION

The purpose of this traffic study scoping document is to outline the proposed traffic analysis parameters and assumptions for review/concurrence by City of Perris staff. The initial scoping agreement for this traffic analysis was reviewed and approved on May 19, 2022, with the traffic impact analysis for the project completed on August 26, 2022. A scoping agreement to revise the traffic impact analysis was approved on March 9, 2023 to show the Wilson Avenue at Project North Driveway intersection allowing for westbound outbound right turning movements for trucks and the Wilson Avenue at Project South Driveway intersection allowing for southbound inbound left turning movements for trucks. The traffic impact analysis was then completed on March 14, 2023.

Since then, the project applicant has acquired an adjacent parcel and expanded the size of the warehouse. This scoping agreement is to update the March 14, 2023 Traffic Impact Analysis with the new site plan, while incorporating comments made by RK Engineering Group, Inc. (March 28, 2023) to the aforementioned traffic impact analysis.

SPECIFIC PLAN AMENDMENT

The Proposed Project includes the vacation of a paper street connecting Wilson Avenue to Murrieta Road and the vacation of the portion of Murrieta Road north of Placentia Avenue. A Specific Plan Amendment is required to remove these streets from the Perris Valley Commerce Center Specific Plan. PVCCSP Amendment 15 will modify Figure 3.0-1 Circulation Plan Map, Figure 3.0-4 Mass Transit Routes, Figure 3.0-5 Trails System Map, Figure 3.0-7 Existing EMWD Water Map, Figure 3.0-8 Existing EMWD Sewer Map, Figure 3.0-9 Existing EMWD Recycled Water Map, Figure 3.0-12 Existing Natural Gas Map, Figure 3.0-13 Existing Electrical Map, Figure 3.0-14 Existing Telephone Map, Figure 3.0-15 Electrical Cable TV Map, and Figure 5.0-7 Perris Valley Storm Channel Trail to remove the paper street connecting Wilson Avenue to Murrieta Road and 80-foot of right-of-way on Murrieta Road north of Placentia Avenue from the PVCCSP.

The paper street connecting Wilson Avenue and Murrieta Road serves APNs 300-170-004 and 300-170-006, which would otherwise be landlocked. These parcels are included in the proposed tentative tract map and would no longer need street frontage.

The portion of Murrietta Road north of Placentia Avenue is shown on the PVCCSP Circulation Element as crossing the Perris Valley Storm Drain Channel to the north and continuing to Rider Street. However, implementation of this portion of Murrietta Road is infeasible/not necessary for the following reasons:

- The May Ranch Specific Plan, located on the northeast side of the Perris Valley Story Drain Channel, shows the alignment of what would be the northerly extension of Murrieta Road as "Future 135' Wide Easement to be dedicated to Flood Control District".

- There is no corresponding roadway connection of Murrieta Road on the north side of the channel in May Ranch. The single-family homes along what would be a northerly extension of Murietta Road to Rider Street are oriented with their rear property lines to this planned road alignment and would not take access from Murietta Road north of the Perris Valley Storm Drain Channel.

- This connection is parallel to and duplicative of the existing connection of Wilson Avenue at Rider Street.

- There are existing high voltage power lines and an easement in favor of Southern California Edison in the proposed footprint of Murrieta Road, precluding construction of the street. The proposed design preserves the existing SoCal Edison easement.

- This portion of Murrietta Road is not in the General Plan Circulation Element.

The property owner of the easterly half-width of Murrieta Road has agreed to cooperate on the vacation of Murrieta Road and an "Authorization to Act on Behalf of Owner" has been included in this submittal.

PROJECT DESCRIPTION

Figure 1 shows the project location map. The project site is located on the northeast corner of Wilson Avenue and Placentia Avenue in the City of Perris, as exhibited in Figure 2.

The site plan is show in Appendix A. The 27.25-acre project site is proposed to include a 578,265 square foot high-cube fulfillment center warehouse building. The proposed project is anticipated to be constructed and fully operational by year 2025.

The project site is proposed to provide three access driveways on Wilson Avenue. The project north driveway and project south driveway will be truck only restricted to southbound left turns in and westbound right turns out only. The project central driveway will be a full access automobile only access.

According to Table 4.0-2 of the Perris Valley Commerce Center Specific Plan, the driveway spacing for a Collector (Wilson Avenue) is 330 feet. The distance from Placentia Avenue to the project central driveway (full access driveway, auto only) is 545.70 feet. The restricted truck accesses range from 229 feet to 380 feet from either the project central driveway or Placentia Avenue. The proposed development is deviating from the 330-foot Collector standards for the truck accesses since these accesses are truck only and restricted in their movements.

VMT SCOPING FORM

Appendix B shows the City of Perris VMT Scoping Form for Land Use Project based on the City of Perris TIA Guidelines, dated May 12, 2020. The project is presumed to have a less than significant impact on VMT because the project satisfies at least one (1) of the VMT screening criteria. As shown in Appendix B, the project satisfies VMT screening criteria D because the project is in a low VMT area. According to WRCOG VMT Screening Tool, the project TAZ 2012 daily home-based work VMT per worker is 9.95, which is less than the city average 2012 daily home-based work VMT per worker of 11.62.

PROJECT TRIP GENERATION

Table 1 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). ITE land use code 155 (High-Cube Fulfillment Center Non-Sort) has been used to estimate the site-specific trip generation estimates for up to 578,265 square feet of high-cube fulfillment center (non-sort) use.

The project vehicle trips are converted to Passenger Car Equivalent (PCE) trips based on truck rates (as a percentage of a total vehicle trips) from the ITE Trip Generation Manual and truck axle mix data recommended by the South Coast Air Quality Management District (SCAQMD). As shown in Table 1, the proposed project is forecast to generate approximately 1,252 daily PCE trips, including 101 PCE trips during the AM peak hour and 107 PCE trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION

Figure 3 to Figure 5 illustrate the forecast outbound and inbound directional distribution patterns of project-generated truck trips and passenger car trips. Figure 6 and Figure 7 exhibit the project AM and PM peak hour intersection turning movement volumes.

STUDY AREA

Based on the City of Perris TIA Guidelines for CEQA (May 12, 2020), a TIS (Traffic Impact Study) for LOS (Level of Service) evaluation is required for projects which exceed 500 daily trips or 50 peak hour trip for project approval purposes. Since the project is anticipated to generate more than 500 daily trips and more than 50 peak hour trips, a full TIA (Traffic Impact Analysis) is required.

Intersections identified for analysis typically include signalized intersections at which a project is forecast to contribute 50 or more trips during the AM or PM peak hours. The study area is proposed to consist of the following seven (7) study intersections, even if the project may not contribute 50 or more trips during either the AM or PM peak hours but are the adjacent or primary intersections impacted by the proposed project.

Study Intersections (Figure 1)

1. Redlands Avenue (NS) at Rider Street (EW)
2. Redlands Avenue (NS) at Placentia Avenue (EW)
3. Wilson Avenue (NS) at Rider Street (EW)
4. Wilson Avenue (NS) at Placentia Avenue (EW)
5. Wilson Avenue (NS) at Project North Driveway (EW)
6. Wilson Avenue (NS) at Project Central Driveway (EW)
7. Wilson Avenue (NS) at Project South Driveway (EW)

TRAFFIC COUNTS

New intersection turning movement counts separating passenger cars and trucks by axle will conducted at the study intersections, during the AM peak period (7:00 AM – 9:00 AM) and PM peak period (4:00 PM – 6:00 PM) on a typical weekday (Tuesday, Wednesday, or Thursday).

ANALYSIS SCENARIOS

The traffic study shall evaluate the following analysis scenarios for weekday AM and PM peak hour conditions:

- Existing [2024]
- Existing Plus Project [2024]
- Opening Year Without Project [2026]
- Opening Year With Project [2026]

QUEUING ANALYSIS

A queuing analysis will be included for the southbound left-turn movements at all project driveway intersections on Wilson Avenue.

CONCEPTUAL STRIPING PLAN

A conceptual striping plan along Wilson Avenue adjacent to the project site including the LCI Wilson Project located across the street will be updated to show a 10' two-way left turn median, 5' bike lane, and 12' vehicle travel lane in each direction. This will also include recommendations for potential channelization, signage, and/or striping to restrict outbound left-turn movements at the northerly and southerly truck driveways.

FORECASTING METHODOLOGY

Ambient Growth Rate

To account for area-wide ambient growth, the Opening Year 2026 will include a 3% annual growth for 2 years (total growth factor = 1.06) over the 2024 base volumes. The 3% annual growth rate is consistent to other traffic studies conducted in the area. However, City staff shall confirm that this growth rate is still applicable and refine as necessary.

Other Cumulative Projects

A list of pending and approved cumulative development projects has been obtained from City of Perris staff for the previous traffic impact analysis (see Appendix C). This list was narrowed down to include projects within a 1.5-mile radius of the project site as shown in the previous traffic impact analysis. An updated list will be acquired from City of Perris staff and the cumulative development projects will be updated to reflect new projects and projects that are no longer included in the City of Perris list.

Trip forecasts for other development projects within the project study area will be determined based on the Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition, 2021 and will be added to existing roadway volumes for the applicable analysis scenarios.

CONCLUSION

We appreciate the opportunity to provide this scoping document for your review. Should you have any questions or comments regarding the proposed scope, please contact Bryan Crawford at (714) 795-3100 x 104 or bryan@ganddini.com.

Table 1
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 578.265 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Daily Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	61	14	75	34	53	87	914
Trucks							
2-Axle Trucks	1	1	2	1	1	2	22
3-Axle Trucks	1	1	2	1	1	2	28
4+ Axle Trucks	3	3	6	2	2	4	83
Subtotal	5	5	10	4	4	8	133
Total Vehicle Trips Generated	**66**	**19**	**85**	**38**	**57**	**95**	**1,047**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	61	14	75	34	53	87	914
Trucks								
2-Axle Trucks	1.5	2	2	4	2	2	4	33
3-Axle Trucks	2.0	2	2	4	2	2	4	56
4+ Axle Trucks	3.0	9	9	18	6	6	12	249
Subtotal		13	13	26	10	10	20	338
Total PCE Trips Generated		**74**	**27**	**101**	**44**	**63**	**107**	**1,252**

Notes:
(1) TSF = Thousand Square Feet

(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse used for truck mix.

(3) PCE = Passenger Car Equivalent

Legend

- (#) Study Intersection
- (#) Project Driveway Truck Entry Only
- (#) Project Driveway Auto Only
- (#) Project Driveway Truck Exit Only

Figure 1
Project Location Map

ganddini

Placentia Avenue Industrial
Scoping Agreement
19484

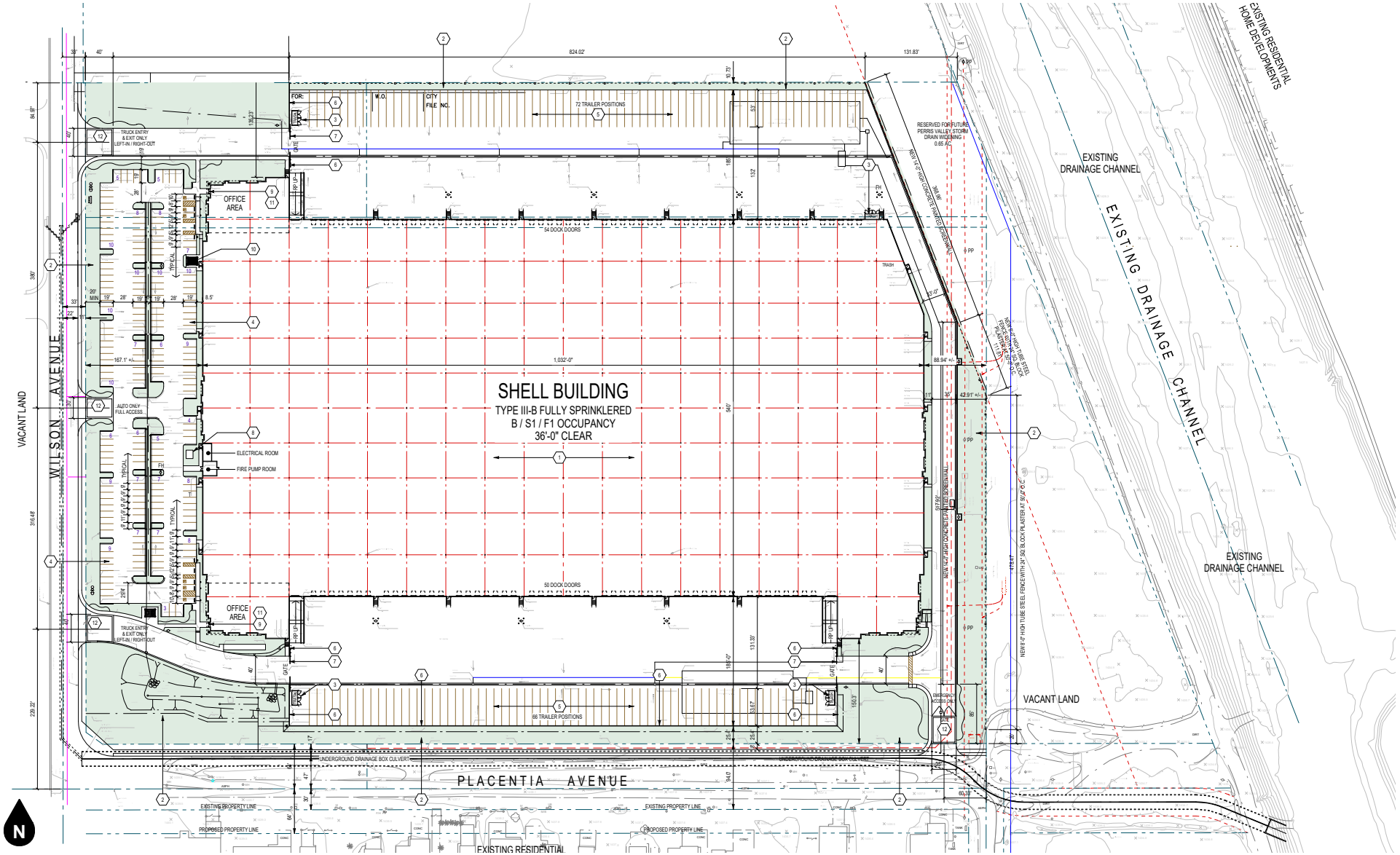


Figure 2
Site Plan

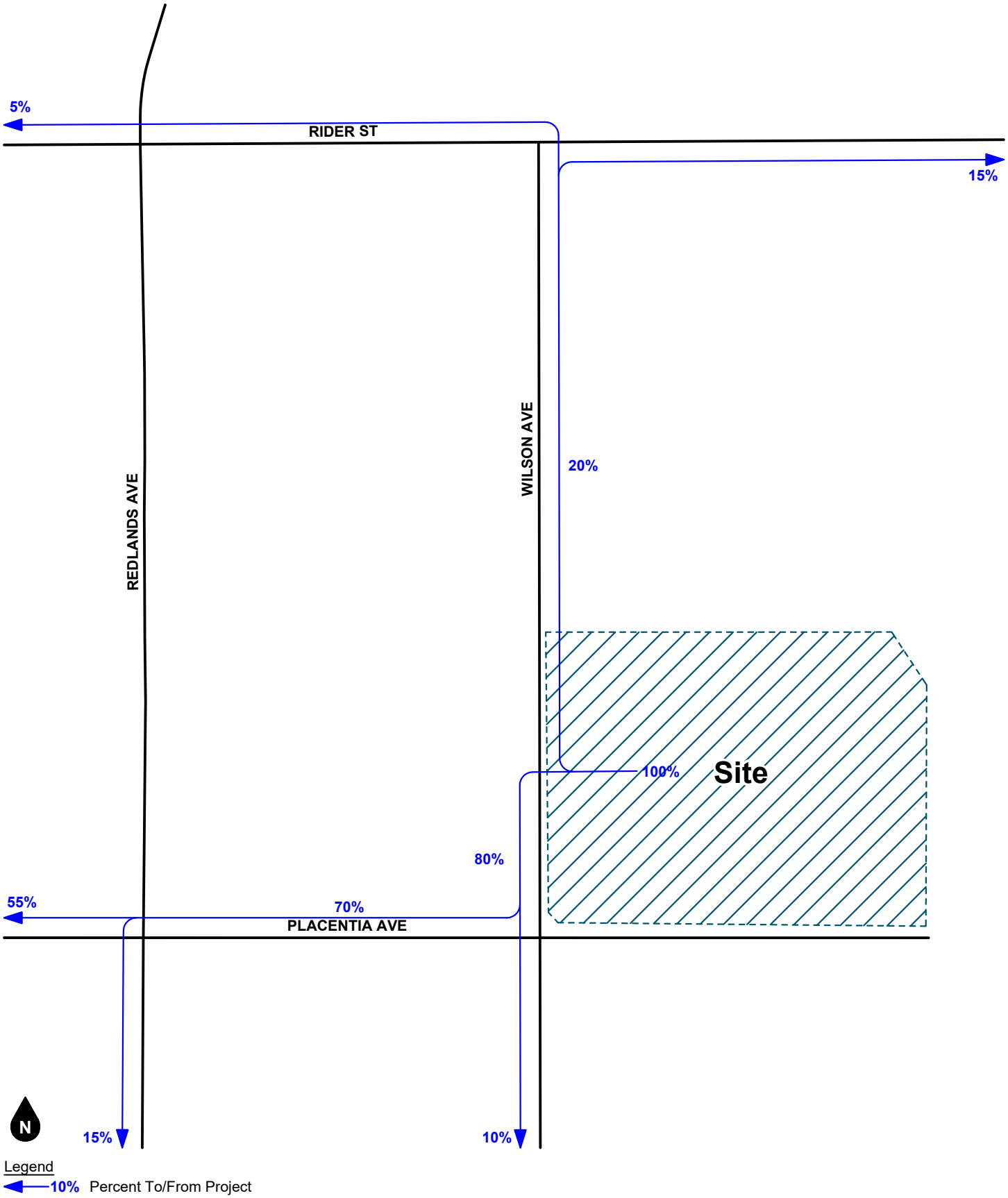


Figure 3
Project Trip Distribution - Auto

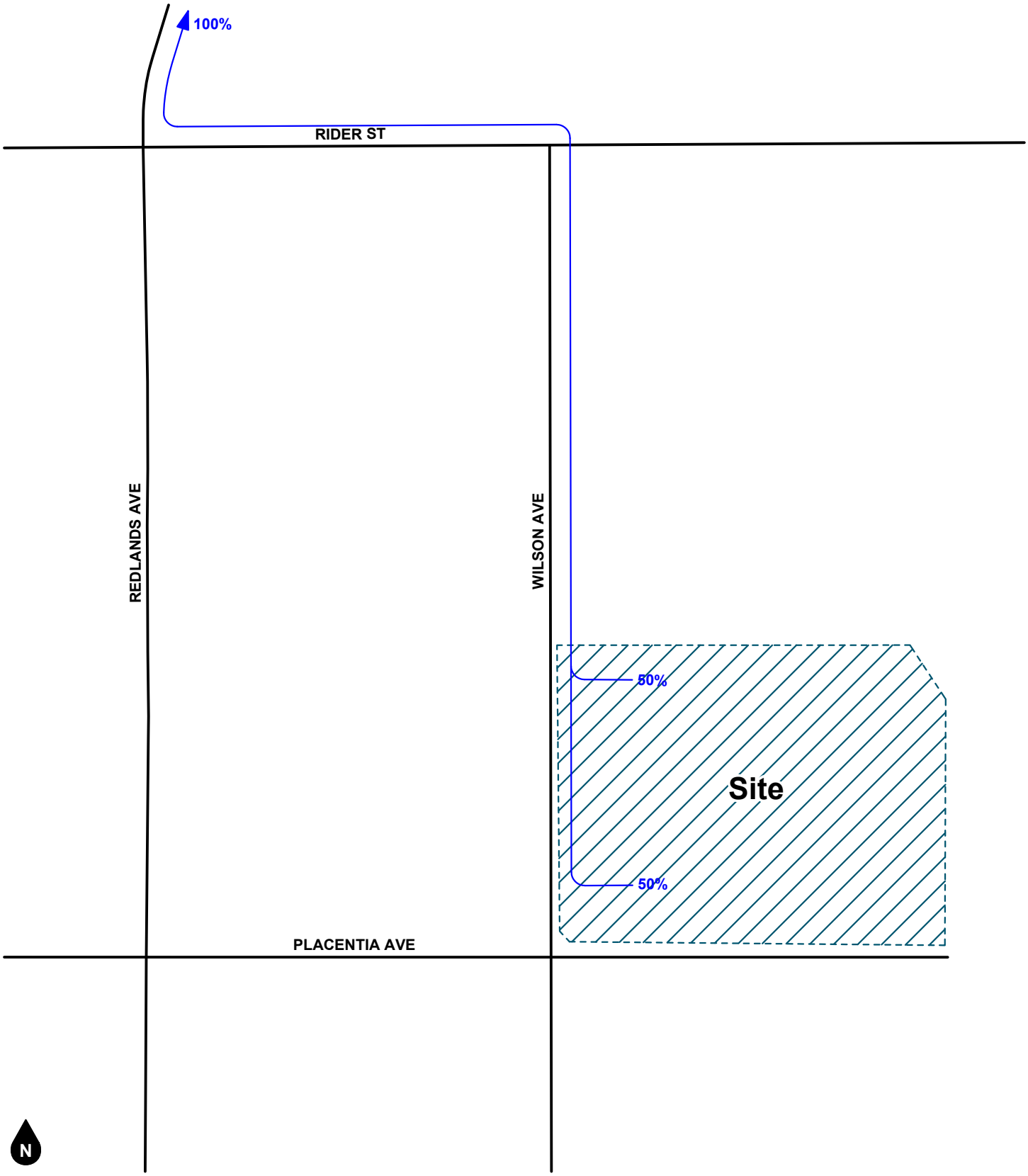


Figure 4
Project Outbound Trip Distribution - Trucks

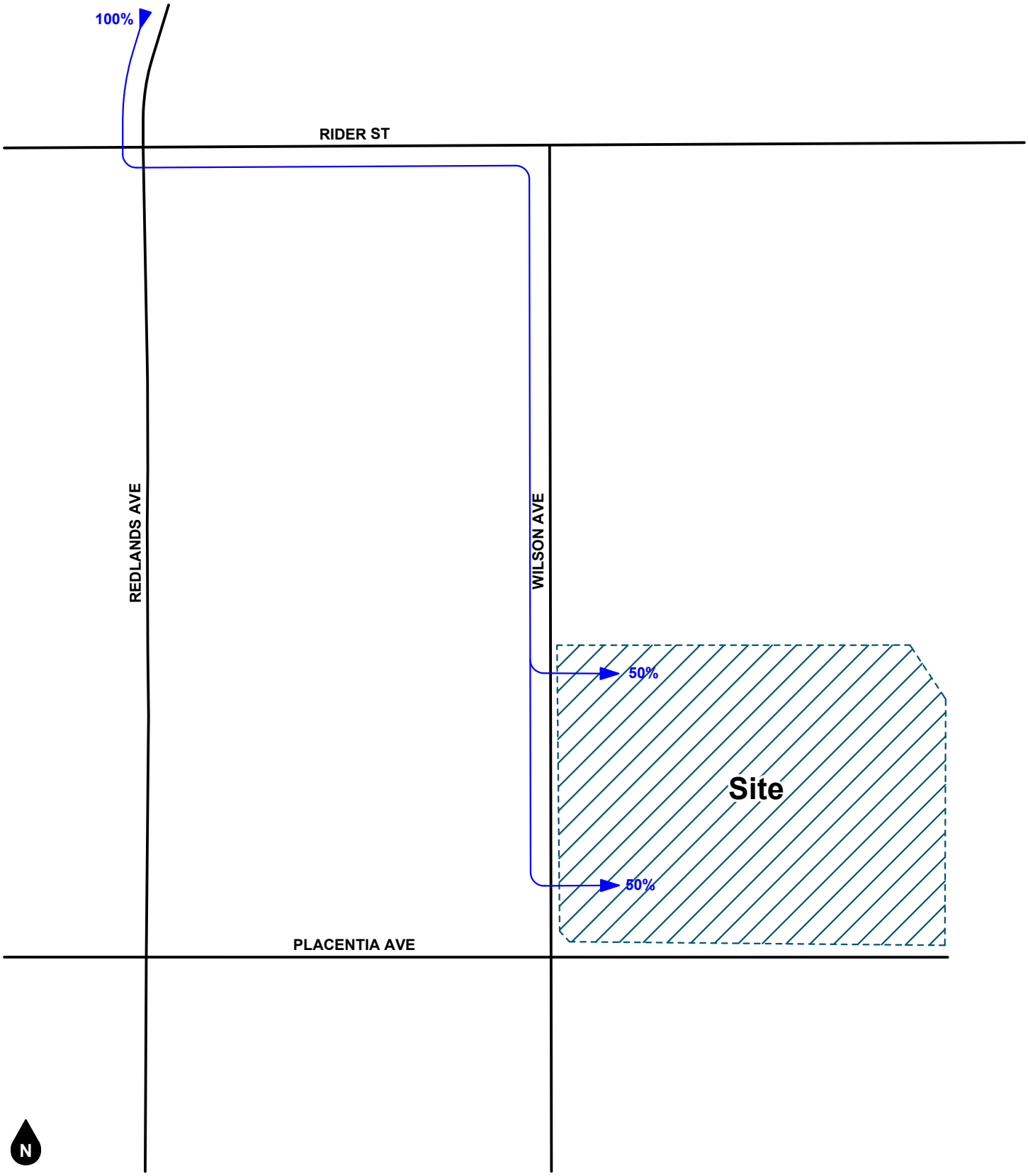
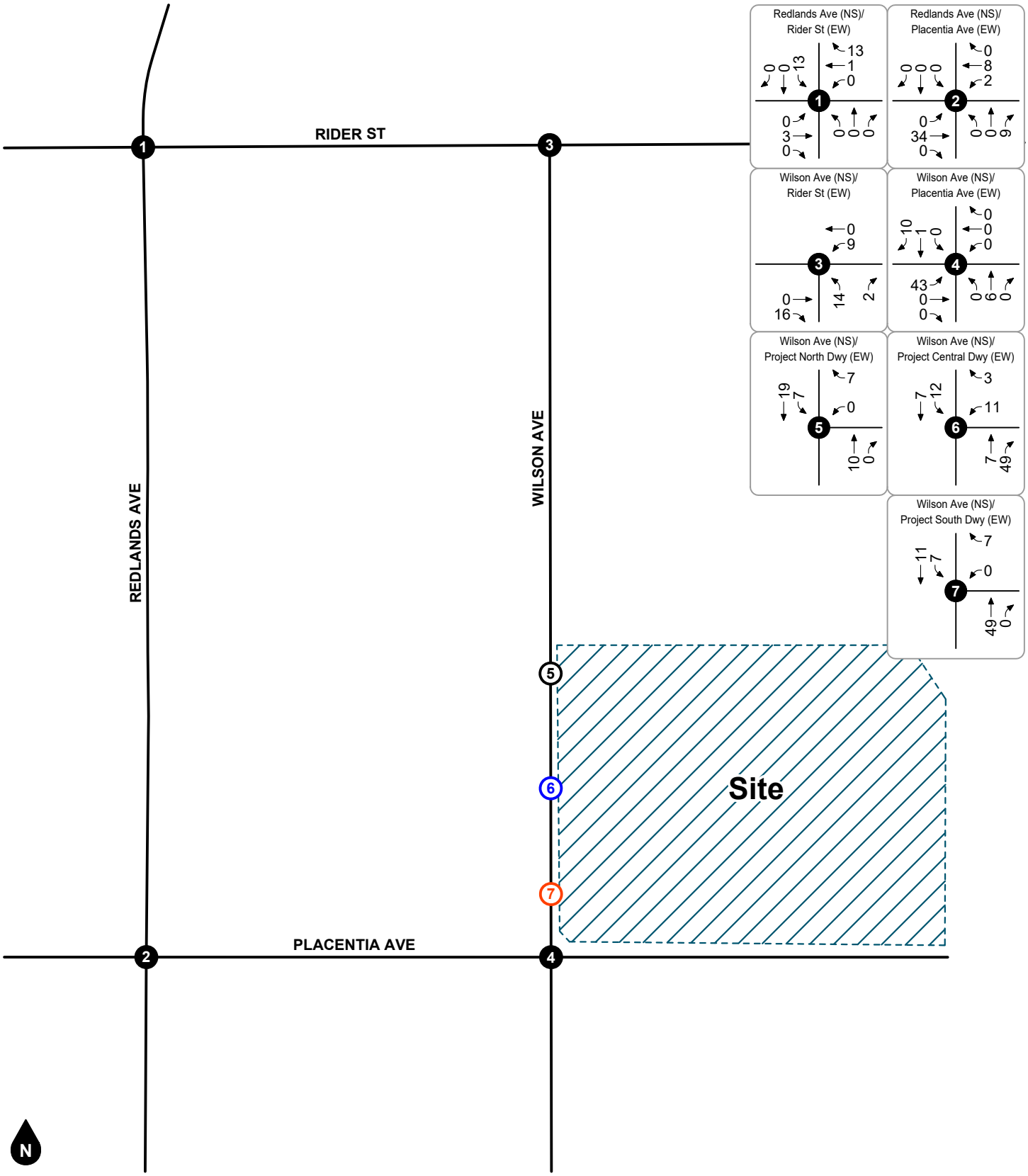


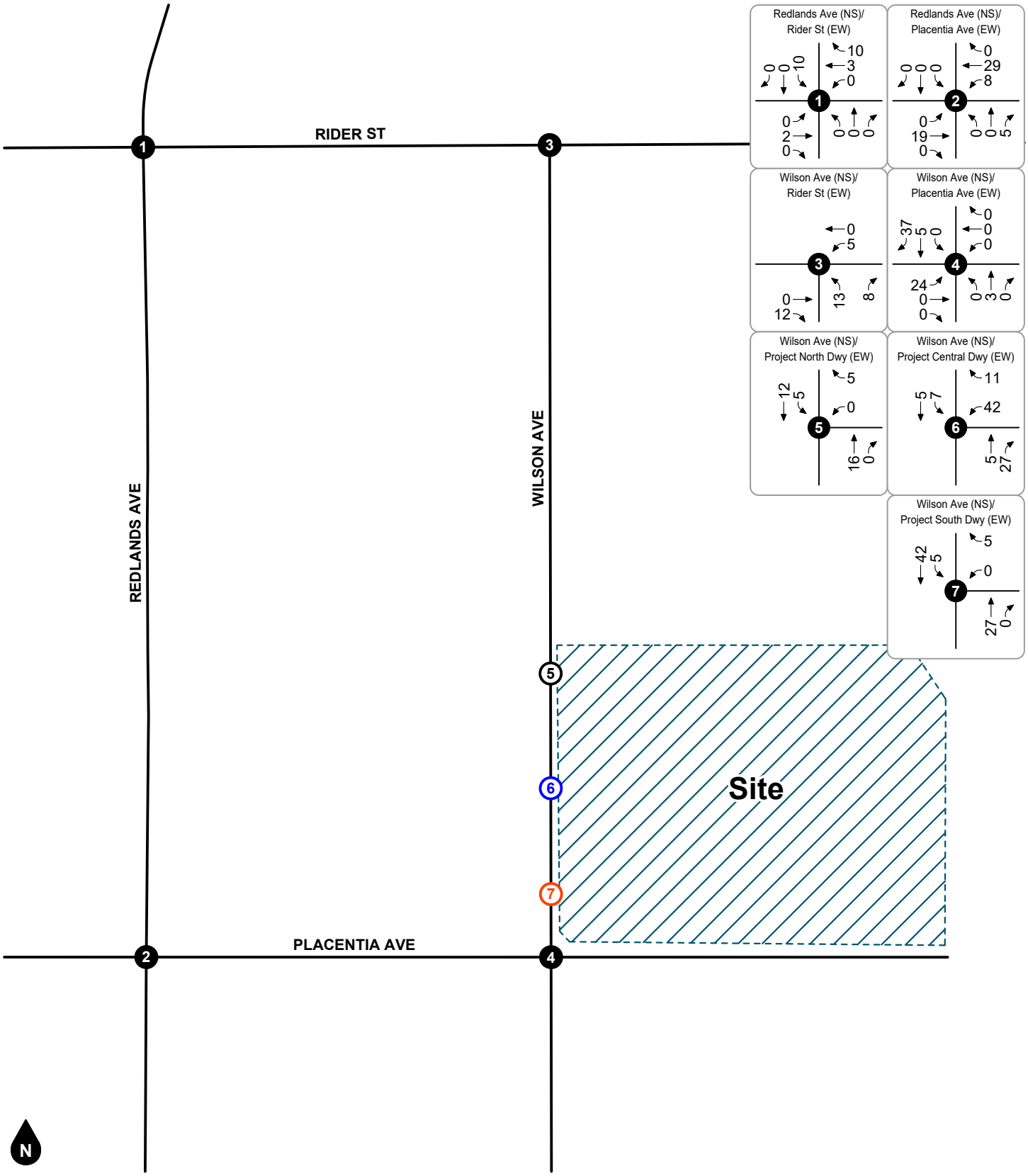
Figure 5
Project Inbound Trip Distribution - Trucks



Legend

- (#) Study Intersection
- (#) Project Driveway Truck Entry Only
- (#) Project Driveway Auto Only
- (#) Project Driveway Truck Exit Only

Figure 6
Project AM Peak Hour Intersection Turning Movement Volumes



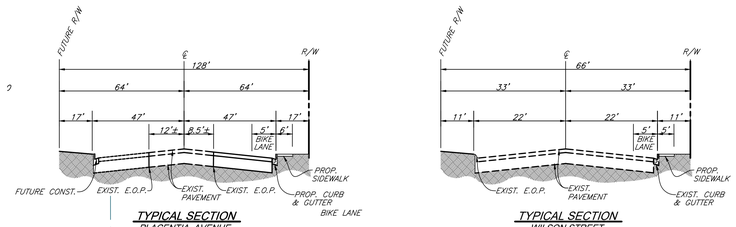
Legend

- (#) Study Intersection
- (#) Project Driveway Truck Entry Only
- (#) Project Driveway Auto Only
- (#) Project Driveway Truck Exit Only

Figure 7
Project PM Peak Hour Intersection Turning Movement Volumes

Appendix A

Site Plan



TYPICAL SECTION
PLACENTIA AVENUE
INDUSTRIAL COLLECTOR
NOT TO SCALE

TYPICAL SECTION
WILSON STREET
INDUSTRIAL COLLECTOR
NOT TO SCALE

PVCCSP Development Standards for LI	Required	Provided
Minimum Lot Size	15,000 SF	1,187,139 SF
Lot Coverage by Structure	50 % Max	48.29%
Floor Area Ratio (FAR)	0.75 Max	48.71%
Structure Height	50' Max	
Front Setback - Local/ Collector (10' + 5' per 10' of struct. Over 20')	20'	166'-0"
Side Setback (10' + 5' per 10' of struct. Over 20')	20'	150-0'
Rear Setback	30'	84'-5"
Perimeter Landscape (PMC 19.02 and 19.44.060)	5'	6' Min.
Entries, Parking, Loading	Required	NW & SW corner
Site Landscape Coverage	12%	14.32%

SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- OFF-SITE LANDSCAPED AREA
- DECORATIVE AUTO / TRUCK DRIVEWAYS
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTERLINES
- ON-SITE CURB LINES
- ON-SITE PARKING AND TRAILER STRIPPING

PROJECT DATA

SITE AREA:
- GROSS SITE AREA: 000 SF / 000 AC
- CHANNEL DEDICATION: 28,428 SF / 0.65 AC
- STREET DEDICATION 000 SF / 000 AC
- NET SITE AREA: 1,187,139 SF / 27.25 AC

BUILDING AREA:
- FOOTPRINT 573,265 SF
- FIRE PUMP HOUSE 0 SF
- MEZZANINE 5,000 SF
- GUARD HOUSE 0 SF
- TOTAL 578,265 SF

TOTAL INCLUDED PLANNED OFFICE AREA 10,000 SF

LOT COVERAGE: (50% MAX) 48.29 %
FAR COVERAGE: 48.71 %

AUTO PARKING REQUIRED: (HIGH CUBE PARKING STANDARDS)
- 10,000 OFFICE PARKING (LESS THAN 10%) 0 STALLS
- WAREHOUSE
- 0-20,000 SF (1/1000 SF) 20 STALLS
- 20K + 40K (1/2000 SF) 10 STALLS
- ABOVE 40K (1/5000 SF) 108 STALLS
- TOTAL 138 STALLS

AUTO PARKING PROVIDED
- ACCESSIBLE STALLS 6 STALLS
- STANDARD STALLS 143 STALLS
- FUTURE STALLS 0 STALLS
- TOTAL PROVIDED 201 STALLS

REQUIRED BICYCLE PARKING (5% OF REQUIRED AUTO PARKING) 7 BIKE LOCATIONS

TRUCK DOCK POSITIONS 104 DOCKS

GRADE DOORS PROVIDED 3 DOOR

LANDSCAPE AREA PROVIDED ON DEVELOPED SITE 170,049 SF / 14.32 %

ASSESSOR'S PARCEL NUMBERS

300-170-003, 004, 005, 006, 011, 012, 013, 014, 015, 016, 017

APPLICATION TYPE

DEVELOPMENT PLN REVIEW 00-00-0000
ZONING: LIGHT INDUSTRIAL - PVCC SP - PERRIS VALLEY COMMERCE CENTER
PERMITTED LAND USE: WAREHOUSE, OFFICE AS PERMITTED

PROJECT DESCRIPTION

NEW INDUSTRIAL WAREHOUSE BUILDING WITH AUTO AND TRAILER PARKING AREAS. PROVIDING FUTURE GUARD SHACK LOCATION ON BOTH TRUCK COURT ENTRIES.

LAND OWNER

LAKE CREEK INDUSTRIAL LLC
13681 NEWPORT AVENUE, SUITE 8301
TUSTIN,, CA 92780

APPLICANT

LAKE CREEK INDUSTRIAL LLC
13681 NEWPORT AVENUE, SUITE 8301
TUSTIN,, CA 92780
786-200-9681 CONTACT: MICHAEL JOHNSON

PLAN PREPARER

RGA, OFFICE OF ARCHITECTURAL DESIGN, INC.
15231 ALTON PARKWAY, SUITE 100
IRVINE, CA 92618
CONTACT: MIKE GILL

UTILITIES & SERVICES

SEE CIVIL DRAWINGS

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
AS SHOWN BY PARCEL MAP NO. 31743, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 210 PAGE 43 and 44 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY

KEYNOTES (000)

1. PAINTED CONCRETE TILT-UP WAREHOUSE / OFFICE / MANUFACTURING FACILITY.
2. SHADED AREA: PROPOSED IRRIGATED LANDSCAPING PER CC&R GUIDELINES WITH MIN 6" CONCRETE CURBS AT ALL PERIMETERS.
3. PAINTED CONCRETE TRASH ENCLOSURE. SCREEN WALLS SHALL BE MIN. 6'-0" HIGH WITH CANOPY TOP. SEE SHEET A2-1P FOR ELEVATIONS AND SECTIONS
4. TYPICAL STANDARD PARKING STALL MIN. 9' X 19' - STRIPE PER CITY STANDARDS.
5. TRUCK TRAILER PARKING
6. NEW 14'-0" CONCRETE TILT-UP SCREEN WALLS AT TRUCK YARD. SEE PLAN FOR MINIMUM HEIGHTS AS MEASURED FROM INSIDE THE TRUCK YARD. PROVIDE ANTIGRAFFITI COATING ON EXTERIOR SIDE ONLY.
7. ROLLING / SWINGING 8'-0" HIGH WROUGHT IRON FENCE INTO THE TRUCK COURT.
8. TRANSFORMER PAD LOCATION.
9. ACCESSIBLE PRIMARY ENTRANCE TO THE BUILDING WITH BIKE RACKS.
10. CONCRETE COVERED LUNCH PATIO WITH LANDSCAPE FURNITURE, SEE SHEET A3-1P
11. CALGREEN REQUIRED BIKE RACKS, SEE TABULATIONS FOR NUMBER OF BIKE RACKS
12. DECORATIVE PAVING AT ENTRY DRIVEWAY.
13. EXTERIOR BOCCE COURT, SEE LANDSCAPE PLANS

GENERAL NOTES

1. THE PROPOSED PROJECT SHALL COMPLY WITH THE PROVISIONS OF THE COUNTY RIVERSIDE, CITY OF PERRIS PLANNING PLAN
2. A LANDSCAPING PLAN SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT FOR APPROVAL PRIOR TO ISSUANCE OF BUILDING PERMITS AND SHALL BE IMPLEMENTED PRIOR TO OCCUPANCY.
3. THE PROJECT DOES NOT PROPOSE ANY TENANT SIGNAGE AT THIS TIME.
4. THERE ARE NO PROTECTED PLANTS ON SITE.
5. ALL ROOF DRAINS AT STREET FRONTAGES SHALL BE IN THE INTERIOR OF THE BUILDING ENVELOPE.
6. ALL LANDSCAPE SHALL BE BOUND BY A 6" HIGH CONCRETE CURB.
7. A LIGHT PLAN SHALL BE SUBMITTED SHOWING CONFORMANCE WITH MINIMUM FOOTCANDLE LEVELS AND MARCH AIR BASE STANDARDS. FIXTURES SHALL BE SHIELDED HIGH PRESSURE SODIUM.
8. A SIGN PROGRAM SHALL BE DEVELOPED IN ACCORDANCE WITH MUNICIPAL CODE 19.75.190 FOR APPROVAL BY THE PLANNING DIVISION. THE SIGN PROGRAM SHALL BE INCLUDED AS PART OF THE CC&R'S.
9. FUTURE TENANT OFFICE BUILD-OUTS TO INCLUDE INDOOR EMPLOYEE AMENITY AREAS PER CITY GUIDELINES.
10. PROJECT WILL BE DESIGNED WITH LEED IN MIND, BUT WILL NOT REQUIRED CERTIFICATION.

SUSTAINABILITY FEATURES

11. PROVIDE LIGHT COLORED ROOFING OVER THE OFFICE AREAS.
12. BUILDING WILL BE DESIGN TO ACHIEVE LEED POTENTIAL CERTIFICATION.
13. PROVIDE UP TO (2) ELECTRIC VEHICLE CHARGING FACILITIES
14. PROVIDE "TURN-OFF ENGINE" SIGNS WITHIN THE TRUCK COURT.
15. FORKLIFTS WITHIN THE BUILDING SHALL BE ELECTRIC OR COMPRESSED NATURAL GAS-POWERED.

VICINITY MAP

SITE PLAN

SCALE: 1" = 60'-0"

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FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

PLACENTIA AVENUE DEVELOPMENT

0000 PLACENTIA AVENUE
CITY OF PERRIS, CA

LAKE CREEK INDUSTRIAL LLC
13681 NEWPORT AVENUE, SUITE 8301
TUSTIN, CA 92780
PHONE: 786-200-9681
OWNER: MICHAEL JOHNSON
EMAIL: mj@lakecreekindustrial.com

MARK	DATE	DESCRIPTION
CD		
BID		
PC		
DD		
SD	09/20/2023	SCHEMATIC DESIGN

RGA PROJECT NO:	21011.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21011-00-A1-1P
DRAWN BY:	MG
CHK'D BY:	CS

SHEET TITLE
SITE PLAN

SHEET: A1-1P

SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- OFF-SITE LANDSCAPED AREA
- DECORATIVE AUTO / TRUCK DRIVEWAYS
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTERLINES
- ON-SITE CURB LINES
- ON-SITE PARKING AND TRAILER STRIPPING

PROJECT DATA

SITE AREA:

GROSS SITE AREA:	000 SF / 000 AC
CHANNEL DEDICATION:	28,428 SF / 0.65 AC
STREET DEDICATION	000 SF / 000 AC
NET SITE AREA:	1,187,139 SF / 27.25 AC

BUILDING AREA:

FOOTPRINT	573,265 SF
FIRE PUMP HOUSE	0 SF
MEZZANINE	5,000 SF
GUARD HOUSE	0 SF
TOTAL	578,265 SF

TOTAL INCLUDED PLANNED OFFICE AREA	10,000 SF
LOT COVERAGE: (50% MAX)	48.29 %
FAR COVERAGE:	48.71 %

AUTO PARKING REQUIRED: (HIGH CUBE PARKING STANDARDS)

10,000 OFFICE PARKING (LESS THAN 10%)	0 STALLS
WAREHOUSE	
0-20,000 SF (1/1000 SF)	20 STALLS
20K + 40K (1/2000 SF)	10 STALLS
ABOVE 40K (1/5000 SF)	108 STALLS
TOTAL	138 STALLS

AUTO PARKING PROVIDED

ACCESSIBLE STALLS	6 STALLS
STANDARD STALLS	143 STALLS
FUTURE STALLS	0 STALLS
TOTAL PROVIDED	201 STALLS

REQUIRED BICYCLE PARKING (6% OF REQUIRED AUTO PARKING)	7 BIKE LOCATIONS
TRUCK DOCK POSITIONS	104 DOCKS
GRADE DOORS PROVIDED	3 DOOR
LANDSCAPE AREA PROVIDED ON DEVELOPED SITE	170,049 SF / 14.32 %

ASSESSOR'S PARCEL NUMBERS

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APPLICATION TYPE

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SITE PLAN

SCALE: 1" = 60'-0"

VICINITY MAP

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MARK	DATE	DESCRIPTION
SD	09/20/2023	SCHEMATIC DESIGN
DD		
PC		
BID		
CD		

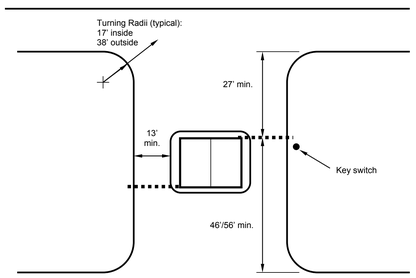
RGA PROJECT NO:	21011.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21011-00-A1-2P
DRAWN BY:	MG
CHK'D BY:	CS

SHEET TITLE
FIRE ACCESS PLAN

SHEET: A1-2P

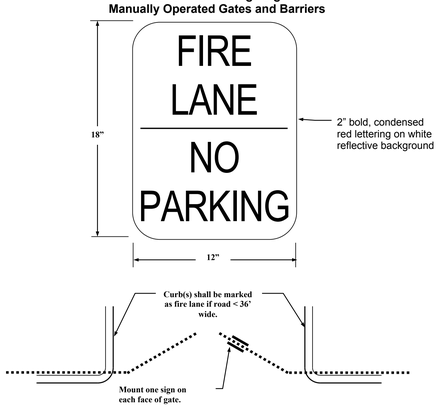
ATTACHMENT 15

Minimum Gate Setbacks



ATTACHMENT 16

Specifications for "Fire Lane - No Parking" Signs for Manually Operated Gates and Barriers

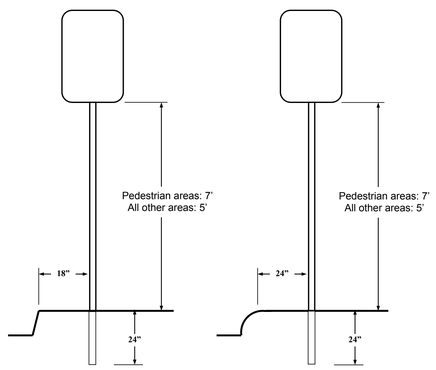


All sign and lettering dimensions shown are minimums. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

"Fire Lane—No Parking" sign shown in Attachment 12 may be used as an alternative. Signs shall be securely mounted on the front and back face of the gate clearly visible to traffic entering the designated area. Signs shall be made of a durable material.

ATTACHMENT 14

Mounting Specifications for Fire Lane Entrance and No Parking Signs



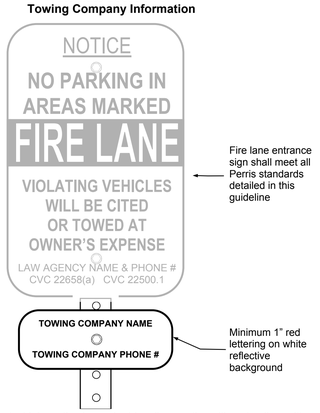
Signs shall be mounted facing the direction of vehicular travel.

Signs may be mounted on existing posts or buildings where the centerline of the sign is no more than 24" from the edge of the roadway.

Depth of bury shall be a *minimum* of 24" and rebar, a concrete footing, or another method to prevent removal of the sign is recommended. Footings for signs located in the public right-of-way shall be per the local jurisdiction's requirements.

ATTACHMENT 11

Specifications for Alternate Location of Towing Company Information



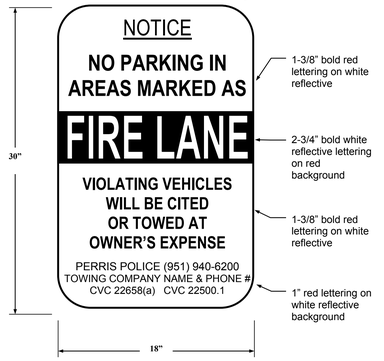
Towing company contact information is required for all properties with a standing written agreement for services with a towing company per the California Vehicle Code.

To facilitate periodic changes in towing company contracts, the towing company contact information may be posted on a separate sign mounted directly below the fire lane entrance sign instead of on the entrance sign itself. The method of attachment to the post shall not obscure the wording on either sign.

ATTACHMENT 10

Specifications for Fire Lane Entrance Signs

To be used only at *vehicle entry points* to areas that contain "Fire Lane—No Parking" signs or red curbs



All sign and lettering dimensions shown are minimums. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

This sign shall be posted at all vehicle entrances to areas marked with either red curbs or fire lane "No Parking" signs. Signs shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be made of durable material and installed per Attachments 13 and 14.

Towing company contact information is required for all properties with a standing written agreement for services with a towing company per the California Vehicle Code.

ATTACHMENT 1

Perris Fire Department Access & Water Plan Notes

All of the notes listed in the INSPECTION REQUIREMENTS and GENERAL REQUIREMENTS sections shall be placed, verbatim, on the plan under the heading "FIRE DEPARTMENT ACCESS & WATER NOTES."

INSPECTION REQUIREMENTS

1. Perris site inspections are required for this project. Please schedule all field inspections at least 48 hours in advance. Inspections canceled after 1 p.m. on the day before the scheduled date will be subject to a re-inspection fee. Call (951) 443-1029 to schedule an inspection.
2. A lumber drop inspection shall be performed prior to bringing combustible materials (or combustible fixtures and finishes for structures of non-combustible construction). All-weather access roads capable of supporting 68,000 lbs., topped with asphalt, concrete, or equivalent shall be in place and hydrants operational at time of lumber drop inspection.
3. For projects with fuel modification, a vegetation clearance inspection is required prior to a lumber drop inspection. Use the fuel modification plan service request number to schedule the vegetation clearance inspection.
4. Phased installation of fire access roads requires additional inspections not covered by the fees paid at plan submittal. Contact (951) 443-1029 to arrange for additional inspections that may be needed and any fees that may be due.
5. An original approved, signed, wet-stamped Perris fire access & water plan shall be available on-site at time of inspection.
6. Access roads and hydrants shall be maintained and remain clear of obstructions at all times during and after construction. Areas where parking is not permitted shall be clearly identified at all times. Obstruction of fire lanes and hydrants may result in cancellation or suspension of inspections.
7. Temporary fuel tanks of 60 or more gallons shall be reviewed, inspected, and permitted by the Office of the Fire Marshal, City of Perris prior to use.
8. The project address shall be clearly posted and visible from the public road during construction.
9. All gates in construction fencing shall be equipped with either a Knox or breakaway padlock.
10. Buildings of four or more stories shall be provided with stairs and a standpipe before reaching 40 feet in height.

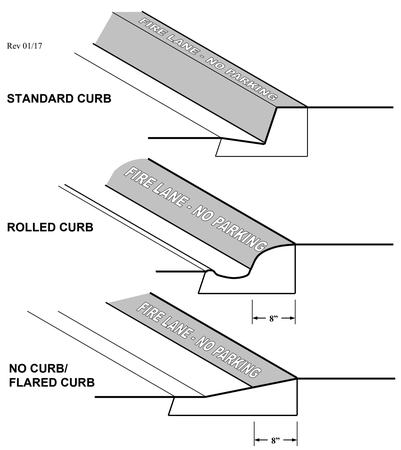
GENERAL REQUIREMENTS

11. Fire lane widths shall be measured from top face of the curb to top face of the curb for fire lanes with standard curbs and gutters and from flow-line to flow-line for fire lanes with modified curb designs (e.g., rolled, ramped, etc). The developer is responsible to verify that all approved public works or grading department street improvement plans or precise grading plans conform to the minimum street width measurements per the approved Perris fire department access & water plan and standards identified in Perris Fire Department Access & Water Guideline for all portions of the fire access roads.
12. Permanent, temporary, and phased emergency access roads shall be designed and maintained to support an imposed load of 68,000 lbs. and surfaced to provide all-weather driving capabilities.
13. Fire lane signs and red curbs shall meet the specifications shown in Perris Fire Department Access & Water Guideline and shall be installed as described therein. Additional fire lane markings may be required at the time of inspection depending on field conditions.
14. All fire hydrants shall have a "Blue Reflective Pavement Marker" indicating their location per the Perris standard. On private property markers are to be maintained in good condition by the property owner.
15. Address numbers shall be located and be of a color and size so as to be plainly visible and legible from the roadway from which the building is addressed in accordance with Perris Fire Department Access & Water Guideline.
16. Access gates shall be approved prior to installation and shall be in compliance with Chapter 5 of the CFC and Perris Fire Department Access & Water Guideline.
17. Approved access walkways shall be provided to all required openings and all rescue windows.

18. Vegetation shall be selected and maintained in such a manner as to allow immediate access to all hydrants, valves, fire department connections, pull stations, extinguishers, sprinkler risers, alarm control panels, rescue windows, and other devices or areas used for firefighting purposes. Vegetation or building features shall not obstruct address numbers or inhibit the functioning of alarm bells, horns, or strobes.
19. Dumpsters and trash containers larger than 1.5 cubic yards shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines unless protected by an approved sprinkler system.
20. Any future modification to the approved Fire Department Access & Water Plan or approved site plan, including but not limited to road width, grade, speed humps, turning radii, gates or other obstructions, shall require review, inspection, and approval by the Office of the Fire Marshal, City of Perris.
21. Approval of this plan shall not be construed as approval of any information or project conditions other than those items and requirements identified in Perris Fire Department Access & Water Guideline and related portions of the CFC and CBC. This project may be subject to additional requirements not stated herein upon examination of actual site and project conditions or disclosure of additional information.

ATTACHMENT 9

Fire Lane Identification – Red Curbs



1. Fire lane entrance sign(s) shall also be provided per Attachment 10 or 11.
2. Curbs shall be painted OSHA safety red.
3. "FIRE LANE – NO PARKING" shall be painted on top of curb in 3" white lettering at a spacing of 30' on center or portion thereof.

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CITY OF PERRIS, CA

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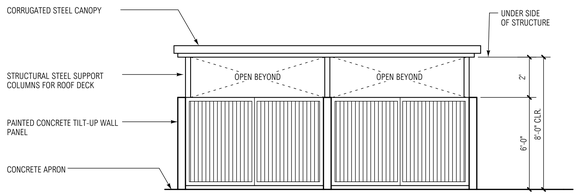
CD		
BID		
PC		
DD		
SD	09/20/2023	SCHEMATIC DESIGN
MARK	DATE	DESCRIPTION

RGA PROJECT NO:	21011.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21011-00-A1-3P
DRAWN BY:	MG
CHK'D BY:	CS

SHEET TITLE

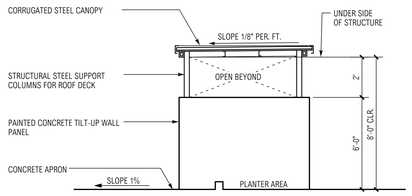
FIRE SIGNAGE PLAN

SHEET: A1-3P



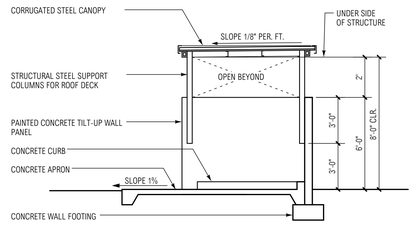
TRASH ENCLOSURE FRONT ELEVATIONS

SCALE: 1/4" = 1'-0"



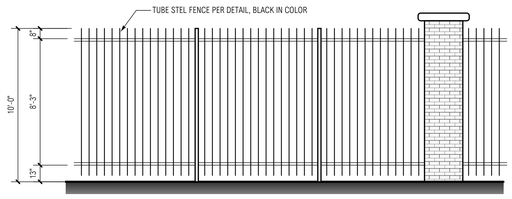
TRASH ENCLOSURE SIDE ELEVATIONS

SCALE: 1/4" = 1'-0"



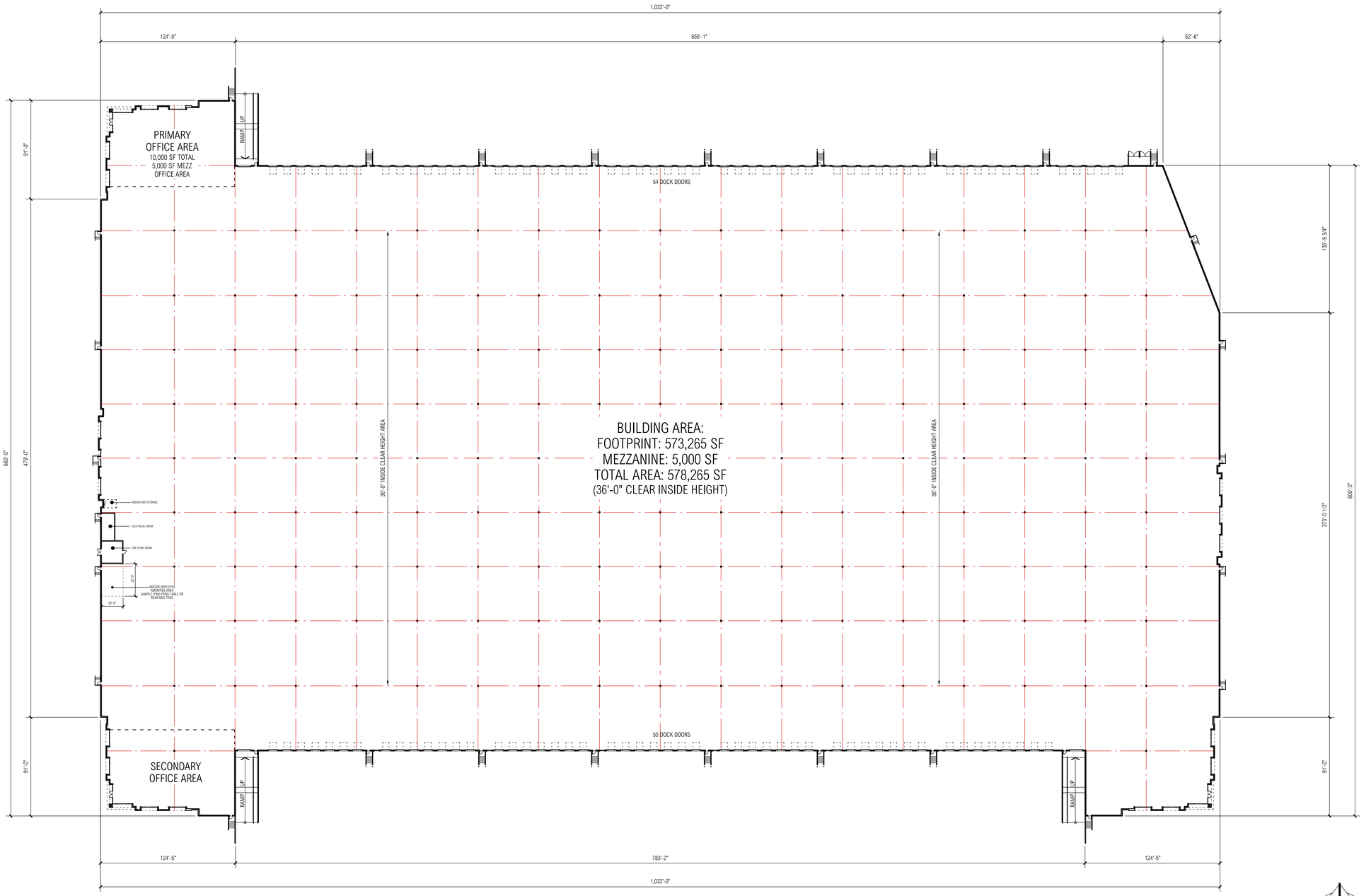
TYPICAL TRASH ENCLOSURE SECTION

SCALE: 1/4" = 1'-0"



TYPICAL TUBE STEEL FENCE ELEVATION

SCALE: 1/4" = 1'-0"



FLOOR PLAN

SCALE: 1" = 30'-0"

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MARK	DATE	DESCRIPTION
CD		
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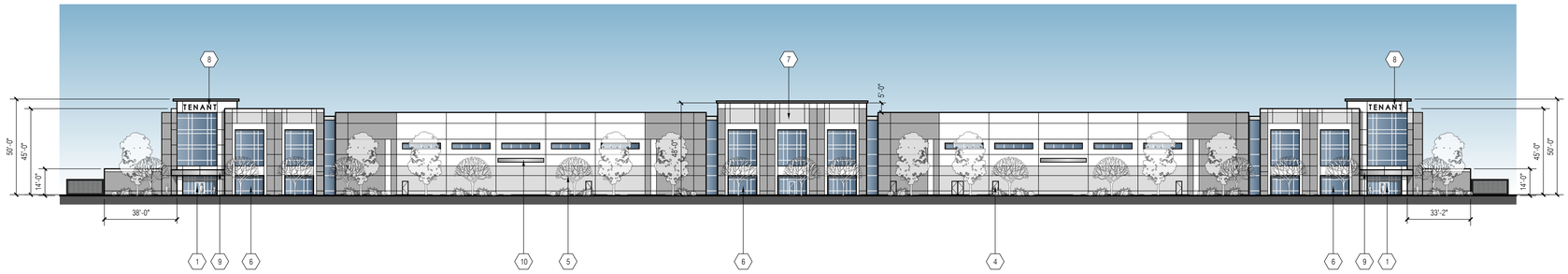
SD	09/20/2023	SCHEMATIC DESIGN

RGA PROJECT NO:	21011.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21011-00-A2-1P
DRAWN BY:	MG
CHK'D BY:	CS

SHEET TITLE

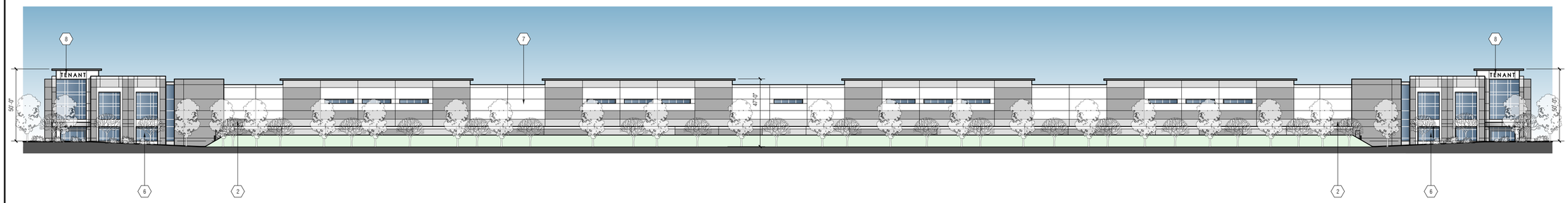
FLOOR PLAN

SHEET: A2-1P



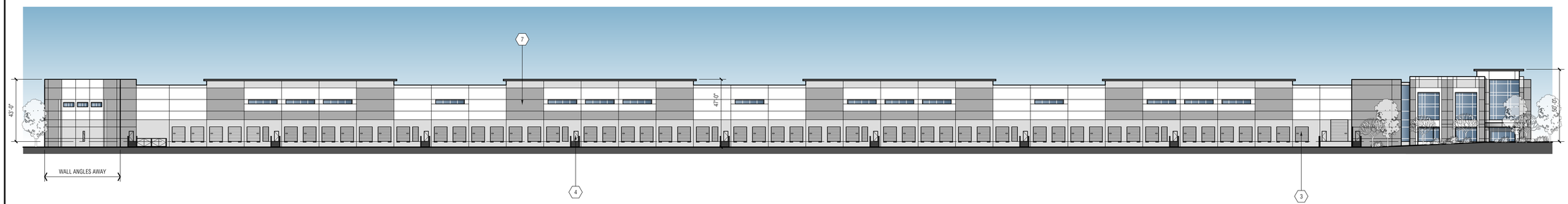
WEST ELEVATION

SCALE: 1" = 30'-0"



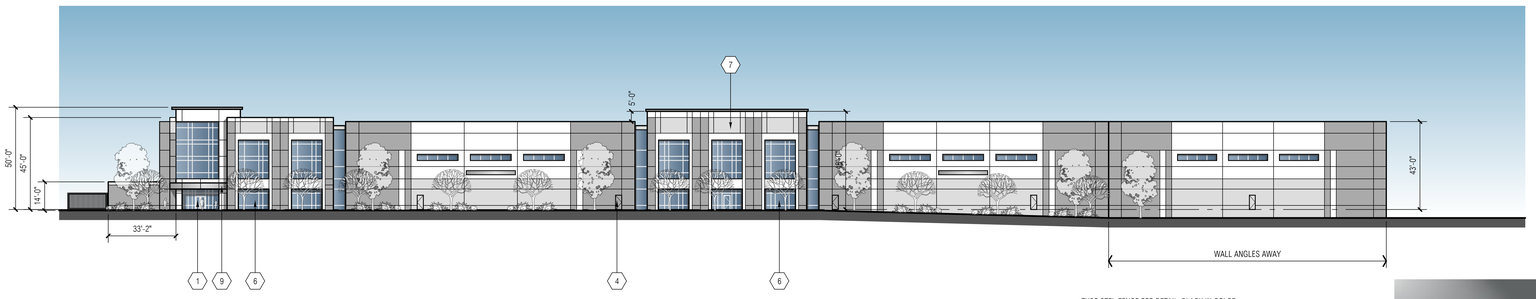
SOUTH ELEVATION

SCALE: 1" = 30'-0"



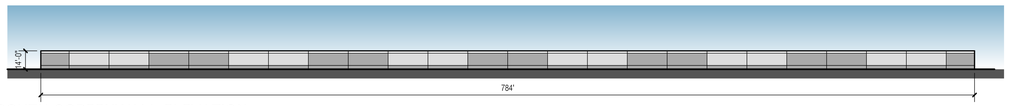
NORTH ELEVATION

SCALE: 1" = 30'-0"



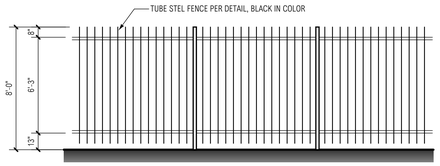
EAST ELEVATION

SCALE: 1" = 30'-0"



SOUTH SCREENWALL ELEVATION

SCALE: 1" = 40'-0"

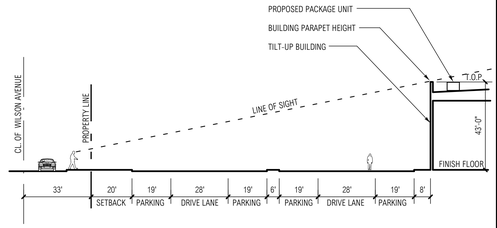


TYPICAL TUBE STEEL FENCE ELEVATION

SCALE: 1/4" = 1'-0"

SIMILAR SITE LIGHTING STYLE 2

SCALE: N.T.S.



TYPICAL EQUIPMENT SCREEN LINE OF SIGHT 1

SCALE 1" = 30'-0"

NOTE: LINE OF SIGHT TAKEN FROM 6'-0" ABOVE FINISH GRADE

KEYNOTES (000)

1. PRIMARY ENTRANCE.
2. PAINTED 12' WIDE X 14' HIGH LEVEL VERTICAL LIFT TRUCK DOOR, FACTORY PAINTED WHITE.
3. PAINTED 9' WIDE X 10' HIGH VERTICAL LIFT TRUCK DOOR, FACTORY PAINTED WHITE.
4. 3' X 7' PAINTED METAL MAN DOOR.
5. 2" WIDE X 3/4" DEEP HORIZONTAL / VERTICAL REVEAL.
6. BLUE GLASS IN ANODIZED ALUMINUM STOREFRONT FRAME SYSTEM.
7. PAINTED CONCRETE TILT-UP EXTERIOR WALL CONSTRUCTION.
8. PROPOSED FUTURE TENANT SIGNAGE LOCATION.
9. ALUM. ENTRY TRELLIS CANOPY
10. 20' X 2' LIGHT BOX WITH DOWNWARD LIGHTS

FINISH SCHEDULE:

1. FIELD COLOR
   SW-7063 NEBULOUS WHITE
2. MEDIUM ACCENT COLOR
   SW-7072 ONLINE
3. DARK ACCENT COLOR
   SW-7664 STEELY GRAY
4. TRELLISES -
   BRUSHED STAINLESS
5. GLASS - PRIMARY WINDOW
   PPG SOLARCOOL PACIFICA

NOTES:

1. ALL ROOFTOP MECH. EQUIPMENT SHALL BE SCREENED FROM VIEW.
2. PROVIDE GRAFFITI RESISTANT COATING TO A HEIGHT OF 12 FEET ON THE WEST ELEVATION.

RGA
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

PLACENTIA AVENUE DEVELOPMENT

0000 PLACENTIA AVENUE
CITY OF PERRIS, CA

LAKE CREEK INDUSTRIAL LLC
13681 NEWPORT AVENUE, SUITE 8301
TUSTIN, CA 92780
PHONE: 786-200-9681
OWNER: MICHAEL JOHNSON
EMAIL: mj@lakecreekindustrial.com

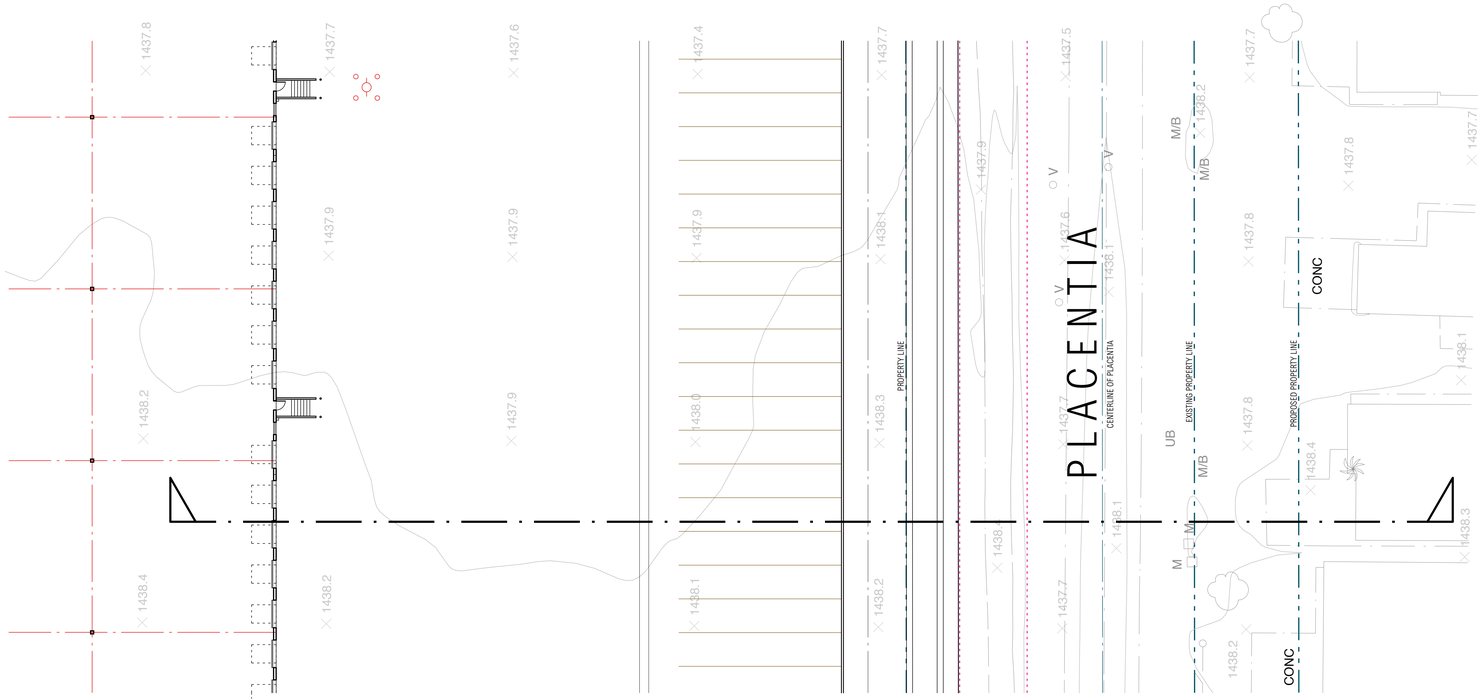
MARK	DATE	DESCRIPTION
SD	09/20/2023	SCHEMATIC DESIGN
DD		
CD		
BID		
PC		

RGA PROJECT NO:	21011-00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21011-00-A3-1P
DRAWN BY:	MG
CHK'D BY:	CS

SHEET TITLE

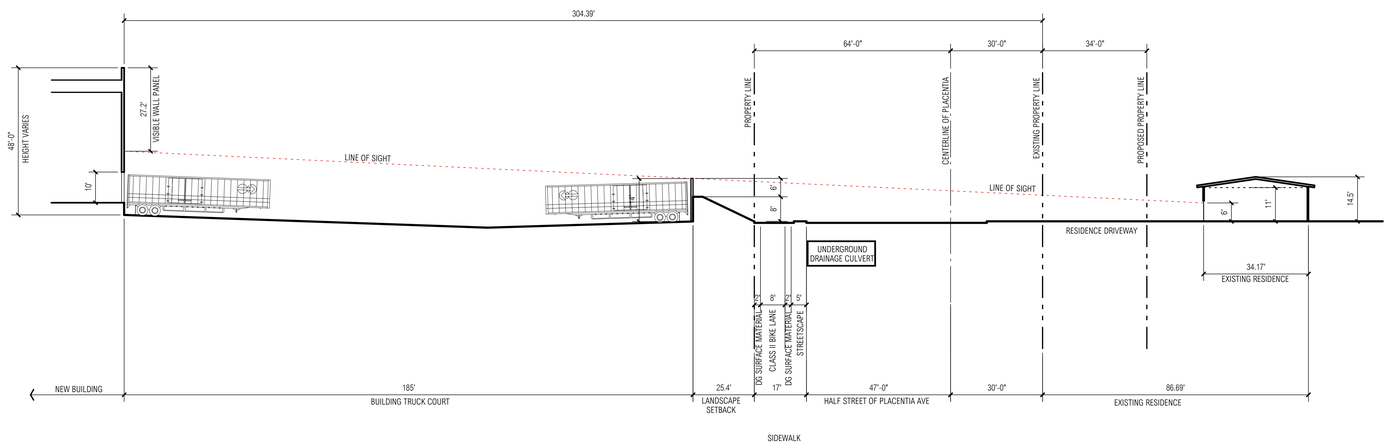
EXTERIOR ELEVATION

SHEET: A3-1P



PARTIAL SITE PLAN

SCALE: 1" = 20'-0"



SITE SECTION

SCALE: 1" = 20'-0"

RGA
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CONSULTANT

PROFESSIONAL SEALS

PLACENTIA AVENUE DEVELOPMENT

0000 PLACENTIA AVENUE
CITY OF PERRIS, CA

LAKE CREEK INDUSTRIAL LLC
13681 NEWPORT AVENUE, SUITE 8301
TUSTIN, CA 92780
PHONE: 786-200-9681
OWNER: MICHAEL JOHNSON
EMAIL: mj@lakecreekindustrial.com

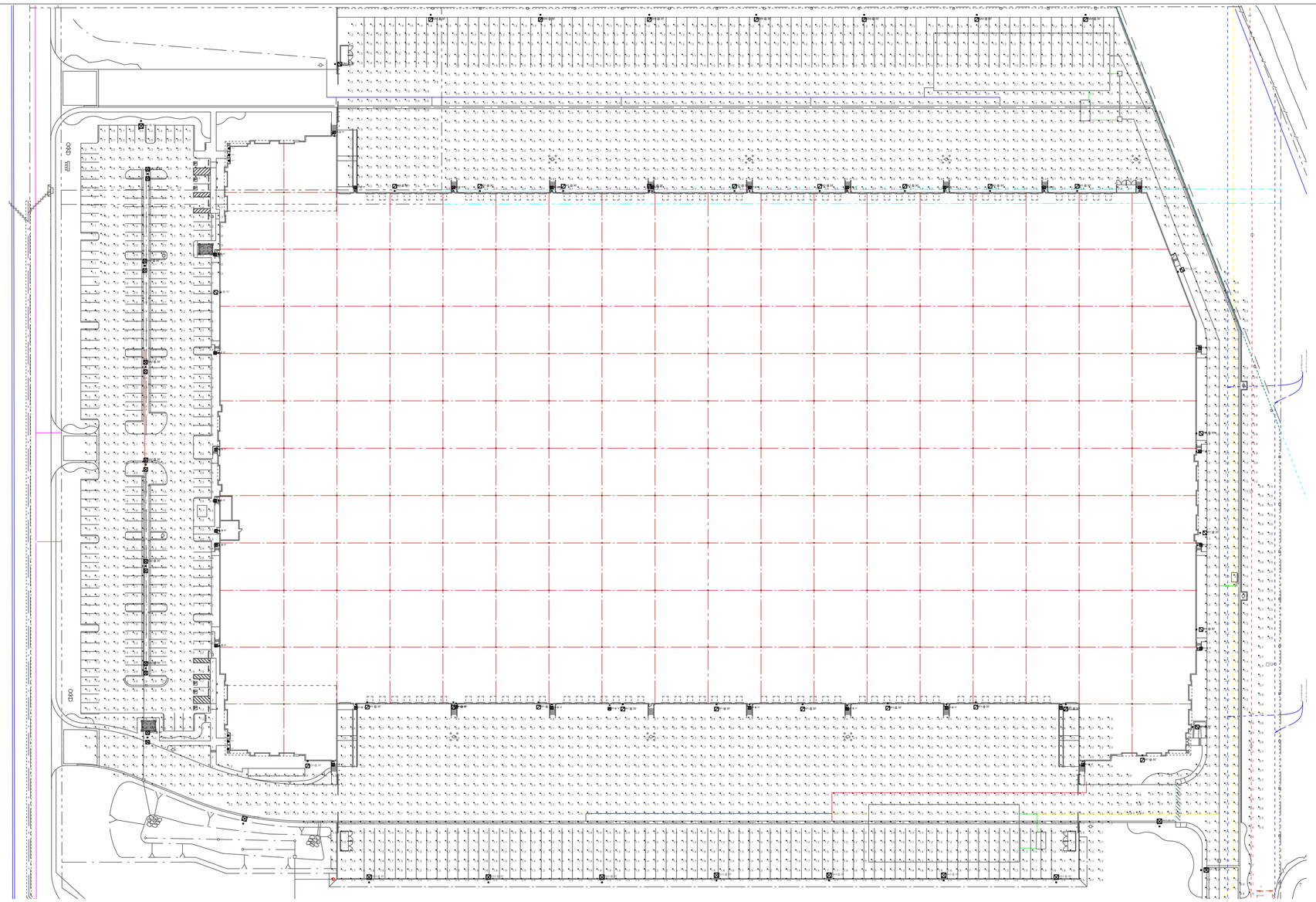
MARK	DATE	DESCRIPTION
SD	09/20/2023	SCHEMATIC DESIGN
DD		
PC		
BID		
CD		

RGA PROJECT NO:	21011.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21011-00-A3-2P
DRAWN BY:	MG
CHK'D BY:	CS

SHEET TITLE

SITE SECTION

SHEET: A3-2P



ELECTRICAL SITE PHOTOMETRIC PLAN

SCALE: 1"=50'-0"

1

Schedule									
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
	W4	6	LC6SLEM 6LCSL 14 L EM	6 INCH LBR DOWNLIGHT 1400LM 4000K		1	1641	0.9	18
	SA2	7	RZR-PLED-VSQ-W-80LED-MM511 525mA-27K- POLE MT AT 30 FT AFG BUG RATING B5 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	221	0.85	258.8
	W2	3	RZR-PLED-III-W-80LED-525mA-MM511 27K-WALL MT AT 30 FT AFG BUG RATING B3 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	218	0.85	129.4
	SA3	11	RZR-PLED-III-W-80LED-525mA-27K-HS MM511 POLE MT AT 30 FT AFG BUG RATING B1 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	158	0.85	129.4
	W1	23	RZR-PLED-IV-80LED-700mA-27K-MM511 BUG B3 U0 G3 WALL MT AT 30 FT AFG	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	280	0.85	173.6
	SA4	8	RZR-PLED-IV-FT-80LED-525mA- 27K-HS MM511 POLE MT AT 30 FT AFG BUG RATING B1 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	166	0.85	129.4
	W3	31	RZR-WM1-PLED-III-W-20LED-525mA-27K EM1 BUG RATING B1 U0 G2 WALL MT AT 10 FT AFG	CAST BLACK PAINTED FINNED METAL HOUSING.	20 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	20	207	0.85	32.4

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.5 fc	7.0 fc	0.2 fc	35.0:1	7.5:1
Calc Zone #2	+	1.9 fc	3.5 fc	1.0 fc	3.5:1	1.9:1
Calc Zone #3	+	1.5 fc	5.4 fc	0.7 fc	7.7:1	2.1:1
Calc Zone #4	+	1.2 fc	1.6 fc	1.0 fc	1.6:1	1.2:1
Calc Zone #5	+	1.9 fc	5.6 fc	0.4 fc	14.0:1	4.8:1
Calc Zone #6	+	0.7 fc	1.0 fc	0.4 fc	2.5:1	1.8:1

RGA

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CONSULTANT

RPM
Engineers, Inc.
102 DISCOVERY
Irvine, Ca. 92618
Tel: 949-450-1220 (214)
Fax: 949-450-1454
Contact: David Du
e-mail: davidd@rpmpe.com

PROFESSIONAL SEALS

REGISTERED PROFESSIONAL ENGINEER
LAN V. NGUYEN
No. 015596
Exp 12-31-2021
ELECTRICAL
STATE OF CALIFORNIA
09/26/2023

PROJECT NAME

PLACENTIA AVENUE DEVELOPMENT
0000 PLACENTIA AVENUE
CITY OF PERRIS, CA

LAKE CREEK INDUSTRIAL LLC
1302 BRITTANY CROSS ROAD
SANTA ANA, CA 92705

MARK	DATE	DESCRIPTION
SD		

RGA PROJECT NO: 21011.00
OWNER PROJECT NO:
CAD FILE NAME:
DRAWN BY:
CHKD BY:

SHEET TITLE

ELECTRICAL PHOTOMETRIC SITE PLAN

SHEET: FC-1

Appendix B

VMT Scoping Form for Land Use Projects

City of Perris
www.cityofperris.org

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. DPR 21-00015

Project Name: Placentia Avenue Industrial Project

Project Location: Northeast corner of Wilson Ave and Placentia Ave in the City of Perris

Project Description: A 578,265 SF high-cube warehouse fulfillment center warehouse (non-sort) building
(Please attach a copy of the project Site Plan)

Current GP Land Use: PVCC SP - Light Industrial **Proposed GP Land Use:** PVCC SP - Light Industrial

Current Zoning: PVCC SP - Light Industrial **Proposed Zoning:** PVCC SP - Light Industrial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

	YES		NO		Attachments:	
A. Is the Project 100% affordable housing?	YES		NO	✓	Attachments:	
B. Is the Project within 1/2 mile of qualifying transit?	YES		NO	✓	Attachments:	
C. Is the Project a local serving land use?	YES		NO	✓	Attachments:	
D. Is the Project in a low VMT area?	YES	✓	NO		Attachments:	
E. Are the Project's Net Daily Trips less than 500 ADT?	YES		NO	✓	Attachments:	Table 1

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3,814		VMT/Capita	Residential:	
	9.95	VMT/Employee	Non-Residential:	✓

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: ITE 11th Edition, 2021. High-Cube Fulfillment Center Warehouse Non-Sort (ITE 155)

Project Trip Generation: 1,047 ADT **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO	✓	% Trip Credit:	
Pass-By Trip Credit:	YES		NO	✓	% Trip Credit:	
Affordable Housing Credit:	YES		NO	✓	% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO	✓	Trip Credit:	

Net Project Daily Trips: 1,047 **Average Daily Trips (ADT)** Attachments: Table 1

Does project trip generation warrant an LOS evaluation outside of CEQA? YES ✓ NO

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?

A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Yes. Criteria D.

B. Is mitigation required?

If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No.

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	✔

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:

B. Unmitigated Project TAZ VMT Rate:

C. Percentage Reduction Required to Achieve the Citywide Average VMT: %

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	

Project Location Setting	

	VMT Reduction Mitigation Measure:	**Estimated VMT Reduction (%)**
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:

F. Is the project pressumed to have a less than significant impact with mitigation?

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		**Developer/Applicant**	
Company:	Ganddini Group, Inc.	**Company:**	Lake Creek Industrial, LLC
Contact:	Bryan Crawford	**Contact:**	Dr. Michael Johnson
Address:	550 Parkcenter Dr, Ste 202, Santa Ana CA 92705	**Address:**	1302 Brittany Cross Road, Santa Ana CA 92705
Phone:	714-795-3100*104	**Phone:**	(786) 200-9681
Email:	bryan@ganddini.com	**Email:**	mj@lakecreekindustrial.com
Date:	10-05-2023	**Date:**	

Approved by:

Perris Development Serivces Dept.	**Date**	**Perris Public Works Dept.**	**Date**

Appendix C

Other Cumulative Projects

PROJECTS THAT HAVE STARTED CONSTRUCTION

TRACT	DEVELOPER	PROJECT	LOCATION	DU	COM SF	TYPE	ACRE	Approval Date	Status	Planner
31226	Pacific Communities	Pacific Heritage 1	SW Nuevo & McKimball	82	N/A	SFD	20.18	10/15/2003	Vertical construction in process	DS
31650	Sunwest Enterprises		SW Van Wy & De Lines	61	N/A	SFD	15.6	7/13/2004	FTM approved 6-13-2006 - Architecture review MDPR 20-05143	DS
32406	Sunwest Enterprises		SE Bowen & Windflower	15	N/A	SFD	3.5	1/5/2005	FTM approved 11-28-2006 - Architecture review MDPR 20-05143	AG/DS
32497	Pacific Communities	Pacific Ave	SW Orange & Medical	131	N/A	PDO	12.15	10/31/2006	Vertical construction started 2021	NP
32769	CBM Consulting & Dev, Inc.	Faith Circle	West side of "B" Street, south of 11th St	20	N/A	SFD	4.31	4/20/2006	Final Home Sales 2022	RZ
36648	John Abel	Stratford Ranch	W of Evans Road @ northern City Limits	270	N/A	SFD	65.8	8/29/2017	Vertical construction in process starting 4th quarter 2021	NP
36988	Richmond	GVSP	N of Ethanac Rd & W of Murrieta Rd	169	N/A	SFD	37.65	8/29/2017	30 Plus remaining homes	KP
37014	JD Pierce	Barrett Apt	Btw Barrett & Perris Blvd	228	N/A	APT	13.49	10/25/2016	Grading anticipated 1st quarter 2022 - Major Mod 18-05211; DPR 15-00014	KP
37816	TriPointe	GVSP	730' E of the NW of Goetz & Ethanac	97	N/A	PDO	10.97	2/9/2021	Anticipate Precise Grading 2nd Qtr 2022 - Approve - Park Fee Agreement; ADPR 21-0	NP
37722	Richmond	GVSP	NW Green Valley Pkwy & Murrieta Rd	116	N/A	SFD	19.4	2/9/2021	Grading 4th Qtr 2021 - Approve - Park Fee Agreement & TUMF Credit	NP
				1189		**Total Units**				

PROJECTS IN PLAN CHECK

TRACT	DEVELOPER	PROJECT	LOCATION	DU	COM SF	TYPE	ACRE	Approval Date	Status	Planner
31651	DR Horton		SW Nuevo and Wislon	52	N/A	SFD	12.55	7/27/2004	Plan Check; FTM approved 4/102017	RG
31157	Palin Enterprises	Parkwest SP	S of Nuevo Road & E. PVSD	529	N/A	SFD	110.2	1/3/2018	Preparing improvement plans	KP
31659	DR Horton		NEC Citrus & Evans	161	N/A	SFD	55.07	7/27/2004	Initiate Plan Check 2nd Quarter 2021 FTM approved 2/28/2006	
32041	DR Horton		NWC Citrus & Dunlap	122	N/A	SFD	40.03	4/24/2007	Initiate Plan Check 2nd Quarter 2021 FTM approved 5/24/2007 Right belo	NP
32666	WSI Mojave Inv/ Richland	Riverwood SP	Mapes & Ethanac	663	N/A	SFD	226.9	12/14/2004	Grading expected 4th Quarter 20222 - Final Map recorded with option in increase to	BE
33549	Perris Investment Group	Village Walk	NE Perris & Commercial	129	N/A	SFD	24	1/30/2007	Initiate Plan Check 2nd Quarter 2021 FTM approved 7/27/2011	SC
33338	DR Horton		NWC Nuevo & Evans	75	N/A	SFD	19	4/11/2006	Initate Plan Check 3rd Quarter 2021; FTM approved 4/24/2007 **No Construction S**	NP
31912	TKC		7th & Clayton vacant land	8	N/A	SFD	2.3		FTM approved 4/24/2007 Plan Check	RG
35062	Sterling Villa	Senior Housing	SE corner of Nuevo and Murrieta	429	N/A	APT	18.54	2/13/2006	In Plan check; Expires 8/4/2022 with AB 1561 (aka DPR 06-0378)	KP
				2168		**Total Units**				

FINAL MAP RECORDED OR DA WITH NO FURTHER NEED FOR EXTENSION

TRACT	DEVELOPER	PROJECT	LOCATION	DU	COM SF	TYPE	ACRE	Approval Date	Status	Planner
				0		**Total Units**				

ENTITLED RESIDENTIAL DEVELOPMENTS

TRACT	DEVELOPER	PROJECT	LOCATION	DU	COM SF	TYPE	ACRE	Approval Date	Status	Planner
33900	WSI Mojave Inv	Richland	SE Ethanac & McPherson	198	N/A	SFD	116	4/29/2008	Has received various 1 year extensions. Valid until 5/8/2020. EOT19-05029	RZ
33973	County Lands PIP IV		W McPherson & S Ethanac	384	N/A	SFD	153.7	5/27/2008	Has received various 1 year extensions. Valid until 5/27/2019. New EOT 19-05071 su	RZ
34260	Tristone/David Jeffers		Flame Avenue	22	N/A	SFD	3.06	10/28/2014	Has received various 1 year extensions. Valid until 10/28/2019. EOT18-05252	KP
35103	Howard Industries	Harvest Landing		1,287	N/A	SFD/MFR	169.5	3/10/2011	345 units LDR; 372 units MDR; 250 units MDR; & 889 units HDR	DS
36797	Nova Homes		NEC Wilson & Water	76	N/A	PDO	19.9	10/28/2014	AB 1651 Ext until 4/10/2022; Has received various 1 year extensions. Valid until 10/2	IL
37038	Kile Investment Trust	Citrus Court	SW Orange & Dunlap	111	N/A	PDO	14.5	2/28/2017	EOT 19-05325	KP/RG
37181	Metz and A LLC	Villa Verona Apt	NE A & Metz	360	N/A	APT	16.9	8/29/2017	Dormant - DPR 16-00002	NP
17-00005	Lansing Properties	Senior Housing	NW of A & Ellis	141	N/A	APT	4.21	3/26/2019	Dormant - DPR 17-00005; EOT 22-05045	MB
36647	John Abel	Stratford Ranch	W of Evans Road and N of Ramona Exp	90	N/A	SFD	24.1	9/29/2020	Approve	NP
37223	Raintree Investments GVSP	GVSP	Watson & Murrieta	235	N/A	SFD	37.37	2/9/2021	Approve - Park Fee Agreement & TUMF Credit	NP
37262	Raintree Investments GVSP	GVSP	Ethanac & Goetz	191	N/A	SFD	37.36	2/9/2021	Approve - Park Fee Agreement & TUMF Credit	NP
37803	UCI Prop		SWC Metz & A St	145	N/A	SFD	53.15	8/31/2021	Submitted 2019.8	NP
37817	Raintree Investments GVSP	GVSP	NEC of GV Pky & Ethanac 1,500' N of Etha	228	N/A	PDO	25.3	2/9/2021	Approve - Park Fee Agreement	NP
37818	Raintree Investments GVSP	GVSP	NWC of GV Pky and Ethanac	138	N/A	PDO	14.7	2/9/2021	Approve - Park Fee Agreement	NP
37818 - APT	Raintree Investments GVSP	GVSP	NWC of GV Pky and Ethanac	236	N/A	APT	14.1	2/9/2021	Approve - Park Fee Agreement	NP
				Total 3842		**Total Units**				

IN PROCESS RESIDENTIAL DEVELOPMENTS

TRACT	DEVELOPER	PROJECT	LOCATION	DU	COM SF	TYPE	ACRE	Approval Date	Status	Planner
37441	Julio Arias	Graham PUD	W of Graham St btw Metz & Weston	32	N/A	PDO	4.16	In process	Entitlement Phase	AG
37904	Pacific Communities	Active Senior	NE McPherson and Mountain	201	N/A	PDO	40.4	In process	Submitted 2021.3 TM 21-05037, DPR 21-0002 & PDO 21-05038	ME
38071	Stratford Ranch		NE Ramona and Evans	197	N/A	SFD	48.6	In process	Submitted 2021.3.1	NP
38308	DTSP UV		G St and 2nd St	39	N/A	MFR	1.8	In process	Submitted 2021.11.12: TPM 21-05271; DPR 21-00018	AG
21-00014	May Ranch		SW Rider and Evans	308	N/A	MFR	16	In process	Submitted 2021.11.12: DPR21-00014, SPA 21-05249; PR 20-05034	ME
				Total 777		**Total Units**				

PVCC SP - Projects Completed

Industrial Projects	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	Planner
BI - Accent Décor	173,000	9	Btw Harely Knox & Nance W of Webster	Entitled 2008.11.25	Completed (April 2018)	DPR 07-09-0018	KP
Circle Industrial - Tech Style	600,000	31	NW corner of Markham & Redlands	Entitled 2013.11.12	Completed (March 2017)	DPR 13-02-00005	NP
Circle Industrial III - Tech Style	211,000	10	NW corner of Nance & Redlands	Entitled 2018.10.17	Completed (2020)	DPR 17-00006	NP
Duke 2 - Forever 21	669,000	31	SE corner of Indian & Markham	Entitled 2017.10.18	Completed (April 2019)	DPR 16-00008	NP
Duke @ Perris Blvd - Amazon	1,070,000	54	E of Perris Blvd btw Markham & Perry	Entitled 2017.8.28	Completed (August 2020)	DPR 17-00002 & CUP 1	CP
Duke @ Patterson - Amazon	811,000	37	SE corner of Patterson & Markham	Entitled 2019.1.29	Completed (2020)	DPR 17-00001	KP
First Perry - Moret Group	240,000	11	SW corner of Perry & Redlands	Entitled 2017.11.15	Completed (December 2019)	DPR 16-00013	NP
Gateway - Kenco (Reynolds)	400,000	22	SE corner of I-215 & Harley Knox	Entitled 2017.1.31	Completed (December 2018)	DPR 16-00003	KP
General Mills	1,600,000	70	Btw Markham and Ramona W of Indian	Entitled 2009.12.8	Completed (November 2016)	DPR 07-07-0029	KP
Home Depot (IDI)	1,750,000	90	Btw Nance & Markham W of Perris Blvd	Entitled	Completed (March 2014)	DPR 05-0113	
Home Depot & Essendant	1,700,000	91	E of Redlands north of Perry	Entitled 2012.11.27	Completed (May 2017)	DPR 11-12-0004	
Indian Palms	39,000	2	W of Indian bt Rider and Walnut	Entitled 2016.1.31	Completed (2009)	DPR 05-0285	
Integra - Amazon	864,000	43	Btw Markham & Nance E of Webster	Entitled 2015.1.27	Completed (December 2018)	DPR 14-02-0014	DS
Lowes	1,200,000	120	Btw Ramona & Morgan W of Indian	Entitled	Completed (2001)	DPR 99-0167	
Markham East - Geodis	460,000	22	NW corner of Redlands & Perry	Entitled 2007.6.20	Completed	DPR 05-0477	
MI - Retrospec Bicycle	170,000	9	NE corner of Indian & Markham	Entitled 2017.8.16	Completed (October 2021)	DPR 16-00015	KP
OLC 1 - Ferguson & Penske	1,455,000	69	NW corner of Webster & Ramona	Entitled 2016.1.12	Completed (December 2018)	DPR 12-10-0005	KP
OLC 2 - H&M	1,037,000	49	NE corner of Patterson & Markham	Entitled 2016.1.12	Completed (December 2019)	DPR 14-01-0015	KP
Phelan Indus - FlexSpot	81,000	4	N. Side of Markham btw Webster & Perris	Entitled 2017.10.10	Complete (2020)	ADPR 16-05202	NP
Ridge - Hanes	1,900,000	90	NW corner of Perris & Morgan	Entitled 2007.3.27	Completed (2012)	DPR 05-0493	
Rider 1 - LDC Logistics	350,000	16	SW corner of Rider & Redlands	Entitled 2007.6.20	Completed (2020)	DPR 06-0365	KP
Rider 3 - Sketchers	640,000	30	NW corner of Rider & Redlands	Entitled 2009.3.31	Completed (2020)	DPR 06-0432	KP
Ross (Oakmont 2)	700,000	37	SW corner of Perris & Markham	Entitled 2007.3.27	Completed (2013)	DPR 05-0192	
Ross	1,600,000	83	SW corner of Indian & Morgan	Entitled date ?	Completed (2002)	?	
Wayfair (Duke 1)	2,000,000	96	NE corner of Indian & Rider	Entitled 2009.8.25	Completed (October 2017)	DPR 06-0417	DS
Western Brass (Multi-tenants)	494,000	24	NE corner of Harley Knox and Indian	Entitled 2004.7.3	Completed (2007)	DPR 03-0388	KP
Western Ind (PODS)	250,000	25	E. Side of Western Way & City limits	Entitled 2019.12.18	Completed (April 2021)	DPR 19-00003	NP
Whirlpool (IDS)	1,700,000	80	NE corner of Perris & Morgan	Entitled 2005.8.17	Completed (2006)	DPR 04-0464	
WT (Yakima)	180,000	9	SW corner of Indian & Nance	Entitled 2016.7.20	Completed (December 2021)	DPR 16-00001; MM 20	KP
Total	**24,344,000**	1,264					

PVCC SP - Projects that have started construction

Industrial Projects	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	
AAA	2,000	10	SE Corner of Harley Knox & Webster	Entitled 2018.3.7	Vertical Constructin	DPR 16-00012	
Burge Indus 1	18,000	2.5	E. of Perris Blvd. & N of Commerce Dr	Entitled 2019.8.7	Vertical Constructin	DPR 18-00001	CP
Burge Indus 2	43,354	3	E. Perris Blvd. and S of Commerce Dr	Entitled 2019.8.7	Vertical Constructin	DPR 18-00007	CP
Duke @ Perry	144,000	7	SE Corner of Perrty and Barrett	Entitled 2019.11.6	Vertical Constructin	DPR 18-00011	CP
IDI @ Ramona (Grainger)	426,000	24	NW corner of Ramona and Indian	Entitled 2019.11.20	Vertical Constructin	DPR 18-00002	CP
IDI - Site 3	2,300,000	217	NE corner of Redlands and Ellis	Entitled 2010.7.13	Grading	DPR 08-01-0007	DS/CP
Pulliam Indus	16,000	0.5	Lots 10 & 12 on Commerce Dr, E of Perris	Entitled 2018.6.20	Vertical Constructin	DPR 17-00007 & 9	CP
Rados (Locktech)	1,200,000	83	SW corner of Rider & Indian	Entitled 2011.7.12	Vertical Construction	MMOD 18-05204; DPR	NP
Rider 2	805,567	39	NE corner of Rider & Redlands	Entitled 2021.7.27	Grading	DPR 19-00004	CP/RG
Rider 4	548,019	33	SE corner of Redlands and Morgan	Entitled 2021.7.27	Grading	DPR 19-00006	CP/RG
Walnut Indu	205,000	11	N. Side Walnut St, btw Indian & Barnett	Entitled 2020.1.20	Vertical Construction	DPR 19-00014	MD/AG
Wilson Ind (New Age)	303,000	16	E. Side of Wilson S. of Rider St	Entitled 2020.12.2	TCO 3/2022	DPR 19-00007	AG
Total	**6,010,940**	**444.76**					

PVCC SP - Projects in Plan Check

Industrial Projects	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	
Canyon Steel (CS)	25,000	4	NWC of Patterson and California	Entitled 2019.2.20	Plan Check	DPR 18-00006	KP
Truck Terminal	0	9.5	N. side of Markham & E of Perris Blvd	Entitled 2021.10.26	In process	CUP 20-05100	CP
Wilson Ind	248,000		SW corner of Rider and Wilson	Entitled 2021.7.7 (8/26/20)	In process	DPR 20-00011	AG
Wilson Ind 2	155,000		Wilson S. of Rider St	Entitled 2022.2.2 (2/10/21)	Entitled	DPR 21-00001	AG
Total	**25,000**	**4**					

PVCC SP - In Process and Entitled Projects

Industrial Projects	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	
Oleander Cultivation	12,985	1	1261 Oleander Ave	Entitled 2021.3.3	In process	DPR 18-00012	AG
Integra - Expansion (IT-E)	273,000	10	NE corner of Markham and Webster	Entitled 2019.4.17	Dormant	MMOD 17-05075	DS
Holistic Inc. - Cultivation	5,000		872 Washington Ave	Enttiled 2019.6.19		DPR 18-00009	CP
Marijuana Manufacturing (MM)	1,000	0.5	NW corner of Webster and Washington	Entitled 2019.4.4	In process	ADPR 19-05051; DPR 1	MD
Harley Knox 25k	25,000	1	S of Harley Knox btw Patterson & Nevada	Entitled 2021.4.21	In process	DPR 19-00005	NP
Expressway Industrial	347,000	16	SW corner of Ramona and Perris	Not entitled	In process	DPR 19-00012	AG
First Indus (Goodwin)	338,000	15	SE Corner of Rider and Redlands	Entitled 2021.7.7	In process	DPR 19-00016	AG
Kwasizur Indu	138,000	9	SE corner of Indian and Harley Knox	Entitled 2022.3.2	In process	DPR 20-00019	AG
Patriot Ind	286,000	15	SW Perris and Morgan	Not entitled (9/29/20)	In process	DPR 20-00013	CP
Park Ind	31,000	2	SE Patterson and Markham	Entitled 2020.2.5	Dormant	DPR 19-00002	NP
Natwar Ind	420,000	23	W. Side of Natwar 300' N. of Nandina	Not entitled	In process	DPR 20-00004	NP
Serrao Ind	3,500	0.17	N. Side of Nance Street 660' E. of Webster	Not entitled	In process	DPR 20-00010	RG
Lakecreek East	256,000	11	E. Side of Redlands S. of Rider St	Not entitled (1/7/21)	In process	DPR 20-00021	CP
Lakecreek West	300,000	20	W. Side of Reldands S. of Rider St	Not entitled (1/7/21)	In process	DPR 20-00020	CP
Chartwell Ind	141,000	6	SW corner of Redlands and Rider	Not entitled (2/18/21)	In process	DPR 21-00003	AG
	345,000		SE corner of Perris & Harley Knox	Not entitled (4/29/2021)	In process	DPR 21-00004	NP
Duke @ Patterson and Nance	580,000	26	NE corner of Patterson and Nance	Not entitled (5/5/2021)	In process	DPR 21-00005	RS
Nance Ind	156,000		Btw Harley & Nance	Not entitled (6/18/2021)	In process	DPR 21-00006	ME (RS)
Lakecreek at Harley Knox	143,000		N. Side of Harley Knox and W. of Perris	Not entitled 6/23/2021)	In process	DPR 21-00008	RS
McKay Indus	232,000	13	NE of Ramona and Indian	Not entitled (9/2/2021)	In process	DPR 21-00011	RS (CH)
Ramona Gateway (35K Com)	850,000	50	S Ramaona btw Nevada and Webster	Not entitled (10/1/2021)	In process	DPR 21-00013	ME
Lakecreek Placentia	508,776	25	NE of Placentia and Wilson	Not entitled (11/1/2021)	In process	DPR 21-00015, SPA &	ME
Harvest Landing MBU	1,232,900	73	Frontage Road and	Not entitled (1/13/2022)	In process	CUP 22-05005	ME
OLC 3	879,000	40	SW Perris and Markham	Not entitled (2/18/2022)	In process	DPR 22-00006	ME
RG Indus	263,000	11	SW Patterson and Nance	Not entitled (2/17/2022)	In process	DPR 22-00003	LG
Total	**7,767,161**						

South Perris - In Process and Entitled Projects

Industrial Projects	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	
IDI - Site 1	784,000	36	SW corner of Mountain & Goetz	Entitled 2010.7.13	Dormant	DPR 07-0130	DS
IDI - Site 2	3,448,734	205	SW of Mapes and Goetz	Entitled 2010.7.13	Dormant	DPR 08-04-0006	DS
Malbert Cultivation	33,000	3	N. side of Malbert St & W. of Goetz Rd	Entitled 2021.3.17	In process	DPR 17-00008	CP
Marijuana Manufacturing	61,050	2	N. side of Malbert St & W. of Goetz Rd	Entitled 2020.11.4	In process	DPR 18-00005	MB
Marijuana Manufacturing	12,000	1	S. side of Illnois & E. I-215 Freeway	Enttiled 2019.4.17	In process	DPR 18-00004	CP
Marijuana Manufacturing/Cul	30,000	6	N. side of Mapes btw Goetz & Alpine	Not entitled	In process	DPR 18-00010	CP
Perez Indus	2,500	0.5	E. side of G St N of Case Rd	Entitled 2018.12.19	In process	DPR 16-00016	CP
Total	**4,371,284**						

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Preliminary Review

Industrial Projects	Sq. Ft.	Acreage	Location	Assigned Date	Status	Case Number(s)	
Self Storage	149,000	10	E. side of Goetz Rd, south of Mountain	3/11/2022		PR 22-05066	AG
Walker Indu	13,000	1	N. of Walker btw G and Redlands	3/11/2022		PR 22-05066	RG
Scannell Indu	319,000	15	S. side of Mountain west of Goetz Road	3/11/2022		PR 22-05067	NP
Total	**481,000**						

Projects completed

	Commercial	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	Planner
1	Perris Crossing	387,993	27	E of I-215 btw Watson and Ethanac Rd	Entitled 2006.4.11	Partially completed (2009)	DPR 04-0621	DS
11	DTSP Mixed Use	10,834	1	SW corner of Tenth and D	Entitled 2017.11.5	Grading	DPR 16-00014	BM
12	7-Eleven	3,000	1	NE corner of Ethanac and Case	Entitled 2017.1.18	Completed (November 2018)	CUP 16-05074	NP
13	Autozone	19,000	2	NE corner of Perris Crossing Center	Entitled 2017.10.4	Completed (December 2018)	ADPR 16-05074	DS
5	Partial MTC	10,000	2.4	SE corner of Ethanac and Trumble	Entitled 2017.3.15	Completed 2020	CUP 16-05168	KP
9	Weinerschnitzel	2,000	1	W side of Perris Blvd & S. of Placentia	Entitled 2017.11.15	Completed (October 2019)	CUP 17-05083	DS
10	Behavioral Health Clinic	37,000	4	NW San Jacinto & Redlands	Entitled 2017.7.19	Completed (June 2019)	CUP 16-05189	BM
2	Quick Quack Carwash	3,600	1	E of Case Rd north of Ethanac Rd	Entitled 2018.7.18	Completed (January 2022)	CUP 18-05045	DS
	Aldi Market Center	27,000	4.6	West of Perris Blvd and Citrus	Entitled 2020.3.4	Completed (January 2022)	ADPR 19-05039; CUP 1	NP
6	Perris Common	35,000	5.5	SW corner San Jacinto and Redlands	Entitled 2018.4.10	Completed 2021	MAJ MOD 18-05004	NP
7	Perris De Plaza - Build-out	173,000	42	NE of Nuevo and Frontage	Entitled	Completed 2020	MIN MOD 17-05178	NP
	Total	**708,427**						

Projects that have started construction

	Commercial	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	Planner
14	Cali Express Carwash	5,600	1	NW corner of Ramona and Perris	Entitled 2018.10.18	Vertical Construction	CUP 16-05258	DS
3	March Plaza	47,253	8	NW corner of Perris Blvd & Harley Knox	Entitled 2017.3.15	Grading	CUP 16-05165	DS
	Commercial Retail - Spectrum	7,400	2	W of Perris Blvd north of Orange	Entitled 2020.7.1	Vertical Construction	CUP 19-05301	AG
	Total	**60,253**	**10**					

Project in Plan Check

	Commercial	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	Planner
	Total	**3,600**	**1**					

In Process and Entitled Projects that are Dormant

	Commercial	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	Planner
4	Motte Town Center (MTC)	484,300	59	SE corner of Ethanac and Trumble	Entitled 2008.5.13	Dormant	DPR 06-0337	DS
8	Perris Venue	643,000	68	SE corner of San Jacinto and Redlands	Entitled 2009.8.13	Dormant	DPR 08-04-0015	KP
	Gas Station & Carwash	7,000	1.8	4th St and Navajo Rd	Entitled 2021.12.1	In process	CUP 19-05295	AG
	Gas Station	7,250	4.56	NE Perris & Harley Knox	Entitled 2021.7.27	In process	CUP 20-05101	AG
	7-Eleven Auto carwash	4,100	2	SW Perris and Rider	Entitled 2027.7.27	In process	CUP 19-05281	NP
	Tommy's carwash	8,500		E. side of Perris Blvd	Submitted 2020.12.23	In process	CUP 20-05217	RG
	Pharmacy	15,000	1.3	S. side of 4th St west of Park St	Submitted 2021.1.7	In process	DPR 20-00022	AG
	Mosque	12,000	0.52	NE of Barrett and Orange	Submitted 2021.5.12	In process	CUP 21-05102	RG
	In-N-Out	4,000	1.5	Old Nuevo Rd	Submtited 2022.2.23	In process	CUP 22-05055	NP
	Gas Station, carwash & Hotel	22,000	3.83	NW Perris and Placentia	Submitted 2022.3.8	In process	DPR 22-00007	RG
	Total	**1,207,150**						

Preliminary Review

Commercial	Sq. Ft.	Acreage	Location	Entitlement Status	Status	Case Number(s)	Planner
Vida Church Expansion	25,000	3.7	251 N. Perris Blvd	Submitted 2022.2.25	In process	PR 22-05051	RG

Table 3 (1 of 3)
Other Development Trip Generation

Map ID	Project Name	Land Use	Quantity	Units[1]	Trips Generated[2]						
					AM Peak Hour			PM Peak Hour			
					In	Out	Total	In	Out	Total	Daily
1	LCI Wilson	Warehousing	83.910	TSF							
		- Cars			10	3	13	4	9	13	93
		- Trucks			3	3	6	3	3	6	128
2	Redlands Avenue West	High-Cube Warehouse	334.447	TSF							
		- Cars			37	9	46	19	30	49	442
		- Trucks			10	3	13	3	3	6	415
3	Redlands Avenue East	High-Cube Warehouse	254.511	TSF							
		- Cars			28	7	35	15	23	38	336
		- Trucks			10	3	13	3	3	6	318
4	IDI @ Ramona	High-Cube Warehouse	426.000	TSF							
		- Cars			45	11	56	25	39	64	673
		- Trucks			13	3	16	3	3	6	247
5	Duke @ Perry	Warehousing	144.000	TSF							
		- Cars			17	5	22	6	16	22	160
		- Trucks			3	3	6	3	3	6	219
6	McKay Indus	High-Cube Warehouse	232.000	TSF							
		- Cars			24	6	30	14	21	35	367
		- Trucks			3	3	6	3	3	6	135
7	Cali Express Carwash	Car Wash	5.600	TSF	20	20	40	40	40	80	795
8	Expressway Industrial	High-Cube Warehouse	347.000	TSF							
		- Cars			36	9	45	20	32	52	548
		- Trucks			10	10	20	3	3	6	204
9	TR 38071	Single-Family Detached Residential	192	DU	35	114	149	114	67	181	1,811
10	TR 36647	Single-Family Detached Residential	90	DU	16	53	69	53	31	84	849
11	Walnut Indu	High-Cube Warehouse	205.000	TSF							
		- Cars			22	5	27	12	19	31	324
		- Trucks			3	3	6	3	3	6	122
12	Patriot Ind	High-Cube Warehouse	286.000	TSF							
		- Cars			30	7	37	17	26	43	452
		- Trucks			10	10	20	3	3	6	168
13	Sinclair Indu	High-Cube Warehouse	436.000	TSF							
		- Cars			46	11	57	26	40	66	689
		- Trucks			13	13	26	3	3	6	257
14	Burge Indus 1	Light Industrial	18.000	TSF							
		- Cars			12	2	14	2	10	12	83
		- Trucks			0	0	0	0	0	0	10

Table 3 (2 of 3)
Other Development Trip Generation

Map ID	Project Name	Land Use	Quantity	Units[1]	Trips Generated[2]						
					AM Peak Hour			PM Peak Hour			
					In	Out	Total	In	Out	Total	Daily
15	Burge Indus 2	Light Industrial	43.354	TSF							
		- Cars			28	4	32	4	24	28	200
		- Trucks			0	0	0	0	0	0	25
16	Pulliam Indus	Light Industrial	16.000	TSF							
		- Cars			10	1	11	1	9	10	74
		- Trucks			0	0	0	0	0	0	10
17	Calvio Ind 1 & 2	Light Industrial	73.000	TSF							
		- Cars			47	6	53	7	40	47	337
		- Trucks			0	0	0	0	0	0	42
18	Rider 2 & 4	High-Cube Warehouse	1,353.586	TSF							
		- Cars			142	34	176	80	125	205	2,139
		- Trucks			35	35	70	16	16	32	792
19	First Indus (Goodwin)	High-Cube Warehouse	338.000	TSF							
		- Cars			35	8	43	20	31	51	534
		- Trucks			10	10	20	3	3	6	199
20	Chartwell Ind	Warehousing	141.000	TSF							
		- Cars			16	5	21	6	15	21	157
		- Trucks			3	3	6	3	3	6	214
21	Wilson Ind 1	Warehousing	248.000	TSF							
		- Cars			29	9	38	10	27	37	275
		- Trucks			6	3	9	10	8	18	379
22	Wilson Ind 2	Warehousing	155.000	TSF							
		- Cars			18	5	23	7	17	24	172
		- Trucks			3	3	6	6	3	9	236
23	Wilson Ind (New Age)	High-Cube Warehouse	303.000	TSF							
		- Cars			32	8	40	18	28	46	479
		- Trucks			10	10	20	3	3	6	180
24	TR 21-00014	Multi-Family Residential	308.000	DU	30	94	124	99	58	157	2,076
25	TR 36797	Multi-Family Residential	76	DU	7	23	30	24	14	38	512
26	Spectrum	Commercial Retail	7.400	TSF	4	3	7	14	15	29	279
27	TR 32497	Multi-Family Residential	131	DU	13	40	53	42	25	67	883
28	TR 37014	Multi-Family Residential	228	DU	22	69	91	73	43	116	1,537
29	TR 34260	Single-Family Detached Residential	22	DU	4	13	17	13	8	21	207
30	TR 37038	Multi-Family Residential	111	DU	11	34	45	36	21	57	748
31	TR 31659	Single-Family Detached Residential	161	DU	29	95	124	95	56	151	1,518
32	TR 32041	Single-Family Detached Residential	122	DU	22	72	94	72	42	114	1,150

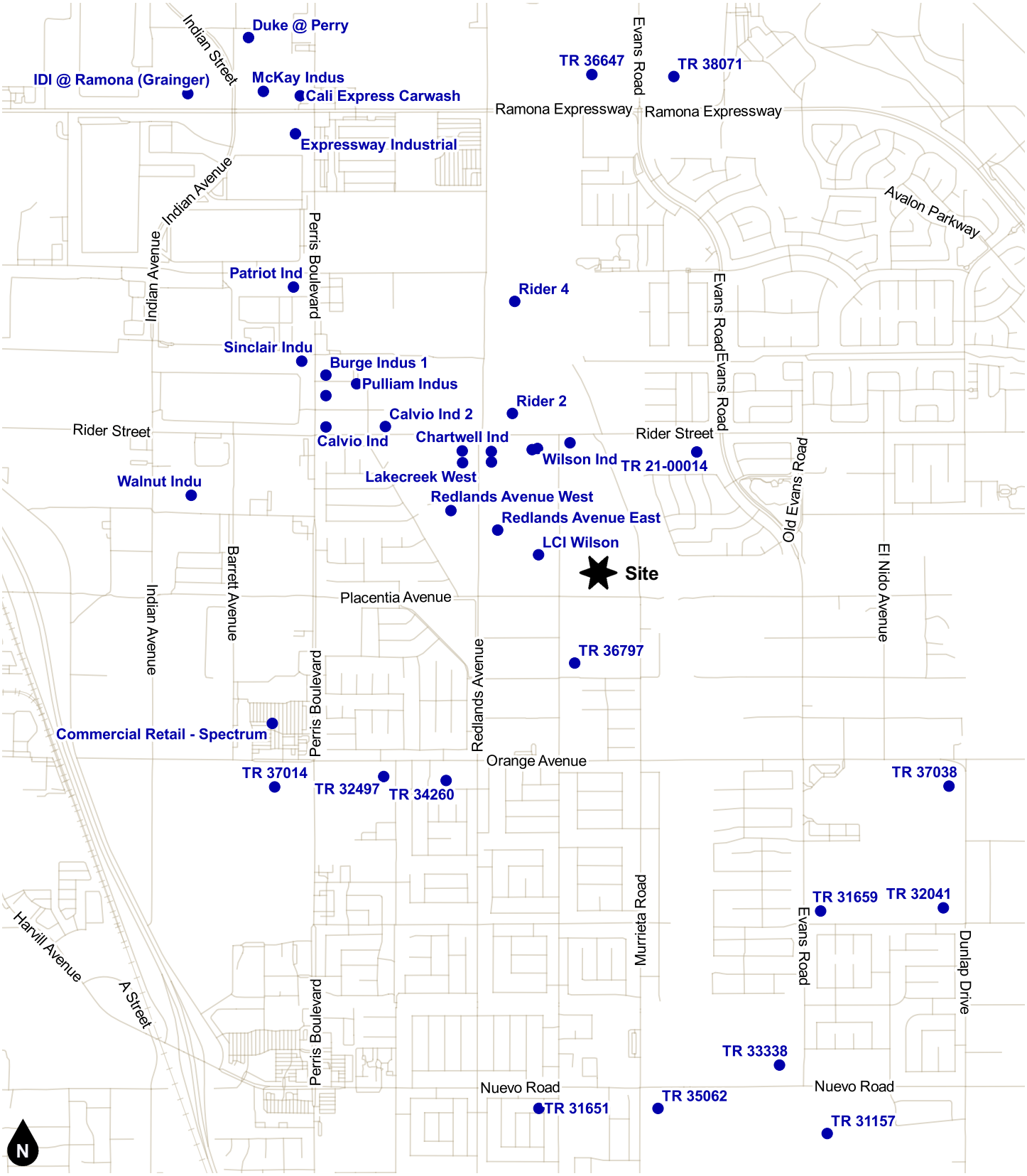
Table 3 (3 of 3)
Other Development Trip Generation

Map ID	Project Name	Land Use	Quantity	Units[1]	Trips Generated[2]						
					AM Peak Hour			PM Peak Hour			
					In	Out	Total	In	Out	Total	Daily
33	TR 31651	Single-Family Detached Residential	52	DU	9	31	40	31	18	49	490
34	TR 35062	Senior Housing	429	DU	29	57	86	60	47	107	1,390
35	TR 31157	Single-Family Detached Residential	529	DU	96	313	409	313	184	497	4,988
36	TR 33338	Single-Family Detached Residential	75	DU	14	44	58	44	26	70	707
Total					**1,170**	**1,348**	**2,518**	**1,507**	**1,342**	**2,849**	**32,774**

Notes:

(1) TSF = Thousand Square Feet; DU = Dwelling Units

(2) ITE = Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.



Legend
- Other Development

Figure 20
Other Development Location Map

February 13, 2024

Mr. Mathew Evans
CITY OF PERRIS (Planning Division)
135 North "D" Street
Perris, CA 92570

Subject: Placentia Avenue Industrial Project (DPR 21-00015) Scoping Agreement and VMT Screening Review #5, City of Perris

Dear Mr. Evans,

Introduction

RK ENGINEERING GROUP, INC. (RK) has reviewed the Scoping Agreement and VMT Screening Assessment #5 for the Placentia Avenue Industrial Project (DPR 21–00015) in the City of Perris. The Scoping Agreement and VMT Screening Assessment #3 was previously approved per RK's review letter dated March 9, 2023. A subsequent Traffic Study was submitted and reviewed by RK, and comments were provided in a review letter dated March 28, 2023. However, since then, the project site/project description slightly increased, triggering the need to rescope this traffic analysis. A Scoping Agreement and VMT Screening Assessment #4 was submitted to the City for review and comments were provided in a review letter dated November 21, 2023.

The project site increased from 25.47 acres to 27.25 acres. The revised project proposes to construct 578,265 square feet (SF) of high-cube fulfillment center warehouse building (an increase from 505,665 SF). The project is located at the northeast corner of Wilson Avenue and Placentia Avenue within the PVCC SP (Perris Valley Commerce Center Specific Plan) area. The project is proposed to have three (3) driveways on Wilson Avenue. The north driveway will be for trucks only (left-in/right-out only), the center driveway will provide full-access for passenger vehicles only, and the southern driveway will be for trucks only (left-in/right-out only). An Emergency Access Only driveway is also proposed along Placentia Avenue.

The Proposed Project includes the vacation of a paper street connecting Wilson Avenue to Murrieta Road and the vacation of the portion of Murrieta Road north of Placentia Avenue. A Specific Plan Amendment is required to remove these streets from the Perris Valley Commerce Center Specific Plan (i.e., PVCC SP Amendment 15). **Since this project does not require a General Plan Amendment, a horizon year/GPB analysis is not required.**

The Scoping Agreement and VMT Screening Assessment #5 was prepared by Ganddini Group, Inc. and is dated February 8, 2024. The Scoping Agreement and VMT Screening Assessment #5

followed the requirements of the City of Perris and traffic engineering criteria. RK has reviewed the Scoping Agreement and VMT Screening Assessment #5 and it is acceptable as currently written.

Comments

1. The Scoping Agreement and VMT Screening Assessment #5 is acceptable as currently written. Please include the following minor comments in the final traffic study, a revised scoping agreement does not need to be submitted and the traffic consultant can proceed with the preparation of the traffic study:

    a. Page 1, Specific Plan Amendment. Please include a figure in the final traffic study that shows the proposed modifications to the PVCC SP circulation network as described.

    b. Page 2, VMT Scoping Form. It appears both the City of Perris VMT screening form (i.e. RIVTAM) and the WRCOG VMT Screening Tool (RIVCOM) are being referenced/utilized. In the final traffic study, if both approaches/models are being referenced, please clearly separate each and do not overlap the data. The TAZ numbers, zonal VMT values, & jurisdictional VMT thresholds are different between both models. It can be concluded that the project is located within a low VMT area regardless of what model is used.

    c. Page 3, Traffic Counts. New intersection counts (Year 2024) will be collected since the previous set of counts are a couple years old and to reflect the Placentia Avenue/I-215 interchange opening. These new traffic counts shall be collected with truck classifications.

    d. Figure 2, Site Plan. Please label each of the driveways and note whether they serve passenger vehicles or trucks, and if there are any access restrictions.

Conclusions

RK has reviewed the Placentia Avenue Industrial Project (DPR 21–00015) Scoping Agreement and VMT Screening Assessment #5, dated February 8, 2024. Based upon this review, RK has determined that this document is acceptable from a technical standpoint. Please have the traffic consultant proceed with preparing the traffic study.

RK appreciates this opportunity to work with the City of Perris on this project and if you have any questions, please contact me at 949-293-9639.

Sincerely,

Justin Tucker, P.E., T.E.
Associate Principal

Registered Civil Engineer 92866
Registered Traffic Engineer 3055

Robert Kahn, P.E., T.E.
Founding Principal

Registered Civil Engineer 20285
Registered Traffic Engineer 0555

XC: Kenneth Phung, City of Perris
John Pourkazemi, City of Perris
Patricia Brenes, City of Perris
Brad Brophy, City of Perris

RK19648
JN:2126-2022-11

APPENDIX C

VOLUME COUNT WORKSHEETS

INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Thu, Feb 8, 24	LOCATION:	Perris	PROJECT #: SC4442
	NORTH & SOUTH:	Redlands Ave	LOCATION #: 1
	EAST & WEST:	E Rider St	CONTROL: SIGNAL

NOTES:

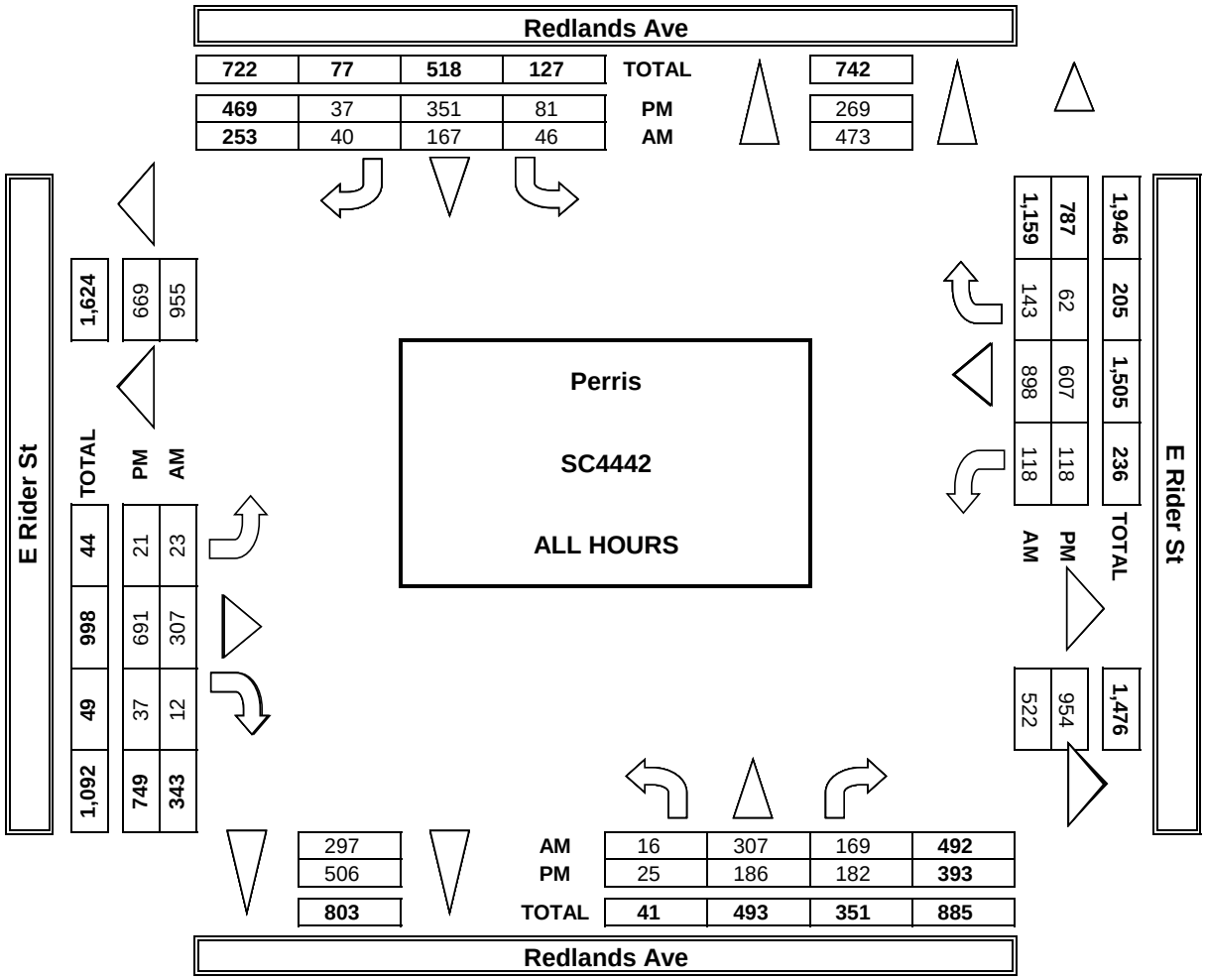
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

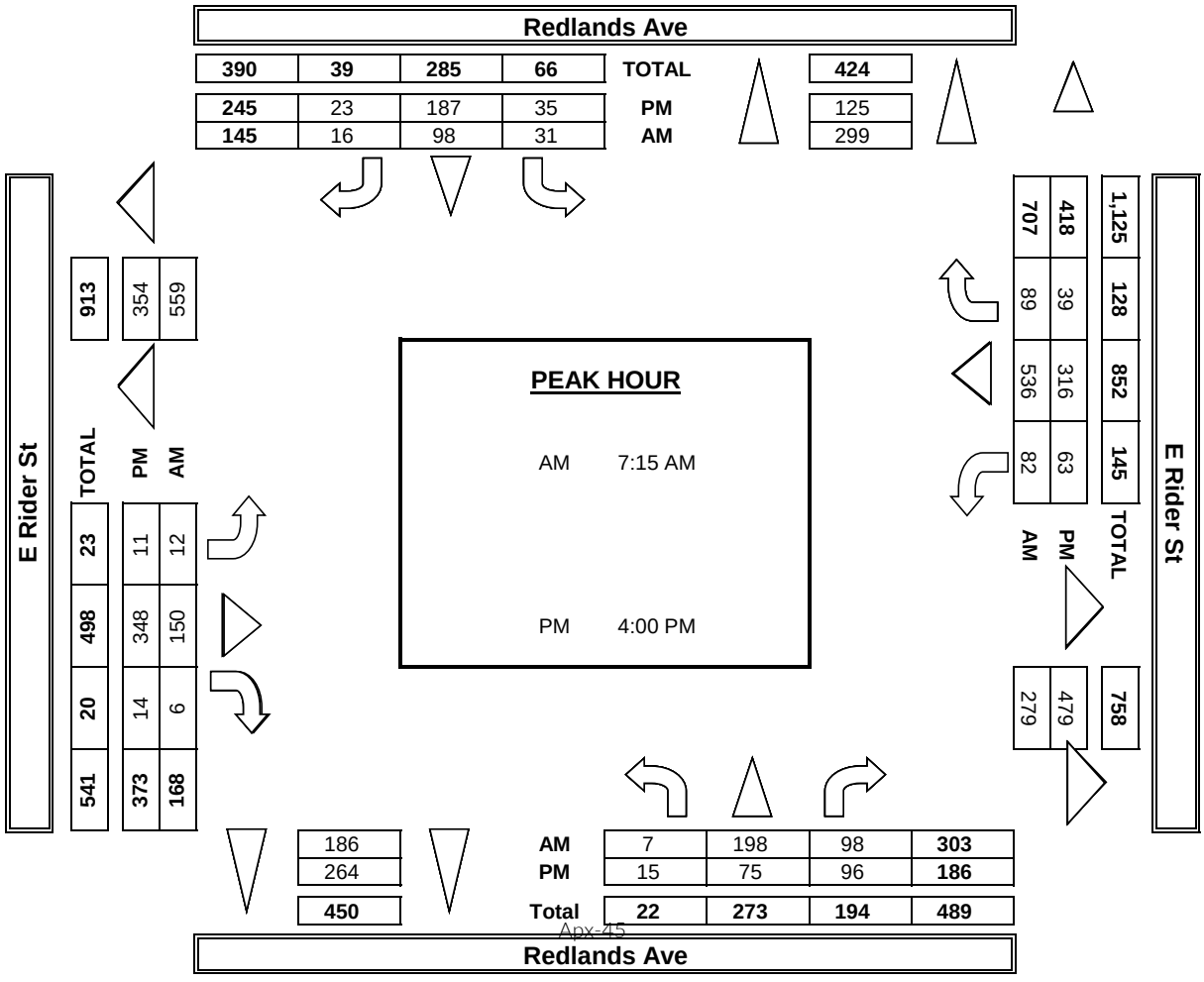
		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	38	21	4	12	5	4	41	2	6	95	23	254	0	0	1	0	1
	7:15 AM	1	54	27	8	21	2	3	37	1	18	113	17	302	0	0	0	0	0
	7:30 AM	0	52	28	6	15	6	1	43	3	22	144	21	341	0	0	0	0	0
	7:45 AM	5	41	26	8	27	4	5	37	1	28	151	28	361	0	0	0	0	0
	8:00 AM	1	51	17	9	35	4	3	33	1	14	128	23	319	0	0	0	0	0
	8:15 AM	3	30	23	4	21	7	1	47	3	18	114	12	283	0	0	0	0	0
	8:30 AM	1	20	12	4	16	4	1	35	1	3	87	9	193	0	0	0	0	0
	8:45 AM	2	21	15	3	20	8	5	34	0	9	66	10	193	0	0	0	0	0
	VOLUMES	16	307	169	46	167	40	23	307	12	118	898	143	2,247	0	0	1	0	1
	APPROACH %	3%	62%	34%	18%	66%	16%	7%	90%	3%	10%	77%	12%						
	APP/DEPART	492	/	473	253	/	297	343	/	522	1,159	/	955	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	7	198	98	31	98	16	12	150	6	82	536	89	1,323	0	0	0	0	
	APPROACH %	2%	65%	32%	21%	68%	11%	7%	89%	4%	12%	76%	13%						
	PEAK HR FACTOR		0.924			0.755			0.894			0.854		0.916					
	APP/DEPART	303	/	299	145	/	186	168	/	279	707	/	559	0					
PM	4:00 PM	4	20	26	10	39	6	1	91	1	13	94	14	319	0	0	0	0	0
	4:15 PM	4	20	28	9	41	5	5	79	4	12	77	8	292	0	0	0	0	0
	4:30 PM	3	17	20	5	63	11	3	90	6	21	64	6	309	0	0	0	0	0
	4:45 PM	4	18	22	11	44	1	2	88	3	17	81	11	302	0	0	0	0	0
	5:00 PM	3	26	19	11	55	5	2	88	4	19	68	2	302	0	0	0	0	0
	5:15 PM	3	33	23	10	36	2	1	83	12	11	71	8	293	0	0	0	0	0
	5:30 PM	2	32	26	11	33	5	4	83	1	9	73	6	285	0	0	0	0	0
	5:45 PM	2	20	18	14	40	2	3	89	6	16	79	7	296	0	0	0	0	0
	VOLUMES	25	186	182	81	351	37	21	691	37	118	607	62	2,398	0	0	0	0	0
	APPROACH %	6%	47%	46%	17%	75%	8%	3%	92%	5%	15%	77%	8%						
	APP/DEPART	393	/	269	469	/	506	749	/	954	787	/	669	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	15	75	96	35	187	23	11	348	14	63	316	39	1,222	0	0	0	0	
	APPROACH %	8%	40%	52%	14%	76%	9%	3%	93%	4%	15%	76%	9%						
	PEAK HR FACTOR		0.894			0.775			0.942			0.864		0.958					
	APP/DEPART	186	/	125	245	/	264	373	/	479	418	/	354	0					

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
PM	4:00 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:45 PM	2	0	0	2	4	2	0	0	2	4	0	0	0	0	0
	5:00 PM	0	1	0	1	2	0	0	0	0	0	0	1	0	1	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	3	4	0	3	10	3	3	0	2	8	0	1	0	1	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

PCE Adjusted	NOTES:								
	Class	1	2	3	4	5	6		
	Factor	1	1.5	2	3	3	3		

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	3	39	26	4	14	7	4	42	2	9	99	25	272					0
	7:15 AM	1	55	28	8	24	4	3	39	3	18	122	17	320					0
	7:30 AM	0	55	30	6	15	6	3	48	4	24	149	25	364					0
	7:45 AM	5	41	28	8	30	4	5	43	1	28	154	29	375					0
	8:00 AM	3	52	17	9	37	4	4	36	1	15	132	23	332					0
	8:15 AM	3	34	24	4	23	8	1	51	3	20	118	12	301					0
	8:30 AM	2	22	13	6	16	6	1	41	1	3	91	9	210					0
	8:45 AM	3	23	15	3	21	13	12	38	0	10	70	10	216					0
	VOLUMES	20	321	180	48	179	51	33	336	15	126	934	150	2,389	0	0	0	0	0
	APPROACH %	4%	62%	35%	17%	64%	18%	8%	88%	4%	10%	77%	12%						
	APP/DEPART	520	/	503	278	/	319	383	/	564	1,209	/	1,004	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	9	203	103	31	105	18	15	165	9	85	556	94	1,391					
	APPROACH %	3%	64%	33%	20%	68%	12%	8%	88%	5%	12%	76%	13%						
	PEAK HR FACTOR		0.924			0.770			0.873			0.872		0.927					
	APP/DEPART	314	/	311	154	/	198	189	/	299	734	/	583	0					
PM	4:00 PM	4	20	27	10	40	6	1	92	1	13	96	14	324					0
	4:15 PM	4	20	29	9	47	6	6	88	6	12	81	10	316					0
	4:30 PM	3	19	20	5	64	11	3	93	6	21	65	8	317					0
	4:45 PM	5	18	22	12	45	1	4	90	3	17	86	11	312					0
	5:00 PM	3	26	20	12	60	5	2	89	5	20	70	2	312					0
	5:15 PM	3	34	24	10	37	2	1	87	12	11	71	8	298					0
	5:30 PM	2	33	26	11	33	5	5	92	1	10	74	6	296					0
	5:45 PM	2	20	19	16	40	2	3	94	6	16	80	7	304					0
	VOLUMES	26	189	185	84	364	38	24	722	40	120	622	66	2,477	0	0	0	0	0
	APPROACH %	6%	47%	46%	17%	75%	8%	3%	92%	5%	15%	77%	8%						
	APP/DEPART	400	/	279	486	/	523	785	/	991	807	/	685	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	16	77	98	36	194	24	14	362	16	63	327	43	1,268					
	APPROACH %	8%	41%	51%	14%	77%	9%	3%	92%	4%	15%	76%	10%						
	PEAK HR FACTOR		0.905			0.797			0.963			0.880		0.980					
	APP/DEPART	190	/	134	254	/	273	391	/	495	433	/	367	0					

INTERSECTION TURNING MOVEMENT COUNTS

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

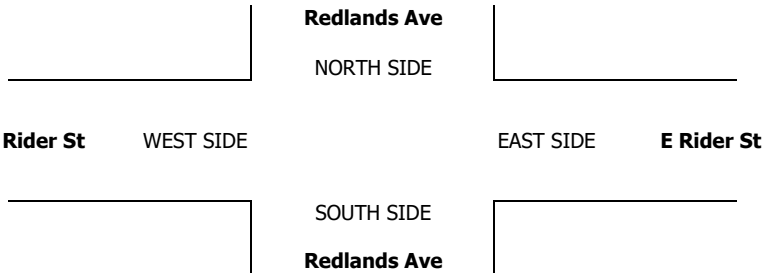
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	3	36	18	4	8	3	4	40	2	4	90	22	234	0	0	1	0	1
	7:15 AM	1	53	26	8	19	1	3	34	0	18	104	17	284	0	0	0	0	0
	7:30 AM	0	49	27	6	15	6	0	37	2	21	138	19	320	0	0	0	0	0
	7:45 AM	5	41	25	8	24	4	5	31	1	28	147	27	346	0	0	0	0	0
	8:00 AM	0	49	17	9	34	4	2	30	1	13	125	23	307	0	0	0	0	0
	8:15 AM	3	27	21	4	20	6	1	42	3	17	109	12	265	0	0	0	0	0
	8:30 AM	0	19	10	3	16	3	1	31	1	3	83	9	179	0	0	0	0	0
	8:45 AM	1	18	15	3	19	5	1	30	0	8	62	10	172	0	0	0	0	0
	VOLUMES	13	292	159	45	155	32	17	275	10	112	858	139	2,108	0	0	1	0	1
	APPROACH %	3%	63%	34%	19%	67%	14%	6%	91%	3%	10%	77%	13%						
	APP/DEPART	464	/	448	232	/	277	303	/	479	1,109	/	904	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	6	192	95	31	92	15	10	132	4	80	514	86	1,257	0	0	0	0	
	APPROACH %	2%	66%	32%	22%	67%	11%	7%	90%	3%	12%	76%	13%						
	PEAK HR FACTOR		0.916			0.734			0.936			0.842		0.908					
	APP/DEPART	293	/	288	138	/	176	146	/	258	680	/	535	0					
PM	4:00 PM	4	20	25	10	38	6	1	89	1	13	91	14	312	0	0	0	0	0
	4:15 PM	4	20	27	9	35	3	4	74	3	12	73	7	271	0	0	0	0	0
	4:30 PM	3	16	20	5	62	11	3	86	6	21	63	5	301	0	0	0	0	0
	4:45 PM	3	18	22	10	43	1	1	86	3	17	77	11	292	0	0	0	0	0
	5:00 PM	3	26	18	10	51	5	2	87	3	18	67	2	292	0	0	0	0	0
	5:15 PM	3	32	22	10	35	2	1	79	12	11	71	8	286	0	0	0	0	0
	5:30 PM	2	31	26	11	33	5	3	75	1	8	71	6	272	0	0	0	0	0
	5:45 PM	2	20	17	13	40	2	3	86	6	16	78	7	290	0	0	0	0	0
	VOLUMES	24	183	177	78	337	35	18	662	35	116	591	60	2,316	0	0	0	0	0
	APPROACH %	6%	48%	46%	17%	75%	8%	3%	93%	5%	15%	77%	8%						
	APP/DEPART	384	/	261	450	/	488	715	/	917	767	/	650	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	14	74	94	34	178	21	9	335	13	63	304	37	1,176	0	0	0	0	
	APPROACH %	8%	41%	52%	15%	76%	9%	3%	94%	4%	16%	75%	9%						
	PEAK HR FACTOR		0.892			0.747			0.939			0.856		0.942					
	APP/DEPART	182	/	120	233	/	254	357	/	463	404	/	339	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

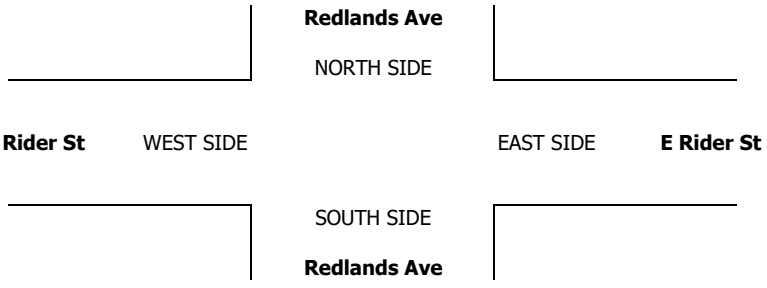
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	2	1	0	4	1	0	1	0	1	4	0	14	0	0	0	0	0
	7:15 AM	0	1	1	0	1	0	0	3	0	0	6	0	12	0	0	0	0	0
	7:30 AM	0	2	0	0	0	0	0	5	1	0	5	0	13	0	0	0	0	0
	7:45 AM	0	0	0	0	1	0	0	4	0	0	2	1	8	0	0	0	0	0
	8:00 AM	0	2	0	0	0	0	0	2	0	1	1	0	6	0	0	0	0	0
	8:15 AM	0	0	2	0	0	0	0	4	0	0	4	0	10	0	0	0	0	0
	8:30 AM	0	0	2	0	0	0	0	1	0	0	3	0	6	0	0	0	0	0
	8:45 AM	1	2	0	0	1	1	1	2	0	1	2	0	11	0	0	0	0	0
	VOLUMES	1	9	6	0	7	2	1	22	1	3	27	1	80	0	0	0	0	0
	APPROACH %	6%	56%	38%	0%	78%	22%	4%	92%	4%	10%	87%	3%						
	APP/DEPART	16	/	11	9	/	11	24	/	28	31	/	30	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	5	1	0	2	0	0	14	1	1	14	1	39	0	0	0	0	
	APPROACH %	0%	83%	17%	0%	100%	0%	0%	93%	7%	6%	88%	6%						
	PEAK HR FACTOR		0.750			0.500			0.625			0.667		0.750					
	APP/DEPART	6	/	6	2	/	4	15	/	15	16	/	14	0					
PM	4:00 PM	0	0	0	0	1	0	0	2	0	0	2	0	5	0	0	0	0	0
	4:15 PM	0	0	1	0	3	2	1	1	0	0	3	0	11	0	0	0	0	0
	4:30 PM	0	0	0	0	1	0	0	3	0	0	1	0	5	0	0	0	0	0
	4:45 PM	1	0	0	1	1	0	0	1	0	0	2	0	6	0	0	0	0	0
	5:00 PM	0	0	1	1	2	0	0	1	1	0	0	0	6	0	0	0	0	0
	5:15 PM	0	1	1	0	1	0	0	3	0	0	0	0	6	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	1	3	0	1	2	0	8	0	0	0	0	0
	5:45 PM	0	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	VOLUMES	1	2	4	2	9	2	2	15	1	1	11	0	50	0	0	0	0	0
	APPROACH %	14%	29%	57%	15%	69%	15%	11%	83%	6%	8%	92%	0%						
	APP/DEPART	7	/	4	13	/	11	18	/	21	12	/	14	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	1	0	1	1	6	2	1	7	0	0	8	0	27	0	0	0	0	
	APPROACH %	50%	0%	50%	11%	67%	22%	13%	88%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.500			0.450			0.667			0.667		0.614					
	APP/DEPART	2	/	1	9	/	6	8	/	9	8	/	11	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

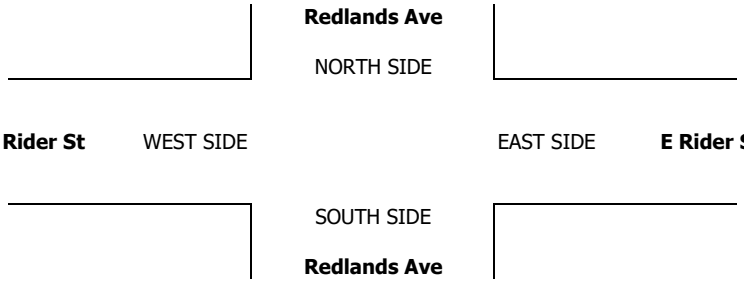
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	2	0	0	0	0	0	2	0	4	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	0
	8:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0
	8:30 AM	1	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	VOLUMES	1	3	0	0	2	2	1	2	0	0	4	0	15	0	0	0	0	0
	APPROACH %	25%	75%	0%	0%	50%	50%	33%	67%	0%	0%	100%	0%						
	APP/DEPART	4	/	4	4	/	2	3	/	2	4	/	7	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	2	0	1	0	0	0	3	0	6	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.250			0.250			0.375		0.375					
	APP/DEPART	0	/	1	2	/	2	1	/	0	3	/	3	0					
PM	4:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	2	0	0	5	0	1	1	0	10	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	100%	0%	0%	100%	0%	50%	50%	0%						
	APP/DEPART	1	/	0	2	/	3	5	/	6	2	/	1	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	1	0	2	0	0	2	0	0	1	0	6	0	0	0	0	
	APPROACH %	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.250			0.500			0.250		0.750					
	APP/DEPART	1	/	0	2	/	2	2	/	3	1	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

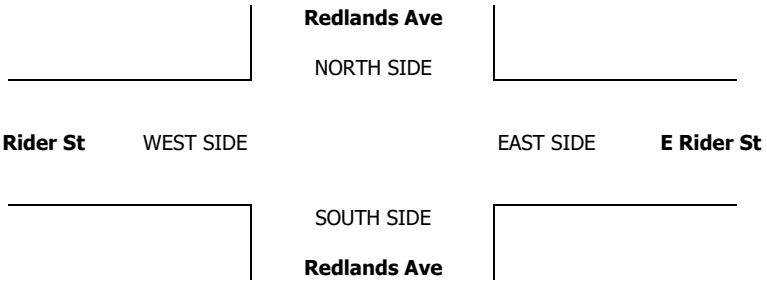
CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	1	0	0	1	0	1	0	3	0	0	0	0	0
	7:30 AM	0	1	1	0	0	0	1	1	0	0	0	2	6	0	0	0	0	0
	7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:00 AM	1	0	0	0	1	0	0	1	0	0	1	0	4	0	0	0	0	0
	8:15 AM	0	0	0	0	1	0	0	0	0	1	1	0	3	0	0	0	0	0
	8:30 AM	0	1	0	1	0	1	0	0	0	0	1	0	4	0	0	0	0	0
	8:45 AM	0	0	0	0	0	2	3	1	0	0	1	0	7	0	0	0	0	0
	VOLUMES	1	2	3	1	2	4	4	3	1	1	5	2	29	0	0	0	0	0
	APPROACH %	17%	33%	50%	14%	29%	57%	50%	38%	13%	13%	63%	25%						
	APP/DEPART	6	/	8	7	/	4	8	/	7	8	/	10	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	1	1	2	0	1	1	1	2	1	0	2	2	14	0	0	0	0	
	APPROACH %	25%	25%	50%	0%	50%	50%	25%	50%	25%	0%	50%	50%						
	PEAK HR FACTOR		0.500			0.500			0.500			0.500		0.583					
	APP/DEPART	4	/	4	2	/	2	4	/	4	4	/	4	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	4	0	0	1	1	6	0	0	0	0	0
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	2	0	0	0	0	0	1	0	3	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	VOLUMES	0	1	0	1	2	0	1	8	0	0	3	2	18	0	0	0	0	0
	APPROACH %	0%	100%	0%	33%	67%	0%	11%	89%	0%	0%	60%	40%						
	APP/DEPART	1	/	4	3	/	2	9	/	9	5	/	3	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	1	0	0	0	0	1	4	0	0	2	2	10	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	0%	0%	20%	80%	0%	0%	50%	50%						
	PEAK HR FACTOR		0.250			0.000			0.313			0.500		0.417					
	APP/DEPART	1	/	4	0	/	0	5	/	4	4	/	2	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Redlands Ave

NORTH SIDE

E Rider St WEST SIDE EAST SIDE **E Rider St**

SOUTH SIDE

Redlands Ave

INTERSECTION TURNING MOVEMENT COUNTS

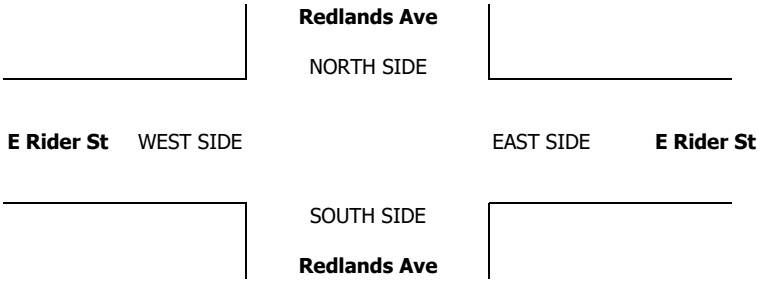
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	1
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	1	0	0	0	0	0	0	1	1	1	4	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	3	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	2	0	0	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	0	0	0
	8:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	1	0	1	0	0	5	0	2	4	1	15	0	0	0	0	0
	APPROACH %	0%	50%	50%	0%	100%	0%	0%	100%	0%	29%	57%	14%						
	APP/DEPART	2	/	2	1	/	3	5	/	6	7	/	4	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	1	0	0	2	0	1	3	0	7	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	25%	75%	0%						
	PEAK HR FACTOR		0.000			0.250			0.250			0.500		0.583					
	APP/DEPART	0	/	0	1	/	2	2	/	2	4	/	3	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	1	1	0	1	0	4	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	50%	50%	0%	100%	0%						
	APP/DEPART	0	/	0	1	/	2	2	/	1	1	/	1	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	1	0	0	0	1	0	1	0	3	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	100%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.250			0.250			0.250		0.375					
	APP/DEPART	0	/	0	1	/	2	1	/	0	1	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Thu, Feb 8, 24	LOCATION:	Perris	PROJECT #: SC4442
	NORTH & SOUTH:	Wilson Ave	LOCATION #: 2
	EAST & WEST:	E Rider St	CONTROL: SIGNAL

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	0	24	0	0	0	0	61	1	11	116	0	219	0	0	0	0	0
	7:15 AM	8	0	32	0	0	0	0	70	2	23	143	0	278	0	0	0	0	0
	7:30 AM	7	0	47	0	0	0	0	75	3	39	180	0	351	0	0	0	0	0
	7:45 AM	8	0	44	0	0	0	0	71	1	29	193	0	346	0	0	0	0	0
	8:00 AM	7	0	44	0	0	0	0	59	0	35	161	0	306	0	0	0	0	0
	8:15 AM	2	0	21	0	0	0	0	73	0	25	143	0	264	0	0	0	0	0
	8:30 AM	4	0	31	0	0	0	0	48	7	13	90	0	193	0	0	0	0	0
	8:45 AM	3	0	10	0	0	0	0	52	1	11	84	0	161	0	0	0	0	0
	VOLUMES	45	0	253	0	0	0	0	509	15	186	1,110	0	2,118	0	0	0	0	0
	APPROACH %	15%	0%	85%	0%	0%	0%	0%	97%	3%	14%	86%	0%						
	APP/DEPART	298	/	0	0	/	201	524	/	762	1,296	/	1,155	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	30	0	167	0	0	0	0	275	6	126	677	0	1,281	0	0	0	0	
	APPROACH %	15%	0%	85%	0%	0%	0%	0%	98%	2%	16%	84%	0%						
	PEAK HR FACTOR		0.912			0.000			0.901			0.904		0.912					
	APP/DEPART	197	/	0	0	/	132	281	/	442	803	/	707	0					
PM	4:00 PM	4	0	26	0	0	0	0	125	0	18	113	0	286	0	0	0	0	0
	4:15 PM	2	0	21	0	0	0	0	109	2	20	96	0	250	0	0	0	0	0
	4:30 PM	0	0	28	0	0	0	0	116	3	16	94	0	257	0	0	0	0	0
	4:45 PM	3	0	21	0	0	0	0	119	3	17	101	0	264	0	0	0	0	0
	5:00 PM	3	0	26	0	0	0	0	117	0	12	88	0	246	0	0	0	0	0
	5:15 PM	4	0	22	1	0	0	0	111	3	12	84	1	238	0	0	0	0	0
	5:30 PM	1	0	20	0	0	0	0	111	6	13	91	0	242	0	0	0	0	0
	5:45 PM	4	0	25	0	0	0	0	118	2	11	92	0	252	0	0	0	0	0
	VOLUMES	21	0	189	1	0	0	0	926	19	119	759	1	2,035	0	0	0	0	0
	APPROACH %	10%	0%	90%	100%	0%	0%	0%	98%	2%	14%	86%	0%						
	APP/DEPART	210	/	1	1	/	138	945	/	1,116	879	/	780	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	9	0	96	0	0	0	0	469	8	71	404	0	1,057	0	0	0	0	
	APPROACH %	9%	0%	91%	0%	0%	0%	0%	98%	2%	15%	85%	0%						
	PEAK HR FACTOR		0.875			0.000			0.954			0.906		0.924					
	APP/DEPART	105	/	0	0	/	79	477	/	565	475	/	413	0					

Wilson Ave

NORTH LEG

E Rider St WEST LEG EAST LEG **E Rider St**

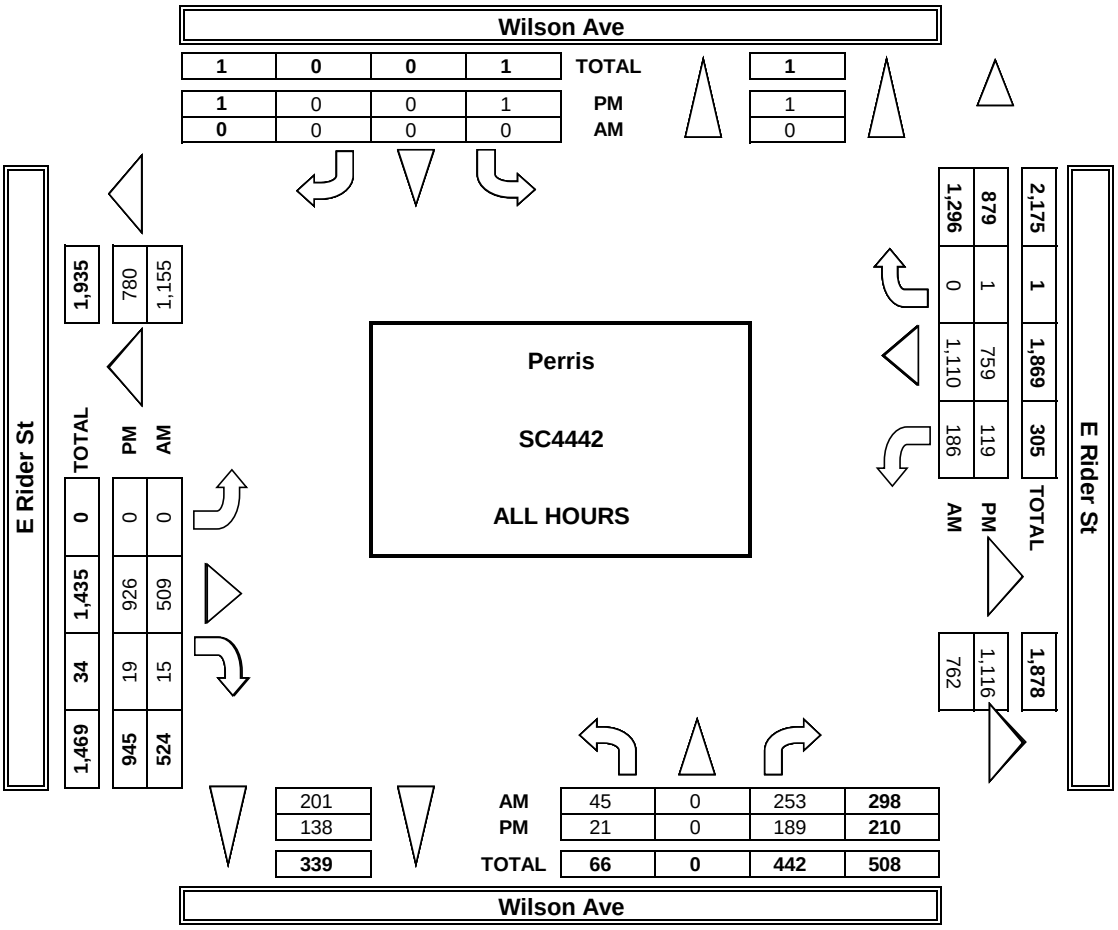
SOUTH LEG

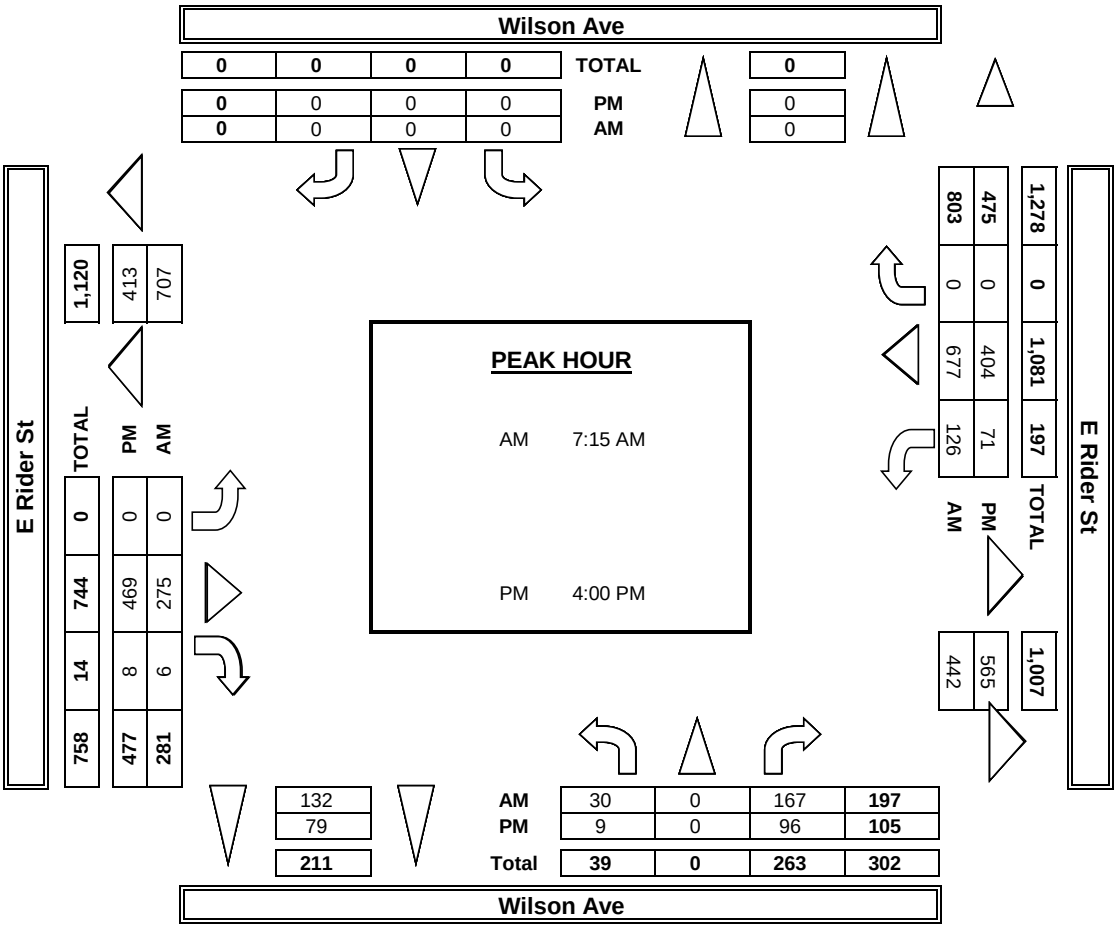
Wilson Ave

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM	7:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	TOTAL	3	0	0	0	3	3	0	0	0	3	0	0	0	0	0
PM	4:00 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	2	1	0	0	3	2	1	0	0	3	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	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	5:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	3	0	0	7	3	3	0	0	6	1	0	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

	NOTES:											
PCE	Class	1	2	3	4	5	6			AM		▲ N
Adjusted	Factor	1	1.5	2	3	3	3			PM MD	◄ W	E ►
										OTHER OTHER		S ▼

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	6	0	24	0	0	0	0	67	1	12	125	0	234					0
	7:15 AM	8	0	33	0	0	0	0	72	2	23	152	0	289					0
	7:30 AM	9	0	47	0	0	0	0	79	7	40	188	0	369					0
	7:45 AM	10	0	44	0	0	0	0	79	1	29	195	0	358					0
	8:00 AM	9	0	47	0	0	0	0	62	0	37	164	0	318					0
	8:15 AM	2	0	21	0	0	0	0	78	0	25	149	0	274					0
	8:30 AM	4	0	32	0	0	0	0	54	11	13	95	0	207					0
	8:45 AM	4	0	11	0	0	0	0	56	1	11	87	0	170					0
	VOLUMES	52	0	258	0	0	0	0	544	23	189	1,153	0	2,217	0	0	0	0	0
	APPROACH %	17%	0%	83%	0%	0%	0%	0%	96%	4%	14%	86%	0%						
	APP/DEPART	309	/	0	0	/	212	567	/	802	1,342	/	1,204	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	36	0	171	0	0	0	0	291	10	129	698	0	1,333					
	APPROACH %	17%	0%	83%	0%	0%	0%	0%	97%	3%	16%	84%	0%						
	PEAK HR FACTOR		0.920			0.000			0.879			0.908		0.903					
	APP/DEPART	206	/	0	0	/	139	301	/	461	827	/	734	0					
PM	4:00 PM	4	0	29	0	0	0	0	128	0	20	114	0	294					0
	4:15 PM	2	0	21	0	0	0	0	116	4	21	102	0	266					0
	4:30 PM	0	0	29	0	0	0	0	118	3	17	97	0	263					0
	4:45 PM	3	0	21	0	0	0	0	122	3	17	104	0	270					0
	5:00 PM	5	0	27	0	0	0	0	118	0	12	89	0	251					0
	5:15 PM	4	0	23	1	0	0	0	116	3	12	84	1	243					0
	5:30 PM	1	0	20	0	0	0	0	120	7	13	92	0	252					0
	5:45 PM	4	0	26	0	0	0	0	123	2	11	93	0	258					0
	VOLUMES	23	0	194	1	0	0	0	958	22	123	774	1	2,095	0	0	0	0	0
	APPROACH %	11%	0%	89%	100%	0%	0%	0%	98%	2%	14%	86%	0%						
	APP/DEPART	217	/	1	1	/	144	980	/	1,153	898	/	797	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	9	0	99	0	0	0	0	483	10	75	417	0	1,092					
	APPROACH %	8%	0%	92%	0%	0%	0%	0%	98%	2%	15%	85%	0%						
	PEAK HR FACTOR		0.831			0.000			0.966			0.916		0.928					
	APP/DEPART	108	/	0	0	/	85	493	/	582	491	/	426	0					

INTERSECTION TURNING MOVEMENT COUNTS

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

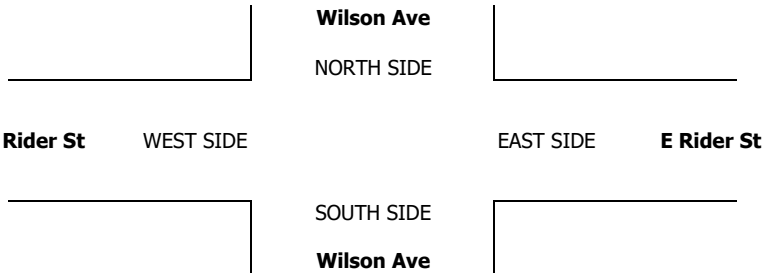
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	6	0	24	0	0	0	0	56	1	10	108	0	205	0	0	0	0	0
	7:15 AM	8	0	31	0	0	0	0	67	2	23	135	0	266	0	0	0	0	0
	7:30 AM	6	0	47	0	0	0	0	68	1	38	173	0	333	0	0	0	0	0
	7:45 AM	6	0	44	0	0	0	0	64	1	29	190	0	334	0	0	0	0	0
	8:00 AM	6	0	41	0	0	0	0	57	0	34	157	0	295	0	0	0	0	0
	8:15 AM	2	0	21	0	0	0	0	67	0	25	138	0	253	0	0	0	0	0
	8:30 AM	4	0	30	0	0	0	0	43	4	13	84	0	178	0	0	0	0	0
	8:45 AM	2	0	9	0	0	0	0	48	1	11	81	0	152	0	0	0	0	0
	VOLUMES	40	0	247	0	0	0	0	470	10	183	1,066	0	2,016	0	0	0	0	0
	APPROACH %	14%	0%	86%	0%	0%	0%	0%	98%	2%	15%	85%	0%						
	APP/DEPART	287	/	0	0	/	193	480	/	717	1,249	/	1,106	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	26	0	163	0	0	0	0	256	4	124	655	0	1,228	0	0	0	0	
	APPROACH %	14%	0%	86%	0%	0%	0%	0%	98%	2%	16%	84%	0%						
	PEAK HR FACTOR		0.892			0.000			0.942			0.889		0.919					
	APP/DEPART	189	/	0	0	/	128	260	/	419	779	/	681	0					
PM	4:00 PM	4	0	24	0	0	0	0	121	0	14	111	0	274	0	0	0	0	0
	4:15 PM	2	0	21	0	0	0	0	104	1	19	91	0	238	0	0	0	0	0
	4:30 PM	0	0	27	0	0	0	0	114	3	15	92	0	251	0	0	0	0	0
	4:45 PM	3	0	21	0	0	0	0	115	3	17	98	0	257	0	0	0	0	0
	5:00 PM	2	0	24	0	0	0	0	115	0	12	87	0	240	0	0	0	0	0
	5:15 PM	4	0	21	1	0	0	0	105	3	12	84	1	231	0	0	0	0	0
	5:30 PM	1	0	20	0	0	0	0	103	5	13	89	0	231	0	0	0	0	0
	5:45 PM	4	0	24	0	0	0	0	115	2	11	91	0	247	0	0	0	0	0
	VOLUMES	20	0	182	1	0	0	0	892	17	113	743	1	1,969	0	0	0	0	0
	APPROACH %	10%	0%	90%	100%	0%	0%	0%	98%	2%	13%	87%	0%						
	APP/DEPART	202	/	1	1	/	130	909	/	1,075	857	/	763	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	9	0	93	0	0	0	0	454	7	65	392	0	1,020	0	0	0	0	
	APPROACH %	9%	0%	91%	0%	0%	0%	0%	98%	2%	14%	86%	0%						
	PEAK HR FACTOR		0.911			0.000			0.952			0.914		0.931					
	APP/DEPART	102	/	0	0	/	72	461	/	547	457	/	401	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

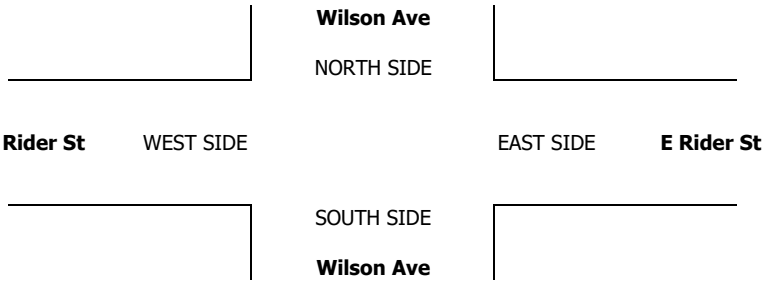
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Wilson Ave)			SOUTHBOUND (Wilson Ave)			EASTBOUND (E Rider St)			WESTBOUND (E Rider St)				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	3	0	1	5	0	9	0	0	0	0	0
	7:15 AM	0	0	1	0	0	0	0	3	0	0	5	0	9	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	7	0	1	4	0	12	0	0	0	0	0
	7:45 AM	1	0	0	0	0	0	0	4	0	0	2	0	7	0	0	0	0	0
	8:00 AM	0	0	2	0	0	0	0	1	0	0	3	0	6	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	5	0	0	3	0	8	0	0	0	0	0
	8:30 AM	0	0	1	0	0	0	0	3	1	0	5	0	10	0	0	0	0	0
	8:45 AM	0	0	1	0	0	0	0	2	0	0	2	0	5	0	0	0	0	0
	VOLUMES	1	0	5	0	0	0	0	28	1	2	29	0	66	0	0	0	0	0
	APPROACH %	17%	0%	83%	0%	0%	0%	0%	97%	3%	6%	94%	0%						
	APP/DEPART	6	/	0	0	/	3	29	/	33	31	/	30	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	1	0	3	0	0	0	0	15	0	1	14	0	34	0	0	0	0	
	APPROACH %	25%	0%	75%	0%	0%	0%	0%	100%	0%	7%	93%	0%						
	PEAK HR FACTOR		0.500			0.000			0.536			0.750		0.708					
	APP/DEPART	4	/	0	0	/	1	15	/	18	15	/	15	0					
PM	4:00 PM	0	0	1	0	0	0	0	3	0	4	2	0	10	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	2	0	1	2	0	5	0	0	0	0	0
	4:30 PM	0	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0
	5:00 PM	0	0	2	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0
	5:15 PM	0	0	1	0	0	0	0	5	0	0	0	0	6	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	1	0	2	0	6	0	0	0	0	0
	5:45 PM	0	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	VOLUMES	0	0	6	0	0	0	0	20	1	5	10	0	42	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	95%	5%	33%	67%	0%						
	APP/DEPART	6	/	0	0	/	6	21	/	26	15	/	10	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	2	0	0	0	0	9	0	5	7	0	23	0	0	0	0	
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	42%	58%	0%						
	PEAK HR FACTOR		0.500			0.000			0.750			0.500		0.575					
	APP/DEPART	2	/	0	0	/	5	9	/	11	12	/	7	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

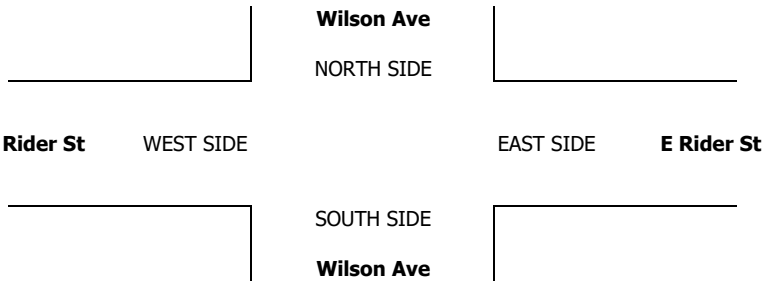
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND (Wilson Ave)			SOUTHBOUND (Wilson Ave)			EASTBOUND (E Rider St)			WESTBOUND (E Rider St)				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	1	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
	8:45 AM	1	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	1	1	0	2	0	6	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	50%	50%	0%	100%	0%						
	APP/DEPART	2	/	0	0	/	1	2	/	1	2	/	4	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	1	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.000			0.000			0.500		0.375					
	APP/DEPART	1	/	0	0	/	0	0	/	0	2	/	3	0					
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	6	0	1	2	0	9	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	33%	67%	0%						
	APP/DEPART	0	/	0	0	/	1	6	/	6	3	/	2	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	3	0	1	1	0	5	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	50%	50%	0%						
	PEAK HR FACTOR		0.000			0.000			0.750			0.500		0.625					
	APP/DEPART	0	/	0	0	/	1	3	/	3	2	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

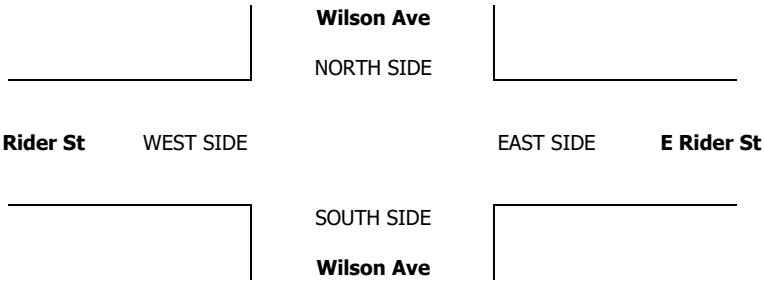
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	7:30 AM	1	0	0	0	0	0	0	0	2	0	1	0	4	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:00 AM	1	0	0	0	0	0	0	1	0	1	0	0	3	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	4	3	1	6	0	16	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	57%	43%	14%	86%	0%						
	APP/DEPART	2	/	0	0	/	4	7	/	4	7	/	8	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	2	0	0	0	0	0	0	2	2	1	2	0	9	0	0	0	0	
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	50%	50%	33%	67%	0%						
	PEAK HR FACTOR		0.500			0.000			0.500			0.750		0.563					
	APP/DEPART	2	/	0	0	/	3	4	/	2	3	/	4	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	3	1	0	2	0	6	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	7	1	0	3	0	12	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	88%	13%	0%	100%	0%						
	APP/DEPART	1	/	0	0	/	1	8	/	7	3	/	4	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	3	1	0	3	0	7	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	75%	25%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.250			0.375		0.292					
	APP/DEPART	0	/	0	0	/	1	4	/	3	3	/	3	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Wilson Ave

NORTH SIDE

E Rider St WEST SIDE EAST SIDE **E Rider St**

SOUTH SIDE

Wilson Ave

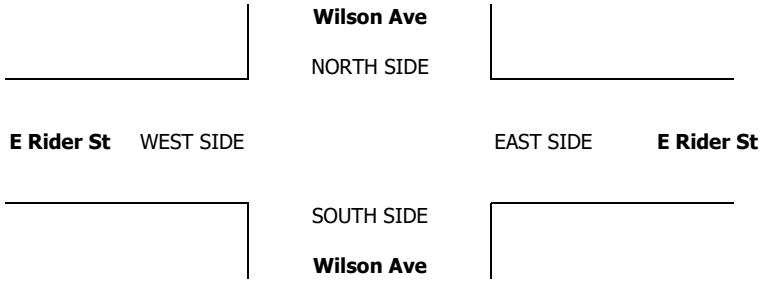
INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	2
THURSDAY	EAST & WEST:	E Rider St	CONTROL:	SIGNAL

CLASS 6:	NOTES:	AM / PM / MD / OTHER / OTHER
BUSES		▲ N ◄ W E ► S ▼

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND E Rider St			WESTBOUND E Rider St				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	6	0	0	7	0	14	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	1	/	0	0	/	0	6	/	7	7	/	7	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	1	0	0	0	0	2	0	0	4	0	7	0	0	0	0	
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.000			0.250			0.500		0.875					
	APP/DEPART	1	/	0	0	/	0	2	/	3	4	/	4	0					
PM	4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	1	/	0	0	/	0	1	/	2	1	/	1	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.000			0.000			0.250		0.500					
	APP/DEPART	1	/	0	0	/	0	0	/	1	1	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Thu, Feb 8, 24

LOCATION: Perris
NORTH & SOUTH: Redlands Ave
EAST & WEST: Placentia Ave

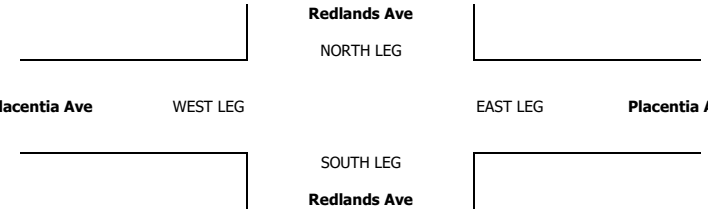
PROJECT #: SC4442
LOCATION #: 3
CONTROL: STOP ALL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

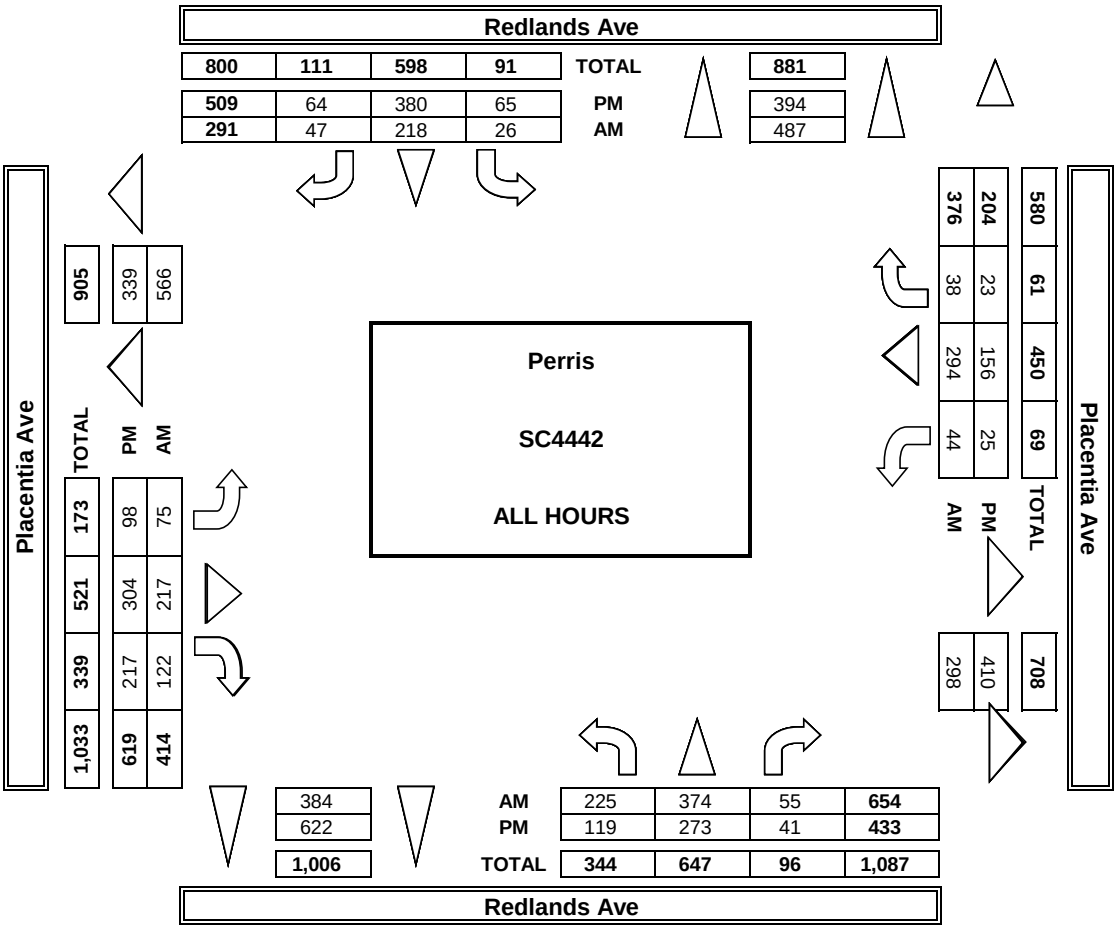
		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	19	50	6	0	15	4	12	14	8	1	23	6	158	0	0	0	0	0
	7:15 AM	33	62	6	5	28	7	11	31	16	5	34	4	242	0	0	0	0	0
	7:30 AM	42	61	15	6	22	8	13	26	19	8	54	7	281	0	0	0	0	0
	7:45 AM	44	60	12	7	42	6	8	46	20	6	47	4	302	0	0	0	0	0
	8:00 AM	24	50	6	3	42	5	7	39	12	12	46	8	254	0	0	0	0	0
	8:15 AM	18	35	3	3	32	10	13	30	17	7	39	7	214	0	0	0	0	0
	8:30 AM	28	32	4	2	13	2	4	19	21	2	31	1	159	0	0	0	0	0
	8:45 AM	17	24	3	0	24	5	7	12	9	3	20	1	125	0	0	0	0	0
	VOLUMES	225	374	55	26	218	47	75	217	122	44	294	38	1,735	0	0	0	0	0
	APPROACH %	34%	57%	8%	9%	75%	16%	18%	52%	29%	12%	78%	10%						
	APP/DEPART	654	/	487	291	/	384	414	/	298	376	/	566	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	143	233	39	21	134	26	39	142	67	31	181	23	1,079	0	0	0	0	
	APPROACH %	34%	56%	9%	12%	74%	14%	16%	57%	27%	13%	77%	10%						
	PEAK HR FACTOR		0.879			0.823			0.838			0.851		0.893					
	APP/DEPART	415	/	295	181	/	232	248	/	202	235	/	350	0					
PM	4:00 PM	17	31	7	8	36	6	19	39	34	4	22	4	227	0	0	0	0	0
	4:15 PM	13	34	8	8	45	11	12	43	21	7	23	2	227	0	0	0	0	0
	4:30 PM	15	29	6	7	68	9	13	48	29	3	13	0	240	0	0	0	0	0
	4:45 PM	17	29	1	11	49	9	12	39	23	4	20	2	216	0	0	0	0	0
	5:00 PM	21	40	1	13	55	7	9	35	28	2	18	4	233	0	0	0	0	0
	5:15 PM	15	44	8	9	43	10	14	35	24	1	20	2	225	0	0	0	0	0
	5:30 PM	12	43	10	5	36	5	13	38	34	2	22	1	221	0	0	0	0	0
	5:45 PM	9	23	0	4	48	7	6	27	24	2	18	8	176	0	0	0	0	0
	VOLUMES	119	273	41	65	380	64	98	304	217	25	156	23	1,765	0	0	0	0	0
	APPROACH %	27%	63%	9%	13%	75%	13%	16%	49%	35%	12%	76%	11%						
	APP/DEPART	433	/	394	509	/	622	619	/	410	204	/	339	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	66	132	16	39	217	36	46	165	101	16	74	8	916	0	0	0	0	
	APPROACH %	31%	62%	7%	13%	74%	12%	15%	53%	32%	16%	76%	8%						
	PEAK HR FACTOR		0.863			0.869			0.867			0.766		0.954					
	APP/DEPART	214	/	186	292	/	334	312	/	220	98	/	176	0					

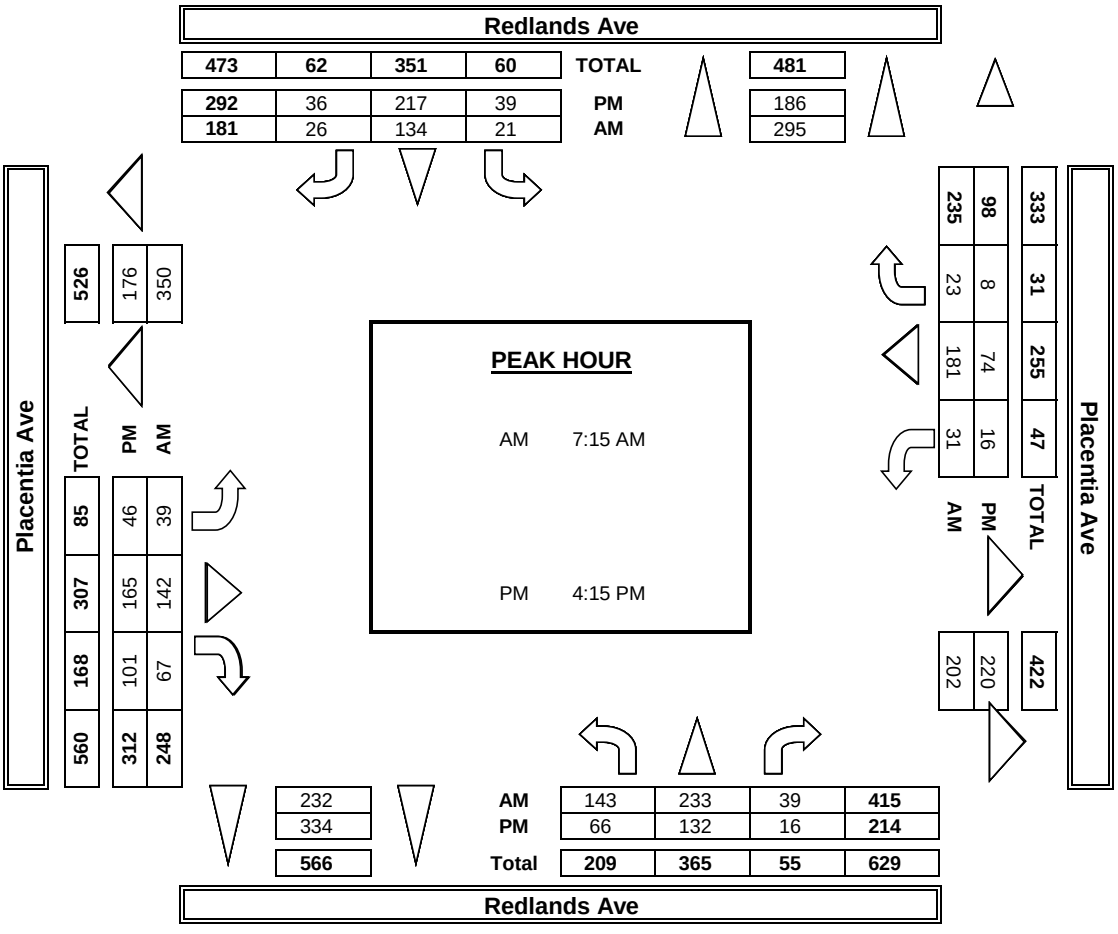


		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	7:45 AM	0	0	0	1	1	0	0	0	1	1	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
PM	4:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:15 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	1	2	0	3	6	0	2	0	1	3	1	0	0	2	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	3	3			PM	◄ W		E ►
										MD			
										OTHER		S ▼	
										OTHER			

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	1	1.5	0.5	1	1	1	1	1	1	1	1	0						
AM	7:00 AM	20	51	6	0	18	4	16	14	8	1	23	6	166					0
	7:15 AM	35	65	6	5	28	7	12	31	20	5	36	5	254					0
	7:30 AM	43	62	15	6	24	10	13	26	20	8	55	7	288					0
	7:45 AM	44	60	12	8	43	6	10	46	21	7	47	4	307					0
	8:00 AM	28	53	6	3	44	7	8	39	13	12	47	8	266					0
	8:15 AM	18	39	3	3	34	10	14	33	19	7	39	7	226					0
	8:30 AM	32	35	4	2	13	2	5	22	24	2	34	1	174					0
	8:45 AM	17	26	4	0	25	5	7	13	9	3	20	1	129					0
	VOLUMES	236	389	56	27	229	51	84	223	133	45	300	39	1,809	0	0	0	0	0
	APPROACH %	35%	57%	8%	9%	75%	17%	19%	51%	30%	12%	78%	10%						
	APP/DEPART	680	/	511	306	/	406	440	/	305	383	/	587	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	150	239	39	22	139	30	42	142	73	32	185	24	1,114					
	APPROACH %	35%	56%	9%	11%	73%	16%	16%	55%	28%	13%	77%	10%						
	PEAK HR FACTOR		0.894			0.841			0.840			0.862		0.909					
	APP/DEPART	428	/	304	190	/	243	257	/	203	240	/	365	0					
PM	4:00 PM	17	32	7	8	37	7	20	42	35	4	23	4	234					0
	4:15 PM	14	34	9	8	51	13	12	45	23	8	23	2	240					0
	4:30 PM	15	31	7	7	68	9	13	48	30	4	13	0	244					0
	4:45 PM	17	30	1	11	50	9	12	41	24	4	24	2	223					0
	5:00 PM	21	40	1	17	57	7	10	36	28	2	18	4	241					0
	5:15 PM	15	45	8	9	44	10	15	40	24	1	21	2	233					0
	5:30 PM	13	44	11	5	36	5	13	38	35	2	23	1	225					0
	5:45 PM	9	24	0	4	48	7	6	27	24	2	21	8	179					0
	VOLUMES	120	278	43	69	389	67	100	317	222	27	164	23	1,817	0	0	0	0	0
	APPROACH %	27%	63%	10%	13%	74%	13%	16%	50%	35%	12%	77%	11%						
	APP/DEPART	441	/	401	525	/	637	638	/	429	213	/	350	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	67	135	17	43	225	38	47	170	104	18	78	8	947					
	APPROACH %	31%	62%	8%	14%	74%	12%	15%	53%	32%	17%	75%	8%						
	PEAK HR FACTOR		0.879			0.911			0.884			0.792		0.970					
	APP/DEPART	218	/	189	306	/	346	320	/	230	103	/	182	0					

INTERSECTION TURNING MOVEMENT COUNTS

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

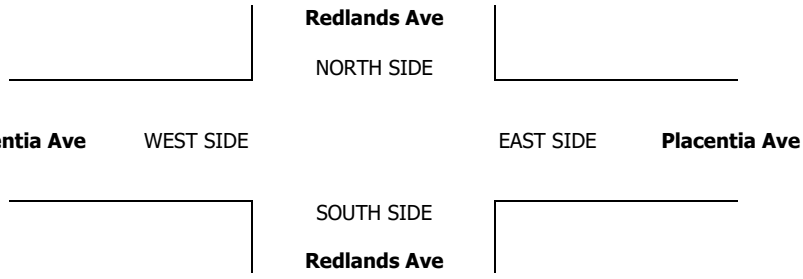
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	18	49	6	0	12	4	10	14	8	1	23	6	151	0	0	0	0	0
	7:15 AM	32	60	6	5	28	7	10	31	14	5	33	3	234	0	0	0	0	0
	7:30 AM	41	60	15	6	21	7	13	26	17	8	53	7	274	0	0	0	0	0
	7:45 AM	44	60	12	6	41	6	7	46	19	5	47	4	297	0	0	0	0	0
	8:00 AM	22	48	6	3	40	4	6	39	11	12	45	8	244	0	0	0	0	0
	8:15 AM	18	32	3	3	31	10	12	28	16	7	39	7	206	0	0	0	0	0
	8:30 AM	24	30	4	2	13	2	3	16	17	2	29	1	143	0	0	0	0	0
	8:45 AM	17	21	2	0	22	5	7	11	9	3	20	1	118	0	0	0	0	0
	VOLUMES	216	360	54	25	208	45	68	211	111	43	289	37	1,667	0	0	0	0	0
	APPROACH %	34%	57%	9%	9%	75%	16%	17%	54%	28%	12%	78%	10%						
	APP/DEPART	630	/	465	278	/	362	390	/	290	369	/	550	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	139	228	39	20	130	24	36	142	61	30	178	22	1,049	0	0	0	0	
	APPROACH %	34%	56%	10%	11%	75%	14%	15%	59%	26%	13%	77%	10%						
	PEAK HR FACTOR		0.875			0.821			0.830			0.846		0.883					
	APP/DEPART	406	/	286	174	/	221	239	/	201	230	/	341	0					
PM	4:00 PM	17	30	7	8	35	5	18	37	32	4	21	4	218	0	0	0	0	0
	4:15 PM	12	34	7	8	39	10	12	39	18	6	23	2	210	0	0	0	0	0
	4:30 PM	15	28	5	7	68	9	13	48	28	2	13	0	236	0	0	0	0	0
	4:45 PM	17	28	1	11	48	9	12	35	22	4	17	2	206	0	0	0	0	0
	5:00 PM	21	40	1	11	52	7	8	33	28	2	18	4	225	0	0	0	0	0
	5:15 PM	15	42	8	9	42	10	13	31	24	1	19	2	216	0	0	0	0	0
	5:30 PM	11	42	8	5	36	5	13	38	32	2	21	1	214	0	0	0	0	0
	5:45 PM	9	22	0	4	48	7	6	27	24	2	16	8	173	0	0	0	0	0
	VOLUMES	117	266	37	63	368	62	95	288	208	23	148	23	1,698	0	0	0	0	0
	APPROACH %	28%	63%	9%	13%	75%	13%	16%	49%	35%	12%	76%	12%						
	APP/DEPART	420	/	384	493	/	599	591	/	388	194	/	327	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	65	130	14	37	207	35	45	155	96	14	71	8	877	0	0	0	0	
	APPROACH %	31%	62%	7%	13%	74%	13%	15%	52%	32%	15%	76%	9%						
	PEAK HR FACTOR		0.843			0.830			0.831			0.750		0.929					
	APP/DEPART	209	/	183	279	/	317	296	/	206	93	/	171	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

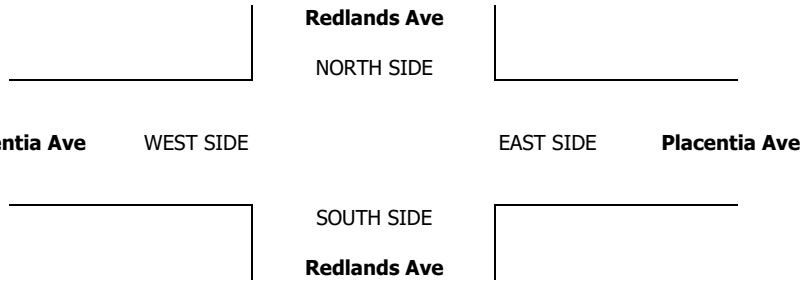
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

	NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	1	1	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	1	0	0	0	0	1	3	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	2	0	1	0	4	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	0
8:00 AM	0	1	0	0	1	0	1	0	1	0	0	0	4	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
8:30 AM	3	1	0	0	0	0	1	2	2	0	1	0	10	0	0	0	0	0
8:45 AM	0	2	1	0	2	0	0	1	0	0	0	0	6	0	0	0	0	0
VOLUMES	4	7	1	1	5	0	3	4	6	1	2	1	35	0	0	0	0	0
APPROACH %	33%	58%	8%	17%	83%	0%	23%	31%	46%	25%	50%	25%						
APP/DEPART	12	/	11	6	/	12	13	/	6	4	/	6	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	0	3	0	1	1	0	2	0	4	1	1	1	14	0	0	0	0	
APPROACH %	0%	100%	0%	50%	50%	0%	33%	0%	67%	33%	33%	33%						
PEAK HR FACTOR		0.750			0.500			0.750			0.750		0.875					
APP/DEPART	3	/	6	2	/	6	6	/	1	3	/	1	0					
PM 4:00 PM	0	1	0	0	1	1	0	1	2	0	1	0	7	0	0	0	0	0
4:15 PM	1	0	1	0	3	0	0	4	3	1	0	0	13	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	4	1	0	1	0	8	0	0	0	0	0
5:00 PM	0	0	0	0	2	0	1	2	0	0	0	0	5	0	0	0	0	0
5:15 PM	0	2	0	0	1	0	1	2	0	0	1	0	7	0	0	0	0	0
5:30 PM	1	1	2	0	0	0	0	0	2	0	1	0	7	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
VOLUMES	2	6	4	0	8	1	2	13	9	1	5	0	51	0	0	0	0	0
APPROACH %	17%	50%	33%	0%	89%	11%	8%	54%	38%	17%	83%	0%						
APP/DEPART	12	/	8	9	/	18	24	/	17	6	/	8	0					
BEGIN PEAK HR		4:15 PM																
VOLUMES	1	1	2	0	6	0	1	10	5	1	1	0	28	0	0	0	0	
APPROACH %	25%	25%	50%	0%	100%	0%	6%	63%	31%	50%	50%	0%						
PEAK HR FACTOR		0.500			0.500			0.571			0.500		0.538					
APP/DEPART	4	/	2	6	/	12	16	/	12	2	/	2	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

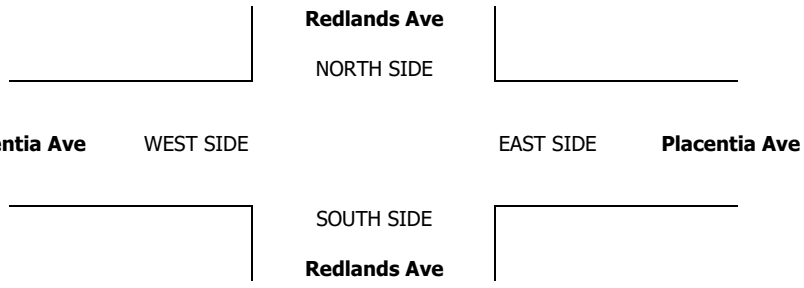
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0
	8:15 AM	0	2	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	VOLUMES	1	3	0	0	2	0	1	0	2	0	1	0	10	0	0	0	0	0
	APPROACH %	25%	75%	0%	0%	100%	0%	33%	0%	67%	0%	100%	0%						
	APP/DEPART	4	/	4	2	/	4	3	/	0	1	/	2	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	1	0	0	0	2	0	0	0	0	0	1	0	4	0	0	0	0	
	APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.500			0.000			0.250		0.500					
	APP/DEPART	1	/	0	2	/	2	0	/	0	1	/	2	0					
PM	4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	3	0	1	0	0	1	1	0	6	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	100%	0%	100%	0%	0%	50%	50%	0%						
	APP/DEPART	0	/	1	3	/	4	1	/	0	2	/	1	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	0	0	0	3	0	0	0	0	1	1	0	5	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	50%	50%	0%						
	PEAK HR FACTOR		0.000			0.375			0.000			0.500		0.625					
	APP/DEPART	0	/	0	3	/	4	0	/	0	2	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

	NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	1	0	1	0	3	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	1	0	0	0	3	0	0	0	0	0
8:30 AM	1	1	0	0	0	0	0	1	0	0	1	0	4	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	3	0	0	1	1	2	2	2	0	2	0	14	0	0	0	0	0
APPROACH %	25%	75%	0%	0%	50%	50%	33%	33%	33%	0%	100%	0%						
APP/DEPART	4	/	5	2	/	3	6	/	2	2	/	4	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	0	2	0	0	0	1	1	0	1	0	1	0	6	0	0	0	0	
APPROACH %	0%	100%	0%	0%	0%	100%	50%	0%	50%	0%	100%	0%						
PEAK HR FACTOR		0.500			0.250			0.500			0.250		0.500					
APP/DEPART	2	/	3	1	/	1	2	/	0	1	/	2	0					
PM																		
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
5:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
VOLUMES	0	1	0	2	0	0	0	3	0	0	2	0	8	0	0	0	0	0
APPROACH %	0%	100%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%						
APP/DEPART	1	/	1	2	/	0	3	/	5	2	/	2	0					
BEGIN PEAK HR		4:15 PM																
VOLUMES	0	1	0	2	0	0	0	0	0	0	1	0	4	0	0	0	0	
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%						
PEAK HR FACTOR		0.250			0.250			0.000			0.250		0.500					
APP/DEPART	1	/	1	2	/	0	0	/	2	1	/	1	0					

Redlands Ave

NORTH SIDE

Placentia Ave WEST SIDE EAST SIDE **Placentia Ave**

SOUTH SIDE

Redlands Ave

INTERSECTION TURNING MOVEMENT COUNTS

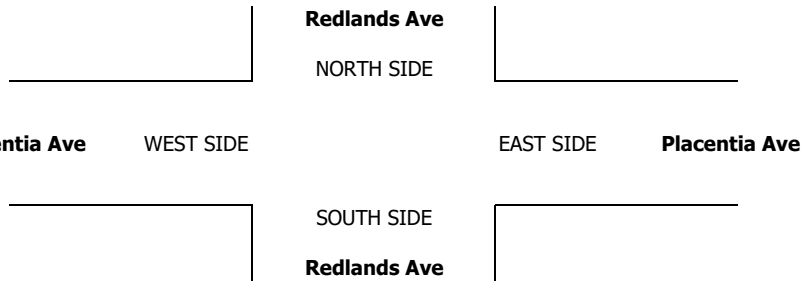
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

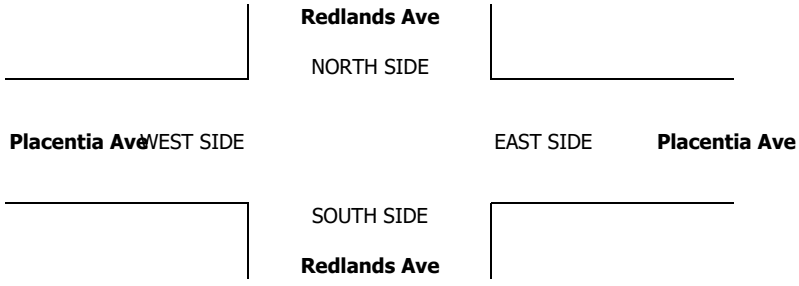
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Redlands Ave	LOCATION #:	3
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND Redlands Ave			SOUTHBOUND Redlands Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 1	NT 1.5	NR 0.5	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	0	0
	7:15 AM	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	1	0	0	2	1	1	0	1	0	0	0	9	0	0	0	0	0
	APPROACH %	75%	25%	0%	0%	67%	33%	50%	0%	50%	0%	0%	0%						
	APP/DEPART	4	/	2	3	/	3	2	/	0	0	/	4	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	3	0	0	0	1	1	0	0	1	0	0	0	6	0	0	0	0	
	APPROACH %	100%	0%	0%	0%	50%	50%	0%	0%	100%	0%	0%	0%						
	PEAK HR FACTOR		0.375			0.250			0.250			0.000		0.750					
	APP/DEPART	3	/	0	2	/	2	1	/	0	0	/	4	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	2	/	1	0	/	0	0	/	1	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250					
	APP/DEPART	0	/	0	2	/	1	0	/	0	0	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Thu, Feb 8, 24	LOCATION:	Perris	PROJECT #: SC4442
	NORTH & SOUTH:	Wilson Ave	LOCATION #: 4
	EAST & WEST:	Placentia Ave	CONTROL: STOP ALL

NOTES:

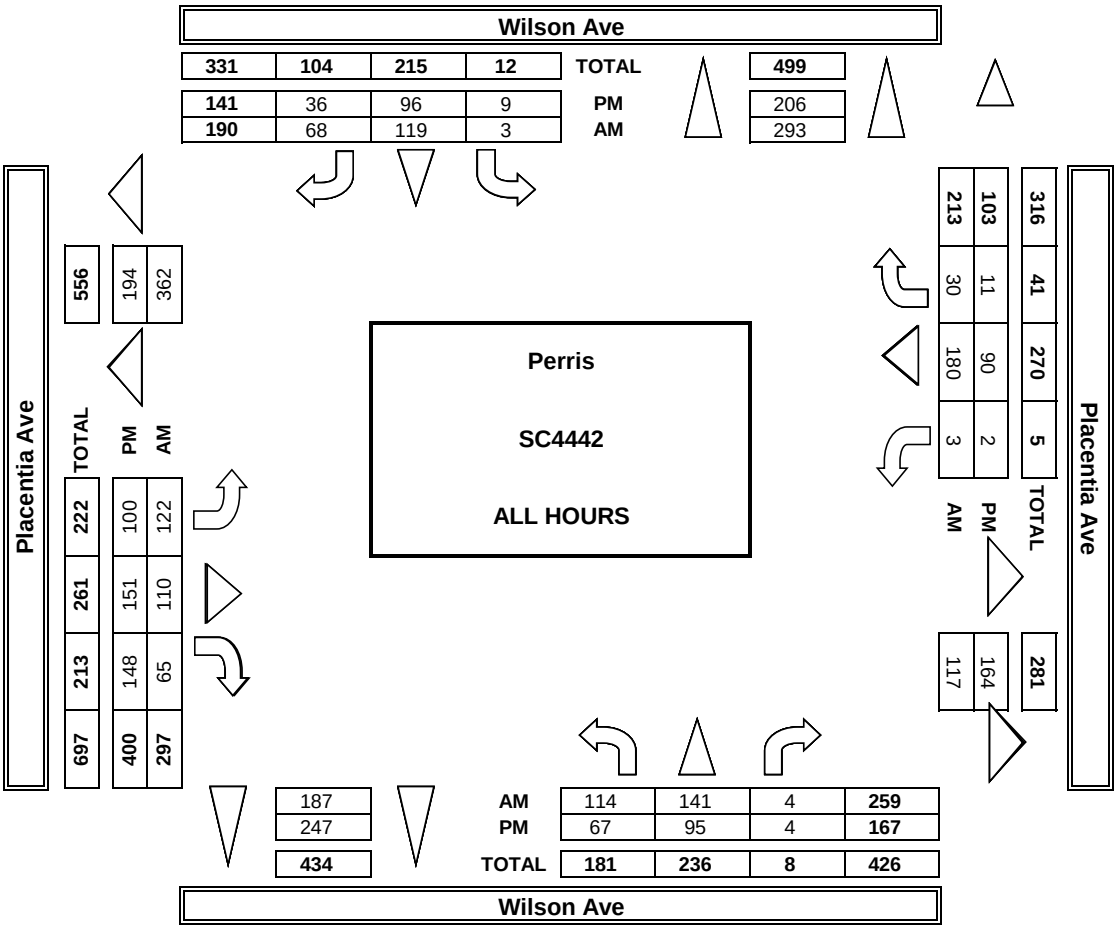
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

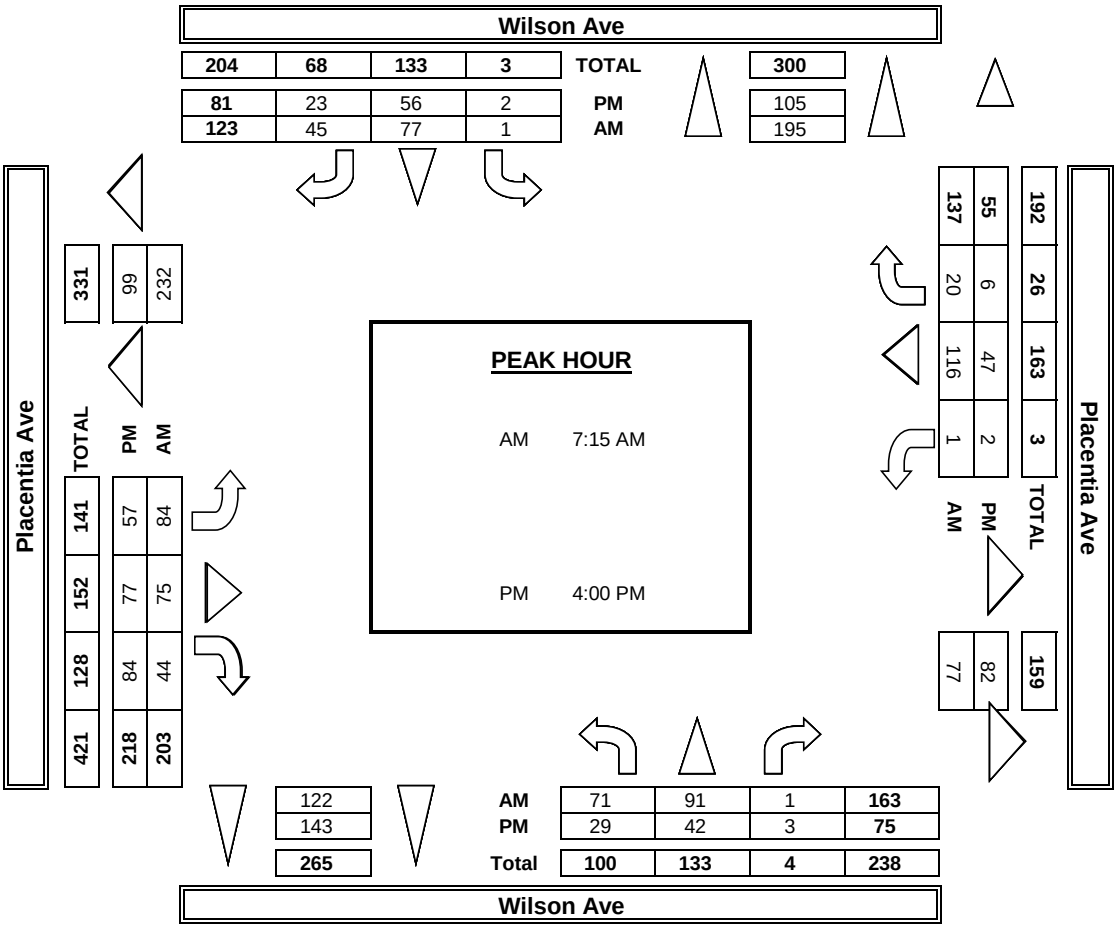
	NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM 7:00 AM	16	19	2	1	9	2	11	4	3	1	11	1	80	0	0	0	0	0
7:15 AM	17	21	0	1	13	10	18	9	14	1	16	6	126	0	0	0	0	0
7:30 AM	16	22	0	0	23	15	26	11	13	0	39	3	168	0	0	0	0	0
7:45 AM	17	24	0	0	23	8	23	26	12	0	27	5	165	0	0	0	0	0
8:00 AM	21	24	1	0	18	12	17	29	5	0	34	6	167	0	0	0	0	0
8:15 AM	7	13	0	0	15	15	12	21	5	0	33	3	124	0	0	0	0	0
8:30 AM	12	14	1	1	10	2	11	5	7	0	11	2	76	0	0	0	0	0
8:45 AM	8	4	0	0	8	4	4	5	6	1	9	4	53	0	0	0	0	0
VOLUMES	114	141	4	3	119	68	122	110	65	3	180	30	959	0	0	0	0	0
APPROACH %	44%	54%	2%	2%	63%	36%	41%	37%	22%	1%	85%	14%						
APP/DEPART	259	/	293	190	/	187	297	/	117	213	/	362	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	71	91	1	1	77	45	84	75	44	1	116	20	626	0	0	0	0	
APPROACH %	44%	56%	1%	1%	63%	37%	41%	37%	22%	1%	85%	15%						
PEAK HR FACTOR		0.886			0.809			0.832			0.815		0.932					
APP/DEPART	163	/	195	123	/	122	203	/	77	137	/	232	0					
PM 4:00 PM	5	12	1	0	12	6	15	20	18	1	17	1	108	0	0	0	0	0
4:15 PM	9	7	1	2	12	6	17	20	17	1	13	0	105	1	0	0	0	1
4:30 PM	8	10	0	0	17	3	16	24	23	0	4	3	108	0	0	0	0	0
4:45 PM	7	13	1	0	15	8	9	13	26	0	13	2	107	0	0	0	0	0
5:00 PM	9	16	1	0	9	4	8	22	19	0	10	2	100	0	0	0	0	0
5:15 PM	12	9	0	0	13	1	14	19	17	0	8	1	94	0	0	0	0	0
5:30 PM	9	9	0	5	10	2	15	19	16	0	11	2	98	0	0	1	0	1
5:45 PM	8	19	0	2	8	6	6	14	12	0	14	0	89	0	0	0	0	0
VOLUMES	67	95	4	9	96	36	100	151	148	2	90	11	811	1	0	1	0	2
APPROACH %	40%	57%	2%	6%	68%	26%	25%	38%	37%	2%	87%	11%						
APP/DEPART	167	/	206	141	/	247	400	/	164	103	/	194	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	29	42	3	2	56	23	57	77	84	2	47	6	429	1	0	0	0	
APPROACH %	39%	56%	4%	2%	69%	28%	26%	35%	39%	4%	85%	11%						
PEAK HR FACTOR		0.893			0.880			0.865			0.724		0.993					
APP/DEPART	75	/	105	81	/	143	218	/	82	55	/	99	0					

	ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
	N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

	NOTES:											
PCE	Class	1	2	3	4	5	6			AM		▲ N
Adjusted	Factor	1	1.5	2	3	3	3			PM MD	◄ W	E ►
										OTHER OTHER		S ▼

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	0	1	0	0	1	0	1	0.5	0.5	0	1	0						
AM	7:00 AM	16	19	2	1	9	2	11	4	3	1	11	1	80					0
	7:15 AM	17	22	0	1	13	11	18	9	14	1	16	6	127					0
	7:30 AM	16	22	0	0	23	15	26	11	13	0	40	3	169					0
	7:45 AM	17	26	0	0	23	8	23	26	12	0	27	5	167					0
	8:00 AM	22	27	1	0	20	12	17	29	5	0	34	6	173					0
	8:15 AM	7	13	0	0	15	15	14	22	5	0	34	3	127					0
	8:30 AM	14	14	1	1	11	2	12	5	10	0	11	2	82					0
	8:45 AM	8	5	0	0	8	4	5	5	7	1	9	4	55					0
	VOLUMES	117	147	4	3	122	69	125	111	68	3	182	30	980	0	0	0	0	0
	APPROACH %	44%	55%	1%	2%	63%	35%	41%	36%	22%	1%	85%	14%						
	APP/DEPART	268	/	302	194	/	193	304	/	118	215	/	367	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	72	96	1	1	79	46	84	75	44	1	117	20	636					
	APPROACH %	43%	57%	1%	1%	63%	36%	41%	37%	22%	1%	85%	14%						
	PEAK HR FACTOR		0.854			0.826			0.832			0.802		0.921					
	APP/DEPART	169	/	200	126	/	124	203	/	77	138	/	235	0					
PM	4:00 PM	5	12	1	0	14	7	18	21	18	1	17	1	113					0
	4:15 PM	9	7	1	2	12	7	18	21	18	1	13	0	108					0
	4:30 PM	8	10	0	0	17	4	16	25	23	0	4	3	110					0
	4:45 PM	8	14	1	0	15	11	10	13	28	0	13	3	113					0
	5:00 PM	9	17	1	0	9	4	8	23	23	0	10	2	105					0
	5:15 PM	13	9	0	0	13	1	15	22	17	0	8	1	98					0
	5:30 PM	9	10	0	5	10	2	15	19	17	0	11	2	100					0
	5:45 PM	8	19	0	3	8	7	6	14	12	0	16	0	92					0
	VOLUMES	68	97	4	10	98	41	104	156	155	2	92	12	838	0	0	0	0	0
	APPROACH %	40%	57%	2%	6%	66%	28%	25%	38%	37%	2%	87%	11%						
	APP/DEPART	169	/	213	148	/	255	415	/	170	106	/	201	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	30	43	3	2	58	28	61	79	87	2	47	7	444					
	APPROACH %	39%	57%	4%	2%	66%	32%	27%	35%	38%	4%	85%	12%						
	PEAK HR FACTOR		0.852			0.853			0.890			0.730		0.981					
	APP/DEPART	75	/	110	87	/	146	226	/	84	56	/	104	0					

INTERSECTION TURNING MOVEMENT COUNTS

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

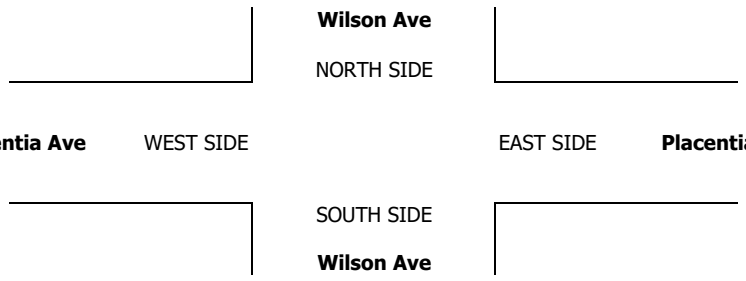
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	16	19	2	1	9	2	11	4	3	1	11	1	80	0	0	0	0	0
	7:15 AM	17	20	0	1	13	9	18	9	14	1	16	6	124	0	0	0	0	0
	7:30 AM	16	22	0	0	23	15	26	11	13	0	37	3	166	0	0	0	0	0
	7:45 AM	17	21	0	0	23	8	23	26	12	0	27	5	162	0	0	0	0	0
	8:00 AM	20	22	1	0	17	12	17	29	5	0	34	6	163	0	0	0	0	0
	8:15 AM	7	13	0	0	15	15	11	20	5	0	32	3	121	0	0	0	0	0
	8:30 AM	11	14	1	1	9	2	10	5	5	0	11	2	71	0	0	0	0	0
	8:45 AM	8	3	0	0	8	4	3	5	5	1	9	4	50	0	0	0	0	0
	VOLUMES	112	134	4	3	117	67	119	109	62	3	177	30	937	0	0	0	0	0
	APPROACH %	45%	54%	2%	2%	63%	36%	41%	38%	21%	1%	84%	14%						
	APP/DEPART	250	/	283	187	/	182	290	/	116	210	/	356	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	70	85	1	1	76	44	84	75	44	1	114	20	615	0	0	0	0	
	APPROACH %	45%	54%	1%	1%	63%	36%	41%	37%	22%	1%	84%	15%						
	PEAK HR FACTOR		0.907			0.796			0.832			0.844		0.926					
	APP/DEPART	156	/	189	121	/	121	203	/	77	135	/	228	0					
PM	4:00 PM	5	12	1	0	9	5	13	19	18	1	17	1	101	0	0	0	0	0
	4:15 PM	9	7	1	2	12	5	16	18	15	1	13	0	99	0	0	0	0	0
	4:30 PM	8	10	0	0	17	2	16	23	23	0	4	3	106	0	0	0	0	0
	4:45 PM	6	12	1	0	15	6	8	13	23	0	13	1	98	0	0	0	0	0
	5:00 PM	9	15	1	0	9	4	8	21	17	0	10	2	96	0	0	0	0	0
	5:15 PM	11	9	0	0	13	1	13	17	17	0	8	1	90	0	0	0	0	0
	5:30 PM	9	7	0	5	10	2	15	19	15	0	11	2	95	0	0	1	0	1
	5:45 PM	8	19	0	1	8	5	6	14	12	0	13	0	86	0	0	0	0	0
	VOLUMES	65	91	4	8	93	30	95	144	140	2	89	10	772	0	0	1	0	1
	APPROACH %	41%	57%	3%	6%	71%	23%	25%	38%	37%	2%	88%	10%						
	APP/DEPART	160	/	196	131	/	235	380	/	156	101	/	185	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	28	41	3	2	53	18	53	73	79	2	47	5	404	0	0	0	0	
	APPROACH %	39%	57%	4%	3%	73%	25%	26%	36%	39%	4%	87%	9%						
	PEAK HR FACTOR		0.947			0.869			0.827			0.711		0.953					
	APP/DEPART	72	/	99	73	/	134	205	/	78	54	/	93	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

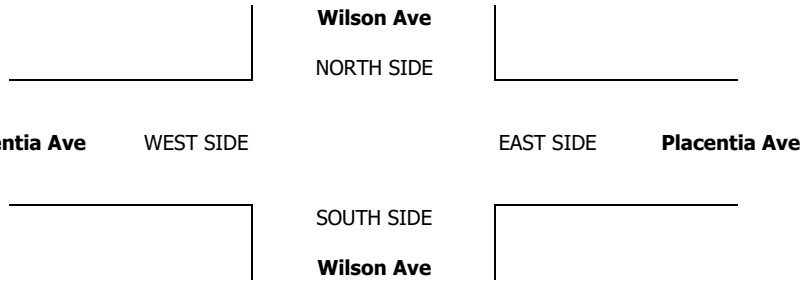
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0
	VOLUMES	0	4	0	0	0	1	2	1	2	0	3	0	13	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	100%	40%	20%	40%	0%	100%	0%						
	APP/DEPART	4	/	6	1	/	2	5	/	1	3	/	4	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	4	0	0	0	1	0	0	0	0	2	0	7	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.500			0.250			0.000			0.250		0.875					
	APP/DEPART	4	/	4	1	/	0	0	/	0	2	/	3	0					
PM	4:00 PM	0	0	0	0	3	1	1	1	0	0	0	0	6	0	0	0	0	0
	4:15 PM	0	0	0	0	0	1	1	2	2	0	0	0	6	1	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	4:45 PM	1	1	0	0	0	1	1	0	3	0	0	1	8	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	5:15 PM	1	0	0	0	0	0	1	1	0	0	0	0	3	0	0	0	0	0
	5:30 PM	0	2	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0
	5:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0
	VOLUMES	2	4	0	1	3	4	4	6	6	0	0	1	32	1	0	0	0	1
	APPROACH %	29%	57%	0%	13%	38%	50%	25%	38%	38%	0%	0%	100%						
	APP/DEPART	7	/	9	8	/	10	16	/	7	1	/	6	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	1	1	0	0	3	3	3	4	5	0	0	1	22	1	0	0	0	
	APPROACH %	33%	33%	0%	0%	50%	50%	25%	33%	42%	0%	0%	100%						
	PEAK HR FACTOR		0.375			0.375			0.600			0.250		0.688					
	APP/DEPART	3	/	5	6	/	9	12	/	4	1	/	4	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

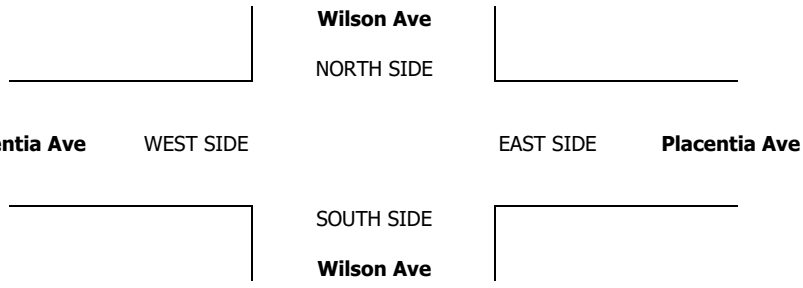
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	VOLUMES	1	2	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0
	APPROACH %	33%	67%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	3	/	2	1	/	1	0	/	0	0	/	1	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
	APPROACH %	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.500			0.000			0.000			0.000		0.500					
	APP/DEPART	2	/	1	0	/	0	0	/	0	0	/	1	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	1	/	0	0	/	0	0	/	1	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250					
	APP/DEPART	0	/	0	1	/	0	0	/	0	0	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

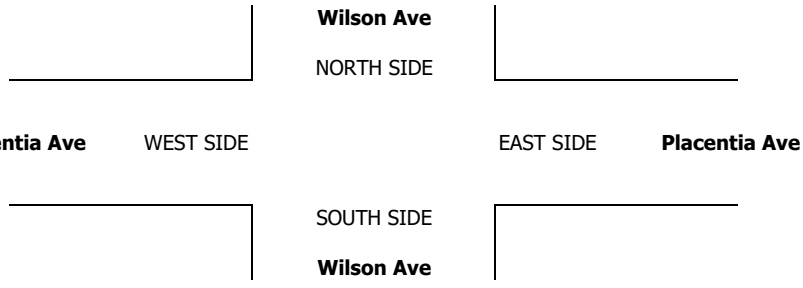
DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	8:30 AM	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	1	0	1	0	1	0	0	0	4	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	100%	0%	50%	0%	50%	0%	0%	0%						
	APP/DEPART	1	/	1	1	/	2	2	/	0	0	/	1	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250					
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	1	1	2	0	1	0	6	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	100%	25%	25%	50%	0%	100%	0%						
	APP/DEPART	0	/	1	1	/	2	4	/	1	1	/	2	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.250			0.250			0.000		0.500					
	APP/DEPART	0	/	1	1	/	0	1	/	0	0	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Wilson Ave

NORTH SIDE

Placentia Ave WEST SIDE EAST SIDE **Placentia Ave**

SOUTH SIDE

Wilson Ave

INTERSECTION TURNING MOVEMENT COUNTS

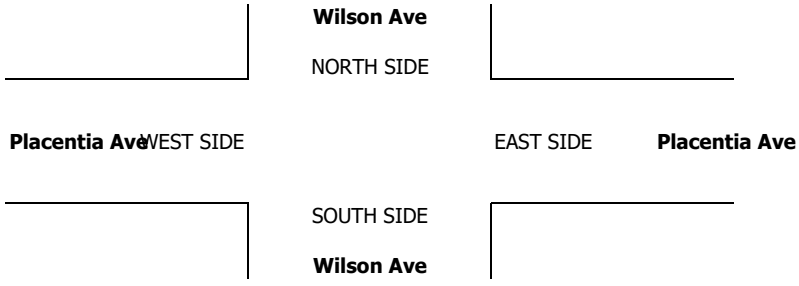
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4442
2/8/24	NORTH & SOUTH:	Wilson Ave	LOCATION #:	4
THURSDAY	EAST & WEST:	Placentia Ave	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND Wilson Ave			SOUTHBOUND Wilson Ave			EASTBOUND Placentia Ave			WESTBOUND Placentia Ave				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250					
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					



APPENDIX D

LEVEL OF SERVICE WORKSHEETS

EXISTING

Placentia Avenue Industrial

Vistro File: G:\...\AME.vistro
Report File: G:\...\AME.pdf

Scenario 1 Existing AM Peak Hour
2/25/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	NB Left	0.421	19.5	B
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	WB Thru	0.419	12.3	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.485	14.6	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	NB Thru	0.260	9.5	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	19.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.421

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	203	103	31	105	18	15	165	9	85	556	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	203	103	31	105	18	15	165	9	85	556	94
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
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]	2	55	28	8	28	5	4	44	2	23	150	25
Total Analysis Volume [veh/h]	10	219	111	33	113	19	16	178	10	92	600	101
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	30	0	11	26	0	11	23	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	11	11	4	13	13	2	38	38	6	42	42
g / C, Green / Cycle	0.02	0.15	0.15	0.05	0.18	0.18	0.03	0.51	0.51	0.08	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.07	0.02	0.06	0.01	0.01	0.09	0.01	0.05	0.19	0.19
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1806
c, Capacity [veh/h]	34	282	240	86	337	287	50	970	824	146	1070	1017
d1, Uniform Delay [s]	36.41	30.82	29.28	34.73	27.04	25.74	35.86	9.95	9.07	33.48	8.84	8.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.76	4.58	1.39	2.75	0.58	0.10	3.59	0.42	0.03	4.42	0.85	0.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.78	0.46	0.38	0.33	0.07	0.32	0.18	0.01	0.63	0.34	0.34
d, Delay for Lane Group [s/veh]	41.17	35.40	30.67	37.47	27.62	25.83	39.46	10.37	9.10	37.90	9.69	9.74
Lane Group LOS	D	D	C	D	C	C	D	B	A	D	A	A
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.22	3.99	1.84	0.63	1.74	0.28	0.32	1.41	0.07	1.69	2.69	2.58
50th-Percentile Queue Length [ft/ln]	5.48	99.74	46.02	15.74	43.60	6.95	8.00	35.31	1.82	42.34	67.32	64.43
95th-Percentile Queue Length [veh/ln]	0.39	7.18	3.31	1.13	3.14	0.50	0.58	2.54	0.13	3.05	4.85	4.64
95th-Percentile Queue Length [ft/ln]	9.87	179.53	82.84	28.33	78.47	12.51	14.41	63.56	3.27	76.22	121.17	115.97

Movement, Approach, & Intersection Results

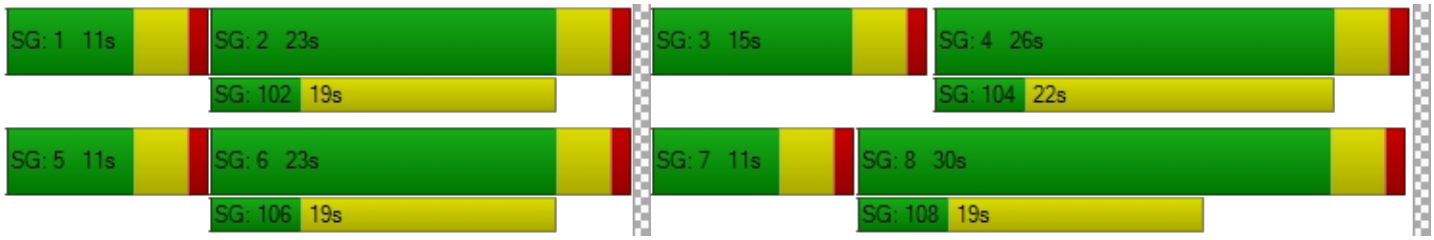
d_M, Delay for Movement [s/veh]	41.17	35.40	30.67	37.47	27.62	25.83	39.46	10.37	9.10	37.90	9.71	9.74
Movement LOS	D	D	C	D	C	C	D	B	A	D	A	A
d_A, Approach Delay [s/veh]	34.03			29.39			12.58			12.98		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.50											
Intersection LOS	B											
Intersection V/C	0.421											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersection	2.281	2.266	2.536	2.531
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	692	586	506	506
d_b, Bicycle Delay [s]	16.05	18.77	20.95	20.95
l_b,int, Bicycle LOS Score for Intersection	2.121	1.832	1.896	2.214
Bicycle LOS	B	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.419

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	150	239	39	22	139	30	42	142	73	32	185	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	239	39	22	139	30	42	142	73	32	185	24
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
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]	41	66	11	6	38	8	12	39	20	9	51	7
Total Analysis Volume [veh/h]	165	263	43	24	153	33	46	156	80	35	204	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	502	539	555	487	519	575	490	524	580	507	549
Degree of Utilization, x	0.33	0.28	0.28	0.05	0.29	0.06	0.09	0.30	0.14	0.07	0.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.42	1.16	1.12	0.16	1.22	0.18	0.31	1.24	0.48	0.22	2.06
95th-Percentile Queue Length [ft]	35.53	29.03	27.92	3.88	30.49	4.55	7.73	30.97	11.90	5.54	51.42
Approach Delay [s/veh]	12.36			11.77			11.46			13.43	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	12.28										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	36	0	171	0	0	0	0	291	10	129	698	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	0	171	0	0	0	0	291	10	129	698	0
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
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	0	47	0	0	0	0	81	3	36	193	0
Total Analysis Volume [veh/h]	40	0	189	0	0	0	0	322	11	143	773	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	11	23	0	11	19	0	12	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	10	0	6	0	33	33	7	40	40
g / C, Green / Cycle	0.06	0.15	0.00	0.09	0.00	0.51	0.51	0.10	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.00	0.00	0.00	0.17	0.01	0.08	0.20	0.20
s, saturation flow rate [veh/h]	1810	1615	1810	1900	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	103	238	2	173	2	958	814	185	1150	1150
d1, Uniform Delay [s]	29.64	26.84	0.00	0.00	0.00	9.65	8.07	28.54	6.37	6.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.36	5.91	0.00	0.00	0.00	0.95	0.03	6.74	0.79	0.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.79	0.00	0.00	0.00	0.34	0.01	0.77	0.34	0.34
d, Delay for Lane Group [s/veh]	32.00	32.75	0.00	0.00	0.00	10.60	8.10	35.28	7.16	7.16
Lane Group LOS	C	C	A	A	A	B	A	D	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.64	3.03	0.00	0.00	0.00	2.33	0.07	2.32	1.97	1.97
50th-Percentile Queue Length [ft/ln]	15.96	75.72	0.00	0.00	0.00	58.34	1.66	57.91	49.31	49.31
95th-Percentile Queue Length [veh/ln]	1.15	5.45	0.00	0.00	0.00	4.20	0.12	4.17	3.55	3.55
95th-Percentile Queue Length [ft/ln]	28.73	136.30	0.00	0.00	0.00	105.02	2.98	104.24	88.77	88.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.00	32.75	32.75	0.00	0.00	0.00	0.00	10.60	8.10	35.28	7.16	7.16
Movement LOS	C	C	C	A	A	A	A	B	A	D	A	A
d_A, Approach Delay [s/veh]	32.62			0.00			10.52			11.55		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	14.58											
Intersection LOS	B											
Intersection V/C	0.485											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersection	2.070	1.925	2.620	2.638
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	584	584	461	492
d_b, Bicycle Delay [s]	16.33	16.33	19.28	18.52
l_b,int, Bicycle LOS Score for Intersection	1.937	1.560	2.109	2.315
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.260

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	72	96	1	1	79	46	84	75	44	1	117	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	96	1	1	79	46	84	75	44	1	117	20
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
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]	20	26	0	0	21	12	23	20	12	0	32	5
Total Analysis Volume [veh/h]	78	104	1	1	86	50	91	81	48	1	127	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	704	735	599	687	710
Degree of Utilization, x	0.26	0.19	0.15	0.19	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.04	0.68	0.53	0.69	0.79
95th-Percentile Queue Length [ft]	25.97	17.04	13.32	17.18	19.84
Approach Delay [s/veh]	9.91	9.02	9.41		9.42
Approach LOS	A	A	A		A
Intersection Delay [s/veh]	9.47				
Intersection LOS	A				

Placentia Avenue Industrial

Vistro File: G:\...\PME.vistro
Report File: G:\...\PME.pdf

Scenario 1 Existing PM Peak Hour
2/25/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	EB Left	0.435	19.6	B
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	SB Thru	0.400	10.9	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	NB Left	0.510	11.7	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Left	0.217	8.4	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.435

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	77	98	36	194	24	14	362	16	63	327	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	77	98	36	194	24	14	362	16	63	327	43
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
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]	4	20	25	9	49	6	4	92	4	16	83	11
Total Analysis Volume [veh/h]	16	79	100	37	198	24	14	369	16	64	334	44
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	28	0	12	26	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	8	8	4	10	10	2	42	42	5	45	45
g / C, Green / Cycle	0.03	0.11	0.11	0.05	0.13	0.13	0.02	0.56	0.56	0.07	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.06	0.02	0.10	0.01	0.01	0.19	0.01	0.04	0.10	0.10
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1824
c, Capacity [veh/h]	50	209	177	93	254	216	45	1056	898	127	1142	1096
d1, Uniform Delay [s]	35.86	31.09	31.77	34.53	31.51	28.65	36.04	9.20	7.49	33.71	6.66	6.66
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.59	1.13	2.80	2.71	5.16	0.23	3.87	0.91	0.04	3.09	0.32	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.38	0.56	0.40	0.78	0.11	0.31	0.35	0.02	0.51	0.17	0.17
d, Delay for Lane Group [s/veh]	39.46	32.22	34.56	37.25	36.66	28.88	39.91	10.12	7.53	36.81	6.97	7.00
Lane Group LOS	D	C	C	D	D	C	D	B	A	D	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.33	1.34	1.79	0.70	3.67	0.38	0.29	2.86	0.10	1.16	1.11	1.08
50th-Percentile Queue Length [ft/ln]	8.19	33.53	44.68	17.52	91.86	9.46	7.13	71.57	2.52	29.01	27.71	27.06
95th-Percentile Queue Length [veh/ln]	0.59	2.41	3.22	1.26	6.61	0.68	0.51	5.15	0.18	2.09	1.99	1.95
95th-Percentile Queue Length [ft/ln]	14.74	60.35	80.43	31.53	165.34	17.03	12.83	128.82	4.53	52.21	49.87	48.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.46	32.22	34.56	37.25	36.66	28.88	39.91	10.12	7.53	36.81	6.99	7.00
Movement LOS	D	C	C	D	D	C	D	B	A	D	A	A
d_A, Approach Delay [s/veh]	34.02			36.03			11.06			11.30		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	19.59											
Intersection LOS	B											
Intersection V/C	0.435											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersection	2.258	2.236	2.518	2.470
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	639	586	533	506
d_b, Bicycle Delay [s]	17.39	18.77	20.21	20.95
l_b,int, Bicycle LOS Score for Intersection	1.881	1.987	2.218	1.924
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.400

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	67	135	17	43	225	38	47	170	104	18	78	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	135	17	43	225	38	47	170	104	18	78	8
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
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]	17	35	4	11	58	10	12	44	27	5	20	2
Total Analysis Volume [veh/h]	69	139	18	44	232	39	48	175	107	19	80	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	521	561	575	538	580	653	539	582	653	522	566
Degree of Utilization, x	0.13	0.14	0.14	0.08	0.40	0.06	0.09	0.30	0.16	0.04	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.45	0.48	0.47	0.27	1.92	0.19	0.29	1.26	0.58	0.11	0.55
95th-Percentile Queue Length [ft]	11.35	12.10	11.76	6.66	47.88	4.76	7.30	31.52	14.57	2.83	13.69
Approach Delay [s/veh]	10.23			12.02			10.59			10.17	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	10.92										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.510

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	0	99	0	0	0	0	483	10	75	417	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	0	99	0	0	0	0	483	10	75	417	0
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
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]	2	0	27	0	0	0	0	130	3	20	112	0
Total Analysis Volume [veh/h]	10	0	107	0	0	0	0	520	11	81	449	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	24	0	11	23	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	6	0	5	0	38	38	5	43	43
g / C, Green / Cycle	0.02	0.09	0.00	0.08	0.00	0.58	0.58	0.08	0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.01	0.07	0.00	0.00	0.00	0.27	0.01	0.04	0.12	0.12
s, saturation flow rate [veh/h]	1810	1615	1810	1900	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	37	153	3	144	3	1090	927	155	1249	1249
d1, Uniform Delay [s]	31.57	28.73	0.00	0.00	0.00	8.18	5.99	28.64	4.35	4.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.90	5.75	0.00	0.00	0.00	1.50	0.02	2.73	0.32	0.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.27	0.70	0.00	0.00	0.00	0.48	0.01	0.52	0.18	0.18
d, Delay for Lane Group [s/veh]	35.47	34.47	0.00	0.00	0.00	9.68	6.01	31.37	4.67	4.67
Lane Group LOS	D	C	A	A	A	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.19	1.77	0.00	0.00	0.00	3.40	0.05	1.22	0.77	0.77
50th-Percentile Queue Length [ft/ln]	4.68	44.22	0.00	0.00	0.00	84.94	1.29	30.54	19.30	19.30
95th-Percentile Queue Length [veh/ln]	0.34	3.18	0.00	0.00	0.00	6.12	0.09	2.20	1.39	1.39
95th-Percentile Queue Length [ft/ln]	8.43	79.60	0.00	0.00	0.00	152.90	2.32	54.97	34.75	34.75

Movement, Approach, & Intersection Results

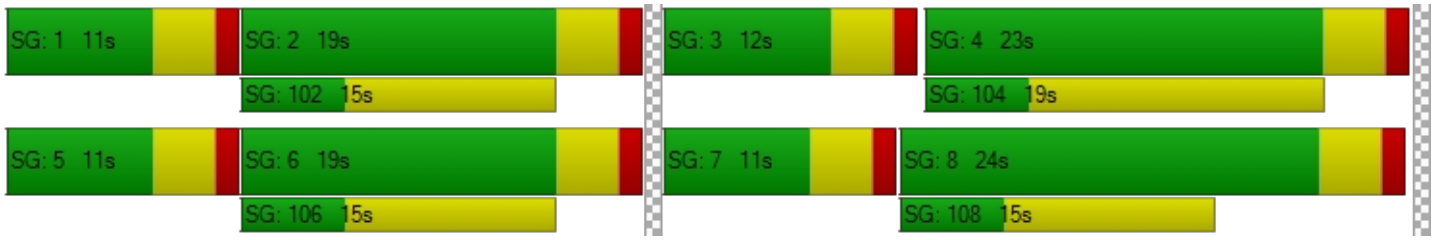
d_M, Delay for Movement [s/veh]	35.47	34.47	34.47	0.00	0.00	0.00	0.00	9.68	6.01	31.37	4.67	4.67
Movement LOS	D	C	C	A	A	A	A	A	A	C	A	A
d_A, Approach Delay [s/veh]	34.56			0.00			9.60			8.75		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	11.70											
Intersection LOS	B											
Intersection V/C	0.510											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.23	24.23	24.23	24.23
l_p,int, Pedestrian LOS Score for Intersection	2.005	1.925	2.575	2.539
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	613	583	460	460
d_b, Bicycle Delay [s]	15.67	16.37	19.33	19.33
l_b,int, Bicycle LOS Score for Intersection	1.753	1.560	2.436	1.997
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.217

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	30	43	3	2	58	28	61	79	87	2	47	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	43	3	2	58	28	61	79	87	2	47	7
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
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]	8	11	1	1	15	7	16	20	22	1	12	2
Total Analysis Volume [veh/h]	31	44	3	2	59	29	62	81	89	2	48	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	760	804	659	785	781
Degree of Utilization, x	0.10	0.11	0.09	0.22	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.34	0.38	0.31	0.82	0.24
95th-Percentile Queue Length [ft]	8.54	9.42	7.75	20.54	5.89
Approach Delay [s/veh]	8.28	8.05	8.60		7.97
Approach LOS	A	A	A		A
Intersection Delay [s/veh]	8.36				
Intersection LOS	A				

EXISTING PLUS PROJECT

Placentia Avenue Industrial

Vistro File: E:\...\AME.vistro
Report File: E:\...\AMEP.pdf

Scenario 2 Existing Plus Project AM Peak Hour
4/18/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	NB Left	0.437	19.8	B
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	WB Thru	0.441	12.8	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.494	14.9	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Left	0.280	9.9	A
5	Wilson Ave (NS) at Project North Dwy (EW)	Two-way stop	HCM 7th Edition	WB Right	0.008	9.4	A
6	Wilson Ave (NS) at Project Central Dwy (EW)	Two-way stop	HCM 7th Edition	WB Left	0.018	10.7	B
7	Wilson Ave (NS) at Project South Dwy (EW)	Two-way stop	HCM 7th Edition	WB Right	0.009	9.6	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	19.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.437

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	203	103	31	105	18	15	165	9	85	556	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	13	0	0	0	3	0	0	1	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	203	103	44	105	18	15	168	9	85	557	107
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
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]	2	55	28	12	28	5	4	45	2	23	150	29
Total Analysis Volume [veh/h]	10	219	111	47	113	19	16	181	10	92	601	115
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	30	0	11	26	0	11	23	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	11	11	4	14	14	2	38	38	6	42	42
g / C, Green / Cycle	0.02	0.15	0.15	0.06	0.19	0.19	0.03	0.50	0.50	0.08	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.07	0.03	0.06	0.01	0.01	0.10	0.01	0.05	0.19	0.19
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1795
c, Capacity [veh/h]	34	282	240	108	360	306	50	947	805	146	1048	990
d1, Uniform Delay [s]	36.41	30.83	29.29	34.14	26.28	25.01	35.86	10.45	9.51	33.48	9.38	9.38
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.76	4.60	1.39	2.75	0.49	0.08	3.59	0.45	0.03	4.42	0.93	0.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.78	0.46	0.44	0.31	0.06	0.32	0.19	0.01	0.63	0.35	0.35
d, Delay for Lane Group [s/veh]	41.17	35.43	30.68	36.89	26.77	25.09	39.46	10.90	9.54	37.90	10.30	10.36
Lane Group LOS	D	D	C	D	C	C	D	B	A	D	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.22	3.99	1.84	0.88	1.71	0.27	0.32	1.49	0.08	1.69	2.90	2.76
50th-Percentile Queue Length [ft/ln]	5.48	99.78	46.03	21.99	42.74	6.82	8.00	37.28	1.88	42.34	72.40	68.92
95th-Percentile Queue Length [veh/ln]	0.39	7.18	3.31	1.58	3.08	0.49	0.58	2.68	0.14	3.05	5.21	4.96
95th-Percentile Queue Length [ft/ln]	9.87	179.60	82.85	39.58	76.92	12.28	14.41	67.11	3.39	76.22	130.33	124.06

Movement, Approach, & Intersection Results

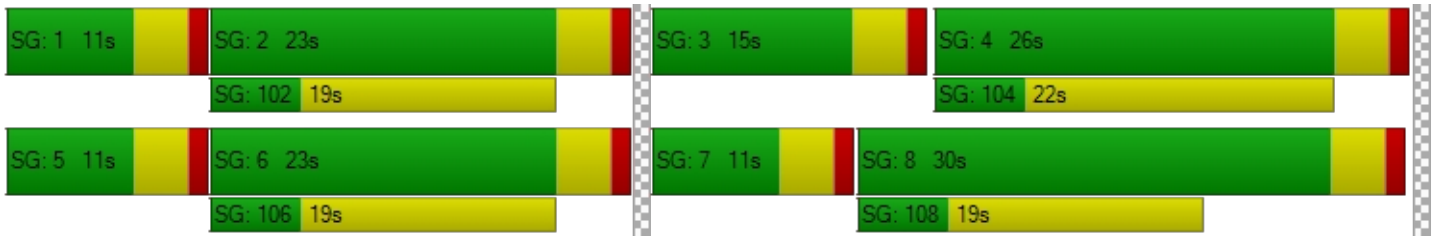
d_M, Delay for Movement [s/veh]	41.17	35.43	30.68	36.89	26.77	25.09	39.46	10.90	9.54	37.90	10.33	10.36
Movement LOS	D	D	C	D	C	C	D	B	A	D	B	B
d_A, Approach Delay [s/veh]	34.05			29.25			13.04			13.47		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.81											
Intersection LOS	B											
Intersection V/C	0.437											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.281	2.274	2.537	2.543
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	692	586	506	506
d_b, Bicycle Delay [s]	16.05	18.77	20.95	20.95
l_b,int, Bicycle LOS Score for Intersection	2.121	1.855	1.901	2.226
Bicycle LOS	B	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.441

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	150	239	39	22	139	30	42	142	73	32	185	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	9	0	0	0	0	34	0	2	8	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]	150	239	48	22	139	30	42	176	73	34	193	24
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
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]	41	66	13	6	38	8	12	48	20	9	53	7
Total Analysis Volume [veh/h]	165	263	53	24	153	33	46	194	80	37	212	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	491	527	545	476	509	561	486	519	574	500	540
Degree of Utilization, x	0.34	0.30	0.29	0.05	0.30	0.06	0.09	0.37	0.14	0.07	0.44

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.46	1.25	1.19	0.16	1.26	0.19	0.31	1.72	0.48	0.24	2.23
95th-Percentile Queue Length [ft]	36.61	31.29	29.87	3.97	31.39	4.67	7.81	42.99	12.06	5.97	55.77
Approach Delay [s/veh]	12.71			12.04			12.39			13.97	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	12.79										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.494

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	36	0	171	0	0	0	0	291	10	129	698	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	0	2	0	0	0	0	0	16	9	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	0	173	0	0	0	0	291	26	138	698	0
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
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	0	48	0	0	0	0	81	7	38	193	0
Total Analysis Volume [veh/h]	55	0	192	0	0	0	0	322	29	153	773	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	11	23	0	11	19	0	12	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	10	0	5	0	32	32	7	39	39
g / C, Green / Cycle	0.07	0.15	0.00	0.08	0.00	0.50	0.50	0.11	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.00	0.00	0.00	0.17	0.02	0.08	0.20	0.20
s, saturation flow rate [veh/h]	1810	1615	1810	1900	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	126	241	2	154	2	942	801	196	1146	1146
d1, Uniform Delay [s]	29.12	26.77	0.00	0.00	0.00	9.98	8.44	28.32	6.44	6.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.38	5.88	0.00	0.00	0.00	0.99	0.08	6.61	0.80	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.80	0.00	0.00	0.00	0.34	0.04	0.78	0.34	0.34
d, Delay for Lane Group [s/veh]	31.50	32.64	0.00	0.00	0.00	10.97	8.52	34.92	7.24	7.24
Lane Group LOS	C	C	A	A	A	B	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.86	3.07	0.00	0.00	0.00	2.40	0.18	2.46	1.99	1.99
50th-Percentile Queue Length [ft/ln]	21.55	76.79	0.00	0.00	0.00	59.95	4.54	61.54	49.80	49.80
95th-Percentile Queue Length [veh/ln]	1.55	5.53	0.00	0.00	0.00	4.32	0.33	4.43	3.59	3.59
95th-Percentile Queue Length [ft/ln]	38.80	138.22	0.00	0.00	0.00	107.92	8.18	110.78	89.64	89.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.50	32.64	32.64	0.00	0.00	0.00	0.00	10.97	8.52	34.92	7.24	7.24
Movement LOS	C	C	C	A	A	A	A	B	A	C	A	A
d_A, Approach Delay [s/veh]	32.39			0.00			10.76			11.81		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	14.91											
Intersection LOS	B											
Intersection V/C	0.494											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.088	1.925	2.630	2.643
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	584	584	461	492
d_b, Bicycle Delay [s]	16.33	16.33	19.28	18.52
l_b,int, Bicycle LOS Score for Intersection	1.967	1.560	2.139	2.324
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.280

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	72	96	1	1	79	46	84	75	44	1	117	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	1	10	43	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]	72	102	1	1	80	56	127	75	44	1	117	20
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
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]	20	28	0	0	22	15	34	20	12	0	32	5
Total Analysis Volume [veh/h]	78	111	1	1	87	61	138	81	48	1	127	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	680	712	589	674	687
Degree of Utilization, x	0.28	0.21	0.23	0.19	0.22

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.14	0.79	0.90	0.70	0.83
95th-Percentile Queue Length [ft]	28.59	19.63	22.58	17.58	20.68
Approach Delay [s/veh]	10.34	9.39	10.01		9.69
Approach LOS	B	A	B		A
Intersection Delay [s/veh]	9.91				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 5: Wilson Ave (NS) at Project North Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	7	19	0	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]	210	0	7	145	0	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	0	2	38	0	2
Total Analysis Volume [veh/h]	221	0	7	153	0	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
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	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	0.00	9.41
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.39	0.00	0.00	0.64
d_A, Approach Delay [s/veh]	0.00		0.34		9.41	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.31					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 6: Wilson Ave (NS) at Project Central Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	49	12	7	11	3
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]	207	49	12	133	11	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	13	3	35	3	1
Total Analysis Volume [veh/h]	218	52	13	140	12	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.79	0.00	10.67	9.62
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.75	0.00	1.70	1.70
d_A, Approach Delay [s/veh]	0.00		0.66		10.46	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.59					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Wilson Ave (NS) at Project South Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	49	0	7	11	0	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]	249	0	7	137	0	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	0	2	36	0	2
Total Analysis Volume [veh/h]	262	0	7	144	0	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.75	0.00	0.00	9.65
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.40	0.00	0.00	0.68
d_A, Approach Delay [s/veh]	0.00		0.36		9.65	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.29					
Intersection LOS	A					

Placentia Avenue Industrial

Vistro File: E:\...\PME.vistro
Report File: E:\...\PMEP.pdf

Scenario 2 Existing Plus Project PM Peak Hour
4/18/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	EB Left	0.437	19.7	B
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	SB Thru	0.410	11.3	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	NB Right	0.520	12.2	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Left	0.222	8.6	A
5	Wilson Ave (NS) at Project North Dwy (EW)	Two-way stop	HCM 7th Edition	WB Right	0.006	9.4	A
6	Wilson Ave (NS) at Project Central Dwy (EW)	Two-way stop	HCM 7th Edition	WB Left	0.066	10.9	B
7	Wilson Ave (NS) at Project South Dwy (EW)	Two-way stop	HCM 7th Edition	WB Right	0.006	9.5	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	19.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.437

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	77	98	36	194	24	14	362	16	63	327	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	10	0	0	0	2	0	0	3	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	77	98	46	194	24	14	364	16	63	330	53
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
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]	4	20	25	12	49	6	4	93	4	16	84	14
Total Analysis Volume [veh/h]	16	79	100	47	198	24	14	371	16	64	337	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	25	0	15	26	0	12	24	0	11	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	8	8	4	10	10	2	42	42	5	45	45
g / C, Green / Cycle	0.03	0.10	0.10	0.06	0.13	0.13	0.02	0.56	0.56	0.07	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.06	0.03	0.10	0.01	0.01	0.20	0.01	0.04	0.10	0.11
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1810
c, Capacity [veh/h]	50	193	164	108	254	216	45	1056	898	127	1142	1088
d1, Uniform Delay [s]	35.86	31.66	32.35	34.14	31.51	28.65	36.04	9.22	7.49	33.71	6.68	6.70
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.59	1.38	3.61	2.75	5.15	0.23	3.87	0.92	0.04	3.09	0.33	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.41	0.61	0.44	0.78	0.11	0.31	0.35	0.02	0.51	0.17	0.18
d, Delay for Lane Group [s/veh]	39.46	33.04	35.96	36.89	36.66	28.87	39.91	10.14	7.53	36.81	7.02	7.05
Lane Group LOS	D	C	D	D	D	C	D	B	A	D	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.33	1.36	1.83	0.88	3.67	0.38	0.29	2.88	0.10	1.16	1.16	1.12
50th-Percentile Queue Length [ft/ln]	8.19	34.09	45.81	21.99	91.85	9.46	7.13	72.06	2.52	29.01	28.88	28.06
95th-Percentile Queue Length [veh/ln]	0.59	2.45	3.30	1.58	6.61	0.68	0.51	5.19	0.18	2.09	2.08	2.02
95th-Percentile Queue Length [ft/ln]	14.74	61.37	82.45	39.58	165.33	17.03	12.83	129.71	4.53	52.21	51.98	50.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.46	33.04	35.96	36.89	36.66	28.87	39.91	10.14	7.53	36.81	7.03	7.05
Movement LOS	D	C	D	D	D	C	D	B	A	D	A	A
d_A, Approach Delay [s/veh]	35.06			36.01			11.07			11.22		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	19.75											
Intersection LOS	B											
Intersection V/C	0.437											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.258	2.242	2.520	2.479
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	559	586	533	506
d_b, Bicycle Delay [s]	19.49	18.77	20.21	20.95
l_b,int, Bicycle LOS Score for Intersection	1.881	2.003	2.221	1.935
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.410

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	67	135	17	43	225	38	47	170	104	18	78	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	19	0	8	29	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]	67	135	22	43	225	38	47	189	104	26	107	8
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
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]	17	35	6	11	58	10	12	49	27	7	28	2
Total Analysis Volume [veh/h]	69	139	23	44	232	39	48	195	107	27	110	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	509	547	563	525	566	634	530	571	640	517	559
Degree of Utilization, x	0.14	0.15	0.14	0.08	0.41	0.06	0.09	0.34	0.17	0.05	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.47	0.52	0.50	0.27	1.99	0.20	0.30	1.51	0.60	0.16	0.79
95th-Percentile Queue Length [ft]	11.67	12.93	12.49	6.83	49.79	4.91	7.43	37.69	14.93	4.12	19.80
Approach Delay [s/veh]	10.47			12.39			11.10			10.71	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	11.30										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	0	99	0	0	0	0	483	10	75	417	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	13	0	8	0	0	0	0	0	12	5	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	0	107	0	0	0	0	483	22	80	417	0
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
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]	6	0	29	0	0	0	0	130	6	22	112	0
Total Analysis Volume [veh/h]	24	0	115	0	0	0	0	520	24	86	449	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	24	0	11	23	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	6	0	4	0	37	37	6	43	43
g / C, Green / Cycle	0.04	0.09	0.00	0.06	0.00	0.57	0.57	0.09	0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.01	0.07	0.00	0.00	0.00	0.27	0.01	0.05	0.12	0.12
s, saturation flow rate [veh/h]	1810	1615	1810	1900	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	71	155	2	108	2	1086	923	156	1249	1249
d1, Uniform Delay [s]	30.48	28.71	0.00	0.00	0.00	8.23	6.07	28.58	4.35	4.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.73	6.91	0.00	0.00	0.00	1.51	0.05	3.00	0.32	0.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.74	0.00	0.00	0.00	0.48	0.03	0.55	0.18	0.18
d, Delay for Lane Group [s/veh]	33.21	35.62	0.00	0.00	0.00	9.75	6.12	31.58	4.66	4.66
Lane Group LOS	C	D	A	A	A	A	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	1.94	0.00	0.00	0.00	3.43	0.11	1.30	0.77	0.77
50th-Percentile Queue Length [ft/ln]	10.03	48.45	0.00	0.00	0.00	85.77	2.86	32.54	19.37	19.37
95th-Percentile Queue Length [veh/ln]	0.72	3.49	0.00	0.00	0.00	6.18	0.21	2.34	1.39	1.39
95th-Percentile Queue Length [ft/ln]	18.06	87.21	0.00	0.00	0.00	154.38	5.16	58.56	34.87	34.87

Movement, Approach, & Intersection Results

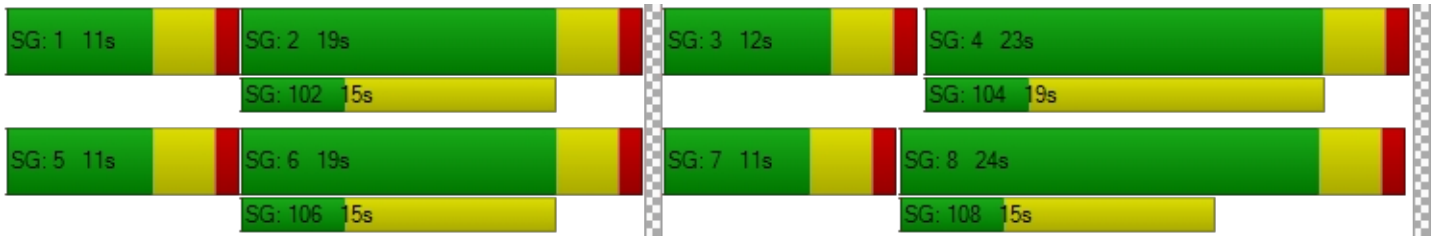
d_M, Delay for Movement [s/veh]	33.21	35.62	35.62	0.00	0.00	0.00	0.00	9.75	6.12	31.58	4.66	4.66
Movement LOS	C	D	D	A	A	A	A	A	A	C	A	A
d_A, Approach Delay [s/veh]	35.20			0.00			9.59			8.99		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	12.25											
Intersection LOS	B											
Intersection V/C	0.520											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.020	1.925	2.582	2.544
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	614	584	461	461
d_b, Bicycle Delay [s]	15.62	16.33	19.28	19.28
l_b,int, Bicycle LOS Score for Intersection	1.789	1.560	2.457	2.001
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.222

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	30	43	3	2	58	28	61	79	87	2	47	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	0	0	5	37	24	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]	30	46	3	2	63	65	85	79	87	2	47	7
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
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]	8	12	1	1	16	17	22	20	22	1	12	2
Total Analysis Volume [veh/h]	31	47	3	2	64	66	87	81	89	2	48	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	741	809	647	766	757
Degree of Utilization, x	0.11	0.16	0.13	0.22	0.08

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.37	0.58	0.46	0.85	0.24
95th-Percentile Queue Length [ft]	9.17	14.53	11.59	21.16	6.09
Approach Delay [s/veh]	8.45	8.32	8.87		8.14
Approach LOS	A	A	A		A
Intersection Delay [s/veh]	8.59				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 5: Wilson Ave (NS) at Project North Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	5	12	0	5
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]	216	0	5	138	0	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	0	1	36	0	1
Total Analysis Volume [veh/h]	227	0	5	145	0	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
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	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.67	0.00	0.00	9.43
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.28	0.00	0.00	0.46
d_A, Approach Delay [s/veh]	0.00		0.26		9.43	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.22					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 6: Wilson Ave (NS) at Project Central Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.066

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	27	7	5	42	11
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]	205	27	7	131	42	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	7	2	34	11	3
Total Analysis Volume [veh/h]	216	28	7	138	44	12
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			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.07	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.71	0.00	10.85	9.88
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.26	0.26
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.40	0.00	6.56	6.56
d_A, Approach Delay [s/veh]	0.00		0.37		10.64	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.46					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Wilson Ave (NS) at Project South Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	0	5	42	0	5
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]	227	0	5	168	0	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	0	1	44	0	1
Total Analysis Volume [veh/h]	239	0	5	177	0	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.70	0.00	0.00	9.50
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.28	0.00	0.00	0.47
d_A, Approach Delay [s/veh]	0.00		0.21		9.50	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	A					

OPENING YEAR (2026) WITHOUT PROJECT

Placentia Avenue Industrial

Vistro File: E:\...\AME.vistro

Scenario 3 Opening Year (2026) Without Project AM Peak Hour

Report File: E:\...\AMOYWO.pdf

4/18/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.528	22.3	C
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	NB Left	0.470	13.8	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.557	17.3	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	NB Thru	0.326	10.3	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	22.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	203	103	31	105	18	15	165	9	85	556	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	33	35	20	63	4	14	60	22	27	59	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	248	144	53	174	23	30	235	32	117	649	122
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
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]	7	67	39	14	47	6	8	63	9	32	175	33
Total Analysis Volume [veh/h]	27	268	155	57	188	25	32	254	35	126	700	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	26	0	11	26	0	11	23	0	15	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	5	15	15	3	34	34	7	38	38
g / C, Green / Cycle	0.04	0.17	0.17	0.07	0.20	0.20	0.05	0.46	0.46	0.09	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.10	0.03	0.10	0.02	0.02	0.13	0.02	0.07	0.23	0.23
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1797
c, Capacity [veh/h]	75	332	282	120	379	322	85	866	736	164	949	898
d1, Uniform Delay [s]	35.07	29.83	28.34	33.86	26.76	24.49	34.78	12.85	11.38	33.42	12.15	12.15
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.87	4.68	1.67	2.91	1.01	0.10	2.76	0.86	0.12	7.33	1.54	1.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.81	0.55	0.48	0.50	0.08	0.38	0.29	0.05	0.77	0.45	0.45
d, Delay for Lane Group [s/veh]	37.94	34.51	30.01	36.77	27.77	24.59	37.54	13.71	11.50	40.75	13.69	13.78
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.52	4.84	2.55	1.06	2.94	0.35	0.60	2.48	0.30	2.42	4.18	3.98
50th-Percentile Queue Length [ft/ln]	13.08	120.91	63.79	26.53	73.61	8.86	14.93	62.00	7.56	60.57	104.58	99.43
95th-Percentile Queue Length [veh/ln]	0.94	8.44	4.59	1.91	5.30	0.64	1.07	4.46	0.54	4.36	7.53	7.16
95th-Percentile Queue Length [ft/ln]	23.54	211.08	114.83	47.75	132.51	15.95	26.87	111.61	13.60	109.03	188.24	178.98

Movement, Approach, & Intersection Results

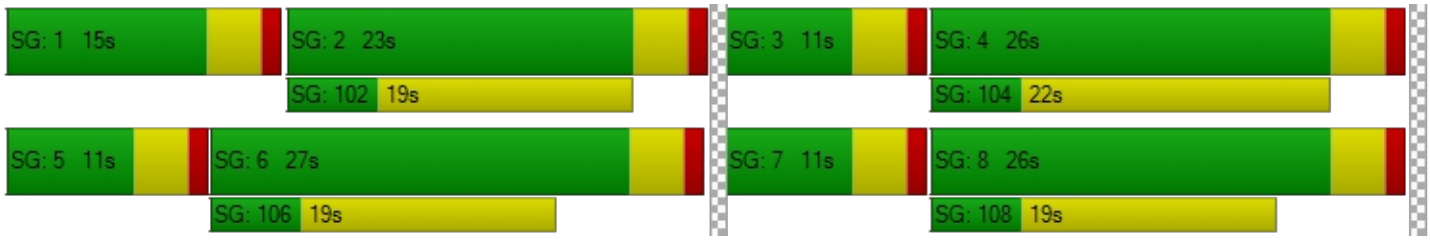
d_M, Delay for Movement [s/veh]	37.94	34.51	30.01	36.77	27.77	24.59	37.54	13.71	11.50	40.75	13.73	13.78
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	33.16			29.37			15.85			17.29		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.26											
Intersection LOS	C											
Intersection V/C	0.528											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.351	2.323	2.606	2.644
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	586	506	612
d_b, Bicycle Delay [s]	18.77	18.77	20.95	18.07
l_b,int, Bicycle LOS Score for Intersection	2.302	2.005	2.089	2.350
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.470

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	150	239	39	22	139	30	42	142	73	32	185	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	44	7	36	27	16	68	33	7	2	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]	165	298	48	59	174	48	113	184	84	36	212	25
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
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]	45	82	13	16	48	13	31	51	23	10	58	7
Total Analysis Volume [veh/h]	182	328	53	65	191	53	124	202	92	40	233	28
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	471	504	517	465	494	541	469	498	548	516	555
Degree of Utilization, x	0.39	0.38	0.37	0.14	0.39	0.10	0.26	0.41	0.17	0.08	0.47

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.80	1.75	1.68	0.48	1.81	0.32	1.05	1.94	0.60	0.25	2.50
95th-Percentile Queue Length [ft]	44.91	43.74	42.08	12.09	45.19	8.10	26.35	48.56	14.99	6.27	62.38
Approach Delay [s/veh]	14.28			13.17			13.36			14.21	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	13.81										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	17.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	36	0	171	0	0	0	0	291	10	129	698	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	5	0	0	12	50	34	11	14	82	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	0	186	0	0	12	50	343	22	151	823	0
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
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	0	51	0	0	3	14	95	6	42	228	0
Total Analysis Volume [veh/h]	53	0	206	0	0	13	55	380	24	167	911	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	11	23	0	11	19	0	12	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	10	0	6	4	31	31	8	34	34
g / C, Green / Cycle	0.07	0.16	0.00	0.09	0.07	0.48	0.48	0.12	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.03	0.13	0.00	0.01	0.03	0.20	0.01	0.09	0.24	0.24
s, saturation flow rate [veh/h]	1810	1615	1810	1615	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	123	257	2	149	126	908	772	211	998	998
d1, Uniform Delay [s]	29.17	26.43	0.00	27.10	29.12	11.11	9.02	28.03	9.67	9.67
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.37	5.75	0.00	0.25	2.38	1.42	0.07	6.51	1.51	1.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.80	0.00	0.09	0.44	0.42	0.03	0.79	0.46	0.46
d, Delay for Lane Group [s/veh]	31.54	32.18	0.00	27.35	31.50	12.53	9.09	34.54	11.17	11.17
Lane Group LOS	C	C	A	C	C	B	A	C	B	B
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.83	3.27	0.00	0.18	0.84	3.13	0.16	2.67	3.41	3.41
50th-Percentile Queue Length [ft/ln]	20.80	81.77	0.00	4.62	20.91	78.34	3.96	66.70	85.18	85.18
95th-Percentile Queue Length [veh/ln]	1.50	5.89	0.00	0.33	1.51	5.64	0.29	4.80	6.13	6.13
95th-Percentile Queue Length [ft/ln]	37.45	147.19	0.00	8.32	37.64	141.01	7.13	120.05	153.32	153.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.54	32.18	32.18	0.00	27.35	27.35	31.50	12.53	9.09	34.54	11.17	11.17
Movement LOS	C	C	C	A	C	C	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	32.05			27.35			14.62			14.79		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	17.31											
Intersection LOS	B											
Intersection V/C	0.557											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.096	1.951	2.705	2.725
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	584	584	461	492
d_b, Bicycle Delay [s]	16.33	16.33	19.28	18.52
l_b,int, Bicycle LOS Score for Intersection	1.987	1.581	2.317	2.449
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.326

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	72	96	1	1	79	46	84	75	44	1	117	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	13	0	0	9	9	22	1	17	0	1	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]	84	115	1	1	93	58	111	81	64	1	125	21
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
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	31	0	0	25	16	30	22	17	0	34	6
Total Analysis Volume [veh/h]	91	125	1	1	101	63	121	88	69	1	136	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	666	692	573	659	665
Degree of Utilization, x	0.33	0.24	0.21	0.24	0.24

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.42	0.93	0.79	0.92	0.94
95th-Percentile Queue Length [ft]	35.40	23.17	19.78	23.11	23.41
Approach Delay [s/veh]	11.01	9.83	10.20		10.12
Approach LOS	B	A	B		B
Intersection Delay [s/veh]	10.32				
Intersection LOS	B				

Placentia Avenue Industrial

Vistro File: E:\...\PME.vistro

Scenario 3 Opening Year (2026) Without Project PM Peak Hour

Report File: E:\...\PMOYWO.pdf

4/18/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.582	22.5	C
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	SB Thru	0.548	12.8	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	NB Right	0.593	14.3	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Right	0.266	8.9	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.582

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	77	98	36	194	24	14	362	16	63	327	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	47	28	22	39	12	8	49	13	39	69	26
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	129	132	60	245	37	23	433	30	106	416	72
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	33	34	15	63	9	6	110	8	27	106	18
Total Analysis Volume [veh/h]	62	132	135	61	250	38	23	442	31	108	424	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	14	26	0	11	23	0	15	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	12	12	5	12	12	3	36	36	6	39	39
g / C, Green / Cycle	0.07	0.16	0.16	0.07	0.16	0.16	0.04	0.47	0.47	0.08	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.03	0.07	0.08	0.03	0.13	0.02	0.01	0.23	0.02	0.06	0.13	0.13
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1804
c, Capacity [veh/h]	125	308	262	124	307	261	67	897	762	153	988	938
d1, Uniform Delay [s]	33.75	28.37	28.81	33.77	30.44	27.07	35.33	13.66	10.69	33.50	10.01	10.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.04	0.94	1.57	3.00	5.23	0.25	3.03	1.93	0.10	5.79	0.63	0.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.50	0.43	0.52	0.49	0.81	0.15	0.34	0.49	0.04	0.70	0.26	0.26
d, Delay for Lane Group [s/veh]	36.79	29.32	30.38	36.77	35.67	27.32	38.36	15.60	10.79	39.29	10.64	10.69
Lane Group LOS	D	C	C	D	D	C	D	B	B	D	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.15	2.12	2.23	1.13	4.59	0.58	0.44	4.76	0.26	2.03	2.06	1.98
50th-Percentile Queue Length [ft/ln]	28.83	53.02	55.82	28.37	114.73	14.46	11.04	118.89	6.39	50.79	51.39	49.43
95th-Percentile Queue Length [veh/ln]	2.08	3.82	4.02	2.04	8.10	1.04	0.79	8.33	0.46	3.66	3.70	3.56
95th-Percentile Queue Length [ft/ln]	51.90	95.44	100.48	51.06	202.57	26.03	19.87	208.31	11.51	91.43	92.50	88.98

Movement, Approach, & Intersection Results

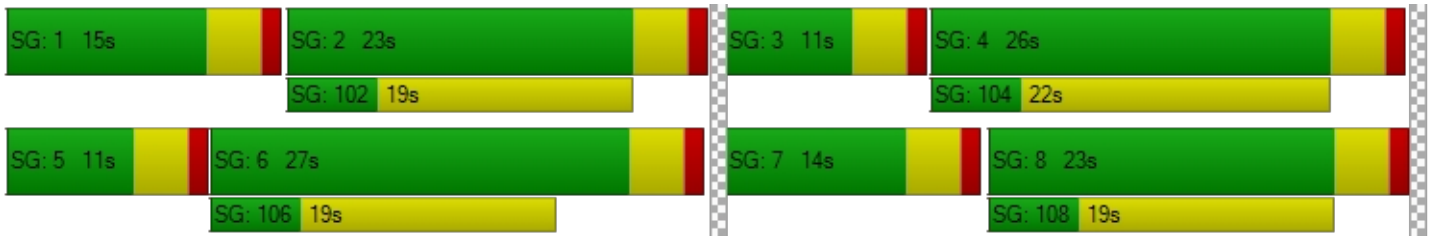
d_M, Delay for Movement [s/veh]	36.79	29.32	30.38	36.77	35.67	27.32	38.36	15.60	10.79	39.29	10.66	10.69
Movement LOS	D	C	C	D	D	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	31.16			34.95			16.35			15.77		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.54											
Intersection LOS	C											
Intersection V/C	0.582											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.328	2.288	2.591	2.578
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	506	586	506	612
d_b, Bicycle Delay [s]	20.95	18.77	20.95	18.07
l_b,int, Bicycle LOS Score for Intersection	2.102	2.135	2.378	2.059
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.548

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	67	135	17	43	225	38	47	170	104	18	78	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	33	3	19	48	59	36	27	9	6	37	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]	78	176	21	65	287	99	86	207	119	25	120	8
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
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]	20	45	5	17	74	26	22	53	31	6	31	2
Total Analysis Volume [veh/h]	80	181	22	67	296	102	89	213	123	26	124	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	482	516	527	504	540	600	501	537	595	513	550
Degree of Utilization, x	0.17	0.20	0.19	0.13	0.55	0.17	0.18	0.40	0.21	0.05	0.24

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.59	0.73	0.71	0.46	3.29	0.61	0.64	1.89	0.77	0.16	0.93
95th-Percentile Queue Length [ft]	14.74	18.14	17.68	11.42	82.21	15.20	15.99	47.17	19.28	4.00	23.27
Approach Delay [s/veh]	11.38			14.68			12.27			11.10	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	12.79										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	0	99	0	0	0	0	483	10	75	417	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	12	0	0	44	28	46	18	9	69	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	0	117	0	0	44	28	558	29	89	511	0
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
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]	7	0	32	0	0	12	8	150	8	24	138	0
Total Analysis Volume [veh/h]	27	0	126	0	0	47	30	601	31	96	551	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	24	0	11	23	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	7	0	4	3	36	36	6	39	39
g / C, Green / Cycle	0.04	0.10	0.00	0.06	0.05	0.56	0.56	0.09	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.08	0.00	0.03	0.02	0.32	0.02	0.05	0.15	0.15
s, saturation flow rate [veh/h]	1810	1615	1810	1615	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	78	170	2	102	85	1061	902	163	1143	1143
d1, Uniform Delay [s]	30.30	28.31	0.00	29.48	30.13	9.30	6.48	28.51	6.05	6.05
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.60	6.20	0.00	3.23	2.51	2.19	0.07	3.36	0.50	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.74	0.00	0.46	0.35	0.57	0.03	0.59	0.24	0.24
d, Delay for Lane Group [s/veh]	32.90	34.50	0.00	32.72	32.64	11.49	6.56	31.87	6.55	6.55
Lane Group LOS	C	C	A	C	C	B	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	2.08	0.00	0.76	0.48	4.51	0.16	1.46	1.32	1.32
50th-Percentile Queue Length [ft/ln]	11.15	52.03	0.00	19.04	11.91	112.67	3.92	36.51	33.01	33.01
95th-Percentile Queue Length [veh/ln]	0.80	3.75	0.00	1.37	0.86	7.99	0.28	2.63	2.38	2.38
95th-Percentile Queue Length [ft/ln]	20.06	93.66	0.00	34.28	21.44	199.71	7.05	65.71	59.42	59.42

Movement, Approach, & Intersection Results

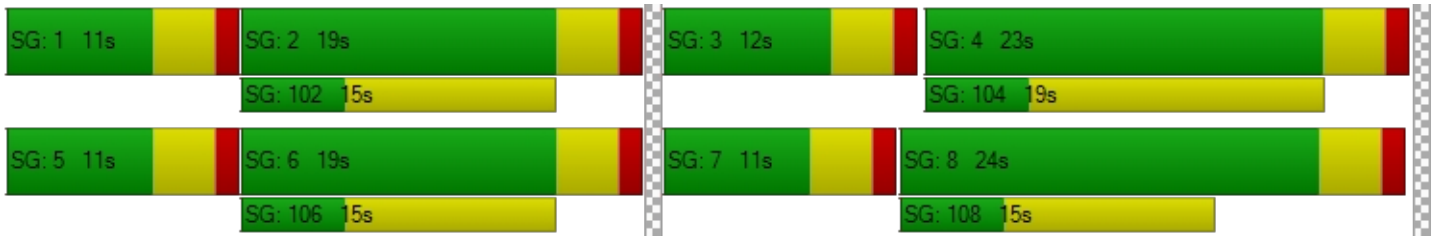
d_M, Delay for Movement [s/veh]	32.90	34.50	34.50	0.00	32.72	32.72	32.64	11.49	6.56	31.87	6.55	6.55
Movement LOS	C	C	C	A	C	C	C	B	A	C	A	A
d_A, Approach Delay [s/veh]	34.22			32.72			12.22			10.31		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.27											
Intersection LOS	B											
Intersection V/C	0.593											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.031	1.954	2.661	2.618
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	614	584	461	461
d_b, Bicycle Delay [s]	15.62	16.33	19.28	19.28
l_b,int, Bicycle LOS Score for Intersection	1.812	1.637	2.652	2.093
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.266

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	30	43	3	2	58	28	61	79	87	2	47	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	8	0	0	16	30	9	1	20	0	1	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]	44	54	3	2	78	60	74	85	112	2	51	7
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	14	1	1	20	15	19	22	29	1	13	2
Total Analysis Volume [veh/h]	45	55	3	2	80	61	75	87	114	2	52	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	727	785	635	754	736
Degree of Utilization, x	0.14	0.18	0.12	0.27	0.08

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.49	0.66	0.40	1.07	0.27
95th-Percentile Queue Length [ft]	12.32	16.59	10.00	26.83	6.76
Approach Delay [s/veh]	8.77	8.61	9.18		8.33
Approach LOS	A	A	A		A
Intersection Delay [s/veh]	8.88				
Intersection LOS	A				

OPENING YEAR (2026) WITH PROJECT

Placentia Avenue Industrial

Vistro File: E:\...\AME.vistro
Report File: E:\...\AMOYW.pdf

Scenario 4 Opening Year (2026) With Project AM Peak Hour
4/18/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.543	22.5	C
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Thru	0.491	14.4	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.566	17.6	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Left	0.345	10.8	B
5	Wilson Ave (NS) at Project North Dwy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.006	12.1	B
6	Wilson Ave (NS) at Project Central Dwy (EW)	Two-way stop	HCM 7th Edition	WB Left	0.020	11.1	B
7	Wilson Ave (NS) at Project South Dwy (EW)	Two-way stop	HCM 7th Edition	WB Right	0.010	10.0	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.543

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	203	103	31	105	18	15	165	9	85	556	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	33	35	33	63	4	14	63	22	27	60	35
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	248	144	66	174	23	30	238	32	117	650	135
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
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]	7	67	39	18	47	6	8	64	9	32	175	36
Total Analysis Volume [veh/h]	27	268	155	71	188	25	32	257	35	126	701	146
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	26	0	11	26	0	11	23	0	15	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	5	15	15	3	34	34	7	37	37
g / C, Green / Cycle	0.04	0.17	0.17	0.07	0.21	0.21	0.05	0.45	0.45	0.09	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.10	0.04	0.10	0.02	0.02	0.14	0.02	0.07	0.23	0.23
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1788
c, Capacity [veh/h]	75	331	282	133	392	333	85	853	725	164	936	881
d1, Uniform Delay [s]	35.07	29.84	28.35	33.61	26.30	24.07	34.78	13.21	11.67	33.42	12.56	12.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.87	4.71	1.68	3.33	0.91	0.09	2.76	0.91	0.13	7.33	1.67	1.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.81	0.55	0.54	0.48	0.08	0.38	0.30	0.05	0.77	0.47	0.47
d, Delay for Lane Group [s/veh]	37.94	34.55	30.03	36.94	27.21	24.16	37.54	14.11	11.80	40.75	14.23	14.33
Lane Group LOS	D	C	C	D	C	C	D	B	B	D	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.52	4.84	2.55	1.32	2.91	0.35	0.60	2.56	0.31	2.42	4.39	4.16
50th-Percentile Queue Length [ft/ln]	13.08	121.00	63.82	33.05	72.69	8.76	14.93	64.06	7.70	60.57	109.80	103.95
95th-Percentile Queue Length [veh/ln]	0.94	8.45	4.59	2.38	5.23	0.63	1.07	4.61	0.55	4.36	7.83	7.48
95th-Percentile Queue Length [ft/ln]	23.54	211.19	114.87	59.50	130.83	15.77	26.87	115.32	13.86	109.03	195.72	187.11

Movement, Approach, & Intersection Results

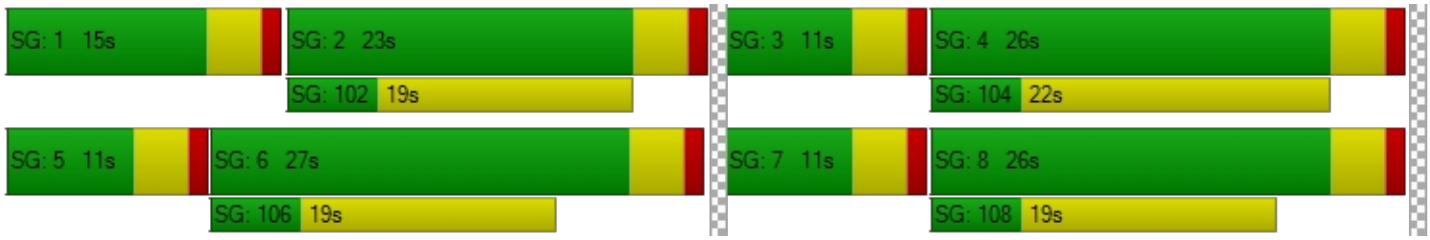
d_M, Delay for Movement [s/veh]	37.94	34.55	30.03	36.94	27.21	24.16	37.54	14.11	11.80	40.75	14.27	14.33
Movement LOS	D	C	C	D	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	33.19			29.37			16.18			17.71		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.53											
Intersection LOS	C											
Intersection V/C	0.543											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.351	2.331	2.607	2.656
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	586	506	612
d_b, Bicycle Delay [s]	18.77	18.77	20.95	18.07
l_b,int, Bicycle LOS Score for Intersection	2.302	2.028	2.094	2.362
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.491

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	150	239	39	22	139	30	42	142	73	32	185	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	44	16	36	27	16	68	67	7	4	24	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]	165	298	57	59	174	48	113	218	84	38	220	25
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
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]	45	82	16	16	48	13	31	60	23	10	61	7
Total Analysis Volume [veh/h]	182	328	63	65	191	53	124	240	92	42	242	28
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	464	494	509	457	486	531	465	494	543	513	550
Degree of Utilization, x	0.39	0.40	0.38	0.14	0.39	0.10	0.27	0.49	0.17	0.08	0.49

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.84	1.87	1.79	0.49	1.85	0.33	1.06	2.62	0.61	0.27	2.69
95th-Percentile Queue Length [ft]	46.05	46.77	44.72	12.31	46.33	8.27	26.62	65.41	15.16	6.67	67.25
Approach Delay [s/veh]	14.71			13.43			14.53			14.73	
Approach LOS	B			B			B			B	
Intersection Delay [s/veh]	14.42										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

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	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	36	0	171	0	0	0	0	291	10	129	698	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	0	7	0	0	12	50	34	27	23	82	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	0	188	0	0	12	50	343	38	160	823	0
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
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]	17	0	52	0	0	3	14	95	11	44	228	0
Total Analysis Volume [veh/h]	69	0	208	0	0	13	55	380	42	177	911	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	11	23	0	11	19	0	12	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	10	0	5	4	31	31	8	34	34
g / C, Green / Cycle	0.08	0.16	0.00	0.08	0.07	0.47	0.47	0.12	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.04	0.13	0.00	0.01	0.03	0.20	0.03	0.10	0.24	0.24
s, saturation flow rate [veh/h]	1810	1615	1810	1615	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	142	259	2	134	126	895	761	221	995	995
d1, Uniform Delay [s]	28.80	26.38	0.00	27.64	29.12	11.41	9.37	27.84	9.72	9.72
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.58	5.74	0.00	0.31	2.38	1.48	0.14	6.53	1.52	1.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.80	0.00	0.10	0.44	0.42	0.06	0.80	0.46	0.46
d, Delay for Lane Group [s/veh]	31.37	32.12	0.00	27.95	31.50	12.88	9.51	34.36	11.24	11.24
Lane Group LOS	C	C	A	C	C	B	A	C	B	B
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.07	3.30	0.00	0.19	0.84	3.20	0.29	2.82	3.42	3.42
50th-Percentile Queue Length [ft/ln]	26.87	82.48	0.00	4.71	20.91	80.12	7.17	70.45	85.60	85.60
95th-Percentile Queue Length [veh/ln]	1.93	5.94	0.00	0.34	1.51	5.77	0.52	5.07	6.16	6.16
95th-Percentile Queue Length [ft/ln]	48.37	148.47	0.00	8.47	37.64	144.21	12.91	126.81	154.07	154.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.37	32.12	32.12	0.00	27.95	27.95	31.50	12.88	9.51	34.36	11.24	11.24
Movement LOS	C	C	C	A	C	C	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	31.93			27.95			14.73			15.00		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	17.55											
Intersection LOS	B											
Intersection V/C	0.566											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.113	1.951	2.715	2.729
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	584	584	461	492
d_b, Bicycle Delay [s]	16.33	16.33	19.28	18.52
l_b,int, Bicycle LOS Score for Intersection	2.017	1.581	2.347	2.457
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.345

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	72	96	1	1	79	46	84	75	44	1	117	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	19	0	0	10	19	65	1	17	0	1	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]	84	121	1	1	94	68	154	81	64	1	125	21
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
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	33	0	0	26	18	42	22	17	0	34	6
Total Analysis Volume [veh/h]	91	131	1	1	102	74	167	88	69	1	136	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	646	673	565	648	645
Degree of Utilization, x	0.35	0.26	0.30	0.24	0.25

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.54	1.05	1.23	0.94	0.97
95th-Percentile Queue Length [ft]	38.47	26.32	30.69	23.60	24.33
Approach Delay [s/veh]	11.49	10.25	10.89		10.41
Approach LOS	B	B	B		B
Intersection Delay [s/veh]	10.83				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 5: Wilson Ave (NS) at Project North Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

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	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			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]	0	200	0	0	126	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0609	1.0000	1.0609	1.0609	1.0609	1.0609	1.0000	1.0000	1.0000	1.0000	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	36	0	7	37	3	3	0	0	0	0	7
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]	0	248	0	7	171	3	3	0	0	0	0	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	65	0	2	45	1	1	0	0	0	0	2
Total Analysis Volume [veh/h]	0	261	0	7	180	3	3	0	0	0	0	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.75	0.00	0.00	12.13	0.00	0.00	0.00	0.00	9.64
Movement LOS		A		A	A	A	B					A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.40	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.68
d_A, Approach Delay [s/veh]	0.00			0.29			12.13			9.64		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.34											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 6: Wilson Ave (NS) at Project Central Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	42	49	12	25	11	3
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]	254	49	12	159	11	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	13	3	42	3	1
Total Analysis Volume [veh/h]	267	52	13	167	12	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.90	0.00	11.06	9.93
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.79	0.00	1.82	1.82
d_A, Approach Delay [s/veh]	0.00		0.57		10.84	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.52					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Wilson Ave (NS) at Project South Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0000	1.0609	1.0609	1.0000	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	84	0	7	29	0	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]	296	0	7	163	0	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	0	2	43	0	2
Total Analysis Volume [veh/h]	312	0	7	172	0	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.87	0.00	0.00	9.96
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.42	0.00	0.00	0.72
d_A, Approach Delay [s/veh]	0.00		0.31		9.96	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.25					
Intersection LOS	A					

Placentia Avenue Industrial

Vistro File: E:\...\PME.vistro
Report File: E:\...\PMOYW.pdf

Scenario 4 Opening Year (2026) With Project PM Peak Hour
4/18/2024

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Redlands Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	WB Left	0.584	22.6	C
2	Redlands Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	SB Thru	0.559	13.2	B
3	Wilson Ave (NS) at Rider St (EW)	Signalized	HCM 7th Edition	SB Right	0.604	14.9	B
4	Wilson Ave (NS) at Placentia Ave (EW)	All-way stop	HCM 7th Edition	EB Left	0.273	9.2	A
5	Wilson Ave (NS) at Project North Dwy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.006	12.2	B
6	Wilson Ave (NS) at Project Central Dwy (EW)	Two-way stop	HCM 7th Edition	WB Left	0.071	11.3	B
7	Wilson Ave (NS) at Project South Dwy (EW)	Two-way stop	HCM 7th Edition	WB Right	0.006	9.7	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: Redlands Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	22.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	16	77	98	36	194	24	14	362	16	63	327	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	47	28	32	39	12	8	51	13	39	72	36
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	129	132	70	245	37	23	435	30	106	419	82
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	33	34	18	63	9	6	111	8	27	107	21
Total Analysis Volume [veh/h]	62	132	135	71	250	38	23	444	31	108	428	84
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	24	0	13	26	0	11	23	0	15	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	17	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	12	12	5	12	12	3	36	36	6	39	39
g / C, Green / Cycle	0.07	0.16	0.16	0.07	0.16	0.16	0.04	0.47	0.47	0.08	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.03	0.07	0.08	0.04	0.13	0.02	0.01	0.23	0.02	0.06	0.14	0.14
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1793
c, Capacity [veh/h]	125	299	254	133	307	261	67	897	762	153	988	932
d1, Uniform Delay [s]	33.75	28.70	29.15	33.61	30.44	27.07	35.33	13.68	10.69	33.50	10.06	10.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.04	1.03	1.73	3.32	5.23	0.25	3.03	1.95	0.10	5.79	0.66	0.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.50	0.44	0.53	0.54	0.81	0.15	0.34	0.50	0.04	0.70	0.27	0.27
d, Delay for Lane Group [s/veh]	36.79	29.73	30.87	36.93	35.67	27.32	38.36	15.63	10.79	39.29	10.72	10.78
Lane Group LOS	D	C	C	D	D	C	D	B	B	D	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.15	2.14	2.26	1.32	4.59	0.58	0.44	4.79	0.26	2.03	2.14	2.04
50th-Percentile Queue Length [ft/ln]	28.83	53.49	56.38	33.05	114.73	14.46	11.04	119.63	6.39	50.79	53.39	51.09
95th-Percentile Queue Length [veh/ln]	2.08	3.85	4.06	2.38	8.10	1.04	0.79	8.37	0.46	3.66	3.84	3.68
95th-Percentile Queue Length [ft/ln]	51.90	96.29	101.49	59.49	202.56	26.03	19.87	209.32	11.51	91.43	96.10	91.97

Movement, Approach, & Intersection Results

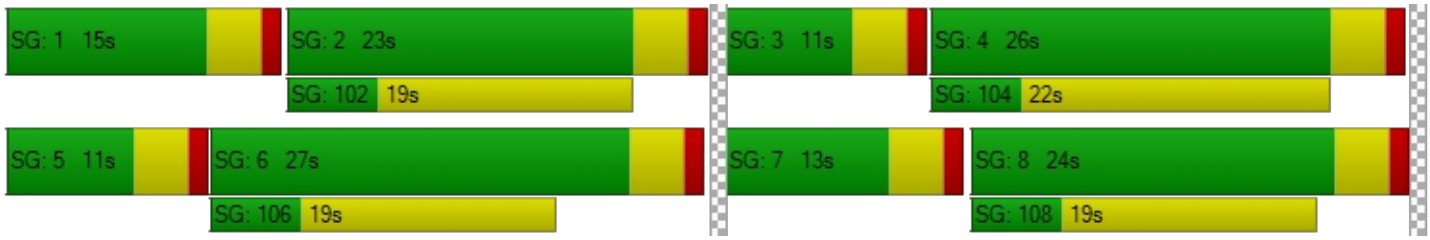
d_M, Delay for Movement [s/veh]	36.79	29.73	30.87	36.93	35.67	27.32	38.36	15.63	10.79	39.29	10.74	10.78
Movement LOS	D	C	C	D	D	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	31.53			35.03			16.38			15.72		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	22.62											
Intersection LOS	C											
Intersection V/C	0.584											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	29.09	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.328	2.294	2.592	2.588
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	586	506	612
d_b, Bicycle Delay [s]	20.21	18.77	20.95	18.07
l_b,int, Bicycle LOS Score for Intersection	2.102	2.152	2.381	2.071
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Redlands Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

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	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	67	135	17	43	225	38	47	170	104	18	78	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	33	8	19	48	59	36	46	9	14	66	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]	78	176	26	65	287	99	86	226	119	33	149	8
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
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]	20	45	7	17	74	26	22	58	31	9	38	2
Total Analysis Volume [veh/h]	80	181	27	67	296	102	89	233	123	34	154	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	474	506	518	495	530	588	496	530	587	511	547
Degree of Utilization, x	0.17	0.21	0.20	0.14	0.56	0.17	0.18	0.44	0.21	0.07	0.30

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.60	0.76	0.74	0.47	3.40	0.62	0.65	2.22	0.78	0.21	1.23
95th-Percentile Queue Length [ft]	15.04	19.12	18.55	11.64	85.04	15.59	16.20	55.48	19.61	5.33	30.77
Approach Delay [s/veh]	11.60			15.12			12.89			11.72	
Approach LOS	B			C			B			B	
Intersection Delay [s/veh]	13.20										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 3: Wilson Ave (NS) at Rider St (EW)

Control Type:	Signalized	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	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	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
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	100.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	9	0	99	0	0	0	0	483	10	75	417	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	28	0	20	0	0	44	28	46	30	14	69	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	0	125	0	0	44	28	558	41	94	511	0
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
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	0	34	0	0	12	8	150	11	25	138	0
Total Analysis Volume [veh/h]	41	0	135	0	0	47	30	601	44	101	551	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	120	120	0	120	120	0	120	120	0	120	120	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	24	0	11	24	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	8	0	4	3	35	35	6	38	38
g / C, Green / Cycle	0.06	0.12	0.00	0.06	0.05	0.54	0.54	0.09	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.08	0.00	0.03	0.02	0.32	0.03	0.06	0.15	0.15
s, saturation flow rate [veh/h]	1810	1615	1810	1615	1810	1900	1615	1810	1900	1900
c, Capacity [veh/h]	105	194	2	102	85	1030	875	166	1115	1115
d1, Uniform Delay [s]	29.60	27.54	0.00	29.48	30.13	10.01	7.03	28.49	6.51	6.51
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.35	4.44	0.00	3.24	2.51	2.42	0.11	3.58	0.53	0.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.70	0.00	0.46	0.35	0.58	0.05	0.61	0.25	0.25
d, Delay for Lane Group [s/veh]	31.95	31.98	0.00	32.72	32.64	12.43	7.14	32.08	7.04	7.04
Lane Group LOS	C	C	A	C	C	B	A	C	A	A
Critical Lane Group	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.65	2.13	0.00	0.76	0.48	4.81	0.24	1.54	1.41	1.41
50th-Percentile Queue Length [ft/ln]	16.33	53.19	0.00	19.04	11.91	120.34	5.96	38.55	35.30	35.30
95th-Percentile Queue Length [veh/ln]	1.18	3.83	0.00	1.37	0.86	8.41	0.43	2.78	2.54	2.54
95th-Percentile Queue Length [ft/ln]	29.40	95.74	0.00	34.28	21.44	210.30	10.73	69.39	63.54	63.54

Movement, Approach, & Intersection Results

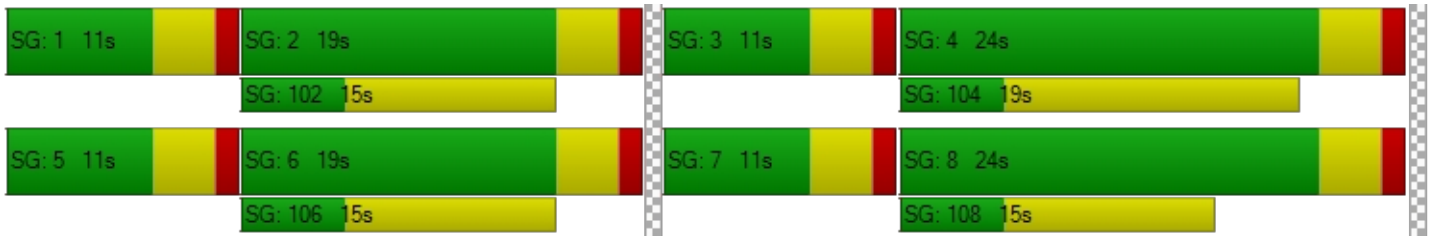
d_M, Delay for Movement [s/veh]	31.95	31.98	31.98	0.00	32.72	32.72	32.64	12.43	7.14	32.08	7.04	7.04
Movement LOS	C	C	C	A	C	C	C	B	A	C	A	A
d_A, Approach Delay [s/veh]	31.97			32.72			12.98			10.92		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.87											
Intersection LOS	B											
Intersection V/C	0.604											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.047	1.954	2.669	2.624
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	614	614	461	461
d_b, Bicycle Delay [s]	15.62	15.62	19.28	19.28
l_b,int, Bicycle LOS Score for Intersection	1.850	1.637	2.673	2.098
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Wilson Ave (NS) at Placentia Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.273

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	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	30	43	3	2	58	28	61	79	87	2	47	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	11	0	0	21	67	33	1	20	0	1	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]	44	57	3	2	83	97	98	85	112	2	51	7
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	15	1	1	21	25	25	22	29	1	13	2
Total Analysis Volume [veh/h]	45	58	3	2	85	99	100	87	114	2	52	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	708	782	621	736	712
Degree of Utilization, x	0.15	0.24	0.16	0.27	0.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.52	0.93	0.57	1.11	0.28
95th-Percentile Queue Length [ft]	13.12	23.14	14.27	27.74	7.00
Approach Delay [s/veh]	8.98	9.04	9.48		8.53
Approach LOS	A	A	A		A
Intersection Delay [s/veh]	9.19				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 5: Wilson Ave (NS) at Project North Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

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	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			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]	0	200	0	0	126	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0609	1.0000	1.0609	1.0609	1.0609	1.0609	1.0000	1.0000	1.0000	1.0000	1.0609
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	5	51	3	3	0	0	0	0	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]	0	243	0	5	185	3	3	0	0	0	0	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	64	0	1	49	1	1	0	0	0	0	1
Total Analysis Volume [veh/h]	0	256	0	5	195	3	3	0	0	0	0	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	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	0.01	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.74	0.00	0.00	12.16	0.00	0.00	0.00	0.00	9.60
Movement LOS		A		A	A	A	B					A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.29	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.48
d_A, Approach Delay [s/veh]	0.00			0.19			12.16			9.60		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	0.26											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 6: Wilson Ave (NS) at Project Central Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.071

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0609	1.0609	1.0609	1.0609	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	27	7	51	42	11
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]	234	27	7	185	42	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	7	2	49	11	3
Total Analysis Volume [veh/h]	246	28	7	195	44	12
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			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.07	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	7.78	0.00	11.33	10.12
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.28	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.41	0.00	7.05	7.05
d_A, Approach Delay [s/veh]	0.00		0.27		11.07	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.27					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Wilson Ave (NS) at Project South Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

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	1	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]	200	0	0	126	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0609	1.0000	1.0609	1.0609	1.0000	1.0609
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	0	5	88	0	5
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]	256	0	5	222	0	5
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	0	1	58	0	1
Total Analysis Volume [veh/h]	269	0	5	234	0	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.77	0.00	0.00	9.68
Movement LOS	A		A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.00	0.00	0.49
d_A, Approach Delay [s/veh]	0.00		0.16		9.68	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	A					

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