THE TERRACES AT WALNUT

TRAFFIC IMPACT ANALYSIS

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KUNZMAN ASSOCIATES, INC.
550 Parkcenter Drive, Suite 202 ■ Santa Ana, California 92868
(714) 973-8383 ■ www.kainc.us
JN 6345b

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EXECUTIVE SUMMARY

The purpose of this traffic impact analysis is to provide an assessment of traffic operations resulting from development of the proposed Walnut Ridge Specific Plan and to identify measures necessary to mitigate potentially significant traffic impacts. The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act (CEQA). The City of Walnut is the lead agency responsible for evaluation of potential environmental impacts associated with the proposed project. This traffic impact analysis includes Existing Plus Project conditions and Year 2025 (cumulative) traffic conditions.

Although this is a technical traffic impact analysist, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

A. Project Description

The approximately 49 acre project site is located along the north side of Valley Boulevard at the intersection of Faure Avenue. The proposed project consists of developing the currently vacant project site with 12 single-family detached residential dwelling units, 278 townhome residential dwelling units, and up to 30,000 square feet of commercial retail land uses. Full project access will be provided at the north leg of the Faure Avenue/Valley Boulevard intersection. Right-in/right-out only commercial access will be provided at Valley Boulevard west of Faure Avenue.

B. Traffic Conditions

The study intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions, except for the following study intersections that operate at unacceptable Levels of Service (see Table 1):

Grand Avenue (NS) at:
- La Puente Road (EW) - #5 (morning peak hour only);
- Valley Boulevard (EW) - #6 (evening peak hour only);

Faure Avenue (NS) at:
- Valley Boulevard (EW) - #12 (both morning and evening peak hours).

As shown in Table 2, the proposed project is forecast to generate a total of approximately 4,080 daily trips, 283 trips of which will occur during the morning peak hour and 247 trips of which will occur during the evening peak hour.

As shown in Table 4, the proposed project is forecast to result in a significant traffic impact at the following study intersections for Existing Plus Project traffic conditions without mitigation:

Grand Avenue (NS) at:

La Puente Road (EW) - #5	(both morning and evening peak hours)
Valley Boulevard (EW) - #6	(evening peak hour only)

With implementation of the identified mitigation measure, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project traffic conditions, with exception of the following study intersections:

Grand Avenue (NS) at:

Valley Boulevard (EW) - #6	(both morning and evening peak hours)

Due to right-of-way constraints, no feasible improvements could be identified for the intersection of Grand Avenue/Valley Boulevard (#6). The project traffic impact at this intersection is forecast to remain significant and unavoidable, thus requiring a statement of overriding considerations.

The proposed project is forecast to result in a significant traffic impact at the following study intersections for Year 2025 With Project traffic conditions without mitigation:

Pierre Road (NS) at:

Valley Boulevard (EW) - #1	(morning peak hour only)

Brea Canyon Road (NS) at:

Valley Boulevard (EW) - #2	(evening peak hour only)

Grand Avenue (NS) at:

Snow Creek Drive (EW) - #4	(morning peak hour only)
La Puente Road (EW) - #5	(both morning and evening peak hours)
Valley Boulevard (EW) - #6	(evening peak hour only)
Garcia Lane (EW) - #7	(both morning and evening peak hours)
SR-60 WB Ramps (EW) - #9	(without 57/60 Confluence Improvements, both morning and evening peak hours)
SR-60 EB Ramps (EW) - #10	(without 57/60 Confluence Improvements, both morning and evening peak hours)

With implementation of the identified mitigation measures and upon completion of the 57/60 Confluence Improvements, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Year 2025 With Project traffic conditions, with exception of the following study intersections:

Grand Avenue (NS) at:

Snow Creek Drive (EW) - #4	(morning peak hour only)
Valley Boulevard (EW) - #6	(evening peak hour only)

Striping improvements could add an third westbound through lane at the intersection of Brea Canyon Road/Valley Boulevard (#4); however, the westbound through lane is not a

critical movement. Therefore, the improvement would not mitigate or lessen the project impact. Due to constraints imposed by the bridge and rail crossing at Brea Canyon Road immediately south of the intersection, no additional improvements could be identified for the intersection Brea Canyon Road/Valley Boulevard (#4). Due to right-of-way constraints, no feasible improvements could be identified for the intersections of Snow Creek Drive/Valley Boulevard (#4) and Grand Avenue/Valley Boulevard (#6). Project traffic impacts at these intersections are forecast to remain significant and unavoidable, thus requiring a statement of overriding considerations.

C. Off-Site Mitigation Measures

The following mitigation measure is recommended for Existing Plus Project traffic conditions:

Mitigation Measure #1 **Grand Avenue/La Puente Road (#5)**

- Install right-turn overlap traffic signal phasing at the eastbound approach.

The following additional mitigation measures are recommended for Year 2025 With Project traffic conditions:

Mitigation Measure #2 **Pierre Road/Valley Boulevard (#1)**

- Construct the southbound approach to consist of one left-turn lane and one shared left/right-turn lane;
- Modify signal timing to provide exclusive pedestrian crossing phase for the east leg.
- Restripe the westbound approach to provide a third westbound through lane.

Mitigation Measure #3 **Grand Avenue/Garcia Lane (#7)**

- Restripe the northbound approach to provide one additional northbound through lane.

D. Circulation Recommendations

Site-specific circulation and access recommendations are depicted on Figure 26.

The project access at Faure Avenue/Valley Boulevard should be constructed with the following traffic control and lane configuration:

- Install a traffic signal;
- Construct the southbound approach to consist of one shared through/left-turn lane and one exclusive right-turn lane with right-turn overlap traffic signal phasing;
- Construct one eastbound left-turn lane;
- Construct one exclusive westbound right-turn lane.

The Faure Avenue/Shopping Center Driveway intersection should be constructed with the following traffic control and lane configuration:

- Install a STOP sign at the southbound approach supplemented with the "Oncoming Traffic Does Not Stop" plaque (W4-4bP);
- Install a STOP sign at the eastbound approach supplemented with the "Traffic From Right Does Not Stop" plaque (W4-4aP);
- Construct the northbound approach to consist of one left-turn lane and one through lane;
- Construct the southbound approach to consist of one shared through/right-turn lane;
- Construct the eastbound approach to consist of one shared left/right-turn lane;
- "KEEP CLEAR" markings and signage should be installed in the intersection for the southbound direction.

Construct Valley Boulevard along the project site frontage at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as required by the City.

On-site parking should be provided to meet City of Walnut parking code requirements or applicable standards as established by the Specific Plan.

Sight distance at project access points should comply with applicable City of Walnut sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

On-site traffic signing and striping should be implemented in accordance with detailed construction plans for the project and as approved by the City of Walnut.

As is the case for any roadway design, the City of Walnut should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

I. INTRODUCTION

This section describes the purpose of this traffic impact analysis, project location, proposed development, and study area. Figure 1 shows the project location map and Figure 2 illustrates the conceptual site plan.

A. Purpose and Objectives

The purpose of this traffic impact analysis is to provide an assessment of traffic operations resulting from development of the proposed Walnut Ridge Specific Plan and to identify measures necessary to mitigate potentially significant traffic impacts. The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act (CEQA). The City of Walnut is the lead agency responsible for evaluation of potential environmental impacts associated with the proposed project. This traffic impact analysis includes Existing Plus Project conditions and Year 2025 (cumulative) traffic conditions.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

B. Project Description

The approximately 49 acre project site is located along the north side of Valley Boulevard at the intersection of Faure Avenue. The proposed project consists of developing the currently vacant project site with up to 290 residential dwelling units, including 12 single-family detached residential dwelling units, up to 201 small-lot residential dwelling units (detached), and up to 83 townhome residential dwelling units, as well as up to 30,000 square feet of commercial retail land uses.

Full project access will be provided at the north leg of the Faure Avenue/Valley Boulevard intersection. Right-in/right-out only commercial access will be provided at Valley Boulevard west of Faure Avenue.

Project buildout is planned to occur over a period of three to seven years. For purposes of this traffic impact analysis, the seven year buildout time frame is conservative since it would result in additional background traffic growth. Therefore, this traffic impact analysis assumes the project will be completed and generating trips at its ultimate potential by year 2025.

C. Study Area

Based on scoping discussions with City staff, the study area consists of the following thirteen (13) study intersections within the City of Walnut, City of Industry, City of Pomona, Los Angeles County, and California Department of Transportation (Caltrans) jurisdiction:

Pierre Road (NS)[1] at:
Valley Boulevard (EW) – City of Walnut/Los Angeles County

Brea Canyon Road (NS) at:
Valley Boulevard (EW) – Los Angeles County

Grand Avenue (NS) at:
Amar Road/Temple Avenue (EW) – City of Walnut
Snow Creek Drive (EW) – City of Walnut
La Puente Road (EW) – City of Walnut
Valley Boulevard (EW) – Los Angeles County
Garcia Lane (EW) – City of Industry
Baker Parkway (EW) – City of Industry
SR-60 Westbound Ramps (EW) – Caltrans[2]
SR-60 Eastbound Ramps (EW) – Caltrans

Benton Road (NS) at:
Valley Boulevard (EW) – Los Angeles County

Faure Avenue (NS) at:
Valley Boulevard (EW) – Los Angeles County

Pomona Boulevard (NS) at:
Valley Boulevard (EW) – Los Angeles County

Based on the criteria identified in the Los Angeles County Congestion Management Program (CMP), the study area includes key intersections (intersection of two roadways with collector or higher classification) where the project is forecast to contribute 50 or more trips during the morning or evening peak commute periods. In accordance with CMP guidelines, roadway segments analysis is omitted since it is typically used only as a substitute when project definition is insufficient for meaningful intersection analysis. The study intersections are analyzed in accordance with the methodologies and significance criteria required by the respective jurisdictions.

D. Analysis Scenarios

In accordance with City of Walnut requirements, the following scenarios are analyzed:

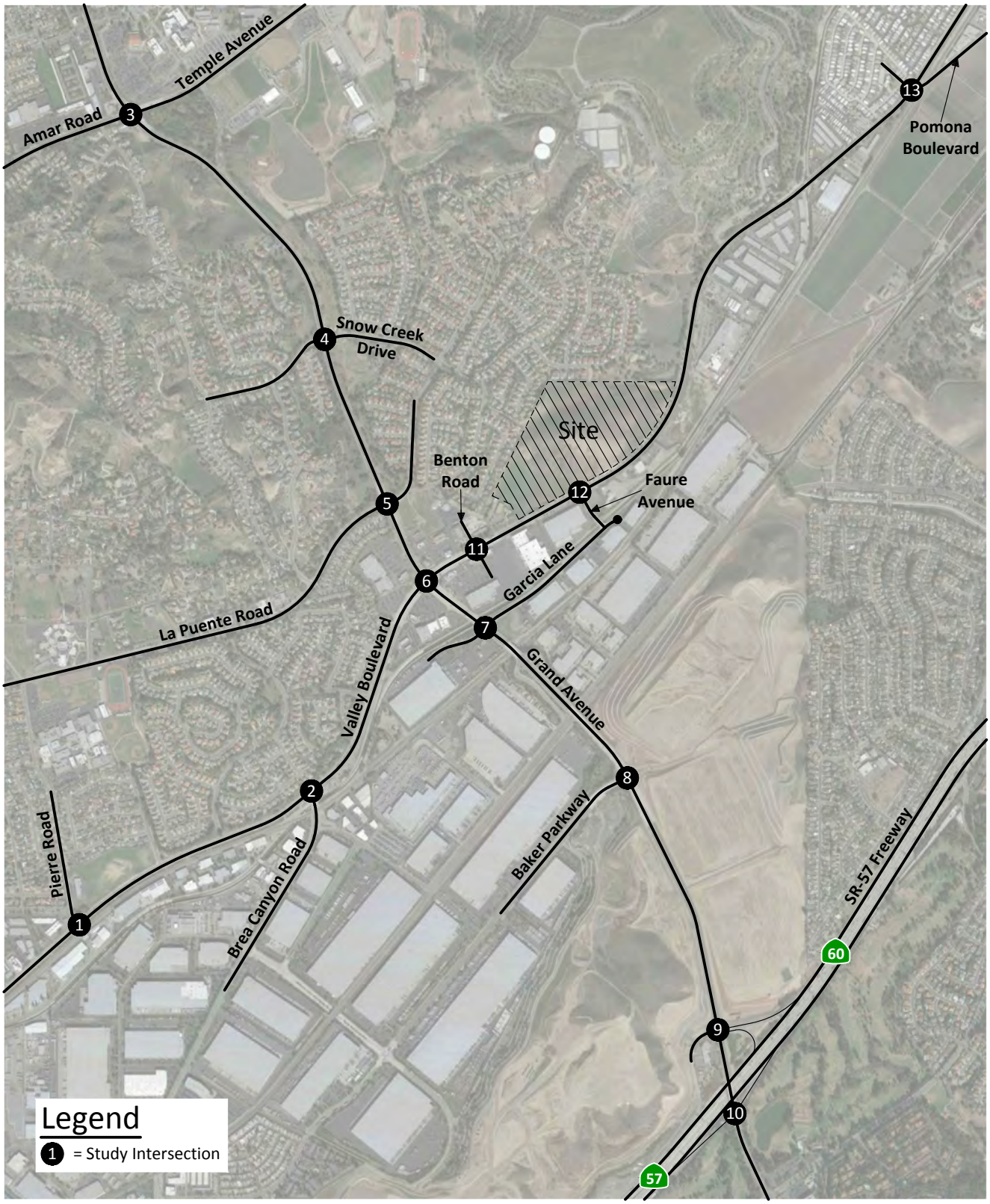
- Existing Conditions;
- Existing Plus Project Conditions[3];
- Year 2025 Without Project Conditions;
- Year 2025 With Project Conditions.

[1] (NS) = North-South roadway; (EW) = East-West roadway

[2] SR-60 = State Route 60; also provides access to/from State Route 57.

[3] The existing plus project conditions has been analyzed to comply with the Sunnyvale West Neighborhood Association v. City of Sunnyvale CEQA court case. This scenario assumes the full development of the proposed project and full absorption of the proposed project trips on the circulation system at the present time.

Figure 1
Project Location Map

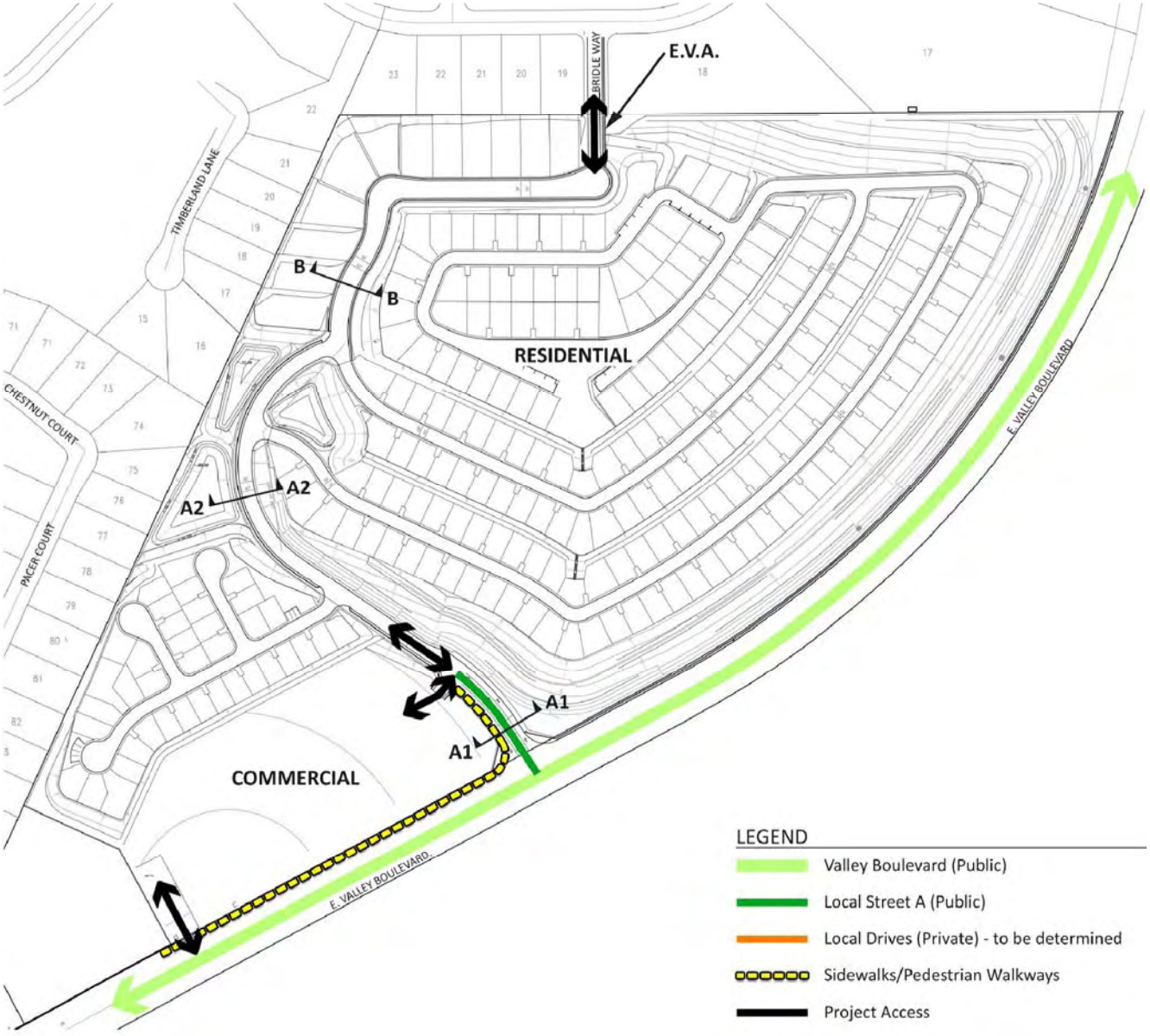


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Figure 2
Conceptual Site Plan



II. METHODOLOGY

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

A. Intersection Capacity Utilization Methodology

Analysis of signalized intersections within the City of Walnut, City of Industry, and County of Los Angeles is based on the Intersection Capacity Utilization methodology in accordance with guidance contained in the Los Angeles County Traffic Impact Analysis Report Guidelines (Public Works Department, January 1997). The Intersection Capacity Utilization methodology compares the volume of traffic using the intersection to the capacity of the intersection. The resulting Intersection Capacity Utilization value represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The volume to capacity ratio is then correlated to a performance measure known as Level of Service based on the following thresholds:

Level of Service	Intersection Capacity Utilization (ICU) Value
A	≤ 0.600
B	0.601 to 0.700
C	0.701 to 0.800
D	0.801 to 0.900
E	0.901 to 1.000
F	> 1.000

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).

In accordance with the Los Angeles County Traffic Impact Analysis Report Guidelines (Public Works Department, January 1997), the Intersection Capacity Utilization analysis uses the following parameters: 1,600 vehicles per hour per lane for through and turn lanes, 2,880 vehicles per hour for dual left-turn lanes, and a total yellow clearance time of 10 percent.

For the unsignalized study are intersections, the intersection delay methodology is used as discussed below.

B. Intersection Delay Methodology

The technique used to assess the performance of unsignalized intersections and intersections within Caltrans or City of Pomona jurisdiction is known as the intersection delay method based on the procedures contained in the Highway Capacity Manual. The

methodology compares the volume of traffic using the intersection to the capacity of the intersection to calculate the delay associated with the traffic control at the intersection. The intersection delay is then correlated to a performance measure known as 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

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).

In accordance with the City of Pomona Traffic Impact Study Guidelines (Public Works Department, February 2012), the City of Pomona intersection analysis uses the following parameters: optimized signal timing, two second lost time per phase, 1,800 vehicles per hour per lane for through and right-turn lanes, 1,700 vehicles per hour per lane for left-turn lanes, and 1,600 vehicles per hour per lane for dual left-turn lanes. State Highway intersections are analyzed based on measured existing peak hour factors, coordinated signal timing between freeway ramp intersections, and default saturation flow rates.

C. Performance Standards

City of Walnut. The current City of Walnut General Plan does not identify the minimum acceptable Level of Service for intersections in the City of Walnut.

City of Industry. The City of Industry General Plan has established Level of Service D as the minimum acceptable peak hour intersection Level of Service for intersections in the City of Industry.

City of Pomona. The City of Pomona General Plan designates Level of Service targets based on the place/facility type. For the intersection of Pomona Boulevard/Valley Boulevard, Level of Service E is the applicable minimum acceptable Level of Service since Valley Boulevard is a major arterial located along a high volume vehicular corridor.

County of Los Angeles. The County of Los Angeles General Plan states that the acceptable Level of Service is determined on a case-by-case basis, but Level of Service D is generally the desired minimum acceptable Level of Service.

Caltrans. As stated in the Guide for the Preparation of Traffic Impact Studies (State of California, 2002), "Caltrans endeavors to maintain a target LOS [Level of Service] at the transition between LOS "C" and LOS "D" on State highway facilities". Caltrans acknowledges this may not always be feasible and recommends consultation with Caltrans to determine the appropriate target Level of Service. For consistency with local requirements, this analysis defines Level of Service D as the minimum acceptable Level of Service for State Highway facilities.

D. Thresholds of Significance

City of Walnut, City of Industry and Los Angeles County. As established in the Los Angeles County Traffic Impact Analysis Report Guidelines (Public Works Department, January 1997), a project traffic impact is considered significant if the project related increase in the volume to capacity ratio equals or exceeds the thresholds shown below:

Pre-Project Conditions		Project-Related Volume/Capacity Increase
LOS	Volume/Capacity	
C	0.71 - 0.80	0.04 or more
D	0.81 - 0.90	0.02 or more
E/F	0.91 - more	0.01 or more

City of Pomona. Based on the City of Pomona Traffic Impact Study Guidelines (Public Works Department, February 2012) and performance criteria established in the latest City of Pomona General Plan, a potentially significant traffic impact is defined to occur if:

- The addition of project-generated trips is forecast to cause the performance of a signalized study intersection to degrade from acceptable operation to deficient operation (i.e., Level of Service E or better degrades to Level of Service F for Pomona Boulevard/Valley Boulevard); or

- The addition of project-generated trips is forecast to increase the overall intersection delay at a signalized study intersection established to be operating deficiently under pre-project conditions.

Caltrans. Based on the Caltrans-established performance standards, a potentially significant traffic impact is defined to occur if the addition of project-generated trips is forecast to cause the performance of a State Highway study intersection to change from acceptable operation (Level of Service D or better) to deficient operation (Level of Service E or F).

If a project is forecast to cause a significant impact, feasible mitigation measures that will reduce the impact to a less than significant level will be identified. Mitigation measures can be in many forms, including the addition of lanes, traffic control modification, or demand management measures. If no feasible mitigation measures can be identified for a significantly impacted facility, the impact will remain significant and unavoidable and a statement of overriding considerations will be required.

III. EXISTING CONDITIONS

A. Existing Roadway System

Figure 3 identifies the existing number of through lanes and intersection geometry/traffic controls based on a field survey of the study area.

Regional access to the project area is provided by State Route 57/60 to the south, State Route 57 to the northeast, and Interstate 10 to the north. State Route 57/60 and Interstate 10 can be accessed via Grand Avenue, which intersects Valley Boulevard west of the project site. State Route 57 can be accessed via Temple Avenue, which intersects Valley Boulevard to the northeast of the project site.

Key north-south roadways providing local access include Pierre Road, Brea Canyon Road, and Faure Avenue. Key east-west roadways providing local access include Amar Road, Temple Avenue, Snow Creek Drive, La Puente Road, Valley Boulevard, and Garcia Lane.

B. Existing Traffic Volumes

Existing peak hour traffic volumes are based upon morning peak period and evening peak period intersection turning movement counts obtained in October 2015 and May 2016 during typical weekday conditions when local schools and universities were in session. The morning peak period was counted between 7:00 AM and 9:00 AM and the evening peak period was counted between 4:00 PM and 6:00 PM. The actual peak hour within the peak period is the four consecutive 15-minute periods with the highest total volume when all movements are added together. Thus, the weekday evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest combined volume. Traffic count worksheets are provided in Appendix B.

A traffic count comparison indicated the peak hour traffic volumes collected in October 2015 were approximately 11-percent and 15-percent greater during the morning and evening peak hours, respectively, than the traffic volumes collected in May 2016. Therefore, the morning and evening peak hour traffic volumes were increased by 11-percent and 15-percent, respectively, for locations that were only counted in May 2016. The greater peak hour traffic volumes were used for locations that were counted in both October 2015 and May 2016. An additional traffic volume comparison with more recent traffic counts collected in October 2016 demonstrated that the October 2015/adjusted May 2016 traffic volumes were higher. To provide a conservative analysis, the October 2015/adjusted May 2016 traffic volumes were used in this analysis. Traffic count comparison and adjustment calculations are contained in Appendix C.

Figure 4 and Figure 5 show the existing morning peak hour and evening peak hour intersection turning movement volumes, respectively.

C. Existing Intersection Capacity Utilization/Delay and Level of Service

The study Intersection Capacity Utilization/delay and Levels of Service for existing traffic conditions have been calculated and are shown in Table 1. Existing Level of Service 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 traffic conditions, except for the following study intersections that operate at generally unacceptable Levels of Service (E or F):

Grand Avenue (NS) at:
- La Puente Road (EW) - #5 (morning peak hour only);
- Valley Boulevard (EW) - #6 (evening peak hour only);

Faure Avenue (NS) at:
- Valley Boulevard (EW) - #12 (both morning and evening peak hours).

D. City of Walnut General Plan Circulation Element

Figure 6 shows the City of Walnut General Plan Circulation Element. This figure shows the nature and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan.

E. Existing Pedestrian, Bicycle, and Transit Facilities

Existing pedestrian facilities in the vicinity of the project site are shown on Figure 7. As shown on Figure 7, there is currently no sidewalk provided on the north side of Valley Boulevard along the project site frontage. Figure 8 shows the City of Walnut trail guide. There are currently no bicycle facilities along Valley Boulevard in the project vicinity.

Figure 9 shows existing transit service within the City of Walnut. As shown on Figure 9, Foothill Transit Routes 289/486 and Metro Routes 190/194 provide transit service along parts of Grand Avenue, Temple Avenue, Amar Road, La Puente Road, and Valley Boulevard. The nearest transit stop is for Metro Route 194 located at the intersection of Grand Avenue/Valley Boulevard approximately one-quarter mile from the project site.

Table 1

Existing Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Jurisdiction[1]	Traffic Control[2]	Intersection Approach Lanes[3]												Peak Hour ICU/Delay-LOS[4]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Pierre Road (NS) at:																
Valley Boulevard (EW) - #1	Wal./LAC	TS	0	0	0	1	0	1	1	3	0	0	2	d	0.866-D	0.740-C
Brea Canyon Road (NS) at:																
Valley Boulevard (EW) - #2	LAC	TS	2	0	2>	0	0	0	0	2.5	0.5	2	2	0	0.696-B	0.878-D
Grand Avenue (NS) at:																
Amar Road/Temple Avenue (EW) - #3	Wal.	TS	2	3	1>	2	2.5	0.5	2	2	1>	2	2	1>	0.872-D	0.768-C
Snow Creek Drive (EW) - #4	Wal.	TS	1	2	d	1	2	d	0.5	0.5	d	0.5	0.5	d	0.829-D	0.821-D
La Puente Road (EW) - #5	Wal.	TS	1	2	1	1	2	1>	1.5	0.5	1	1.5	1	0.5	0.936-E	0.885-D
Valley Boulevard (EW) - #6	LAC	TS	2	3	1>>	2	3	1	2	3	1>>	2	3	1	0.828-D	0.918-E
Garcia Lane (EW) - #7	Ind.	TS	1	2	d	1	2.5	0.5	1	0.5	0.5	1	0.5	0.5	0.731-C	0.639-B
Baker Parkway (EW) - #8	Ind.	TS	2	2	0	0	3	1>>	2	0	1>>	0	0	0	0.818-D	0.554-A
SR-60 WB Ramps (EW) - #9	Caltrans	TS	1	2	1>	1.5	1.5	0.5	1	0.5	0.5	1.3	0.3	1.3>	32.0-C	43.2-D
SR-60 EB Ramps (EW) - #10	Caltrans	TS	0	2.5	0.5	1	3	0	2	0	1	0	0	0	24.7-C	20.6-C
Benton Road (NS) at:																
Valley Boulevard (EW) - #11	LAC	TS	0.5	0.5	d	0.5	0.5	d	1	3.5	0.5	1	2.5	0.5	0.464-A	0.655-B
Faure Avenue (NS) at:																
Valley Boulevard (EW) - #12	LAC	CSS	1	0	d	0	0	0	0	2	d	1	2	0	>99.9-F	>99.9-F
Pomona Boulevard (NS) at:																
Valley Boulevard (EW) - #13	Pom.	TS	1.3	0.3	0.3	1	0	d	1	2	1>>	0	1.5	0.5	18.9-B	12.3-B

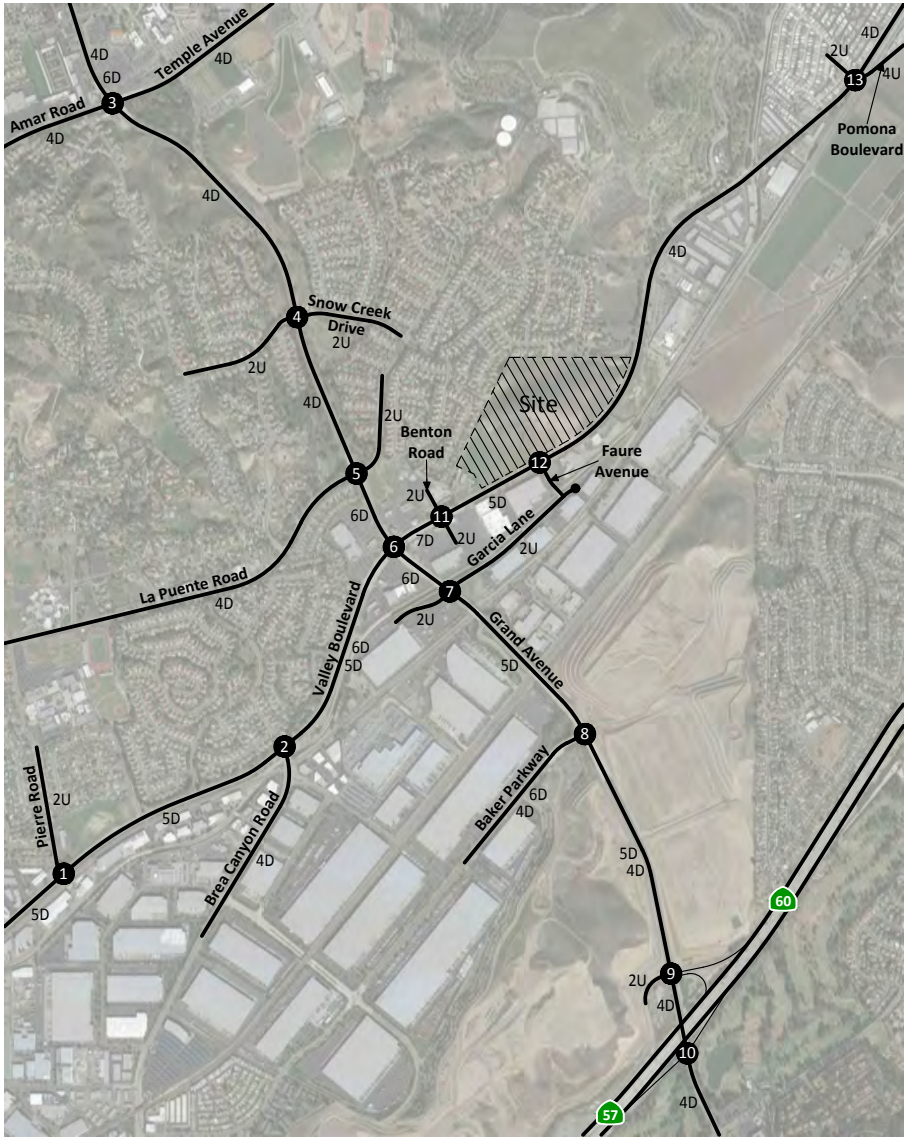
[1] Wal. = City of Walnut; LAC = Los Angeles County; Ind. = City of Industry; Caltrans = California Department of Transportation; Pom. = City of Pomona

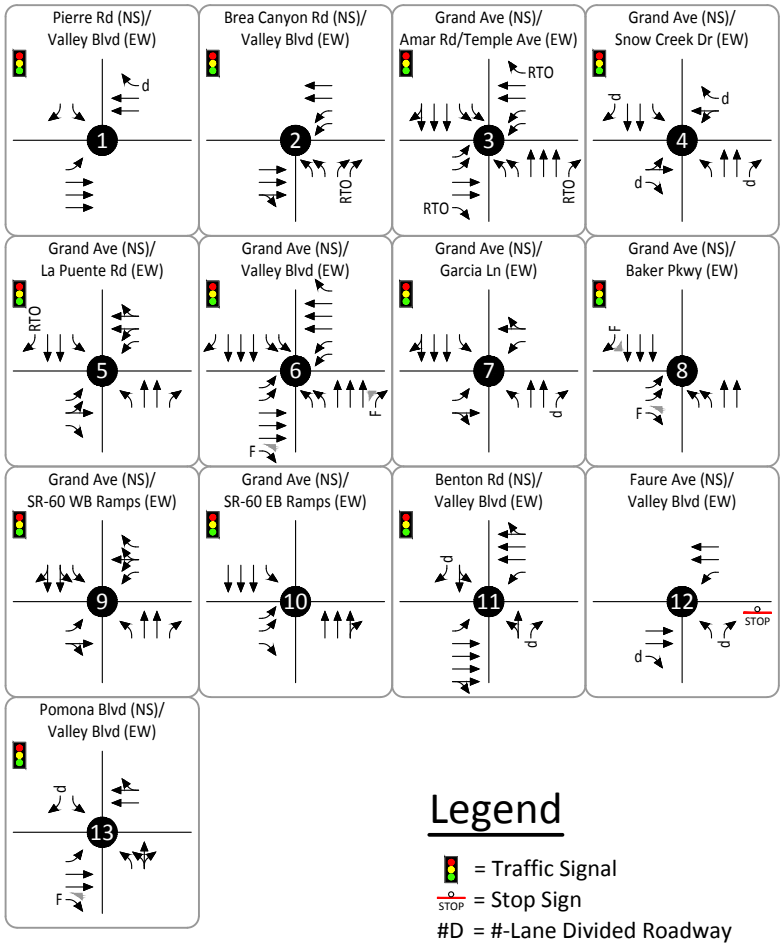
[2] TS = Traffic Signal; CSS = Cross Street Stop

[3] L = Left; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Overlap; d = De Facto Right Turn Lane

[4] ICU = Intersection Capacity Utilization; LOS = Level of Service;
ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

Figure 3
Existing Through Travel Lanes and Intersection Geometry/Controls





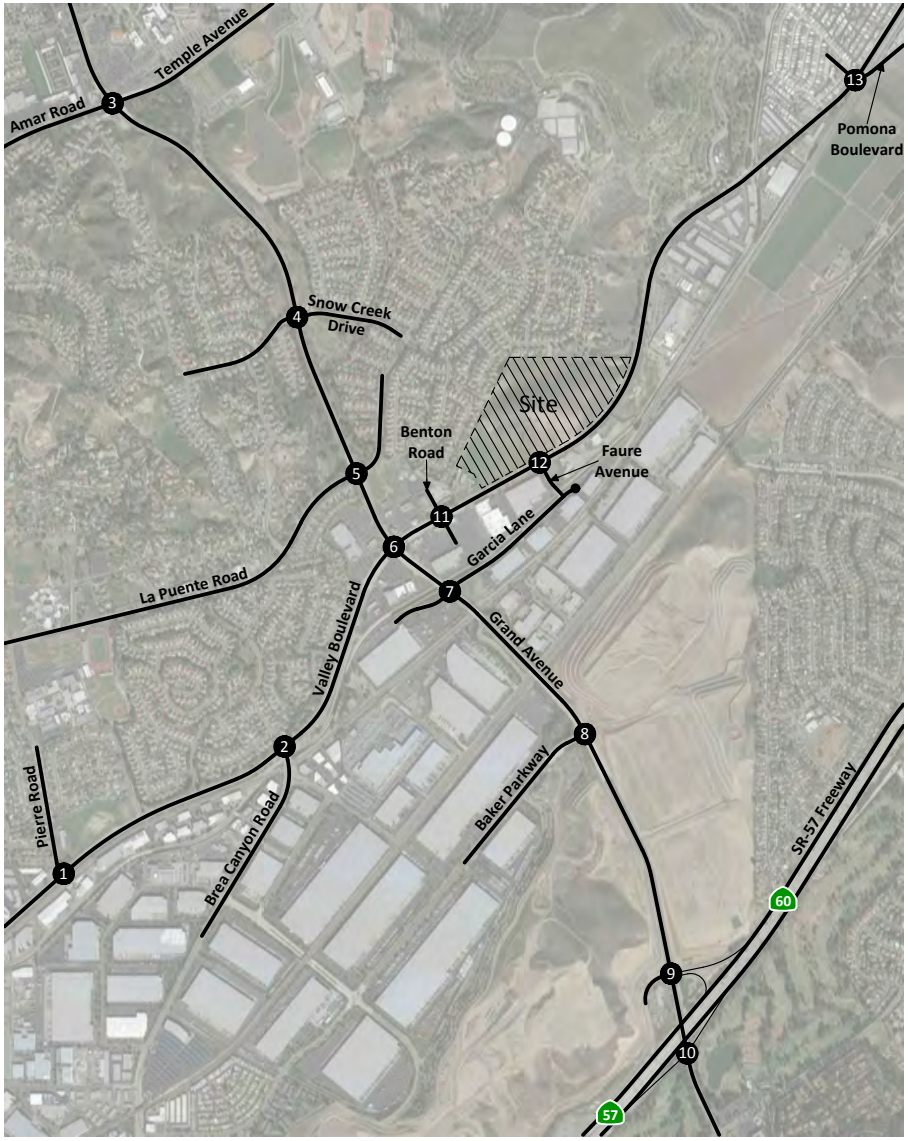
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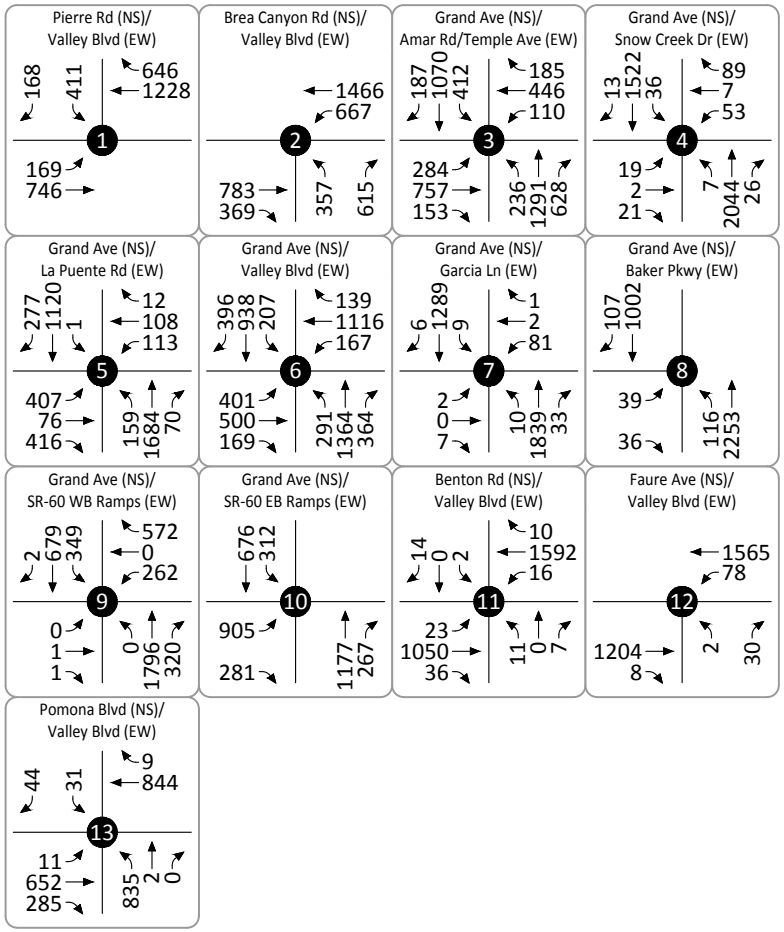
1 = Study Intersection

Legend

= Traffic Signal
= Stop Sign
#D = #-Lane Divided Roadway
#U = #-Lane Undivided Roadway
= Existing Lane
RTO = Right Turn Overlap
F = Free Right Turn
d = De Facto Right Turn

Figure 4
Existing Morning Peak Hour Intersection Turning Movement Volumes

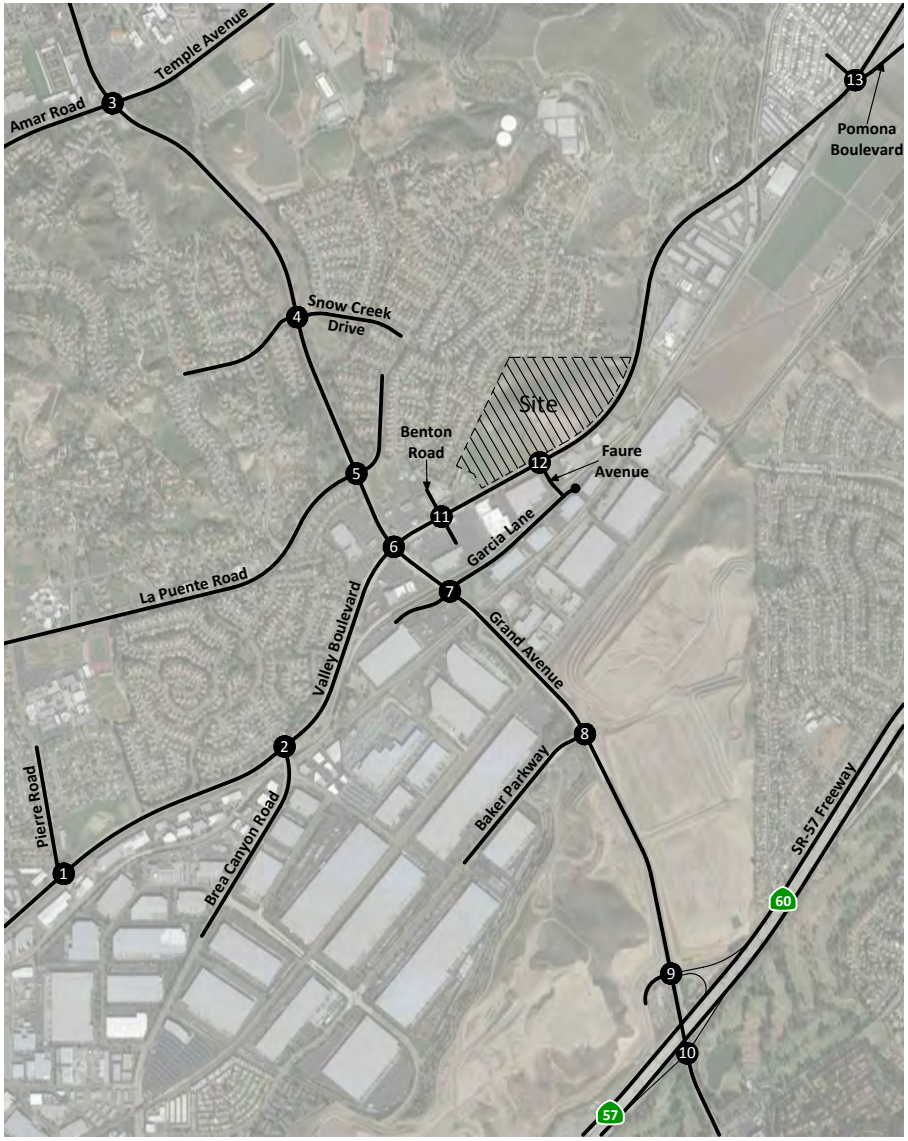


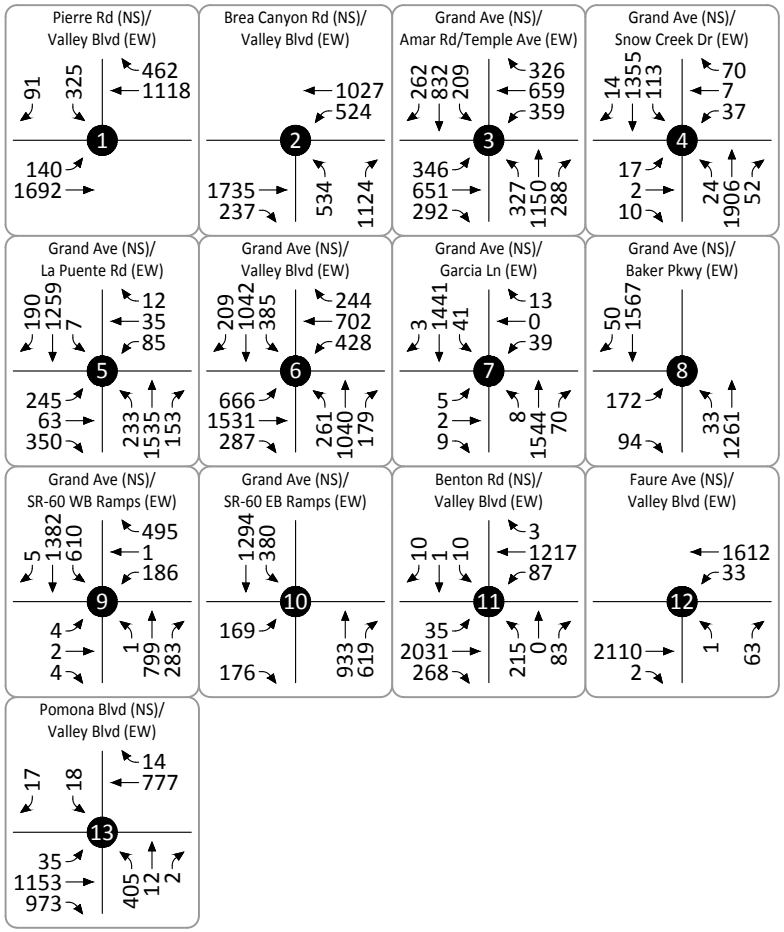


Legend

1 = Study Intersection

Figure 5
Existing Evening Peak Hour Intersection Turning Movement Volumes

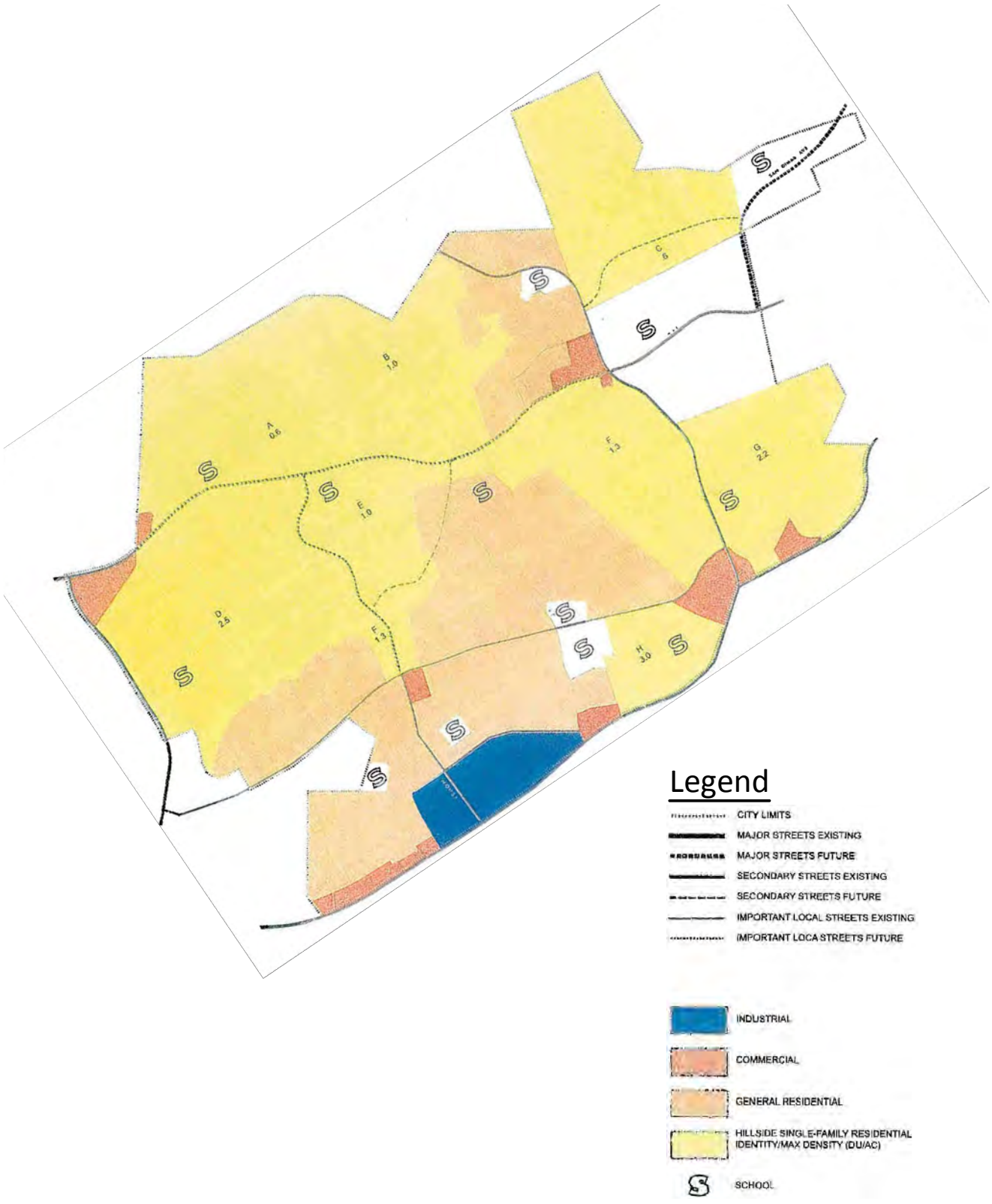




Legend

1 = Study Intersection

Figure 6
City of Walnut General Plan Circulation Element



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Source: City of Walnut

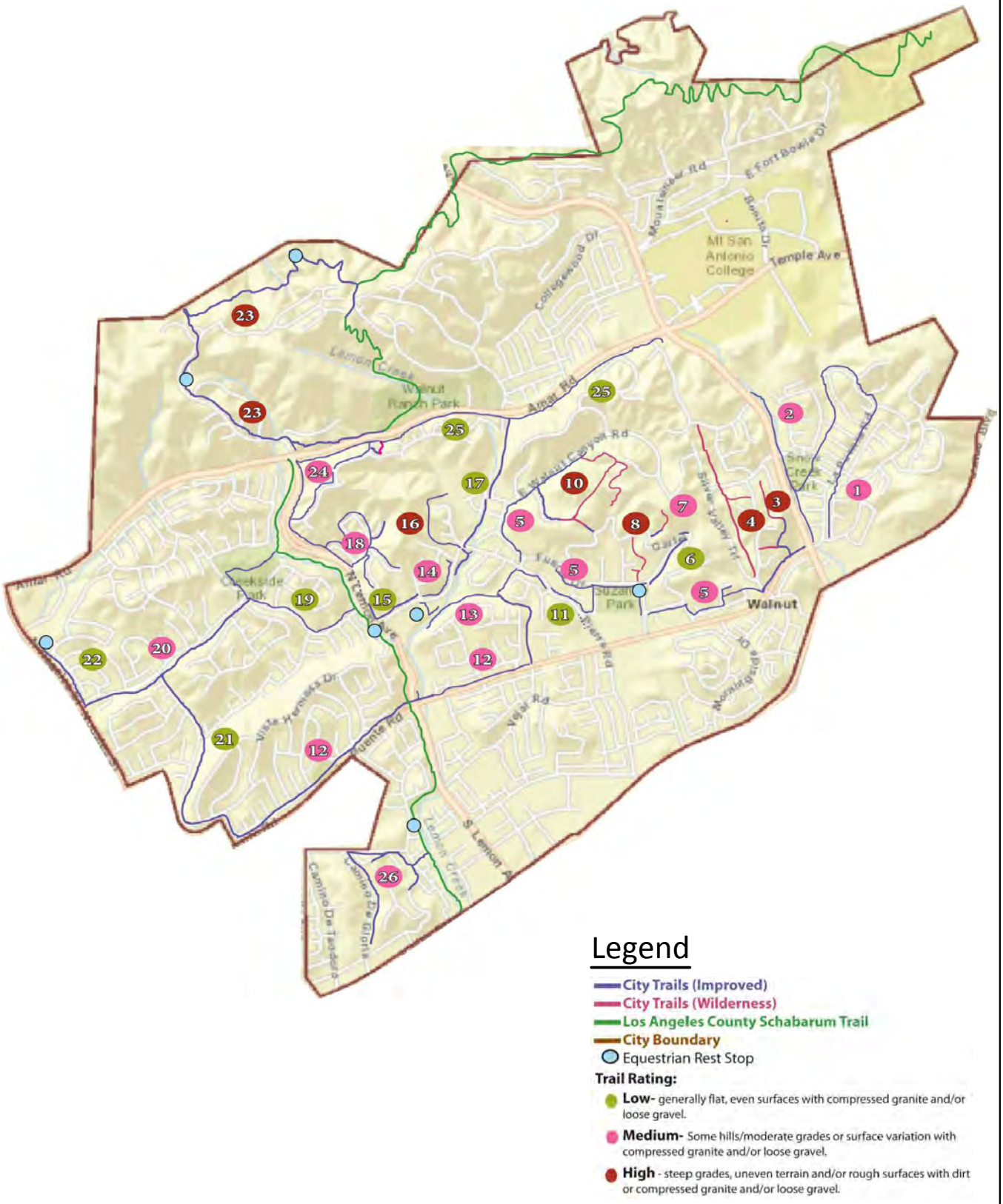
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Figure 7
Existing Pedestrian Facilities

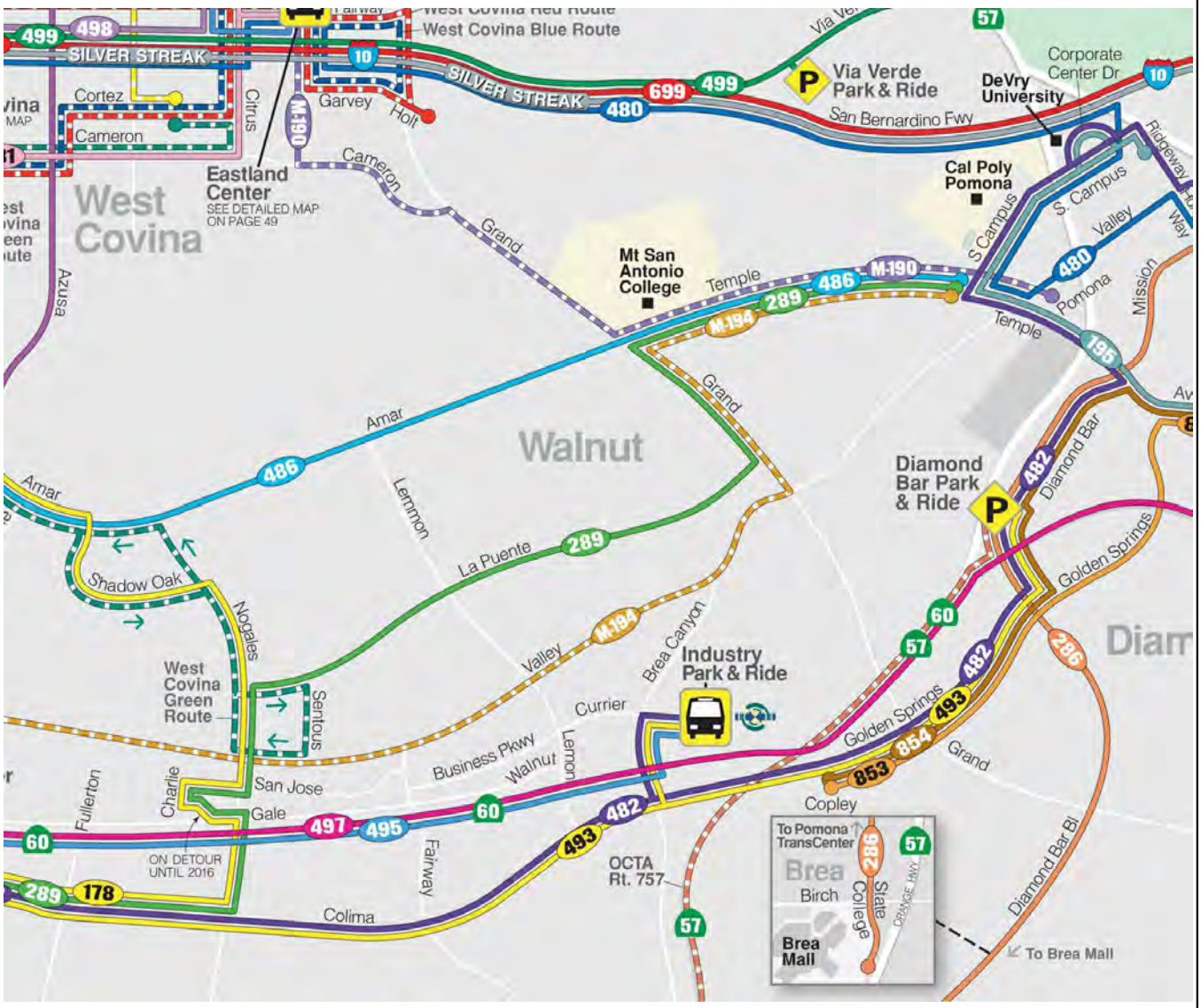


Figure 8
City of Walnut Trail Guide



Source: City of Walnut

Figure 9
Transit Service Within City of Walnut



Legend

ROUTE DESIGNATIONS

- Foothill Transit lines are shown with solid route lines
- Other transit lines are shown with dashed route lines
- M-78 Metro routes have an "M" in the route symbol
- O-62 Omitrans routes have an "O" in the route symbol
- P-10 Pasadena routes have a "P" in the route symbol

Source: Foothill Transit

IV. PROJECT TRIPS

A. Trip Generation

Trip generation rates were determined for daily trips, morning peak hour inbound and outbound trips, and evening peak hour inbound and outbound trips for the proposed land uses. The number of trips forecast to be generated by the proposed project are determined by multiplying the trip generation rates by the land use quantities. Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017. To provide a conservative analysis, the project trip generation assumes the maximum of 201 small-lot residential dwelling units will be developed, since these generate more trips per dwelling unit compared to townhomes.

As shown in Table 2, the proposed project is forecast to generate a total of approximately 4,457 daily trips, 339 trips of which will occur during the morning peak hour and 333 trips of which will occur during the evening peak hour.

The project trip generation shown in Table 2 accounts for the effect of internal trips resulting from the proposed mix of commercial retail and residential land uses within the project site. For example, a resident may walk to a restaurant within the Specific Plan. In this case, two vehicular trips would be reduced; one outbound trip from the residential land use and one inbound trip to the restaurant. Even if the trip is made by vehicle, the trip would not be added to any of the study area intersections. Internal trips during the morning and evening peak hours were calculated in accordance with procedures contained in the Institute of Transportation Engineers Trip Generation Handbook (2nd/3rd Editions). The Trip Generation Handbook procedures take into account inbound and outbound trips forecast to be generated by the proposed land uses to determine interaction percentages, which are then discounted from the trips generated by each individual land use. Internal trip capture worksheets are provided in Appendix E.

The project trip generation shown in Table 2 also accounts for pass-by trips associated with the proposed commercial retail land uses. Pass-by trips is used to describe trips made by vehicles that access the project site on their way to another destination. In accordance with procedures contained in the Trip Generation Handbook, pass-by trips are subtracted from the gross trip generation forecast because these trips are currently on the roadway and would not be new trips generated by the project site. Pass-by trips are included, however, at the project driveways and immediately adjacent intersections.

B. Trip Distribution

Figure 10 and Figure 11 show the directional distributions of the project trips for the residential and commercial land uses, respectively. The forecast project trip distributions were determined in consultation with City staff based on review of existing traffic data, surrounding land uses, and the local and regional roadway facilities in the project vicinity. Figure 12 shows the directional distribution of pass-by trips at the project access points.

C. Trip Assignment

Based on the identified project trip generation and distributions, morning and evening peak hour intersection turning movement volumes expected from the project are shown on Figure 13 and Figure 14, respectively.

Table 2

Project Trip Generation

Land Use	Source[1]	Quantity	Units[2]	Trip Generation Rates/Trips Generated						
				Morning Peak Hour			Evening Peak Hour			
				Inbound	Outbound	Total	Inbound	Outbound	Total	Daily
Trip Generation Rates										
Shopping Center	ITE 820[3]	-	TSF	3.43	2.10	5.53	3.57	3.87	7.43	88.37
Single-Family Detached	ITE 210	-	DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Multi-Family Housing	ITE 220	-	DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Commercial Trips Generated										
Shopping Center	ITE 820	30.0	TSF	103	63	166	107	116	223	2,651
- Internal Capture[4]				-1	-1	-2	-11	-30	-41	-265
- Subtotal With Internal Capture				102	62	164	96	86	182	2,386
- Pass-By (10% AM, 34% PM, 10% Daily)				-10	-6	-16	-33	-29	-62	-239
- Subtotal With Pass-By Reduction				92	56	148	63	57	120	2,147
Residential Trips Generated										
Single-Family Detached	ITE 210	213	DU	40	118	158	132	79	211	2,011
Multi-Family Housing	ITE 220	77	DU	8	27	35	27	16	43	564
Residential Subtotal		290	DU	48	145	193	159	95	254	2,575
- Internal Capture[4]				-1	-1	-2	-30	-11	-41	-265
- Subtotal With Internal Capture				47	144	191	129	84	213	2,310
Total Net Trips Generated				**139**	**200**	**339**	**192**	**141**	**333**	**4,457**

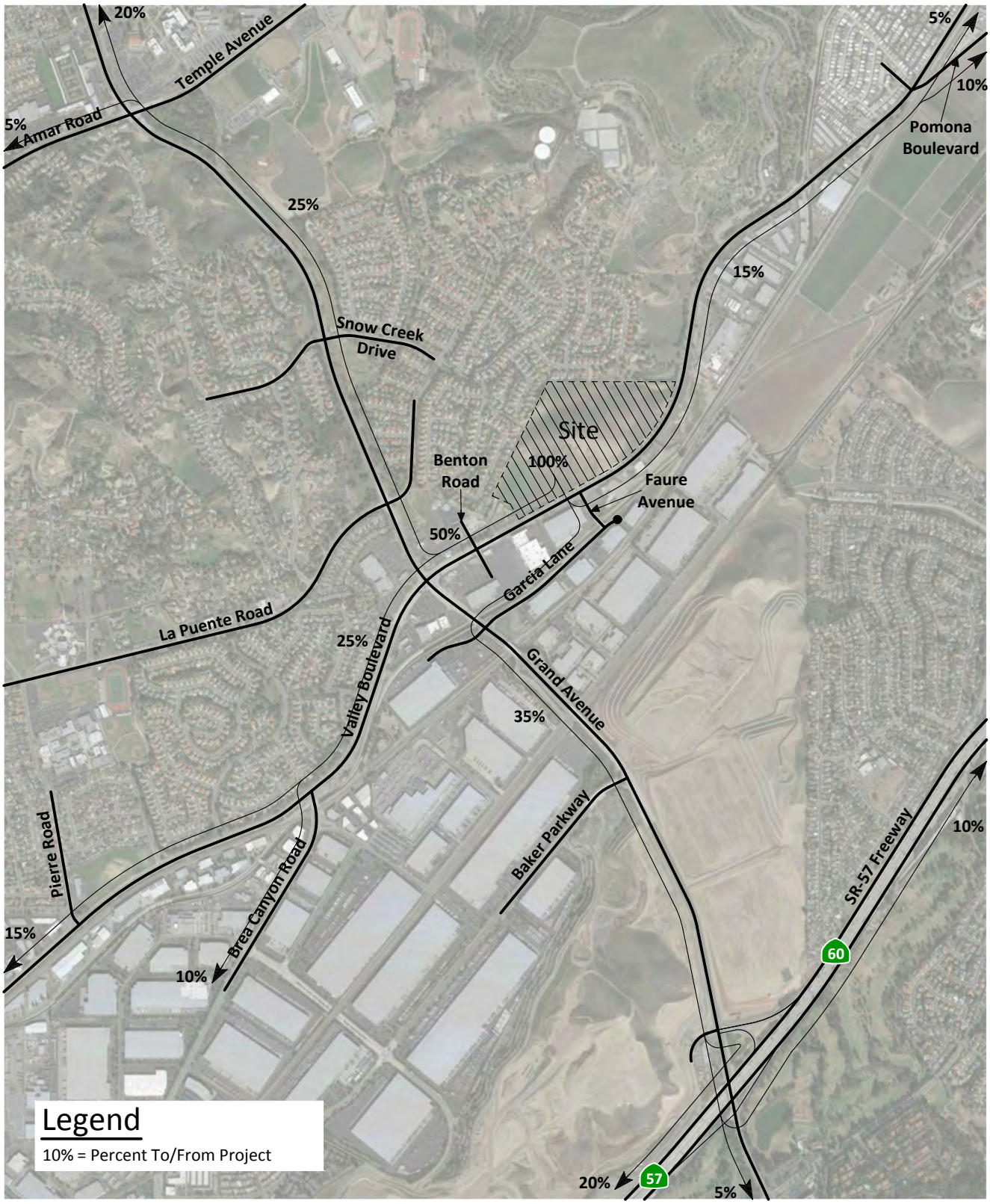
[1] Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code.

[2] TSF = Thousand Square Feet; DU = Dwelling Units.

[3] Shopping Center trip generation rates were derived from the following ITE regression equations, where T = trips and X = Thousand Square Feet:
Morning Peak Hour: T = 0.50 (X) + 151.78; 62% inbound, 38% outbound
Evening Peak Hour: Ln(T) = 0.74 Ln(X) + 2.89; 48% inbound, 52% outbound
Daily: Ln(T) = 0.68 Ln(X) + 5.57

[4] Internal trip capture during the morning and evening peak hours were calculated in accordance with procedures contained in the ITE Trip Generation Handbook, 3rd Edition, 2017 (approximately 1% AM, 17% PM). Daily internal capture is approximately 10% based on Trip Generation Handbook (2nd Edition). See Appendix E.

Figure 10
Project Trip Distribution - Residential Land Uses

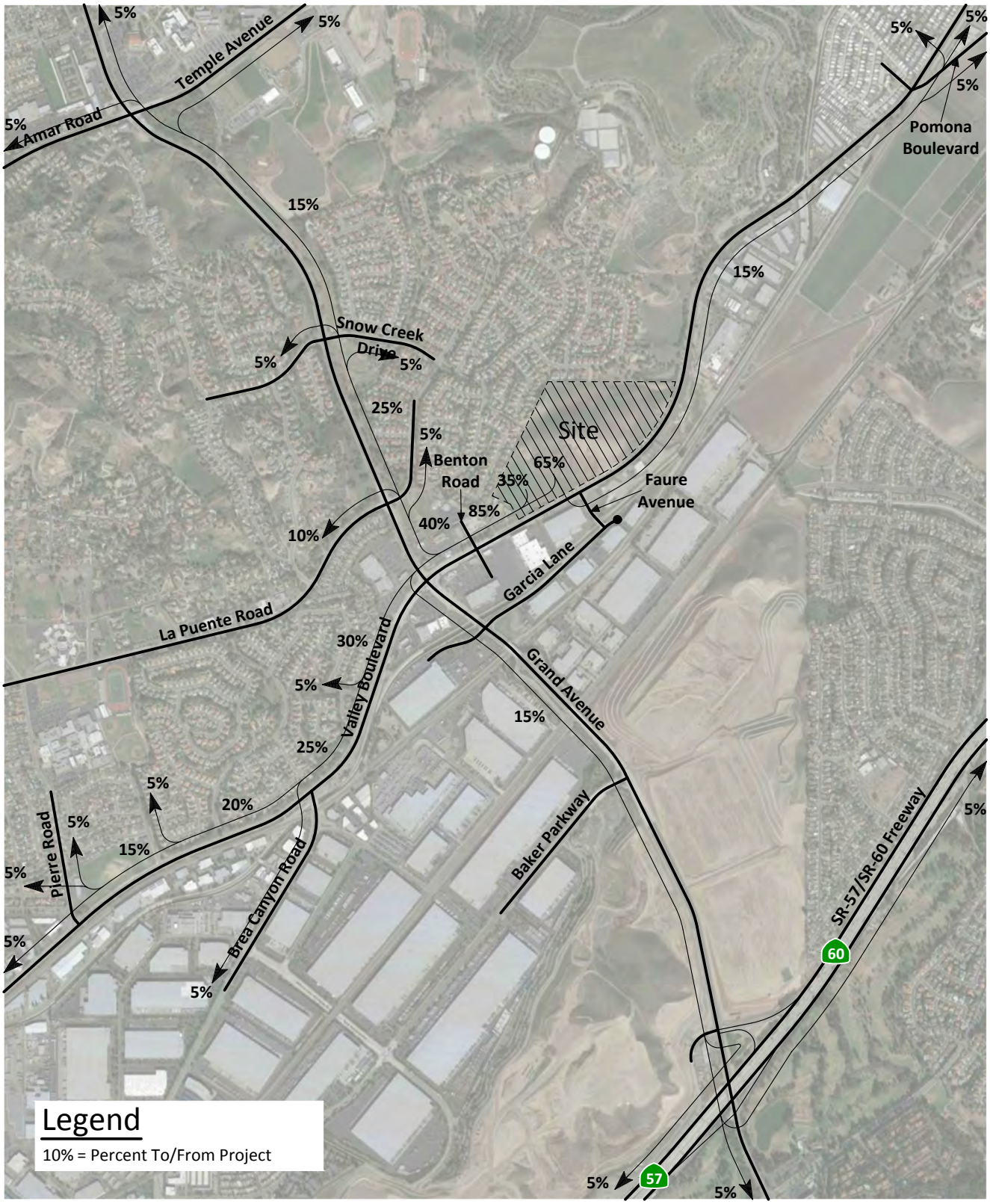


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Figure 11
Project Trip Distribution - Commercial Land Uses



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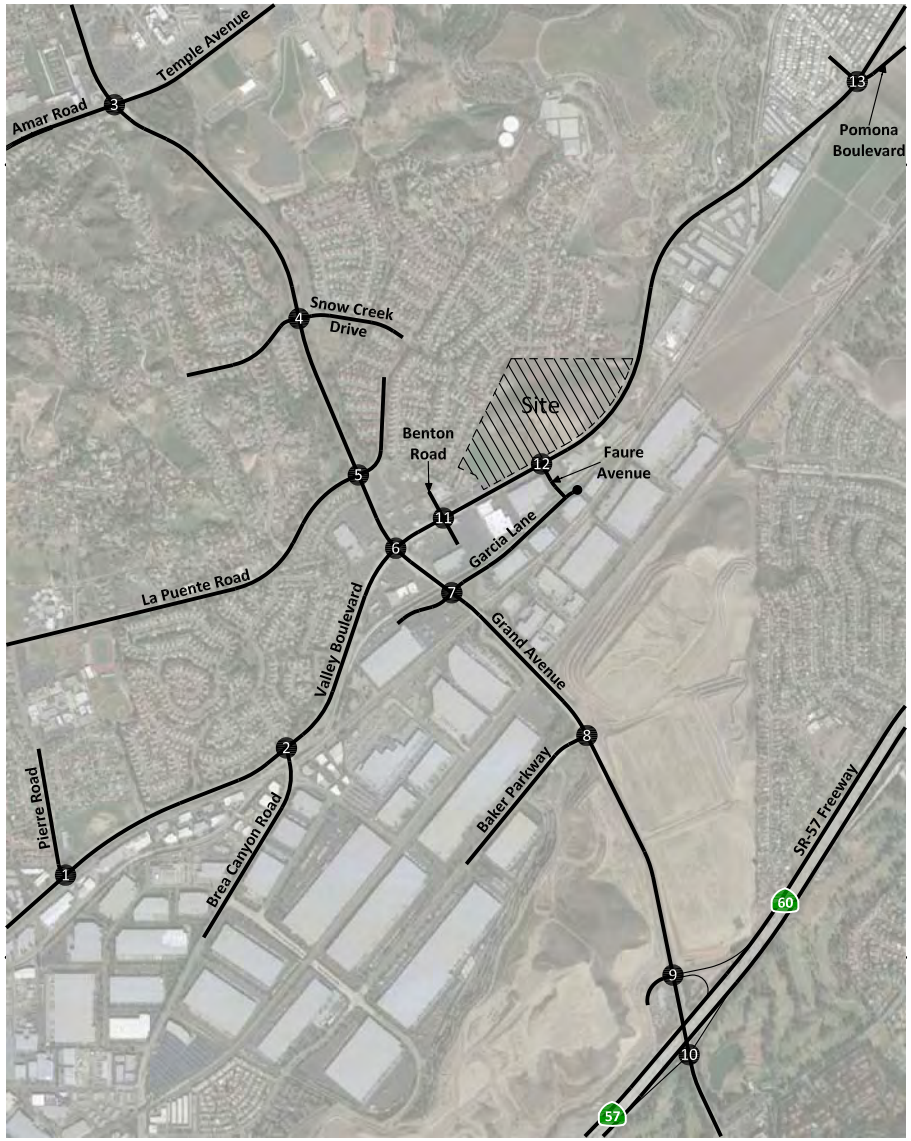
OVER 40 YEARS OF EXCELLENT SERVICE

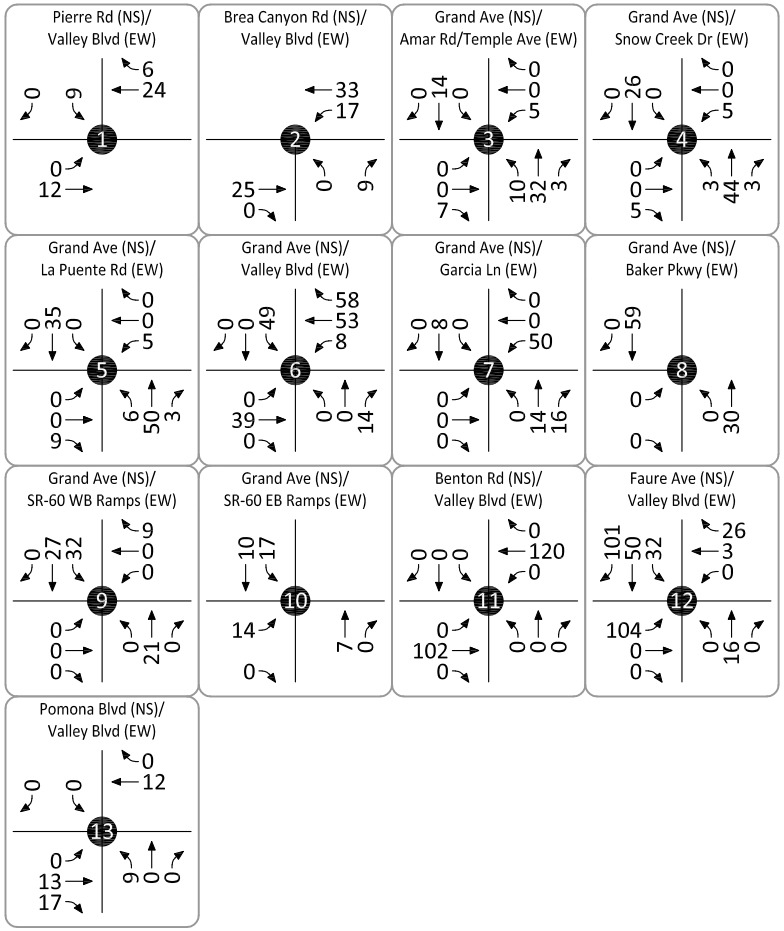
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Figure 12
Project Trip Distribution - Commercial Pass-By Trips



Figure 13
Project Morning Peak Hour Intersection Turning Movement Volumes





Legend

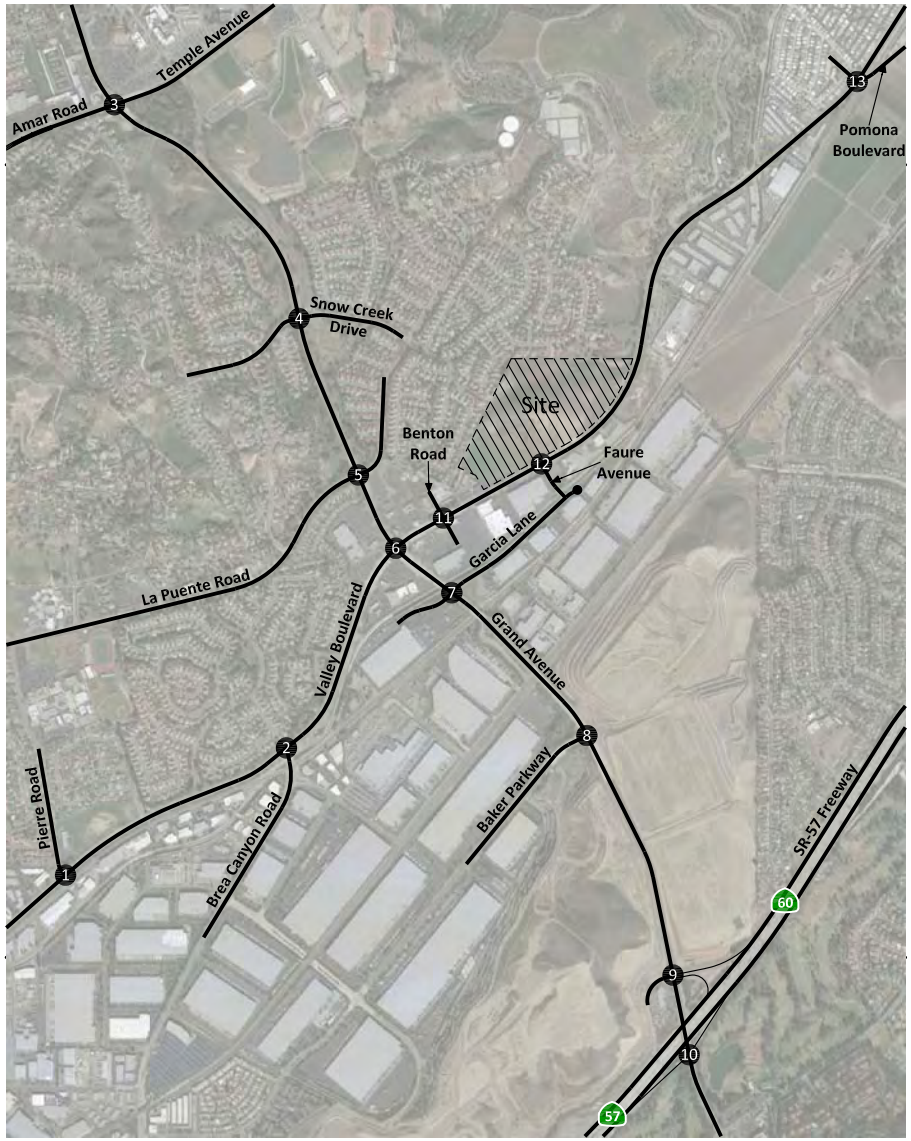
1 = Study Intersection

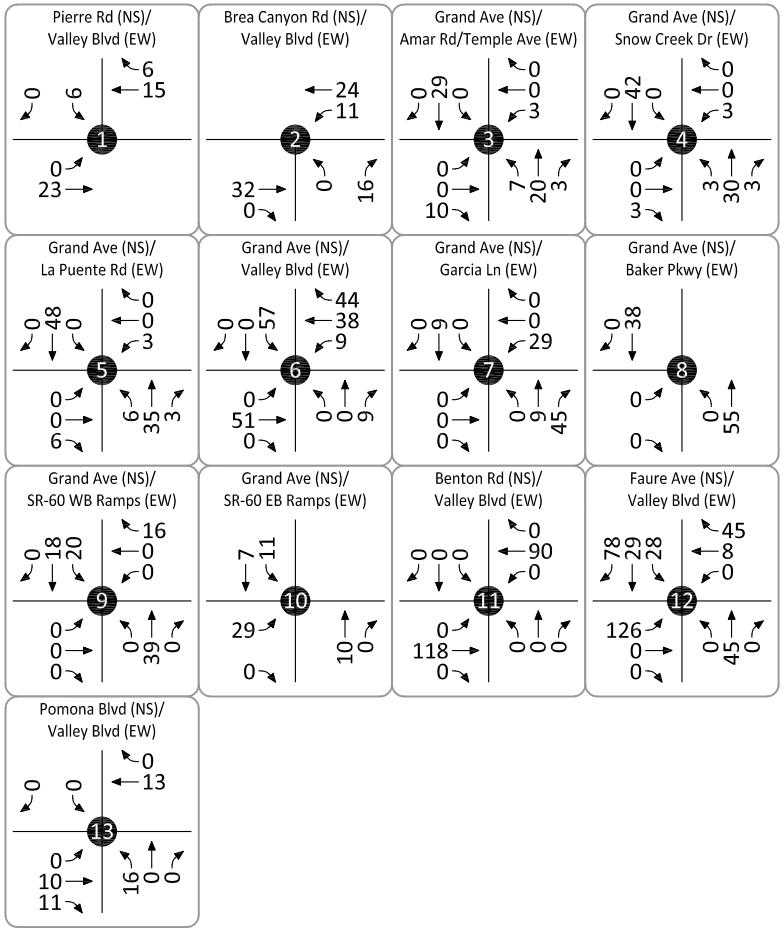
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Figure 14
Project Evening Peak Hour Intersection Turning Movement Volumes





Legend

1 = Study Intersection

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V. FUTURE TRAFFIC VOLUMES

This section describes how traffic volumes for each future analysis scenario were derived. The forecast study area traffic volumes are illustrated on the figures contained in this chapter.

A. Method of Projection

To assess future traffic conditions, existing traffic is combined with project trips, regional ambient growth, and trips generated by other developments (approved and/or unapproved). Project buildout is planned to occur over a period of three to seven years. For purposes of this traffic impact analysis, the seven year buildout time frame is conservative since it would result in additional background traffic growth. Therefore, this traffic impact analysis assumes the project will be completed and generating trips at its ultimate potential by year 2025.

1. Regional Ambient Growth

To account for ambient traffic growth, existing traffic volumes were increased by 0.4-percent per year over an eight year period based on traffic growth factors contained in the Los Angeles County 2010 Congestion Management Program (Exhibit D-1, RSA 26). This is a conservative assumption since the ambient growth was applied to all movements at the study intersections.

2. Other Developments

Other future developments with the potential to add trips to the study area were identified. Trips associated with other developments in the study area were assigned to the study intersections as appropriate. A location map and trip generation forecasts for other developments are contained in Appendix F.

B. Future Traffic Volumes

1. Existing Plus Project

The traffic volumes for Existing Plus Project conditions were derived by adding project-generated trips to existing traffic volumes. Existing Plus Project morning and evening peak hour intersection turning movement volumes are shown on Figure 15 and Figure 16, respectively.

2. Year 2025 Without Project

To assess Year 2025 Without Project traffic conditions, existing traffic was combined with ambient growth and trips generated by other developments. Year 2025 Without Project morning and evening peak hour intersection turning movement volumes are shown on Figure 17 and Figure 18, respectively.

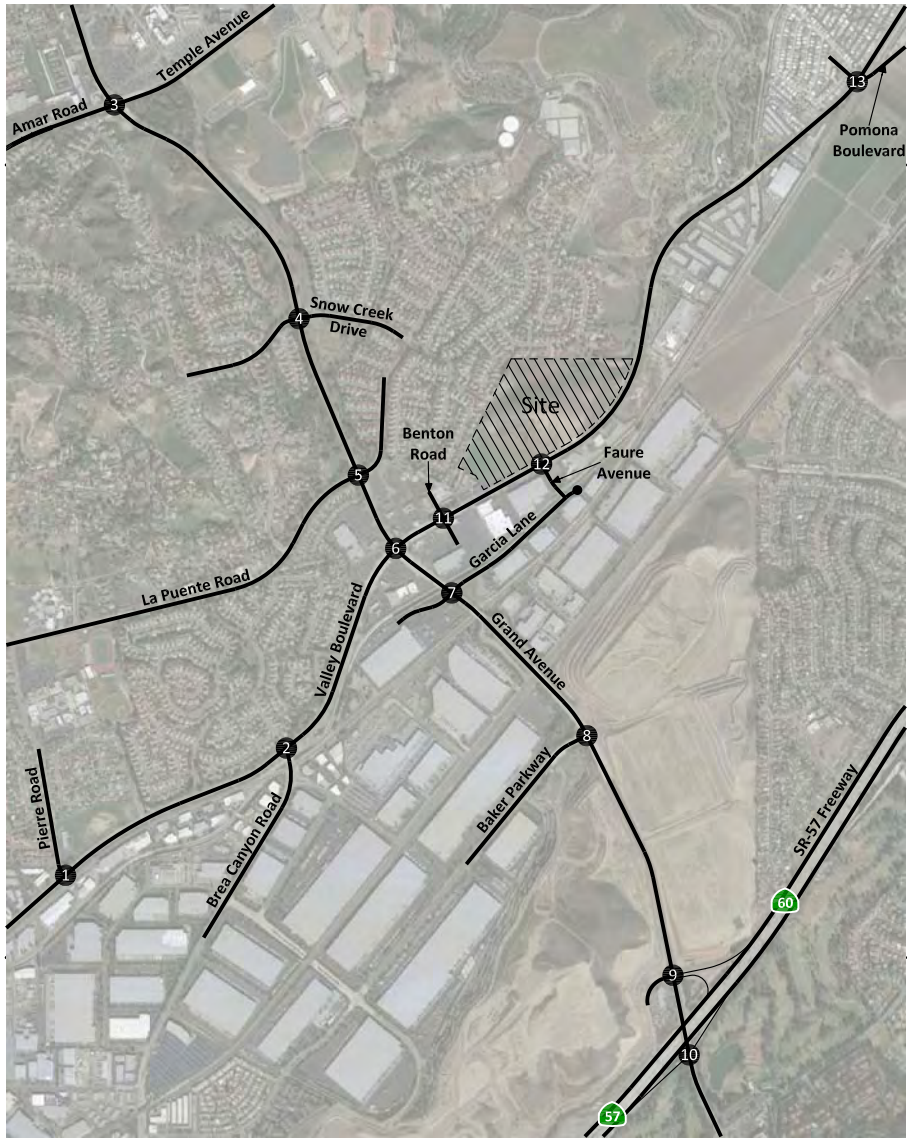
3. Year 2025 With Project

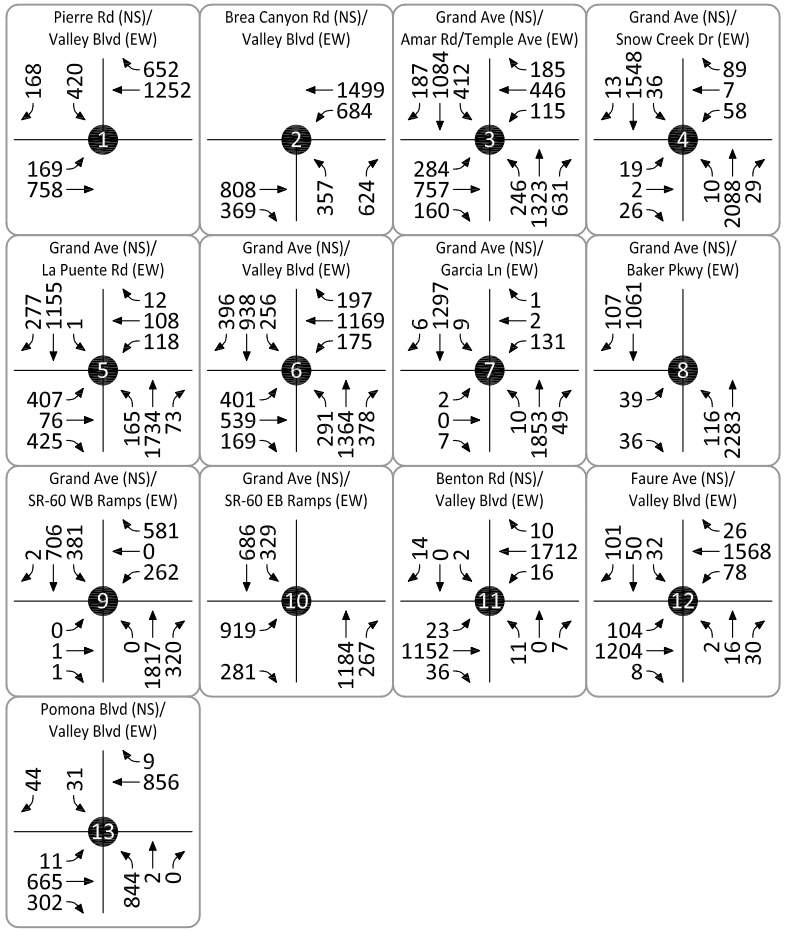
To assess Year 2025 With Project traffic conditions, project-generated trips were added to Year 2025 Without Project traffic volumes. Year 2025 With Project morning and evening peak hour intersection turning movement volumes are shown on Figure 19 and Figure 20, respectively.

4. 57/60 Confluence Improvements

Caltrans is in the process of constructing the SR-57/SR-60 Confluence at Grand Avenue Project. This project includes modification and addition of freeway ramps at the Grand Avenue interchange, resulting in geometric changes to the State Highway study intersections. Figure 21 shows the Year 2025 intersection geometry with the 57/60 confluence improvements. Figure 22 and Figure 23 show Year 2025 Without Project With 57/60 Confluence Improvements morning and evening peak hour intersection turning movement volumes, respectively. Figure 24 and Figure 25 show Year 2025 With Project With 57/60 Confluence Improvements morning and evening peak hour intersection turning movement volumes, respectively.

Figure 15
Existing Plus Project
Morning Peak Hour Intersection Turning Movement Volumes





Legend

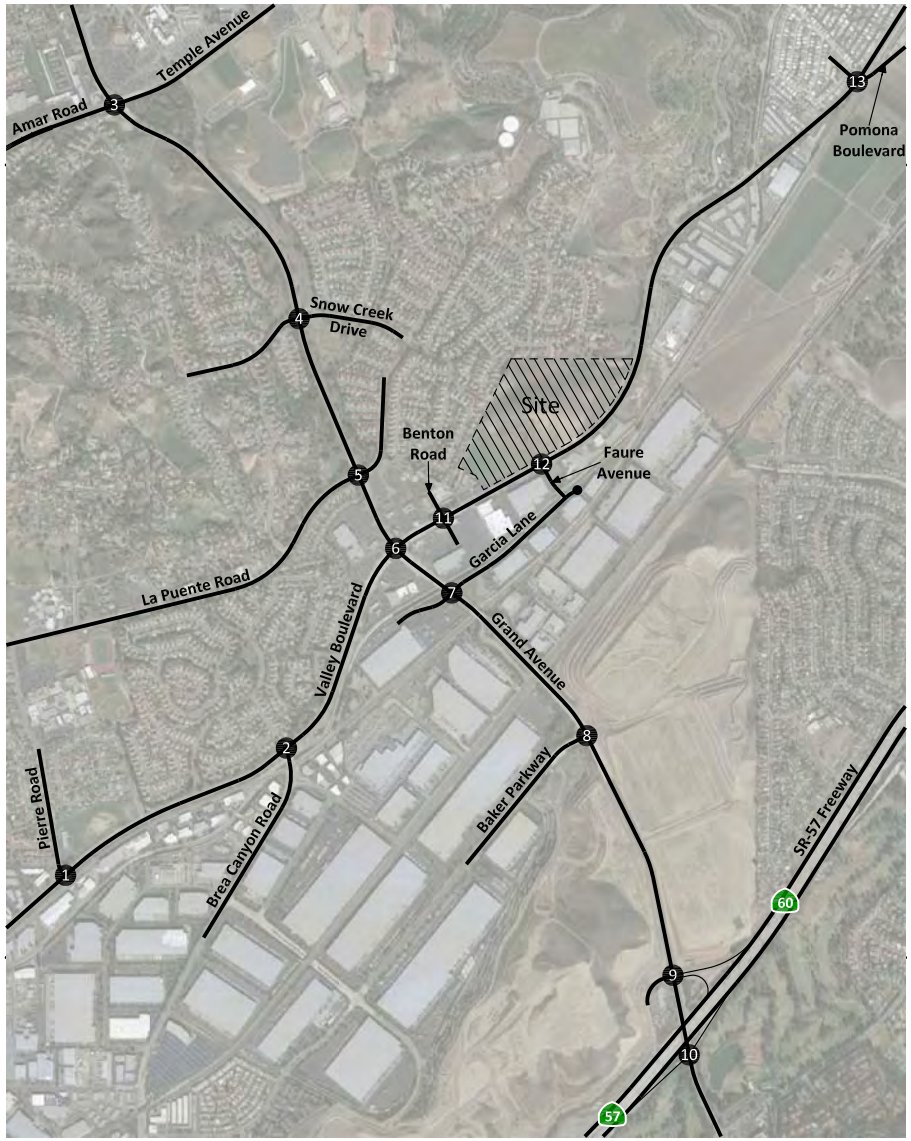
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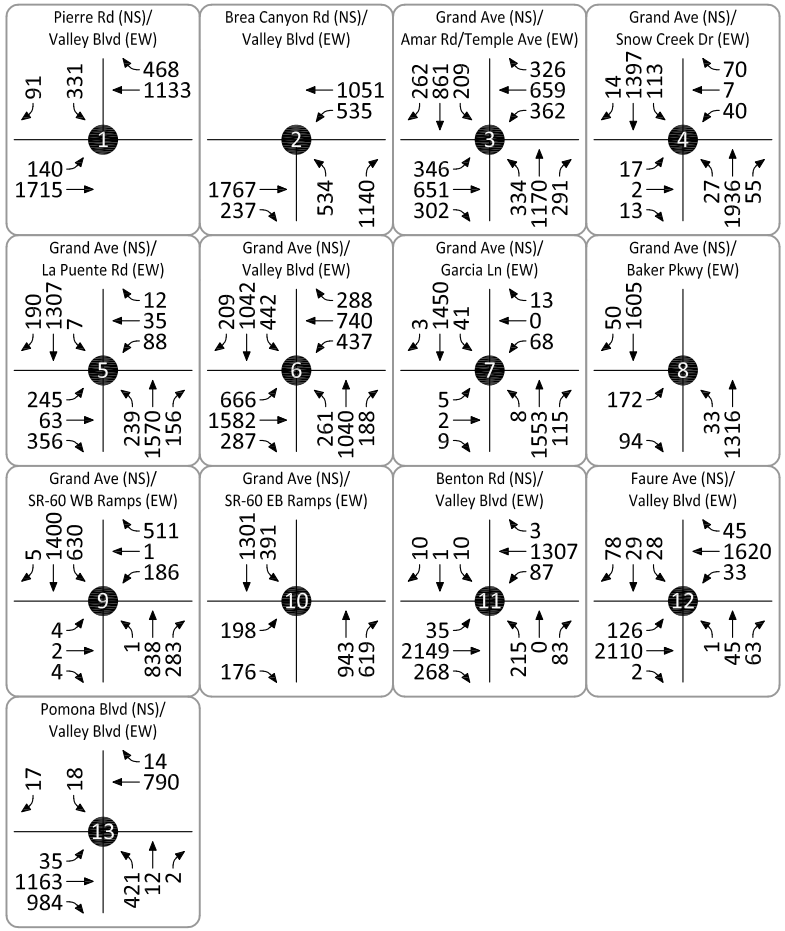
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Figure 16
Existing Plus Project
Evening Peak Hour Intersection Turning Movement Volumes





Legend

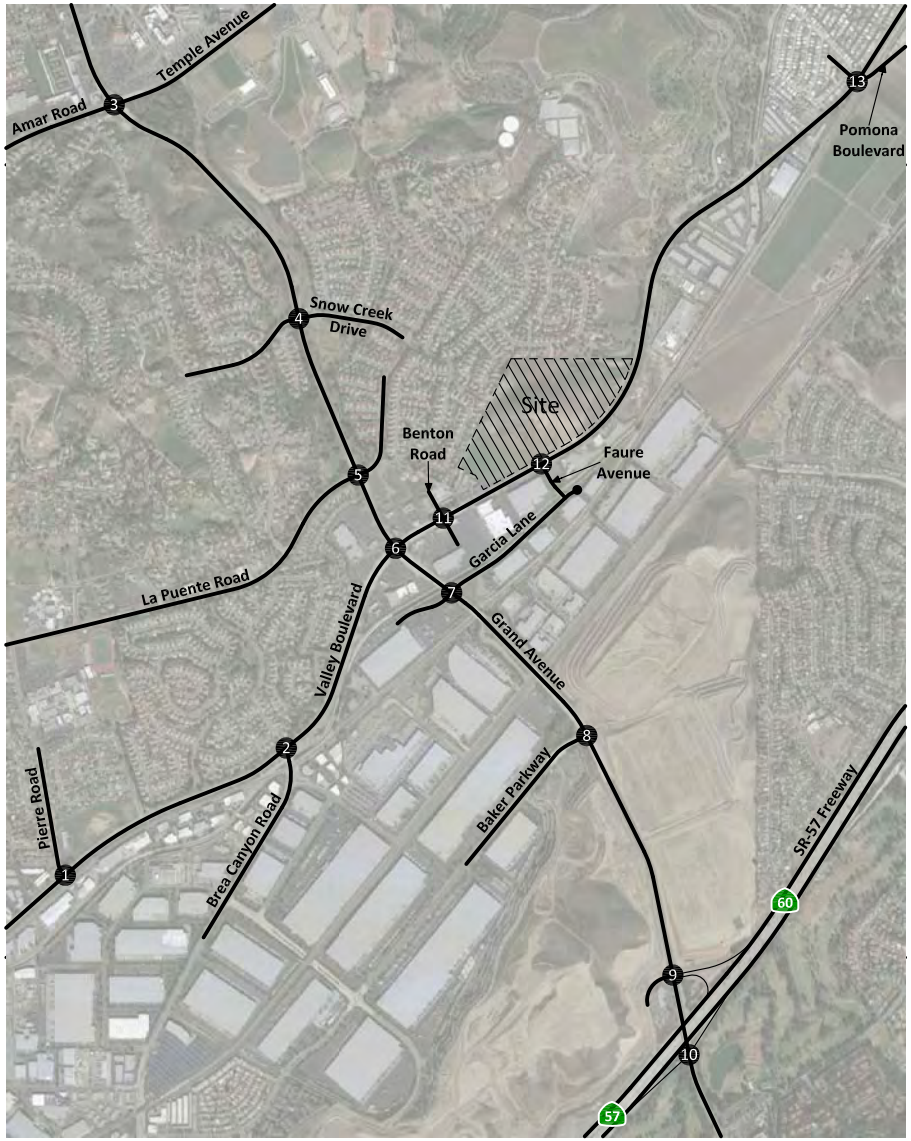
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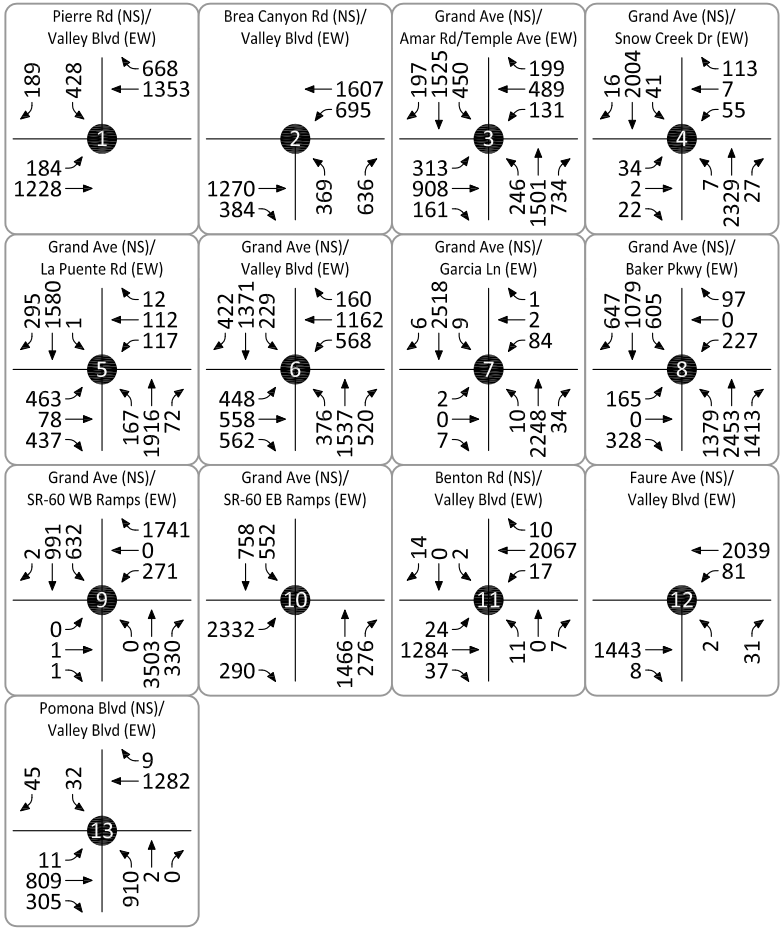
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Figure 17
Year 2025 Without Project
Morning Peak Hour Intersection Turning Movement Volumes





Legend

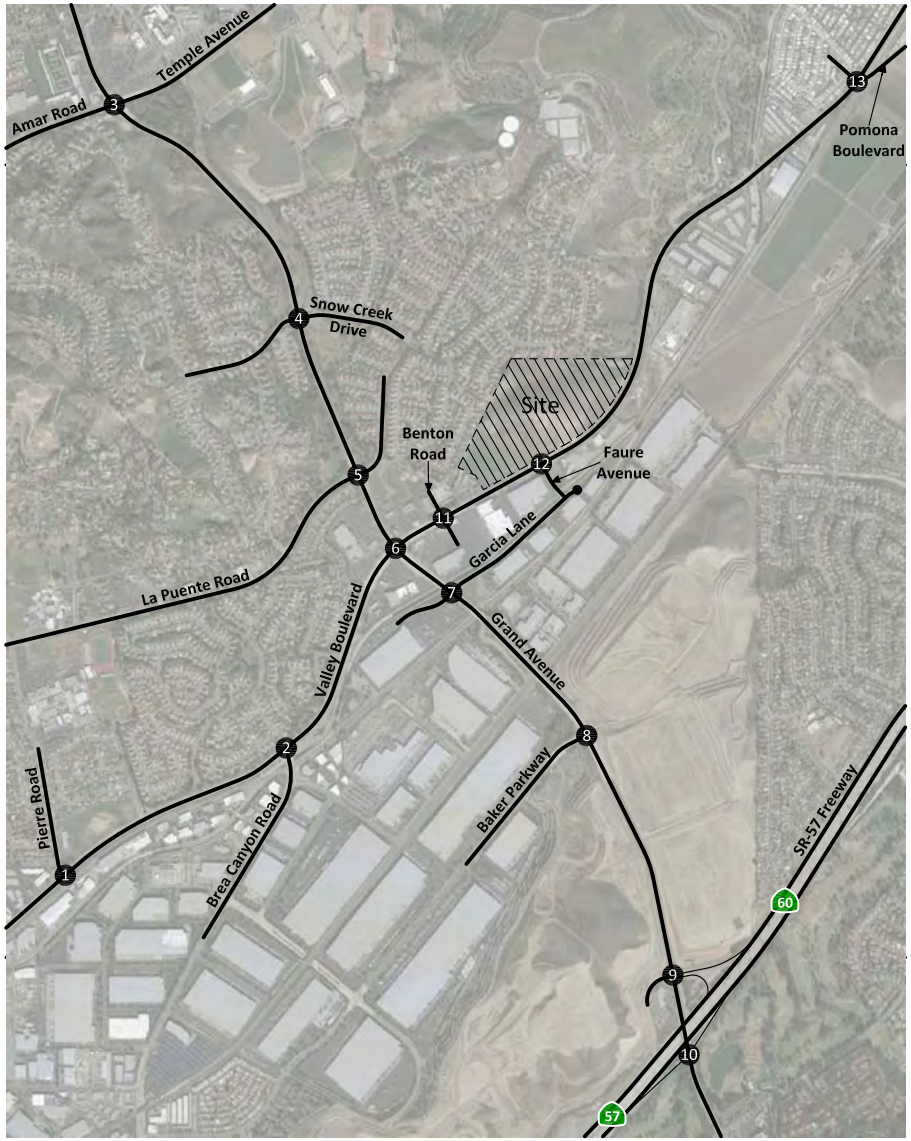
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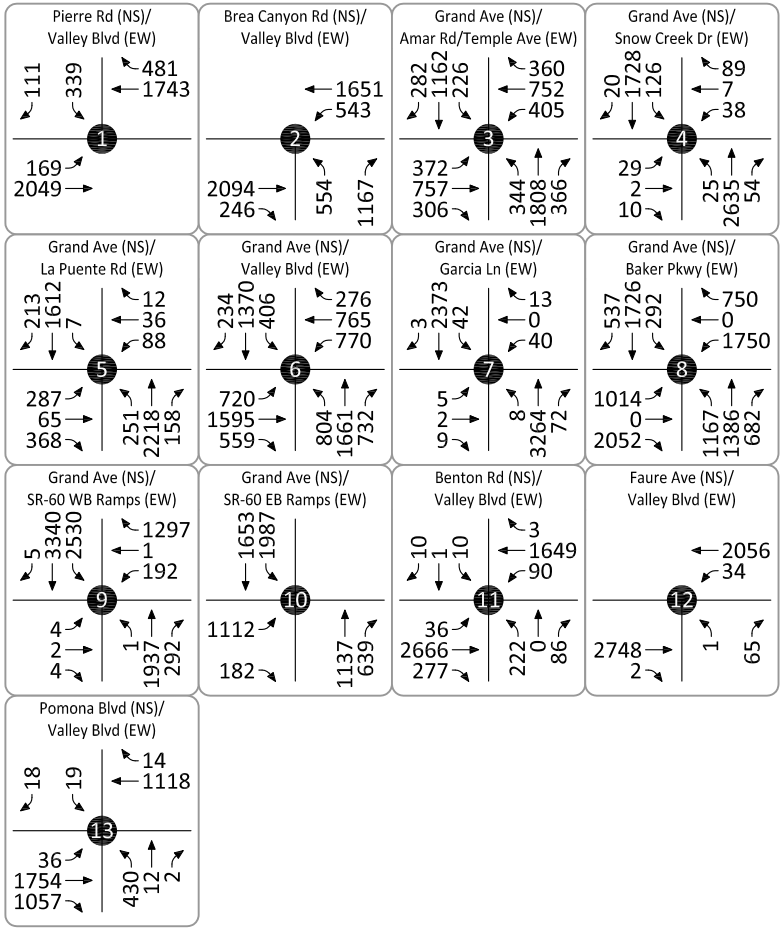
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Figure 18
Year 2025 Without Project
Evening Peak Hour Intersection Turning Movement Volumes





Legend

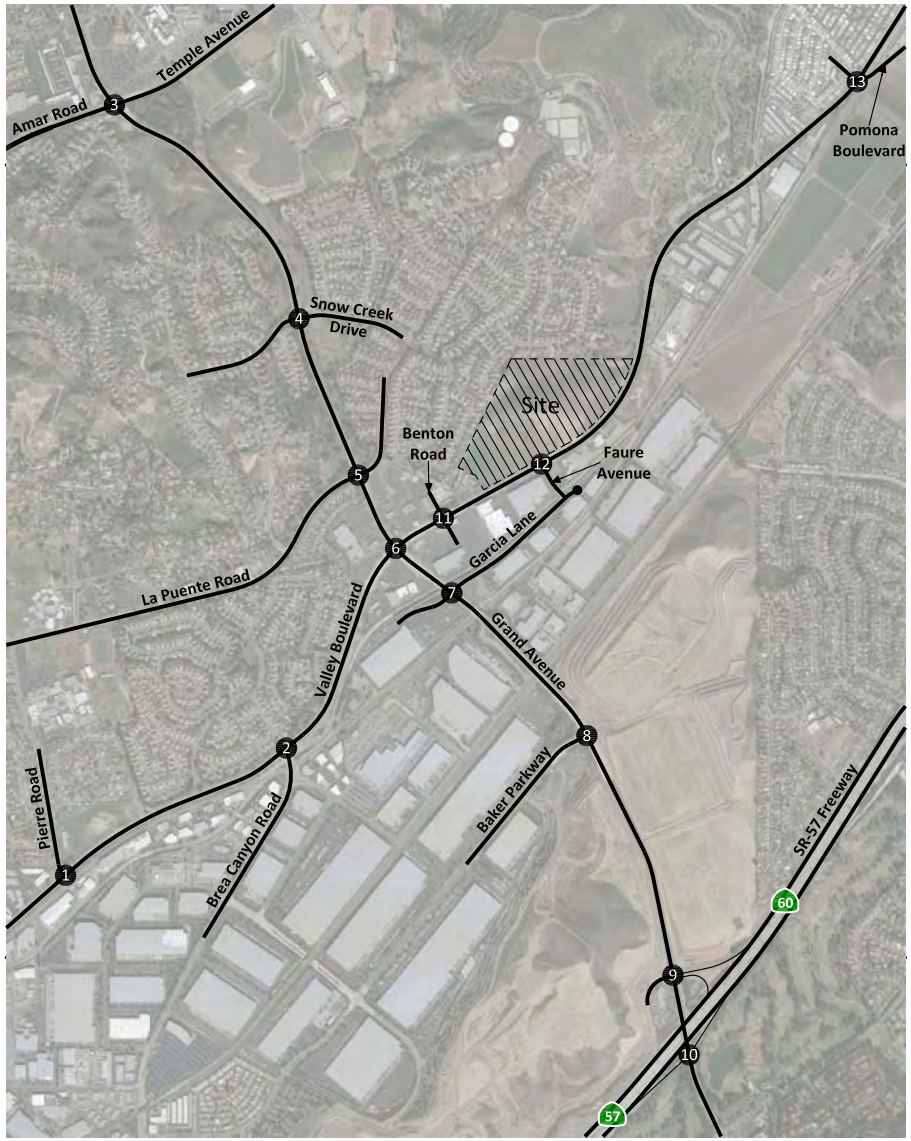
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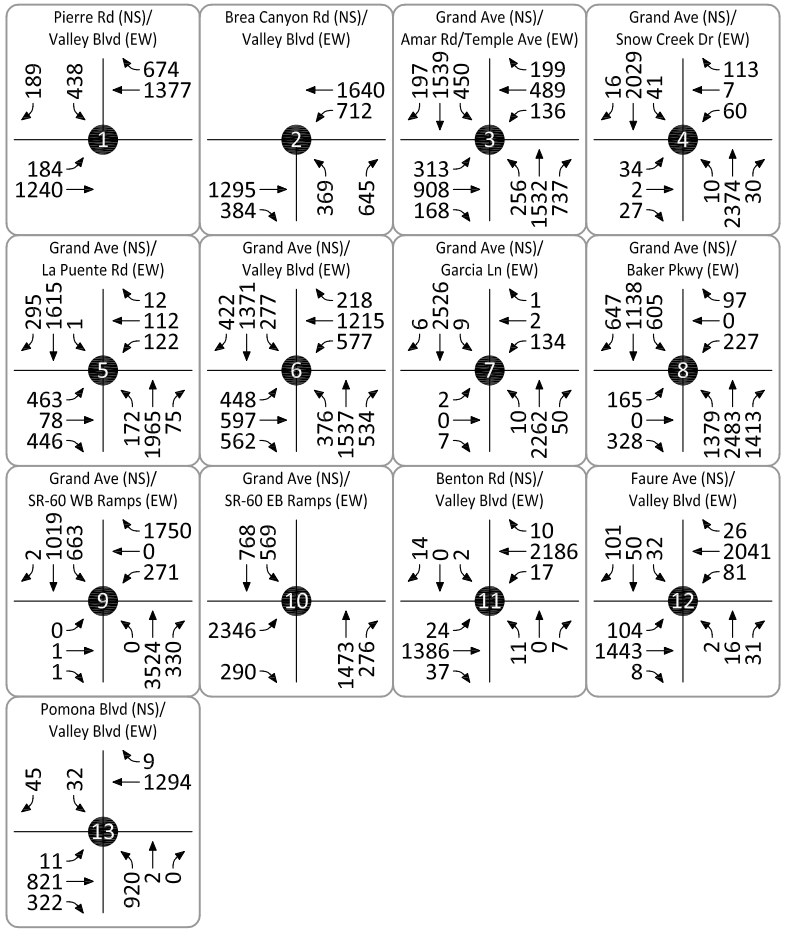
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Figure 19
Year 2025 With Project
Morning Peak Hour Intersection Turning Movement Volumes





Legend

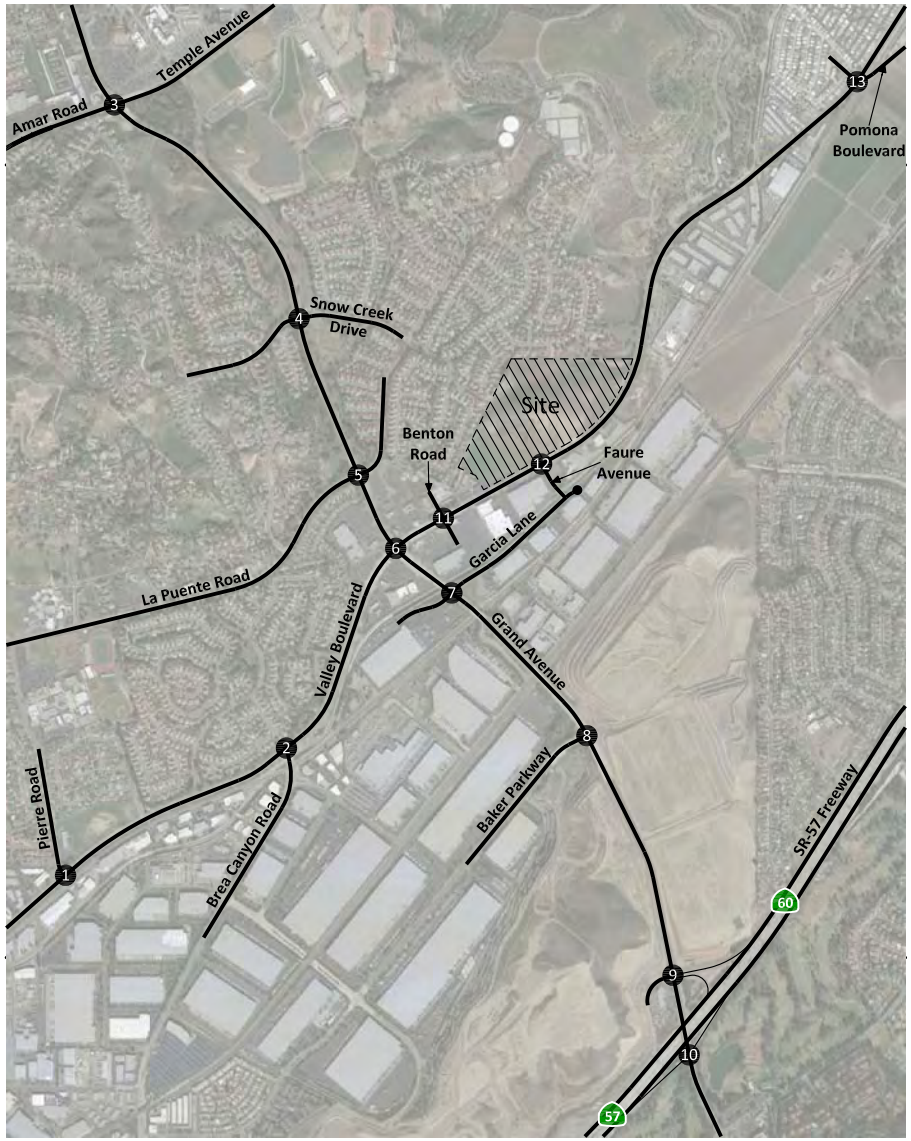
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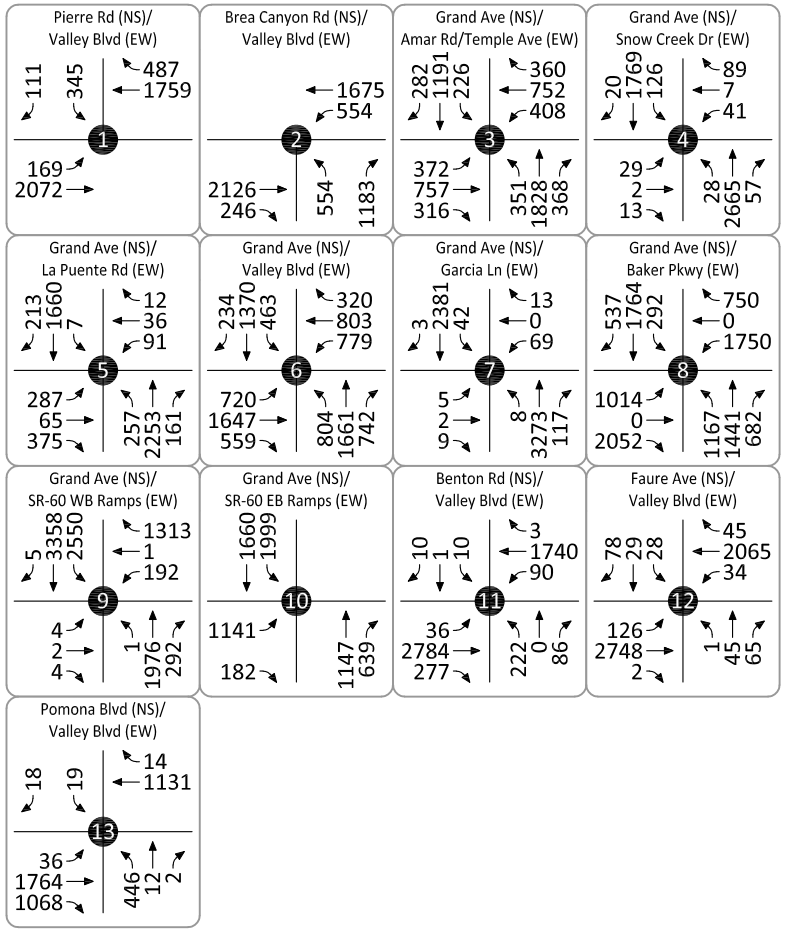
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Figure 20
Year 2025 With Project
Evening Peak Hour Intersection Turning Movement Volumes





Legend

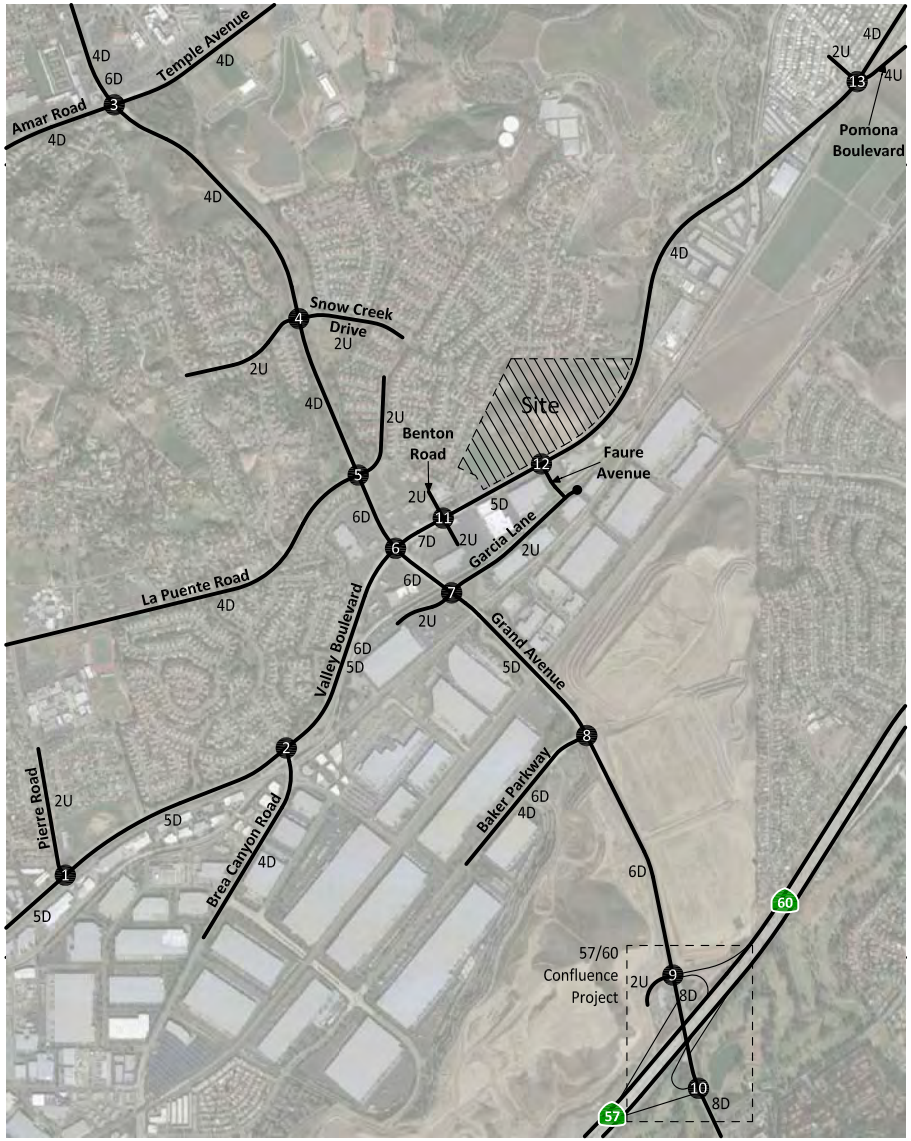
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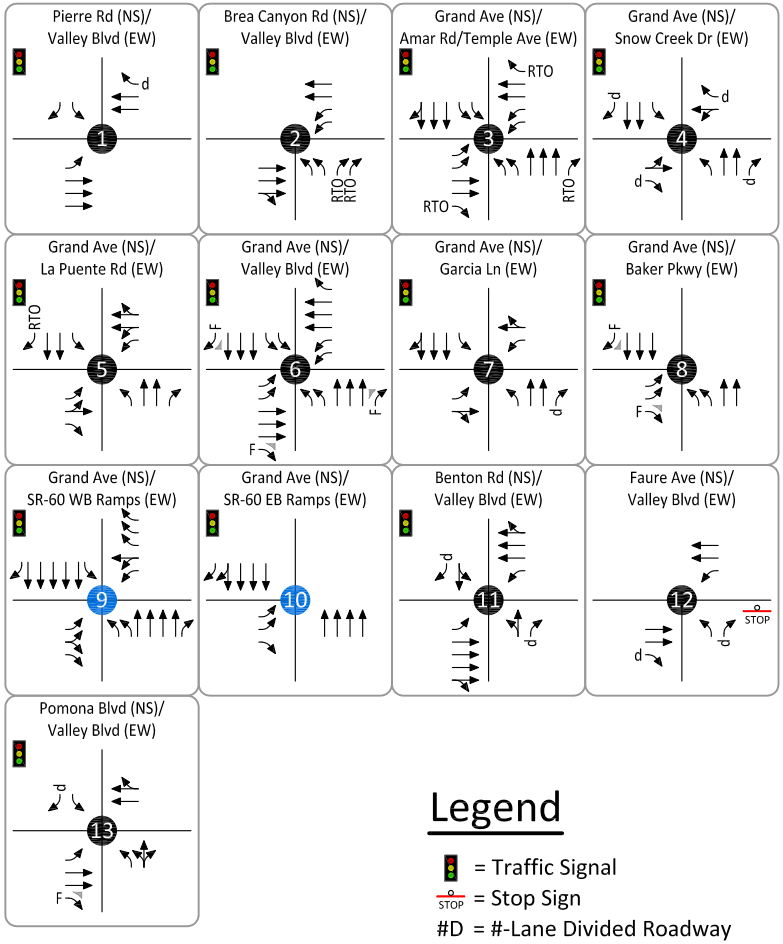
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Figure 21
Year 2025 Intersection Geometry With 57/60 Confluence Improvements





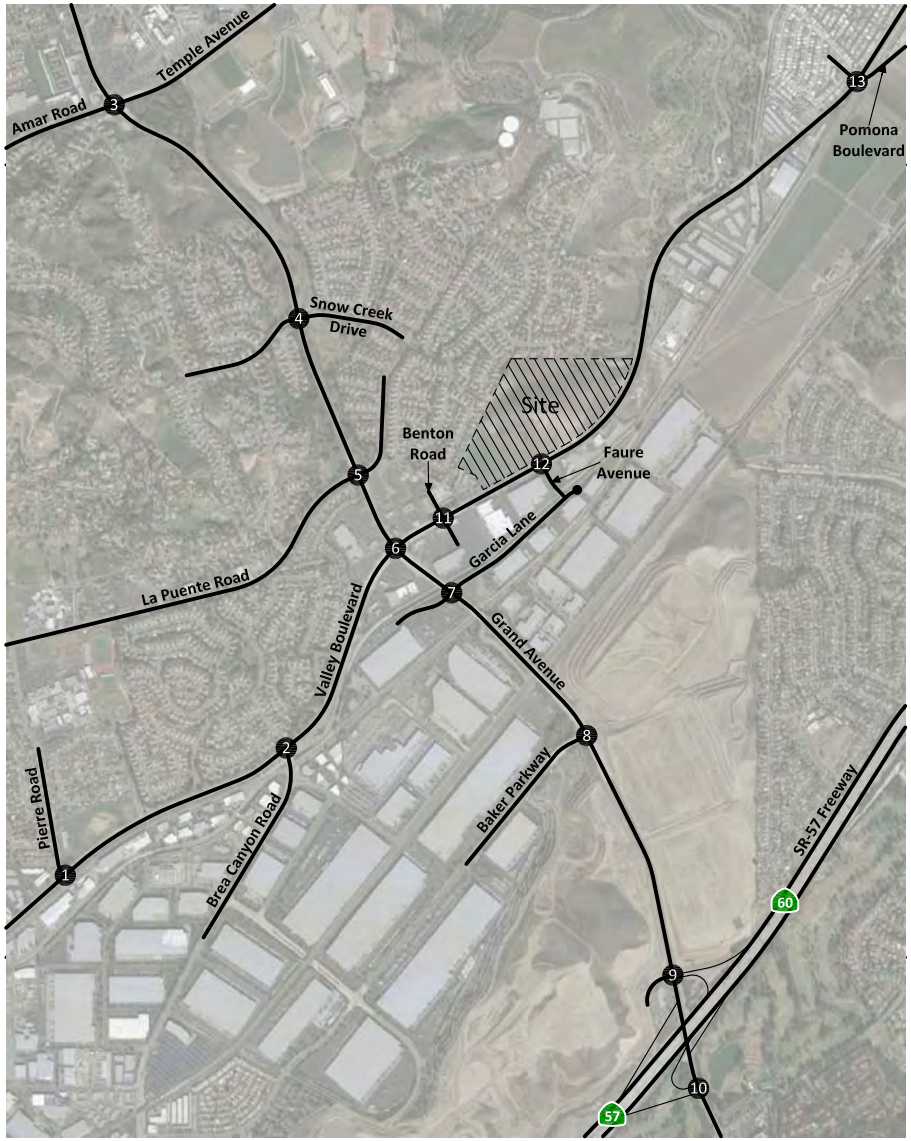
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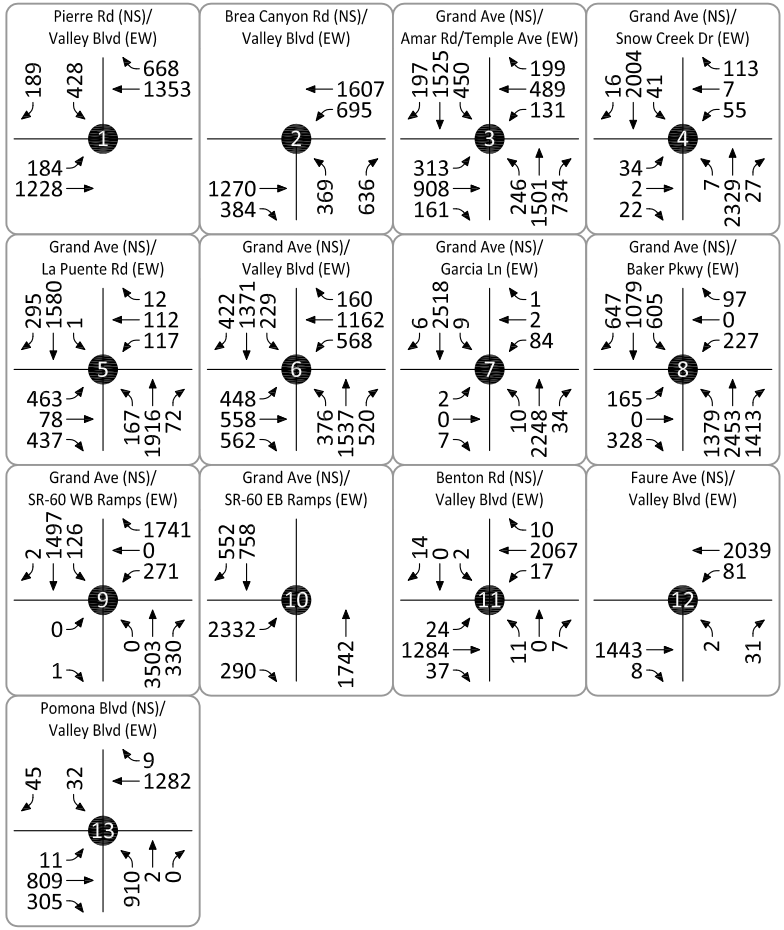
= Traffic Signal
STOP = Stop Sign
#D = #-Lane Divided Roadway
#U = #-Lane Undivided Roadway
= Existing Lane
RTO = Right Turn Overlap
F = Free Right Turn
d = De Facto Right Turn

Legend

1 = Improved Study Intersection

Figure 22
Year 2025 Without Project With 57/60 Confluence Improvements
Morning Peak Hour Intersection Turning Movement Volumes





Legend

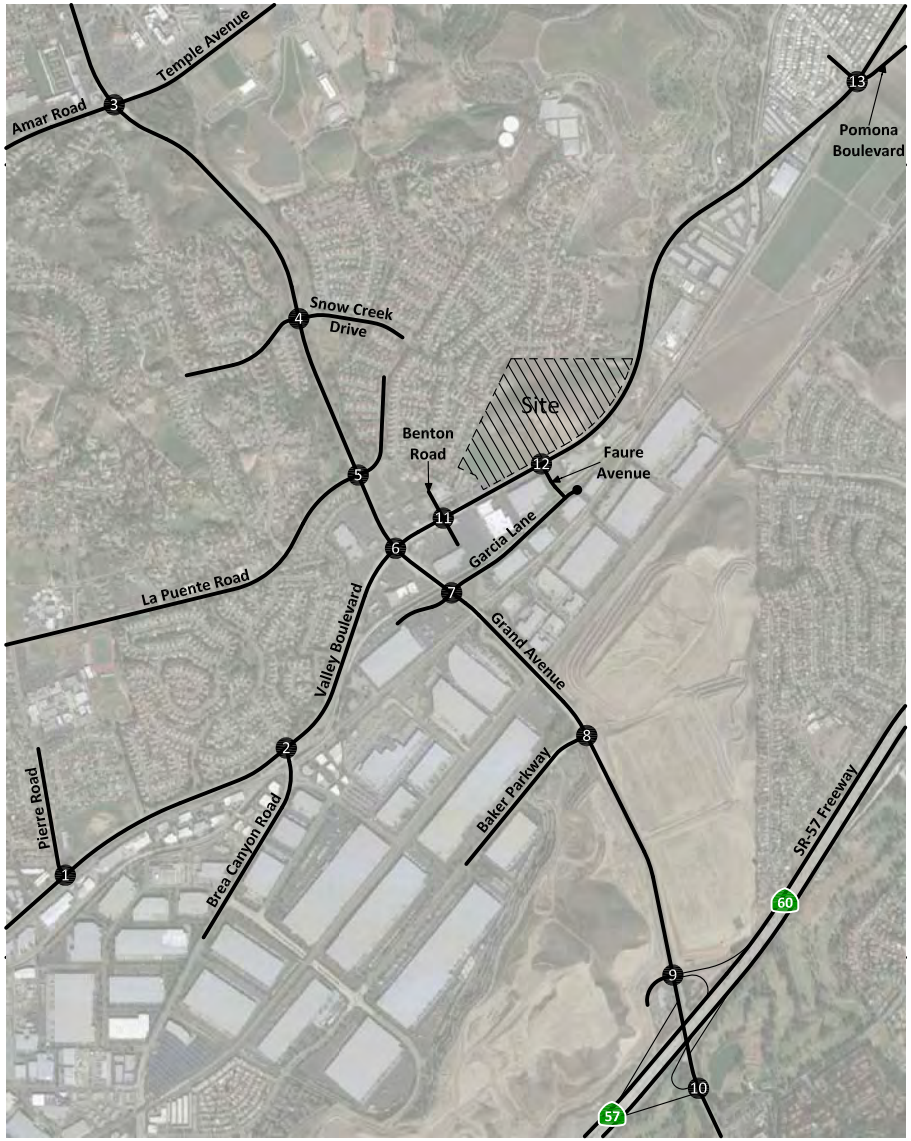
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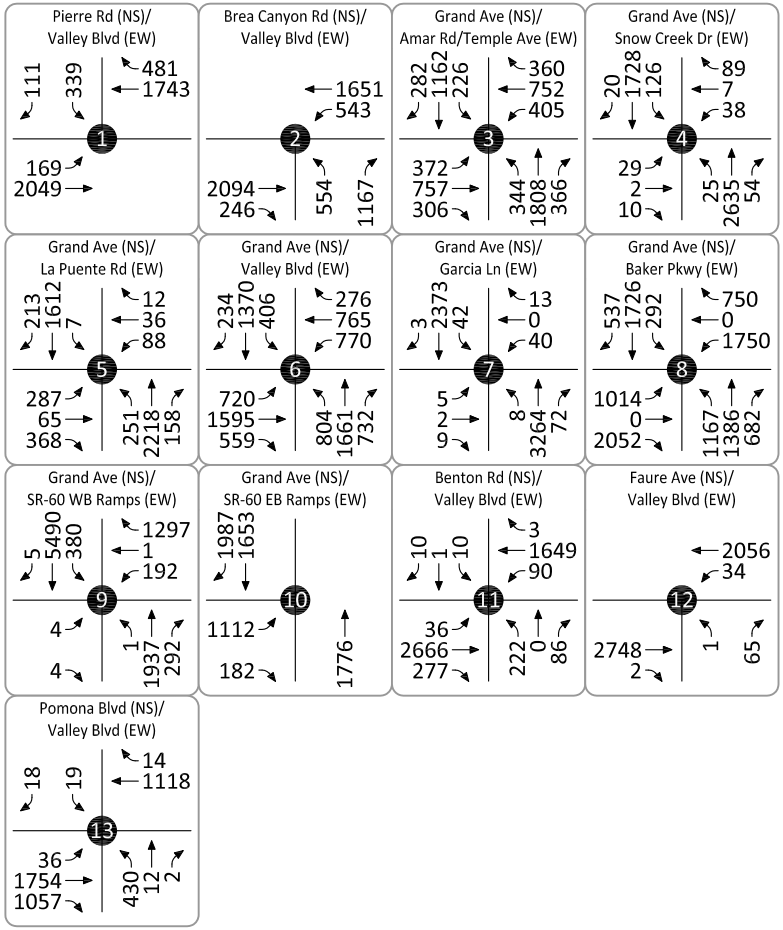
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Figure 23
Year 2025 Without Project With 57/60 Confluence Improvements
Evening Peak Hour Intersection Turning Movement Volumes





Legend

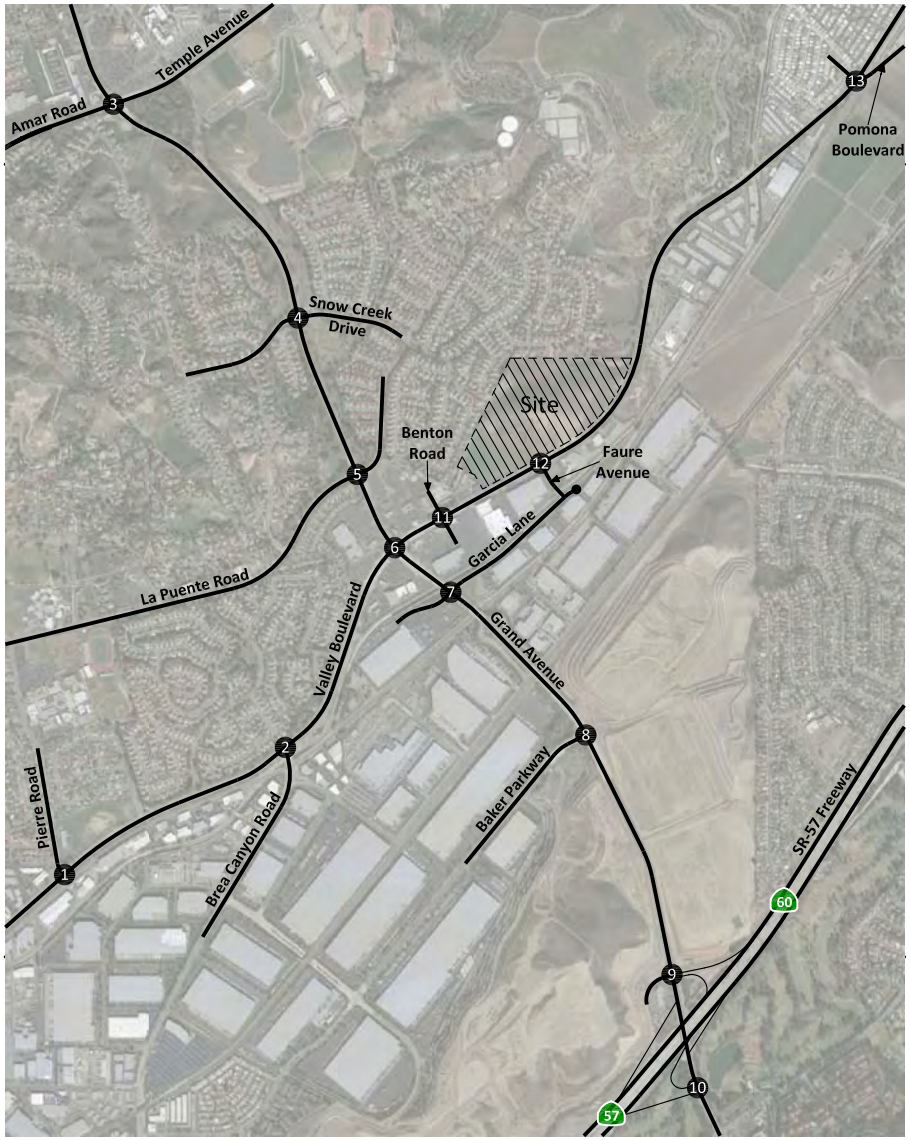
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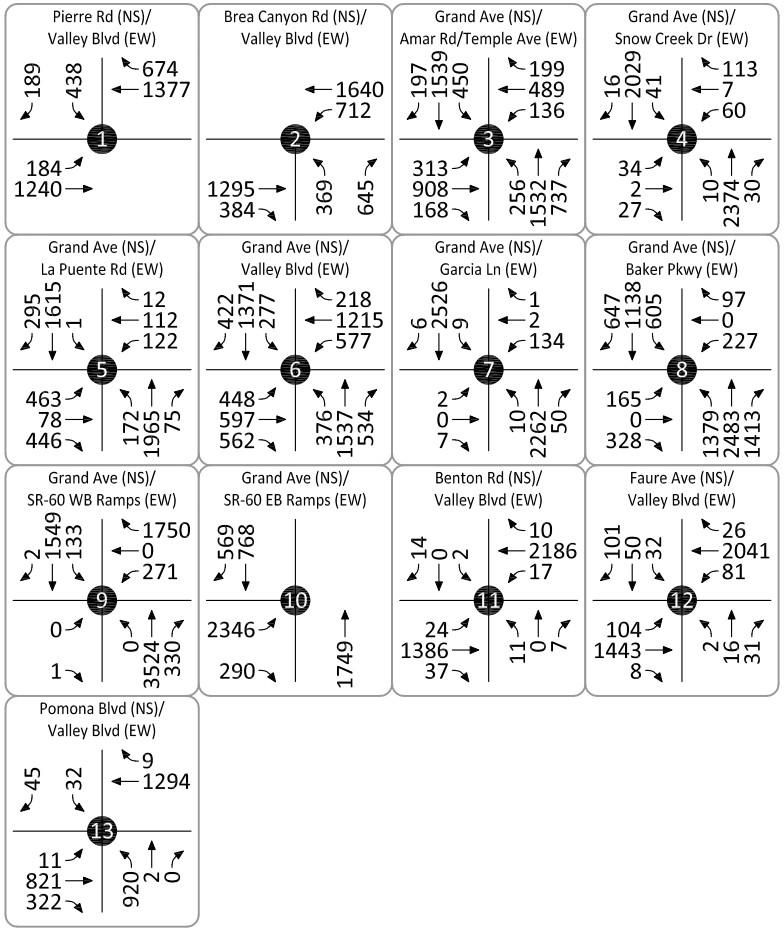
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Figure 24
Year 2025 With Project With 57/60 Confluence Improvements
Morning Peak Hour Intersection Turning Movement Volumes





Legend

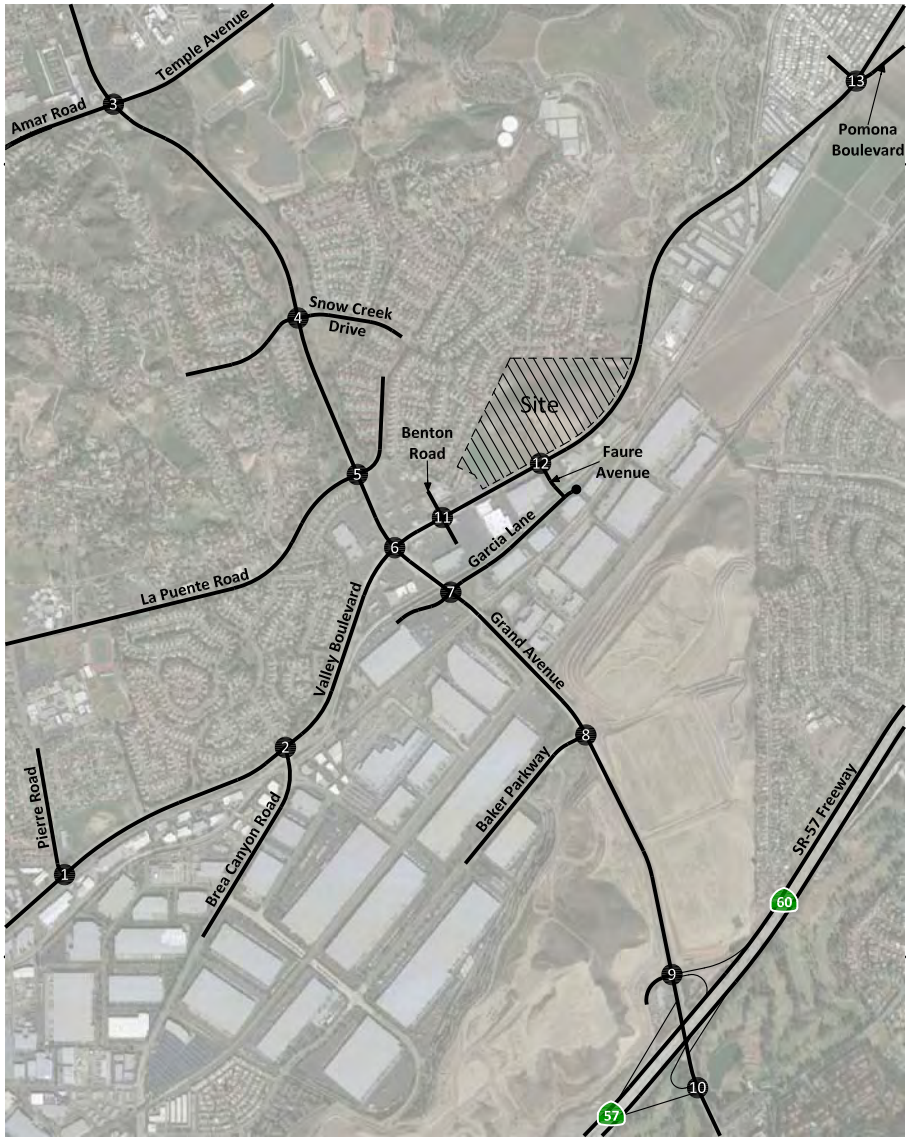
1 = Study Intersection

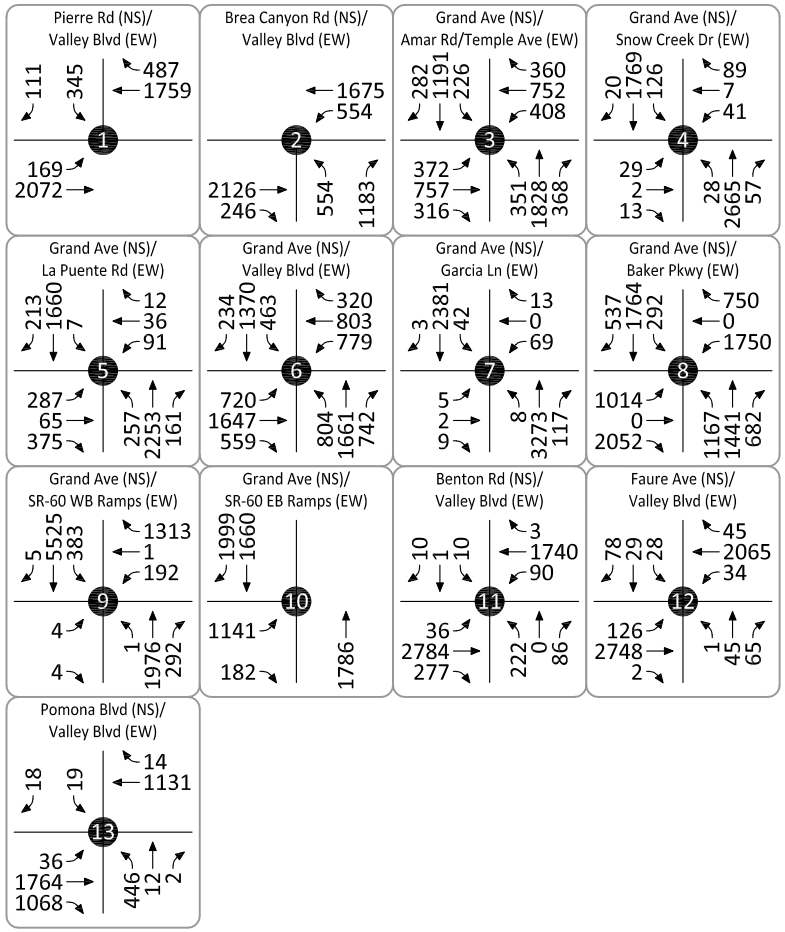
KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6345b

Figure 25
Year 2025 With Project With 57/60 Confluence Improvements
Evening Peak Hour Intersection Turning Movement Volumes





Legend

1 = Study Intersection

KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6345b

VI. FUTURE LEVELS OF SERVICE

Detailed Intersection Capacity Utilization/delay and Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix G.

It should be noted, the "with project" scenarios assume the proposed project will construct the following improvements at the Faure Avenue/Valley Boulevard intersection to provide project access:

Project Access at Faure Avenue/Valley Boulevard

- Install a traffic signal;
- Construct the southbound approach to consist of one shared through/left-turn lane and one exclusive right-turn lane with right-turn overlap traffic signal phasing;
- Construct one eastbound left-turn lane;
- Construct one exclusive westbound right-turn lane.

Year 2025 conditions analyze the SR-57/SR-60 Grand Avenue interchange study intersections for both without and with the 57/60 Confluence Project improvements shown on Figure 21 in the previous section.

A. Existing Plus Project Traffic Conditions

1. Intersection Capacity Utilization/Delay and Levels of Service

The Intersection Capacity Utilization/delay and Levels of Service for Existing Plus Project traffic conditions, without and with mitigation, are shown in Table 3. As shown in Table 3, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project traffic conditions without mitigation, except for the following study intersections that are projected to operate at generally unacceptable Levels of Service (E or F):

Grand Avenue (NS) at:

La Puente Road (EW) - #5	(both morning and evening peak hours)
Valley Boulevard (EW) - #6	(evening peak hour only)

2. Significant Impact Evaluation

Table 4 evaluates the change in performance between Existing and Existing Plus Project traffic conditions at the study area intersections. As shown in Table 4, the proposed project is forecast to result in a significant traffic impact at the following study intersections for Existing Plus Project traffic conditions without mitigation:

Grand Avenue (NS) at:

La Puente Road (EW) - #5	(both morning and evening peak hours)
Valley Boulevard (EW) - #6	(both morning and evening peak hours)

3. Mitigation Measures

The following mitigation measure is recommended for Existing Plus Project traffic conditions:

Mitigation Measure #1 **Grand Avenue/La Puente Road (#5)**

- Install right-turn overlap traffic signal phasing at the eastbound approach.

With implementation of the identified mitigation measure, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Existing Plus Project traffic conditions, with exception of the following study intersections:

Grand Avenue (NS) at:
Valley Boulevard (EW) - #6 (both morning and evening peak hours)

Due to right-of-way constraints, no feasible improvements could be identified for the intersection of Grand Avenue/Valley Boulevard (#6). The project traffic impact at this intersection is forecast to remain significant and unavoidable, thus requiring a statement of overriding considerations.

B. Year 2025 Without Project Traffic Conditions

The Intersection Capacity Utilization/delay and Levels of Service for Year 2025 Without Project traffic conditions are shown in Table 5. As shown in Table 5, the following study intersections are projected to operate at generally unacceptable Levels of Service (E or F) during the peak hours for Year 2025 Without Project traffic conditions:

Pierre Road (NS) at:
Valley Boulevard (EW) - #1 (both morning and evening peak hours)

Brea Canyon Road (NS) at:
Valley Boulevard (EW) - #2 (evening peak hour only)

Grand Avenue (NS) at:

Amar Road/Temple Avenue (EW) - #3	(both morning and evening peak hours)
Snow Creek Drive (EW) - #4	(both morning and evening peak hours)
La Puente Road (EW) - #5	(both morning and evening peak hours)
Valley Boulevard (EW) - #6	(both morning and evening peak hours)
Garcia Lane (EW) - #7	(evening peak hour only)
Baker Parkway (EW) - #8	(both morning and evening peak hours)
SR-60 WB Ramps (EW) - #9	(without 57/60 Confluence Improvements, both morning and evening peak hours)
SR-60 EB Ramps (EW) - #10	(without 57/60 Confluence Improvements, both morning and evening peak hours)

Faure Avenue (NS) at:
Valley Boulevard (EW) - #12 (both morning and evening peak hours)

C. Year 2025 With Project Traffic Conditions

1. Intersection Capacity Utilization/Delay and Levels of Service

The Intersection Capacity Utilization/delay and Levels of Service for Year 2025 With Project traffic conditions, without and with mitigation, are shown in Table 6. As shown in Table 6, the following study intersections are projected to operate at generally unacceptable Levels of Service (E or F) during the peak hours for Year 2025 With Project traffic conditions without mitigation:

Pierre Road (NS) at:
Valley Boulevard (EW) - #1 (both morning and evening peak hours)

Brea Canyon Road (NS) at:
Valley Boulevard (EW) - #2 (evening peak hour only)

Grand Avenue (NS) at:
Amar Road/Temple Avenue (EW) - #3 (both morning and evening peak hours)
Snow Creek Drive (EW) - #4 (both morning and evening peak hours)
La Puente Road (EW) - #5 (both morning and evening peak hours)
Valley Boulevard (EW) - #6 (both morning and evening peak hours)
Garcia Lane (EW) - #7 (evening peak hour only)
Baker Parkway (EW) - #8 (both morning and evening peak hours)
SR-60 WB Ramps (EW) - #9 (without 57/60 Confluence Improvements, both morning and evening peak hours)
SR-60 EB Ramps (EW) - #10 (without 57/60 Confluence Improvements, both morning and evening peak hours)

2. Significant Impact Evaluation

Table 7 evaluates the change in performance between Year 2025 Without and With Project traffic conditions at the study area intersections. As shown in Table 7, the proposed project is forecast to result in a significant traffic impact at the following study intersections for Year 2025 With Project traffic conditions without mitigation:

Pierre Road (NS) at:
Valley Boulevard (EW) - #1 (morning peak hour only)

Brea Canyon Road (NS) at:
Valley Boulevard (EW) - #2 (evening peak hour only)

Grand Avenue (NS) at:

Snow Creek Drive (EW) - #4	(morning peak hour only)
La Puente Road (EW) - #5	(both morning and evening peak hours)
Valley Boulevard (EW) - #6	(evening peak hour only)
Garcia Lane (EW) - #7	(both morning and evening peak hours)
SR-60 WB Ramps (EW) - #9	(without 57/60 Confluence Improvements, both morning and evening peak hours)
SR-60 EB Ramps (EW) - #10	(without 57/60 Confluence Improvements, both morning and evening peak hours)

3. Mitigation Measures

The following mitigation measures are recommended for Year 2025 With Project traffic conditions:

Mitigation Measure #1 **Grand Avenue/La Puente Road (#5)**

- Install right-turn overlap traffic signal phasing at the eastbound approach.

Mitigation Measure #2 **Pierre Road/Valley Boulevard (#1)**

- Construct the southbound approach to consist of one left-turn lane and one shared left/right-turn lane.
- Modify signal timing to provide exclusive pedestrian crossing phase for the east leg.
- Restripe the westbound approach to provide a third westbound through lane.

Mitigation Measure #3 **Grand Avenue/Garcia Lane (#7)**

- Restripe the northbound approach to provide one additional northbound through lane.

With implementation of the identified mitigation measures and upon completion of the 57/60 Confluence Improvements, the proposed project is forecast to result in no significant traffic impacts at the study intersections for Year 2025 With Project traffic conditions, with exception of the following study intersections:

Brea Canyon Road (NS) at:

Valley Boulevard (EW) - #2	(evening peak hour only)

Grand Avenue (NS) at:

Snow Creek Drive (EW) - #4	(morning peak hour only)
Valley Boulevard (EW) - #6	(evening peak hour only)

Striping improvements could add an third westbound through lane at the intersection of Brea Canyon Road/Valley Boulevard (#4); however, the westbound

through lane is not a critical movement. Therefore, the improvement would not mitigate or lessen the project impact. Due to constraints imposed by the bridge and rail crossing at Brea Canyon Road immediately south of the intersection, no additional improvements could be identified for the intersection Brea Canyon Road/Valley Boulevard (#4). Due to right-of-way constraints, no feasible improvements could be identified for the intersections of Snow Creek Drive/Valley Boulevard (#4) and Grand Avenue/Valley Boulevard (#6). Project traffic impacts at these intersections are forecast to remain significant and unavoidable, thus requiring a statement of overriding considerations.

D. Site Access Analysis

A queueing analysis was conducted for the intersection of Street A/Faure Avenue at Valley Boulevard to determine the necessary storage lengths and intersection spacing. Table 8 shows the 95th-percentile queue lengths at key intersection movements based on the Highway Capacity Manual back-of-queue methodology. The 95th-percentile queue length effectively represents the maximum queue length expected (to a 95 percent confidence level) and is the measure commonly used in transportation engineering practice to determine storage and intersection spacing requirements. The queue analysis was performed assuming optimized signal timing. Queueing analysis worksheets are provided in Appendix B.

As shown in Table 8, the 95th-percentile queue length is forecast to equal 125 feet for the southbound left/through lane and 125 feet for the southbound right turn lane. Based on the 190 feet between Valley Boulevard and the Shopping Center Driveway, the proposed intersection spacing is more than adequate.

As also shown in Table 8, the 95th-percentile queue length is forecast to equal 150 feet for the eastbound left turn lane.

The actual storage lengths needed will depend on the final uses of the commercial retail component and should be verified at a later date by the City Traffic Engineer during the plan check process.

Table 3

Existing Plus Project Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Jurisdiction[1]	Traffic Control[2]	Intersection Approach Lanes[3]												Peak Hour ICU/Delay-LOS[4]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Pierre Road (NS) at:																
Valley Boulevard (EW) - #1	Wal./LAC	TS	0	0	0	1	0	1	1	3	0	0	2	d	0.876-D	0.748-C
Brea Canyon Road (NS) at:																
Valley Boulevard (EW) - #2	LAC	TS	2	0	2>	0	0	0	0	2.5	0.5	2	2	0	0.707-C	0.889-D
Grand Avenue (NS) at:																
Amar Road/Temple Avenue (EW) - #3	Wal.	TS	2	3	1>	2	2.5	0.5	2	2	1>	2	2	1>	0.874-D	0.779-C
Snow Creek Drive (EW) - #4	Wal.	TS	1	2	d	1	2	d	0.5	0.5	d	0.5	0.5	d	0.842-D	0.830-D
La Puente Road (EW) - #5	Wal.	TS	1	2	1	1	2	1>	1.5	0.5	1	1.5	1	0.5	0.958-E	0.909-E
- With Mitigation	Wal.	TS	1	2	1	1	2	1>	1.5	0.5	**1>**	1.5	1	0.5	0.855-D	0.782-C
Valley Boulevard (EW) - #6	LAC	TS	2	3	1>>	2	3	1	2	3	1>>	2	3	1	0.856-D	0.951-E
Garcia Lane (EW) - #7	Ind.	TS	1	2	d	1	2.5	0.5	1	0.5	0.5	1	0.5	0.5	0.767-C	0.660-B
Baker Parkway (EW) - #8	Ind.	TS	2	2	0	0	3	1>>	2	0	1>>	0	0	0	0.827-D	0.571-A
SR-60 WB Ramps (EW) - #9	Caltrans	TS	1	2	1>	1.5	1.5	0.5	1	0.5	0.5	1.3	0.3	1.3>	40.0-D	49.6-D
SR-60 EB Ramps (EW) - #10	Caltrans	TS	0	2.5	0.5	1	3	0	2	0	1	0	0	0	26.6-C	21.5-C
Benton Road (NS) at:																
Valley Boulevard (EW) - #11	LAC	TS	0.5	0.5	d	0.5	0.5	d	1	3.5	0.5	1	2.5	0.5	0.489-A	0.673-B
Faure Avenue (NS) at:																
Valley Boulevard (EW) - #12	LAC	**TS**	0.5	0.5	d	**1.5**	**0.5**	**1>**	**1**	2	d	1	2	**1**	0.725-C	0.855-D
Pomona Boulevard (NS) at:																
Valley Boulevard (EW) - #13	Pom.	TS	1.3	0.3	0.3	1	0	d	1	2	1>>	0	1.5	0.5	19.0-B	12.5-B

[1] Wal. = City of Walnut; LAC = Los Angeles County; Ind. = City of Industry; Caltrans = California Department of Transportation; Pom. = City of Pomona

[2] TS = Traffic Signal; CSS = Cross Street Stop

[3] L = Left; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Overlap; d = De Facto Right Turn Lane; **Bold** = Improvement

[4] ICU = Intersection Capacity Utilization; LOS = Level of Service;
ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

Table 4

Existing Plus Project Significant Impact Evaluation

Intersection	Jurisdiction[1]	Peak Hour ICU/Delay-LOS[2]				Change in ICU/Delay		Significant Impact?
		Existing		Existing Plus Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Pierre Road (NS) at:								
Valley Boulevard (EW) - #1	Wal./LAC	0.866-D	0.740-C	0.876-D	0.748-C	+0.010	+0.008	No
Brea Canyon Road (NS) at:								
Valley Boulevard (EW) - #2	LAC	0.696-B	0.878-D	0.707-C	0.889-D	+0.011	+0.011	No
Grand Avenue (NS) at:								
Amar Road/Temple Avenue (EW) - #3	Wal.	0.872-D	0.768-C	0.874-D	0.779-C	+0.002	+0.011	No
Snow Creek Drive (EW) - #4	Wal.	0.829-D	0.821-D	0.842-D	0.830-D	+0.013	+0.009	No
La Puente Road (EW) - #5	Wal.	0.936-E	0.885-D	0.958-E	0.909-E	+0.022	+0.024	Yes
- With Mitigation	Wal.	0.936-D	0.885-E	0.855-D	0.782-C	-0.081	-0.103	No
Valley Boulevard (EW) - #6	LAC	0.828-D	0.918-E	0.856-D	0.951-E	+0.028	+0.033	Yes
Garcia Lane (EW) - #7	Ind.	0.731-C	0.639-B	0.767-C	0.660-B	+0.036	+0.021	No
Baker Parkway (EW) - #8	Ind.	0.818-D	0.554-A	0.827-D	0.571-A	+0.009	+0.017	No
SR-60 WB Ramps (EW) - #9	Caltrans	32.0-C	43.2-D	40.0-D	49.6-D	+8.0	+6.4	No
SR-60 EB Ramps (EW) - #10	Caltrans	24.7-C	20.6-C	26.6-C	21.5-C	+1.9	+0.9	No
Benton Road (NS) at:								
Valley Boulevard (EW) - #11	LAC	0.464-A	0.655-B	0.489-A	0.673-B	+0.025	+0.018	No
Faure Avenue (NS) at:								
Valley Boulevard (EW) - #12	LAC	>99.9-F	>99.9-F	0.725-C	0.855-D	n/a	n/a	No
Pomona Boulevard (NS) at:								
Valley Boulevard (EW) - #13	Pom.	18.9-B	12.3-B	19.0-B	12.5-B	+0.1	+0.2	No

[1] Wal. = City of Walnut; LAC = Los Angeles County; Ind. = City of Industry; Caltrans = California Department of Transportation; Pom. = City of Pomona

[2] ICU = Intersection Capacity Utilization; LOS = Level of Service; see Tables 1 and 4.

Table 5

Year 2025 Without Project Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Jurisdiction[1]	Traffic Control[2]	Intersection Approach Lanes[3]												Peak Hour ICU/Delay-LOS[4]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Pierre Road (NS) at:																
Valley Boulevard (EW) - #1	Wal./LAC	TS	0	0	0	1	0	1	1	3	0	0	2	d	0.906-E	0.962-E
Brea Canyon Road (NS) at:																
Valley Boulevard (EW) - #2	LAC	TS	2	0	2>	0	0	0	0	2.5	0.5	2	2	0	0.814-D	0.969-E
Grand Avenue (NS) at:																
Amar Road/Temple Avenue (EW) - #3	Wal.	TS	2	3	1>	2	2.5	0.5	2	2	1>	2	2	1>	0.999-E	0.932-E
Snow Creek Drive (EW) - #4	Wal.	TS	1	2	d	1	2	d	0.5	0.5	d	0.5	0.5	d	0.945-E	1.076-F
La Puente Road (EW) - #5	Wal.	TS	1	2	1	1	2	1>	1.5	0.5	1	1.5	1	0.5	1.022-F	1.056-F
Valley Boulevard (EW) - #6	LAC	TS	2	3	1>>	2	3	1	2	3	1>>	2	3	1	0.914-E	1.264-F
Garcia Lane (EW) - #7	Ind.	TS	1	2	d	1	2.5	0.5	1	0.5	0.5	1	0.5	0.5	0.861-D	1.179-F
Baker Parkway (EW) - #8	Ind.	TS	2	2	**1**	**1**	3	1>>	2	**1**	1>>	**1**	**1**	**1**	1.503-F	1.959-F
SR-60 WB Ramps (EW) - #9	Caltrans	TS	1	2	1>	1.5	1.5	0.5	1	0.5	0.5	1.3	0.3	1.3>	>99.9-F	>99.9-F
- With 57/60 Improvements	Caltrans	TS	**2**	**4**	1>	**1**	**5**	**1**	**1.5**	**1**	**1.5**	**1.5**	**0.5**	**3>**	45.3-D	19.6-B
SR-60 EB Ramps (EW) - #10	Caltrans	TS	0	2.5	0.5	1	3	0	2	0	1	0	0	0	>99.9-F	>99.9-F
- With 57/60 Improvements	Caltrans	TS	0	**4**	0	0	**3.5**	**0.5**	2	0	1	0	0	0	46.4-D	43.2-D
Benton Road (NS) at:																
Valley Boulevard (EW) - #11	LAC	TS	0.5	0.5	d	0.5	0.5	d	1	3.5	0.5	1	2.5	0.5	0.564-A	0.762-C
Faure Avenue (NS) at:																
Valley Boulevard (EW) - #12	LAC	CSS	1	0	d	0	0	0	0	2	d	1	2	0	>99.9-F	>99.9-F
Pomona Boulevard (NS) at:																
Valley Boulevard (EW) - #13	Pom.	TS	1.3	0.3	0.3	1	0	d	1	2	1>>	0	1.5	0.5	23.9-C	14.9-B

[1] Wal. = City of Walnut; LAC = Los Angeles County; Ind. = City of Industry; Caltrans = California Department of Transportation; Pom. = City of Pomona

[2] TS = Traffic Signal; CSS = Cross Street Stop

[3] L = Left; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Overlap; d = De Facto Right Turn Lane; **Bold** = Improvement

[4] ICU = Intersection Capacity Utilization; LOS = Level of Service;
ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

Table 6

Year 2025 With Project Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Jurisdiction[1]	Traffic Control[2]	Intersection Approach Lanes[3]												Peak Hour ICU/Delay-LOS[4]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Pierre Road (NS) at:																
Valley Boulevard (EW) - #1	Wal./LAC	TS	0	0	0	1	0	1	1	3	0	0	2	d	0.920-E	0.970-E
- With Mitigation	Wal./LAC	TS	0	0	0	**1.5**	0	0.5	1	3	0	0	**2.5**	0.5	0.888-D	0.859-D
Brea Canyon Road (NS) at:																
Valley Boulevard (EW) - #2	LAC	TS	2	0	2>	0	0	0	0	2.5	0.5	2	2	0	0.825-D	0.979-E
Grand Avenue (NS) at:																
Amar Road/Temple Avenue (EW) - #3	Wal.	TS	2	3	1>	2	2.5	0.5	2	2	1>	2	2	1>	1.001-F	0.937-E
Snow Creek Drive (EW) - #4	Wal.	TS	1	2	d	1	2	d	0.5	0.5	d	0.5	0.5	d	0.959-E	1.085-F
La Puente Road (EW) - #5	Wal.	TS	1	2	1	1	2	1>	1.5	0.5	1	1.5	1	0.5	1.042-F	1.072-F
- With Mitigation	Wal.	TS	1	2	1	1	2	1>	1.5	0.5	**1>**	1.5	1	0.5	0.935-E	0.948-E
Valley Boulevard (EW) - #6	LAC	TS	2	3	1>>	2	3	1	2	3	1>>	2	3	1	0.925-E	1.278-F
Garcia Lane (EW) - #7	Ind.	TS	1	2	d	1	2.5	0.5	1	0.5	0.5	1	0.5	0.5	0.896-D	1.200-F
- With Mitigation	Ind.	TS	1	**2.5**	0.5	1	2.5	0.5	1	0.5	0.5	1	0.5	0.5	0.717-C	0.883-D
Baker Parkway (EW) - #8	Ind.	TS	2	2	**1**	**1**	3	1>>	2	**1**	1>>	**1**	**1**	**1**	1.503-F	1.966-F
SR-60 WB Ramps (EW) - #9	Caltrans	TS	1	2	1>	1.5	1.5	0.5	1	0.5	0.5	1.3	0.3	1.3>	>99.9-F	>99.9-F
- With 57/60 Improvements	Caltrans	TS	**2**	**4**	1>	**1**	**5**	**1**	**1.5**	**1**	**1.5**	**1.5**	**0.5**	**3**	46.0-D	22.1-C
SR-60 EB Ramps (EW) - #10	Caltrans	TS	0	2.5	0.5	1	3	0	2	0	1	0	0	0	>99.9-F	>99.9-F
- With 57/60 Improvements	Caltrans	TS	0	**4**	0	0	**3.5**	**0.5**	2	0	1	0	0	0	47.9-D	46.3-D
Benton Road (NS) at:																
Valley Boulevard (EW) - #11	LAC	TS	0.5	0.5	d	0.5	0.5	d	1	3.5	0.5	1	2.5	0.5	0.588-A	0.780-C
Faure Avenue (NS) at:																
Valley Boulevard (EW) - #12	LAC	**TS**	0.5	0.5	d	**1.5**	**0.5**	**1>**	**1**	**2.5**	**0.5**	1	2	**1**	0.873-D	0.900-D
Pomona Boulevard (NS) at:																
Valley Boulevard (EW) - #13	Pom.	TS	1.3	0.3	0.3	1	0	d	1	2	1>>	0	1.5	0.5	24.3-C	15.3-B

[1] Wal. = City of Walnut; LAC = Los Angeles County; Ind. = City of Industry; Caltrans = California Department of Transportation; Pom. = City of Pomona

[2] TS = Traffic Signal; CSS = Cross Street Stop

[3] L = Left; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Overlap; d = De Facto Right Turn Lane; **Bold** = Improvement

[4] ICU = Intersection Capacity Utilization; LOS = Level of Service;
ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

Table 7

Year 2025 Significant Impact Evaluation

Intersection	Jurisdiction[1]	Peak Hour ICU/Delay-LOS[2]				Change in ICU/Delay		Significant Impact?
		Year 2024 Without Project		Year 2024 With Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Pierre Road (NS) at:								
Valley Boulevard (EW) - #1	Wal./LAC	0.906-E	0.962-E	0.920-E	0.970-E	+0.014	+0.008	Yes
- With Mitigation	Wal./LAC	n/a	n/a	0.888-D	0.859-D	-0.018	-0.103	No
Brea Canyon Road (NS) at:								
Valley Boulevard (EW) - #2	LAC	0.814-D	0.969-E	0.825-D	0.979-E	+0.011	+0.010	Yes
Grand Avenue (NS) at:								
Amar Road/Temple Avenue (EW) - #3	Wal.	0.999-E	0.932-E	1.001-F	0.937-E	+0.002	+0.005	No
Snow Creek Drive (EW) - #4	Wal.	0.945-E	1.076-F	0.959-E	1.085-F	+0.014	+0.009	Yes
La Puente Road (EW) - #5	Wal.	1.022-F	1.056-F	1.042-F	1.072-F	+0.020	+0.016	Yes
- With Mitigation	Wal.	n/a	n/a	0.935-E	0.948-E	-0.087	-0.108	No
Valley Boulevard (EW) - #6	LAC	0.914-E	1.264-F	0.925-E	1.278-F	+0.011	+0.014	Yes
Garcia Lane (EW) - #7	Ind.	0.861-D	1.179-F	0.896-D	1.200-F	+0.035	+0.021	Yes
- With Mitigation	Ind.	n/a	n/a	0.717-C	0.883-D	-0.144	-0.296	No
Baker Parkway (EW) - #8	Ind.	1.503-F	1.959-F	1.503-F	1.966-F	0.000	+0.007	No
SR-60 WB Ramps (EW) - #9	Caltrans	364.7-F	1,775.6-F	373.4-F	1,788.2-F	+8.7	+12.6	Yes
- With 57/60 Improvements	Caltrans	45.3-D	19.6-B	46.0-D	22.1-C	+0.7	+2.5	No
SR-60 EB Ramps (EW) - #10	Caltrans	220.8-F	617.8-F	230.0-F	623.9-F	+9.2	+6.1	Yes
- With 57/60 Improvements	Caltrans	46.4-D	43.2-D	47.9-D	46.3-D	+1.5	+3.1	No
Benton Road (NS) at:								
Valley Boulevard (EW) - #11	LAC	0.564-A	0.762-C	0.588-A	0.780-C	+0.024	+0.018	No
Faure Avenue (NS) at:								
Valley Boulevard (EW) - #12	LAC	>99.9-F	>99.9-F	0.873-D	0.900-D	n/a	n/a	No
Pomona Boulevard (NS) at:								
Valley Boulevard (EW) - #13	Pom.	23.9-C	14.9-B	24.3-C	15.3-B	+0.4	+0.4	No

[1] Wal. = City of Walnut; LAC = Los Angeles County; Ind. = City of Industry; Caltrans = California Department of Transportation; Pom. = City of Pomona

[2] ICU = Intersection Capacity Utilization; LOS = Level of Service; see Tables 6 and 7.

Table 8

Site Access Queueing Analysis

Study Intersection	Movement[1]	95th-Percentile Queue (Veh/Lane)		95th-Percentile Queue (Feet)[2]	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Street A/Faure Ave at Valley Boulevard	SBL/T	3	5	75	125
	SBR	3	5	75	125
	EBL	3	6	75	150

[1] SB = Southbound; EB = Eastbound; L = Left; T = Through; R = Right

[2] Based on 25 feet of length per queued vehicle

VII. CONGESTION MANAGEMENT PROGRAM

The 2010 Los Angeles County Congestion Management Program (CMP) uses the following criteria to determine if a proposed development requires analysis of CMP monitored facilities:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the morning or evening weekday peak hours;

- Mainline freeway monitoring locations where the project will 150 or more trips, in either direction, during either the morning or evening weekday peak hours.

As shown on Figure 13 and Figure 14, this traffic impact analysis has evaluated key intersections to which the proposed project is forecast to contribute 50 or more peak hour trips, none of which are CMP monitored intersections. Additionally, the proposed project is not forecast to contribute more 150 or more peak hour trips to any freeway mainline monitoring locations. Therefore, further CMP analysis is not required.

VIII. MITIGATION MEASURES

This section summarizes the mitigation measures identified in previous sections and calculates the project trip contribution percentage of new trips at each study area intersection for which mitigation measures have been identified.

A. Summary of Off-Site Mitigation Measures

The following mitigation measure is recommended for Existing Plus Project traffic conditions:

Mitigation Measure #1 **Grand Avenue/La Puente Road (#5)**

- Install right-turn overlap traffic signal phasing at the eastbound approach.

The following additional mitigation measures are recommended for Year 2025 With Project traffic conditions:

Mitigation Measure #2 **Pierre Road/Valley Boulevard (#1)**

- Construct the southbound approach to consist of one left-turn lane and one shared left/right-turn lane.
- Modify signal timing to provide exclusive pedestrian crossing phase for the east leg.
- Restripe the westbound approach to provide a third westbound through lane.

Mitigation Measure #3 **Grand Avenue/Garcia Lane (#7)**

- Restripe the northbound approach to provide one additional northbound through lane.

B. Project Fair Share Contribution

Table 9 shows the project fair share percentage of new traffic at the significantly impact intersections for which mitigation measure improvements have been identified. The project fair share is based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour traffic volume. The project fair share shown is intended only for the discussion purposes of this traffic impact analysis and does not imply any legal responsibility or formula for contributions or mitigation.

Table 9

Project Fair Share Contribution

Intersection	Peak Hour	Existing Traffic Volume	Year 2025 With Project Traffic Volume	Total New Traffic	Project Trips	Project % of New Traffic
Pierre Road (NS) at:	Morning	3,368	4,102	734	51	6.9%
Valley Boulevard (EW) - #1	Evening	3,828	4,943	1,115	50	4.5%
Grand Avenue (NS) at:	Morning	4,443	5,356	913	108	11.8%
La Puente Road (EW) - #5	Evening	4,167	5,417	1,250	101	8.1%
Grand Avenue (NS) at:	Morning	3,279	5,009	1,730	88	5.1%
Garcia Lane (EW) - #7	Evening	3,175	5,922	2,747	92	3.3%

IX. CONCLUSIONS

A. Off-Site Mitigation Measures

The following mitigation measure is recommended for Existing Plus Project traffic conditions:

Mitigation Measure #1 **Grand Avenue/La Puente Road (#5)**

- Install right-turn overlap traffic signal phasing at the eastbound approach.

The following additional mitigation measures are recommended for Year 2025 With Project traffic conditions:

Mitigation Measure #2 **Pierre Road/Valley Boulevard (#1)**

- Construct the southbound approach to consist of one left-turn lane and one shared left/right-turn lane;
- Modify signal timing to provide exclusive pedestrian crossing phase for the east leg.
- Restripe the westbound approach to provide a third westbound through lane.

Mitigation Measure #3 **Grand Avenue/Garcia Lane (#7)**

- Restripe the northbound approach to provide one additional northbound through lane.

B. Circulation Recommendations

Site-specific circulation and access recommendations are depicted on Figure 26.

The project access at Faure Avenue/Valley Boulevard should be constructed with the following traffic control and lane configuration:

- Install a traffic signal;
- Construct the southbound approach to consist of one shared through/left-turn lane and one exclusive right-turn lane with right-turn overlap traffic signal phasing;
- Construct one eastbound left-turn lane;
- Construct one exclusive westbound right-turn lane.

The Faure Avenue/Shopping Center Driveway intersection should be constructed with the following traffic control and lane configuration:

- Install a STOP sign at the southbound approach supplemented with the "Oncoming Traffic Does Not Stop" plaque (W4-4bP);

- Install a STOP sign at the eastbound approach supplemented with the "Traffic From Right Does Not Stop" plaque (W4-4aP);
- Construct the northbound approach to consist of one left-turn lane and one through lane;
- Construct the southbound approach to consist of one shared through/right-turn lane;
- Construct the eastbound approach to consist of one shared left/right-turn lane;
- "KEEP CLEAR" markings and signage should be installed in the intersection for the southbound direction.

Construct Valley Boulevard along the project site frontage at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as required by the City.

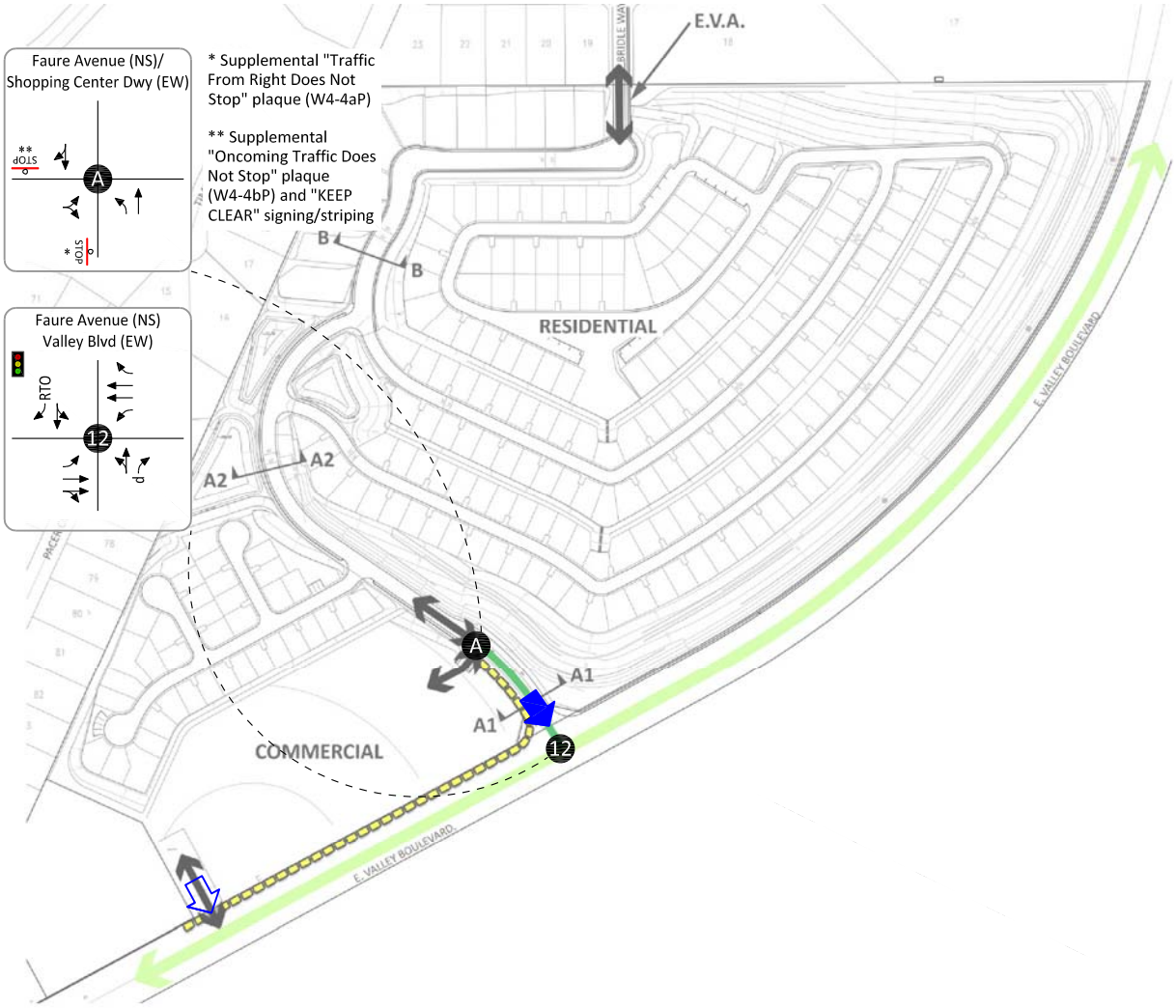
On-site parking should be provided to meet City of Walnut parking code requirements or applicable standards as established by the Specific Plan.

Sight distance at project access points should comply with applicable City of Walnut sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

On-site traffic signing and striping should be implemented in accordance with detailed construction plans for the project and as approved by the City of Walnut.

As is the case for any roadway design, the City of Walnut should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Figure 26
Circulation Recommendations



Construct Valley Boulevard along the project site frontage at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as required by the City.

On-site parking should be provided to meet City of Walnut parking code requirements or applicable standards as established by the Specific Plan.

Sight distance at project access points should comply with applicable City of Walnut sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

On-site traffic signing and striping should be implemented in accordance with detailed construction plans for the project and as approved by the City of Walnut.

As is the case for any roadway design, the City of Walnut should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Legend

= Traffic Signal
STOP = Stop Sign
RTO = Right Turn Overlap
d = De Facto Right Turn
= Full Access Driveway
= Right-In/Right-Out Only Access Driveway

APPENDICES

Appendix A Glossary of Transportation Terms

Appendix B Traffic Count Worksheets

Appendix C Traffic Count Comparison

Appendix D Existing Level of Service Worksheets

Appendix E Internal Capture Worksheets

Appendix F Other Development Data

Appendix G Future Level of Service Worksheets

APPENDIX A

Glossary of Transportation Terms

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

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

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

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

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 that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

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.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

Traffic Count Worksheets

May 2016

INTERSECTION TURNING MOVEMENT COUNTS

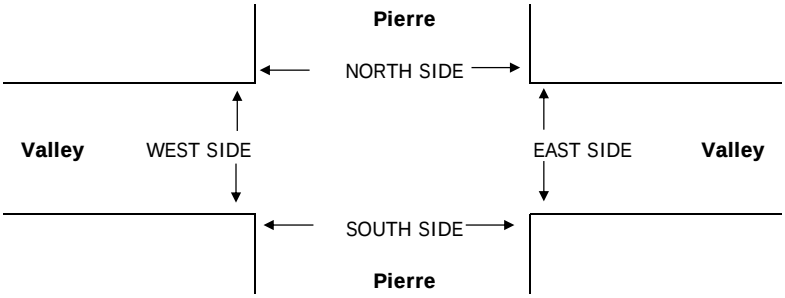
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Pierre	LOCATION #:	1
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Pierre			SOUTHBOUND Pierre			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 3	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	59	0	27	29	85	0	0	229	96	525
	7:15 AM	0	0	0	82	0	46	53	151	0	0	275	164	771
	7:30 AM	0	0	0	118	0	54	74	185	0	0	269	219	919
	7:45 AM	0	0	0	99	0	37	15	182	0	0	289	113	735
	8:00 AM	0	0	0	71	0	14	10	154	0	0	273	86	608
	8:15 AM	0	0	0	81	0	10	12	158	0	0	288	57	606
	8:30 AM	0	0	0	68	0	7	12	129	0	0	289	58	563
	8:45 AM	0	0	0	44	0	18	15	100	0	0	233	57	467
	VOLUMES	0	0	0	622	0	213	220	1,144	0	0	2,145	850	5,194
	APPROACH %	0%	0%	0%	74%	0%	26%	16%	84%	0%	0%	72%	28%	
	APP/DEPART	0	/	1,052	835	/	0	1,364	/	1,766	2,995	/	2,376	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	370	0	151	152	672	0	0	1,106	582	3,033
	APPROACH %	0%	0%	0%	71%	0%	29%	18%	82%	0%	0%	66%	34%	
	PEAK HR FACTOR		0.000			0.757			0.795			0.865		0.825
	APP/DEPART	0	/	724	521	/	0	824	/	1,042	1,688	/	1,267	0
PM	4:00 PM	0	0	0	54	0	16	20	286	0	0	160	68	604
	4:15 PM	0	0	0	56	0	15	16	288	0	0	157	61	593
	4:30 PM	0	0	0	60	0	17	19	313	0	0	188	50	647
	4:45 PM	0	0	0	66	0	17	35	347	0	0	183	65	713
	5:00 PM	0	0	0	82	0	13	30	357	0	0	245	109	836
	5:15 PM	0	0	0	66	0	28	30	390	0	0	281	83	878
	5:30 PM	0	0	0	68	0	27	33	378	0	0	227	102	835
	5:45 PM	0	0	0	67	0	11	29	346	0	0	219	108	780
	VOLUMES	0	0	0	519	0	144	212	2,705	0	0	1,660	646	5,886
	APPROACH %	0%	0%	0%	78%	0%	22%	7%	93%	0%	0%	72%	28%	
	APP/DEPART	0	/	811	663	/	0	2,917	/	3,224	2,306	/	1,851	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	283	0	79	122	1,471	0	0	972	402	3,329
	APPROACH %	0%	0%	0%	78%	0%	22%	8%	92%	0%	0%	71%	29%	
	PEAK HR FACTOR		0.000			0.953			0.948			0.944		0.948
	APP/DEPART	0	/	497	362	/	0	1,593	/	1,754	1,374	/	1,078	0



INTERSECTION TURNING MOVEMENT COUNTS

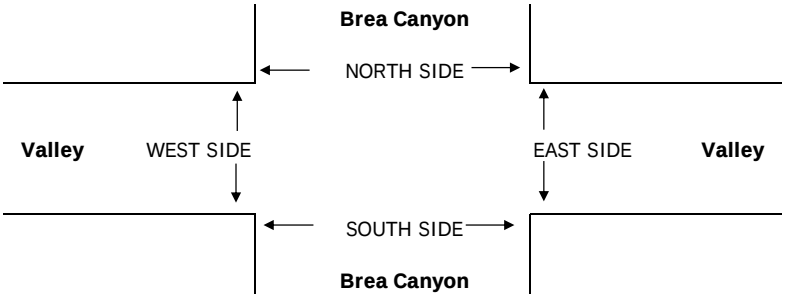
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Brea Canyon	LOCATION #:	2
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Brea Canyon			SOUTHBOUND Brea Canyon			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL 2	NT X	NR 2	SL X	ST X	SR X	EL X	ET 3	ER 0	WL 2	WT 2	WR X	TOTAL
AM	7:00 AM	45	0	60	0	0	0	0	88	33	127	302	0	655
	7:15 AM	84	0	114	0	0	0	0	128	80	152	361	0	919
	7:30 AM	101	0	160	0	0	0	0	208	97	155	392	0	1,113
	7:45 AM	77	0	165	0	0	0	0	179	89	195	301	0	1,006
	8:00 AM	60	0	115	0	0	0	0	190	66	99	267	0	797
	8:15 AM	78	0	116	0	0	0	0	132	78	111	248	0	763
	8:30 AM	61	0	84	0	0	0	0	125	69	125	279	0	743
	8:45 AM	53	0	71	0	0	0	0	152	64	156	278	0	774
	VOLUMES	559	0	885	0	0	0	0	1,202	576	1,120	2,428	0	6,770
	APPROACH %	39%	0%	61%	0%	0%	0%	0%	68%	32%	32%	68%	0%	
	APP/DEPART	1,444	/	0	0	/	1,698	1,778	/	2,088	3,548	/	2,984	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	322	0	554	0	0	0	0	705	332	601	1,321	0	3,835
	APPROACH %	37%	0%	63%	0%	0%	0%	0%	68%	32%	31%	69%	0%	
	PEAK HR FACTOR		0.839			0.000			0.850			0.878		0.861
	APP/DEPART	876	/	0	0	/	934	1,037	/	1,259	1,922	/	1,642	0
PM	4:00 PM	60	0	164	0	0	0	0	308	52	94	170	0	848
	4:15 PM	51	0	152	0	0	0	0	334	44	90	177	0	848
	4:30 PM	94	0	205	0	0	0	0	338	49	109	173	0	968
	4:45 PM	72	0	169	0	0	0	0	357	38	94	180	0	910
	5:00 PM	120	0	250	0	0	0	0	386	64	124	248	0	1,192
	5:15 PM	107	0	205	0	0	0	0	411	54	110	242	0	1,129
	5:30 PM	146	0	299	0	0	0	0	348	38	106	159	0	1,096
	5:45 PM	91	0	223	0	0	0	0	364	50	116	244	0	1,088
	VOLUMES	741	0	1,667	0	0	0	0	2,846	389	843	1,593	0	8,079
	APPROACH %	31%	0%	69%	0%	0%	0%	0%	88%	12%	35%	65%	0%	
	APP/DEPART	2,408	/	0	0	/	1,234	3,235	/	4,514	2,436	/	2,331	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	464	0	977	0	0	0	0	1,509	206	456	893	0	4,505
	APPROACH %	32%	0%	68%	0%	0%	0%	0%	88%	12%	34%	66%	0%	
	PEAK HR FACTOR		0.810			0.000			0.922			0.907		0.945
	APP/DEPART	1,441	/	0	0	/	663	1,715	/	2,486	1,349	/	1,356	0



INTERSECTION TURNING MOVEMENT COUNTS

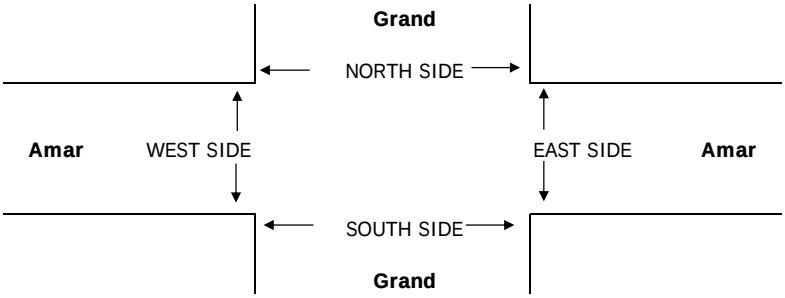
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	3
	EAST & WEST:	Amar	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Amar			WESTBOUND Amar			
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 0	EL 2	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL
AM	7:00 AM	35	172	84	54	266	40	52	103	26	12	108	35	987
	7:15 AM	51	214	141	68	326	37	60	164	40	14	133	32	1,280
	7:30 AM	50	332	164	72	327	50	71	182	45	24	101	33	1,451
	7:45 AM	43	303	183	84	237	55	77	235	35	31	110	38	1,431
	8:00 AM	61	232	165	72	235	59	64	120	52	24	81	50	1,215
	8:15 AM	71	202	128	97	247	84	80	138	48	13	92	37	1,237
	8:30 AM	59	188	103	62	277	57	62	122	73	23	70	24	1,120
	8:45 AM	36	151	70	52	258	38	75	105	48	20	62	33	948
	VOLUMES	406	1,794	1,038	561	2,173	420	541	1,169	367	161	757	282	9,669
	APPROACH %	13%	55%	32%	18%	69%	13%	26%	56%	18%	13%	63%	24%	
	APP/DEPART	3,238	/	2,618	3,154	/	2,701	2,077	/	2,766	1,200	/	1,584	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	205	1,081	653	296	1,125	201	272	701	172	93	425	153	5,377
	APPROACH %	11%	56%	34%	18%	69%	12%	24%	61%	15%	14%	63%	23%	
	PEAK HR FACTOR		0.888			0.903			0.825			0.937		0.926
	APP/DEPART	1,939	/	1,507	1,622	/	1,390	1,145	/	1,649	671	/	831	0
PM	4:00 PM	51	263	82	48	182	53	72	107	60	70	92	46	1,126
	4:15 PM	67	197	72	51	184	58	82	132	68	86	133	66	1,196
	4:30 PM	69	235	66	59	229	74	66	116	66	102	120	79	1,281
	4:45 PM	53	249	82	63	187	62	86	166	52	86	115	55	1,256
	5:00 PM	75	257	66	57	206	65	72	138	74	68	130	58	1,266
	5:15 PM	81	287	58	54	202	66	88	133	71	57	159	65	1,321
	5:30 PM	69	286	76	56	184	64	63	147	52	64	128	68	1,257
	5:45 PM	76	266	76	66	174	52	86	149	60	61	128	54	1,248
	VOLUMES	541	2,040	578	454	1,548	494	615	1,088	503	594	1,005	491	9,951
	APPROACH %	17%	65%	18%	18%	62%	20%	28%	49%	23%	28%	48%	23%	
	APP/DEPART	3,159	/	3,144	2,496	/	2,644	2,206	/	2,120	2,090	/	2,043	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	278	1,028	272	233	824	267	312	553	263	313	524	257	5,124
	APPROACH %	18%	65%	17%	18%	62%	20%	28%	49%	23%	29%	48%	23%	
	PEAK HR FACTOR		0.926			0.914			0.928			0.909		0.970
	APP/DEPART	1,578	/	1,595	1,324	/	1,399	1,128	/	1,059	1,094	/	1,071	0



INTERSECTION TURNING MOVEMENT COUNTS

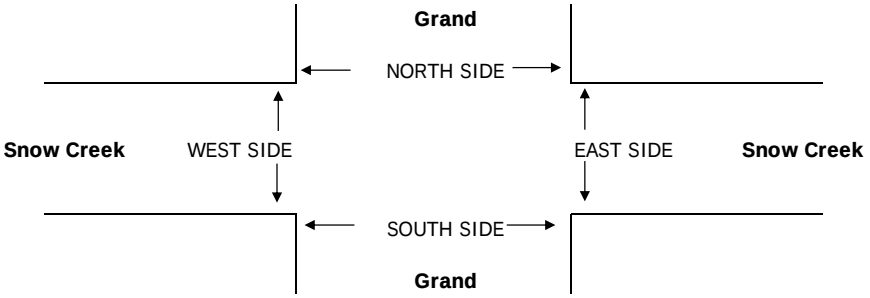
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	4
	EAST & WEST:	Snow Creek	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Snow Creek			WESTBOUND Snow Creek			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	4	282	4	3	292	0	0	1	5	9	0	9	609
	7:15 AM	3	386	6	3	384	5	4	0	6	12	2	12	823
	7:30 AM	1	536	8	5	395	2	4	0	7	14	1	18	991
	7:45 AM	0	522	6	9	292	2	3	1	4	12	0	18	869
	8:00 AM	2	397	3	15	300	3	6	1	2	10	3	32	774
	8:15 AM	2	383	2	17	286	6	10	0	5	10	4	36	761
	8:30 AM	0	282	1	20	370	4	7	1	7	3	0	24	719
	8:45 AM	6	259	3	8	326	1	4	1	5	7	1	17	638
	VOLUMES	18	3,047	33	80	2,645	23	38	5	41	77	11	166	6,184
	APPROACH %	1%	98%	1%	3%	96%	1%	45%	6%	49%	30%	4%	65%	
	APP/DEPART	3,098	/	3,255	2,748	/	2,765	84	/	114	254	/	50	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	6	1,841	23	32	1,371	12	17	2	19	48	6	80	3,457
	APPROACH %	0%	98%	1%	2%	97%	1%	45%	5%	50%	36%	4%	60%	
	PEAK HR FACTOR		0.858			0.880			0.864			0.744		0.872
	APP/DEPART	1,870	/	1,940	1,415	/	1,439	38	/	55	134	/	23	0
PM	4:00 PM	4	328	17	21	249	8	2	2	1	5	0	10	647
	4:15 PM	5	340	10	22	312	5	2	0	10	6	0	14	726
	4:30 PM	4	343	15	22	373	1	2	0	1	5	0	12	778
	4:45 PM	1	391	13	13	327	4	2	2	5	6	0	12	776
	5:00 PM	2	363	10	30	305	5	2	2	4	11	2	15	751
	5:15 PM	8	448	15	21	305	3	2	0	2	7	0	14	825
	5:30 PM	3	426	13	24	285	1	4	0	0	7	4	10	777
	5:45 PM	8	420	7	23	283	3	7	0	3	7	0	22	783
	VOLUMES	35	3,059	100	176	2,439	30	23	6	26	54	6	109	6,063
	APPROACH %	1%	96%	3%	7%	92%	1%	42%	11%	47%	32%	4%	64%	
	APP/DEPART	3,194	/	3,200	2,645	/	2,525	55	/	273	169	/	65	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	21	1,657	45	98	1,178	12	15	2	9	32	6	61	3,136
	APPROACH %	1%	96%	3%	8%	91%	1%	58%	8%	35%	32%	6%	62%	
	PEAK HR FACTOR		0.915			0.947			0.650			0.853		0.950
	APP/DEPART	1,723	/	1,736	1,288	/	1,224	26	/	142	99	/	34	0



INTERSECTION TURNING MOVEMENT COUNTS

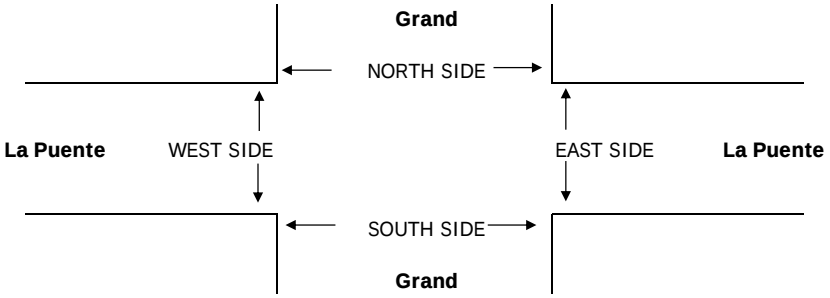
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	5
	EAST & WEST:	La Puente	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND La Puente			WESTBOUND La Puente			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1.5	ET 0.5	ER 1	WL 1.5	WT 1	WR 0.5	TOTAL
AM	7:00 AM	62	233	13	0	243	64	45	6	46	16	18	2	748
	7:15 AM	77	334	22	0	242	128	76	9	61	33	48	0	1,030
	7:30 AM	39	401	13	0	322	101	123	20	112	47	35	0	1,213
	7:45 AM	46	404	15	0	270	37	124	22	119	23	11	1	1,072
	8:00 AM	39	318	14	2	278	37	58	6	73	16	10	3	854
	8:15 AM	44	325	14	1	267	32	50	5	77	33	8	1	857
	8:30 AM	34	231	13	0	351	30	38	5	70	24	9	2	807
	8:45 AM	25	216	5	1	311	33	40	7	64	27	12	2	743
	VOLUMES	366	2,462	109	4	2,284	462	554	80	622	219	151	11	7,324
	APPROACH %	12%	84%	4%	0%	83%	17%	44%	6%	50%	57%	40%	3%	
	APP/DEPART	2,937	/	3,029	2,750	/	3,127	1,256	/	191	381	/	977	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	201	1,457	64	2	1,112	303	381	57	365	119	104	4	4,169
	APPROACH %	12%	85%	4%	0%	78%	21%	47%	7%	45%	52%	46%	2%	
	PEAK HR FACTOR		0.926			0.837			0.758			0.692		0.859
	APP/DEPART	1,722	/	1,843	1,417	/	1,597	803	/	122	227	/	607	0
PM	4:00 PM	43	358	21	0	232	37	65	12	85	20	8	1	882
	4:15 PM	64	308	32	1	274	43	10	9	58	9	7	0	815
	4:30 PM	33	329	14	2	383	28	34	8	59	20	6	0	916
	4:45 PM	59	330	25	3	284	43	59	18	84	18	7	3	933
	5:00 PM	49	361	16	1	292	41	37	12	65	17	8	3	902
	5:15 PM	63	384	45	1	254	51	59	14	72	12	15	3	973
	5:30 PM	55	380	36	4	251	52	55	10	79	23	7	0	952
	5:45 PM	57	365	51	3	212	55	62	28	85	23	22	5	968
	VOLUMES	423	2,815	240	15	2,182	350	381	111	587	142	80	15	7,341
	APPROACH %	12%	81%	7%	1%	86%	14%	35%	10%	54%	60%	34%	6%	
	APP/DEPART	3,478	/	3,212	2,547	/	2,916	1,079	/	365	237	/	848	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	224	1,490	148	9	1,009	199	213	64	301	75	52	11	3,795
	APPROACH %	12%	80%	8%	1%	83%	16%	37%	11%	52%	54%	38%	8%	
	PEAK HR FACTOR		0.946			0.911			0.826			0.690		0.975
	APP/DEPART	1,862	/	1,715	1,217	/	1,387	578	/	220	138	/	473	0



INTERSECTION TURNING MOVEMENT COUNTS

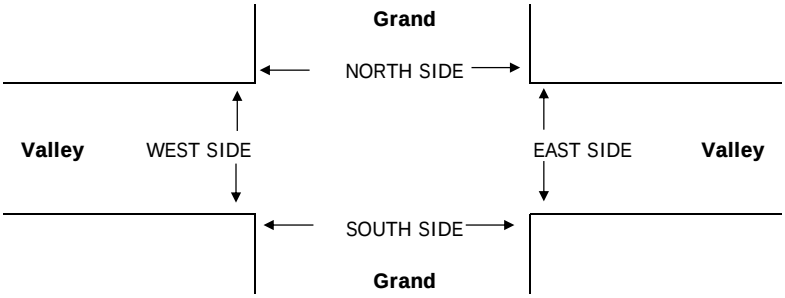
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	6
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	81	224	29	33	177	73	65	52	14	38	243	33	1,062
	7:15 AM	71	287	52	50	195	117	93	105	25	43	342	59	1,439
	7:30 AM	79	325	68	75	258	142	120	143	37	31	277	32	1,587
	7:45 AM	55	280	51	70	203	118	141	167	41	60	270	37	1,493
	8:00 AM	48	240	55	55	251	74	123	102	34	41	239	24	1,286
	8:15 AM	50	226	47	41	236	78	105	119	34	58	251	35	1,280
	8:30 AM	64	201	50	55	247	114	64	102	24	38	215	18	1,192
	8:45 AM	55	179	50	50	235	121	65	126	31	40	242	10	1,204
	VOLUMES	503	1,962	402	429	1,802	837	776	916	240	349	2,079	248	10,543
	APPROACH %	18%	68%	14%	14%	59%	27%	40%	47%	12%	13%	78%	9%	
	APP/DEPART	2,867	/	2,990	3,068	/	2,377	1,932	/	1,753	2,676	/	3,423	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	253	1,132	226	250	907	451	477	517	137	175	1,128	152	5,805
	APPROACH %	16%	70%	14%	16%	56%	28%	42%	46%	12%	12%	78%	10%	
	PEAK HR FACTOR		0.853			0.846			0.810			0.819		0.914
	APP/DEPART	1,611	/	1,762	1,608	/	1,214	1,131	/	994	1,455	/	1,835	0
PM	4:00 PM	63	179	36	88	171	52	131	296	41	58	129	48	1,292
	4:15 PM	57	180	32	67	215	77	153	275	48	65	130	50	1,349
	4:30 PM	54	227	40	91	222	84	117	348	47	56	138	43	1,467
	4:45 PM	61	190	24	110	203	53	157	351	45	67	130	44	1,435
	5:00 PM	82	294	56	86	182	69	135	353	57	87	218	55	1,674
	5:15 PM	74	234	26	96	182	51	180	408	75	103	197	60	1,686
	5:30 PM	80	256	24	80	175	65	144	351	88	54	179	62	1,558
	5:45 PM	76	210	25	101	175	71	193	390	60	51	176	48	1,576
	VOLUMES	547	1,770	263	719	1,525	522	1,210	2,772	461	541	1,297	410	12,037
	APPROACH %	21%	69%	10%	26%	55%	19%	27%	62%	10%	24%	58%	18%	
	APP/DEPART	2,580	/	3,403	2,766	/	2,536	4,443	/	3,769	2,248	/	2,329	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	312	994	131	363	714	256	652	1,502	280	295	770	225	6,494
	APPROACH %	22%	69%	9%	27%	54%	19%	27%	62%	12%	23%	60%	17%	
	PEAK HR FACTOR		0.832			0.960			0.918			0.896		0.963
	APP/DEPART	1,437	/	1,875	1,333	/	1,286	2,434	/	2,014	1,290	/	1,319	0



INTERSECTION TURNING MOVEMENT COUNTS

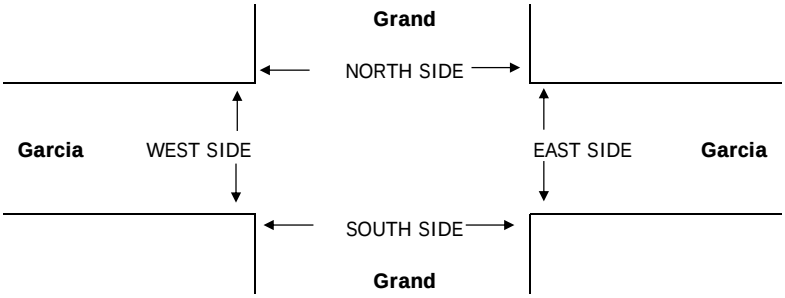
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	7
	EAST & WEST:	Garcia	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Garcia			WESTBOUND Garcia			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	3	372	9	3	202	0	1	0	1	12	2	0	605
	7:15 AM	0	452	3	1	251	2	0	0	0	22	1	1	733
	7:30 AM	3	468	6	2	323	0	0	0	0	19	0	0	821
	7:45 AM	1	409	12	2	292	2	0	0	2	20	1	0	741
	8:00 AM	5	328	9	3	295	1	2	0	4	12	0	0	659
	8:15 AM	2	357	8	3	308	3	0	0	5	9	0	1	696
	8:30 AM	3	296	7	8	274	0	1	0	3	6	0	2	600
	8:45 AM	2	313	10	18	283	2	2	0	2	6	0	3	641
	VOLUMES	19	2,995	64	40	2,228	10	6	0	17	106	4	7	5,496
	APPROACH %	1%	97%	2%	2%	98%	0%	26%	0%	74%	91%	3%	6%	
	APP/DEPART	3,078	/	3,018	2,278	/	2,353	23	/	94	117	/	31	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	9	1,657	30	8	1,161	5	2	0	6	73	2	1	2,954
	APPROACH %	1%	98%	2%	1%	99%	0%	25%	0%	75%	96%	3%	1%	
	PEAK HR FACTOR		0.889			0.903			0.333			0.792		0.900
	APP/DEPART	1,696	/	1,664	1,174	/	1,242	8	/	34	76	/	14	0
PM	4:00 PM	0	271	8	11	295	0	0	0	2	5	0	4	596
	4:15 PM	1	255	8	9	322	1	0	0	0	4	0	0	600
	4:30 PM	3	318	15	9	330	0	4	1	3	13	0	1	697
	4:45 PM	2	289	14	13	297	2	0	0	0	6	0	2	625
	5:00 PM	1	401	21	7	307	0	0	1	1	6	0	4	749
	5:15 PM	1	335	11	7	319	1	0	0	4	9	0	4	691
	5:30 PM	3	318	13	15	299	0	1	0	0	7	0	12	668
	5:45 PM	1	327	7	9	270	0	2	1	2	3	0	1	623
	VOLUMES	12	2,514	97	80	2,439	4	7	3	12	53	0	28	5,249
	APPROACH %	0%	96%	4%	3%	97%	0%	32%	14%	55%	65%	0%	35%	
	APP/DEPART	2,623	/	2,611	2,523	/	2,506	22	/	118	81	/	14	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	7	1,343	61	36	1,253	3	4	2	8	34	0	11	2,762
	APPROACH %	0%	95%	4%	3%	97%	0%	29%	14%	57%	76%	0%	24%	
	PEAK HR FACTOR		0.834			0.953			0.438			0.804		0.922
	APP/DEPART	1,411	/	1,386	1,292	/	1,296	14	/	71	45	/	9	0



INTERSECTION TURNING MOVEMENT COUNTS

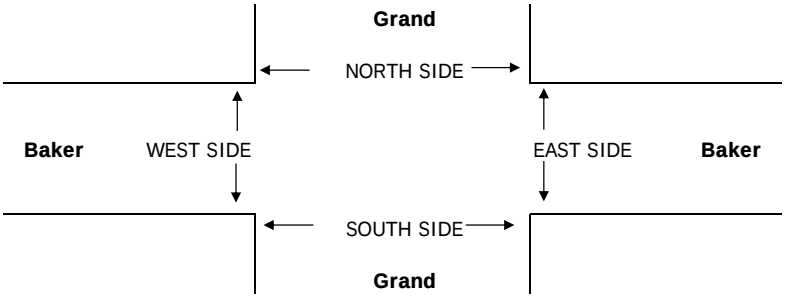
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	8
	EAST & WEST:	Baker	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Baker			WESTBOUND Baker			
	LANES:	NL 2	NT 2	NR X	SL X	ST 3	SR 1	EL 2	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	11	329	0	0	176	25	4	0	10	0	0	0	555
	7:15 AM	25	491	0	0	222	25	6	0	4	0	0	0	773
	7:30 AM	11	473	0	0	279	18	9	0	11	0	0	1	802
	7:45 AM	13	485	0	0	280	14	14	0	7	0	0	0	813
	8:00 AM	21	398	0	0	303	12	6	3	9	0	0	0	752
	8:15 AM	14	377	0	0	245	23	5	0	3	0	0	0	667
	8:30 AM	20	352	0	0	267	7	9	0	13	0	0	0	668
	8:45 AM	21	354	0	0	265	9	4	0	9	0	0	0	662
	VOLUMES	136	3,259	0	0	2,037	133	57	3	66	0	0	1	5,692
	APPROACH %	4%	96%	0%	0%	94%	6%	45%	2%	52%	0%	0%	100%	
	APP/DEPART	3,395	/	3,317	2,170	/	2,106	126	/	3	1	/	266	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	70	1,847	0	0	1,084	69	35	3	31	0	0	1	3,140
	APPROACH %	4%	96%	0%	0%	94%	6%	51%	4%	45%	0%	0%	100%	
	PEAK HR FACTOR		0.929			0.915			0.821			0.250		0.966
	APP/DEPART	1,917	/	1,883	1,153	/	1,118	69	/	3	1	/	136	0
PM	4:00 PM	13	229	0	0	202	7	27	0	13	0	0	0	491
	4:15 PM	15	264	0	0	325	13	18	0	13	0	0	0	648
	4:30 PM	9	273	0	0	361	10	52	0	30	0	0	0	735
	4:45 PM	12	270	0	0	345	7	18	0	28	0	0	0	680
	5:00 PM	11	287	0	0	337	4	35	1	37	0	0	0	712
	5:15 PM	7	272	0	0	326	8	18	1	22	0	0	0	654
	5:30 PM	4	261	0	0	299	8	31	0	28	0	0	0	631
	5:45 PM	9	304	0	0	223	11	28	1	33	0	0	0	609
	VOLUMES	80	2,160	0	0	2,418	68	227	3	204	0	0	0	5,160
	APPROACH %	4%	96%	0%	0%	97%	3%	52%	1%	47%	0%	0%	0%	
	APP/DEPART	2,240	/	2,386	2,486	/	2,623	434	/	3	0	/	148	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	39	1,102	0	0	1,369	29	123	2	117	0	0	0	2,781
	APPROACH %	3%	97%	0%	0%	98%	2%	51%	1%	48%	0%	0%	0%	
	PEAK HR FACTOR		0.957			0.942			0.738			0.000		0.946
	APP/DEPART	1,141	/	1,225	1,398	/	1,486	242	/	2	0	/	68	0



INTERSECTION TURNING MOVEMENT COUNTS

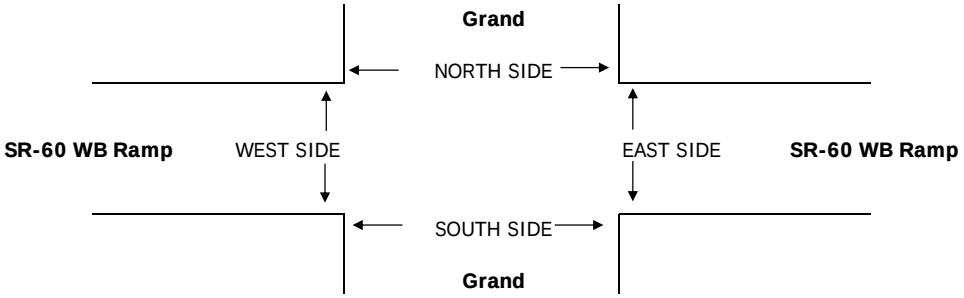
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	9
	EAST & WEST:	SR-60 WB Ramp	CONTROL:	SIGNAL

NOTES: minor construction SB

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND SR-60 WB Ramp			WESTBOUND SR-60 WB Ramp			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 1	EL 1	ET 0.5	ER 0.5	WL 1.5	WT 0.5	WR 1.5	TOTAL
AM	7:00 AM	0	289	62	71	113	1	1	1	1	37	0	80	656
	7:15 AM	0	332	67	92	136	0	0	0	0	45	0	131	803
	7:30 AM	0	323	61	91	171	0	0	0	0	70	0	183	899
	7:45 AM	0	293	65	97	218	0	0	1	0	99	0	183	956
	8:00 AM	0	302	53	74	170	0	0	0	1	71	1	131	803
	8:15 AM	0	298	67	93	169	0	0	0	1	67	1	126	822
	8:30 AM	0	297	64	90	192	0	0	0	0	44	0	99	786
	8:45 AM	0	271	80	74	208	0	0	0	0	33	0	93	759
	VOLUMES	0	2,405	519	682	1,377	1	1	2	3	466	2	1,026	6,484
	APPROACH %	0%	82%	18%	33%	67%	0%	17%	33%	50%	31%	0%	69%	
	APP/DEPART	2,924	/	3,433	2,060	/	1,846	6	/	1,202	1,494	/	3	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	1,216	246	355	728	0	0	1	2	307	2	623	3,480
	APPROACH %	0%	83%	17%	33%	67%	0%	0%	33%	67%	33%	0%	67%	
	PEAK HR FACTOR		0.952			0.860			0.750			0.826		0.910
	APP/DEPART	1,462	/	1,839	1,083	/	1,037	3	/	602	932	/	2	0
PM	4:00 PM	1	151	29	63	144	0	0	0	0	39	0	48	475
	4:15 PM	0	177	48	116	213	0	0	0	0	59	0	98	711
	4:30 PM	0	159	57	103	247	0	0	0	0	52	0	96	714
	4:45 PM	0	169	42	121	233	0	0	0	1	58	0	112	736
	5:00 PM	0	177	37	93	224	0	0	0	1	41	0	119	692
	5:15 PM	0	170	86	113	248	0	0	0	0	53	0	108	778
	5:30 PM	1	167	40	99	247	0	0	0	0	54	0	116	724
	5:45 PM	1	207	78	74	252	0	0	0	0	67	0	116	795
	VOLUMES	3	1,377	417	782	1,808	0	0	0	2	423	0	813	5,625
	APPROACH %	0%	77%	23%	30%	70%	0%	0%	0%	100%	34%	0%	66%	
	APP/DEPART	1,797	/	2,192	2,590	/	2,236	2	/	1,197	1,236	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	2	721	241	379	971	0	0	0	1	215	0	459	2,989
	APPROACH %	0%	75%	25%	28%	72%	0%	0%	0%	100%	32%	0%	68%	
	PEAK HR FACTOR		0.843			0.935			0.250			0.921		0.940
	APP/DEPART	964	/	1,181	1,350	/	1,189	1	/	619	674	/	0	0



INTERSECTION TURNING MOVEMENT COUNTS

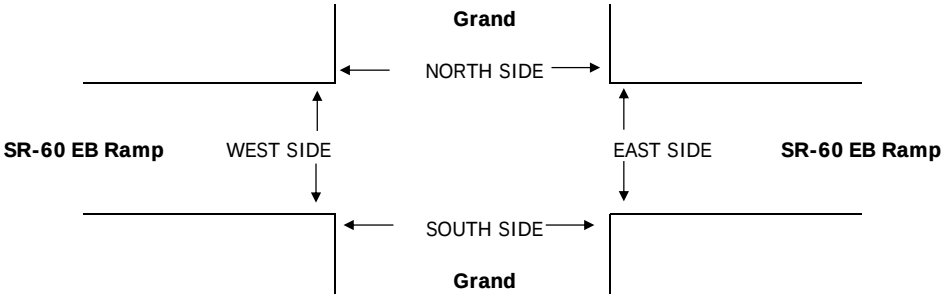
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Grand	LOCATION #:	10
	EAST & WEST:	SR-60 EB Ramp	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND SR-60 EB Ramp			WESTBOUND SR-60 EB Ramp			
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL 2	ET 0	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	217	39	54	104	0	153	0	45	0	0	0	612
	7:15 AM	0	229	45	58	134	0	175	1	53	0	0	0	695
	7:30 AM	0	245	66	74	174	0	149	0	59	0	0	0	767
	7:45 AM	0	196	63	82	197	0	173	0	66	0	0	0	777
	8:00 AM	0	257	93	80	188	0	123	1	47	0	0	0	789
	8:15 AM	0	213	74	71	156	0	108	0	67	0	0	0	689
	8:30 AM	0	198	71	97	135	0	138	0	53	0	0	0	692
	8:45 AM	0	241	53	75	148	0	146	0	57	0	0	0	720
	VOLUMES	0	1,796	504	591	1,236	0	1,165	2	447	0	0	0	5,741
	APPROACH %	0%	78%	22%	32%	68%	0%	72%	0%	28%	0%	0%	0%	
	APP/DEPART	2,300	/	2,961	1,827	/	1,683	1,614	/	1,097	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	927	267	294	693	0	620	2	225	0	0	0	3,028
	APPROACH %	0%	78%	22%	30%	70%	0%	73%	0%	27%	0%	0%	0%	
	PEAK HR FACTOR		0.853			0.884			0.886			0.000		0.959
	APP/DEPART	1,194	/	1,547	987	/	918	847	/	563	0	/	0	0
PM	4:00 PM	0	139	131	72	181	0	37	0	37	0	0	0	597
	4:15 PM	0	160	136	86	193	0	40	2	39	0	0	0	656
	4:30 PM	0	199	133	91	212	0	43	0	57	0	0	0	735
	4:45 PM	0	172	162	74	193	0	41	0	52	0	0	0	694
	5:00 PM	0	206	156	76	194	0	37	0	40	0	0	0	709
	5:15 PM	0	204	172	83	208	0	38	0	50	0	0	0	755
	5:30 PM	0	161	154	77	201	0	42	1	48	0	0	0	684
	5:45 PM	0	229	156	90	229	0	47	0	50	0	0	0	801
	VOLUMES	0	1,470	1,200	649	1,611	0	325	3	373	0	0	0	5,631
	APPROACH %	0%	55%	45%	29%	71%	0%	46%	0%	53%	0%	0%	0%	
	APP/DEPART	2,670	/	1,796	2,260	/	1,984	701	/	1,851	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	800	638	326	832	0	164	1	188	0	0	0	2,949
	APPROACH %	0%	56%	44%	28%	72%	0%	46%	0%	53%	0%	0%	0%	
	PEAK HR FACTOR		0.934			0.908			0.910			0.000		0.920
	APP/DEPART	1,438	/	964	1,158	/	1,020	353	/	965	0	/	0	0



INTERSECTION TURNING MOVEMENT COUNTS

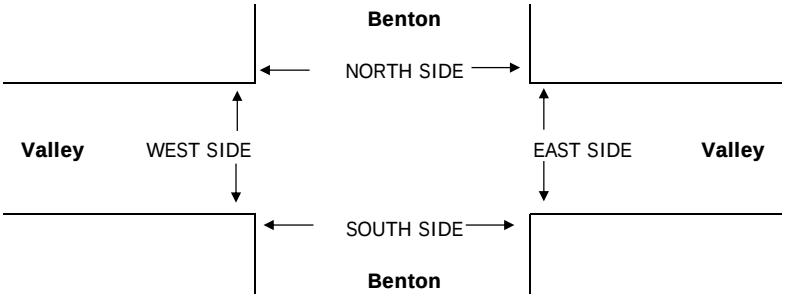
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Benton	LOCATION #:	11
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Benton			SOUTHBOUND Benton			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 4	ER 0	WL 1	WT 3	WR 0	TOTAL
AM	7:00 AM	0	1	0	1	0	5	4	109	2	3	358	1	484
	7:15 AM	2	0	2	1	0	7	7	193	3	3	408	2	628
	7:30 AM	2	0	1	0	0	3	4	240	3	3	384	2	642
	7:45 AM	3	0	3	1	0	2	6	287	11	6	328	3	650
	8:00 AM	3	0	0	0	0	1	4	226	15	2	314	2	567
	8:15 AM	10	1	0	0	0	2	7	196	9	1	305	2	533
	8:30 AM	2	0	2	0	0	5	8	173	9	4	259	2	464
	8:45 AM	3	0	2	1	1	6	10	196	14	6	264	2	505
	VOLUMES	25	2	10	4	1	31	50	1,620	66	28	2,620	16	4,473
	APPROACH %	68%	5%	27%	11%	3%	86%	3%	93%	4%	1%	98%	1%	
	APP/DEPART	37	/	49	36	/	91	1,736	/	1,638	2,664	/	2,695	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	10	0	6	2	0	13	21	946	32	14	1,434	9	2,487
	APPROACH %	63%	0%	38%	13%	0%	87%	2%	95%	3%	1%	98%	1%	
	PEAK HR FACTOR		0.667			0.469			0.822			0.882		0.957
	APP/DEPART	16	/	18	15	/	45	999	/	955	1,457	/	1,469	0
PM	4:00 PM	52	0	15	5	1	9	12	358	59	19	203	2	735
	4:15 PM	42	2	14	4	0	3	14	374	58	14	159	1	685
	4:30 PM	46	0	20	3	0	6	14	397	48	24	185	1	744
	4:45 PM	46	0	13	4	0	6	13	364	53	16	202	2	719
	5:00 PM	36	0	20	1	1	3	9	434	54	23	237	1	819
	5:15 PM	58	0	17	4	0	0	5	487	59	18	316	1	965
	5:30 PM	47	0	10	3	0	3	6	409	65	18	271	0	832
	5:45 PM	46	0	25	1	0	3	10	436	55	17	234	1	828
	VOLUMES	373	2	134	25	2	33	83	3,259	451	149	1,807	9	6,327
	APPROACH %	73%	0%	26%	42%	3%	55%	2%	86%	12%	8%	92%	0%	
	APP/DEPART	509	/	70	60	/	593	3,793	/	3,427	1,965	/	2,237	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	187	0	72	9	1	9	30	1,766	233	76	1,058	3	3,444
	APPROACH %	72%	0%	28%	47%	5%	47%	1%	87%	11%	7%	93%	0%	
	PEAK HR FACTOR		0.863			0.792			0.921			0.849		0.892
	APP/DEPART	259	/	19	19	/	308	2,029	/	1,849	1,137	/	1,268	0



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City of Corona
N/S: Faure Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTFAVAAM
Site Code : 07515647
Start Date : 11/19/2015
Page No : 1

Groups Printed- Total Volume

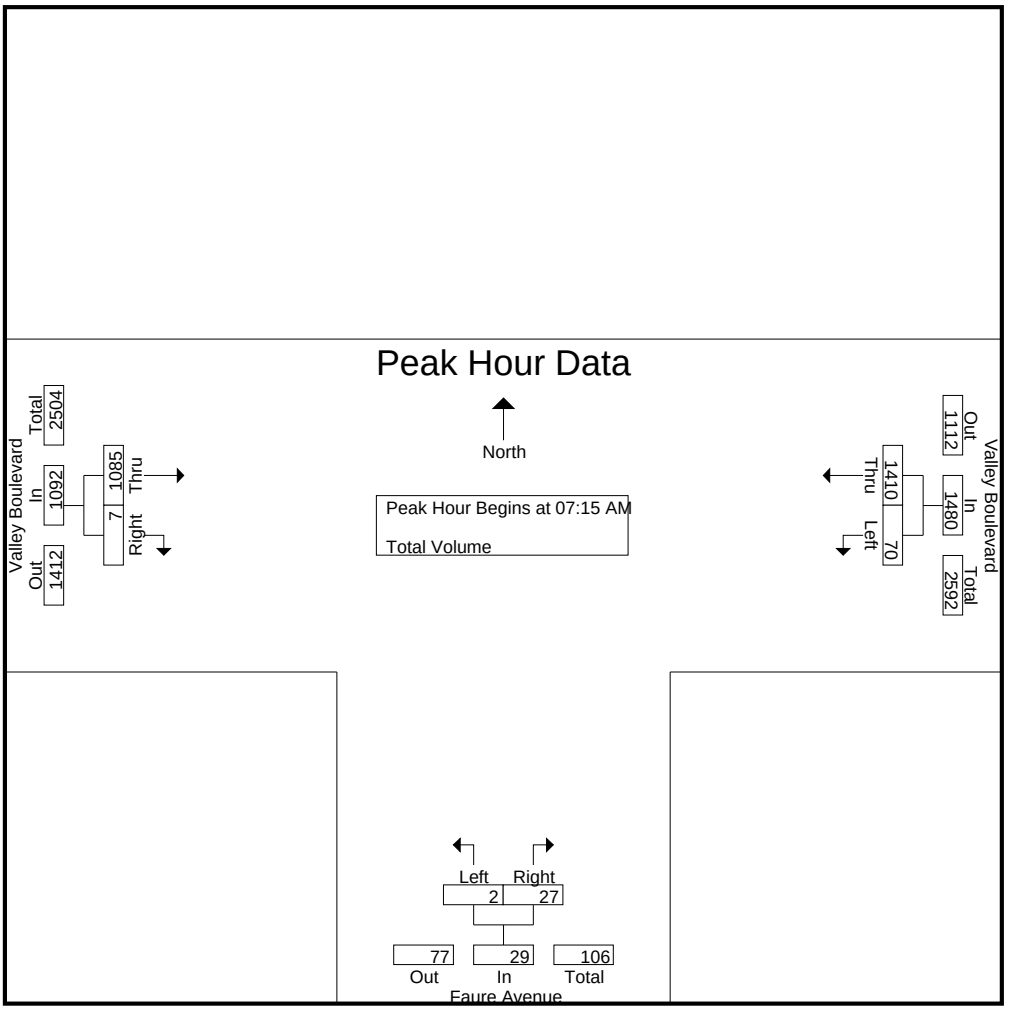
	Valley Boulevard Westbound			Faure Avenue Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	18	360	378	0	3	3	132	0	132	513
07:15 AM	24	418	442	0	5	5	277	2	279	726
07:30 AM	18	361	379	1	5	6	288	0	288	673
07:45 AM	24	317	341	1	9	10	295	2	297	648
Total	84	1456	1540	2	22	24	992	4	996	2560
08:00 AM	4	314	318	0	8	8	225	3	228	554
08:15 AM	7	255	262	1	2	3	200	2	202	467
08:30 AM	7	261	268	0	8	8	186	3	189	465
08:45 AM	11	226	237	1	7	8	173	4	177	422
Total	29	1056	1085	2	25	27	784	12	796	1908
Grand Total	113	2512	2625	4	47	51	1776	16	1792	4468
Apprch %	4.3	95.7		7.8	92.2		99.1	0.9		
Total %	2.5	56.2	58.8	0.1	1.1	1.1	39.7	0.4	40.1	

	Valley Boulevard Westbound			Faure Avenue Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**24**	**418**	**442**	0	5	5	277	2	279	**726**
07:30 AM	18	361	379	**1**	5	6	288	0	288	673
07:45 AM	24	317	341	1	**9**	**10**	**295**	2	**297**	648
08:00 AM	4	314	318	0	8	8	225	**3**	228	554
Total Volume	70	1410	1480	2	27	29	1085	7	1092	2601
% App. Total	4.7	95.3		6.9	93.1		99.4	0.6		
PHF	.729	.843	.837	.500	.750	.725	.919	.583	.919	.896

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City of Corona
N/S: Faure Avenue
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Weather: Clear

File Name : WNTFAVAAM
Site Code : 07515647
Start Date : 11/19/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			07:15 AM		
+0 mins.	18	360	378	0	5	5	277	2	279
+15 mins.	**24**	**418**	**442**	**1**	5	6	288	0	288
+30 mins.	18	361	379	1	**9**	**10**	**295**	2	**297**
+45 mins.	24	317	341	0	8	8	225	**3**	228
Total Volume	84	1456	1540	2	27	29	1085	7	1092
% App. Total	5.5	94.5		6.9	93.1		99.4	0.6	
PHF	.875	.871	.871	.500	.750	.725	.919	.583	.919

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City of Corona
N/S: Faure Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTFAVAPM
Site Code : 07515647
Start Date : 11/19/2015
Page No : 1

Groups Printed- Total Volume

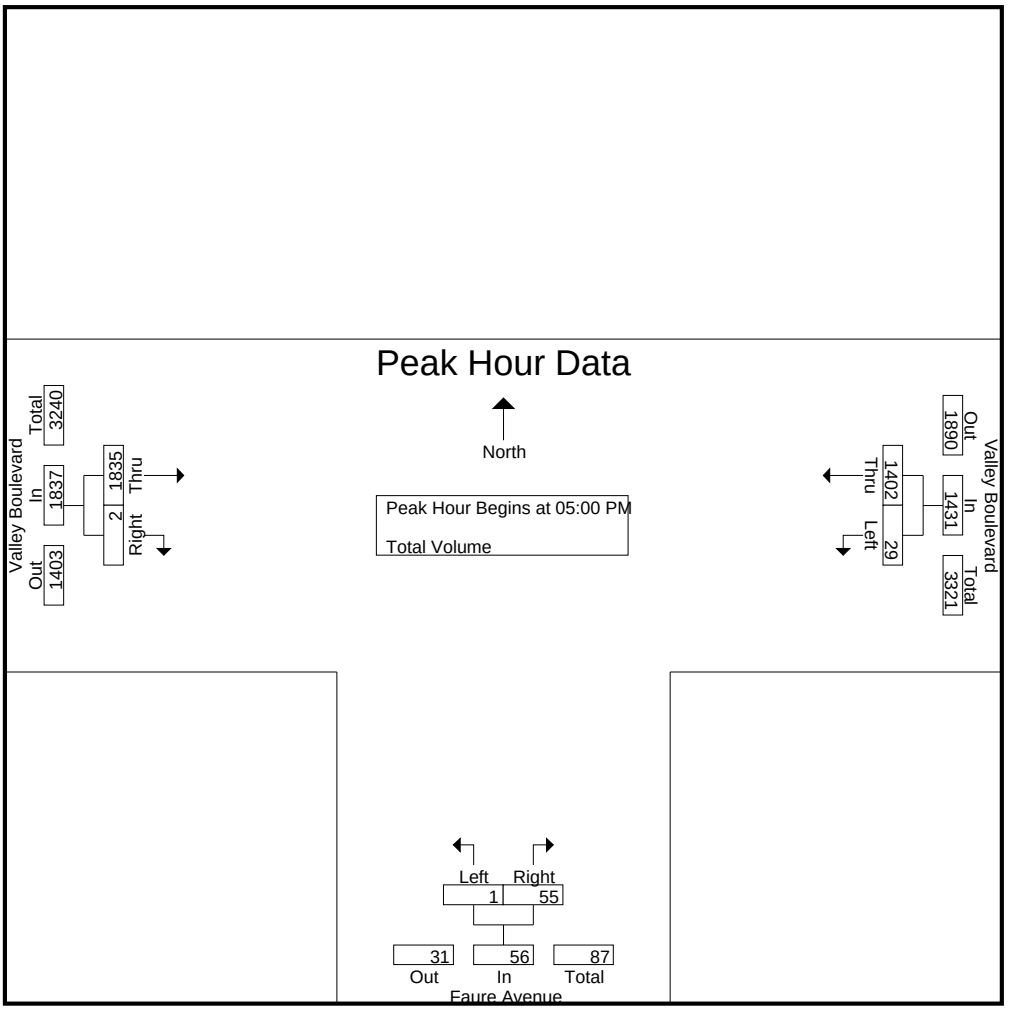
	Valley Boulevard Westbound			Faure Avenue Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	3	243	246	0	12	12	380	0	380	638
04:15 PM	9	205	214	0	6	6	385	2	387	607
04:30 PM	2	213	215	1	23	24	419	0	419	658
04:45 PM	7	254	261	0	14	14	381	3	384	659
Total	21	915	936	1	55	56	1565	5	1570	2562
05:00 PM	10	371	381	0	22	22	391	0	391	794
05:15 PM	9	361	370	0	14	14	507	2	509	893
05:30 PM	6	367	373	0	13	13	447	0	447	833
05:45 PM	4	303	307	1	6	7	490	0	490	804
Total	29	1402	1431	1	55	56	1835	2	1837	3324
Grand Total	50	2317	2367	2	110	112	3400	7	3407	5886
Apprch %	2.1	97.9		1.8	98.2		99.8	0.2		
Total %	0.8	39.4	40.2	0	1.9	1.9	57.8	0.1	57.9	

	Valley Boulevard Westbound			Faure Avenue Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**10**	**371**	**381**	0	**22**	**22**	391	0	391	794
05:15 PM	9	361	370	0	14	14	**507**	**2**	**509**	**893**
05:30 PM	6	367	373	0	13	13	447	0	447	833
05:45 PM	4	303	307	**1**	6	7	490	0	490	804
Total Volume	29	1402	1431	1	55	56	1835	2	1837	3324
% App. Total	2	98		1.8	98.2		99.9	0.1		
PHF	.725	.945	.939	.250	.625	.636	.905	.250	.902	.931

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City of Corona
N/S: Faure Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTFAVAPM
Site Code : 07515647
Start Date : 11/19/2015
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:30 PM			05:00 PM		
+0 mins.	**10**	**371**	**381**	**1**	**23**	**24**	391	0	391
+15 mins.	9	361	370	0	14	14	**507**	**2**	**509**
+30 mins.	6	367	373	0	22	22	447	0	447
+45 mins.	4	303	307	0	14	14	490	0	490
Total Volume	29	1402	1431	1	73	74	1835	2	1837
% App. Total	2	98		1.4	98.6		99.9	0.1	
PHF	.725	.945	.939	.250	.793	.771	.905	.250	.902

INTERSECTION TURNING MOVEMENT COUNTS

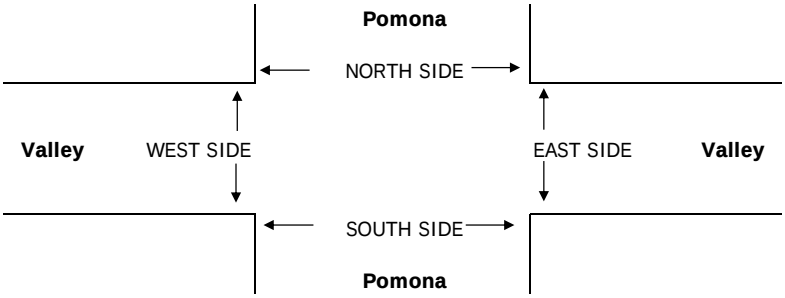
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC0953
Tue, May 17, 16	NORTH & SOUTH:	Pomona	LOCATION #:	13
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Pomona			SOUTHBOUND Pomona			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL 1.5	NT 0.5	NR 0.5	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
AM	7:00 AM	206	1	0	3	0	8	1	94	39	0	198	0	550
	7:15 AM	199	1	0	7	0	14	1	129	57	0	208	1	617
	7:30 AM	156	0	0	8	0	13	3	193	73	0	185	3	634
	7:45 AM	191	0	0	10	0	5	5	171	88	0	169	4	643
	8:00 AM	160	0	0	8	0	10	1	127	64	0	156	2	528
	8:15 AM	158	0	0	6	0	6	2	119	75	0	150	4	520
	8:30 AM	158	0	0	2	0	9	6	129	67	0	122	1	494
	8:45 AM	152	0	0	7	0	7	5	96	64	0	110	0	441
	VOLUMES	1,380	2	0	51	0	72	24	1,058	527	0	1,298	15	4,427
	APPROACH %	100%	0%	0%	41%	0%	59%	1%	66%	33%	0%	99%	1%	
	APP/DEPART	1,382	/	41	123	/	527	1,609	/	1,109	1,313	/	2,750	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	752	2	0	28	0	40	10	587	257	0	760	8	2,444
	APPROACH %	100%	0%	0%	41%	0%	59%	1%	69%	30%	0%	99%	1%	
	PEAK HR FACTOR		0.911			0.810			0.794			0.919		0.950
	APP/DEPART	754	/	20	68	/	257	854	/	615	768	/	1,552	0
PM	4:00 PM	63	4	0	2	0	9	8	183	197	0	129	3	598
	4:15 PM	59	1	0	8	0	6	5	201	165	0	111	3	559
	4:30 PM	80	1	0	4	0	1	7	246	215	0	152	6	712
	4:45 PM	57	2	0	5	0	1	11	234	156	0	138	4	608
	5:00 PM	87	3	0	4	0	2	10	262	212	0	184	2	766
	5:15 PM	110	3	1	5	0	3	10	268	254	5	186	4	849
	5:30 PM	80	2	1	2	0	7	4	240	185	0	160	0	681
	5:45 PM	75	2	0	5	0	3	6	233	195	0	146	6	671
	VOLUMES	611	18	2	35	0	32	61	1,867	1,579	5	1,206	28	5,444
	APPROACH %	97%	3%	0%	52%	0%	48%	2%	53%	45%	0%	97%	2%	
	APP/DEPART	631	/	107	67	/	1,584	3,507	/	1,904	1,239	/	1,849	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	352	10	2	16	0	15	30	1,003	846	5	676	12	2,967
	APPROACH %	97%	3%	1%	52%	0%	48%	2%	53%	45%	1%	98%	2%	
	PEAK HR FACTOR		0.798			0.861			0.883			0.888		0.874
	APP/DEPART	364	/	52	31	/	851	1,879	/	1,021	693	/	1,043	0



October 2015

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City of Walnut
N/S: Grand Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTGRTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

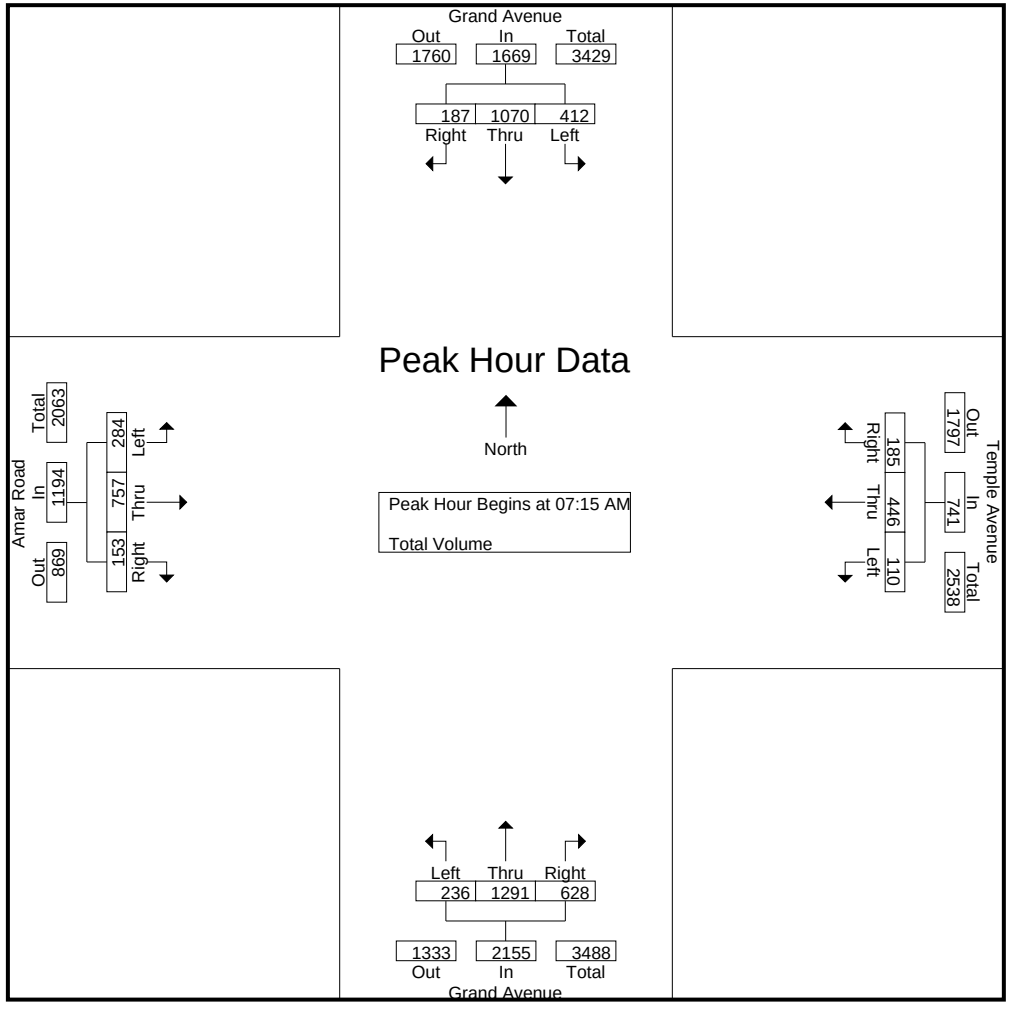
	Grand Avenue Southbound					Temple Avenue Westbound					Grand Avenue Northbound					Amar Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	100	292	42	0	434	15	152	62	0	229	38	195	130	0	363	63	132	38	0	233	1259
07:15 AM	83	290	37	0	410	25	165	40	0	230	65	289	158	0	512	61	202	47	0	310	1462
07:30 AM	116	267	47	0	430	22	84	56	0	162	58	339	188	0	585	85	192	38	0	315	1492
07:45 AM	111	251	42	0	404	29	92	41	0	162	52	398	165	0	615	72	189	24	0	285	1466
Total	410	1100	168	0	1678	91	493	199	0	783	213	1221	641	0	2075	281	715	147	0	1143	5679
08:00 AM	102	262	61	0	425	34	105	48	0	187	61	265	117	0	443	66	174	44	0	284	1339
08:15 AM	75	238	65	0	378	27	110	42	0	179	113	266	115	0	494	67	134	62	1	264	1315
08:30 AM	72	284	57	0	413	30	78	48	0	156	47	189	89	0	325	79	130	68	0	277	1171
08:45 AM	50	243	35	0	328	18	56	28	0	102	44	190	78	0	312	72	111	47	0	230	972
Total	299	1027	218	0	1544	109	349	166	0	624	265	910	399	0	1574	284	549	221	1	1055	4797
Grand Total	709	2127	386	0	3222	200	842	365	0	1407	478	2131	1040	0	3649	565	1264	368	1	2198	10476
Apprch %	22	66	12	0		14.2	59.8	25.9	0		13.1	58.4	28.5	0		25.7	57.5	16.7	0		
Total %	6.8	20.3	3.7	0	30.8	1.9	8	3.5	0	13.4	4.6	20.3	9.9	0	34.8	5.4	12.1	3.5	0	21	

	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	83	**290**	37	410	25	**165**	40	**230**	**65**	289	158	512	61	**202**	**47**	310	1462
07:30 AM	**116**	267	47	**430**	22	84	**56**	162	58	339	**188**	585	**85**	192	38	**315**	**1492**
07:45 AM	111	251	42	404	29	92	41	162	52	**398**	165	**615**	72	189	24	285	1466
08:00 AM	102	262	**61**	425	**34**	105	48	187	61	265	117	443	66	174	44	284	1339
Total Volume	412	1070	187	1669	110	446	185	741	236	1291	628	2155	284	757	153	1194	5759
% App. Total	24.7	64.1	11.2		14.8	60.2	25		11	59.9	29.1		23.8	63.4	12.8		
PHF	.888	.922	.766	.970	.809	.676	.826	.805	.908	.811	.835	.876	.835	.937	.814	.948	.965

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City of Walnut
N/S: Grand Avenue
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Weather: Clear

File Name : WNTGRTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
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	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:15 AM				07:15 AM				
+0 mins.	100	**292**	42	**434**	15	152	**62**	229	**65**	289	158	512	61	**202**	**47**	310	
+15 mins.	83	290	37	410	25	**165**	40	**230**	58	339	**188**	585	**85**	192	38	**315**	
+30 mins.	**116**	267	**47**	430	22	84	56	162	52	**398**	165	**615**	72	189	24	285	
+45 mins.	111	251	42	404	**29**	92	41	162	61	265	117	443	66	174	44	284	
Total Volume	410	1100	168	1678	91	493	199	783	236	1291	628	2155	284	757	153	1194	
% App. Total	24.4	65.6	10		11.6	63	25.4		11	59.9	29.1		23.8	63.4	12.8		
PHF	.884	.942	.894	.967	.784	.747	.802	.851	.908	.811	.835	.876	.835	.937	.814	.948	

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City of Walnut
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Groups Printed- Total Volume

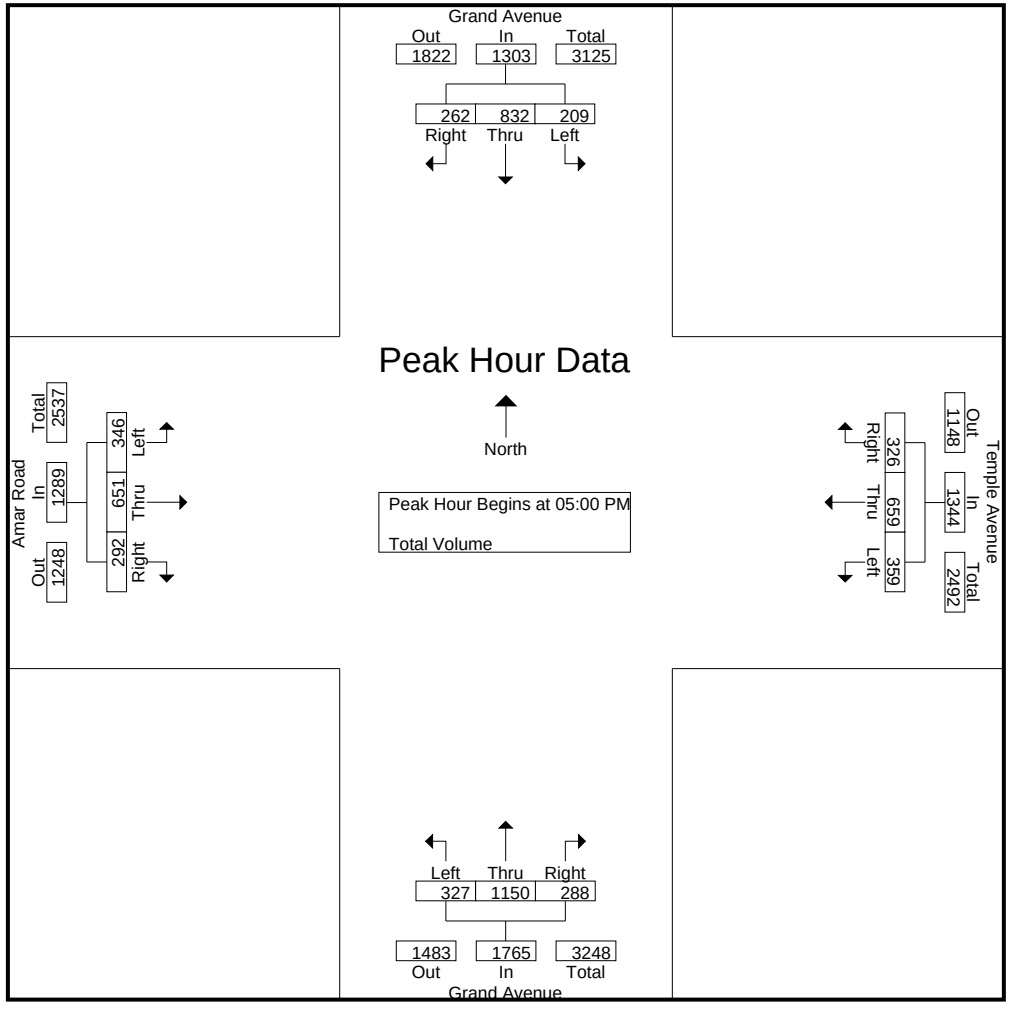
	Grand Avenue Southbound					Temple Avenue Westbound					Grand Avenue Northbound					Amar Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	61	188	50	0	299	64	112	60	0	236	62	183	74	0	319	93	134	75	0	302	1156
04:15 PM	80	206	46	0	332	86	118	71	0	275	53	228	100	0	381	71	161	88	0	320	1308
04:30 PM	84	256	73	0	413	97	147	62	0	306	47	233	56	0	336	72	149	67	2	290	1345
04:45 PM	73	204	71	0	348	89	160	57	1	307	59	266	79	0	404	71	171	68	0	310	1369
Total	298	854	240	0	1392	336	537	250	1	1124	221	910	309	0	1440	307	615	298	2	1222	5178
05:00 PM	57	230	72	0	359	98	138	75	0	311	73	238	60	0	371	94	159	74	1	328	1369
05:15 PM	50	192	50	1	293	85	157	70	0	312	91	330	79	0	500	86	165	62	0	313	1418
05:30 PM	52	206	73	0	331	99	178	95	0	372	76	293	68	0	437	91	153	81	0	325	1465
05:45 PM	50	204	67	1	322	77	186	86	1	350	87	289	81	0	457	75	174	75	0	324	1453
Total	209	832	262	2	1305	359	659	326	1	1345	327	1150	288	0	1765	346	651	292	1	1290	5705
Grand Total	507	1686	502	2	2697	695	1196	576	2	2469	548	2060	597	0	3205	653	1266	590	3	2512	10883
Apprch %	18.8	62.5	18.6	0.1		28.1	48.4	23.3	0.1		17.1	64.3	18.6	0		26	50.4	23.5	0.1		
Total %	4.7	15.5	4.6	0	24.8	6.4	11	5.3	0	22.7	5	18.9	5.5	0	29.4	6	11.6	5.4	0	23.1	

	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**57**	**230**	72	**359**	98	138	75	311	73	238	60	371	**94**	159	74	**327**	1368
05:15 PM	50	192	50	292	85	157	70	312	**91**	**330**	79	**500**	86	165	62	313	1417
05:30 PM	52	206	**73**	331	**99**	178	**95**	**372**	76	293	68	437	91	153	**81**	325	**1465**
05:45 PM	50	204	67	321	77	**186**	86	349	87	289	**81**	457	75	**174**	75	324	1451
Total Volume	209	832	262	1303	359	659	326	1344	327	1150	288	1765	346	651	292	1289	5701
% App. Total	16	63.9	20.1		26.7	49	24.3		18.5	65.2	16.3		26.8	50.5	22.7		
PHF	.917	.904	.897	.907	.907	.886	.858	.903	.898	.871	.889	.883	.920	.935	.901	.985	.973

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City of Walnut
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	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	80	206	46	332	98	138	75	311	73	238	60	371	**94**	159	74	**327**	
+15 mins.	**84**	**256**	**73**	**413**	85	157	70	312	**91**	**330**	79	**500**	86	165	62	313	
+30 mins.	73	204	71	348	**99**	178	**95**	**372**	76	293	68	437	91	153	**81**	325	
+45 mins.	57	230	72	359	77	**186**	86	349	87	289	**81**	457	75	**174**	75	324	
Total Volume	294	896	262	1452	359	659	326	1344	327	1150	288	1765	346	651	292	1289	
% App. Total	20.2	61.7	18		26.7	49	24.3		18.5	65.2	16.3		26.8	50.5	22.7		
PHF	.875	.875	.897	.879	.907	.886	.858	.903	.898	.871	.889	.883	.920	.935	.901	.985	

Counts Unlimited
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City of Walnut
N/S: Grand Avenue
E/W: La Puente Road
Weather: Clear

File Name : WNTGRLPAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

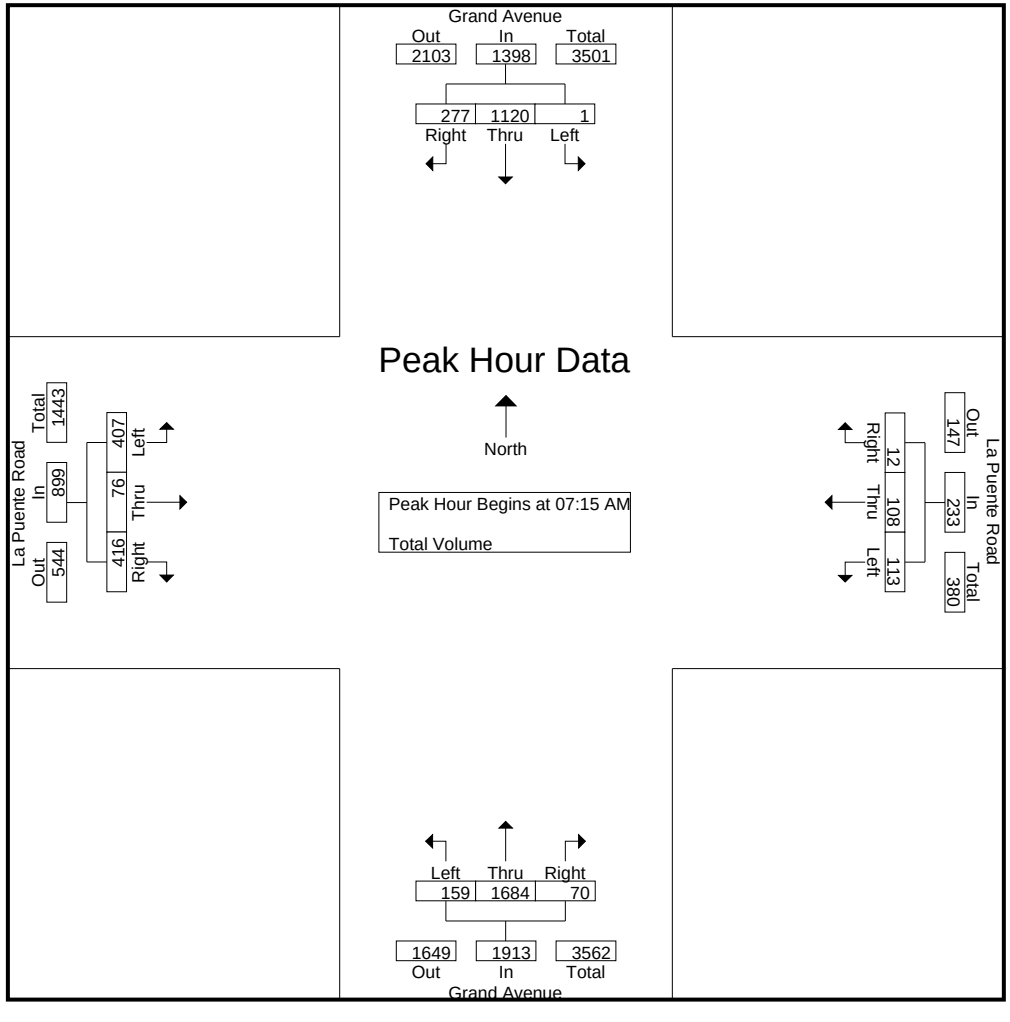
	Grand Avenue Southbound					La Puente Road Westbound					Grand Avenue Northbound					La Puente Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	280	69	0	349	20	18	1	0	39	51	344	15	0	410	50	3	46	0	99	897
07:15 AM	0	247	128	0	375	42	71	2	0	115	57	368	26	0	451	115	30	99	0	244	1185
07:30 AM	0	294	85	0	379	26	21	5	0	52	34	488	18	0	540	148	25	138	0	311	1282
07:45 AM	0	250	27	0	277	25	8	4	0	37	25	400	15	0	440	111	16	114	0	241	995
Total	0	1071	309	0	1380	113	118	12	0	243	167	1600	74	0	1841	424	74	397	0	895	4359
08:00 AM	1	329	37	0	367	20	8	1	0	29	43	428	11	0	482	33	5	65	0	103	981
08:15 AM	0	280	37	0	317	33	6	2	0	41	51	356	9	1	417	39	3	69	0	111	886
08:30 AM	0	331	27	0	358	32	10	2	0	44	42	286	7	1	336	35	1	72	0	108	846
08:45 AM	2	280	42	0	324	29	8	2	0	39	45	241	11	0	297	34	7	55	0	96	756
Total	3	1220	143	0	1366	114	32	7	0	153	181	1311	38	2	1532	141	16	261	0	418	3469
Grand Total	3	2291	452	0	2746	227	150	19	0	396	348	2911	112	2	3373	565	90	658	0	1313	7828
Apprch %	0.1	83.4	16.5	0		57.3	37.9	4.8	0		10.3	86.3	3.3	0.1		43	6.9	50.1	0		
Total %	0	29.3	5.8	0	35.1	2.9	1.9	0.2	0	5.1	4.4	37.2	1.4	0	43.1	7.2	1.1	8.4	0	16.8	

	Grand Avenue Southbound				La Puente Road Westbound				Grand Avenue Northbound				La Puente Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	247	**128**	375	**42**	**71**	2	**115**	**57**	368	**26**	451	115	**30**	99	244	1185
07:30 AM	0	294	85	**379**	26	21	**5**	52	34	**488**	18	**540**	**148**	25	**138**	**311**	**1282**
07:45 AM	0	250	27	277	25	8	4	37	25	400	15	440	111	16	114	241	995
08:00 AM	**1**	**329**	37	367	20	8	1	29	43	428	11	482	33	5	65	103	981
Total Volume	1	1120	277	1398	113	108	12	233	159	1684	70	1913	407	76	416	899	4443
% App. Total	0.1	80.1	19.8		48.5	46.4	5.2		8.3	88	3.7		45.3	8.5	46.3		
PHF	.250	.851	.541	.922	.673	.380	.600	.507	.697	.863	.673	.886	.688	.633	.754	.723	.866

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City of Walnut
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E/W: La Puente Road
Weather: Clear

File Name : WNTGRLPAM
Site Code : 04215551
Start Date : 10/1/2015
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City of Walnut
N/S: Grand Avenue
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File Name : WNTGRLPAM
Site Code : 04215551
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	Grand Avenue Southbound				La Puente Road Westbound				Grand Avenue Northbound				La Puente Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:15 AM				07:15 AM				
+0 mins.	0	247	**128**	375	20	18	1	39	**57**	368	**26**	451	115	**30**	99	244	
+15 mins.	0	294	85	**379**	**42**	**71**	2	**115**	34	**488**	18	**540**	**148**	25	**138**	**311**	
+30 mins.	0	250	27	277	26	21	**5**	52	25	400	15	440	111	16	114	241	
+45 mins.	**1**	**329**	37	367	25	8	4	37	43	428	11	482	33	5	65	103	
Total Volume	1	1120	277	1398	113	118	12	243	159	1684	70	1913	407	76	416	899	
% App. Total	0.1	80.1	19.8		46.5	48.6	4.9		8.3	88	3.7		45.3	8.5	46.3		
PHF	.250	.851	.541	.922	.673	.415	.600	.528	.697	.863	.673	.886	.688	.633	.754	.723	

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City of Walnut
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File Name : WNTGRLPPM
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Groups Printed- Total Volume

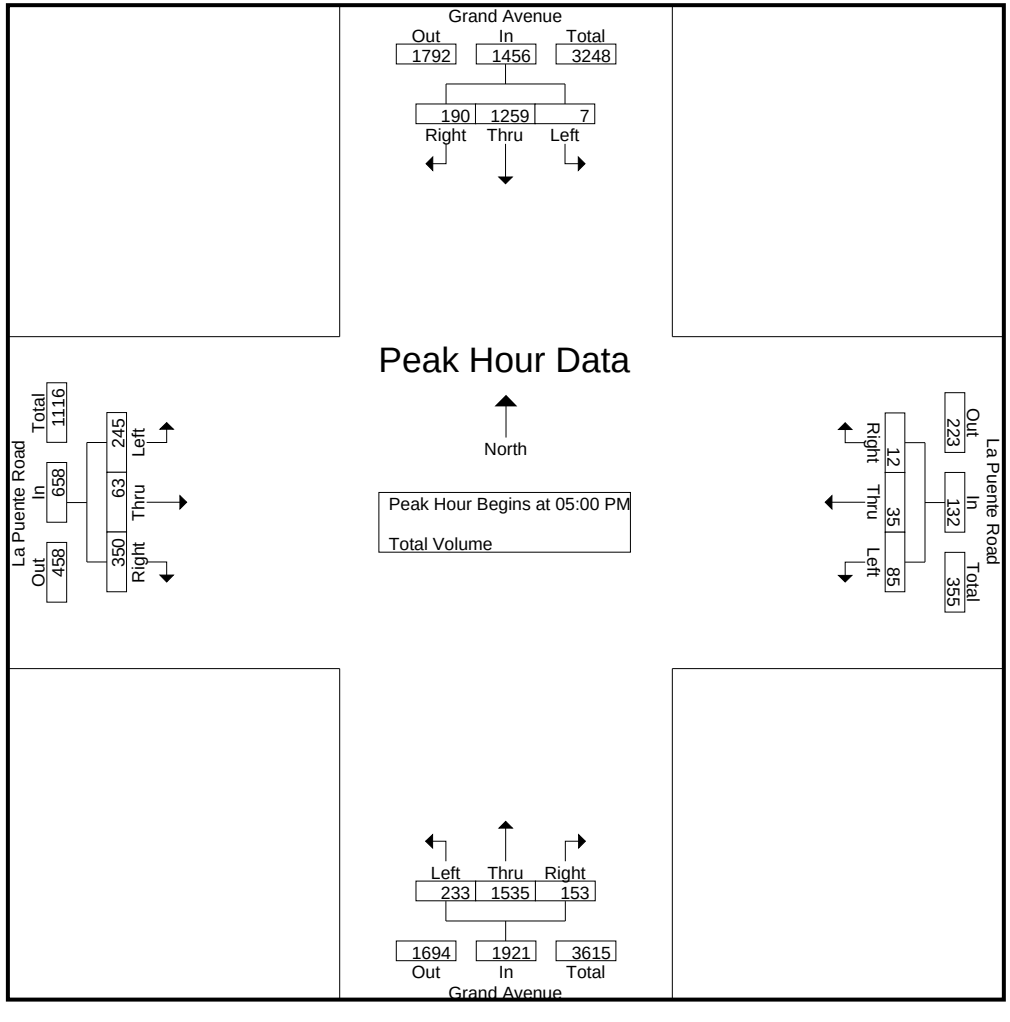
	Grand Avenue Southbound					La Puente Road Westbound					Grand Avenue Northbound					La Puente Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	1	272	40	0	313	16	9	2	0	27	45	319	24	0	388	42	7	64	0	113	841
04:15 PM	0	331	39	0	370	14	5	3	0	22	36	282	27	0	345	63	13	81	0	157	894
04:30 PM	0	373	43	0	416	11	5	2	0	18	36	311	13	1	361	43	6	84	0	133	928
04:45 PM	2	319	43	1	365	21	4	2	0	27	43	319	20	0	382	59	12	97	0	168	942
Total	3	1295	165	1	1464	62	23	9	0	94	160	1231	84	1	1476	207	38	326	0	571	3605
05:00 PM	0	350	48	0	398	20	6	2	0	28	44	377	29	0	450	52	9	72	0	133	1009
05:15 PM	3	280	47	0	330	20	8	6	0	34	65	366	43	0	474	62	15	107	0	184	1022
05:30 PM	1	343	45	0	389	26	6	3	0	35	74	440	46	0	560	58	13	72	0	143	1127
05:45 PM	3	286	50	0	339	19	15	1	0	35	50	352	35	1	438	73	26	99	0	198	1010
Total	7	1259	190	0	1456	85	35	12	0	132	233	1535	153	1	1922	245	63	350	0	658	4168
Grand Total	10	2554	355	1	2920	147	58	21	0	226	393	2766	237	2	3398	452	101	676	0	1229	7773
Apprch %	0.3	87.5	12.2	0		65	25.7	9.3	0		11.6	81.4	7	0.1		36.8	8.2	55	0		
Total %	0.1	32.9	4.6	0	37.6	1.9	0.7	0.3	0	2.9	5.1	35.6	3	0	43.7	5.8	1.3	8.7	0	15.8	

	Grand Avenue Southbound				La Puente Road Westbound				Grand Avenue Northbound				La Puente Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	**350**	48	**398**	20	6	2	28	44	377	29	450	52	9	72	133	1009
05:15 PM	**3**	280	47	330	20	8	**6**	34	65	366	43	474	62	15	**107**	184	1022
05:30 PM	1	343	45	389	**26**	6	3	**35**	**74**	**440**	**46**	**560**	58	13	72	143	**1127**
05:45 PM	3	286	**50**	339	19	**15**	1	35	50	352	35	437	**73**	**26**	99	**198**	1009
Total Volume	7	1259	190	1456	85	35	12	132	233	1535	153	1921	245	63	350	658	4167
% App. Total	0.5	86.5	13		64.4	26.5	9.1		12.1	79.9	8		37.2	9.6	53.2		
PHF	.583	.899	.950	.915	.817	.583	.500	.943	.787	.872	.832	.858	.839	.606	.818	.831	.924

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City of Walnut
N/S: Grand Avenue
E/W: La Puente Road
Weather: Clear

File Name : WNTGRLPPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
E/W: La Puente Road
Weather: Clear

File Name : WNTGRLPPM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound				La Puente Road Westbound				Grand Avenue Northbound				La Puente Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	331	39	370	20	6	2	28	44	377	29	450	52	9	72	133	
+15 mins.	0	**373**	43	**416**	20	8	**6**	34	65	366	43	474	62	15	**107**	184	
+30 mins.	**2**	319	43	364	**26**	6	3	**35**	**74**	**440**	**46**	**560**	58	13	72	143	
+45 mins.	0	350	**48**	398	19	**15**	1	35	50	352	35	437	**73**	**26**	99	**198**	
Total Volume	2	1373	173	1548	85	35	12	132	233	1535	153	1921	245	63	350	658	
% App. Total	0.1	88.7	11.2		64.4	26.5	9.1		12.1	79.9	8		37.2	9.6	53.2		
PHF	.250	.920	.901	.930	.817	.583	.500	.943	.787	.872	.832	.858	.839	.606	.818	.831	

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City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAAM
Site Code : 04215551
Start Date : 10/1/2015
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Groups Printed- Total Volume

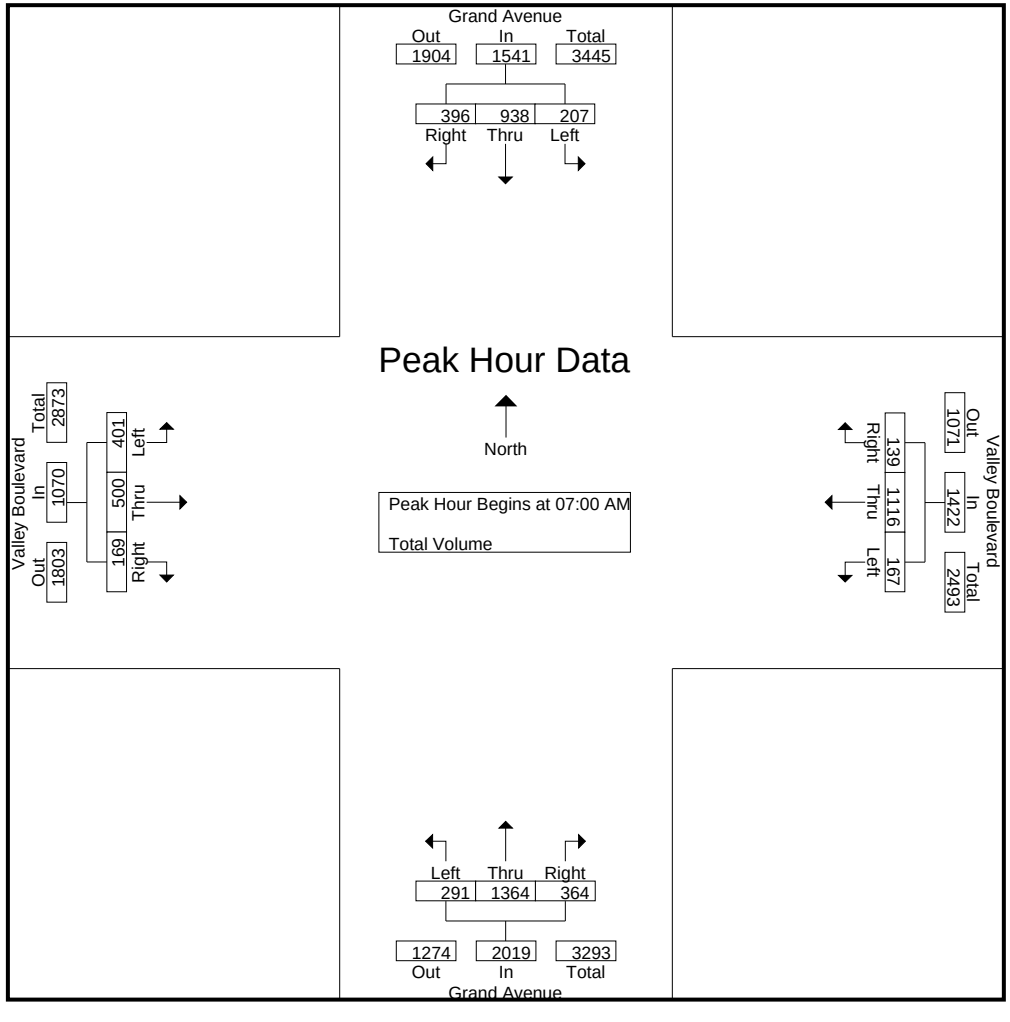
	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	31	215	94	0	340	39	320	44	1	404	76	340	83	0	499	74	112	33	0	219	1462
07:15 AM	50	225	107	1	383	53	311	40	4	408	91	348	117	0	556	88	120	46	0	254	1601
07:30 AM	66	238	108	0	412	37	266	28	3	334	67	364	85	0	516	112	148	54	2	316	1578
07:45 AM	60	260	87	0	407	38	219	27	6	290	57	312	79	0	448	127	120	36	0	283	1428
Total	207	938	396	1	1542	167	1116	139	14	1436	291	1364	364	0	2019	401	500	169	2	1072	6069
08:00 AM	51	250	90	0	391	39	257	31	1	328	72	322	68	0	462	107	128	29	0	264	1445
08:15 AM	29	258	95	0	382	60	220	25	5	310	41	302	80	0	423	78	118	41	0	237	1352
08:30 AM	53	250	84	3	390	37	253	37	4	331	52	225	67	0	344	61	111	40	1	213	1278
08:45 AM	42	242	86	1	371	41	190	23	1	255	56	216	75	1	348	72	107	51	2	232	1206
Total	175	1000	355	4	1534	177	920	116	11	1224	221	1065	290	1	1577	318	464	161	3	946	5281
Grand Total	382	1938	751	5	3076	344	2036	255	25	2660	512	2429	654	1	3596	719	964	330	5	2018	11350
Apprch %	12.4	63	24.4	0.2		12.9	76.5	9.6	0.9		14.2	67.5	18.2	0		35.6	47.8	16.4	0.2		
Total %	3.4	17.1	6.6	0	27.1	3	17.9	2.2	0.2	23.4	4.5	21.4	5.8	0	31.7	6.3	8.5	2.9	0	17.8	

	Grand Avenue Southbound				Valley Boulevard Westbound				Grand Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	31	215	94	340	39	**320**	**44**	403	76	340	83	499	74	112	33	219	1461
07:15 AM	50	225	107	382	**53**	311	40	**404**	**91**	348	**117**	**556**	88	120	46	254	**1596**
07:30 AM	**66**	238	**108**	**412**	37	266	28	331	67	**364**	85	516	112	**148**	**54**	**314**	1573
07:45 AM	60	**260**	87	407	38	219	27	284	57	312	79	448	**127**	120	36	283	1422
Total Volume	207	938	396	1541	167	1116	139	1422	291	1364	364	2019	401	500	169	1070	6052
% App. Total	13.4	60.9	25.7		11.7	78.5	9.8		14.4	67.6	18		37.5	46.7	15.8		
PHF	.784	.902	.917	.935	.788	.872	.790	.880	.799	.937	.778	.908	.789	.845	.782	.852	.948

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City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
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File Name : WNTGRVAAM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound				Valley Boulevard Westbound				Grand Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:00 AM				07:15 AM				
+0 mins.	50	225	107	382	39	**320**	**44**	403	76	340	83	499	88	120	46	254	
+15 mins.	**66**	238	**108**	**412**	**53**	311	40	**404**	**91**	348	**117**	**556**	112	**148**	**54**	**314**	
+30 mins.	60	**260**	87	407	37	266	28	331	67	**364**	85	516	**127**	120	36	283	
+45 mins.	51	250	90	391	38	219	27	284	57	312	79	448	107	128	29	264	
Total Volume	227	973	392	1592	167	1116	139	1422	291	1364	364	2019	434	516	165	1115	
% App. Total	14.3	61.1	24.6		11.7	78.5	9.8		14.4	67.6	18		38.9	46.3	14.8		
PHF	.860	.936	.907	.966	.788	.872	.790	.880	.799	.937	.778	.908	.854	.872	.764	.888	

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City of Walnut
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Groups Printed- Total Volume

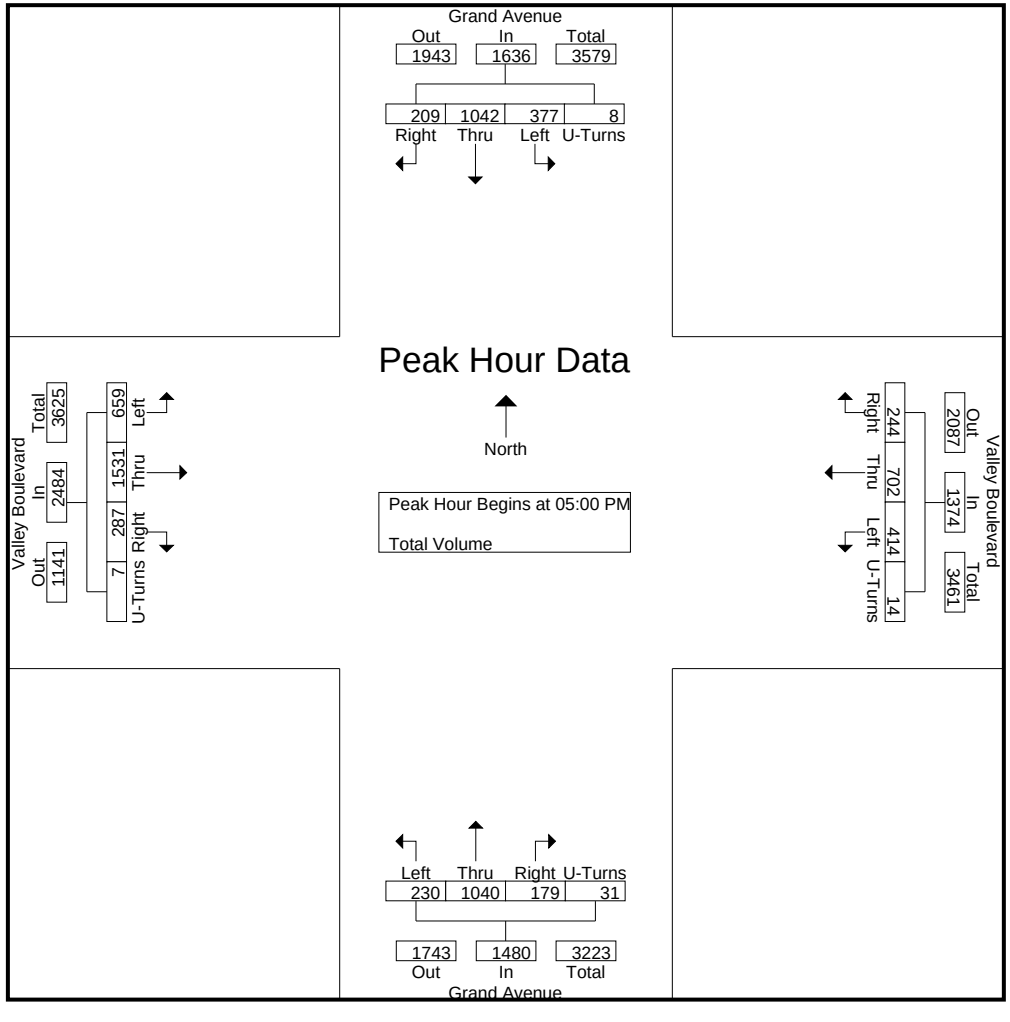
	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	61	221	44	1	327	63	160	41	1	265	62	188	32	6	288	105	310	64	5	484	1364
04:15 PM	74	332	47	0	453	80	117	34	3	234	51	169	28	7	255	129	256	49	3	437	1379
04:30 PM	74	274	51	0	399	71	151	30	3	255	38	197	41	2	278	144	355	77	2	578	1510
04:45 PM	109	296	52	4	461	86	134	22	2	244	47	198	30	6	281	134	313	92	0	539	1525
Total	318	1123	194	5	1640	300	562	127	9	998	198	752	131	21	1102	512	1234	282	10	2038	5778
05:00 PM	81	250	52	1	384	101	176	50	2	329	61	253	37	6	357	158	396	90	1	645	1715
05:15 PM	109	280	48	2	439	110	180	64	4	358	63	268	48	8	387	167	357	63	4	591	1775
05:30 PM	84	263	45	2	394	101	212	72	5	390	54	273	54	10	391	180	397	76	0	653	1828
05:45 PM	103	249	64	3	419	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	1656
Total	377	1042	209	8	1636	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	6974
Grand Total	695	2165	403	13	3276	714	1264	371	23	2372	428	1792	310	52	2582	1171	2765	569	17	4522	12752
Apprch %	21.2	66.1	12.3	0.4		30.1	53.3	15.6	1		16.6	69.4	12	2		25.9	61.1	12.6	0.4		
Total %	5.5	17	3.2	0.1	25.7	5.6	9.9	2.9	0.2	18.6	3.4	14.1	2.4	0.4	20.2	9.2	21.7	4.5	0.1	35.5	

	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	81	250	52	1	384	101	176	50	2	329	61	253	37	6	357	158	396	**90**			
05:15 PM	**109**	**280**	**48**	**2**	**439**	**110**	**180**	**64**	**4**	**358**	**63**	268	48	8	387	167	357	63	**4**	591	1775
05:30 PM	84	263	45	2	394	101	**212**	**72**	**5**	**390**	54	**273**	**54**	**10**	**391**	**180**	**397**			**653**	**1828**
05:45 PM	103	249	**64**	**3**	419	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	1656
Total Volume	377	1042	209	8	1636	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	6974
% App. Total	23	63.7	12.8	0.5		30.1	51.1	17.8	1		15.5	70.3	12.1	2.1		26.5	61.6	11.6	0.3		
PHF	.865	.930	.816	.667	.932	.941	.828	.847	.700	.881	.913	.952	.829	.775	.946	.915	.964	.797	.438	.951	.954

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City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAPM
Site Code : 04215551
Start Date : 10/1/2015
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City of Walnut
N/S: Grand Avenue
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File Name : WNTGRVAPM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					05:00 PM					05:00 PM					05:00 PM					
+0 mins.	74	**332**																**90**			
+15 mins.	**74**	**274**	**51**	**0**	**399**	**110**	**180**	**64**	**4**	**358**	**63**	268	48	8	387	167	357	63	**4**	591	
+30 mins.	**109**	296	**52**	**4**	**461**	101	**212**	**72**	**5**	**390**	54	**273**	**54**	**10**	**391**	**180**	**397**			**653**	
+45 mins.	81	250	52	1	384	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	
Total Volume	338	1152	202	5	1697	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	
% App. Total	19.9	67.9	11.9	0.3		30.1	51.1	17.8	1		15.5	70.3	12.1	2.1		26.5	61.6	11.6	0.3		
PHF	.775	.867	.971	.313	.920	.941	.828	.847	.700	.881	.913	.952	.829	.775	.946	.915	.964	.797	.438	.951	

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City of Walnut
N/S: Grand Avenue
E/W: Baker Parkway
Weather: Clear

File Name : WNTGRBAAM
Site Code : 04215551
Start Date : 10/1/2015
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Groups Printed- Total Volume

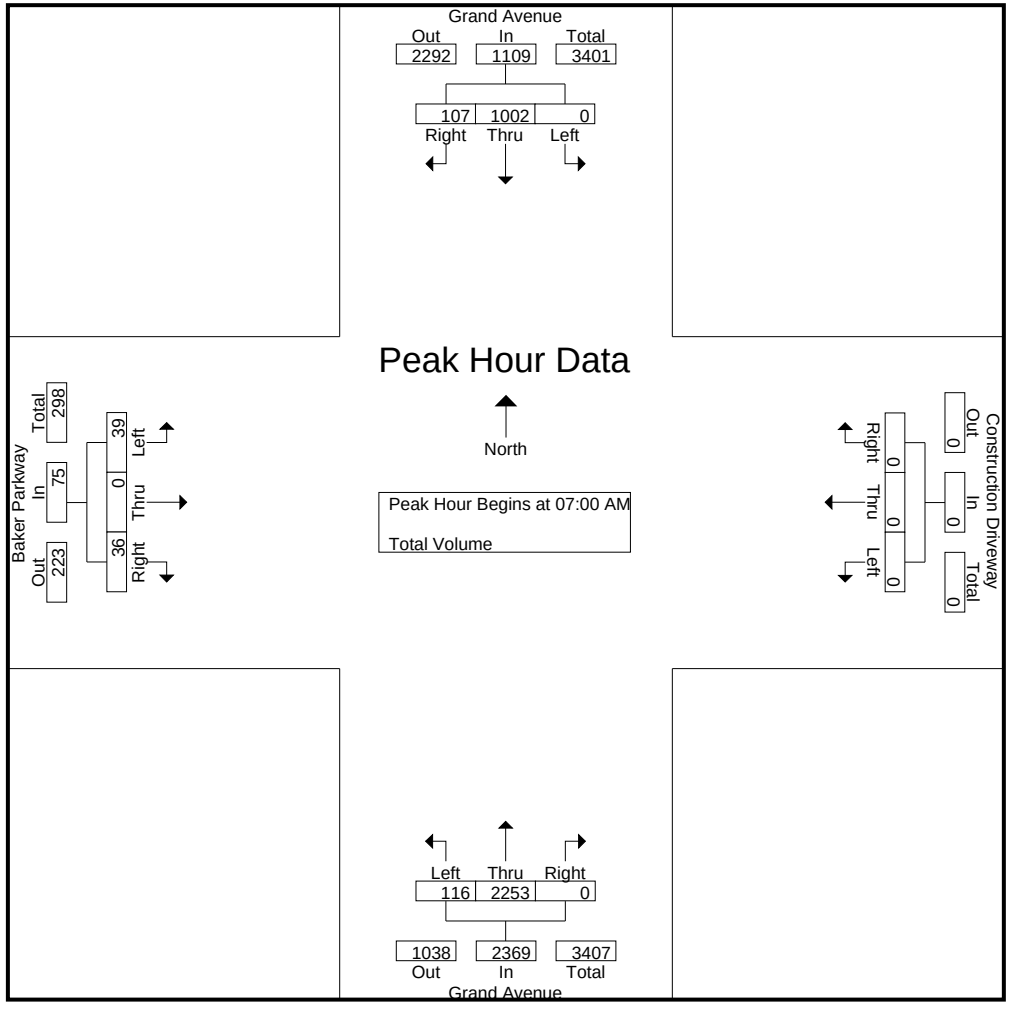
	Grand Avenue Southbound					Construction Driveway Westbound					Grand Avenue Northbound					Baker Parkway Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	235	33	0	268	0	0	0	0	0	29	535	0	0	564	8	0	4	0	12	844
07:15 AM	0	221	50	0	271	0	0	0	0	0	39	597	0	0	636	11	0	11	0	22	929
07:30 AM	0	300	17	0	317	0	0	0	0	0	31	568	0	0	599	10	0	13	0	23	939
07:45 AM	0	246	7	0	253	0	0	0	0	0	17	553	0	0	570	10	0	8	0	18	841
Total	0	1002	107	0	1109	0	0	0	0	0	116	2253	0	0	2369	39	0	36	0	75	3553
08:00 AM	0	251	11	0	262	0	0	0	0	0	22	541	0	0	563	8	0	6	0	14	839
08:15 AM	0	239	27	0	266	0	0	0	0	0	29	515	0	0	544	5	0	5	0	10	820
08:30 AM	0	271	13	0	284	0	0	0	0	0	32	425	0	0	457	4	0	12	0	16	757
08:45 AM	0	282	10	0	292	0	0	0	0	0	25	427	0	0	452	3	0	14	0	17	761
Total	0	1043	61	0	1104	0	0	0	0	0	108	1908	0	0	2016	20	0	37	0	57	3177
Grand Total	0	2045	168	0	2213	0	0	0	0	0	224	4161	0	0	4385	59	0	73	0	132	6730
Apprch %	0	92.4	7.6	0		0	0	0	0		5.1	94.9	0	0		44.7	0	55.3	0		
Total %	0	30.4	2.5	0	32.9	0	0	0	0	0	3.3	61.8	0	0	65.2	0.9	0	1.1	0	2	

	Grand Avenue Southbound				Construction Driveway Westbound				Grand Avenue Northbound				Baker Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	235	33	268	0	0	0	0	29	535	0	564	8	0	4	12	844
07:15 AM	0	221	**50**	271	0	0	0	0	**39**	**597**	0	**636**	**11**	0	11	22	929
07:30 AM	0	**300**	17	**317**	0	0	0	0	31	568	0	599	10	0	**13**	**23**	**939**
07:45 AM	0	246	7	253	0	0	0	0	17	553	0	570	10	0	8	18	841
Total Volume	0	1002	107	1109	0	0	0	0	116	2253	0	2369	39	0	36	75	3553
% App. Total	0	90.4	9.6		0	0	0		4.9	95.1	0		52	0	48		
PHF	.000	.835	.535	.875	.000	.000	.000	.000	.744	.943	.000	.931	.886	.000	.692	.815	.946

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N/S: Grand Avenue
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File Name : WNTGRBAAM
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Start Date : 10/1/2015

	Grand Avenue Southbound				Construction Driveway Westbound				Grand Avenue Northbound				Baker Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:15 AM				
+0 mins.	0	235	33	268	0	0	0	0	29	535	0	564	**11**	0	11	22	
+15 mins.	0	221	**50**	271	0	0	0	0	**39**	**597**	0	**636**	10	0	**13**	**23**	
+30 mins.	0	**300**	17	**317**	0	0	0	0	31	568	0	599	10	0	8	18	
+45 mins.	0	246	7	253	0	0	0	0	17	553	0	570	8	0	6	14	
Total Volume	0	1002	107	1109	0	0	0	0	116	2253	0	2369	39	0	38	77	
% App. Total	0	90.4	9.6		0	0	0		4.9	95.1	0		50.6	0	49.4		
PHF	.000	.835	.535	.875	.000	.000	.000	.000	.744	.943	.000	.931	.886	.000	.731	.837	

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Page No : 1

Groups Printed- Total Volume

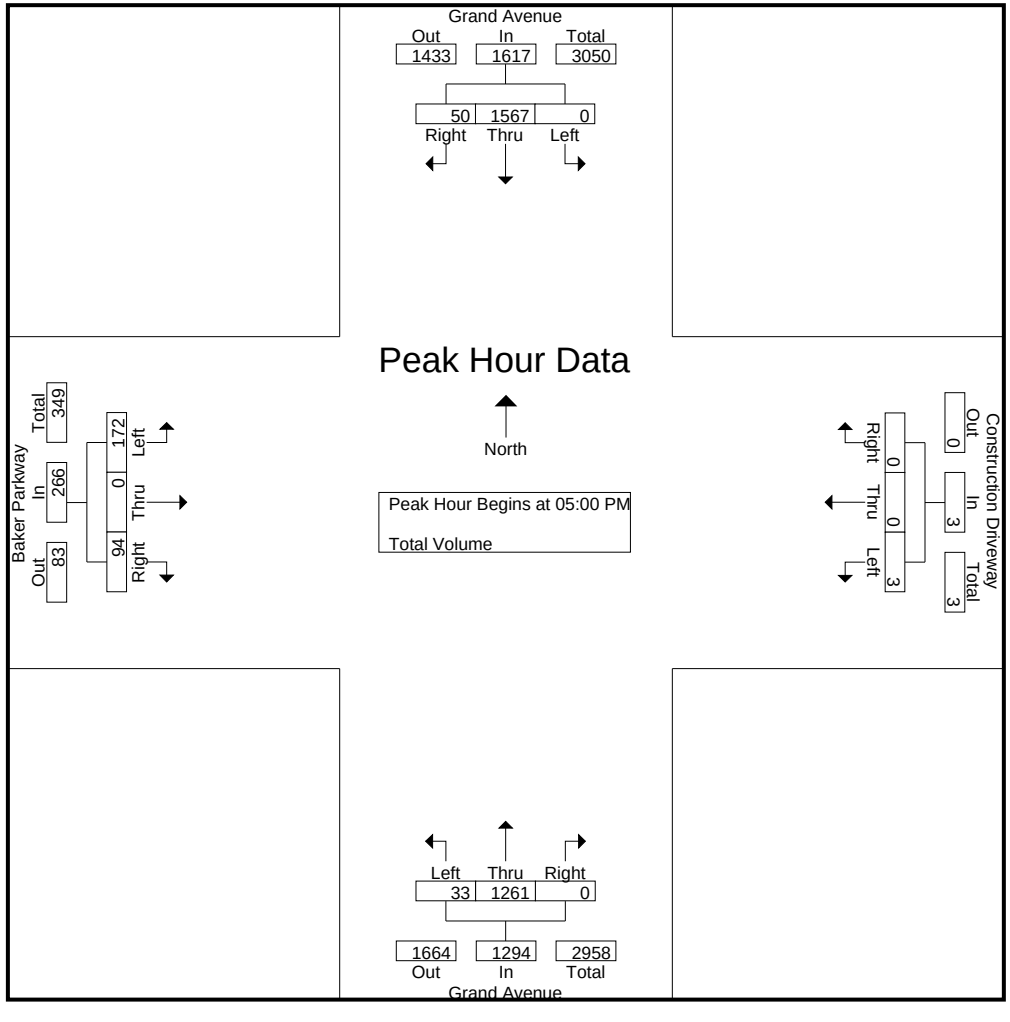
	Grand Avenue Southbound					Construction Driveway Westbound					Grand Avenue Northbound					Baker Parkway Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	0	379	5	0	384	0	0	0	0	0	11	213	0	0	224	42	0	18	0	60	668
04:15 PM	0	375	13	0	388	0	0	0	0	0	20	244	0	0	264	23	0	13	0	36	688
04:30 PM	0	362	8	0	370	0	0	0	0	0	5	248	0	1	254	32	0	22	0	54	678
04:45 PM	0	375	8	0	383	0	0	0	0	0	6	280	0	0	286	35	0	9	0	44	713
Total	0	1491	34	0	1525	0	0	0	0	0	42	985	0	1	1028	132	0	62	0	194	2747
05:00 PM	0	402	8	0	410	0	0	0	0	0	10	283	0	0	293	33	0	22	0	55	758
05:15 PM	0	405	6	0	411	0	0	0	0	0	8	336	0	0	344	38	0	26	0	64	819
05:30 PM	0	410	13	1	424	2	0	0	0	2	6	330	0	0	336	74	0	22	0	96	858
05:45 PM	0	350	23	0	373	1	0	0	0	1	9	312	0	4	325	27	0	24	0	51	750
Total	0	1567	50	1	1618	3	0	0	0	3	33	1261	0	4	1298	172	0	94	0	266	3185
Grand Total	0	3058	84	1	3143	3	0	0	0	3	75	2246	0	5	2326	304	0	156	0	460	5932
Apprch %	0	97.3	2.7	0		100	0	0	0		3.2	96.6	0	0.2		66.1	0	33.9	0		
Total %	0	51.6	1.4	0	53	0.1	0	0	0	0.1	1.3	37.9	0	0.1	39.2	5.1	0	2.6	0	7.8	

	Grand Avenue Southbound				Construction Driveway Westbound				Grand Avenue Northbound				Baker Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	402	8	410	0	0	0	0	**10**	283	0	293	33	0	22	55	758
05:15 PM	0	405	6	411	0	0	0	0	8	**336**	0	**344**	38	0	**26**	64	819
05:30 PM	0	**410**	13	**423**	**2**	0	0	**2**	6	330	0	336	**74**	0	22	**96**	**857**
05:45 PM	0	350	**23**	373	1	0	0	1	9	312	0	321	27	0	24	51	746
Total Volume	0	1567	50	1617	3	0	0	3	33	1261	0	1294	172	0	94	266	3180
% App. Total	0	96.9	3.1		100	0	0		2.6	97.4	0		64.7	0	35.3		
PHF	.000	.955	.543	.956	.375	.000	.000	.375	.825	.938	.000	.940	.581	.000	.904	.693	.928

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City of Walnut
N/S: Grand Avenue
E/W: Baker Parkway
Weather: Clear

File Name : WNTGRBAPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
E/W: Baker Parkway
Weather: Clear

File Name : WNTGRBAPM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound				Construction Driveway Westbound				Grand Avenue Northbound				Baker Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	375	8	383	0	0	0	0	**10**	283	0	293	33	0	22	55	
+15 mins.	0	402	8	410	0	0	0	0	8	**336**	0	**344**	38	0	**26**	64	
+30 mins.	0	405	6	411	**2**	0	0	**2**	6	330	0	336	**74**	0	22	**96**	
+45 mins.	0	**410**	**13**	**423**	1	0	0	1	9	312	0	321	27	0	24	51	
Total Volume	0	1592	35	1627	3	0	0	3	33	1261	0	1294	172	0	94	266	
% App. Total	0	97.8	2.2		100	0	0		2.6	97.4	0		64.7	0	35.3		
PHF	.000	.971	.673	.962	.375	.000	.000	.375	.825	.938	.000	.940	.581	.000	.904	.693	

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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : WNTGR60WAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

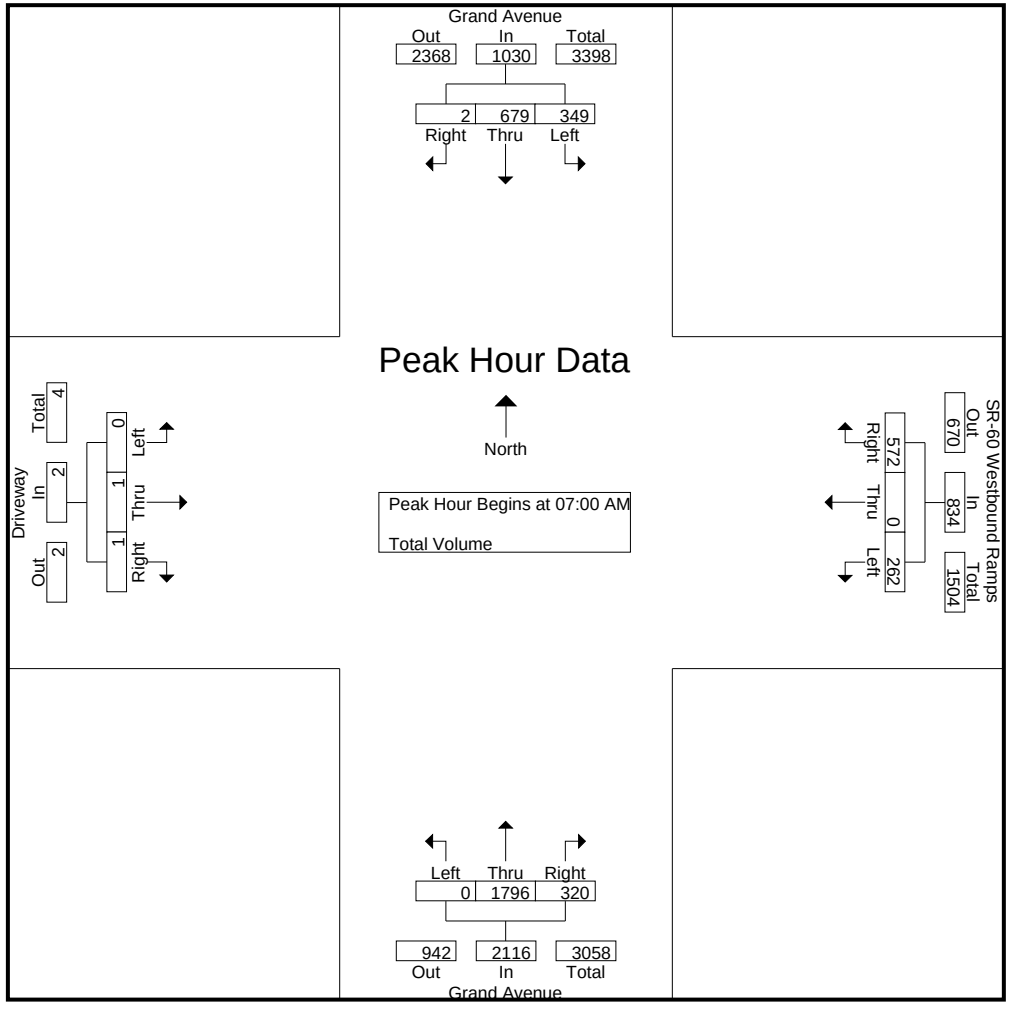
	Grand Avenue Southbound					SR-60 Westbound Ramps Westbound					Grand Avenue Northbound					Driveway Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	88	124	0	0	212	50	0	118	0	168	0	463	69	0	532	0	0	1	0	1	913
07:15 AM	97	161	1	0	259	42	0	150	0	192	0	480	82	0	562	0	0	0	0	0	1013
07:30 AM	92	198	1	0	291	86	0	151	0	237	0	430	98	0	528	0	1	0	0	1	1057
07:45 AM	72	196	0	0	268	84	0	153	0	237	0	423	71	0	494	0	0	0	0	0	999
Total	349	679	2	0	1030	262	0	572	0	834	0	1796	320	0	2116	0	1	1	0	2	3982
08:00 AM	85	168	0	0	253	54	0	128	0	182	0	329	75	0	404	0	0	0	0	0	839
08:15 AM	69	171	1	0	241	67	0	108	0	175	0	362	112	0	474	1	0	0	0	1	891
08:30 AM	81	193	0	0	274	66	0	118	0	184	0	417	119	0	536	0	0	0	0	0	994
08:45 AM	58	217	1	0	276	56	0	110	0	166	0	344	82	1	427	0	1	0	0	1	870
Total	293	749	2	0	1044	243	0	464	0	707	0	1452	388	1	1841	1	1	0	0	2	3594
Grand Total	642	1428	4	0	2074	505	0	1036	0	1541	0	3248	708	1	3957	1	2	1	0	4	7576
Apprch %	31	68.9	0.2	0		32.8	0	67.2	0		0	82.1	17.9	0		25	50	25	0		
Total %	8.5	18.8	0.1	0	27.4	6.7	0	13.7	0	20.3	0	42.9	9.3	0	52.2	0	0	0	0	0.1	

	Grand Avenue Southbound				SR-60 Westbound Ramps Westbound				Grand Avenue Northbound				Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	88	124	0	212	50	0	118	168	0	463	69	532	0	0	**1**	**1**	913
07:15 AM	**97**	161	**1**	259	42	0	150	192	0	**480**	82	**562**	0	0	0	0	1013
07:30 AM	92	**198**	1	**291**	**86**	0	151	**237**	0	430	**98**	528	0	**1**	0	1	**1057**
07:45 AM	72	196	0	268	84	0	**153**	237	0	423	71	494	0	0	0	0	999
Total Volume	349	679	2	1030	262	0	572	834	0	1796	320	2116	0	1	1	2	3982
% App. Total	33.9	65.9	0.2		31.4	0	68.6		0	84.9	15.1		0	50	50		
PHF	.899	.857	.500	.885	.762	.000	.935	.880	.000	.935	.816	.941	.000	.250	.250	.500	.942

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City of Walnut
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Weather: Clear

File Name : WNTGR60WAM
Site Code : 04215551
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City of Walnut
N/S: Grand Avenue
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File Name : WNTGR60WAM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound				SR-60 Westbound Ramps Westbound				Grand Avenue Northbound				Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:00 AM				07:00 AM				
+0 mins.	**97**	161	**1**	259	42	0	150	192	0	463	69	532	0	0	**1**	**1**	
+15 mins.	92	**198**	1	**291**	**86**	0	151	**237**	0	**480**	82	**562**	0	0	0	0	
+30 mins.	72	196	0	268	84	0	**153**	237	0	430	**98**	528	0	**1**	0	1	
+45 mins.	85	168	0	253	54	0	128	182	0	423	71	494	0	0	0	0	
Total Volume	346	723	2	1071	266	0	582	848	0	1796	320	2116	0	1	1	2	
% App. Total	32.3	67.5	0.2		31.4	0	68.6		0	84.9	15.1		0	50	50		
PHF	.892	.913	.500	.920	.773	.000	.951	.895	.000	.935	.816	.941	.000	.250	.250	.500	

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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : WNTGR60WPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

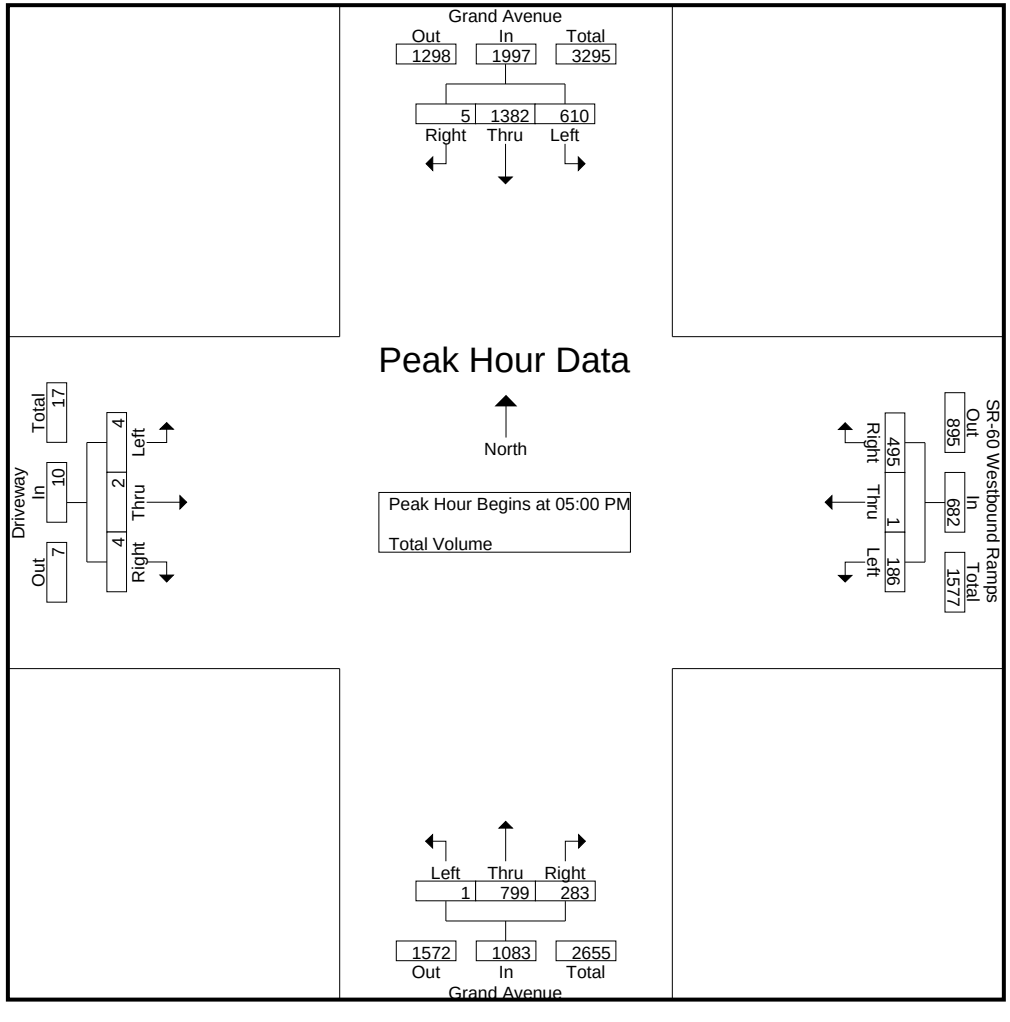
	Grand Avenue Southbound					SR-60 Westbound Ramps Westbound					Grand Avenue Northbound					Driveway Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	142	274	0	0	416	49	0	95	0	144	2	143	60	1	206	0	2	0	0	2	768
04:15 PM	122	307	1	0	430	47	1	105	0	153	0	160	61	1	222	1	0	0	0	1	806
04:30 PM	145	356	0	0	501	68	0	90	0	158	2	179	68	2	251	0	0	0	0	0	910
04:45 PM	133	241	1	0	375	59	0	88	0	147	0	179	66	1	246	0	0	0	0	0	768
Total	542	1178	2	0	1722	223	1	378	0	602	4	661	255	5	925	1	2	0	0	3	3252
05:00 PM	144	254	3	0	401	49	0	114	0	163	0	181	61	0	242	2	1	0	0	3	809
05:15 PM	140	339	0	0	479	50	1	131	0	182	0	216	68	0	284	0	0	0	0	0	945
05:30 PM	157	362	2	0	521	36	0	124	0	160	1	206	73	1	281	2	0	4	0	6	968
05:45 PM	169	427	0	0	596	51	0	126	0	177	0	196	81	2	279	0	1	0	0	1	1053
Total	610	1382	5	0	1997	186	1	495	0	682	1	799	283	3	1086	4	2	4	0	10	3775
Grand Total	1152	2560	7	0	3719	409	2	873	0	1284	5	1460	538	8	2011	5	4	4	0	13	7027
Apprch %	31	68.8	0.2	0		31.9	0.2	68	0		0.2	72.6	26.8	0.4		38.5	30.8	30.8	0		
Total %	16.4	36.4	0.1	0	52.9	5.8	0	12.4	0	18.3	0.1	20.8	7.7	0.1	28.6	0.1	0.1	0.1	0	0.2	

	Grand Avenue Southbound				SR-60 Westbound Ramps Westbound				Grand Avenue Northbound				Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	144	254	**3**	401	49	0	114	163	0	181	61	242	**2**	**1**	0	3	809
05:15 PM	140	339	0	479	50	**1**	**131**	**182**	0	**216**	68	**284**	0	0	0	0	945
05:30 PM	157	362	2	521	36	0	124	160	**1**	206	73	280	2	0	**4**	**6**	967
05:45 PM	**169**	**427**	0	**596**	**51**	0	126	177	0	196	**81**	277	0	1	0	1	**1051**
Total Volume	610	1382	5	1997	186	1	495	682	1	799	283	1083	4	2	4	10	3772
% App. Total	30.5	69.2	0.3		27.3	0.1	72.6		0.1	73.8	26.1		40	20	40		
PHF	.902	.809	.417	.838	.912	.250	.945	.937	.250	.925	.873	.953	.500	.500	.250	.417	.897

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City of Walnut
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E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : WNTGR60WPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : WNTGR60WPM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound				SR-60 Westbound Ramps Westbound				Grand Avenue Northbound				Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	144	254	**3**	401	49	0	114	163	0	181	61	242	**2**	**1**	0	3	
+15 mins.	140	339	0	479	50	**1**	**131**	**182**	0	**216**	68	**284**	0	0	0	0	
+30 mins.	157	362	2	521	36	0	124	160	**1**	206	73	280	2	0	**4**	**6**	
+45 mins.	**169**	**427**	0	**596**	**51**	0	126	177	0	196	**81**	277	0	1	0	1	
Total Volume	610	1382	5	1997	186	1	495	682	1	799	283	1083	4	2	4	10	
% App. Total	30.5	69.2	0.3		27.3	0.1	72.6		0.1	73.8	26.1		40	20	40		
PHF	.902	.809	.417	.838	.912	.250	.945	.937	.250	.925	.873	.953	.500	.500	.250	.417	

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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : WNTGR60EAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

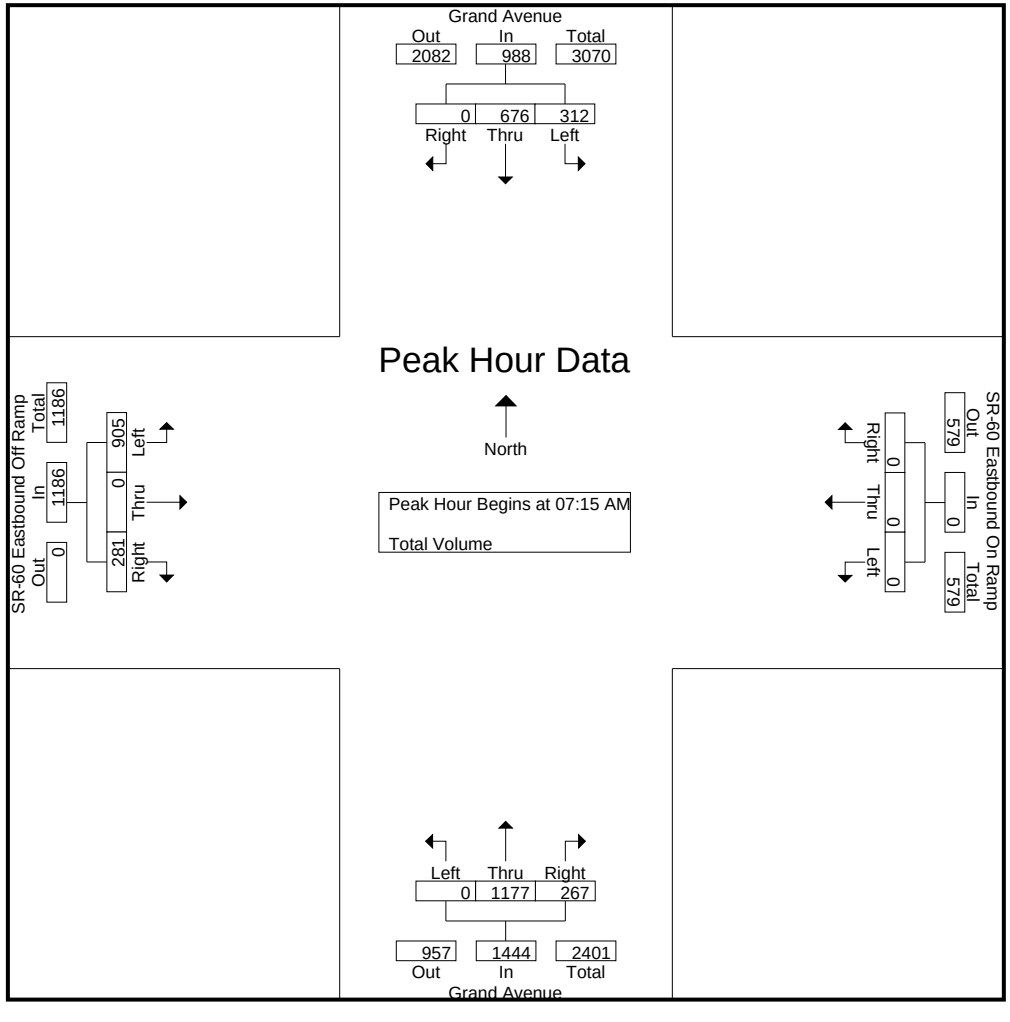
	Grand Avenue Southbound					SR-60 Eastbound On Ramp Westbound					Grand Avenue Northbound					SR-60 Eastbound Off Ramp Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	71	107	0	0	178	0	0	0	0	0	0	295	54	0	349	213	0	50	0	263	790
07:15 AM	65	136	0	1	202	0	0	0	0	0	0	295	64	0	359	262	0	70	0	332	893
07:30 AM	113	180	0	0	293	0	0	0	0	0	0	295	73	0	368	197	0	60	0	257	918
07:45 AM	67	208	0	0	275	0	0	0	0	0	0	258	60	0	318	249	0	84	0	333	926
Total	316	631	0	1	948	0	0	0	0	0	0	1143	251	0	1394	921	0	264	0	1185	3527
08:00 AM	67	152	0	0	219	0	0	0	0	0	0	329	70	0	399	197	0	67	0	264	882
08:15 AM	81	163	0	0	244	0	0	0	0	0	0	326	66	0	392	197	0	55	0	252	888
08:30 AM	72	171	0	0	243	0	0	0	0	0	0	260	67	0	327	185	1	65	0	251	821
08:45 AM	84	182	0	0	266	0	0	0	0	0	0	233	68	0	301	195	0	71	0	266	833
Total	304	668	0	0	972	0	0	0	0	0	0	1148	271	0	1419	774	1	258	0	1033	3424
Grand Total	620	1299	0	1	1920	0	0	0	0	0	0	2291	522	0	2813	1695	1	522	0	2218	6951
Apprch %	32.3	67.7	0	0.1		0	0	0	0		0	81.4	18.6	0		76.4	0	23.5	0		
Total %	8.9	18.7	0	0	27.6	0	0	0	0	0	0	33	7.5	0	40.5	24.4	0	7.5	0	31.9	

	Grand Avenue Southbound				SR-60 Eastbound On Ramp Westbound				Grand Avenue Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	65	136	0	201	0	0	0	0	0	295	64	359	**262**	0	70	332	892
07:30 AM	**113**	180	0	**293**	0	0	0	0	0	295	**73**	368	197	0	60	257	918
07:45 AM	67	**208**	0	275	0	0	0	0	0	258	60	318	249	0	**84**	**333**	**926**
08:00 AM	67	152	0	219	0	0	0	0	0	**329**	70	**399**	197	0	67	264	882
Total Volume	312	676	0	988	0	0	0	0	0	1177	267	1444	905	0	281	1186	3618
% App. Total	31.6	68.4	0		0	0	0		0	81.5	18.5		76.3	0	23.7		
PHF	.690	.813	.000	.843	.000	.000	.000	.000	.000	.894	.914	.905	.864	.000	.836	.890	.977

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E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : WNTGR60EAM
Site Code : 04215551
Start Date : 10/1/2015
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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : WNTGR60EAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Grand Avenue Southbound				SR-60 Eastbound On Ramp Westbound				Grand Avenue Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:00 AM				07:30 AM				07:15 AM				
+0 mins.	**113**	180	0	**293**	0	0	0	0	0	295	**73**	368	**262**	0	70	332	
+15 mins.	67	**208**	0	275	0	0	0	0	0	258	60	318	197	0	60	257	
+30 mins.	67	152	0	219	0	0	0	0	0	**329**	70	**399**	249	0	**84**	**333**	
+45 mins.	81	163	0	244	0	0	0	0	0	326	66	392	197	0	67	264	
Total Volume	328	703	0	1031	0	0	0	0	0	1208	269	1477	905	0	281	1186	
% App. Total	31.8	68.2	0		0	0	0		0	81.8	18.2		76.3	0	23.7		
PHF	.726	.845	.000	.880	.000	.000	.000	.000	.000	.918	.921	.925	.864	.000	.836	.890	

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Walnut
N/S: Grand Avenue
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : WNTGR60EPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

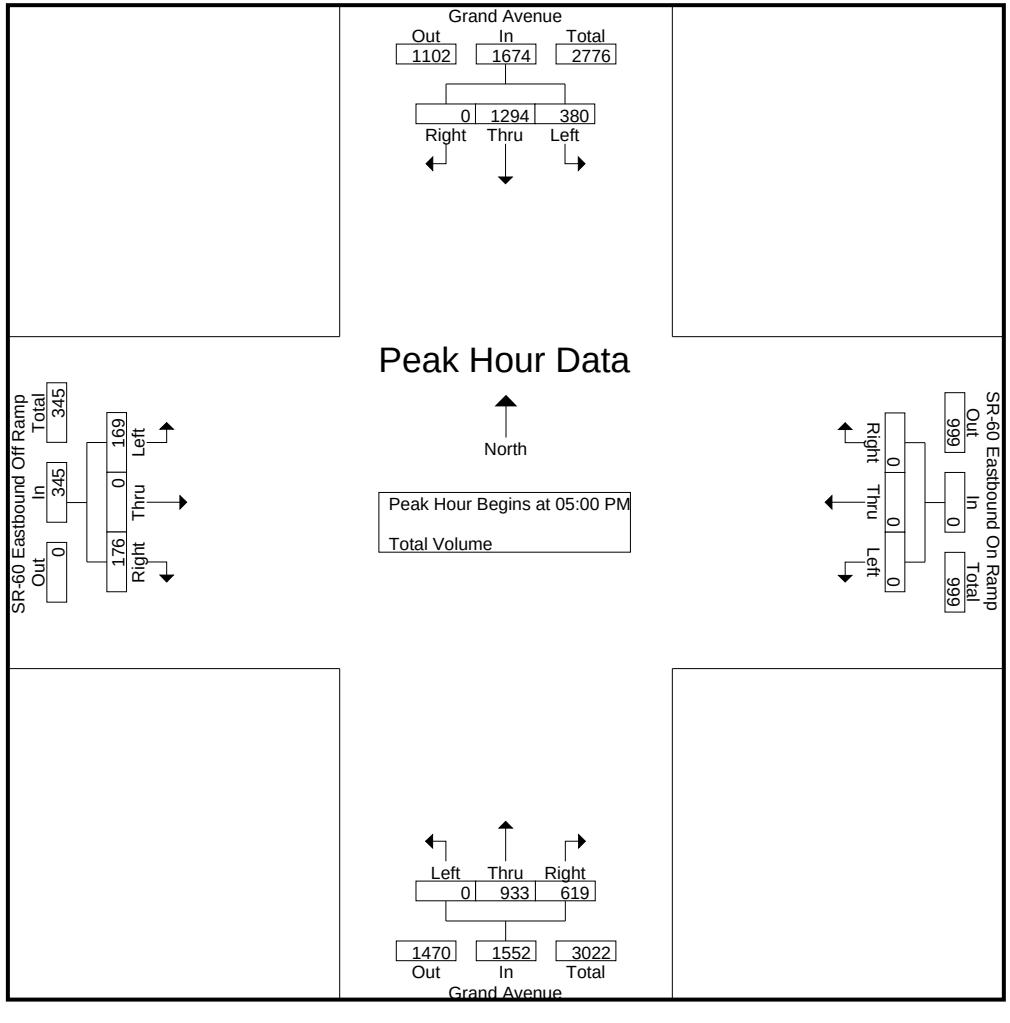
	Grand Avenue Southbound					SR-60 Eastbound On Ramp Westbound					Grand Avenue Northbound					SR-60 Eastbound Off Ramp Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	78	233	0	0	311	0	0	0	0	0	0	159	137	0	296	44	0	46	0	90	697
04:15 PM	100	257	0	0	357	0	0	0	0	0	0	198	118	0	316	42	0	42	0	84	757
04:30 PM	114	315	0	0	429	0	0	0	0	0	0	190	149	0	339	44	1	54	0	99	867
04:45 PM	83	303	0	1	387	0	0	0	0	0	0	200	154	0	354	50	0	47	0	97	838
Total	375	1108	0	1	1484	0	0	0	0	0	0	747	558	0	1305	180	1	189	0	370	3159
05:00 PM	88	311	0	0	399	0	0	0	0	0	0	228	179	0	407	39	0	44	0	83	889
05:15 PM	88	311	0	1	400	0	0	0	0	0	0	234	150	0	384	45	0	40	0	85	869
05:30 PM	92	302	0	0	394	0	0	0	0	0	0	227	154	0	381	37	0	56	0	93	868
05:45 PM	112	370	0	0	482	0	0	0	0	0	0	244	136	0	380	48	0	36	0	84	946
Total	380	1294	0	1	1675	0	0	0	0	0	0	933	619	0	1552	169	0	176	0	345	3572
Grand Total	755	2402	0	2	3159	0	0	0	0	0	0	1680	1177	0	2857	349	1	365	0	715	6731
Apprch %	23.9	76	0	0.1		0	0	0	0		0	58.8	41.2	0		48.8	0.1	51	0		
Total %	11.2	35.7	0	0	46.9	0	0	0	0	0	0	25	17.5	0	42.4	5.2	0	5.4	0	10.6	

	Grand Avenue Southbound				SR-60 Eastbound On Ramp Westbound				Grand Avenue Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	88	311	0	399	0	0	0	0	0	228	**179**	**407**	39	0	44	83	889
05:15 PM	88	311	0	399	0	0	0	0	0	234	150	384	45	0	40	85	868
05:30 PM	92	302	0	394	0	0	0	0	0	227	154	381	37	0	**56**	**93**	868
05:45 PM	**112**	**370**	0	**482**	0	0	0	0	0	**244**	136	380	**48**	0	36	84	**946**
Total Volume	380	1294	0	1674	0	0	0	0	0	933	619	1552	169	0	176	345	3571
% App. Total	22.7	77.3	0		0	0	0		0	60.1	39.9		49	0	51		
PHF	.848	.874	.000	.868	.000	.000	.000	.000	.000	.956	.865	.953	.880	.000	.786	.927	.944

Counts Unlimited
PO Box 1178
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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : WNTGR60EPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : WNTGR60EPM
Site Code : 04215551
Start Date : 10/1/2015

	Grand Avenue Southbound				SR-60 Eastbound On Ramp Westbound				Grand Avenue Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:00 PM				05:00 PM				04:00 PM				
+0 mins.	88	311	0	399	0	0	0	0	0	228	**179**	**407**	44	0	46	90	
+15 mins.	88	311	0	399	0	0	0	0	0	234	150	384	42	0	42	84	
+30 mins.	92	302	0	394	0	0	0	0	0	227	154	381	44	**1**	**54**	**99**	
+45 mins.	**112**	**370**	0	**482**	0	0	0	0	0	**244**	136	380	**50**	0	47	97	
Total Volume	380	1294	0	1674	0	0	0	0	0	933	619	1552	180	1	189	370	
% App. Total	22.7	77.3	0		0	0	0		0	60.1	39.9		48.6	0.3	51.1		
PHF	.848	.874	.000	.868	.000	.000	.000	.000	.000	.956	.865	.953	.900	.250	.875	.934	

October 2016

INTERSECTION TURNING MOVEMENT COUNTS

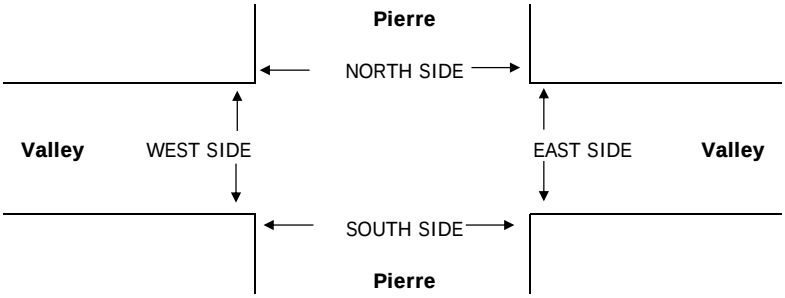
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC1086
Thu, Oct 13, 16	NORTH & SOUTH:	Pierre	LOCATION #:	9
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Pierre			SOUTHBOUND Pierre			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 3	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	53	0	18	27	128	0	0	232	83	541
	7:15 AM	0	0	0	70	0	27	52	166	0	0	236	143	694
	7:30 AM	0	0	0	105	0	48	64	173	0	0	224	206	820
	7:45 AM	0	0	0	96	0	53	24	229	0	0	295	134	831
	8:00 AM	0	0	0	78	0	19	10	145	0	0	230	98	580
	8:15 AM	0	0	0	66	0	13	10	193	0	0	294	53	629
	8:30 AM	0	0	0	67	0	13	14	148	0	0	257	47	546
	8:45 AM	0	0	0	48	0	12	16	120	0	0	321	39	556
	VOLUMES	0	0	0	583	0	203	217	1,302	0	0	2,089	803	5,197
	APPROACH %	0%	0%	0%	74%	0%	26%	14%	86%	0%	0%	72%	28%	
	APP/DEPART	0	/	993	786	/	0	1,519	/	1,885	2,892	/	2,319	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	349	0	147	150	713	0	0	985	581	2,925
	APPROACH %	0%	0%	0%	70%	0%	30%	17%	83%	0%	0%	63%	37%	
	PEAK HR FACTOR		0.000			0.810			0.853			0.910		0.880
	APP/DEPART	0	/	719	496	/	0	863	/	1,062	1,566	/	1,144	0
PM	4:00 PM	0	0	0	62	0	29	32	412	0	0	155	75	765
	4:15 PM	0	0	0	66	0	13	24	365	0	0	164	77	709
	4:30 PM	0	0	0	63	0	21	22	349	0	0	188	65	708
	4:45 PM	0	0	0	62	0	11	22	417	0	0	244	71	827
	5:00 PM	0	0	0	82	0	34	20	334	0	0	202	84	756
	5:15 PM	0	0	0	72	0	23	29	431	0	0	299	93	947
	5:30 PM	0	0	0	74	0	20	21	373	0	0	247	98	833
	5:45 PM	0	0	0	53	0	9	25	425	0	0	221	111	844
	VOLUMES	0	0	0	534	0	160	195	3,106	0	0	1,720	674	6,389
	APPROACH %	0%	0%	0%	77%	0%	23%	6%	94%	0%	0%	72%	28%	
	APP/DEPART	0	/	831	694	/	0	3,301	/	3,640	2,394	/	1,918	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	281	0	86	95	1,563	0	0	969	386	3,380
	APPROACH %	0%	0%	0%	77%	0%	23%	6%	94%	0%	0%	72%	28%	
	PEAK HR FACTOR		0.000			0.791			0.901			0.864		0.892
	APP/DEPART	0	/	461	367	/	0	1,658	/	1,844	1,355	/	1,075	0



INTERSECTION TURNING MOVEMENT COUNTS

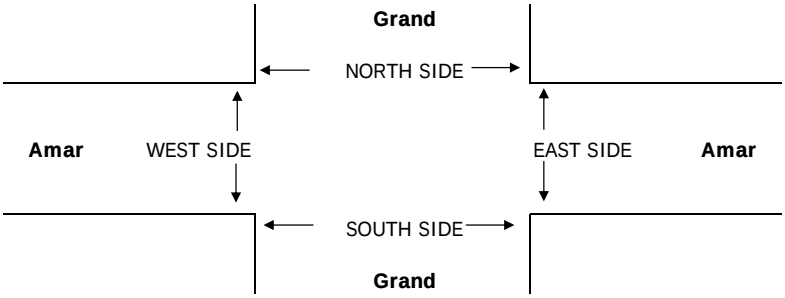
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC1086
Wed, Oct 12, 16	NORTH & SOUTH:	Grand	LOCATION #:	11
	EAST & WEST:	Amar	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Amar			WESTBOUND Amar			
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 0	EL 2	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL
AM	7:00 AM	34	181	84	94	262	37	60	123	39	13	123	43	1,093
	7:15 AM	45	245	119	87	300	33	75	206	43	15	179	35	1,382
	7:30 AM	44	312	79	116	286	58	84	195	33	34	79	45	1,365
	7:45 AM	56	356	186	99	256	65	85	219	34	29	115	61	1,561
	8:00 AM	42	229	170	96	264	63	74	136	36	53	97	51	1,311
	8:15 AM	75	230	118	69	203	79	61	161	51	19	101	29	1,196
	8:30 AM	58	146	93	87	276	75	86	118	95	31	67	24	1,156
	8:45 AM	42	161	115	74	238	56	62	148	73	31	78	37	1,115
	VOLUMES	396	1,860	964	722	2,085	466	587	1,306	404	225	839	325	10,179
	APPROACH %	12%	58%	30%	22%	64%	14%	26%	57%	18%	16%	60%	23%	
	APP/DEPART	3,220	/	2,772	3,273	/	2,714	2,297	/	2,990	1,389	/	1,703	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	187	1,142	554	398	1,106	219	318	756	146	131	470	192	5,619
	APPROACH %	10%	61%	29%	23%	64%	13%	26%	62%	12%	17%	59%	24%	
	PEAK HR FACTOR		0.787			0.936			0.902			0.866		0.900
	APP/DEPART	1,883	/	1,653	1,723	/	1,383	1,220	/	1,706	793	/	877	0
PM	4:00 PM	48	201	58	55	200	63	67	143	66	81	116	56	1,154
	4:15 PM	55	245	93	69	227	67	75	160	72	86	155	75	1,379
	4:30 PM	36	278	71	80	234	90	95	134	61	110	143	53	1,385
	4:45 PM	81	275	68	85	202	82	84	164	67	90	135	61	1,394
	5:00 PM	53	268	56	66	204	74	92	151	61	104	131	55	1,315
	5:15 PM	67	313	80	75	196	73	91	184	75	73	159	71	1,457
	5:30 PM	70	251	94	67	207	71	89	174	76	78	119	66	1,362
	5:45 PM	90	324	86	71	180	76	89	167	75	82	162	68	1,470
	VOLUMES	500	2,155	606	568	1,650	596	682	1,277	553	704	1,120	505	10,916
	APPROACH %	15%	66%	19%	20%	59%	21%	27%	51%	22%	30%	48%	22%	
	APP/DEPART	3,261	/	3,339	2,814	/	2,907	2,512	/	2,448	2,329	/	2,222	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	280	1,156	316	279	787	294	361	676	287	337	571	260	5,604
	APPROACH %	16%	66%	18%	21%	58%	22%	27%	51%	22%	29%	49%	22%	
	PEAK HR FACTOR		0.876			0.986			0.946			0.936		0.953
	APP/DEPART	1,752	/	1,776	1,360	/	1,411	1,324	/	1,269	1,168	/	1,148	0



INTERSECTION TURNING MOVEMENT COUNTS

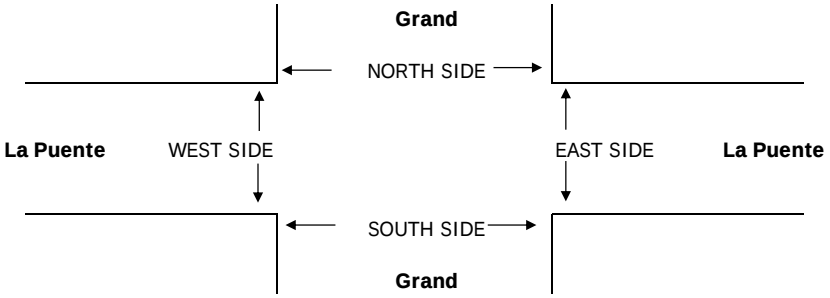
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC1086
Wed, Oct 12, 16	NORTH & SOUTH:	Grand	LOCATION #:	12
	EAST & WEST:	La Puente	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND La Puente			WESTBOUND La Puente			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1.5	ET 0.5	ER 1	WL 1.5	WT 1	WR 0.5	TOTAL
AM	7:00 AM	43	271	8	0	239	72	50	3	41	27	13	0	767
	7:15 AM	76	332	21	0	215	144	89	15	74	26	59	0	1,051
	7:30 AM	31	394	19	0	246	87	160	34	135	41	32	0	1,179
	7:45 AM	22	388	16	1	314	41	95	12	105	36	5	2	1,037
	8:00 AM	30	356	17	3	315	43	57	1	58	19	8	4	911
	8:15 AM	37	271	17	3	238	25	53	6	72	17	6	6	751
	8:30 AM	30	232	13	1	346	39	34	5	63	29	10	4	806
	8:45 AM	36	256	10	1	308	32	41	1	65	31	9	2	792
	VOLUMES	305	2,500	121	9	2,221	483	579	77	613	226	142	18	7,294
	APPROACH %	10%	85%	4%	0%	82%	18%	46%	6%	48%	59%	37%	5%	
	APP/DEPART	2,926	/	3,097	2,713	/	3,061	1,269	/	207	386	/	929	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	159	1,470	73	4	1,090	315	401	62	372	122	104	6	4,178
	APPROACH %	9%	86%	4%	0%	77%	22%	48%	7%	45%	53%	45%	3%	
	PEAK HR FACTOR		0.958			0.976			0.634			0.682		0.886
	APP/DEPART	1,702	/	1,877	1,409	/	1,584	835	/	139	232	/	578	0
PM	4:00 PM	51	294	22	2	254	29	46	8	68	8	8	2	792
	4:15 PM	31	270	23	4	349	55	76	11	76	18	7	3	923
	4:30 PM	42	293	27	3	329	46	90	9	73	11	6	2	931
	4:45 PM	70	309	26	0	319	59	53	16	90	18	13	4	977
	5:00 PM	57	343	35	1	315	39	64	11	75	16	8	5	969
	5:15 PM	51	309	27	2	276	53	97	22	95	23	17	1	973
	5:30 PM	65	393	39	4	310	34	70	11	81	19	10	1	1,037
	5:45 PM	52	402	45	4	282	60	105	31	86	21	6	4	1,098
	VOLUMES	419	2,613	244	20	2,434	375	601	119	644	134	75	22	7,700
	APPROACH %	13%	80%	7%	1%	86%	13%	44%	9%	47%	58%	32%	10%	
	APP/DEPART	3,276	/	3,240	2,829	/	3,215	1,364	/	379	231	/	866	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	225	1,447	146	11	1,183	186	336	75	337	79	41	11	4,077
	APPROACH %	12%	80%	8%	1%	86%	13%	45%	10%	45%	60%	31%	8%	
	PEAK HR FACTOR		0.911			0.972			0.842			0.799		0.928
	APP/DEPART	1,818	/	1,795	1,380	/	1,599	748	/	231	131	/	452	0



INTERSECTION TURNING MOVEMENT COUNTS

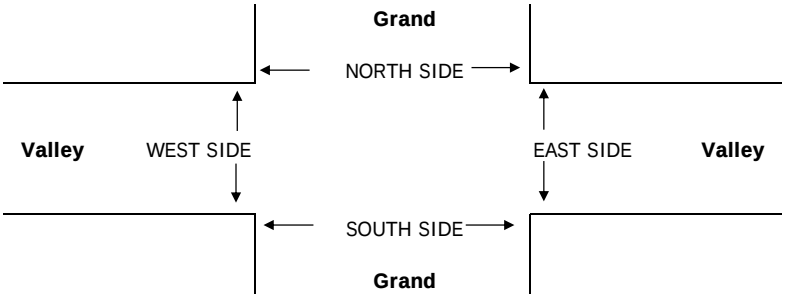
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Walnut	PROJECT #:	SC1086
Wed, Oct 12, 16	NORTH & SOUTH:	Grand	LOCATION #:	13
	EAST & WEST:	Valley	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND Grand			SOUTHBOUND Grand			EASTBOUND Valley			WESTBOUND Valley			
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	72	253	46	34	177	80	60	77	34	19	300	41	1,193
	7:15 AM	84	284	89	28	162	91	95	131	34	51	320	61	1,430
	7:30 AM	74	285	90	72	209	135	124	164	39	35	301	50	1,578
	7:45 AM	47	247	65	72	241	105	136	190	42	40	288	34	1,507
	8:00 AM	50	266	69	58	242	92	113	125	26	48	213	35	1,337
	8:15 AM	36	230	62	41	188	77	88	144	26	40	229	29	1,190
	8:30 AM	54	205	62	54	244	112	69	113	40	39	229	24	1,245
	8:45 AM	45	182	49	49	198	111	80	111	33	60	237	31	1,186
	VOLUMES	462	1,952	532	408	1,661	803	765	1,055	274	332	2,117	305	10,666
	APPROACH %	16%	66%	18%	14%	58%	28%	37%	50%	13%	12%	77%	11%	
	APP/DEPART	2,946	/	3,022	2,872	/	2,249	2,094	/	2,014	2,754	/	3,381	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	255	1,082	313	230	854	423	468	610	141	174	1,122	180	5,852
	APPROACH %	15%	66%	19%	15%	57%	28%	38%	50%	12%	12%	76%	12%	
	PEAK HR FACTOR		0.903			0.901			0.828			0.854		0.927
	APP/DEPART	1,650	/	1,729	1,507	/	1,161	1,219	/	1,161	1,476	/	1,801	0
PM	4:00 PM	62	162	28	58	199	59	125	251	71	73	123	58	1,269
	4:15 PM	39	146	36	71	257	80	154	305	84	92	178	43	1,485
	4:30 PM	72	198	38	80	234	77	128	288	64	65	131	48	1,423
	4:45 PM	63	166	27	106	241	57	169	323	70	92	141	62	1,517
	5:00 PM	66	220	55	71	252	75	148	339	71	86	156	50	1,589
	5:15 PM	58	220	47	88	241	53	145	377	77	74	185	55	1,620
	5:30 PM	68	244	22	75	233	72	146	344	85	48	178	80	1,595
	5:45 PM	68	250	25	80	197	77	196	337	66	73	172	57	1,598
	VOLUMES	496	1,606	278	629	1,854	550	1,211	2,564	588	603	1,264	453	12,096
	APPROACH %	21%	67%	12%	21%	61%	18%	28%	59%	13%	26%	54%	20%	
	APP/DEPART	2,380	/	3,271	3,033	/	3,041	4,363	/	3,503	2,320	/	2,281	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	260	934	149	314	923	277	635	1,397	299	281	691	242	6,402
	APPROACH %	19%	70%	11%	21%	61%	18%	27%	60%	13%	23%	57%	20%	
	PEAK HR FACTOR		0.979			0.951			0.973			0.967		0.988
	APP/DEPART	1,343	/	1,807	1,514	/	1,492	2,331	/	1,884	1,214	/	1,219	0



APPENDIX C

Traffic Count Comparison

EXISTING PEAK HOUR TRAFFIC COUNT COMPARISON

Spring 2016 Counts (May)

	Intersection	AM Peak Hour													PM Peak Hour												
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
1	Pierre at Valley	0	0	0	370	0	151	152	672	0	0	1106	582	3033	0	0	0	283	0	79	122	1471	0	0	972	402	3329
2	Brea Canyon at Valley	322	0	554	0	0	0	0	705	332	601	1321	0	3835	464	0	977	0	0	0	0	1509	206	456	893	0	4505
3	Grand at Amar/Temple	205	1081	653	296	1125	201	272	701	172	93	425	153	5377	278	1028	272	233	824	267	312	553	263	313	524	257	5124
4	Grand at Snow Creek	6	1841	23	32	1371	12	17	2	19	48	6	80	3457	21	1657	45	98	1178	12	15	2	9	32	6	61	3136
5	Grand at La Puente	201	1457	64	2	1112	303	381	57	365	119	104	4	4169	224	1490	148	9	1009	199	213	64	301	75	52	11	3795
6	Grand at Valley	253	1132	226	250	907	451	477	517	137	175	1128	152	5805	312	994	131	363	714	256	652	1502	280	295	770	225	6494
7	Grand at Garcia	9	1657	30	8	1161	5	2	0	6	73	2	1	2954	7	1343	61	36	1253	3	4	2	8	34	0	11	2762
8	Grand at Baker	70	1847	0	0	1084	69	35	3	31	0	0	1	3140	39	1102	0	0	1369	29	123	2	117	0	0	0	2781
9	Grand at SR-60 WB Ramps	0	1216	246	355	728	0	0	1	2	307	2	623	3480	2	721	241	379	971	0	0	0	1	215	0	459	2989
10	Grand at SR-60 EB Ramps	0	927	267	294	693	0	620	2	225	0	0	0	3028	0	800	638	326	832	0	164	1	188	0	0	0	2949
11	Benton at Valley	10	0	6	2	0	13	21	946	32	14	1434	9	2487	187	0	72	9	1	9	30	1766	233	76	1058	3	3444
12	Faure at Valley*	2	0	27	0	0	0	0	1085	7	70	1410	0	2601	1	0	55	0	0	0	0	1835	2	29	1402	0	3324
13	Pomona at Valley	752	2	0	28	0	40	10	587	257	0	760	8	2444	352	10	2	16	0	15	30	1003	846	5	676	12	2967

*Historical November 2015 Count

October 2015 Counts

	Intersection	AM Peak Hour													Diff. Over Spring 2016	PM Peak Hour													Diff. Over Spring 2016
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total	
1	Pierre at Valley	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2	Brea Canyon at Valley	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3	Grand at Amar/Temple	236	1291	628	412	1070	187	284	757	153	110	446	185	5759	1.07	327	1150	288	209	832	262	346	651	292	359	659	326	5701	1.11
4	Grand at Snow Creek	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5	Grand at La Puente	159	1684	70	1	1120	277	407	76	416	113	108	12	4443	1.07	233	1535	153	7	1259	190	245	63	350	85	35	12	4167	1.10
6	Grand at Valley	291	1364	364	207	938	396	401	500	169	167	1116	139	6052	1.04	261	1040	179	385	1042	209	666	1531	287	428	702	244	6974	1.07
7	Grand at Garcia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
8	Grand at Baker	116	2253	0	0	1002	107	39	0	36	0	0	0	3553	1.13	33	1261	0	0	1567	50	172	0	94	0	0	0	3177	1.14
9	Grand at SR-60 WB Ramps	0	1796	320	349	679	2	0	1	1	262	0	572	3982	1.14	1	799	283	610	1382	5	4	2	4	186	1	495	3772	1.26
10	Grand at SR-60 EB Ramps	0	1177	267	312	676	0	905	0	281	0	0	0	3618	1.19	0	933	619	380	1294	0	169	0	176	0	0	0	3571	1.21
11	Benton at Valley	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12	Faure at Valley	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
13	Pomona at Valley	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
														AVERAGE	**1.11**													**AVERAGE**	**1.15**

EXISTING VOLUMES USED FOR ANALYSIS

	Intersection	AM Peak Hour													PM Peak Hour												
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
1	Pierre at Valley	0	0	0	411	0	168	169	746	0	0	1228	646	3368	0	0	0	325	0	91	140	1692	0	0	1118	462	3828
2	Brea Canyon at Valley	357	0	615	0	0	0	0	783	369	667	1466	0	4257	534	0	1124	0	0	0	0	1735	237	524	1027	0	5181
3	Grand at Amar/Temple	236	1291	628	412	1070	187	284	757	153	110	446	185	5759	327	1150	288	209	832	262	346	651	292	359	659	326	5701
4	Grand at Snow Creek	7	2044	26	36	1522	13	19	2	21	53	7	89	3839	24	1906	52	113	1355	14	17	2	10	37	7	70	3607
5	Grand at La Puente	159	1684	70	1	1120	277	407	76	416	113	108	12	4443	233	1535	153	7	1259	190	245	63	350	85	35	12	4167
6	Grand at Valley	291	1364	364	207	938	396	401	500	169	167	1116	139	6052	261	1040	179	385	1042	209	666	1531	287	428	702	244	6974
7	Grand at Garcia	10	1839	33	9	1289	6	2	0	7	81	2	1	3279	8	1544	70	41	1441	3	5	2	9	39	0	13	3175
8	Grand at Baker	116	2253	0	0	1002	107	39	0	36	0	0	0	3553	33	1261	0	0	1567	50	172	0	94	0	0	0	3177
9	Grand at SR-60 WB Ramps	0	1796	320	349	679	2	0	1	1	262	0	572	3982	1	799	283	610	1382	5	4	2	4	186	1	495	3772
10	Grand at SR-60 EB Ramps	0	1177	267	312	676	0	905	0	281	0	0	0	3618	0	933	619	380	1294	0	169	0	176	0	0	0	3571
11	Benton at Valley	11	0	7	2	0	14	23	1050	36	16	1592	10	2761	215	0	83	10	1	10	35	2031	268	87	1217	3	3960
12	Faure at Valley	2	0	30	0	0	0	0	1204	8	78	1565	0	2887	1	0	63	0	0	0	0	2110	2	33	1612	0	3821
13	Pomona at Valley	835	2	0	31	0	44	11	652	285	0	844	9	2713	405	12	2	18	0	17	35	1153	973	6	777	14	3412

October 2015/Adjusted May 2016 Traffic Volumes

AM Peak Hour														
ID	Intersection	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
1	Pierre at Valley	0	0	0	411	0	168	169	746	0	0	1228	646	3368
2	Brea Canyon at Valley	357	0	615	0	0	0	0	783	369	667	1466	0	4257
3	Grand at Amar/Temple	236	1291	628	412	1070	187	284	757	153	110	446	185	5759
4	Grand at Snow Creek	7	2044	26	36	1522	13	19	2	21	53	7	89	3839
5	Grand at La Puente	159	1684	70	1	1120	277	407	76	416	113	108	12	4443
6	Grand at Valley	291	1364	364	207	938	396	401	500	169	167	1116	139	6052
7	Grand at Garcia	10	1839	33	9	1289	6	2	0	7	81	2	1	3279
8	Grand at Baker	116	2253	0	0	1002	107	39	0	36	0	0	0	3553
9	Grand at SR-60 WB Ramps	0	1796	320	349	679	2	0	1	1	262	0	572	3982
10	Grand at SR-60 EB Ramps	0	1177	267	312	676	0	905	0	281	0	0	0	3618
11	Benton at Valley	11	0	7	2	0	14	23	1050	36	16	1592	10	2761
12	Faure at Valley*	2	0	30	0	0	0	0	1204	8	78	1565	0	2887
13	Pomona at Valley	835	2	0	31	0	44	11	652	285	0	844	9	2713

PM Peak Hour														
ID	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total	
1	0	0	0	325	0	91	140	1692	0	0	1118	462	3828	
2	534	0	1124	0	0	0	0	1735	237	524	1027	0	5181	
3	327	1150	288	209	832	262	346	651	292	359	659	326	5701	
4	24	1906	52	113	1355	14	17	2	10	37	7	70	3607	
5	233	1535	153	7	1259	190	245	63	350	85	35	12	4167	
6	261	1040	179	385	1042	209	666	1531	287	428	702	244	6974	
7	8	1544	70	41	1441	3	5	2	9	39	0	13	3175	
8	33	1261	0	0	1567	50	172	0	94	0	0	0	3177	
9	1	799	283	610	1382	5	4	2	4	186	1	495	3772	
10	0	933	619	380	1294	0	169	0	176	0	0	0	3571	
11	215	0	83	10	1	10	35	2031	268	87	1217	3	3960	
12	1	0	63	0	0	0	0	2110	2	33	1612	0	3821	
13	405	12	2	18	0	17	35	1153	973	6	777	14	3412	

October 2016 Traffic Counts (from City of Walnut General Plan Update)

AM Peak Hour															
ID	Intersection	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total	Ratio
1	Pierre at Valley	0	0	0	349	0	147	150	713	0	0	985	581	2925	0.868468
3	Grand at Amar/Temple	187	1142	554	398	1106	219	318	756	146	131	470	192	5619	0.97569
5	Grand at La Puente	159	1470	73	4	1090	315	401	62	372	122	104	6	4178	0.940356
6	Grand at Valley	255	1082	313	230	854	423	468	610	141	174	1122	180	5852	0.966953

PM Peak Hour															
ID	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total	Ratio	
1	0	0	0	281	0	86	95	1563	0	0	969	386	3380	0.882968	
3	280	1156	316	279	787	294	361	676	287	337	571	260	5604	0.982985	
5	225	1447	146	11	1183	186	336	75	337	79	41	11	4077	0.978402	
6	260	934	149	314	923	277	635	1397	299	281	691	242	6402	0.917981	

APPENDIX D

Existing Level of Service Worksheets

TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.866
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 3 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	411	0	168	169	746	0	0	1228	646
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	411	0	168	169	746	0	0	1228	646
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	411	0	168	169	746	0	0	1228	646
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	411	0	168	169	746	0	0	1228	646
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	411	0	168	169	746	0	0	1228	646
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	411	0	168	169	746	0	0	1228	646
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.11	0.11	0.16	0.00	0.00	0.38	0.40
Crit Moves:				****			****					****

Traffix 7.9.0215 (c) 2008 Dowling Assoc. Licensed to KUNZMAN ASSOC, ORANGE CA

TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.696
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	357	0	615	0	0	0	0	783	369	667	1466	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	357	0	615	0	0	0	0	783	369	667	1466	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	357	0	615	0	0	0	0	783	369	667	1466	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	357	0	615	0	0	0	0	783	369	667	1466	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	357	0	615	0	0	0	0	783	369	667	1466	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	357	0	615	0	0	0	0	783	369	667	1466	0
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.04	0.96	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	3263	1538	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.19	0.00	0.00	0.00	0.00	0.24	0.24	0.23	0.46	0.00
OvlAdjV/S:			0.00									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.872
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	236	1291	628	412	1070	187	284	757	153	110	446	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	236	1291	628	412	1070	187	284	757	153	110	446	185
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	236	1291	628	412	1070	187	284	757	153	110	446	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	236	1291	628	412	1070	187	284	757	153	110	446	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	1291	628	412	1070	187	284	757	153	110	446	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	236	1291	628	412	1070	187	284	757	153	110	446	185
OvlAdjVol:			567						22			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.55	0.45	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	4086	714	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.27	0.39	0.14	0.26	0.26	0.10	0.24	0.10	0.04	0.14	0.12
OvlAdjV/S:			0.35						0.01			0.00
Crit Moves:			****	****				****		****		

TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.829
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2	0	1	1 0 2	0	1	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	7	2044	26	36	1522	13	19	2	21	53	7	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	2044	26	36	1522	13	19	2	21	53	7	89
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	2044	26	36	1522	13	19	2	21	53	7	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	2044	26	36	1522	13	19	2	21	53	7	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	2044	26	36	1522	13	19	2	21	53	7	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	2044	26	36	1522	13	19	2	21	53	7	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.90	0.10	1.00	0.88	0.12	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1448	152	1600	1413	187	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.64	0.02	0.02	0.48	0.01	0.01	0.01	0.01	0.03	0.04	0.06
Crit Moves:		****		****			****					****

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TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.936
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	1684	70	1	1120	277	407	76	416	113	108	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	159	1684	70	1	1120	277	407	76	416	113	108	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	159	1684	70	1	1120	277	407	76	416	113	108	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	1684	70	1	1120	277	407	76	416	113	108	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.69	0.31	1.00	1.46	1.39	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	2696	504	1600	2331	2222	247
Capacity Analysis Module:												
Vol/Sat:	0.10	0.53	0.04	0.00	0.35	0.17	0.15	0.15	0.26	0.05	0.05	0.05
OvlAdjV/S:						0.00						
Crit Moves:	****			****					****			****

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TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 3 0 1			2 0 3 0 1			2 0 3 0 1			2 0 3 0 1		
Volume Module:												
Base Vol:	291	1364	364	207	938	396	401	500	169	167	1116	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	291	1364	364	207	938	396	401	500	169	167	1116	139
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	291	1364	364	207	938	396	401	500	169	167	1116	139
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	291	1364	0	207	938	396	401	500	0	167	1116	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	291	1364	0	207	938	396	401	500	0	167	1116	139
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	291	1364	0	207	938	396	401	500	0	167	1116	139
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.28	0.00	0.07	0.20	0.25	0.14	0.10	0.00	0.06	0.23	0.09
Crit Moves:		****			****			****			****	

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TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	10	1839	33	9	1289	6	2	0	7	81	2	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	1839	33	9	1289	6	2	0	7	81	2	1
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	1839	33	9	1289	6	2	0	7	81	2	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	1839	33	9	1289	6	2	0	7	81	2	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	1839	33	9	1289	6	2	0	7	81	2	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	1839	33	9	1289	6	2	0	7	81	2	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.00	1.00	1.00	0.67	0.33
Final Sat.:	1600	3200	1600	1600	4778	22	1600	0	1600	1600	1067	533
Capacity Analysis Module:												
Vol/Sat:	0.01	0.57	0.02	0.01	0.27	0.27	0.00	0.00	0.00	0.05	0.00	0.00
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

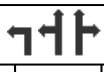
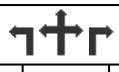
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 2	0 0		0 0 3	0 1		2 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	116	2253	0	0	1002	107	39	0	36	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	2253	0	0	1002	107	39	0	36	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	2253	0	0	1002	107	39	0	36	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	116	2253	0	0	1002	0	39	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	2253	0	0	1002	0	39	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	116	2253	0	0	1002	0	39	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	2880	3200	0	0	4800	1600	2880	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.70	0.00	0.00	0.21	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****			****					

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Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	32.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.305

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	1796	320	349	679	2	0	1	1	262	0	572
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1796	320	349	679	2	0	1	1	262	0	572
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
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	477	85	93	180	1	0	0	0	70	0	152
Total Analysis Volume [veh/h]	0	1907	340	370	721	2	0	1	1	278	0	607
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
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	39	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	37	37	56	37	37	37	15	15	15	15	15
g / C, Green / Cycle	0.61	0.61	0.93	0.61	0.61	0.61	0.25	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.00	0.54	0.21	0.79	5.09	0.43	0.00	0.00	0.16	0.21	0.21
s, saturation flow rate [veh/h]	727	3547	1583	235	36	1694	810	1712	1409	1579	1583
c, Capacity [veh/h]	314	2172	1478	142	142	1038	148	435	446	472	403
d1, Uniform Delay [s]	0.00	9.76	0.17	29.59	29.59	7.87	0.00	16.72	21.05	21.06	21.10
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
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
d2, Incremental Delay [s]	0.00	5.42	0.36	177.57	177.57	3.88	0.00	0.00	0.86	1.94	4.20
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
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
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

Lane Group Results

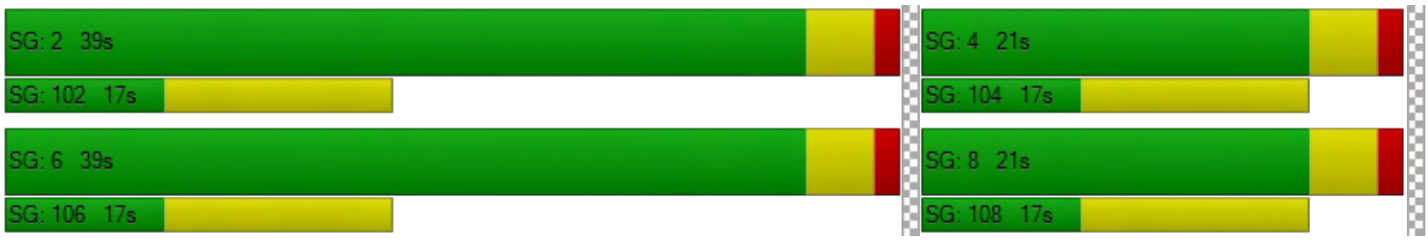
X, volume / capacity	0.00	0.88	0.23	1.30	1.30	0.70	0.00	0.00	0.50	0.71	0.82
d, Delay for Lane Group [s/veh]	0.00	15.18	0.53	207.16	207.16	11.74	0.00	16.72	21.91	23.00	25.30
Lane Group LOS	A	B	A	F	F	B	A	B	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.00	7.59	0.15	8.87	8.87	4.76	0.00	0.02	2.54	3.98	4.18
50th-Percentile Queue Length [ft/ln]	0.00	189.76	3.73	221.83	221.83	118.95	0.00	0.46	63.58	99.60	104.50
95th-Percentile Queue Length [veh/ln]	0.00	12.11	0.27	15.97	15.97	8.34	0.00	0.03	4.58	7.17	7.52
95th-Percentile Queue Length [ft/ln]	0.00	302.71	6.72	399.29	399.29	208.38	0.00	0.82	114.45	179.28	188.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	15.18	0.53	207.16	11.74	11.74	0.00	16.72	16.72	21.91	23.00	24.15
Movement LOS	A	B	A	F	B	B	A	B	B	C	C	C
d_A, Approach Delay [s/veh]	12.96			77.90			16.72			23.59		
Approach LOS	B			E			B			C		
d_I, Intersection Delay [s/veh]	31.98											
Intersection LOS	C											
Intersection V/C	5.305											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	1177	267	312	676	0	905	0	281	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1177	267	312	676	0	905	0	281	0	0	0
Peak Hour Factor	1.0000	0.9770	0.9770	0.9770	0.9770	1.0000	0.9770	1.0000	0.9770	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	301	68	80	173	0	232	0	72	0	0	0
Total Analysis Volume [veh/h]	0	1205	273	319	692	0	926	0	288	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	69.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	24	0	15	39	0	21	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	60	60	60	60	60	60	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	20	20	11	35	17	17	
g / C, Green / Cycle	0.33	0.33	0.18	0.58	0.28	0.28	
(v / s)_i Volume / Saturation Flow Rate	0.28	0.29	0.18	0.14	0.27	0.18	
s, saturation flow rate [veh/h]	3547	1697	1774	5074	3445	1583	
c, Capacity [veh/h]	1180	565	328	2963	977	449	
d1, Uniform Delay [s]	18.59	18.92	24.44	6.05	21.18	18.93	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	7.04	16.85	17.52	0.19	5.83	1.54	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.83	0.87	0.97	0.23	0.95	0.64	
d, Delay for Lane Group [s/veh]	25.63	35.77	41.96	6.23	27.01	20.47	
Lane Group LOS	C	D	D	A	C	C	
Critical Lane Group	No	Yes	Yes	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	6.33	7.91	5.51	0.96	6.12	3.15	
50th-Percentile Queue Length [ft/ln]	158.13	197.64	137.81	23.93	152.90	78.81	
95th-Percentile Queue Length [veh/ln]	10.45	12.52	9.36	1.72	10.17	5.67	
95th-Percentile Queue Length [ft/ln]	261.25	312.92	234.07	43.07	254.30	141.86	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	27.48	35.77	41.96	6.23	0.00	27.01	0.00	20.47	0.00	0.00	0.00
Movement LOS		C	D	D	A		C		C			
d_A, Approach Delay [s/veh]	29.01			17.51			25.46			0.00		
Approach LOS	C			B			C			A		
d_I, Intersection Delay [s/veh]	24.70											
Intersection LOS	C											
Intersection V/C	0.739											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	11	0	7	2	0	14	23	1050	36	16	1592	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	0	7	2	0	14	23	1050	36	16	1592	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	0	7	2	0	14	23	1050	36	16	1592	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	0	7	2	0	14	23	1050	36	16	1592	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	0	7	2	0	14	23	1050	36	16	1592	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	0	7	2	0	14	23	1050	36	16	1592	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	3.87	0.13	1.00	2.98	0.02
Final Sat.:	1600	0	1600	1600	0	1600	1600	6188	212	1600	4770	30
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.17	0.17	0.01	0.33	0.33
Crit Moves:	****					****	****				****	

Intersection Level Of Service Report
Intersection 12: Faure Ave (NS) at Valley Boulevard (EW)

Control Type:	Two-way stop	Delay (sec / veh):	173.6
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.086

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	2	30	1204	8	78	1565
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	30	1204	8	78	1565
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	8	336	2	22	437
Total Analysis Volume [veh/h]	2	33	1344	9	87	1747
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.09	0.08	0.01	0.00	0.17	0.02
d_M, Delay for Movement [s/veh]	173.62	14.85	0.00	0.00	13.62	0.00
Movement LOS	F	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.26	0.27	0.00	0.00	0.62	0.00
95th-Percentile Queue Length [ft/ln]	6.43	6.74	0.00	0.00	15.45	0.00
d_A, Approach Delay [s/veh]	23.93		0.00		0.65	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.63					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	18.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.508

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	835	2	0	31	0	44	11	652	285	0	844	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	835	2	0	31	0	44	11	652	285	0	844	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	209	1	0	8	0	11	3	163	0	0	211	2
Total Analysis Volume [veh/h]	835	2	0	31	0	44	11	652	0	0	844	9
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
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	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	22	0	22	0	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	19	19	5	5	29	29	29	29	29
g / C, Green / Cycle	0.29	0.29	0.08	0.08	0.44	0.44	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.25	0.25	0.02	0.02	0.01	0.18	0.00	0.24	0.24
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	497	497	139	147	506	1591	44181	795	795
d1, Uniform Delay [s]	21.64	21.65	27.97	28.15	10.21	12.39	0.00	13.30	13.30
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	3.96	3.96	0.80	1.12	0.08	0.78	0.00	2.59	2.59
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

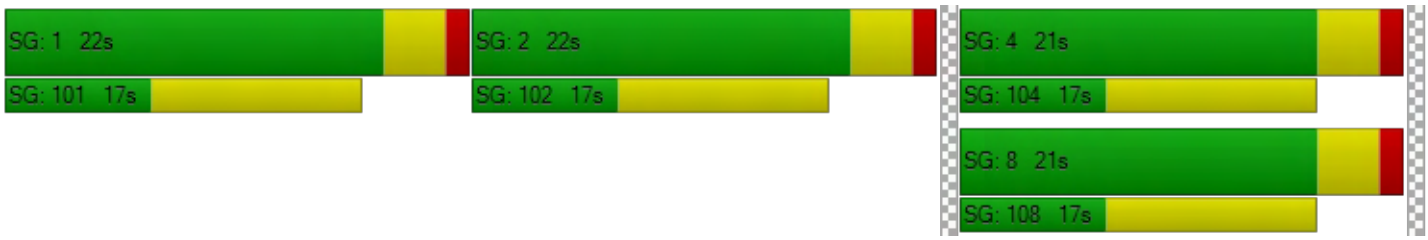
X, volume / capacity	0.84	0.84	0.22	0.30	0.02	0.41	0.00	0.54	0.54
d, Delay for Lane Group [s/veh]	25.61	25.61	28.78	29.28	10.29	13.18	0.00	15.89	15.89
Lane Group LOS	C	C	C	C	B	B	A	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.67	5.68	0.44	0.63	0.08	2.76	0.00	4.21	4.21
50th-Percentile Queue Length [ft/ln]	141.87	141.90	11.07	15.86	2.08	69.05	0.00	105.15	105.15
95th-Percentile Queue Length [veh/ln]	9.58	9.58	0.80	1.14	0.15	4.97	0.00	7.57	7.57
95th-Percentile Queue Length [ft/ln]	239.54	239.57	19.93	28.55	3.74	124.29	0.00	189.24	189.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.61	25.61	25.61	28.78	0.00	29.28	10.29	13.18	0.00	0.00	15.89	15.89
Movement LOS	C	C	C	C		C	B	B	A		B	B
d_A, Approach Delay [s/veh]	25.61			29.07			13.13			15.89		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	18.89											
Intersection LOS	B											
Intersection V/C	0.508											

Sequence

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



TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.740
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0 0	0 1	1	0 3	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	0	0	0	325	0	91	140	1692	0	0	1118	462
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	325	0	91	140	1692	0	0	1118	462
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	325	0	91	140	1692	0	0	1118	462
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	325	0	91	140	1692	0	0	1118	462
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	325	0	91	140	1692	0	0	1118	462
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	325	0	91	140	1692	0	0	1118	462
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.20	0.00	0.06	0.09	0.35	0.00	0.00	0.35	0.29
Crit Moves:				****			****				****	

TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.878
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	534	0	1124	0	0	0	0	1735	237	524	1027	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	534	0	1124	0	0	0	0	1735	237	524	1027	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	534	0	1124	0	0	0	0	1735	237	524	1027	0
OvlAdjVol:			542									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.64	0.36	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	4223	577	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.35	0.00	0.00	0.00	0.00	0.41	0.41	0.18	0.32	0.00
OvlAdjV/S:			0.17									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.768
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	327	1150	288	209	832	262	346	651	292	359	659	326
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	327	1150	288	209	832	262	346	651	292	359	659	326
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	327	1150	288	209	832	262	346	651	292	359	659	326
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	327	1150	288	209	832	262	346	651	292	359	659	326
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	327	1150	288	209	832	262	346	651	292	359	659	326
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	327	1150	288	209	832	262	346	651	292	359	659	326
OvlAdjVol:			89						110			210
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.28	0.72	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	3650	1150	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.24	0.18	0.07	0.23	0.23	0.12	0.20	0.18	0.12	0.21	0.20
OvlAdjV/S:			0.06						0.07			0.13
Crit Moves:	****				****		****				****	

TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.821
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	24	1906	52	113	1355	14	17	2	10	37	7	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1906	52	113	1355	14	17	2	10	37	7	70
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1906	52	113	1355	14	17	2	10	37	7	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	1906	52	113	1355	14	17	2	10	37	7	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1906	52	113	1355	14	17	2	10	37	7	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	1906	52	113	1355	14	17	2	10	37	7	70
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.89	0.11	1.00	0.84	0.16	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1432	168	1600	1345	255	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.60	0.03	0.07	0.42	0.01	0.01	0.01	0.01	0.02	0.03	0.04
Crit Moves:		****			****			****				****

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TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.885
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	233	1535	153	7	1259	190	245	63	350	85	35	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	233	1535	153	7	1259	190	245	63	350	85	35	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	233	1535	153	7	1259	190	245	63	350	85	35	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	233	1535	153	7	1259	190	245	63	350	85	35	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.59	0.41	1.00	1.94	0.79	0.27
Final Sat.:	1600	3200	1600	1600	3200	1600	2545	655	1600	3098	1268	434
Capacity Analysis Module:												
Vol/Sat:	0.15	0.48	0.10	0.00	0.39	0.12	0.10	0.10	0.22	0.03	0.03	0.03
OvlAdjV/S:						0.00						
Crit Moves:	****			****					****			****

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TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.918
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	261	1040	179	385	1042	209	666	1531	287	428	702	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	261	1040	179	385	1042	209	666	1531	287	428	702	244
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	261	1040	179	385	1042	209	666	1531	287	428	702	244
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	261	1040	0	385	1042	209	666	1531	0	428	702	244
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261	1040	0	385	1042	209	666	1531	0	428	702	244
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	261	1040	0	385	1042	209	666	1531	0	428	702	244
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.22	0.00	0.13	0.22	0.13	0.23	0.32	0.00	0.15	0.15	0.15
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.639
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2	0	1	1 0 2	1	0	1 0 0	1	0	1 0 0	1	0
Volume Module:												
Base Vol:	8 1544		70	41 1441		3	5	2	9	39	0	13
Growth Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Initial Bse:	8 1544		70	41 1441		3	5	2	9	39	0	13
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8 1544		70	41 1441		3	5	2	9	39	0	13
User Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Volume:	8 1544		70	41 1441		3	5	2	9	39	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8 1544		70	41 1441		3	5	2	9	39	0	13
PCE Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
MLF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
FinalVolume:	8 1544		70	41 1441		3	5	2	9	39	0	13
Saturation Flow Module:												
Sat/Lane:	1600 1600		1600	1600 1600		1600	1600 1600		1600	1600 1600		1600
Adjustment:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Lanes:	1.00 2.00		1.00	1.00 2.99		0.01	1.00 0.18		0.82	1.00 0.00		1.00
Final Sat.:	1600 3200		1600	1600 4790		10	1600 291		1309	1600 0		1600
Capacity Analysis Module:												
Vol/Sat:	0.01 0.48		0.04	0.03 0.30		0.30	0.00 0.01		0.01	0.02 0.00		0.01
Crit Moves:	****			****			****			****		

TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

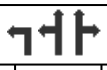
Cycle (sec):	100	Critical Vol./Cap.(X):	0.554
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 2	0 0		0 0 3	0 1		2 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	33	1261	0	0	1567	50	172	0	94	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1261	0	0	1567	50	172	0	94	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	1261	0	0	1567	50	172	0	94	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	33	1261	0	0	1567	0	172	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1261	0	0	1567	0	172	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	33	1261	0	0	1567	0	172	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	2880	3200	0	0	4800	1600	2880	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.39	0.00	0.00	0.33	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****			****					

Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	43.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.173

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	799	283	610	1382	5	4	2	4	186	1	495
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	1	799	283	610	1382	5	4	2	4	186	1	495
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
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	223	79	170	385	1	1	1	1	52	0	138
Total Analysis Volume [veh/h]	1	891	315	680	1541	6	4	2	4	207	1	552
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
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	1 - Coordination Group
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	64	64	0	64	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	60	60	81	60	60	60	17	17	17	17	17
g / C, Green / Cycle	0.71	0.71	0.95	0.71	0.71	0.71	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.00	0.25	0.20	1.00	0.49	0.45	0.00	0.00	0.15	0.17	0.17
s, saturation flow rate [veh/h]	333	3547	1583	622	1704	1693	852	1667	1404	1584	1583
c, Capacity [veh/h]	223	2515	1509	445	1254	1200	92	328	327	354	311
d1, Uniform Delay [s]	14.53	4.80	0.12	22.51	6.55	6.55	41.94	27.49	34.07	33.18	33.18
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
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
d2, Incremental Delay [s]	0.04	0.39	0.31	190.54	2.87	2.60	0.19	0.02	2.02	3.78	8.48
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
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
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

Lane Group Results

X, volume / capacity	0.00	0.35	0.21	1.39	0.67	0.64	0.04	0.02	0.63	0.78	0.89
d, Delay for Lane Group [s/veh]	14.57	5.19	0.43	213.05	9.42	9.15	42.14	27.51	36.10	36.96	41.66
Lane Group LOS	B	A	A	F	A	A	D	C	D	D	D
Critical Lane Group	No	No	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	2.10	0.13	32.50	6.04	5.46	0.08	0.09	4.06	5.53	5.89
50th-Percentile Queue Length [ft/ln]	0.31	52.38	3.30	812.44	151.08	136.54	2.12	2.37	101.47	138.24	147.22
95th-Percentile Queue Length [veh/ln]	0.02	3.77	0.24	52.53	10.07	9.29	0.15	0.17	7.31	9.39	9.87
95th-Percentile Queue Length [ft/ln]	0.56	94.28	5.93	1313.34	251.87	232.36	3.81	4.26	182.65	234.65	246.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.57	5.19	0.43	213.05	9.28	9.15	42.14	27.51	27.51	36.10	36.96	39.31
Movement LOS	B	A	A	F	A	A	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	3.95			66.10			33.36			38.44		
Approach LOS	A			E			C			D		
d_I, Intersection Delay [s/veh]	43.18											
Intersection LOS	D											
Intersection V/C	1.173											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	20.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.759

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	933	619	380	1294	0	169	0	176	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	933	619	380	1294	0	169	0	176	0	0	0
Peak Hour Factor	1.0000	0.9440	0.9440	0.9440	0.9440	1.0000	0.9440	1.0000	0.9440	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	247	164	101	343	0	45	0	47	0	0	0
Total Analysis Volume [veh/h]	0	988	656	403	1371	0	179	0	186	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	10.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lag	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	40	0	24	64	0	21	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	85	85	85	85	85	85	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	41	41	20	65	12	12	
g / C, Green / Cycle	0.48	0.48	0.24	0.76	0.14	0.14	
(v / s)_i Volume / Saturation Flow Rate	0.28	0.41	0.23	0.27	0.05	0.12	
s, saturation flow rate [veh/h]	3547	1583	1774	5074	3445	1583	
c, Capacity [veh/h]	1701	759	418	3867	496	228	
d1, Uniform Delay [s]	15.97	19.68	32.16	3.30	32.88	35.32	
k, delay calibration	0.50	0.50	0.19	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	1.46	12.51	19.77	0.26	0.44	7.00	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

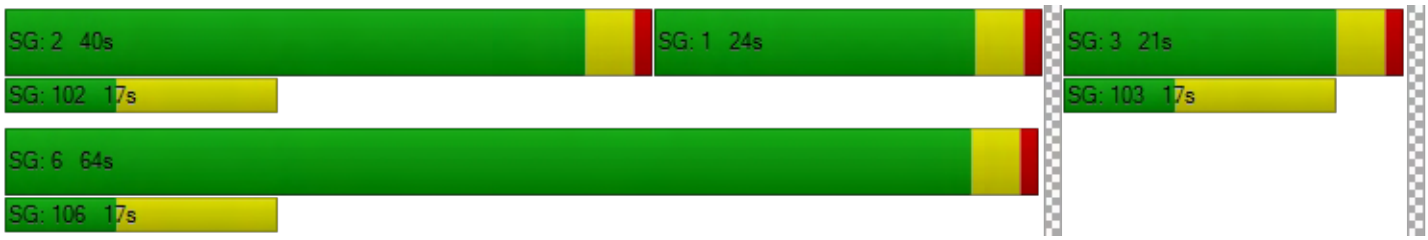
X, volume / capacity	0.58	0.86	0.96	0.35	0.36	0.82	
d, Delay for Lane Group [s/veh]	17.43	32.19	51.93	3.55	33.33	42.32	
Lane Group LOS	B	C	D	A	C	D	
Critical Lane Group	No	Yes	Yes	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	6.32	12.41	9.85	1.38	1.60	3.95	
50th-Percentile Queue Length [ft/ln]	157.92	310.22	246.33	34.39	40.09	98.86	
95th-Percentile Queue Length [veh/ln]	10.44	18.19	15.00	2.48	2.89	7.12	
95th-Percentile Queue Length [ft/ln]	260.97	454.65	375.02	61.90	72.15	177.96	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	17.43	32.19	51.93	3.55	0.00	33.33	0.00	42.32	0.00	0.00	0.00
Movement LOS		B	C	D	A		C		D			
d_A, Approach Delay [s/veh]	23.32			14.54			37.91			0.00		
Approach LOS	C			B			D			A		
d_I, Intersection Delay [s/veh]	20.61											
Intersection LOS	C											
Intersection V/C	0.759											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	215	0	83	10	1	10	35	2031	268	87	1217	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	215	0	83	10	1	10	35	2031	268	87	1217	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	0	83	10	1	10	35	2031	268	87	1217	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	215	0	83	10	1	10	35	2031	268	87	1217	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	215	0	83	10	1	10	35	2031	268	87	1217	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	215	0	83	10	1	10	35	2031	268	87	1217	3
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.91	0.09	1.00	1.00	3.53	0.47	1.00	2.99	0.01
Final Sat.:	1600	0	1600	1455	145	1600	1600	5654	746	1600	4788	12
Capacity Analysis Module:												
Vol/Sat:	0.13	0.00	0.05	0.01	0.01	0.01	0.02	0.36	0.36	0.05	0.25	0.25
Crit Moves:	****				****			****			****	

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Intersection Level Of Service Report
Intersection 12: Faure Ave (NS) at Valley Boulevard (EW)

Control Type:	Two-way stop	Delay (sec / veh):	648.9
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.155

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	63	2110	2	33	1612
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	63	2110	2	33	1612
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	567	1	9	433
Total Analysis Volume [veh/h]	1	68	2266	2	35	1731
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.16	0.35	0.02	0.00	0.16	0.02
d_M, Delay for Movement [s/veh]	648.86	32.66	0.00	0.00	24.24	0.00
Movement LOS	F	D	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.36	1.45	0.00	0.00	0.55	0.00
95th-Percentile Queue Length [ft/ln]	9.02	36.33	0.00	0.00	13.73	0.00
d_A, Approach Delay [s/veh]	41.59		0.00		0.48	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	0.91					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.454

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	405	12	2	18	0	17	35	1153	973	0	777	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	405	12	2	18	0	17	35	1153	973	0	777	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	101	3	1	5	0	4	9	288	0	0	194	4
Total Analysis Volume [veh/h]	405	12	2	18	0	17	35	1153	0	0	777	14
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
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	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	21	0	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	10	10	3	3	39	39	39	39	39
g / C, Green / Cycle	0.16	0.16	0.05	0.05	0.60	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12	0.01	0.01	0.02	0.32	0.00	0.22	0.22
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	274	274	89	94	874	2167	60201	1084	1084
d1, Uniform Delay [s]	26.13	26.14	29.56	29.52	5.27	7.59	0.00	6.61	6.61
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	4.40	4.42	1.10	0.90	0.09	0.94	0.00	0.95	0.95
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

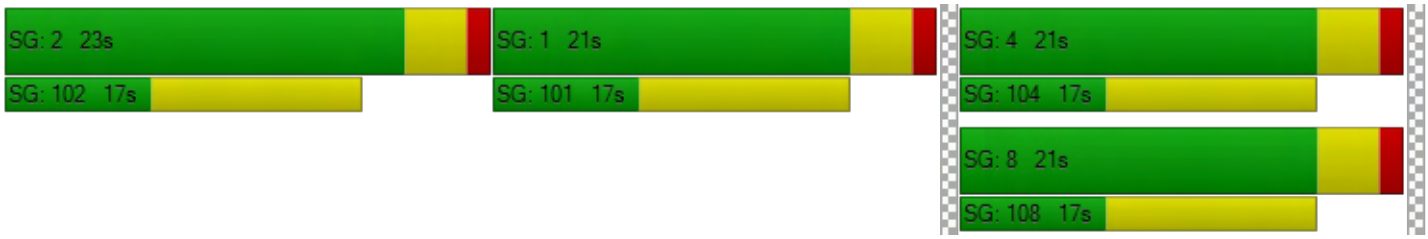
X, volume / capacity	0.76	0.76	0.20	0.18	0.04	0.53	0.00	0.36	0.36
d, Delay for Lane Group [s/veh]	30.53	30.56	30.65	30.42	5.35	8.53	0.00	7.56	7.56
Lane Group LOS	C	C	C	C	A	A	A	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.11	3.11	0.27	0.26	0.15	3.34	0.00	2.11	2.11
50th-Percentile Queue Length [ft/ln]	77.65	77.82	6.86	6.42	3.74	83.45	0.00	52.81	52.81
95th-Percentile Queue Length [veh/ln]	5.59	5.60	0.49	0.46	0.27	6.01	0.00	3.80	3.80
95th-Percentile Queue Length [ft/ln]	139.77	140.08	12.34	11.55	6.73	150.21	0.00	95.05	95.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.54	30.56	30.56	30.65	0.00	30.42	5.35	8.53	0.00	0.00	7.56	7.56
Movement LOS	C	C	C	C		C	A	A	A		A	A
d_A, Approach Delay [s/veh]	30.54			30.54			8.44			7.56		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	12.28											
Intersection LOS	B											
Intersection V/C	0.454											

Sequence

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



APPENDIX E

Internal Capture Worksheets

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	Terraces at Walnut Ridge	**Organization:**	
Project Location:	City of Walnut	**Performed By:**	
Scenario Description:	Project	**Date:**	1/17/2019
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				166	103	63
Restaurant				0		
Cinema/Entertainment				0		
Residential				193	48	145
Hotel				0		
All Other Land Uses[2]				0		
Total				359	151	208

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant						
Cinema/Entertainment						
Residential	1.00	0%	0%	1.00	0%	0%
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	359	151	208
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[3]	355	149	206
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	2%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	2%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Project Name:	Terraces at Walnut Ridge
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	103	103	1.00	63	63
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	48	48	1.00	145	145
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	18		8	0	9	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	1	29	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		33	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	8		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	18	0	0		0
Hotel	0	4	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	102	103	102	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	47	48	47	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	62	63	62	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	144	145	144	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	Terraces at Walnut Ridge	**Organization:**	
Project Location:	City of Walnut	**Performed By:**	
Scenario Description:	Project	**Date:**	1/17/2019
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				223	107	116
Restaurant				0		
Cinema/Entertainment				0		
Residential				254	159	95
Hotel				0		
All Other Land Uses[2]				0		
Total				477	266	211

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant						
Cinema/Entertainment						
Residential	1.00	0%	0%	1.00	0%	0%
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	30	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	11	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	477	266	211
Internal Capture Percentage	17%	15%	19%
External Vehicle-Trips[3]	395	225	170
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	26%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	19%	12%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Project Name:	Terraces at Walnut Ridge
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	107	107	1.00	116	116
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	159	159	1.00	95	95
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	2		34	5	30	6
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	4	40	20	0		3
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	0	0	6	0
Retail	0		0	0	73	0
Restaurant	0	54		0	25	0
Cinema/Entertainment	0	4	0		6	0
Residential	0	11	0	0		0
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	11	96	107	96	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	30	129	159	129	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	30	86	116	86	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	84	95	84	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

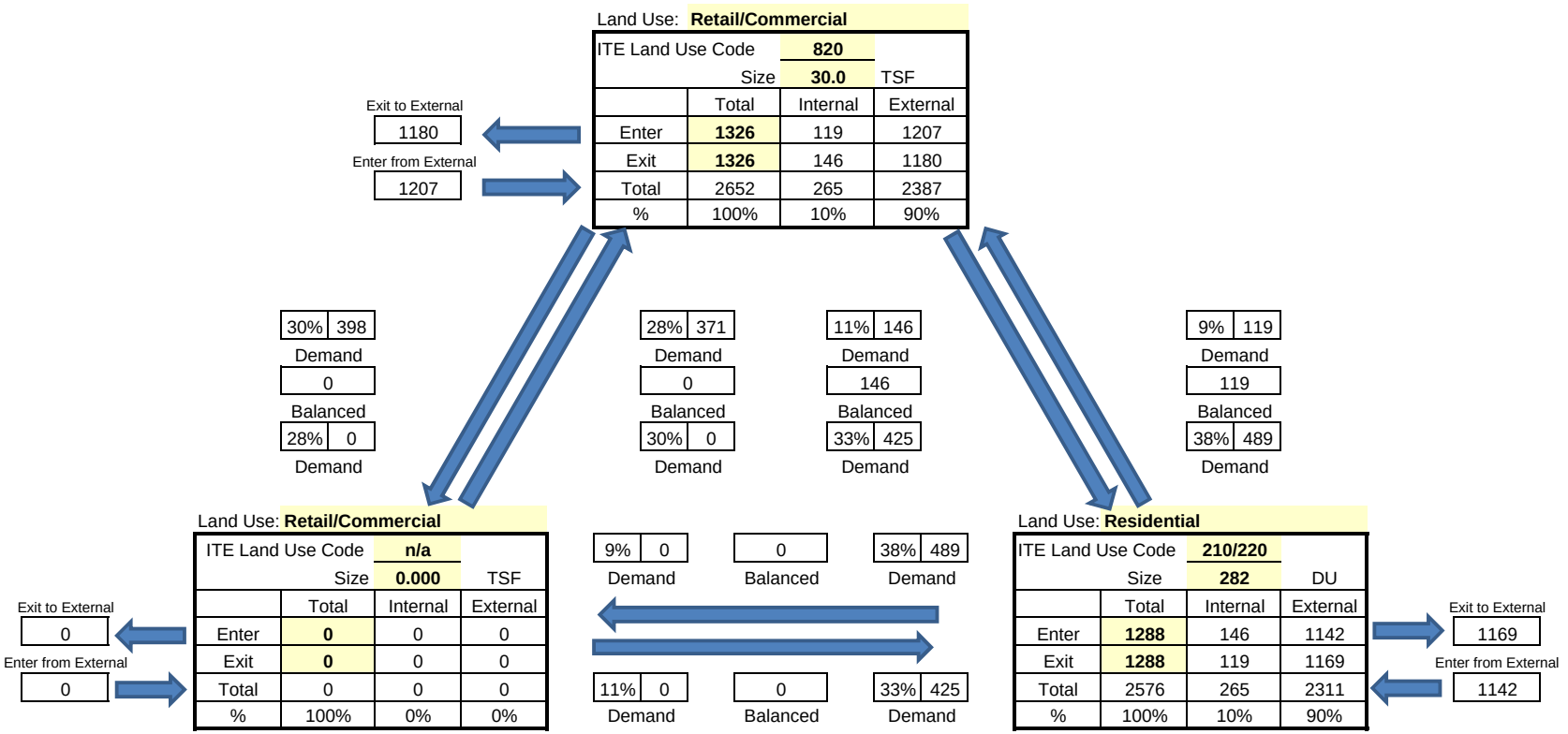
[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Multi-Use Trip Generation Calculation (Internal Capture)

Analyst	GJG	Project	6345b - Terraces at Walnut
Date	1/17/2019	Time Period	Daily



Net External Trips for Multi-Use Development					
	Land Use:	Land Use:	Land Use:	Total	
Enter	1207	0	1142	2349	
Exit	1180	0	1169	2349	
Total	2387	0	2311	4698	Internal Capture
Single-Use Trip Generation Est.	2652	0	2576	5228	**10%**

APPENDIX F

Other Development Data

Table F-1

Other Development Trip Generation

ID	Land Use	Quantity	Units[2]	Source (ITE Code)	Peak Hour Trips Generated[1]						Daily
					Morning			Evening			
					Inbound	Outbound	Total	Inbound	Outbound	Total	
City of Diamond Bar											
D1	K-Mart	91.390	TSF	ITE 820	55	33	88	163	176	339	3,902
	Pass-By (34% PM)				0	0	0	-55	-60	-115	-115
D2	Multi-Family Condominiums	160	DU	ITE 220	16	66	82	64	35	99	1,064
City of Industry											
I1	Global EGO Development Inc.	14.000	TSF	ITE 710	19	3	22	4	17	21	154
I2	Colei Wellness and Beauty	3.050	TSF	ITE 720	6	1	7	3	8	11	110
I3	Carl's Jr.	2.644	TSF	ITE 934	61	59	120	45	41	86	1,312
	Pass-By (49% AM & 50% PM)				-30	-29	-59	-23	-20	-43	-102
I4	Industry Business Center East	1977.796	TSF	ITE 110/	2,018	324	2,342	974	2,500	3,474	33,710
I5	Industry Business Center West	2801.204	TSF	820/710[3]	1,791	415	2,206	1,616	2,786	4,402	46,354
City of Walnut											
W1	Brookside	28	DU	ITE 210	5	16	21	18	10	28	267
W2	Lot 269	18	DU	ITE 210	3	11	14	11	7	18	171
W3	San Jose Hills Road	22	DU	ITE 210	4	13	17	14	8	22	209
W4	Shea Homes										
	Townhomes	61	DU	ITE 230	4	23	27	21	11	32	354
	Single-Family Detached	37	DU	ITE 210	7	21	28	23	14	37	352
W5	TTM 71977	13	DU	ITE 210	2	8	10	8	5	13	124
W6	TTM 49059	6	DU	ITE 210	1	4	5	4	2	6	57
W7	TTM 52324	10	DU	ITE 210	2	6	8	6	4	10	95
W8	TTM 53924	6	DU	ITE 210	1	4	5	4	2	6	57
W9	TTM 67960	7	DU	ITE 210	1	4	5	4	3	7	67
W10	West Valley Specific Plan	Varies[4]	--[4]	Varies[4]	-14	127	113	142	91	233	3,165
Mt. San Antonio College											
MS1	Future Enrollment Increase	7,153	ST	ITE 540	715	143	858	572	286	858	8,798
City of Pomona											
P1	22122 Valley Boulevard	145.900	TSF	ITE 110	118	16	134	18	124	142	1,017
P2	Starbucks	2.100	TSF	ITE 937	108	103	211	45	45	90	1,719
Cal Poly Pomona											
CP1	Future Enrollment Increase	8,889	ST	ITE 550	1,156	355	1,511	444	1,067	1,511	15,200
Total Trips Generated by Other Developments					**4,893**	**1,371**	**6,264**	**3,681**	**6,095**	**9,776**	**102,841**

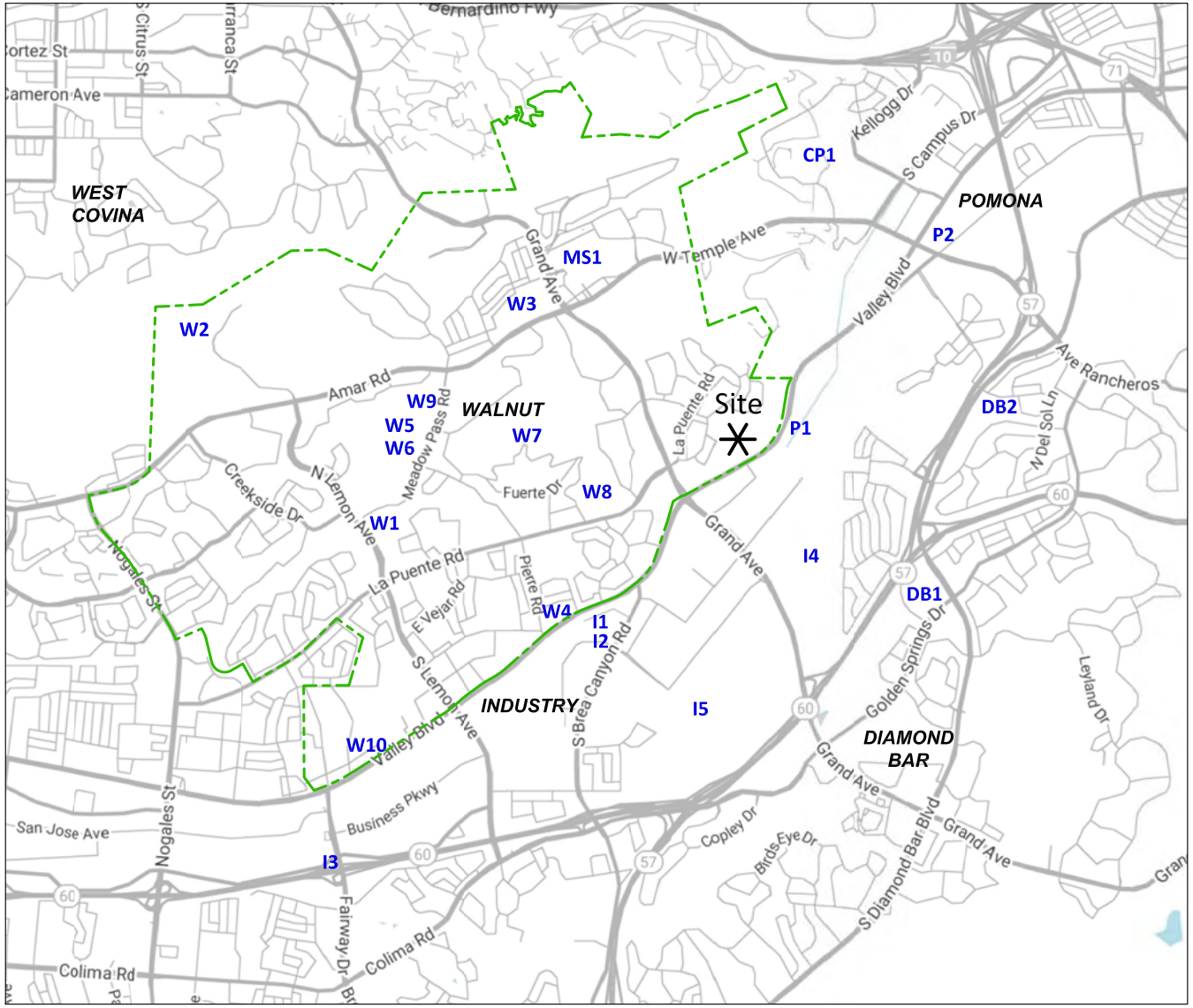
[1] TSF = Thousand Square Feet; DU = Dwelling Units

[2] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012.

[3] ITE Trip Generation Manual industrial land use rates and retail/office regression equations. Internal capture reductions applied in accordance with internal capture worksheets provided in ITE Trip Generation Manual.

[4] Source: West Valley Specific Plan Traffic Impact Analysis (Kunzman Associates, Inc., December 22, 2017.)

Figure F-1
Other Development Location Map



Legend

City of Diamond Bar:
- **D1** K-Mart
- **D2** Multi-Family Condominiums

City of Industry:
- **I1** Global EGO Development
- **I2** Colei Wellness & Beauty
- **I3** Carl's Jr.
- **I4** Industry Business Center East
- **I5** Industry Business Center West

City of Walnut:
- **W1** Brookside
- **W2** Lot 269
- **W3** San Jose Hills Road
- **W4** Shea Homes
- **W5** TTM 71977
- **W6** TTM 49059
- **W7** TTM 52324
- **W8** TTM 53924
- **W9** TTM 67960
- **W10** West Valley Specific Plan

Mt. San Antonio College:
- **MS1** Future Enrollment Increase

City of Pomona:
- **P1** 22122 Valley Boulevard
- **P2** Starbucks

Cal Poly Pomona:
- **CP1** Future Enrollment Increase

City of Walnut Boundary

APPENDIX G

Future Level of Service Worksheets

Existing Plus Project

TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.876
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0 0	0 1	1	0 3	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	0	0	0	411	0	168	169	746	0	0	1228	646
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	411	0	168	169	746	0	0	1228	646
Added Vol:	0	0	0	9	0	0	0	12	0	0	24	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	420	0	168	169	758	0	0	1252	652
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	420	0	168	169	758	0	0	1252	652
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	420	0	168	169	758	0	0	1252	652
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	420	0	168	169	758	0	0	1252	652
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.11	0.11	0.16	0.00	0.00	0.39	0.41
Crit Moves:				****			****					****

Traffix 7.9.0215 (c) 2008 Dowling Assoc.

TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.707
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	357	0	615	0	0	0	0	783	369	667	1466	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	357	0	615	0	0	0	0	783	369	667	1466	0
Added Vol:	0	0	9	0	0	0	0	25	0	17	33	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	357	0	624	0	0	0	0	808	369	684	1499	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	357	0	624	0	0	0	0	808	369	684	1499	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	357	0	624	0	0	0	0	808	369	684	1499	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	357	0	624	0	0	0	0	808	369	684	1499	0
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.06	0.94	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	3295	1505	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.20	0.00	0.00	0.00	0.00	0.25	0.25	0.24	0.47	0.00
OvlAdjV/S:			0.00									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 3 0 1			2 0 2 1 0			2 0 2 0 1			2 0 2 0 1		
Volume Module:												
Base Vol:	236	1291	628	412	1070	187	284	757	153	110	446	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	236	1291	628	412	1070	187	284	757	153	110	446	185
Added Vol:	10	32	3	0	14	0	0	0	7	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	246	1323	631	412	1084	187	284	757	160	115	446	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	246	1323	631	412	1084	187	284	757	160	115	446	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1323	631	412	1084	187	284	757	160	115	446	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	246	1323	631	412	1084	187	284	757	160	115	446	185
OvlAdjVol:			567						23			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.56	0.44	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	4094	706	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.39	0.14	0.26	0.26	0.10	0.24	0.10	0.04	0.14	0.12
OvlAdjV/S:			0.35						0.01			0.00
Crit Moves:			****	****				****		****		

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TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	7	2044	26	36	1522	13	19	2	21	53	7	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	2044	26	36	1522	13	19	2	21	53	7	89
Added Vol:	3	44	3	0	26	0	0	0	5	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	2088	29	36	1548	13	19	2	26	58	7	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2088	29	36	1548	13	19	2	26	58	7	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2088	29	36	1548	13	19	2	26	58	7	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2088	29	36	1548	13	19	2	26	58	7	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.90	0.10	1.00	0.89	0.11	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1448	152	1600	1428	172	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.65	0.02	0.02	0.48	0.01	0.01	0.01	0.02	0.04	0.04	0.06
Crit Moves:		****			****			****				****

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TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.958
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	1684	70	1	1120	277	407	76	416	113	108	12
Added Vol:	6	50	3	0	35	0	0	0	9	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1734	73	1	1155	277	407	76	425	118	108	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	165	1734	73	1	1155	277	407	76	425	118	108	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1734	73	1	1155	277	407	76	425	118	108	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	165	1734	73	1	1155	277	407	76	425	118	108	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.69	0.31	1.00	1.49	1.36	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	2696	504	1600	2374	2183	243
Capacity Analysis Module:												
Vol/Sat:	0.10	0.54	0.05	0.00	0.36	0.17	0.15	0.15	0.27	0.05	0.05	0.05
OvlAdjV/S:						0.00						
Crit Moves:	****			****					****	****		

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TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.856
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ignore				Include				Ignore				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0 3	0	1	2	0 3	0	1	2	0 3	0	1	2	0 3	0	1
Volume Module:																
Base Vol:	291	1364	364		207	938	396		401	500	169		167	1116	139	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	291	1364	364		207	938	396		401	500	169		167	1116	139	
Added Vol:	0	0	14		49	0	0		0	39	0		8	53	58	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	291	1364	378		256	938	396		401	539	169		175	1169	197	
User Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	291	1364	0		256	938	396		401	539	0		175	1169	197	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	291	1364	0		256	938	396		401	539	0		175	1169	197	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	291	1364	0		256	938	396		401	539	0		175	1169	197	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	0.90	1.00	1.00		0.90	1.00	1.00		0.90	1.00	1.00		0.90	1.00	1.00	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	2880	4800	1600		2880	4800	1600		2880	4800	1600		2880	4800	1600	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.28	0.00		0.09	0.20	0.25		0.14	0.11	0.00		0.06	0.24	0.12	
Crit Moves:		****				****				****				****		

TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.767
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	10	1839	33	9	1289	6	2	0	7	81	2	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	1839	33	9	1289	6	2	0	7	81	2	1
Added Vol:	0	14	16	0	8	0	0	0	0	50	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	1853	49	9	1297	6	2	0	7	131	2	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	1853	49	9	1297	6	2	0	7	131	2	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	1853	49	9	1297	6	2	0	7	131	2	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	1853	49	9	1297	6	2	0	7	131	2	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.00	1.00	1.00	0.67	0.33
Final Sat.:	1600	3200	1600	1600	4778	22	1600	0	1600	1600	1067	533
Capacity Analysis Module:												
Vol/Sat:	0.01	0.58	0.03	0.01	0.27	0.27	0.00	0.00	0.00	0.08	0.00	0.00
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.827
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

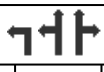
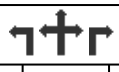
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 2	0 0		0 0 3	0 1		2 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	116	2253	0	0	1002	107	39	0	36	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	2253	0	0	1002	107	39	0	36	0	0	0
Added Vol:	0	30	0	0	59	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	2283	0	0	1061	107	39	0	36	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	116	2283	0	0	1061	0	39	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	2283	0	0	1061	0	39	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	116	2283	0	0	1061	0	39	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	2880	3200	0	0	4800	1600	2880	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.71	0.00	0.00	0.22	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****			****			****				

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Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	40.0
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	7.121

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	1817	320	381	706	2	0	1	1	262	0	581
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1817	320	381	706	2	0	1	1	262	0	581
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
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	482	85	101	187	1	0	0	0	70	0	154
Total Analysis Volume [veh/h]	0	1929	340	404	749	2	0	1	1	278	0	617
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
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	39	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	37	37	56	37	37	37	15	15	15	15	15
g / C, Green / Cycle	0.61	0.61	0.93	0.61	0.61	0.61	0.26	0.26	0.26	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.00	0.54	0.21	0.88	6.91	0.44	0.00	0.00	0.16	0.21	0.21
s, saturation flow rate [veh/h]	709	3547	1583	230	29	1694	803	1712	1409	1580	1583
c, Capacity [veh/h]	291	2165	1478	138	138	1034	147	439	449	475	406
d1, Uniform Delay [s]	0.00	10.00	0.17	29.73	29.73	8.19	0.00	16.62	20.91	21.02	21.07
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
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
d2, Incremental Delay [s]	0.00	6.06	0.36	245.20	245.20	4.46	0.00	0.00	0.83	1.98	4.35
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
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
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

Lane Group Results

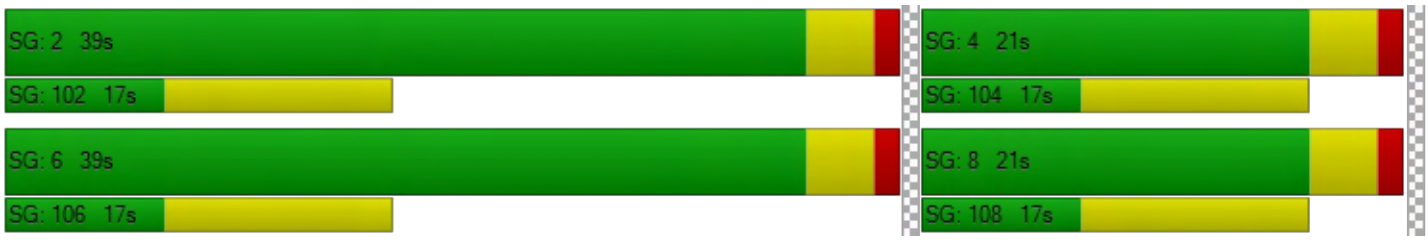
X, volume / capacity	0.00	0.89	0.23	1.47	1.47	0.73	0.00	0.00	0.49	0.71	0.83
d, Delay for Lane Group [s/veh]	0.00	16.06	0.53	274.93	274.93	12.65	0.00	16.62	21.74	23.01	25.42
Lane Group LOS	A	B	A	F	F	B	A	B	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.00	8.01	0.15	11.19	11.19	5.23	0.00	0.02	2.52	4.05	4.26
50th-Percentile Queue Length [ft/ln]	0.00	200.16	3.73	279.65	279.65	130.63	0.00	0.46	63.00	101.24	106.56
95th-Percentile Queue Length [veh/ln]	0.00	12.65	0.27	20.13	20.13	8.97	0.00	0.03	4.54	7.29	7.65
95th-Percentile Queue Length [ft/ln]	0.00	316.17	6.72	503.37	503.37	224.35	0.00	0.82	113.40	182.23	191.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	16.06	0.53	274.93	12.65	12.65	0.00	16.62	16.62	21.74	23.01	24.21
Movement LOS	A	B	A	F	B	B	A	B	B	C	C	C
d_A, Approach Delay [s/veh]	13.73			104.39			16.62			23.60		
Approach LOS	B			F			B			C		
d_I, Intersection Delay [s/veh]	40.01											
Intersection LOS	D											
Intersection V/C	7.121											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	1184	267	329	686	0	919	0	281	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1184	267	329	686	0	919	0	281	0	0	0
Peak Hour Factor	1.0000	0.9770	0.9770	0.9770	0.9770	1.0000	0.9770	1.0000	0.9770	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	303	68	84	176	0	235	0	72	0	0	0
Total Analysis Volume [veh/h]	0	1212	273	337	702	0	941	0	288	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	2.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lag	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	23	0	16	39	0	21	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	60	60	60	60	60	60	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	19	19	12	35	17	17	
g / C, Green / Cycle	0.32	0.32	0.20	0.59	0.28	0.28	
(v / s)_i Volume / Saturation Flow Rate	0.28	0.29	0.19	0.14	0.27	0.18	
s, saturation flow rate [veh/h]	3547	1698	1774	5074	3445	1583	
c, Capacity [veh/h]	1134	543	355	2976	966	444	
d1, Uniform Delay [s]	19.27	19.61	23.71	5.96	21.39	19.01	
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	9.39	22.09	13.02	0.19	8.73	1.60	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

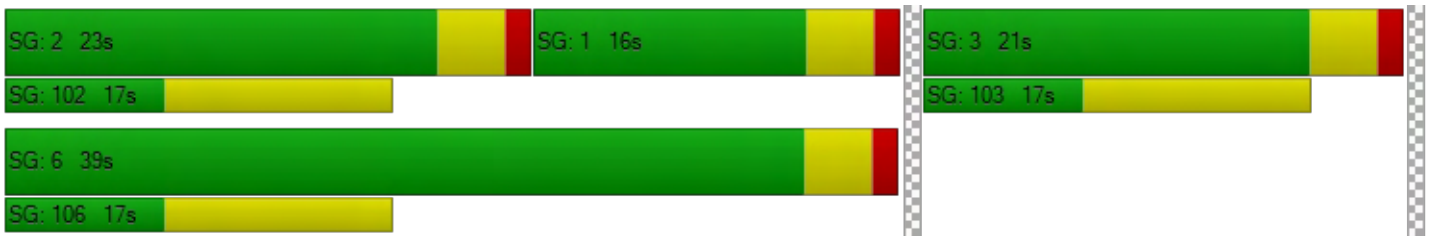
X, volume / capacity	0.87	0.91	0.95	0.24	0.97	0.65	
d, Delay for Lane Group [s/veh]	28.66	41.71	36.73	6.14	30.12	20.61	
Lane Group LOS	C	D	D	A	C	C	
Critical Lane Group	No	Yes	Yes	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	6.83	8.78	5.35	0.96	6.62	3.16	
50th-Percentile Queue Length [ft/ln]	170.85	219.52	133.73	24.05	165.39	78.97	
95th-Percentile Queue Length [veh/ln]	11.12	13.64	9.14	1.73	10.83	5.69	
95th-Percentile Queue Length [ft/ln]	278.03	341.01	228.55	43.29	270.84	142.14	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	31.05	41.71	36.73	6.14	0.00	30.12	0.00	20.61	0.00	0.00	0.00
Movement LOS		C	D	D	A		C		C			
d_A, Approach Delay [s/veh]	33.01			16.06			27.89			0.00		
Approach LOS	C			B			C			A		
d_I, Intersection Delay [s/veh]	26.64											
Intersection LOS	C											
Intersection V/C	0.755											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.489
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	11	0	7	2	0	14	23	1050	36	16	1592	10
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	11	0	7	2	0	14	23	1050	36	16	1592	10
Added Vol:	0	0	0	0	0	0	0	102	0	0	120	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	0	7	2	0	14	23	1152	36	16	1712	10
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	11	0	7	2	0	14	23	1152	36	16	1712	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	0	7	2	0	14	23	1152	36	16	1712	10
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	11	0	7	2	0	14	23	1152	36	16	1712	10
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	1.00 0.00	1.00		1.00 0.00	1.00		1.00 3.88	0.12		1.00 2.98	0.02	
Final Sat.:	1600	0	1600	1600	0	1600	1600	6206	194	1600	4772	28
Capacity Analysis Module:												
Vol/Sat:	0.01 0.00	0.00		0.00 0.00	0.01		0.01 0.19	0.19		0.01 0.36	0.36	
Crit Moves:	****				****		****				****	

TERRACES AT WALNUT
Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Faure Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.725
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	2	0	30	0	0	0	0	1204	8	78	1565	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	30	0	0	0	0	1204	8	78	1565	0
Added Vol:	0	16	0	32	50	101	104	0	0	0	3	26
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	16	30	32	50	101	104	1204	8	78	1568	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	16	30	32	50	101	104	1204	8	78	1568	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	16	30	32	50	101	104	1204	8	78	1568	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	16	30	32	50	101	104	1204	8	78	1568	26
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.11	0.89	1.00	0.39	0.61	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	178	1422	1600	624	976	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.02	0.05	0.05	0.06	0.07	0.38	0.01	0.05	0.49	0.02
OvlAdjV/S:						0.00						
Crit Moves:			****	****			****				****	

Traffix 7.9.0215 (c) 2008 Dowling Assoc.

Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	844	2	0	31	0	44	11	665	302	0	856	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	844	2	0	31	0	44	11	665	302	0	856	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	211	1	0	8	0	11	3	166	0	0	214	2
Total Analysis Volume [veh/h]	844	2	0	31	0	44	11	665	0	0	856	9
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
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	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	22	0	22	0	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	19	19	5	5	29	29	29	29	29
g / C, Green / Cycle	0.29	0.29	0.08	0.08	0.44	0.44	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.25	0.25	0.02	0.02	0.01	0.18	0.00	0.24	0.24
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	501	501	139	147	494	1581	43912	790	790
d1, Uniform Delay [s]	21.56	21.56	27.97	28.15	10.31	12.57	0.00	13.49	13.49
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	3.96	3.97	0.80	1.12	0.08	0.82	0.00	2.72	2.72
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

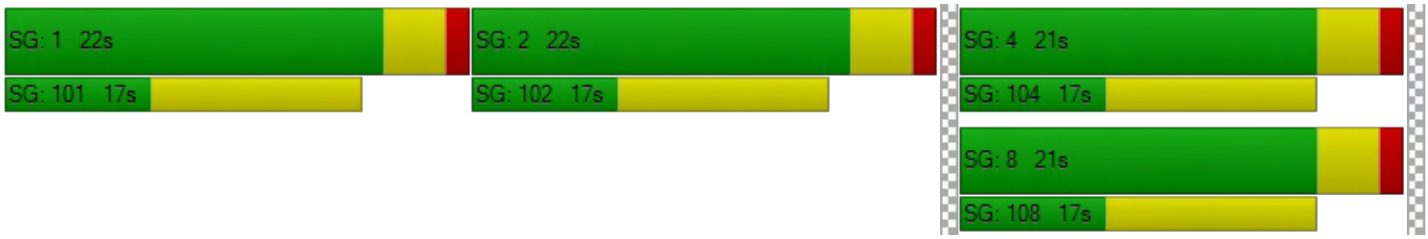
X, volume / capacity	0.84	0.84	0.22	0.30	0.02	0.42	0.00	0.55	0.55
d, Delay for Lane Group [s/veh]	25.52	25.52	28.78	29.28	10.40	13.39	0.00	16.20	16.20
Lane Group LOS	C	C	C	C	B	B	A	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.73	5.73	0.44	0.63	0.08	2.85	0.00	4.33	4.33
50th-Percentile Queue Length [ft/ln]	143.15	143.17	11.07	15.86	2.10	71.33	0.00	108.15	108.15
95th-Percentile Queue Length [veh/ln]	9.65	9.65	0.80	1.14	0.15	5.14	0.00	7.74	7.74
95th-Percentile Queue Length [ft/ln]	241.25	241.29	19.93	28.55	3.78	128.39	0.00	193.43	193.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.52	25.52	25.52	28.78	0.00	29.28	10.40	13.39	0.00	0.00	16.20	16.20
Movement LOS	C	C	C	C		C	B	B	A		B	B
d_A, Approach Delay [s/veh]	25.52			29.07			13.34			16.20		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.01											
Intersection LOS	B											
Intersection V/C	0.514											

Sequence

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



TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0 0	0 1	1	0 3	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	0	0	0	325	0	91	140	1692	0	0	1118	462
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	325	0	91	140	1692	0	0	1118	462
Added Vol:	0	0	0	6	0	0	0	23	0	0	15	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	331	0	91	140	1715	0	0	1133	468
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	331	0	91	140	1715	0	0	1133	468
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	331	0	91	140	1715	0	0	1133	468
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	331	0	91	140	1715	0	0	1133	468
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.06	0.09	0.36	0.00	0.00	0.35	0.29
Crit Moves:				****			****				****	

TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Added Vol:	0	0	16	0	0	0	0	32	0	11	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	534	0	1140	0	0	0	0	1767	237	535	1051	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	534	0	1140	0	0	0	0	1767	237	535	1051	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	534	0	1140	0	0	0	0	1767	237	535	1051	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	534	0	1140	0	0	0	0	1767	237	535	1051	0
OvlAdjVol:			546									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.65	0.35	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	4232	568	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.36	0.00	0.00	0.00	0.00	0.42	0.42	0.19	0.33	0.00
OvlAdjV/S:			0.17									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	327	1150	288	209	832	262	346	651	292	359	659	326
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	327	1150	288	209	832	262	346	651	292	359	659	326
Added Vol:	7	20	3	0	29	0	0	0	10	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	334	1170	291	209	861	262	346	651	302	362	659	326
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	334	1170	291	209	861	262	346	651	302	362	659	326
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	334	1170	291	209	861	262	346	651	302	362	659	326
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	334	1170	291	209	861	262	346	651	302	362	659	326
OvlAdjVol:			90						116			210
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.30	0.70	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	3680	1120	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.24	0.18	0.07	0.23	0.23	0.12	0.20	0.19	0.13	0.21	0.20
OvlAdjV/S:			0.06						0.07			0.13
Crit Moves:	****			****			****			****		

TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.830
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	24	1906	52	113	1355	14	17	2	10	37	7	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1906	52	113	1355	14	17	2	10	37	7	70
Added Vol:	3	30	3	0	42	0	0	0	3	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	1936	55	113	1397	14	17	2	13	40	7	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	1936	55	113	1397	14	17	2	13	40	7	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	1936	55	113	1397	14	17	2	13	40	7	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	1936	55	113	1397	14	17	2	13	40	7	70
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.89	0.11	1.00	0.85	0.15	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1432	168	1600	1362	238	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.61	0.03	0.07	0.44	0.01	0.01	0.01	0.01	0.03	0.03	0.04
Crit Moves:		****			****			****				****

TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.909
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	233	1535	153	7	1259	190	245	63	350	85	35	12
Added Vol:	6	35	3	0	48	0	0	0	6	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	239	1570	156	7	1307	190	245	63	356	88	35	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	239	1570	156	7	1307	190	245	63	356	88	35	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	239	1570	156	7	1307	190	245	63	356	88	35	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	239	1570	156	7	1307	190	245	63	356	88	35	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.59	0.41	1.00	1.96	0.77	0.27
Final Sat.:	1600	3200	1600	1600	3200	1600	2545	655	1600	3138	1238	424
Capacity Analysis Module:												
Vol/Sat:	0.15	0.49	0.10	0.00	0.41	0.12	0.10	0.10	0.22	0.03	0.03	0.03
OvlAdjV/S:						0.00						
Crit Moves:	****			****			****			****		

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TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.951
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	261	1040	179	385	1042	209	666	1531	287	428	702	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	261	1040	179	385	1042	209	666	1531	287	428	702	244
Added Vol:	0	0	9	57	0	0	0	51	0	9	38	44
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	261	1040	188	442	1042	209	666	1582	287	437	740	288
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	261	1040	0	442	1042	209	666	1582	0	437	740	288
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261	1040	0	442	1042	209	666	1582	0	437	740	288
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	261	1040	0	442	1042	209	666	1582	0	437	740	288
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.22	0.00	0.15	0.22	0.13	0.23	0.33	0.00	0.15	0.15	0.18
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.660
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	8	1544	70	41	1441	3	5	2	9	39	0	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	1544	70	41	1441	3	5	2	9	39	0	13
Added Vol:	0	9	45	0	9	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	1553	115	41	1450	3	5	2	9	68	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	1553	115	41	1450	3	5	2	9	68	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	1553	115	41	1450	3	5	2	9	68	0	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	1553	115	41	1450	3	5	2	9	68	0	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.18	0.82	1.00	0.00	1.00
Final Sat.:	1600	3200	1600	1600	4790	10	1600	291	1309	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.49	0.07	0.03	0.30	0.30	0.00	0.01	0.01	0.04	0.00	0.01
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

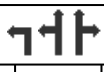
Cycle (sec):	100	Critical Vol./Cap.(X):	0.571
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 2	0 0		0 0 3	0 1		2 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	33	1261	0	0	1567	50	172	0	94	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1261	0	0	1567	50	172	0	94	0	0	0
Added Vol:	0	55	0	0	38	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	1316	0	0	1605	50	172	0	94	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	33	1316	0	0	1605	0	172	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1316	0	0	1605	0	172	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	33	1316	0	0	1605	0	172	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	2880	3200	0	0	4800	1600	2880	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.41	0.00	0.00	0.33	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****			****			****				

Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	49.6
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.240

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	838	283	630	1400	5	4	2	4	186	1	511
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	1	838	283	630	1400	5	4	2	4	186	1	511
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
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	234	79	176	390	1	1	1	1	52	0	142
Total Analysis Volume [veh/h]	1	934	315	702	1561	6	4	2	4	207	1	570
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
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	1 - Coordination Group
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	64	64	0	64	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	60	60	81	60	60	60	17	17	17	17	17
g / C, Green / Cycle	0.71	0.71	0.95	0.71	0.71	0.71	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.00	0.26	0.20	1.06	0.51	0.46	0.00	0.00	0.15	0.18	0.18
s, saturation flow rate [veh/h]	327	3547	1583	597	1669	1693	838	1667	1404	1584	1583
c, Capacity [veh/h]	220	2503	1509	425	1224	1195	89	333	332	359	317
d1, Uniform Delay [s]	14.64	4.99	0.12	23.09	6.84	6.81	42.19	27.26	33.82	33.13	33.13
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
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
d2, Incremental Delay [s]	0.04	0.43	0.31	232.51	3.35	2.78	0.20	0.02	1.93	4.02	9.31
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
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
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

Lane Group Results

X, volume / capacity	0.00	0.37	0.21	1.49	0.70	0.65	0.04	0.02	0.62	0.80	0.90
d, Delay for Lane Group [s/veh]	14.68	5.41	0.43	255.60	10.19	9.59	42.39	27.28	35.75	37.16	42.44
Lane Group LOS	B	A	A	F	B	A	D	C	D	D	D
Critical Lane Group	No	No	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	2.29	0.13	35.95	6.48	5.79	0.09	0.09	4.03	5.74	6.15
50th-Percentile Queue Length [ft/ln]	0.31	57.13	3.30	898.65	162.10	144.80	2.13	2.36	100.87	143.41	153.79
95th-Percentile Queue Length [veh/ln]	0.02	4.11	0.24	59.30	10.66	9.74	0.15	0.17	7.26	9.66	10.22
95th-Percentile Queue Length [ft/ln]	0.57	102.83	5.93	1482.40	266.50	243.48	3.83	4.24	181.56	241.60	255.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.68	5.41	0.43	255.60	9.89	9.59	42.39	27.28	27.28	35.75	37.16	39.80
Movement LOS	B	A	A	F	A	A	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	4.17			78.43			33.33			38.72		
Approach LOS	A			E			C			D		
d_I, Intersection Delay [s/veh]	49.60											
Intersection LOS	D											
Intersection V/C	1.240											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	21.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.765

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	943	619	391	1301	0	198	0	176	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	943	619	391	1301	0	198	0	176	0	0	0
Peak Hour Factor	1.0000	0.9440	0.9440	0.9440	0.9440	1.0000	0.9440	1.0000	0.9440	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	250	164	104	345	0	52	0	47	0	0	0
Total Analysis Volume [veh/h]	0	999	656	414	1378	0	210	0	186	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	10.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lag	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	40	0	24	64	0	21	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	85	85	85	85	85	85	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	41	41	20	65	12	12	
g / C, Green / Cycle	0.48	0.48	0.24	0.76	0.14	0.14	
(v / s)_i Volume / Saturation Flow Rate	0.28	0.41	0.23	0.27	0.06	0.12	
s, saturation flow rate [veh/h]	3547	1583	1774	5074	3445	1583	
c, Capacity [veh/h]	1699	758	418	3864	498	229	
d1, Uniform Delay [s]	16.08	19.72	32.42	3.32	33.15	35.28	
k, delay calibration	0.50	0.50	0.20	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	1.50	12.61	25.85	0.26	0.57	6.84	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

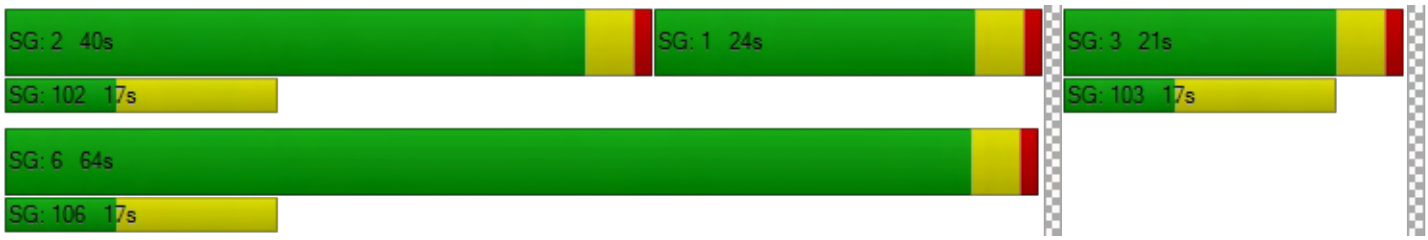
X, volume / capacity	0.59	0.87	0.99	0.36	0.42	0.81	
d, Delay for Lane Group [s/veh]	17.58	32.33	58.27	3.58	33.72	42.12	
Lane Group LOS	B	C	E	A	C	D	
Critical Lane Group	No	Yes	Yes	No	No	Yes	
50th-Percentile Queue Length [veh/ln]	6.43	12.44	10.83	1.39	1.90	3.94	
50th-Percentile Queue Length [ft/ln]	160.73	311.03	270.71	34.85	47.52	98.59	
95th-Percentile Queue Length [veh/ln]	10.59	18.23	16.22	2.51	3.42	7.10	
95th-Percentile Queue Length [ft/ln]	264.69	455.64	405.62	62.73	85.54	177.46	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	17.58	32.33	58.27	3.58	0.00	33.72	0.00	42.12	0.00	0.00	0.00
Movement LOS		B	C	E	A		C		D			
d_A, Approach Delay [s/veh]	23.43			16.21			37.67			0.00		
Approach LOS	C			B			D			A		
d_I, Intersection Delay [s/veh]	21.53											
Intersection LOS	C											
Intersection V/C	0.765											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.673
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	215	0	83	10	1	10	35	2031	268	87	1217	3
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	215	0	83	10	1	10	35	2031	268	87	1217	3
Added Vol:	0	0	0	0	0	0	0	118	0	0	90	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	0	83	10	1	10	35	2149	268	87	1307	3
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	215	0	83	10	1	10	35	2149	268	87	1307	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	215	0	83	10	1	10	35	2149	268	87	1307	3
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	215	0	83	10	1	10	35	2149	268	87	1307	3
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	1.00 0.00	1.00		0.91 0.09	1.00		1.00 3.56	0.44		1.00 2.99	0.01	
Final Sat.:	1600	0	1600	1455	145	1600	1600	5690	710	1600	4789	11
Capacity Analysis Module:												
Vol/Sat:	0.13 0.00	0.05		0.01 0.01	0.01		0.02 0.38	0.38		0.05 0.27	0.27	
Crit Moves:	****			****			****			****		

TERRACES AT WALNUT
Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Faure Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.855
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	1	0	63	0	0	0	0	2110	2	33	1612	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	63	0	0	0	0	2110	2	33	1612	0
Added Vol:	0	45	0	28	29	78	126	0	0	0	8	45
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	45	63	28	29	78	126	2110	2	33	1620	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	45	63	28	29	78	126	2110	2	33	1620	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	45	63	28	29	78	126	2110	2	33	1620	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	45	63	28	29	78	126	2110	2	33	1620	45
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.49	0.51	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	35	1565	1600	786	814	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.04	0.04	0.04	0.05	0.08	0.66	0.00	0.02	0.51	0.03
OvlAdjV/S:						0.00						
Crit Moves:			****	****				****		****		

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Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	12.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	421	12	2	18	0	17	35	1163	984	0	790	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	421	12	2	18	0	17	35	1163	984	0	790	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	3	1	5	0	4	9	291	0	0	198	4
Total Analysis Volume [veh/h]	421	12	2	18	0	17	35	1163	0	0	790	14
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
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	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	21	0	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	11	11	3	3	39	39	39	39	39
g / C, Green / Cycle	0.17	0.17	0.05	0.05	0.60	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.01	0.01	0.02	0.32	0.00	0.22	0.22
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	282	282	89	94	859	2150	59718	1075	1075
d1, Uniform Delay [s]	25.97	25.97	29.56	29.52	5.40	7.81	0.00	6.81	6.81
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	4.41	4.44	1.10	0.90	0.09	0.98	0.00	1.00	1.00
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

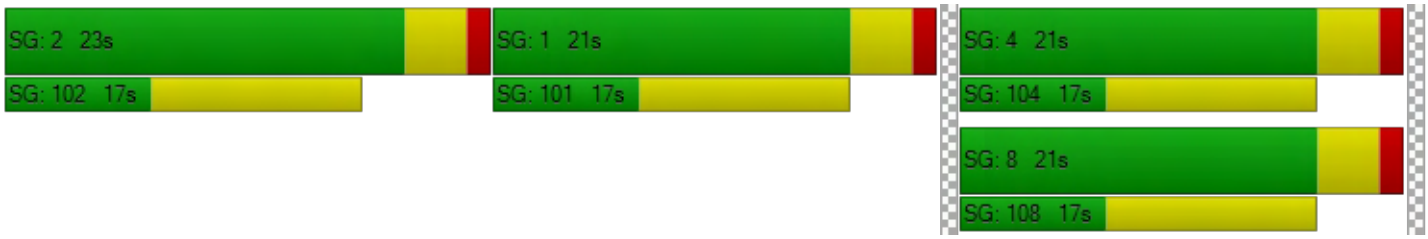
X, volume / capacity	0.77	0.77	0.20	0.18	0.04	0.54	0.00	0.37	0.37
d, Delay for Lane Group [s/veh]	30.38	30.41	30.65	30.42	5.49	8.79	0.00	7.80	7.80
Lane Group LOS	C	C	C	C	A	A	A	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.22	3.22	0.27	0.26	0.15	3.46	0.00	2.21	2.21
50th-Percentile Queue Length [ft/ln]	80.42	80.60	6.86	6.42	3.83	86.56	0.00	55.18	55.18
95th-Percentile Queue Length [veh/ln]	5.79	5.80	0.49	0.46	0.28	6.23	0.00	3.97	3.97
95th-Percentile Queue Length [ft/ln]	144.76	145.08	12.34	11.55	6.89	155.81	0.00	99.33	99.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.40	30.41	30.41	30.65	0.00	30.42	5.49	8.79	0.00	0.00	7.80	7.80
Movement LOS	C	C	C	C		C	A	A	A		A	A
d_A, Approach Delay [s/veh]	30.40			30.54			8.69			7.80		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	12.53											
Intersection LOS	B											
Intersection V/C	0.462											

Sequence

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



Mitigated - Existing Plus Project

TERRACES AT WALNUT
Mitigated Existing Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.855
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	1684	70	1	1120	277	407	76	416	113	108	12
Added Vol:	6	50	3	0	35	0	0	0	9	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1734	73	1	1155	277	407	76	425	118	108	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	165	1734	73	1	1155	277	407	76	425	118	108	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1734	73	1	1155	277	407	76	425	118	108	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	165	1734	73	1	1155	277	407	76	425	118	108	12
OvlAdjVol:						35			260			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.69	0.31	1.00	1.49	1.36	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	2696	504	1600	2374	2183	243
Capacity Analysis Module:												
Vol/Sat:	0.10	0.54	0.05	0.00	0.36	0.17	0.15	0.15	0.27	0.05	0.05	0.05
OvlAdjV/S:						0.02			0.16			
Crit Moves:		****			****				****	****		

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TERRACES AT WALNUT
Mitigated Existing Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.782
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	233	1535	153	7	1259	190	245	63	350	85	35	12
Added Vol:	6	35	3	0	48	0	0	0	6	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	239	1570	156	7	1307	190	245	63	356	88	35	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	239	1570	156	7	1307	190	245	63	356	88	35	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	239	1570	156	7	1307	190	245	63	356	88	35	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	239	1570	156	7	1307	190	245	63	356	88	35	12
OvlAdjVol:						36			117			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.59	0.41	1.00	1.96	0.77	0.27
Final Sat.:	1600	3200	1600	1600	3200	1600	2545	655	1600	3138	1238	424
Capacity Analysis Module:												
Vol/Sat:	0.15	0.49	0.10	0.00	0.41	0.12	0.10	0.10	0.22	0.03	0.03	0.03
OvlAdjV/S:						0.02			0.07			
Crit Moves:	****			****			****					****

Traffix 7.9.0215 (c) 2008 Dowling Assoc.

Year 2025 Without Project

TERRACES AT WALNUT
Year 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.906
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 3 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	411	0	168	169	746	0	0	1228	646
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	424	0	173	174	770	0	0	1268	667
Added Vol:	0	0	0	4	0	20	5	447	0	0	89	1
Other:	0	0	0	0	0	-4	5	11	0	0	-4	0
Initial Fut:	0	0	0	428	0	189	184	1228	0	0	1353	668
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	428	0	189	184	1228	0	0	1353	668
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	428	0	189	184	1228	0	0	1353	668
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	428	0	189	184	1228	0	0	1353	668
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.27	0.00	0.12	0.12	0.26	0.00	0.00	0.42	0.42
Crit Moves:				****			****				****	

TERRACES AT WALNUT
Year 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.814
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	357	0	615	0	0	0	0	783	369	667	1466	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	369	0	635	0	0	0	0	808	381	689	1514	0
Added Vol:	0	0	1	0	0	0	0	462	3	6	93	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	369	0	636	0	0	0	0	1270	384	695	1607	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	369	0	636	0	0	0	0	1270	384	695	1607	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	369	0	636	0	0	0	0	1270	384	695	1607	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	369	0	636	0	0	0	0	1270	384	695	1607	0
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.30	0.70	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	3686	1114	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.13	0.00	0.20	0.00	0.00	0.00	0.00	0.34	0.34	0.24	0.50	0.00
OvlAdjV/S:			0.00									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Year 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.999
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	236	1291	628	412	1070	187	284	757	153	110	446	185
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	244	1333	648	425	1105	193	293	782	158	114	460	191
Added Vol:	2	168	86	25	420	4	20	126	3	17	29	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	246	1501	734	450	1525	197	313	908	161	131	489	199
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	246	1501	734	450	1525	197	313	908	161	131	489	199
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1501	734	450	1525	197	313	908	161	131	489	199
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	246	1501	734	450	1525	197	313	908	161	131	489	199
OvlAdjVol:			662						24			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.66	0.34	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	4251	549	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.31	0.46	0.16	0.36	0.36	0.11	0.28	0.10	0.05	0.15	0.12
OvlAdjV/S:			0.41						0.02			0.00
Crit Moves:			****	****				****		****		

TERRACES AT WALNUT
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.945
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2	0	1	1 0 2	0	1	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	7	2044	26	36	1522	13	19	2	21	53	7	89
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	7	2110	27	37	1571	13	20	2	22	55	7	92
Added Vol:	0	219	0	4	433	3	14	0	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	2329	27	41	2004	16	34	2	22	55	7	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	2329	27	41	2004	16	34	2	22	55	7	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	2329	27	41	2004	16	34	2	22	55	7	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	2329	27	41	2004	16	34	2	22	55	7	113
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.94	0.06	1.00	0.88	0.12	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1507	93	1600	1413	187	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.73	0.02	0.03	0.63	0.01	0.02	0.02	0.01	0.03	0.04	0.07
Crit Moves:		****		****			****					****

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.022
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	164	1739	72	1	1156	286	420	78	430	117	112	12
Added Vol:	3	177	0	0	424	9	43	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	167	1916	72	1	1580	295	463	78	437	117	112	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	167	1916	72	1	1580	295	463	78	437	117	112	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1916	72	1	1580	295	463	78	437	117	112	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	167	1916	72	1	1580	295	463	78	437	117	112	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.71	0.29	1.00	1.46	1.39	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	2736	464	1600	2331	2222	247
Capacity Analysis Module:												
Vol/Sat:	0.10	0.60	0.05	0.00	0.49	0.18	0.17	0.17	0.27	0.05	0.05	0.05
OvlAdjV/S:						0.00						
Crit Moves:	****			****					****			****

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.914
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	291	1364	364	207	938	396	401	500	169	167	1116	139
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	300	1408	376	214	968	409	414	516	174	172	1152	144
Added Vol:	76	129	144	15	403	13	34	42	388	396	10	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	376	1537	520	229	1371	422	448	558	562	568	1162	160
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	376	1537	0	229	1371	422	448	558	0	568	1162	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	376	1537	0	229	1371	422	448	558	0	568	1162	160
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	376	1537	0	229	1371	422	448	558	0	568	1162	160
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.32	0.00	0.08	0.29	0.26	0.16	0.12	0.00	0.20	0.24	0.10
Crit Moves:	****				****		****				****	

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.861
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	10	1839	33	9	1289	6	2	0	7	81	2	1
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	10	1899	34	9	1331	6	2	0	7	84	2	1
Added Vol:	0	349	0	0	1187	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	2248	34	9	2518	6	2	0	7	84	2	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2248	34	9	2518	6	2	0	7	84	2	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2248	34	9	2518	6	2	0	7	84	2	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2248	34	9	2518	6	2	0	7	84	2	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.00	1.00	1.00	0.67	0.33
Final Sat.:	1600	3200	1600	1600	4788	12	1600	0	1600	1600	1067	533
Capacity Analysis Module:												
Vol/Sat:	0.01	0.70	0.02	0.01	0.53	0.53	0.00	0.00	0.00	0.05	0.00	0.00
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.503
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ignore				Ignore				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0	2	0 1	1	0	3	0 1	2	0	1	0 1	1	0	1	0 1
Volume Module:																
Base Vol:	116	2253		0	0	1002		107	39		0	36	0		0	0
Growth Adj:	1.03	1.03		1.03	1.03	1.03		1.03	1.03		1.03	1.03	1.03		1.03	1.03
Initial Bse:	120	2326		0	0	1035		110	40		0	37	0		0	0
Added Vol:	1259	127		1413	605	44		537	125		0	291	227		0	97
PasserByVol:	0	0		0	0	0		0	0		0	0	0		0	0
Initial Fut:	1379	2453		1413	605	1079		647	165		0	328	227		0	97
User Adj:	1.00	1.00		1.00	1.00	1.00		0.00	1.00		1.00	0.00	1.00		1.00	1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		0.00	1.00		1.00	0.00	1.00		1.00	1.00
PHF Volume:	1379	2453		1413	605	1079		0	165		0	0	227		0	97
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Reduced Vol:	1379	2453		1413	605	1079		0	165		0	0	227		0	97
PCE Adj:	1.00	1.00		1.00	1.00	1.00		0.00	1.00		1.00	0.00	1.00		1.00	1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		0.00	1.00		1.00	0.00	1.00		1.00	1.00
FinalVolume:	1379	2453		1413	605	1079		0	165		0	0	227		0	97
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600		1600	1600	1600		1600	1600
Adjustment:	0.90	1.00		1.00	1.00	1.00		1.00	0.90		1.00	1.00	1.00		1.00	1.00
Lanes:	2.00	2.00		1.00	1.00	3.00		1.00	2.00		1.00	1.00	1.00		1.00	1.00
Final Sat.:	2880	3200		1600	1600	4800		1600	2880		1600	1600	1600		1600	1600
Capacity Analysis Module:																
Vol/Sat:	0.48	0.77		0.88	0.38	0.22		0.00	0.06		0.00	0.00	0.14		0.00	0.06
Crit Moves:				****	****						****		****			

Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	364.7
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	9.581

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	3503	330	632	991	2	0	1	1	271	0	1741
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	3503	330	632	991	2	0	1	1	271	0	1741
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
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	930	88	168	263	1	0	0	0	72	0	462
Total Analysis Volume [veh/h]	0	3719	350	671	1052	2	0	1	1	288	0	1848
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
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	39	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	35	35	56	35	35	35	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.93	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.00	1.05	0.22	8.89	0.00	0.62	0.00	0.00	0.20	0.70	0.47
s, saturation flow rate [veh/h]	533	3547	1583	38	0	1695	249	1712	1409	1583	1583
c, Capacity [veh/h]	121	2064	1478	120	120	986	120	487	479	511	451
d1, Uniform Delay [s]	0.00	12.55	0.17	30.03	30.03	12.55	0.00	15.38	20.96	22.48	21.48
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.50	0.41
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
d2, Incremental Delay [s]	0.00	362.61	0.38	832.16	832.16	48.84	0.00	0.00	1.22	527.59	302.45
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
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
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

Lane Group Results

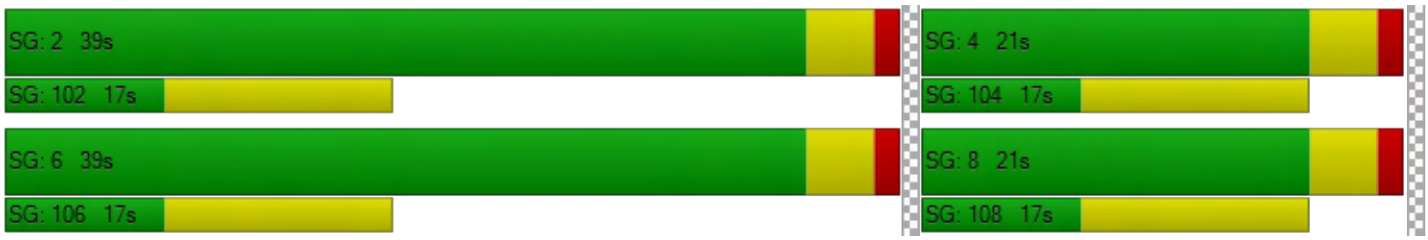
X, volume / capacity	0.00	1.80	0.24	2.80	2.80	1.07	0.00	0.00	0.60	2.16	1.65
d, Delay for Lane Group [s/veh]	0.00	375.16	0.55	862.19	862.19	61.39	0.00	15.39	22.18	550.08	323.93
Lane Group LOS	A	F	A	F	F	F	A	B	C	F	F
Critical Lane Group	No	No	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.00	112.35	0.15	29.28	29.28	21.39	0.00	0.02	3.37	81.17	43.15
50th-Percentile Queue Length [ft/ln]	0.00	2808.77	3.87	732.04	732.04	534.73	0.00	0.43	84.34	2029.19	1078.84
95th-Percentile Queue Length [veh/ln]	0.00	180.46	0.28	52.71	52.71	30.52	0.00	0.03	6.07	128.57	67.97
95th-Percentile Queue Length [ft/ln]	0.00	4511.62	6.97	1317.66	1317.66	763.10	0.00	0.77	151.81	3214.28	1699.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	375.16	0.55	862.19	61.39	61.39	0.00	15.39	15.39	22.18	550.08	458.82
Movement LOS	A	F	A	F	E	E	A	B	B	C	F	F
d_A, Approach Delay [s/veh]	342.94			372.89			15.39			399.94		
Approach LOS	F			F			B			F		
d_I, Intersection Delay [s/veh]	364.72											
Intersection LOS	F											
Intersection V/C	9.581											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	220.8
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.357

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	1466	276	552	758	0	2332	0	290	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1466	276	552	758	0	2332	0	290	0	0	0
Peak Hour Factor	1.0000	0.9770	0.9770	0.9770	0.9770	1.0000	0.9770	1.0000	0.9770	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	375	71	141	194	0	597	0	74	0	0	0
Total Analysis Volume [veh/h]	0	1501	282	565	776	0	2387	0	297	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	84.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	32	0	29	61	0	59	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	120	120	120	120	120	120	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	28	28	25	57	55	55	
g / C, Green / Cycle	0.23	0.23	0.21	0.48	0.46	0.46	
(v / s)_i Volume / Saturation Flow Rate	0.34	0.35	0.32	0.15	0.69	0.19	
s, saturation flow rate [veh/h]	3547	1719	1774	5074	3445	1583	
c, Capacity [veh/h]	830	402	370	2415	1576	724	
d1, Uniform Delay [s]	45.94	45.94	47.46	19.44	32.54	21.73	
k, delay calibration	0.50	0.50	0.50	0.50	0.29	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	201.56	228.11	250.33	0.35	233.62	0.37	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

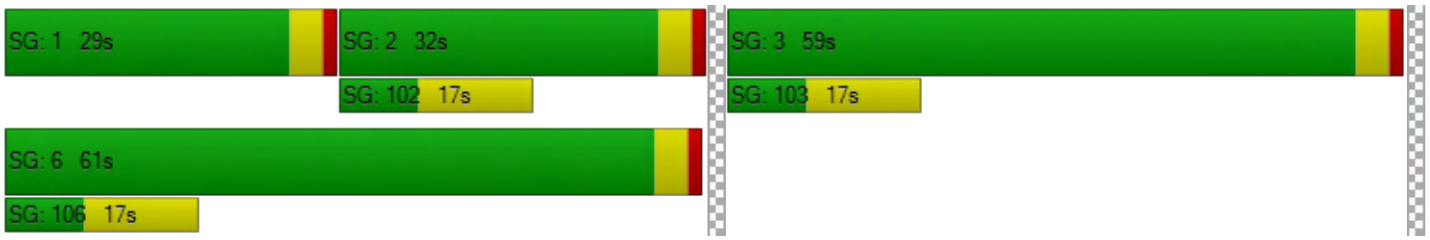
X, volume / capacity	1.43	1.48	1.53	0.32	1.51	0.41	
d, Delay for Lane Group [s/veh]	247.49	274.05	297.78	19.79	266.16	22.11	
Lane Group LOS	F	F	F	B	F	C	
Critical Lane Group	No	Yes	Yes	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	35.13	37.02	36.40	4.33	72.18	5.38	
50th-Percentile Queue Length [ft/ln]	878.25	925.41	910.07	108.19	1804.51	134.41	
95th-Percentile Queue Length [veh/ln]	53.35	56.52	55.84	7.74	110.34	9.18	
95th-Percentile Queue Length [ft/ln]	1333.87	1413.04	1396.11	193.49	2758.55	229.47	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	253.02	274.05	297.78	19.79	0.00	266.16	0.00	22.11	0.00	0.00	0.00
Movement LOS		F	F	F	B		F		C			
d_A, Approach Delay [s/veh]	256.35			136.92			239.15			0.00		
Approach LOS	F			F			F			A		
d_I, Intersection Delay [s/veh]	220.83											
Intersection LOS	F											
Intersection V/C	1.357											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Year 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.564
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	11	0	7	2	0	14	23	1050	36	16	1592	10
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	11	0	7	2	0	14	24	1084	37	17	1644	10
Added Vol:	0	0	0	0	0	0	0	200	0	0	423	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	0	7	2	0	14	24	1284	37	17	2067	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	0	7	2	0	14	24	1284	37	17	2067	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	0	7	2	0	14	24	1284	37	17	2067	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	0	7	2	0	14	24	1284	37	17	2067	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	3.89	0.11	1.00	2.99	0.01
Final Sat.:	1600	0	1600	1600	0	1600	1600	6220	180	1600	4776	24
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.21	0.21	0.01	0.43	0.43
Crit Moves:	****					****	****				****	

Intersection Level Of Service Report
Intersection 12: Faure Ave (NS) at Valley Boulevard (EW)

Control Type:	Two-way stop	Delay (sec / veh):	482.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.217

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	2	31	1443	8	81	2039
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	31	1443	8	81	2039
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	9	403	2	23	569
Total Analysis Volume [veh/h]	2	35	1610	9	90	2276
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.22	0.11	0.02	0.00	0.23	0.02
d_M, Delay for Movement [s/veh]	482.13	17.39	0.00	0.00	16.66	0.00
Movement LOS	F	C	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.53	0.36	0.00	0.00	0.86	0.00
95th-Percentile Queue Length [ft/ln]	13.13	8.95	0.00	0.00	21.41	0.00
d_A, Approach Delay [s/veh]	42.51		0.00		0.63	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	0.76					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	23.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	910	2	0	32	0	45	11	809	305	0	1282	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	910	2	0	32	0	45	11	809	305	0	1282	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	228	1	0	8	0	11	3	202	0	0	321	2
Total Analysis Volume [veh/h]	910	2	0	32	0	45	11	809	0	0	1282	9
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
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	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	24	0	29	0	0	0	22	0	0	22	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	23	23	6	6	34	34	34	34	34
g / C, Green / Cycle	0.31	0.31	0.08	0.08	0.45	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.27	0.27	0.02	0.03	0.01	0.22	0.00	0.36	0.36
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	527	527	129	137	289	1634	45402	817	817
d1, Uniform Delay [s]	24.42	24.42	32.68	32.88	11.27	14.44	0.00	17.45	17.45
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	4.40	4.40	0.99	1.39	0.25	1.07	0.00	7.66	7.66
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

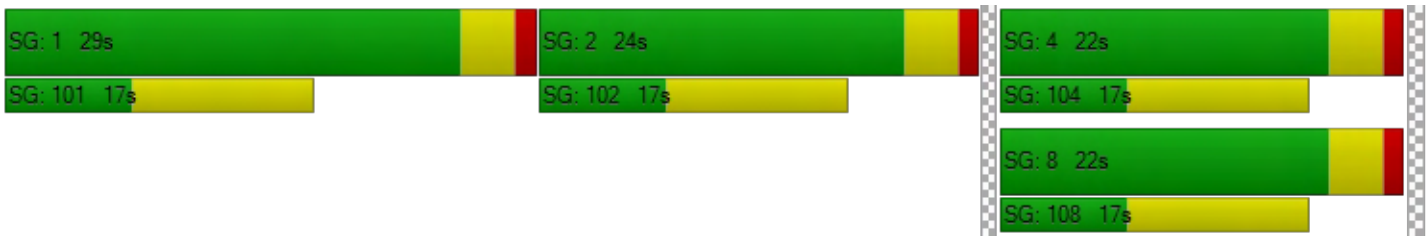
X, volume / capacity	0.86	0.86	0.25	0.33	0.04	0.49	0.00	0.79	0.79
d, Delay for Lane Group [s/veh]	28.82	28.82	33.66	34.27	11.51	15.51	0.00	25.11	25.11
Lane Group LOS	C	C	C	C	B	B	A	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.39	7.39	0.55	0.78	0.11	4.31	0.00	9.59	9.59
50th-Percentile Queue Length [ft/ln]	184.72	184.74	13.70	19.45	2.65	107.80	0.00	239.64	239.64
95th-Percentile Queue Length [veh/ln]	11.85	11.85	0.99	1.40	0.19	7.72	0.00	14.66	14.66
95th-Percentile Queue Length [ft/ln]	296.17	296.19	24.66	35.01	4.77	192.94	0.00	366.58	366.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.82	28.82	28.82	33.66	0.00	34.27	11.51	15.51	0.00	0.00	25.11	25.11
Movement LOS	C	C	C	C		C	B	B	A		C	C
d_A, Approach Delay [s/veh]	28.82			34.02			15.46			25.11		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	23.87											
Intersection LOS	C											
Intersection V/C	0.652											

Sequence

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



TERRACES AT WALNUT
Year 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.962
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0 0	0 1	1	0 3	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	0	0	0	325	0	91	140	1692	0	0	1118	462
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	336	0	94	145	1747	0	0	1154	477
Added Vol:	0	0	0	3	0	11	20	293	0	0	576	4
Other:	0	0	0	0	0	6	4	9	0	0	13	0
Initial Fut:	0	0	0	339	0	111	169	2049	0	0	1743	481
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	339	0	111	169	2049	0	0	1743	481
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	339	0	111	169	2049	0	0	1743	481
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	339	0	111	169	2049	0	0	1743	481
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.07	0.11	0.43	0.00	0.00	0.54	0.30
Crit Moves:				****			****				****	

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TERRACES AT WALNUT
Year 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.969
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	551	0	1161	0	0	0	0	1791	245	541	1060	0
Added Vol:	3	0	6	0	0	0	0	303	1	2	591	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	554	0	1167	0	0	0	0	2094	246	543	1651	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	554	0	1167	0	0	0	0	2094	246	543	1651	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	554	0	1167	0	0	0	0	2094	246	543	1651	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	554	0	1167	0	0	0	0	2094	246	543	1651	0
OvlAdjVol:			563									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.69	0.31	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	4296	504	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.36	0.00	0.00	0.00	0.00	0.49	0.49	0.19	0.52	0.00
OvlAdjV/S:			0.18									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Year 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.932
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	327	1150	288	209	832	262	346	651	292	359	659	326
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	338	1187	297	216	859	271	357	672	301	371	680	337
Added Vol:	6	621	69	10	303	11	15	85	5	34	72	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	344	1808	366	226	1162	282	372	757	306	405	752	360
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	344	1808	366	226	1162	282	372	757	306	405	752	360
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	344	1808	366	226	1162	282	372	757	306	405	752	360
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	344	1808	366	226	1162	282	372	757	306	405	752	360
OvlAdjVol:			142						116			234
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.41	0.59	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	3864	936	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.38	0.23	0.08	0.30	0.30	0.13	0.24	0.19	0.14	0.24	0.22
OvlAdjV/S:			0.09						0.07			0.15
Crit Moves:	****			****			****			****		

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TERRACES AT WALNUT
Year 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.076
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Lanes:	1	0	2	0	1	1	0	2	0	1	0	1	0	0	1	0	1	0	0	1
Volume Module:																				
Base Vol:	24	1906		52		113	1355		14		17		2		10	37		7		70
Growth Adj:	1.03	1.03		1.03		1.03	1.03		1.03		1.03		1.03		1.03	1.03		1.03		1.03
Initial Bse:	25	1968		54		117	1399		14		18		2		10	38		7		72
Added Vol:	0	667		0		9	329		6		11		0		0	0		0		17
PasserByVol:	0	0		0		0	0		0		0		0		0	0		0		0
Initial Fut:	25	2635		54		126	1728		20		29		2		10	38		7		89
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	25	2635		54		126	1728		20		29		2		10	38		7		89
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Reduced Vol:	25	2635		54		126	1728		20		29		2		10	38		7		89
PCE Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	25	2635		54		126	1728		20		29		2		10	38		7		89
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600		1600	1600		1600		1600		1600		1600	1600		1600		1600
Adjustment:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Lanes:	1.00	2.00		1.00		1.00	2.00		1.00		0.93		0.07		1.00	0.84		0.16		1.00
Final Sat.:	1600	3200		1600		1600	3200		1600		1492		108		1600	1345		255		1600
Capacity Analysis Module:																				
Vol/Sat:	0.02	0.82		0.03		0.08	0.54		0.01		0.02		0.02		0.01	0.02		0.03		0.06
Crit Moves:		****				****					****									****

TERRACES AT WALNUT
Year 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.056
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	241	1585	158	7	1300	196	253	65	361	88	36	12
Added Vol:	10	633	0	0	312	17	34	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	251	2218	158	7	1612	213	287	65	368	88	36	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	251	2218	158	7	1612	213	287	65	368	88	36	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	251	2218	158	7	1612	213	287	65	368	88	36	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	251	2218	158	7	1612	213	287	65	368	88	36	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.63	0.37	1.00	1.94	0.79	0.27
Final Sat.:	1600	3200	1600	1600	3200	1600	2609	591	1600	3098	1268	434
Capacity Analysis Module:												
Vol/Sat:	0.16	0.69	0.10	0.00	0.50	0.13	0.11	0.11	0.23	0.03	0.03	0.03
OvlAdjV/S:						0.00						
Crit Moves:		****			****				****			****

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.264
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	261	1040	179	385	1042	209	666	1531	287	428	702	244
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	269	1074	185	398	1076	216	688	1581	296	442	725	252
Added Vol:	535	587	547	8	294	18	32	14	263	328	40	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	804	1661	732	406	1370	234	720	1595	559	770	765	276
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	804	1661	0	406	1370	234	720	1595	0	770	765	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	804	1661	0	406	1370	234	720	1595	0	770	765	276
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	804	1661	0	406	1370	234	720	1595	0	770	765	276
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.35	0.00	0.14	0.29	0.15	0.25	0.33	0.00	0.27	0.16	0.17
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.179
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2	0	1	1 0 2	1	0	1 0 0	1	0	1 0 0	1	0
Volume Module:												
Base Vol:	8	1544	70	41	1441	3	5	2	9	39	0	13
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	8	1594	72	42	1488	3	5	2	9	40	0	13
Added Vol:	0	1670	0	0	885	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	3264	72	42	2373	3	5	2	9	40	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	3264	72	42	2373	3	5	2	9	40	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	3264	72	42	2373	3	5	2	9	40	0	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	3264	72	42	2373	3	5	2	9	40	0	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.18	0.82	1.00	0.00	1.00
Final Sat.:	1600	3200	1600	1600	4794	6	1600	291	1309	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	1.02	0.05	0.03	0.49	0.49	0.00	0.01	0.01	0.03	0.00	0.01
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.959
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 2	0 1		1 0 3	0 1		2 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	33	1261	0	0	1567	50	172	0	94	0	0	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	34	1302	0	0	1618	52	178	0	97	0	0	0
Added Vol:	1133	84	682	292	108	485	836	0	1955	1750	0	750
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1167	1386	682	292	1726	537	1014	0	2052	1750	0	750
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	1167	1386	682	292	1726	0	1014	0	0	1750	0	750
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1167	1386	682	292	1726	0	1014	0	0	1750	0	750
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	1167	1386	682	292	1726	0	1014	0	0	1750	0	750
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	2880	3200	1600	1600	4800	1600	2880	1600	1600	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.41	0.43	0.43	0.18	0.36	0.00	0.35	0.00	0.00	1.09	0.00	0.47
Crit Moves:	****				****			****			****	

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Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	1,775.6
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	8.233

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	1937	292	2530	3340	5	4	2	4	192	1	1297
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	1	1937	292	2530	3340	5	4	2	4	192	1	1297
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
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	540	81	705	931	1	1	1	1	54	0	361
Total Analysis Volume [veh/h]	1	2159	326	2821	3724	6	4	2	4	214	1	1446
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
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	39	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	35	35	56	35	35	35	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.93	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.61	0.21	7.69	0.00	2.20	0.01	0.00	0.15	0.54	0.37
s, saturation flow rate [veh/h]	37	3547	1583	183	0	1695	367	1667	1404	1584	1583
c, Capacity [veh/h]	120	2064	1478	120	120	986	120	475	475	511	451
d1, Uniform Delay [s]	30.03	12.55	0.17	30.03	30.03	12.55	30.03	15.42	19.77	22.48	21.48
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.50	0.26
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
d2, Incremental Delay [s]	0.13	33.04	0.34	4861.24	4861.24	1254.13	0.11	0.01	0.67	313.28	147.53
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	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
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

Lane Group Results

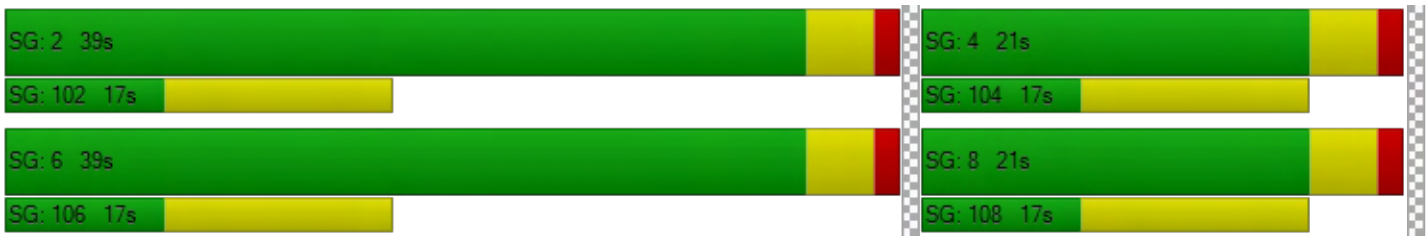
X, volume / capacity	0.01	1.05	0.22	11.77	11.77	3.78	0.03	0.01	0.45	1.68	1.31
d, Delay for Lane Group [s/veh]	30.16	45.59	0.51	4891.27	4891.27	1266.68	30.14	15.43	20.43	335.76	169.01
Lane Group LOS	C	F	A	F	F	F	C	B	C	F	F
Critical Lane Group	No	No	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.02	17.85	0.14	163.44	163.44	351.64	0.06	0.05	2.34	50.77	23.75
50th-Percentile Queue Length [ft/ln]	0.43	446.34	3.53	4086.11	4086.11	8790.96	1.40	1.30	58.39	1269.21	593.81
95th-Percentile Queue Length [veh/ln]	0.03	25.67	0.25	276.81	276.81	580.42	0.10	0.09	4.20	79.25	36.63
95th-Percentile Queue Length [ft/ln]	0.78	641.67	6.36	6920.32	6920.32	14510.6	2.53	2.33	105.11	1981.33	915.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.16	45.59	0.51	4891.27	1266.68	1266.68	30.14	15.43	15.43	20.43	335.76	267.69
Movement LOS	C	F	A	F	F	F	C	B	B	C	F	F
d_A, Approach Delay [s/veh]	39.67			2827.50			21.31			235.89		
Approach LOS	D			F			C			F		
d_I, Intersection Delay [s/veh]	1775.65											
Intersection LOS	F											
Intersection V/C	8.233											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	617.8
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.956

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	1137	639	1987	1653	0	1112	0	182	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1137	639	1987	1653	0	1112	0	182	0	0	0
Peak Hour Factor	1.0000	0.9440	0.9440	0.9440	0.9440	1.0000	0.9440	1.0000	0.9440	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	301	169	526	438	0	294	0	48	0	0	0
Total Analysis Volume [veh/h]	0	1204	677	2105	1751	0	1178	0	193	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	25.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	21	0	18	39	0	21	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	60	60	60	60	60	60	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	17	17	14	35	17	17	
g / C, Green / Cycle	0.28	0.28	0.23	0.58	0.28	0.28	
(v / s)_i Volume / Saturation Flow Rate	0.34	0.43	1.19	0.35	0.34	0.12	
s, saturation flow rate [veh/h]	3547	1583	1774	5074	3445	1583	
c, Capacity [veh/h]	1005	449	415	2963	977	449	
d1, Uniform Delay [s]	21.61	21.61	23.10	7.97	21.61	17.64	
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	98.67	240.09	1835.89	0.87	95.06	0.65	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	1.20	1.51	5.07	0.59	1.21	0.43	
d, Delay for Lane Group [s/veh]	120.28	261.71	1858.99	8.85	116.67	18.29	
Lane Group LOS	F	F	F	A	F	B	
Critical Lane Group	No	Yes	Yes	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	19.68	35.20	216.84	3.26	18.63	1.93	
50th-Percentile Queue Length [ft/ln]	491.98	880.06	5420.92	81.60	465.65	48.25	
95th-Percentile Queue Length [veh/ln]	29.82	54.95	331.64	5.88	28.51	3.47	
95th-Percentile Queue Length [ft/ln]	745.42	1373.64	8291.08	146.88	712.73	86.85	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	120.28	261.71	1858.99	8.85	0.00	116.67	0.00	18.29	0.00	0.00	0.00
Movement LOS		F	F	F	A		F		B			
d_A, Approach Delay [s/veh]	171.18			1018.85			102.82			0.00		
Approach LOS	F			F			F			A		
d_I, Intersection Delay [s/veh]	617.84											
Intersection LOS	F											
Intersection V/C	1.956											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Year 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	215	0	83	10	1	10	35	2031	268	87	1217	3
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	222	0	86	10	1	10	36	2097	277	90	1257	3
Added Vol:	0	0	0	0	0	0	0	569	0	0	392	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	222	0	86	10	1	10	36	2666	277	90	1649	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	222	0	86	10	1	10	36	2666	277	90	1649	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	0	86	10	1	10	36	2666	277	90	1649	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	222	0	86	10	1	10	36	2666	277	90	1649	3
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.91	0.09	1.00	1.00	3.62	0.38	1.00	2.99	0.01
Final Sat.:	1600	0	1600	1455	145	1600	1600	5798	602	1600	4791	9
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.05	0.01	0.01	0.01	0.02	0.46	0.46	0.06	0.34	0.34
Crit Moves:	****			****			****			****		

Intersection Level Of Service Report
Intersection 12: Faure Ave (NS) at Valley Boulevard (EW)

Control Type:	Two-way stop	Delay (sec / veh):	4,299.8
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.887

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	65	2748	2	34	2056
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	65	2748	2	34	2056
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	17	738	1	9	552
Total Analysis Volume [veh/h]	1	70	2952	2	37	2208
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.89	0.61	0.03	0.00	0.31	0.02
d_M, Delay for Movement [s/veh]	4299.85	75.62	0.00	0.00	48.89	0.00
Movement LOS	F	F	A	A	E	A
95th-Percentile Queue Length [veh/ln]	0.60	3.02	0.00	0.00	1.22	0.00
95th-Percentile Queue Length [ft/ln]	15.11	75.53	0.00	0.00	30.58	0.00
d_A, Approach Delay [s/veh]	135.12		0.00		0.81	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	2.16					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.629

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	430	12	2	19	0	18	36	1754	1057	0	1118	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	430	12	2	19	0	18	36	1754	1057	0	1118	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	3	1	5	0	5	9	439	0	0	280	4
Total Analysis Volume [veh/h]	430	12	2	19	0	18	36	1754	0	0	1118	14
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
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]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	24	0	25	0	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	12	12	4	4	43	43	43	43	43
g / C, Green / Cycle	0.17	0.17	0.05	0.05	0.61	0.61	0.61	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.13	0.13	0.01	0.01	0.02	0.49	0.00	0.31	0.31
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	282	282	90	96	765	2195	60962	1097	1097
d1, Uniform Delay [s]	28.04	28.04	31.79	31.75	5.46	10.42	0.00	7.79	7.79
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	4.80	4.83	1.14	0.94	0.12	3.15	0.00	1.73	1.73
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

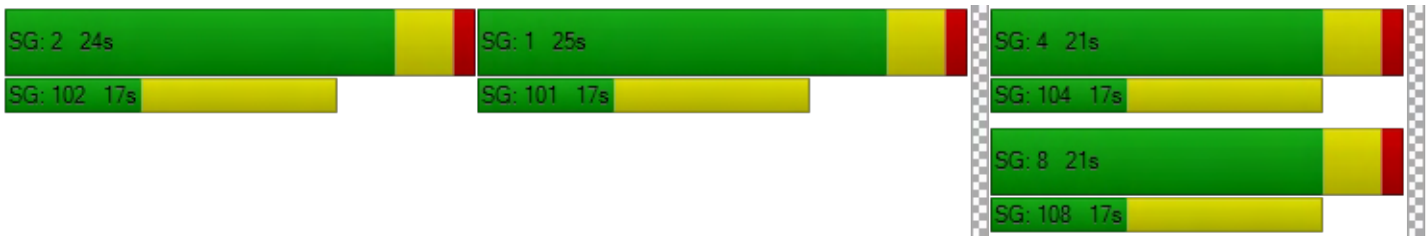
X, volume / capacity	0.79	0.79	0.21	0.19	0.05	0.80	0.00	0.52	0.52
d, Delay for Lane Group [s/veh]	32.84	32.88	32.94	32.70	5.58	13.57	0.00	9.53	9.53
Lane Group LOS	C	C	C	C	A	B	A	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.61	3.62	0.31	0.30	0.17	7.81	0.00	3.84	3.84
50th-Percentile Queue Length [ft/ln]	90.26	90.45	7.87	7.39	4.30	195.36	0.00	95.91	95.91
95th-Percentile Queue Length [veh/ln]	6.50	6.51	0.57	0.53	0.31	12.40	0.00	6.91	6.91
95th-Percentile Queue Length [ft/ln]	162.46	162.82	14.16	13.30	7.74	309.98	0.00	172.65	172.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.86	32.88	32.88	32.94	0.00	32.70	5.58	13.57	0.00	0.00	9.53	9.53
Movement LOS	C	C	C	C		C	A	B	A		A	A
d_A, Approach Delay [s/veh]	32.86			32.82			13.41			9.53		
Approach LOS	C			C			B			A		
d_I, Intersection Delay [s/veh]	14.87											
Intersection LOS	B											
Intersection V/C	0.629											

Sequence

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



Year 2025 Without Project - SR57/60 Improvements

Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	45.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	3503	330	126	1497	2	0	1	1	271	0	1741
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	3503	330	126	1497	2	0	1	1	271	0	1741
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
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	930	88	33	397	1	0	0	0	72	0	462
Total Analysis Volume [veh/h]	0	3719	350	134	1589	2	0	1	1	288	0	1848
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
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	1 - Coordination Group
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Split	Permiss	Split	Split	Split	Overlap
Signal group	5	2	2	1	6	0	3	0	0	0	4	4
Auxiliary Signal Groups			2,4									1,4
Lead / Lag	Lag	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	7	0	0	0	7	7
Maximum Green [s]	30	30	30	30	30	0	30	0	0	0	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0
Split [s]	11	67	67	18	74	0	11	0	0	0	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
Walk [s]	0	7	7	0	7	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	0	0	0	0	0
Rest In Walk		No			No		No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
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	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115
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	2.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	0	70	89	14	84	84	0	0	0	15	15	37
g / C, Green / Cycle	0.00	0.61	0.77	0.12	0.73	0.73	0.00	0.00	0.00	0.13	0.13	0.32
(v / s)_i Volume / Saturation Flow Rate	0.00	0.55	0.22	0.08	0.19	0.00	0.00	0.00	0.00	0.08	0.08	0.39
s, saturation flow rate [veh/h]	3445	6765	1583	1774	8457	1583	1412	310	1583	1774	1774	4750
c, Capacity [veh/h]	2	4099	1221	216	6151	1152	63	32	4	232	232	1542
d1, Uniform Delay [s]	0.00	19.84	3.86	47.97	5.27	4.28	0.00	57.49	57.26	47.31	47.31	38.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
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]	0.00	3.93	0.59	2.88	0.10	0.00	0.00	0.21	13.34	2.71	2.71	90.91
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	0.00	0.91	0.29	0.62	0.26	0.00	0.00	0.02	0.12	0.62	0.62	1.20
d, Delay for Lane Group [s/veh]	0.00	23.77	4.45	50.84	5.37	4.28	0.00	57.70	70.60	50.02	50.02	129.76
Lane Group LOS	A	C	A	D	A	A	A	E	E	D	D	F
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	19.73	1.88	3.72	2.04	0.01	0.00	0.02	0.03	3.97	3.97	26.69
50th-Percentile Queue Length [ft/ln]	0.00	493.15	46.92	93.07	51.03	0.28	0.00	0.43	0.68	99.23	99.23	667.37
95th-Percentile Queue Length [veh/ln]	0.00	27.01	3.38	6.70	3.67	0.02	0.00	0.03	0.05	7.14	7.14	39.25
95th-Percentile Queue Length [ft/ln]	0.00	675.25	84.45	167.53	91.86	0.50	0.00	0.78	1.22	178.62	178.62	981.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	23.77	4.45	50.84	5.37	4.28	28.85	0.00	63.57	50.02	50.02	129.76
Movement LOS	A	C	A	D	A	A	C		E	D	D	F
d_A, Approach Delay [s/veh]	22.10			8.90			63.57			119.01		
Approach LOS	C			A			E			F		
d_I, Intersection Delay [s/veh]	45.34											
Intersection LOS	D											
Intersection V/C	0.738											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	46.4
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.956

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1742	758	552	2332	290
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1742	758	552	2332	290
Peak Hour Factor	1.0000	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	446	194	141	597	74
Total Analysis Volume [veh/h]	0	1783	776	565	2387	297
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	37.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Split	Split
Signal group	0	2	6	0	3	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	7	7	0	7	0
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	0	34	34	0	81	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	C	R	L	R
C, Cycle Length [s]	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	77	77
g / C, Green / Cycle	0.26	0.26	0.26	0.26	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.26	0.15	0.18	0.18	0.69	0.19
s, saturation flow rate [veh/h]	6765	5074	1583	1583	3445	1583
c, Capacity [veh/h]	1770	1327	414	414	2304	1059
d1, Uniform Delay [s]	42.44	37.00	38.15	38.15	19.03	7.76
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	23.25	1.89	8.79	8.79	20.16	0.14
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

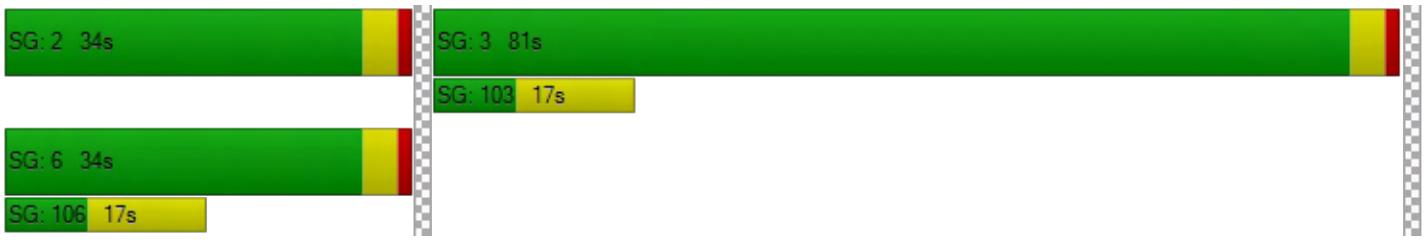
X, volume / capacity	1.01	0.58	0.68	0.68	1.04	0.28
d, Delay for Lane Group [s/veh]	65.70	38.89	46.94	46.94	39.20	7.90
Lane Group LOS	F	D	D	D	F	A
Critical Lane Group	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	14.86	6.35	7.90	7.90	30.81	2.60
50th-Percentile Queue Length [ft/ln]	371.43	158.72	197.46	197.46	770.19	65.03
95th-Percentile Queue Length [veh/ln]	21.28	10.48	12.51	12.51	41.17	4.68
95th-Percentile Queue Length [ft/ln]	531.90	262.03	312.69	312.69	1029.32	117.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	65.70	38.89	46.94	39.20	7.90
Movement LOS		F	D	D	F	A
d_A, Approach Delay [s/veh]	65.70		42.28		35.73	
Approach LOS	E		D		D	
d_I, Intersection Delay [s/veh]	46.44					
Intersection LOS	D					
Intersection V/C	0.956					

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	1937	292	380	5490	5	4	1	4	192	1	1297
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	1	1937	292	380	5490	5	4	1	4	192	1	1297
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
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	540	81	106	1530	1	1	0	1	54	0	361
Total Analysis Volume [veh/h]	1	2159	326	424	6120	6	4	1	4	214	1	1446
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
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	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Split	Permiss	Split	Split	Split	Overlap
Signal group	5	2	2	1	6	0	3	0	0	0	4	4
Auxiliary Signal Groups			2,4									1,4
Lead / Lag	Lag	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	7	0	0	0	7	7
Maximum Green [s]	30	30	30	30	30	0	30	0	0	0	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0
Split [s]	11	51	51	37	77	0	11	0	0	0	11	11
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
Walk [s]	0	7	7	0	7	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	0	0	0	0	0
Rest In Walk		No			No		No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
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	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
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	2.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	0	54	65	31	85	85	2	2	2	7	7	48
g / C, Green / Cycle	0.00	0.49	0.59	0.28	0.77	0.77	0.01	0.01	0.01	0.06	0.06	0.43
(v / s)_i Volume / Saturation Flow Rate	0.00	0.32	0.21	0.24	0.72	0.00	0.00	0.05	0.00	0.06	0.06	0.30
s, saturation flow rate [veh/h]	3445	6765	1583	1774	8457	1583	1412	83	1583	1774	1775	4750
c, Capacity [veh/h]	8	3342	941	501	6545	1225	67	66	23	114	114	2059
d1, Uniform Delay [s]	54.77	20.70	11.41	37.23	10.18	2.82	54.94	55.01	53.60	51.32	51.31	25.40
k, delay calibration	0.11	0.50	0.50	0.31	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
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]	6.10	0.98	1.01	10.48	3.53	0.01	0.02	0.37	3.55	28.02	27.94	0.44
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	0.12	0.65	0.35	0.85	0.94	0.00	0.00	0.06	0.17	0.95	0.95	0.70
d, Delay for Lane Group [s/veh]	60.87	21.67	12.42	47.71	13.71	2.83	54.96	55.39	57.16	79.34	79.25	25.84
Lane Group LOS	E	C	B	D	B	A	D	E	E	E	E	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.02	9.65	3.89	11.69	16.01	0.02	0.01	0.11	0.13	3.75	3.75	9.62
50th-Percentile Queue Length [ft/ln]	0.52	241.27	97.19	292.32	400.35	0.56	0.16	2.80	3.14	93.75	93.70	240.61
95th-Percentile Queue Length [veh/ln]	0.04	14.75	7.00	17.30	22.58	0.04	0.01	0.20	0.23	6.75	6.75	14.71
95th-Percentile Queue Length [ft/ln]	0.93	368.63	174.94	432.52	564.43	1.01	0.29	5.05	5.65	168.76	168.66	367.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	60.87	21.67	12.42	47.71	13.71	2.83	55.34	0.00	56.56	79.34	79.25	25.84
Movement LOS	E	C	B	D	B	A	E		E	E	E	C
d_A, Approach Delay [s/veh]	20.48			15.90			56.23			32.76		
Approach LOS	C			B			E			C		
d_I, Intersection Delay [s/veh]	19.61											
Intersection LOS	B											
Intersection V/C	0.922											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	43.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.007

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1776	1653	1987	1112	182
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1776	1653	1987	1112	182
Peak Hour Factor	1.0000	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	470	438	526	294	48
Total Analysis Volume [veh/h]	0	1881	1751	2105	1178	193
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	20.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Split	Split
Signal group	0	2	6	0	3	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	7	7	0	7	0
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	0	71	71	0	39	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	C	R	L	R
C, Cycle Length [s]	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	67	67	67	67	35	35
g / C, Green / Cycle	0.61	0.61	0.61	0.61	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.28	0.35	0.66	0.66	0.34	0.12
s, saturation flow rate [veh/h]	6765	5074	1583	1583	3445	1583
c, Capacity [veh/h]	4119	3089	964	964	1097	504
d1, Uniform Delay [s]	11.64	12.83	21.48	21.48	37.44	29.06
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.37	0.76	57.33	57.33	38.09	0.48
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.57	1.09	1.09	1.07	0.38
d, Delay for Lane Group [s/veh]	12.01	13.59	78.81	78.81	75.52	29.54
Lane Group LOS	B	B	F	F	F	C
Critical Lane Group	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.56	7.68	35.99	35.99	19.68	3.86
50th-Percentile Queue Length [ft/ln]	138.99	192.02	899.71	899.71	491.97	96.46
95th-Percentile Queue Length [veh/ln]	9.43	12.23	49.29	49.29	28.21	6.95
95th-Percentile Queue Length [ft/ln]	235.66	305.64	1232.26	1232.26	705.23	173.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	12.01	13.59	78.81	75.52	29.54
Movement LOS		B	B	F	F	C
d_A, Approach Delay [s/veh]	12.01		49.19		69.05	
Approach LOS	B		D		E	
d_I, Intersection Delay [s/veh]	43.18					
Intersection LOS	D					
Intersection V/C	1.007					

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Year 2025 With Project

TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.920
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 3 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	411	0	168	169	746	0	0	1228	646
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	424	0	173	174	770	0	0	1268	667
Added Vol:	0	0	0	14	0	20	5	459	0	0	113	7
Other:	0	0	0	0	0	-4	5	11	0	0	-4	0
Initial Fut:	0	0	0	438	0	189	184	1240	0	0	1377	674
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	438	0	189	184	1240	0	0	1377	674
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	438	0	189	184	1240	0	0	1377	674
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	438	0	189	184	1240	0	0	1377	674
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.27	0.00	0.12	0.12	0.26	0.00	0.00	0.43	0.42
Crit Moves:				****			****				****	

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TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.825
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	357	0	615	0	0	0	0	783	369	667	1466	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	369	0	635	0	0	0	0	808	381	689	1514	0
Added Vol:	0	0	10	0	0	0	0	487	3	23	126	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	369	0	645	0	0	0	0	1295	384	712	1640	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	369	0	645	0	0	0	0	1295	384	712	1640	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	369	0	645	0	0	0	0	1295	384	712	1640	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	369	0	645	0	0	0	0	1295	384	712	1640	0
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.31	0.69	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	3703	1097	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.13	0.00	0.20	0.00	0.00	0.00	0.00	0.35	0.35	0.25	0.51	0.00
OvlAdjV/S:			0.00									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.001
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	236	1291	628	412	1070	187	284	757	153	110	446	185
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	244	1333	648	425	1105	193	293	782	158	114	460	191
Added Vol:	12	199	89	25	434	4	20	126	10	22	29	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	1532	737	450	1539	197	313	908	168	136	489	199
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	1532	737	450	1539	197	313	908	168	136	489	199
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	1532	737	450	1539	197	313	908	168	136	489	199
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	1532	737	450	1539	197	313	908	168	136	489	199
OvlAdjVol:			662						26			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.66	0.34	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	4255	545	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.32	0.46	0.16	0.36	0.36	0.11	0.28	0.10	0.05	0.15	0.12
OvlAdjV/S:			0.41						0.02			0.00
Crit Moves:			****	****				****		****		

TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.959
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2	0	1	1 0 2	0	1	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	7	2044	26	36	1522	13	19	2	21	53	7	89
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	7	2110	27	37	1571	13	20	2	22	55	7	92
Added Vol:	3	264	3	4	458	3	14	0	5	5	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	2374	30	41	2029	16	34	2	27	60	7	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2374	30	41	2029	16	34	2	27	60	7	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2374	30	41	2029	16	34	2	27	60	7	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2374	30	41	2029	16	34	2	27	60	7	113
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.94	0.06	1.00	0.89	0.11	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1507	93	1600	1427	173	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.74	0.02	0.03	0.63	0.01	0.02	0.02	0.02	0.04	0.04	0.07
Crit Moves:		****			****			****				****

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TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.042
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2	0	1	1 0 2	0	1	1 1 0	0	1	1 1 0	1	0
Volume Module:												
Base Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	164	1739	72	1	1156	286	420	78	430	117	112	12
Added Vol:	8	226	3	0	459	9	43	0	16	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	172	1965	75	1	1615	295	463	78	446	122	112	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	1965	75	1	1615	295	463	78	446	122	112	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	1965	75	1	1615	295	463	78	446	122	112	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	1965	75	1	1615	295	463	78	446	122	112	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.71	0.29	1.00	1.49	1.36	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	2736	464	1600	2373	2183	243
Capacity Analysis Module:												
Vol/Sat:	0.11	0.61	0.05	0.00	0.50	0.18	0.17	0.17	0.28	0.05	0.05	0.05
OvlAdjV/S:						0.00						
Crit Moves:	****			****					****	****		

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TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.925
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	291	1364	364	207	938	396	401	500	169	167	1116	139
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	300	1408	376	214	968	409	414	516	174	172	1152	144
Added Vol:	76	129	158	63	403	13	34	81	388	405	63	74
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	376	1537	534	277	1371	422	448	597	562	577	1215	218
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	376	1537	0	277	1371	422	448	597	0	577	1215	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	376	1537	0	277	1371	422	448	597	0	577	1215	218
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	376	1537	0	277	1371	422	448	597	0	577	1215	218
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.32	0.00	0.10	0.29	0.26	0.16	0.12	0.00	0.20	0.25	0.14
Crit Moves:		****			****			****			****	

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TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.896
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	10	1839	33	9	1289	6	2	0	7	81	2	1
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	10	1899	34	9	1331	6	2	0	7	84	2	1
Added Vol:	0	363	16	0	1195	0	0	0	0	50	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	2262	50	9	2526	6	2	0	7	134	2	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2262	50	9	2526	6	2	0	7	134	2	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2262	50	9	2526	6	2	0	7	134	2	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2262	50	9	2526	6	2	0	7	134	2	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.00	1.00	1.00	0.67	0.33
Final Sat.:	1600	3200	1600	1600	4788	12	1600	0	1600	1600	1067	533
Capacity Analysis Module:												
Vol/Sat:	0.01	0.71	0.03	0.01	0.53	0.53	0.00	0.00	0.00	0.08	0.00	0.00
Crit Moves:		****		****				****		****		

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TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.503
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ignore				Ignore				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0 2	0	1	1	0 3	0	1	2	0 1	0	1	1	0 1	0	1
Volume Module:																
Base Vol:	116	2253	0		0	1002	107		39	0	36		0	0	0	
Growth Adj:	1.03	1.03	1.03		1.03	1.03	1.03		1.03	1.03	1.03		1.03	1.03	1.03	
Initial Bse:	120	2326	0		0	1035	110		40	0	37		0	0	0	
Added Vol:	1259	157	1413		605	103	537		125	0	291		227	0	97	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1379	2483	1413		605	1138	647		165	0	328		227	0	97	
User Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	1379	2483	1413		605	1138	0		165	0	0		227	0	97	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1379	2483	1413		605	1138	0		165	0	0		227	0	97	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	1379	2483	1413		605	1138	0		165	0	0		227	0	97	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	0.90	1.00	1.00		1.00	1.00	1.00		0.90	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	2.00	1.00		1.00	3.00	1.00		2.00	1.00	1.00		1.00	1.00	1.00	
Final Sat.:	2880	3200	1600		1600	4800	1600		2880	1600	1600		1600	1600	1600	
Capacity Analysis Module:																
Vol/Sat:	0.48	0.78	0.88		0.38	0.24	0.00		0.06	0.00	0.00		0.14	0.00	0.06	
Crit Moves:			****		****					****			****			

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Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	373.4
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	10.124

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	3524	330	663	1019	2	0	1	1	271	0	1750
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	3524	330	663	1019	2	0	1	1	271	0	1750
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
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	935	88	176	270	1	0	0	0	72	0	464
Total Analysis Volume [veh/h]	0	3741	350	704	1082	2	0	1	1	288	0	1858
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
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	39	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	35	35	56	35	35	35	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.93	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.00	1.05	0.22	9.54	0.00	0.64	0.00	0.00	0.20	0.59	0.59
s, saturation flow rate [veh/h]	518	3547	1583	37	0	1695	246	1712	1409	1583	1583
c, Capacity [veh/h]	121	2064	1478	120	120	986	120	487	479	511	451
d1, Uniform Delay [s]	0.00	12.55	0.17	30.03	30.03	12.55	0.00	15.38	20.96	22.48	21.48
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	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
d2, Incremental Delay [s]	0.00	367.39	0.38	893.58	893.58	59.67	0.00	0.00	1.22	376.16	484.94
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
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
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

Lane Group Results

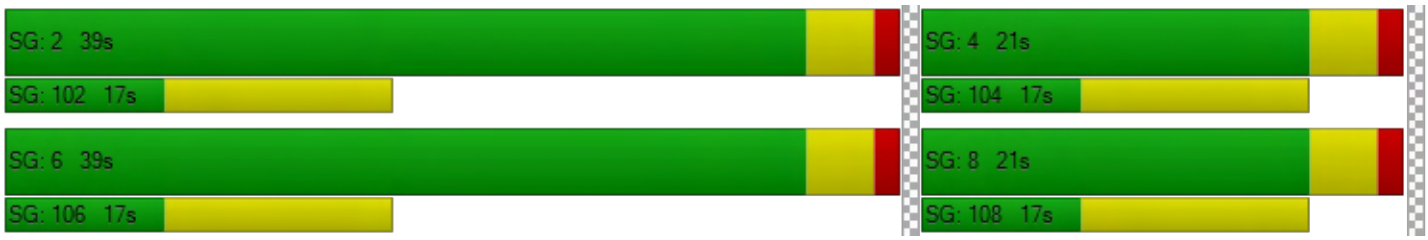
X, volume / capacity	0.00	1.81	0.24	2.94	2.94	1.10	0.00	0.00	0.60	1.82	2.06
d, Delay for Lane Group [s/veh]	0.00	379.94	0.55	923.61	923.61	72.22	0.00	15.39	22.18	398.64	506.42
Lane Group LOS	A	F	A	F	F	F	A	B	C	F	F
Critical Lane Group	No	No	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.00	113.72	0.15	31.33	31.33	24.36	0.00	0.02	3.37	59.68	66.01
50th-Percentile Queue Length [ft/ln]	0.00	2843.05	3.87	783.16	783.16	608.96	0.00	0.43	84.34	1492.05	1650.16
95th-Percentile Queue Length [veh/ln]	0.00	182.83	0.28	56.39	56.39	34.93	0.00	0.03	6.07	93.79	105.24
95th-Percentile Queue Length [ft/ln]	0.00	4570.84	6.97	1409.70	1409.70	873.16	0.00	0.77	151.81	2344.85	2631.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	379.94	0.55	923.61	72.22	72.22	0.00	15.39	15.39	22.18	398.64	452.53
Movement LOS	A	F	A	F	E	E	A	B	B	C	F	F
d_A, Approach Delay [s/veh]	347.48			407.45			15.39			394.78		
Approach LOS	F			F			B			F		
d_I, Intersection Delay [s/veh]	373.40											
Intersection LOS	F											
Intersection V/C	10.124											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	230.0
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.372

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	1473	276	569	768	0	2346	0	290	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1473	276	569	768	0	2346	0	290	0	0	0
Peak Hour Factor	1.0000	0.9770	0.9770	0.9770	0.9770	1.0000	0.9770	1.0000	0.9770	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	377	71	146	197	0	600	0	74	0	0	0
Total Analysis Volume [veh/h]	0	1508	282	582	786	0	2401	0	297	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	84.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	31	0	30	61	0	59	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	120	120	120	120	120	120	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	27	27	26	57	55	55	
g / C, Green / Cycle	0.23	0.23	0.22	0.48	0.46	0.46	
(v / s)_i Volume / Saturation Flow Rate	0.34	0.35	0.33	0.15	0.70	0.19	
s, saturation flow rate [veh/h]	3547	1719	1774	5074	3445	1583	
c, Capacity [veh/h]	800	388	385	2415	1576	724	
d1, Uniform Delay [s]	46.43	46.43	46.96	19.49	32.54	21.73	
k, delay calibration	0.50	0.50	0.50	0.50	0.29	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	227.63	254.68	243.62	0.36	237.60	0.37	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

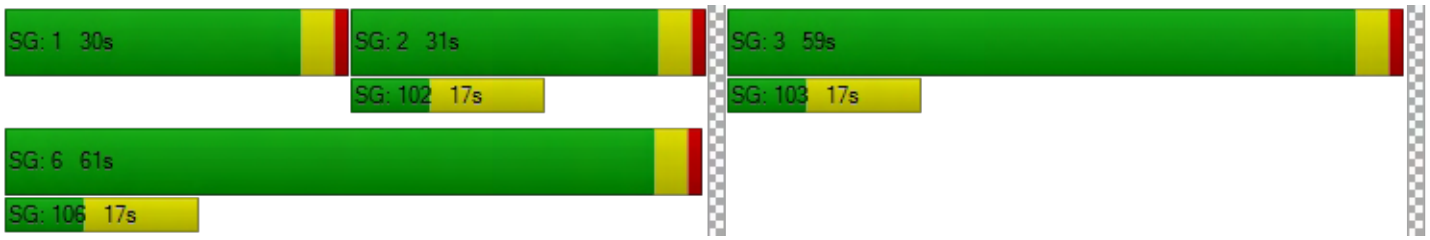
X, volume / capacity	1.49	1.54	1.51	0.33	1.52	0.41	
d, Delay for Lane Group [s/veh]	274.06	301.11	290.58	19.85	270.14	22.11	
Lane Group LOS	F	F	F	B	F	C	
Critical Lane Group	No	Yes	Yes	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	36.80	38.59	37.12	4.39	73.05	5.38	
50th-Percentile Queue Length [ft/ln]	919.98	964.84	927.92	109.85	1826.35	134.41	
95th-Percentile Queue Length [veh/ln]	56.26	59.29	56.82	7.83	111.83	9.18	
95th-Percentile Queue Length [ft/ln]	1406.47	1482.27	1420.39	195.80	2795.81	229.47	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	279.71	301.11	290.58	19.85	0.00	270.14	0.00	22.11	0.00	0.00	0.00
Movement LOS		F	F	F	B		F		C			
d_A, Approach Delay [s/veh]	283.08			135.03			242.84			0.00		
Approach LOS	F			F			F			A		
d_I, Intersection Delay [s/veh]	229.95											
Intersection LOS	F											
Intersection V/C	1.372											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.588
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	3 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	11	0	7	2	0	14	23	1050	36	16	1592	10
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	11	0	7	2	0	14	24	1084	37	17	1644	10
Added Vol:	0	0	0	0	0	0	0	302	0	0	542	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	0	7	2	0	14	24	1386	37	17	2186	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	0	7	2	0	14	24	1386	37	17	2186	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	0	7	2	0	14	24	1386	37	17	2186	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	0	7	2	0	14	24	1386	37	17	2186	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	3.90	0.10	1.00	2.99	0.01
Final Sat.:	1600	0	1600	1600	0	1600	1600	6233	167	1600	4777	23
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.22	0.22	0.01	0.46	0.46
Crit Moves:	****					****	****				****	

TERRACES AT WALNUT
Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Faure Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.873
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	0	1 0	0	1	0	1 0	0	1	1	0 2	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	2	0	30		0	0	0		0	1204	8		78	1565	0	
Growth Adj:	1.03	1.03	1.03		1.03	1.03	1.03		1.03	1.03	1.03		1.03	1.03	1.03	
Initial Bse:	2	0	31		0	0	0		0	1243	8		81	1616	0	
Added Vol:	0	16	0		32	50	101		104	200	0		0	425	26	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2	16	31		32	50	101		104	1443	8		81	2041	26	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	2	16	31		32	50	101		104	1443	8		81	2041	26	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2	16	31		32	50	101		104	1443	8		81	2041	26	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	2	16	31		32	50	101		104	1443	8		81	2041	26	
OvlAdjVol:							0									
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.11	0.89	1.00		0.39	0.61	1.00		1.00	2.98	0.02		1.00	2.00	1.00	
Final Sat.:	183	1417	1600		624	976	1600		1600	4773	27		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.02		0.05	0.05	0.06		0.07	0.30	0.30		0.05	0.64	0.02	
OvlAdjV/S:							0.00									
Crit Moves:			****		****					****					****	

Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	920	2	0	32	0	45	11	821	322	0	1294	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	920	2	0	32	0	45	11	821	322	0	1294	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	230	1	0	8	0	11	3	205	0	0	324	2
Total Analysis Volume [veh/h]	920	2	0	32	0	45	11	821	0	0	1294	9
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
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	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	24	0	29	0	0	0	22	0	0	22	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	23	23	6	6	34	34	34	34	34
g / C, Green / Cycle	0.31	0.31	0.08	0.08	0.45	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.27	0.27	0.02	0.03	0.01	0.23	0.00	0.36	0.36
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	532	532	129	137	274	1624	45100	812	812
d1, Uniform Delay [s]	24.30	24.30	32.68	32.88	11.39	14.66	0.00	17.74	17.74
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	4.39	4.39	0.99	1.39	0.27	1.13	0.00	8.25	8.25
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

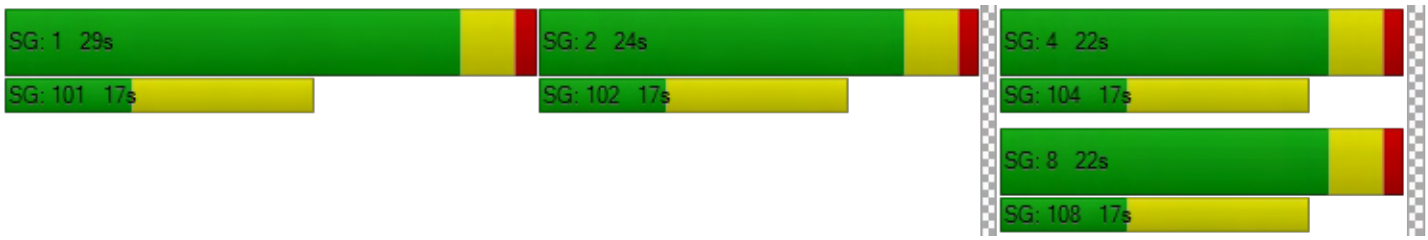
X, volume / capacity	0.87	0.87	0.25	0.33	0.04	0.51	0.00	0.80	0.80
d, Delay for Lane Group [s/veh]	28.69	28.70	33.66	34.27	11.67	15.79	0.00	25.99	25.99
Lane Group LOS	C	C	C	C	B	B	A	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.46	7.46	0.55	0.78	0.11	4.43	0.00	9.89	9.89
50th-Percentile Queue Length [ft/ln]	186.40	186.41	13.70	19.45	2.70	110.86	0.00	247.14	247.14
95th-Percentile Queue Length [veh/ln]	11.93	11.93	0.99	1.40	0.19	7.89	0.00	15.04	15.04
95th-Percentile Queue Length [ft/ln]	298.35	298.37	24.66	35.01	4.86	197.20	0.00	376.05	376.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.70	28.70	28.70	33.66	0.00	34.27	11.67	15.79	0.00	0.00	25.99	25.99
Movement LOS	C	C	C	C		C	B	B	A		C	C
d_A, Approach Delay [s/veh]	28.70			34.02			15.74			25.99		
Approach LOS	C			C			B			C		
d_I, Intersection Delay [s/veh]	24.26											
Intersection LOS	C											
Intersection V/C	0.658											

Sequence

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



TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.970
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0 0	0 1	1	0 3	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	0	0	0	325	0	91	140	1692	0	0	1118	462
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	336	0	94	145	1747	0	0	1154	477
Added Vol:	0	0	0	9	0	11	20	316	0	0	592	10
Other:	0	0	0	0	0	6	4	9	0	0	13	0
Initial Fut:	0	0	0	345	0	111	169	2072	0	0	1759	487
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	345	0	111	169	2072	0	0	1759	487
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	345	0	111	169	2072	0	0	1759	487
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	345	0	111	169	2072	0	0	1759	487
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.22	0.00	0.07	0.11	0.43	0.00	0.00	0.55	0.30
Crit Moves:				****			****				****	

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TERRACES AT WALNUT
Year 2025 With Project
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Brea Canyon Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.979
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0 0 2			0 0 0 0 0			0 0 2 1 0			2 0 2 0 0		
Volume Module:												
Base Vol:	534	0	1124	0	0	0	0	1735	237	524	1027	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	551	0	1161	0	0	0	0	1791	245	541	1060	0
Added Vol:	3	0	22	0	0	0	0	335	1	13	615	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	554	0	1183	0	0	0	0	2126	246	554	1675	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	554	0	1183	0	0	0	0	2126	246	554	1675	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	554	0	1183	0	0	0	0	2126	246	554	1675	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	554	0	1183	0	0	0	0	2126	246	554	1675	0
OvlAdjVol:			567									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	2.69	0.31	2.00	2.00	0.00
Final Sat.:	2880	0	3200	0	0	0	0	4303	497	2880	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.37	0.00	0.00	0.00	0.00	0.49	0.49	0.19	0.52	0.00
OvlAdjV/S:			0.18									
Crit Moves:	****							****		****		

TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Grand Ave (NS) at Amar Rd/Temple Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.937
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	2 1	0	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	327	1150	288	209	832	262	346	651	292	359	659	326
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	338	1187	297	216	859	271	357	672	301	371	680	337
Added Vol:	13	641	71	10	332	11	15	85	15	37	72	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	351	1828	368	226	1191	282	372	757	316	408	752	360
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	351	1828	368	226	1191	282	372	757	316	408	752	360
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	351	1828	368	226	1191	282	372	757	316	408	752	360
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	351	1828	368	226	1191	282	372	757	316	408	752	360
OvlAdjVol:			142						122			234
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.43	0.57	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	2880	4800	1600	2880	3882	918	2880	3200	1600	2880	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.38	0.23	0.08	0.31	0.31	0.13	0.24	0.20	0.14	0.24	0.22
OvlAdjV/S:			0.09						0.08			0.15
Crit Moves:	****			****			****			****		

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TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand Ave (NS) at Snow Creek Dr (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.085
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	1	0 2	0 1		1	0 2	0 1		0	1 0	0 1		0	1 0	0 1	
Volume Module:																
Base Vol:	24	1906	52		113	1355	14		17	2	10		37	7	70	
Growth Adj:	1.03	1.03	1.03		1.03	1.03	1.03		1.03	1.03	1.03		1.03	1.03	1.03	
Initial Bse:	25	1968	54		117	1399	14		18	2	10		38	7	72	
Added Vol:	3	697	3		9	370	6		11	0	3		3	0	17	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	28	2665	57		126	1769	20		29	2	13		41	7	89	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	28	2665	57		126	1769	20		29	2	13		41	7	89	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	28	2665	57		126	1769	20		29	2	13		41	7	89	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	28	2665	57		126	1769	20		29	2	13		41	7	89	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		0.93	0.07	1.00		0.85	0.15	1.00	
Final Sat.:	1600	3200	1600		1600	3200	1600		1492	108	1600		1361	239	1600	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.83	0.04		0.08	0.55	0.01		0.02	0.02	0.01		0.03	0.03	0.06	
Crit Moves:		****				****				****					****	

TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.072
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	241	1585	158	7	1300	196	253	65	361	88	36	12
Added Vol:	16	668	3	0	360	17	34	0	14	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	257	2253	161	7	1660	213	287	65	375	91	36	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	257	2253	161	7	1660	213	287	65	375	91	36	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	2253	161	7	1660	213	287	65	375	91	36	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	257	2253	161	7	1660	213	287	65	375	91	36	12
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.63	0.37	1.00	1.96	0.77	0.27
Final Sat.:	1600	3200	1600	1600	3200	1600	2609	591	1600	3138	1238	424
Capacity Analysis Module:												
Vol/Sat:	0.16	0.70	0.10	0.00	0.52	0.13	0.11	0.11	0.23	0.03	0.03	0.03
OvlAdjV/S:						0.00						
Crit Moves:		****			****				****			****

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TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Grand Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.278
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	261	1040	179	385	1042	209	666	1531	287	428	702	244
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	269	1074	185	398	1076	216	688	1581	296	442	725	252
Added Vol:	535	587	557	65	294	18	32	66	263	337	78	68
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	804	1661	742	463	1370	234	720	1647	559	779	803	320
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	804	1661	0	463	1370	234	720	1647	0	779	803	320
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	804	1661	0	463	1370	234	720	1647	0	779	803	320
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	804	1661	0	463	1370	234	720	1647	0	779	803	320
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	4800	1600	2880	4800	1600	2880	4800	1600	2880	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.35	0.00	0.16	0.29	0.15	0.25	0.34	0.00	0.27	0.17	0.20
Crit Moves:	****				****			****			****	

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TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.200
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	8	1544	70	41	1441	3	5	2	9	39	0	13
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	8	1594	72	42	1488	3	5	2	9	40	0	13
Added Vol:	0	1679	45	0	893	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	3273	117	42	2381	3	5	2	9	69	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	3273	117	42	2381	3	5	2	9	69	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	3273	117	42	2381	3	5	2	9	69	0	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	3273	117	42	2381	3	5	2	9	69	0	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.99	0.01	1.00	0.18	0.82	1.00	0.00	1.00
Final Sat.:	1600	3200	1600	1600	4794	6	1600	291	1309	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	1.02	0.07	0.03	0.50	0.50	0.00	0.01	0.01	0.04	0.00	0.01
Crit Moves:		****		****				****		****		

TERRACES AT WALNUT
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Grand Ave (NS) at Baker Pkwy (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.966
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	F

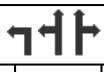
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Ignore				Ignore				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0 2	0	1	1	0 3	0	1	2	0 1	0	1	1	0 1	0	1
Volume Module:																
Base Vol:	33	1261	0	0	1567	50	172	0	94	0	0	0				
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03				
Initial Bse:	34	1302	0	0	1618	52	178	0	97	0	0	0				
Added Vol:	1133	139	682	292	146	485	836	0	1955	1750	0	750				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1167	1441	682	292	1764	537	1014	0	2052	1750	0	750				
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	1167	1441	682	292	1764	0	1014	0	0	1750	0	750				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1167	1441	682	292	1764	0	1014	0	0	1750	0	750				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	1167	1441	682	292	1764	0	1014	0	0	1750	0	750				
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00				
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00				
Final Sat.:	2880	3200	1600	1600	4800	1600	2880	1600	1600	1600	1600	1600				
Capacity Analysis Module:																
Vol/Sat:	0.41	0.45	0.43	0.18	0.37	0.00	0.35	0.00	0.00	1.09	0.00	0.47				
Crit Moves:	****				****			****			****					

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Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	1,788.2
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	8.644

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	1976	292	2550	3358	5	4	2	4	192	1	1313
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	1	1976	292	2550	3358	5	4	2	4	192	1	1313
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
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	551	81	711	936	1	1	1	1	54	0	366
Total Analysis Volume [veh/h]	1	2203	326	2843	3744	6	4	2	4	214	1	1464
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
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	0	2	2	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups			2,4									
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	7	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	30	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	39	0	39	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No	No		No			No			No	
Maximum Recall		No	No		No			No			No	
Pedestrian Recall		No	No		No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00	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
g_i, Effective Green Time [s]	35	35	56	35	35	35	17	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.93	0.58	0.58	0.58	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.62	0.21	8.10	0.00	2.21	0.01	0.00	0.15	0.55	0.38
s, saturation flow rate [veh/h]	37	3547	1583	176	0	1695	360	1667	1404	1584	1583
c, Capacity [veh/h]	120	2064	1478	120	120	986	120	475	475	511	451
d1, Uniform Delay [s]	30.03	12.55	0.17	30.03	30.03	12.55	30.03	15.42	19.77	22.48	21.48
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.50	0.27
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
d2, Incremental Delay [s]	0.13	40.53	0.34	4902.52	4902.52	1263.24	0.11	0.01	0.67	323.40	153.78
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
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
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

Lane Group Results

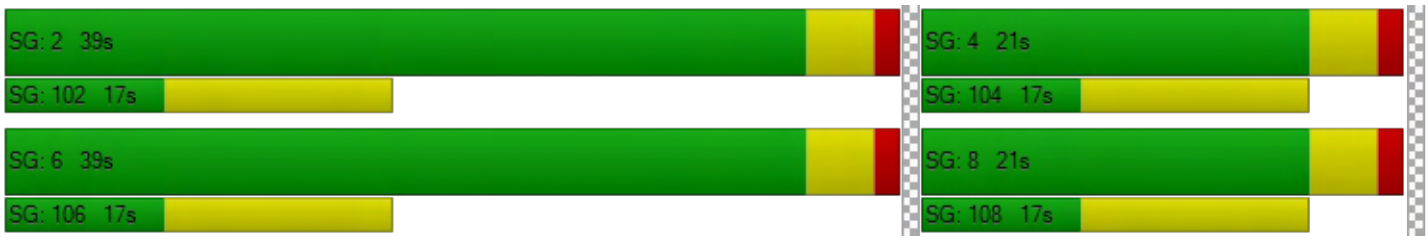
X, volume / capacity	0.01	1.07	0.22	11.86	11.86	3.80	0.03	0.01	0.45	1.70	1.32
d, Delay for Lane Group [s/veh]	30.16	53.09	0.51	4932.55	4932.55	1275.79	30.14	15.43	20.43	345.88	175.26
Lane Group LOS	C	F	A	F	F	F	C	B	C	F	F
Critical Lane Group	No	No	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.02	20.00	0.14	164.82	164.82	354.14	0.06	0.05	2.34	52.20	24.54
50th-Percentile Queue Length [ft/ln]	0.43	500.09	3.53	4120.47	4120.47	8853.42	1.40	1.30	58.39	1305.11	613.39
95th-Percentile Queue Length [veh/ln]	0.03	28.76	0.25	279.05	279.05	584.47	0.10	0.09	4.20	81.60	37.87
95th-Percentile Queue Length [ft/ln]	0.78	718.99	6.36	6976.32	6976.32	14611.7	2.53	2.33	105.11	2039.92	946.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.16	53.09	0.51	4932.55	1275.79	1275.79	30.14	15.43	15.43	20.43	345.88	276.35
Movement LOS	C	F	A	F	F	F	C	B	B	C	F	F
d_A, Approach Delay [s/veh]	46.30			2852.64			21.31			243.78		
Approach LOS	D			F			C			F		
d_I, Intersection Delay [s/veh]	1788.21											
Intersection LOS	F											
Intersection V/C	8.644											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	623.9
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.972

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]		45.00			45.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name												
Base Volume Input [veh/h]	0	1147	639	1999	1660	0	1141	0	182	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 [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1147	639	1999	1660	0	1141	0	182	0	0	0
Peak Hour Factor	1.0000	0.9440	0.9440	0.9440	0.9440	1.0000	0.9440	1.0000	0.9440	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	304	169	529	440	0	302	0	48	0	0	0
Total Analysis Volume [veh/h]	0	1215	677	2118	1758	0	1209	0	193	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
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	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	25.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	3	0	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	7	0	0	0	0	0
Maximum Green [s]	0	30	0	30	30	0	30	0	0	0	0	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	21	0	18	39	0	21	0	0	0	0	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	0	0	0
Pedestrian Clearance [s]	0	10	0	0	10	0	10	0	0	0	0	0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		No		No	No		No					
Maximum Recall		No		No	No		No					
Pedestrian Recall		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	C	C	L	C	L	R	
C, Cycle Length [s]	60	60	60	60	60	60	
L, Total Lost Time per Cycle [s]	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	
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	
g_i, Effective Green Time [s]	17	17	14	35	17	17	
g / C, Green / Cycle	0.28	0.28	0.23	0.58	0.28	0.28	
(v / s)_i Volume / Saturation Flow Rate	0.34	0.43	1.19	0.35	0.35	0.12	
s, saturation flow rate [veh/h]	3547	1583	1774	5074	3445	1583	
c, Capacity [veh/h]	1005	449	415	2963	977	449	
d1, Uniform Delay [s]	21.61	21.61	23.10	7.99	21.61	17.64	
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	103.25	240.09	1849.97	0.88	109.10	0.65	
d3, Initial Queue Delay [s]	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	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	1.21	1.51	5.10	0.59	1.24	0.43	
d, Delay for Lane Group [s/veh]	124.86	261.71	1873.07	8.87	130.72	18.29	
Lane Group LOS	F	F	F	A	F	B	
Critical Lane Group	No	Yes	Yes	No	Yes	No	
50th-Percentile Queue Length [veh/ln]	20.32	35.20	218.46	3.28	20.53	1.93	
50th-Percentile Queue Length [ft/ln]	507.95	880.06	5461.53	82.12	513.28	48.25	
95th-Percentile Queue Length [veh/ln]	30.80	54.95	334.04	5.91	31.43	3.47	
95th-Percentile Queue Length [ft/ln]	769.94	1373.64	8350.95	147.82	785.67	86.85	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	124.86	261.71	1873.07	8.87	0.00	130.72	0.00	18.29	0.00	0.00	0.00
Movement LOS		F	F	F	A		F		B			
d_A, Approach Delay [s/veh]	173.83			1027.54			115.24			0.00		
Approach LOS	F			F			F			A		
d_I, Intersection Delay [s/veh]	623.88											
Intersection LOS	F											
Intersection V/C	1.972											

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Benton Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Lanes:	0	1	0	0	1	0	1	0	0	1	1	0	3	1	0	1	0	2	1	0
Volume Module:																				
Base Vol:	215	0	83			10	1	10			35	2031	268			87	1217	3		
Growth Adj:	1.03	1.03	1.03			1.03	1.03	1.03			1.03	1.03	1.03			1.03	1.03	1.03		
Initial Bse:	222	0	86			10	1	10			36	2097	277			90	1257	3		
Added Vol:	0	0	0			0	0	0			0	687	0			0	483	0		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	222	0	86			10	1	10			36	2784	277			90	1740	3		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	222	0	86			10	1	10			36	2784	277			90	1740	3		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	222	0	86			10	1	10			36	2784	277			90	1740	3		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	222	0	86			10	1	10			36	2784	277			90	1740	3		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	0.00	1.00			0.91	0.09	1.00			1.00	3.64	0.36			1.00	2.99	0.01		
Final Sat.:	1600	0	1600			1455	145	1600			1600	5821	579			1600	4791	9		
Capacity Analysis Module:																				
Vol/Sat:	0.14	0.00	0.05			0.01	0.01	0.01			0.02	0.48	0.48			0.06	0.36	0.36		
Crit Moves:	****						****					****					****			

TERRACES AT WALNUT
Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Faure Ave (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.900
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 1	0 0	1	1 0	2 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	1	0	63	0	0	0	0	2110	2	33	1612	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	1	0	65	0	0	0	0	2179	2	34	1664	0
Added Vol:	0	45	0	28	29	78	126	569	0	0	401	45
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	45	65	28	29	78	126	2748	2	34	2065	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	45	65	28	29	78	126	2748	2	34	2065	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	45	65	28	29	78	126	2748	2	34	2065	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	45	65	28	29	78	126	2748	2	34	2065	45
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.49	0.51	1.00	1.00	2.99	0.01	1.00	2.00	1.00
Final Sat.:	36	1564	1600	786	814	1600	1600	4796	4	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.04	0.04	0.04	0.05	0.08	0.57	0.57	0.02	0.65	0.03
OvlAdjV/S:						0.00						
Crit Moves:			****	****			****				****	

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Intersection Level Of Service Report
Intersection 13: Pomona Blvd (NS) at Valley Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	446	12	2	19	0	18	36	1764	1068	0	1131	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	446	12	2	19	0	18	36	1764	1068	0	1131	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	112	3	1	5	0	5	9	441	0	0	283	4
Total Analysis Volume [veh/h]	446	12	2	19	0	18	36	1764	0	0	1131	14
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
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]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	0	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	26	0	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	7	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	10	0	0	0	10	0	0	10	0
Rest In Walk		No		No				No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No				No			No	
Maximum Recall		No		No				No			No	
Pedestrian Recall		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	R	L	C	R	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
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
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	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
g_i, Effective Green Time [s]	12	12	4	4	43	43	43	43	43
g / C, Green / Cycle	0.17	0.17	0.05	0.05	0.61	0.61	0.61	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.14	0.14	0.01	0.01	0.02	0.49	0.00	0.32	0.32
s, saturation flow rate [veh/h]	1700	1700	1700	1800	1700	3600	100000	1800	1800
c, Capacity [veh/h]	290	290	90	96	749	2179	60540	1090	1090
d1, Uniform Delay [s]	27.91	27.91	31.79	31.75	5.58	10.71	0.00	8.01	8.01
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50	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
d2, Incremental Delay [s]	4.90	4.93	1.14	0.94	0.12	3.37	0.00	1.81	1.81
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

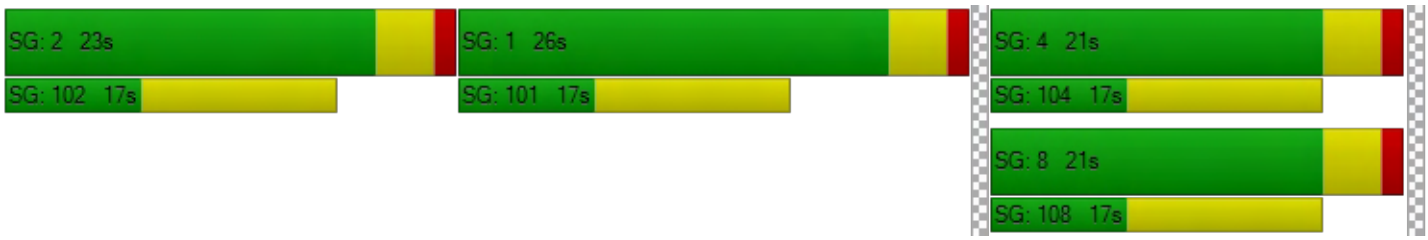
X, volume / capacity	0.79	0.79	0.21	0.19	0.05	0.81	0.00	0.53	0.53
d, Delay for Lane Group [s/veh]	32.81	32.85	32.94	32.70	5.70	14.08	0.00	9.82	9.82
Lane Group LOS	C	C	C	C	A	B	A	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.74	3.75	0.31	0.30	0.18	8.09	0.00	3.98	3.98
50th-Percentile Queue Length [ft/ln]	93.53	93.73	7.87	7.39	4.39	202.33	0.00	99.54	99.54
95th-Percentile Queue Length [veh/ln]	6.73	6.75	0.57	0.53	0.32	12.76	0.00	7.17	7.17
95th-Percentile Queue Length [ft/ln]	168.35	168.71	14.16	13.30	7.90	318.97	0.00	179.18	179.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.83	32.85	32.85	32.94	0.00	32.70	5.70	14.08	0.00	0.00	9.82	9.82
Movement LOS	C	C	C	C		C	A	B	A		A	A
d_A, Approach Delay [s/veh]	32.83			32.82			13.91			9.82		
Approach LOS	C			C			B			A		
d_I, Intersection Delay [s/veh]	15.28											
Intersection LOS	B											
Intersection V/C	0.637											

Sequence

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



Year 2025 With Project - SR57/60 Improvements

Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	46.0
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.743

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	3524	330	133	1549	2	0	1	1	271	0	1750
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	3524	330	133	1549	2	0	1	1	271	0	1750
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
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	935	88	35	411	1	0	0	0	72	0	464
Total Analysis Volume [veh/h]	0	3741	350	141	1644	2	0	1	1	288	0	1858
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
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	1 - Coordination Group
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Split	Permiss	Split	Split	Split	Overlap
Signal group	5	2	2	1	6	0	3	0	0	0	4	4
Auxiliary Signal Groups			2,4									1,4
Lead / Lag	Lag	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	7	0	0	0	7	7
Maximum Green [s]	30	30	30	30	30	0	30	0	0	0	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0
Split [s]	11	67	67	18	74	0	11	0	0	0	19	19
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
Walk [s]	0	7	7	0	7	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	0	0	0	0	0
Rest In Walk		No			No		No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
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	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115
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	2.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	0	70	89	14	84	84	0	0	0	15	15	37
g / C, Green / Cycle	0.00	0.61	0.77	0.12	0.73	0.73	0.00	0.00	0.00	0.13	0.13	0.32
(v / s)_i Volume / Saturation Flow Rate	0.00	0.55	0.22	0.08	0.19	0.00	0.00	0.00	0.00	0.08	0.08	0.39
s, saturation flow rate [veh/h]	3445	6765	1583	1774	8457	1583	1412	310	1583	1774	1774	4750
c, Capacity [veh/h]	2	4099	1221	216	6151	1152	63	32	4	232	232	1542
d1, Uniform Delay [s]	0.00	19.98	3.86	48.17	5.31	4.28	0.00	57.49	57.26	47.31	47.31	38.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
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]	0.00	4.15	0.59	3.29	0.11	0.00	0.00	0.21	13.34	2.71	2.71	93.79
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	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	0.00	0.91	0.29	0.65	0.27	0.00	0.00	0.02	0.12	0.62	0.62	1.21
d, Delay for Lane Group [s/veh]	0.00	24.13	4.45	51.47	5.41	4.28	0.00	57.70	70.60	50.02	50.02	132.64
Lane Group LOS	A	C	A	D	A	A	A	E	E	D	D	F
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	20.04	1.88	3.95	2.13	0.01	0.00	0.02	0.03	3.97	3.97	27.11
50th-Percentile Queue Length [ft/ln]	0.00	500.89	46.92	98.74	53.23	0.28	0.00	0.43	0.68	99.23	99.23	677.65
95th-Percentile Queue Length [veh/ln]	0.00	27.38	3.38	7.11	3.83	0.02	0.00	0.03	0.05	7.14	7.14	39.89
95th-Percentile Queue Length [ft/ln]	0.00	684.41	84.45	177.72	95.81	0.50	0.00	0.78	1.22	178.62	178.62	997.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	24.13	4.45	51.47	5.41	4.28	28.85	0.00	63.57	50.02	50.02	132.64
Movement LOS	A	C	A	D	A	A	C		E	D	D	F
d_A, Approach Delay [s/veh]	22.45			9.05			63.57			121.56		
Approach LOS	C			A			E			F		
d_I, Intersection Delay [s/veh]	45.97											
Intersection LOS	D											
Intersection V/C	0.743											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	47.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.961

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1749	768	569	2346	290
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1749	768	569	2346	290
Peak Hour Factor	1.0000	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	448	197	146	600	74
Total Analysis Volume [veh/h]	0	1790	786	582	2401	297
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	37.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Split	Split
Signal group	0	2	6	0	3	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	7	7	0	7	0
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	0	34	34	0	81	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	C	R	L	R
C, Cycle Length [s]	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	77	77
g / C, Green / Cycle	0.26	0.26	0.26	0.26	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.26	0.15	0.18	0.18	0.70	0.19
s, saturation flow rate [veh/h]	6765	5074	1583	1583	3445	1583
c, Capacity [veh/h]	1769	1327	414	414	2304	1059
d1, Uniform Delay [s]	42.44	37.09	38.40	38.40	19.03	7.76
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	24.29	1.95	9.59	9.59	22.56	0.14
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

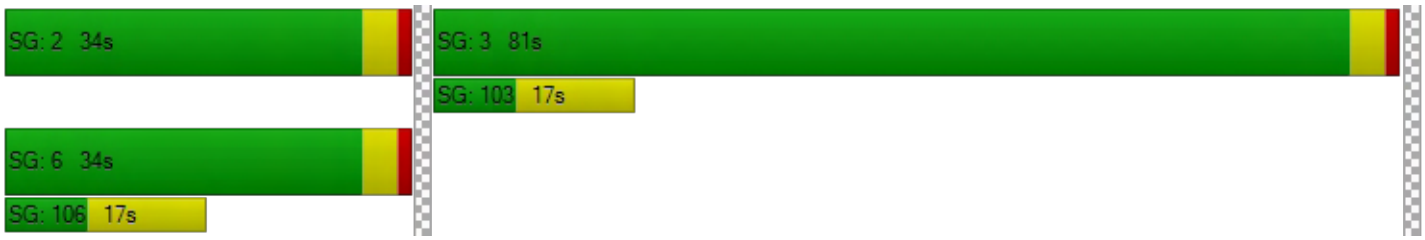
X, volume / capacity	1.01	0.59	0.70	0.70	1.04	0.28
d, Delay for Lane Group [s/veh]	66.73	39.04	47.99	47.99	41.59	7.90
Lane Group LOS	F	D	D	D	F	A
Critical Lane Group	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	14.98	6.45	8.24	8.24	31.57	2.60
50th-Percentile Queue Length [ft/ln]	374.59	161.24	206.11	206.11	789.37	65.02
95th-Percentile Queue Length [veh/ln]	21.48	10.61	12.95	12.95	42.29	4.68
95th-Percentile Queue Length [ft/ln]	537.02	265.36	323.83	323.83	1057.33	117.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	66.73	39.04	47.99	41.59	7.90
Movement LOS		F	D	D	F	A
d_A, Approach Delay [s/veh]	66.73		42.85		37.88	
Approach LOS	E		D		D	
d_I, Intersection Delay [s/veh]	47.86					
Intersection LOS	D					
Intersection V/C	0.961					

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: Grand Ave (NS) at SR-60 WB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.924

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 Pocket	0	0	0	0	0	0	0	0	0	0	0	0
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
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	1	1976	292	383	5525	5	4	1	4	192	1	1313
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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]	1	1976	292	383	5525	5	4	1	4	192	1	1313
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
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	551	81	107	1540	1	1	0	1	54	0	366
Total Analysis Volume [veh/h]	1	2203	326	427	6159	6	4	1	4	214	1	1464
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
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	1 - Coordination Group
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Split	Permiss	Split	Split	Split	Overlap
Signal group	5	2	2	1	6	0	3	0	0	0	4	4
Auxiliary Signal Groups			2,4									1,4
Lead / Lag	Lag	-	-	Lead	-	-	Lead	-	-	-	-	-
Minimum Green [s]	7	7	7	7	7	0	7	0	0	0	7	7
Maximum Green [s]	30	30	30	30	30	0	30	0	0	0	30	30
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0
Split [s]	11	42	42	31	62	0	11	0	0	0	11	11
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	3.0	3.0
Walk [s]	0	7	7	0	7	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	0	0	0	0	0
Rest In Walk		No			No		No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	2.0
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	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95	95
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	2.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	0	44	55	26	70	70	1	1	1	7	7	43
g / C, Green / Cycle	0.00	0.47	0.58	0.28	0.74	0.74	0.01	0.01	0.01	0.07	0.07	0.45
(v / s)_i Volume / Saturation Flow Rate	0.00	0.33	0.21	0.24	0.73	0.00	0.00	0.02	0.00	0.06	0.06	0.31
s, saturation flow rate [veh/h]	3445	6765	1583	1774	8457	1583	1412	170	1583	1774	1775	4750
c, Capacity [veh/h]	11	3151	922	491	6250	1170	78	76	24	132	132	2138
d1, Uniform Delay [s]	47.29	20.14	10.45	32.80	11.92	3.25	47.42	47.52	46.26	43.38	43.38	20.79
k, delay calibration	0.11	0.50	0.50	0.28	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
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]	3.58	1.31	1.06	11.43	8.48	0.01	0.03	0.27	3.02	11.30	11.27	0.39
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

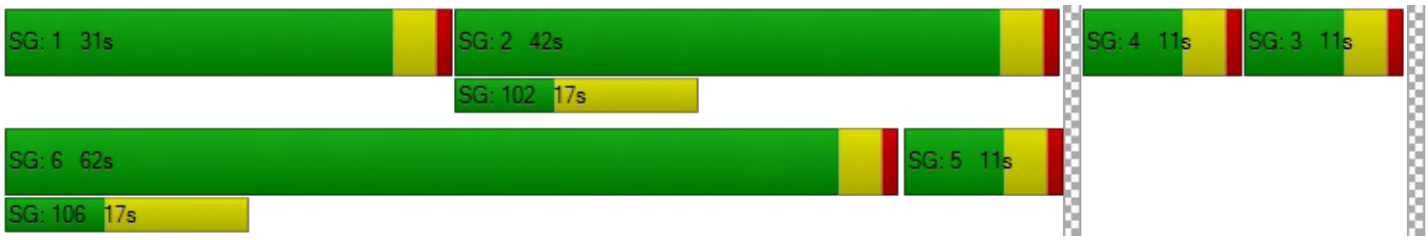
X, volume / capacity	0.09	0.70	0.35	0.87	0.99	0.01	0.01	0.05	0.16	0.81	0.81	0.68
d, Delay for Lane Group [s/veh]	50.87	21.45	11.52	44.23	20.40	3.26	47.45	47.79	49.28	54.68	54.66	21.18
Lane Group LOS	D	C	B	D	C	A	D	D	D	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.02	8.88	3.33	10.30	17.85	0.02	0.01	0.09	0.10	2.81	2.80	7.83
50th-Percentile Queue Length [ft/ln]	0.42	221.98	83.29	257.51	446.30	0.56	0.27	2.30	2.62	70.13	70.11	195.64
95th-Percentile Queue Length [veh/ln]	0.03	13.77	6.00	15.56	24.78	0.04	0.02	0.17	0.19	5.05	5.05	12.41
95th-Percentile Queue Length [ft/ln]	0.76	344.15	149.93	389.09	619.53	1.01	0.49	4.15	4.72	126.24	126.20	310.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.87	21.45	11.52	44.23	20.40	3.26	47.73	0.00	48.78	54.68	54.66	21.18
Movement LOS	D	C	B	D	C	A	D		D	D	D	C
d_A, Approach Delay [s/veh]	20.18			21.93			48.47			25.47		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	22.09											
Intersection LOS	C											
Intersection V/C	0.924											

Sequence

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



Intersection Level Of Service Report
Intersection 10: Grand Ave (NS) at SR-60 EB Ramps (EW)

Control Type:	Signalized	Delay (sec / veh):	46.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.020

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	1786	1660	1999	1141	182
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1786	1660	1999	1141	182
Peak Hour Factor	1.0000	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	473	440	529	302	48
Total Analysis Volume [veh/h]	0	1892	1758	2118	1209	193
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	15.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Split	Split
Signal group	0	2	6	0	3	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	7	7	0	7	0
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	0	61	61	0	34	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	C	R	L	R
C, Cycle Length [s]	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	57	57	57	57	30	30
g / C, Green / Cycle	0.60	0.60	0.60	0.60	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.28	0.35	0.67	0.67	0.35	0.12
s, saturation flow rate [veh/h]	6765	5074	1583	1583	3445	1583
c, Capacity [veh/h]	4056	3042	949	949	1089	501
d1, Uniform Delay [s]	10.56	11.64	19.00	19.00	32.45	25.27
k, delay calibration	0.50	0.50	0.50	0.50	0.12	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	0.81	66.35	66.35	53.36	0.49
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.58	1.12	1.12	1.11	0.39
d, Delay for Lane Group [s/veh]	10.95	12.45	85.35	85.35	85.80	25.76
Lane Group LOS	B	B	F	F	F	C
Critical Lane Group	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.70	6.50	34.07	34.07	19.60	3.25
50th-Percentile Queue Length [ft/ln]	117.48	162.38	851.68	851.68	489.96	81.23
95th-Percentile Queue Length [veh/ln]	8.25	10.67	47.65	47.65	28.65	5.85
95th-Percentile Queue Length [ft/ln]	206.36	266.87	1191.29	1191.29	716.18	146.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	10.95	12.45	85.35	85.80	25.76
Movement LOS		B	B	F	F	C
d_A, Approach Delay [s/veh]	10.95		52.28		77.54	
Approach LOS	B		D		E	
d_I, Intersection Delay [s/veh]	46.31					
Intersection LOS	D					
Intersection V/C	1.020					

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Mitigated - Year 2025 With Project

TERRACES AT WALNUT
Mitigated Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	15 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0	1! 0	0	1	0 3	0 0	0 0	2 1 0
Volume Module:												
Base Vol:	0	0	0	411	0	168	169	746	0	0	1228	646
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	424	0	173	174	770	0	0	1268	667
Added Vol:	0	0	0	14	0	20	5	459	0	0	113	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	438	0	193	179	1229	0	0	1381	674
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	438	0	193	179	1229	0	0	1381	674
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	438	0	193	179	1229	0	0	1381	674
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	438	0	193	179	1229	0	0	1381	674
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.39	0.00	0.61	1.00	3.00	0.00	0.00	2.02	0.98
Final Sat.:	0	0	0	2220	0	980	1600	4800	0	0	3226	1574
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.20	0.00	0.20	0.11	0.26	0.00	0.00	0.43	0.43
Crit Moves:						****	****				****	

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TERRACES AT WALNUT
Mitigated Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.935
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	159	1684	70	1	1120	277	407	76	416	113	108	12
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	164	1739	72	1	1156	286	420	78	430	117	112	12
Added Vol:	8	226	3	0	459	9	43	0	16	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	172	1965	75	1	1615	295	463	78	446	122	112	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	1965	75	1	1615	295	463	78	446	122	112	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	1965	75	1	1615	295	463	78	446	122	112	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	1965	75	1	1615	295	463	78	446	122	112	12
OvlAdjVol:						24			273			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.71	0.29	1.00	1.49	1.36	0.15
Final Sat.:	1600	3200	1600	1600	3200	1600	2736	464	1600	2373	2183	243
Capacity Analysis Module:												
Vol/Sat:	0.11	0.61	0.05	0.00	0.50	0.18	0.17	0.17	0.28	0.05	0.05	0.05
OvlAdjV/S:						0.02			0.17			
Crit Moves:	****				****				****	****		

TERRACES AT WALNUT
Mitigated Year 2025 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.717
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	10	1839	33	9	1289	6	2	0	7	81	2	1
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	10	1899	34	9	1331	6	2	0	7	84	2	1
Added Vol:	0	363	16	0	1195	0	0	0	0	50	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	2262	50	9	2526	6	2	0	7	134	2	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	2262	50	9	2526	6	2	0	7	134	2	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	2262	50	9	2526	6	2	0	7	134	2	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	2262	50	9	2526	6	2	0	7	134	2	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.94	0.06	1.00	2.99	0.01	1.00	0.00	1.00	1.00	0.67	0.33
Final Sat.:	1600	4696	104	1600	4788	12	1600	0	1600	1600	1067	533
Capacity Analysis Module:												
Vol/Sat:	0.01	0.48	0.48	0.01	0.53	0.53	0.00	0.00	0.00	0.08	0.00	0.00
Crit Moves:	****				****			****			****	

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TERRACES AT WALNUT
Mitigated Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Pierre Rd (NS) at Valley Blvd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.859
Loss Time (sec):	15 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	1	0	1! 0	0	1	0 3	0 0	0 0	2 1 0
Volume Module:												
Base Vol:	0	0	0	325	0	91	140	1692	0	0	1118	462
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	336	0	94	145	1747	0	0	1154	477
Added Vol:	0	0	0	9	0	11	20	316	0	0	592	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	345	0	105	165	2063	0	0	1746	487
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	345	0	105	165	2063	0	0	1746	487
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	345	0	105	165	2063	0	0	1746	487
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	345	0	105	165	2063	0	0	1746	487
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.53	0.00	0.47	1.00	3.00	0.00	0.00	2.35	0.65
Final Sat.:	0	0	0	2453	0	747	1600	4800	0	0	3753	1047
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.10	0.43	0.00	0.00	0.47	0.47
Crit Moves:				****			****				****	

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TERRACES AT WALNUT
Mitigated Year 2025 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Grand Ave (NS) at La Puente Rd (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.948
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 1	0 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	233	1535	153	7	1259	190	245	63	350	85	35	12
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	241	1585	158	7	1300	196	253	65	361	88	36	12
Added Vol:	16	668	3	0	360	17	34	0	14	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	257	2253	161	7	1660	213	287	65	375	91	36	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	257	2253	161	7	1660	213	287	65	375	91	36	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	2253	161	7	1660	213	287	65	375	91	36	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	257	2253	161	7	1660	213	287	65	375	91	36	12
OvlAdjVol:						37			119			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.63	0.37	1.00	1.96	0.77	0.27
Final Sat.:	1600	3200	1600	1600	3200	1600	2609	591	1600	3138	1238	424
Capacity Analysis Module:												
Vol/Sat:	0.16	0.70	0.10	0.00	0.52	0.13	0.11	0.11	0.23	0.03	0.03	0.03
OvlAdjV/S:						0.02			0.07			
Crit Moves:	****			****			****					****

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TERRACES AT WALNUT
Mitigated Year 2025 With Project
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Grand Ave (NS) at Garcia Ln (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.883
Loss Time (sec):	10 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	8	1544	70	41	1441	3	5	2	9	39	0	13
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	8	1594	72	42	1488	3	5	2	9	40	0	13
Added Vol:	0	1679	45	0	893	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	3273	117	42	2381	3	5	2	9	69	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	3273	117	42	2381	3	5	2	9	69	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	3273	117	42	2381	3	5	2	9	69	0	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	3273	117	42	2381	3	5	2	9	69	0	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	2.99	0.01	1.00	0.18	0.82	1.00	0.00	1.00
Final Sat.:	1600	4634	166	1600	4794	6	1600	291	1309	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.71	0.71	0.03	0.50	0.50	0.00	0.01	0.01	0.04	0.00	0.01
Crit Moves:		****		****				****		****		

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