TRAFFIC IMPACT ANALYSIS FOR THE EAST AREA 1 SPECIFIC PLAN

NOVEMBER 2007

PREPARED FOR

LIMONEIRA COMPANY

PREPARED BY

FEHR & PEERS

KAKU ASSOCIATES

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EXECUTIVE SUMMARY

This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers/Kaku Associates to evaluate the potential traffic impacts of the proposed development that would be allowed under the East Area 1 Specific Plan immediately east of Santa Paula, California. The following summarizes the findings of the study:

- Weekday a.m. and p.m. peak hour capacity analyses were conducted at 40 existing and future intersections, five multilane highway/freeway segments, and 12 freeway ramp junctions on the local and regional street system in the vicinity of the project site. Three of the 35 existing study intersections currently operate at level of service (LOS) D or worse during the p.m. peak hour. The five multilane highway/freeway segments operate at LOS C or better during both peak hours. One of the three ramp junctions currently operates at LOS D during the p.m. peak hour. The results of the intersection analysis for existing and future conditions are summarized in Table ES-1.

- Under year 2020 cumulative base (i.e., future no project) conditions, 11 analyzed intersections are projected to operate below the desirable LOS (LOS D or worse) during at least one of the analyzed peak hours, including two that currently operate at LOS D or worse. The planned installation of traffic signals at the 10th Street and Palm Avenue freeway interchanges will result in acceptable levels of service at each interchange (study intersections 16, 17, 26 and 27). One freeway segment is projected to decline to LOS E under cumulative base conditions. Two ramp junctions are projected to operate at LOS D or worse during either peak period under cumulative base conditions. The cumulative base forecasts were based on the use of the City's Transportation Model and include growth over existing traffic volumes to reflect the effects of overall regional growth and development outside the study area and the traffic generated by specific cumulative development projects located elsewhere in or adjacent to the City of Santa Paula.

- The proposed East Area 1 Specific Plan would allow a maximum development within the project site that includes a total of 285,000 square feet (sf) commercial use (including 210,000 sf for office/retail uses and 75,000 sf of assisted living facilities), approximately 375,000 sf institutional use (including a high school, an elementary school, a community college and civic facilities), 150,000 sf light industrial use, 1,500 residential dwelling units, and approximately 66 acres of parks and greenways, 23 acres of shared athletic fields, and 134 acres of agricultural preserve. It is estimated to generate approximately 25,848 external daily trips on weekdays, with approximately 2,244 external trips during the weekday a.m. peak hour and 2,229 external trips during the weekday p.m. peak hour.

TABLE ES-1
EXTERNAL INTERSECTION LEVEL OF SERVICE ANALYSIS COMPILATION

Intersections	Peak Hour	Existing Year 2006		Cumulative Base Year 2020		Cumulative plus Project Year 2020		Cumulative plus Project with Mitigations Year 2020	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Santa Paula Freeway (SR-126) & Hallock Drive	AM	0.476	A	0.694	B	1.070	F	0.687	B
	PM	0.584	A	0.939	E	1.183	F	0.750	C
2. Telegraph Road & Hallock Drive [a]	AM	13	B	133	F	286	F	0.678	B
	PM	16	C	77	F	364	F	0.616	B
3. Telegraph Road/Main Street & Harvard Boulevard [a]	AM	10	A	17	C	21	C		
	PM	10	A	13	B	14	B		
4. 12th Street & Santa Paula Street [a]	AM	9	A	13	B	159	F	0.788	C
	PM	11	B	39	E	250	F	0.773	C
5. 12th Street & Santa Barbara Street [a]	AM	12	B	16	C	15	C		
	PM	14	B	22	C	20	C		
6. 12th Street & Main Street	AM	0.268	A	0.550	A	0.481	A		
	PM	0.377	A	0.720	C	0.595	A		
7. 12th Street & Harvard Boulevard	AM	0.367	A	0.432	A	0.481	A		
	PM	0.389	A	0.633	B	0.689	B		
8. 12th Street/South Mountain Road & Lemon Road [a]	AM	9	A	9	A	10	A		
	PM	10	B	13	B	13	B		
9. Ojai Road (SR-150) & Richmond Road [a]	AM	21	C	36	E	45	E	12	B
	PM	21	C	40	E	46	E	11	B
10. Ojai Road (SR-150) & Orchard Street [a]	AM	18	C	27	D	31	D	0.407	A
	PM	17	C	34	D	40	E	0.622	B
11. Ojai Road (SR-150) & Saticoy Street [a]	AM	20	C	47	E	41	E	13	B
	PM	23	C	30	D	21	C	11	B
12. Ojai Road (SR-150)/10th Street & Santa Paula Street	AM	0.694	B	0.833	D	0.867	D	0.792	C
	PM	0.762	C	0.845	D	0.826	D	0.668	B
13. 10th Street (SR-150) & Santa Barbara Street	AM	0.640	B	0.725	C	0.700	B		
	PM	0.592	A	0.625	B	0.563	A		
14. 10th Street (SR-150) & Main Street	AM	0.575	A	0.751	C	0.745	C		
	PM	0.549	A	0.701	C	0.663	B		
15. 10th Street (SR-150) & Harvard Boulevard	AM	0.762	C	0.869	D	0.956	E	0.720	C
	PM	0.723	C	0.864	D	0.929	E	0.754	C
16. 10th Street (SR-150) & SR-126 WB ramps	AM	11	B	0.682	B	0.666	B		
	PM	14	B	0.557	A	0.518	A		
17. 10th Street (SR-150) & SR-126 EB ramps	AM	14	B	0.362	A	0.353	A		
	PM	77	F	0.526	A	0.541	A		

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE ES-1 (CONTINUED)
EXTERNAL INTERSECTION LEVEL OF SERVICE ANALYSIS COMPILATION

Intersections	Peak Hour	Existing Year 2006		Cumulative Base Year 2020		Cumulative plus Project Year 2020		Cumulative plus Project with Mitigations Year 2020	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
18. 8th Street & Santa Paula Street [a]	AM	11	B	14	B	29	D	24	C
	PM	10	B	15	B	25	D	20	C
19. 8th Street & Main Street	AM	0.289	A	0.426	A	0.503	A		
	PM	0.386	A	0.607	B	0.628	B		
20. 8th Street & Harvard Boulevard	AM	0.244	A	0.307	A	0.406	A		
	PM	0.360	A	0.529	A	0.564	A		
21. 6th Street & Santa Paula Street [a]	AM	16	C	19	C	24	C		
	PM	14	B	20	C	24	C		
22. Palm Avenue & Santa Paula Street [a]	AM	13	B	17	C	26	D	23	C
	PM	11	B	14	B	17	C	15	B
23. Palm Avenue & Santa Barbara Street [a]	AM	12	B	16	C	18	C		
	PM	13	B	20	C	22	C		
24. Palm Avenue & Main Street	AM	0.441	A	0.608	B	0.638	B		
	PM	0.438	A	0.545	A	0.569	A		
25. Palm Avenue & Harvard Boulevard	AM	0.496	A	0.619	B	0.645	B		
	PM	0.615	B	0.738	C	0.757	C		
26. Palm Avenue & SR-126 WB ramps	AM	11	B	0.526	A	0.529	A		
	PM	13	B	0.475	A	0.478	A		
27. Palm Avenue & SR-126 EB ramps	AM	14	B	0.301	A	0.310	A		
	PM	25	D	0.500	A	0.503	A		
28. Steckel Drive & Santa Paula Street [a]	AM	10	B	23	C	27	D	20	C
	PM	10	B	22	C	25	C	24	C
29. Steckel Drive & Main Street [a]	AM	12	B	14	B	15	B		
	PM	13	B	16	C	17	C		
30. Steckel Drive & Harvard Boulevard	AM	0.401	A	0.447	A	0.453	A		
	PM	0.392	A	0.469	A	0.477	A		
31. Peck Road & Santa Paula Street [a]	AM	9	A	16	C	17	C		
	PM	8	A	10	B	10	B		
32. Peck Road & Main Street/Harvard Boulevard	AM	0.498	A	0.678	B	0.697	B	0.565	A
	PM	0.688	B	0.833	D	0.858	D	0.709	C
33. Peck Road & Faulkner Road	AM	0.312	A	0.445	A	0.445	A		
	PM	0.509	A	0.607	B	0.616	B		
34. Peck Road & SR-126 EB ramps [a]	AM	9	A	9	A	10	A	0.296	A
	PM	30	D	55	F	58	F	0.656	B
35. Faulkner Road & SR-126 WB ramps [a]	AM	16	C	28	D	29	D	12	B
	PM	12	B	14	B	15	B	12	B

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

- According to the significant impact criteria employed by the City of Santa Paula, the proposed project would cause or contribute to significant impacts at 13 intersections and on one freeway segment. Of the 13 intersections projected to operate at LOS D or worse under future with project conditions, 11 are projected to operate at LOS D or worse prior to the addition of project traffic. Of those, the project will result in a lower level of service at seven locations in either or both peak hours. The project will contribute traffic to but will not worsen the projected levels of service at most external study intersections. The five key internal intersections are projected to operate at an acceptable level of service. The eastward extension of Santa Paula Street to Hallock Drive will divert some background traffic through the project site and will actually decrease the amount of traffic projected to travel through several of the analyzed locations. In addition to the 10 cumulatively impacted intersections, the project will result in LOS D at three locations that would operate at LOS B or LOS C without the addition of project traffic.

- Mitigation measures were developed to fully mitigate (to LOS C or better) the cumulative and project traffic impacts that were identified at each study intersection. The results of the intersection analysis under each scenario are summarized in Table ES-1.

- An alternative future scenario was analyzed that assumed that Hallock Drive would be extended northwest of East Area 1 to connect to Ojai Road, forming a functional by-pass route to SR-150 through the City. This analysis shows that three fewer intersection impacts would occur under this scenario, each of which could be fully mitigated.

I. INTRODUCTION

This report documents the results of a traffic study conducted by Fehr & Peers/Kaku Associates to evaluate the potential traffic impacts of the development under the Santa Paula East Area 1 Specific Plan, in the City of Santa Paula, California. The study provides analysis of potential traffic impacts on the external roadway system associated with the project at completion of all the proposed elements in 2020. This document includes a description of the assumptions and methods used to conduct the study as well as a discussion of the results.

PROJECT DESCRIPTION

The East Area 1 Specific Plan project site is located on approximately 501 acres along the eastern edge of the existing city limit, between the east bank of Santa Paula Creek and the west bank of Haun Creek. The southern boundary of the project area is the Santa Paula Railway Branch Line, running parallel to the Santa Paula Freeway (SR-126) and the northern boundary extends into the foothills. East Area 1 is currently situated in an unincorporated area of Ventura County. The project site is identified as an expansion area in the City of Santa Paula General Plan and, as part of the Specific Plan process, would be annexed to the City. Figure 1 illustrates the location of the East Area 1 Specific Plan project site in the context of the surrounding street system.

As proposed in the June 1, 2006 East Area 1 Specific Plan, the maximum allowable development in the project area will include a total of 285,000 square feet (sf) commercial use (including 210,000 sf of office/retail uses and 75,000 sf of assisted living facilities), 375,000 sf institutional use (including a high school, an elementary school, a community college and civic facilities), 150,000 sf light industrial use, 75,000 sf of assisted living, 1,500 residential dwelling units and approximately 66 acres of parks and greenways, 23 acres of shared athletic fields, and an additional 134 acres of agricultural preserve. These land uses will be divided into five specific neighborhoods/districts within the project site. These neighborhoods/districts are shown in Figure 2. The following summarizes the development density proposed for each neighborhood:

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FIGURE 1
PROJECT SITE LOCATION/STUDY AREA

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FIGURE 2
ILLUSTRATIVE SITE PLAN

- Santa Paula Creek Neighborhood – 326 dwelling units, 5.1 acres of park space and an additional 14.3 acres of agricultural preserve and 21.4 acres of roads and medians

- Foothill Neighborhood – 359 dwelling units, 11.4 acres of parks and greenways and an additional 120.1 acres of agricultural preserve and 26 acres of roads and medians

- Santa Paula Creek Civic District – 110,440 sf high school, 165,000 sf community college, 65,000 sf shared facilities, 12 acres of parks and greenways, 23.2 acres of shared athletic fields, and 13.1 acres of roads and medians

- Haun Creek Neighborhood – up to 745 dwelling units, 75,000 sf assisted living facility, 150,000 sf commercial/office space, 35,400 sf elementary school, 37.3 acres of parks and greenways and an additional 21 acres of roads and medians

- East Santa Paula Railroad District – 70 live/work dwelling units, 60,000 sf commercial/office space, 150,000 sf light industrial and 2.4 acres of roads and medians

Numerous new streets are proposed within the East Area 1 Specific Plan and modifications to the existing roadway system are proposed. The eastern extension of Santa Paula Street across the Santa Paula Creek and the northern extension of Hallock Drive into the project site will provide the primary access points into East Area 1. The Santa Paula Creek Bridge will provide a bicycle lane and will connect to the planned network of off-street trails within East Area 1, including facilities on the east side of the Santa Paula Creek, the east side of portions of Hallock Drive and an extensive network of trails north of the planned residential neighborhoods. Connections to the City's planned bikeway system would occur on Hallock Drive (linking to the future Santa Paula Branch Line Trail) and on Santa Paula Street (linking to the planned extension of the existing bicycle lanes on that street). The existing grade crossing at Padre Lane would be closed and a new grade crossing created at Hallock Drive; the design and construction of this new grade crossing would be coordinated with and approved by both the City and the California Public Utilities Commission (CPUC). While not proposed as part of the project itself, the extension of Hallock Road northwest over the Santa Paula Creek to create a functional by-pass route to SR-150 is possible and an alternative with that extension was fully analyzed.

STUDY SCOPE

The study analyzed potential project-generated traffic impacts on the local and regional street system surrounding the project site. The following traffic scenarios were analyzed for the

weekday a.m. peak hour (between 7:00 and 9:00 a.m.) and the weekday p.m. peak hour (between 4:00 and 6:00 p.m.).

- Existing Conditions - The analysis of existing traffic conditions intends to provide a basis for the remainder of the study. The existing conditions analysis includes an assessment of streets, traffic volumes, and operating conditions.

- Cumulative Base Conditions (Year 2020) - Future traffic conditions are projected without the proposed project. The objective of this phase of analysis is to project future traffic growth and operating conditions that could be expected to result from regional ambient growth and cumulative projects.

- Cumulative plus Project Conditions (Year 2020) - This is an analysis of future traffic conditions with traffic expected from the proposed project added to the cumulative base traffic forecasts. The objective of this phase of analysis was to identify potential impacts of the project.

- Cumulative plus Project plus By-Pass Conditions (Year 2020) - This is an analysis of future traffic conditions with traffic expected from the proposed project added to the cumulative base traffic forecasts. The objective of this phase of analysis was to identify potential impacts of the project as well as traffic shifts expected to occur if Hallock Drive were extended northwest over the Santa Paula Creek to create a functional by-pass to SR-150. The objective was to identify potential impacts of the project under this scenario.

The area of study encompasses the entire City as well as area to the south of the City, and includes 35 external intersections analyzed for each of the traffic scenarios described above, as well as five internal intersections analyzed under the future plus project scenarios. The selection of these intersections was based on input received from the public and discussions with City staff, as well as a review of previous studies. While there are no nearby intersections on the two rural roads providing access to/from the east (SR-126 and South Mountain Road) beyond the study area described below, the study area includes roadway links on both of those access routes. This study area is consistent with previous studies of large development projects that have been proposed in the City. These study intersections are shown in Figure 1 and are as follows:

1. SR-126 & Hallock Drive
2. Telegraph Road & Hallock Drive
3. Telegraph Road/Main Street & Harvard Boulevard
4. 12th Street & Santa Paula Street
5. 12th Street & Santa Barbara Street
6. 12th Street & Main Street

7. 12th Street & Harvard Boulevard
8. 12th Street/South Mountain Road & Lemon Road
9. Ojai Road (SR-150) & Richmond Road
10. Ojai Road (SR-150) & Orchard Street
11. Ojai Road (SR-150) & Saticoy Street
12. Ojai Road (SR-150)/10th Street & Santa Paula Street
13. 10th Street (SR-150) & Santa Barbara Street
14. 10th Street (SR-150) & Main Street
15. 10th Street (SR-150) & Harvard Boulevard
16. 10th Street & SR-126 westbound ramps
17. 10th Street & SR-126 eastbound ramps
18. 8th Street & Santa Paula Street
19. 8th Street & Main Street
20. 8th Street & Harvard Boulevard
21. 6th Street & Santa Paula Street
22. Palm Avenue & Santa Paula Street
23. Palm Avenue & Santa Barbara Street
24. Palm Avenue & Main Street
25. Palm Avenue & Harvard Boulevard
26. Palm Avenue & SR-126 westbound ramps
27. Palm Avenue & SR-126 eastbound ramps
28. Steckel Drive & Santa Paula Street
29. Steckel Drive & Main Street
30. Steckel Drive & Harvard Boulevard
31. Peck Road & Santa Paula Street
32. Peck Road & Main Street/Harvard Boulevard
33. Peck Road & Faulkner Road
34. Peck Road & SR-126 eastbound ramps
35. Faulkner Road & SR-126 westbound ramps
36. Hallock Drive & Santa Paula Street (future intersection)
37. Hallock Drive & Teague-McKevett Boulevard (future intersection)
38. Santa Paula Creek Drive & Santa Paula Street (future intersection)
39. Santa Paula Creek Drive & Teague-McKevett Boulevard (future intersection)
40. Santa Paula Creek Drive & Hallock Drive (future intersection)

Intersections 1-35 are currently existing intersections external to the project site. Of these intersections, 14 intersections operate under signal control; the remaining 21 intersections are stop-controlled. Intersections 36-40 are future intersections that would be constructed within the project site. Of these intersections, it is assumed that one would be signalized and the remaining four would be stop-controlled. Diagrams of the lane configurations at the study intersections are provided in Appendix A.

Five freeway/multilane highway segments were also selected for analysis under the traffic scenarios described above. These segments are illustrated in Figure 1 and are as follows:

1. SR-126 between Sespe Ranch and Hallock Drive
2. SR-126 between Hallock Drive and 10th Street
3. SR-126 between 10th Street and Palm Avenue
4. SR-126 between Palm Avenue and Peck Road
5. SR-126 between Peck Road and Briggs Road

Of these five segments, Segment 1 is classified as a multilane highway; Segments 2 through 5 are classified as freeway segments. As defined in *Highway Capacity Manual* (HCM) (Transportation Research Board, 2000), a multilane highway is a "highway with at two lanes for the exclusive use of traffic in each direction, with no control or partial control of access." A freeway is defined as "a multilane, divided highway with a minimum of two lanes for the exclusive use of traffic in each direction and full control of access without traffic interruption."

In addition to the freeway/highway segments, 12 ramp junctions along SR-126 were analyzed for the scenarios described above. These locations include:

- 10th Street & SR-126 – eastbound and westbound, on- and off-ramps
- Palm Avenue & SR-126 – eastbound and westbound, on- and off-ramps
- Peck Road & SR-126 – eastbound and westbound, on- and off-ramps

ORGANIZATION OF REPORT

This report is divided into an Executive Summary and five chapters, including this introductory chapter. Chapter II describes the existing conditions, including the circulation system, traffic volumes, and traffic conditions in the study area. The methodologies used to forecast future traffic volumes are described in Chapter III. Chapter IV presents an assessment of potential traffic impacts and improvements for the cumulative plus project scenario, i.e., future conditions with the addition of project traffic. It also presents discussion of the Congestion Management Program (CMP) analysis of the project's fair share contribution to the identified mitigation measures and of the project's consistency with Circulation Element of the Santa Paula General Plan. Chapter V presents an assessment of an alternative future scenario in which Hallock Drive would be extended northwest of East Area 1 over Santa Paula Creek to create a functional by-pass to SR-150. Appendices to this report include details of the technical analysis.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing traffic conditions in the study area. The assessment of conditions relevant to this study includes an inventory of the street system, traffic volumes on these facilities, and operating conditions at key intersections.

EXISTING STREET SYSTEM

Primary regional access is provided by SR-126 in an east-west direction. Secondary regional access is provided by Ojai Road (SR-150)/10th Street and 12th Street/South Mountain in the north and south directions, respectively. Immediately south of the project site is Telegraph Road; no other existing streets directly border the project site. The following provides a brief description of the streets adjacent to the project site and those providing regional access to the site:

- Telegraph Road/Main Street – Telegraph Road is an east-west street extending west from Hallock Drive to the intersection of Harvard Boulevard. Telegraph Road is south of the southern boundary of the site and is a two-lane road divided by a single dashed yellow line. On-street parking is available on both sides of the street and the speed limit is 35 miles per hour (mph). West of the Harvard Boulevard intersection, the roadway is named Main Street. Main Street continues as a two-lane road divided street with either a single dashed yellow line or a double yellow line. On-street parking is available on both sides of the street and the speed limit ranges from 25 mph to 35 mph.

- Hallock Drive - Hallock Drive is a north-south street between Telegraph Road and SR-126, providing site access from the freeway. Hallock Drive is currently a four-lane roadway divided by a two-way left-turn lane. On-street parking is available on both sides of the street and the speed limit is 25 mph.

- SR-126 – SR-126 is an east-west freeway providing access to Fillmore and Santa Clarita to the east and to Ventura and Oxnard to the west. SR-126 is a four-lane divided freeway west of Hallock Drive with a speed limit of 65 mph; east of Hallock Drive, it is a four-lane highway divided by a two-way left-turn lane with a speed limit of 60 mph.

- Ojai Road (SR-150)/10th Street – Ojai Road (SR-150) is a north-south road providing access to Ojai towards the north and through Santa Paula north of Santa Paula Street. Ojai Road is a two-lane road, generally divided by a double yellow line with varying on-street parking availability. The speed limit is 35 mph. South of Santa Paula Street, SR-150 continues as 10th Street. 10th Street is also a two-lane road providing access to the SR-126 and divided by a double yellow line with a speed limit of 25 mph.

- 12th Street/South Mountain Road – 12th Street is a north-south road leading to South Mountain Road, which provides access to Moorpark to the south. 12th Street is a two-lane road with on-street parking available north of Harvard Boulevard with a speed limit of 25 mph. South of Harvard Boulevard, 12th Street leads to South Mountain Road, a rural two-lane road with no on-street parking allowed and a speed limit of 25 mph.

Descriptions of these and other streets in the study area are listed in Table 1.

EXISTING TRANSIT SERVICE

The Ventura Intercity Service Transit Authority (VISTA) currently provides transit service in the City of Santa Paula. No existing service is provided directly to the project site, as it is currently undeveloped. The following is a description of the existing transit service in the City:

- Dial-A-Ride – A demand responsive service with citywide coverage.

- Santa Paula Commuter Bus – The Commuter Bus is service-oriented for local students, only operating on school days. The route provides service to city schools and operates three times daily on school days. It follows the full route in the morning and afternoon with an additional run following a shortened route.

- Vista Highway 126 – This is a commuter-oriented line that provides service between Fillmore and Ventura. During the a.m. peak, the line primarily travels west into Ventura; during the p.m. peak, the line travels to points east of Ventura. The line operates Monday through Friday on approximately 60-minute headways during the peak periods.

EXISTING BICYCLE FACILITIES

There are currently 3.0 miles of designated bicycle facilities within the City of Santa Paula, spread among four facilities; of which, approximately two miles are along Santa Paula Street. There are no existing bicycle facilities within the project site.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing peak hour traffic volumes at each analyzed location, a description of the methodology used to analyze the intersection traffic conditions, and the resulting level of service at each location under existing conditions.

Existing Traffic Volumes

New weekday peak period traffic counts (from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m.) were collected in early and mid-November and December 2006 for use in this study, representing existing (year 2006) conditions. This data was collected outside of weeks with major holidays and is provided in Appendix B. The peak hour volumes are shown in Figure 3 and were used to determine the existing weekday a.m. and p.m. peak hour intersection levels of service. The peak hour volumes used to determine the segment levels of service were derived from the peak hour intersection counts. These volumes are also illustrated in Figure 3.

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. Tables 2 and 3 provide level of service definitions for signalized and stop-controlled intersections, respectively. Table 4 provides the level of service definitions for freeways and multilane highways and Table 5 details the level of service definitions for ramps and ramp junctions.

The Intersection Capacity Utilization method of intersection analysis was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service for the turning movements and intersection characteristics at the signalized intersections. Based on the calculation methodology described in *2004/2005 Ventura County Congestion Management Program* (VCCMP) (Ventura County Transportation Commission, 2005), the lane capacity at signalized intersections is assumed to be 1,600 vehicles per lane per hour. Fourteen of the analyzed intersections are currently controlled by traffic signals.

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

SEGMENT	FROM	TO	LANES		MEDIAN	PARKING RESTRICTIONS		SPEED	FUNC.
			NB/EB	SB/WB	TYPE	NB/EB	SB/WB	LIMIT	CLASS
Santa Maria St	Peck Rd	8th St	1	1	SDY	NSAT	PA	35	C
	8th St	10th St	1	1	UD	NSAT	NSAT	15	C
SR-126	Briggs Rd	Peck Rd	2	2	FWY	NPAT	NPAT	65	H
	Peck Rd	Palm Av	2	2	FWY	NPAT	NPAT	65	H
	Palm Av	10th St	2	2	FWY	NPAT	NPAT	65	H
	10th St	Hallock Dr	2	2	FWY	NPAT	NPAT	65	H
	Hallock Dr	Peres Ln	2	2	DY	NPAT	NPAT	60	H
Harvard Bl	Calavo Dr	Peck Rd	1	1	2LT	PA	PA	35	A
	Peck Rd	Laurie Ln	2	2	2LT	PA	PA	35	A
	Laurie Ln	Steckel Dr	2	2	2LT	NPAT	PA	35	A
	Steckel Dr	Palm Av	2	2	2LT	PA	PA	35	A
	Palm Av	8th St	2	2	2LT	PA	PA	35	A
	8th St	10th St	2	2	2LT	PA	NSAT	35	A
	10th St	12th St	1	1	2LT	PA	NSAT	35	A
	12th St	Telegraph Rd	2	2	2LT	PA	PA	35	A
Ventura St	<west end>	7th St	1	1	UD	PA	PA	25	L
	7th St	8th St	1	1	DY	PA	PA	25	L
	8th St	Mill St	1	1	SDY	PA	PA	25	L
	Mill St	10th St	1	1	UD	DPA	PA	25	L
	10th St	Harvard Bl	1	1	UD	PA	PA	25	L
Main St	Peck Rd	Lucada St	1	1	DY	NPAT	PA	35	A
	Lucada St	Steckel St	1	1	DY	NPAT	PA	35	A
	Steckel	4th St	1	1	DY	NPAT	PA	35	A
	4th St	7th St	1	1	DY	PA	PA	35	A
	7th St	8th St	1	1	DY	PA	DPA	25	A
	8th St	10th St	1	1	DY	DPA	DPA	25	A
	10th St	11th St	1	1	DY	PA	DPA	25	A
	11th St	12th St	1	1	SDY	PA	PA	25	A
	12th St	Harvard Bl	1	1	SDY	PA	PA	35	A
Telegraph Rd	Harvard Bl	Hallock Dr	1	1	SDY	PA	PA	35	A
Santa Barbara St	Dean Dr	12th St	1	1	SDY	PA	PA	30	C
Santa Paula St	<west end>	Peck Rd	1	1	SDY	No Parking	PA	35	C
	Peck Rd	Ojai Rd	1	1	SDY	PA	PA	35	C
	Ojai Rd	Grant Line St	1	1	SDY	PA	PA	35	C
Saticoy St	Ojai Rd	12th St	1	1	SDY	PA	PA	25	L
	12th St	Grant Line St	1	1	UD	PA	PA	25	L
Orchard St	Ojai Rd	14th St	1	1	UD	PA	PA	25	L
Richmond St	Ojai Rd	12th St	1	1	DY	PA	PA	25	L
	12th St	14th St	1	1	SDY	PA	PA	25	L
Peck Rd	Foothill Rd	Richard Rd	1	1	DY	NSAT	NSAT	40	A
	Richard Rd	Santa Paula St	1	1	SDY	PA	NSAT	40	A
	Santa Paula St	Fillmore St	1	1	SDY	PA	NSAT	40	A
	Fillmore St	Harvard Bl	1	1	SDY	PA	PA	40	A
	Harvard Bl	Acacia Wy	1	1	DY	NPAT	NPAT	40	A
Steckel Dr	Richard Rd	Main St	1	1	UD	PA	PA	25	C
	Main St	Harvard Bl	1	1	DY	PA	NSAT	25	C
	Harvard Bl	Santa Anna St	1	1	UD	PA	PA	25	C
Palm Av	Pleasant	Main St	1	1	SDY	PA	PA	30	A
	Main St	Harvard Bl	1	1	SDY	PA	NSAT	30	A
	Harvard Bl	Santa Maria St	1	1	DY	NSAT	NSAT	30	A
6th St	Virginia Ter	Santa Paula St	1	1	SDY	PA	PA	25	A
	Santa Paula St	Santa Barbara St	1	1	UD	PA	PA	25	A
8th St	Virginia Ter	Railroad Av	1	1	SDY	PA	PA	30	C
	Railroad Av	Santa Barbara St	1	1	DY	PA	PA	30	C
	Santa Barbara St	Harvard Bl	1	1	SDY	PA	PA	30	C
	Harvard Bl	Santa Maria	1	1	DY	NPAT	NPAT	30	C
10th St	Mckevett Rd	Virginia Ter	1	1	DY	NPAT	PA	25	L
	Virginia Ter	Santa Barbara St	1	1	DY	PA	PA	25	L
	Santa Barbara St	Ventura St	1	1	2LT	PA	PA	25	H
	Ventura St	Santa Maria St	1	1	DY	PA	PA	25	H
Ojai Rd	<north end>	Orchard St	1	1	DY	PA	PA	35	H
	Orchard St	Saticoy St	1	1	2LT	NSAT	PA	35	H
	Saticoy St	10th St	1	1	DY	PA	PA	25	H
12th St	Richmond	Santa Paula St	1	1	SDY	PA	PA	25	C
	Santa Paula St	Main St	1	1	DY	PA	PA	25	A
	Main St	Harvard Bl	1	1	SDY	PA	PA	25	A
	Harvard Bl	South Mountain Rd	1	1	DY	NSAT	NSAT	25	A
Hallock Dr	Telegraph Rd	SR 126	2	2	2LT	NPAT	PA	25	C

Notes:

MEDIAN TYPE: DY = Double Yellow Centerline
SDY = Single Dashed Yellow Centerline
2LT = Dual Left Turn Centerline
UD = Undivided Lane
FWY = Freeway

LANES: # = Number of lanes

PARKING: PA = Parking Allowed
NSAT = No Stopping Anytime
DPA = Diagonal Parking
NPAT = No Parking Anytime

FUNC CLASS: A = Arterial
C = Collector
H = Highway
L = Local

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FIGURE 3
EXISTING INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

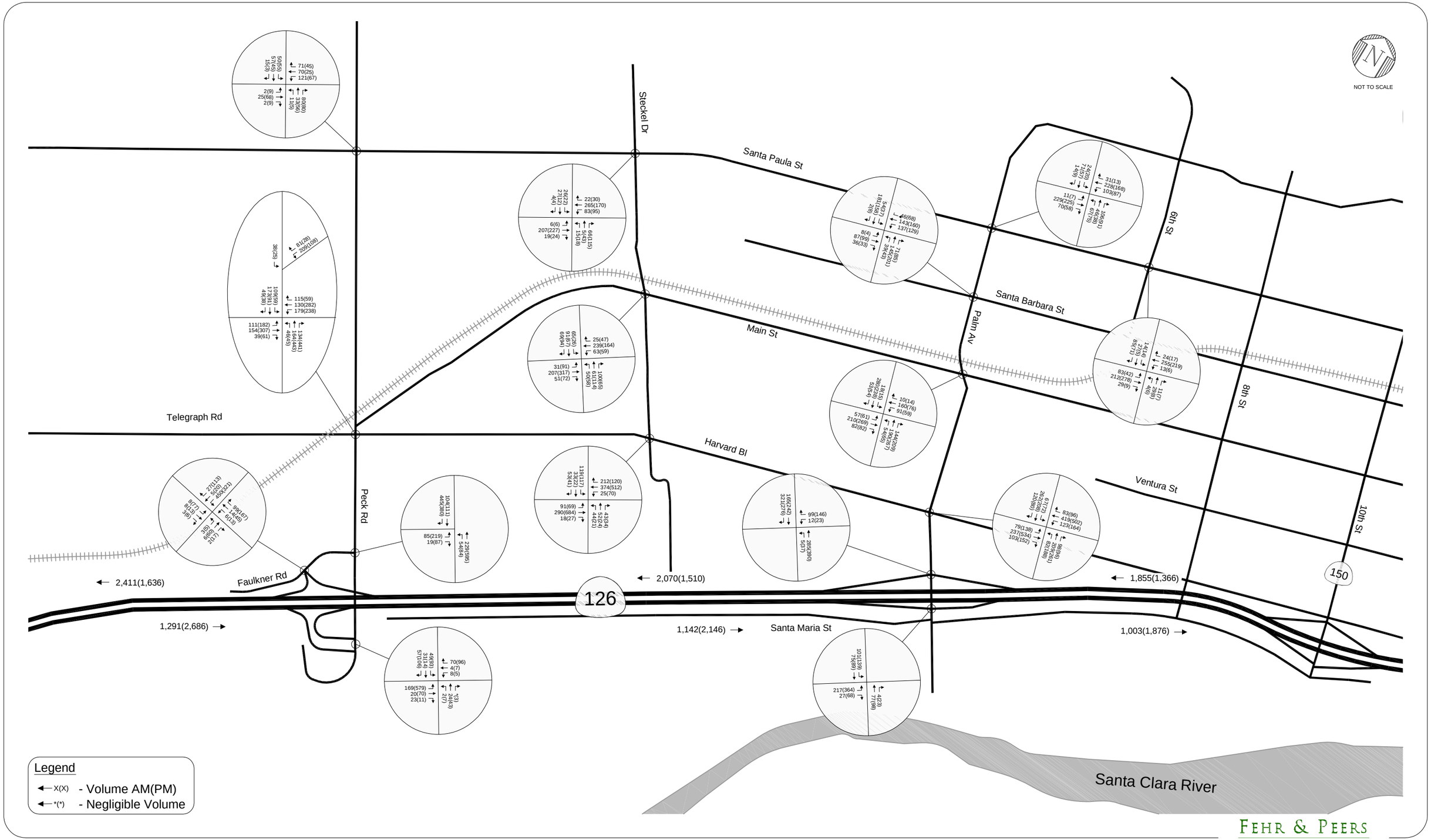

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FIGURE 3 (CONTINUED)
EXISTING INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

TABLE 3
LEVEL OF SERVICE DEFINITIONS FOR STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Vehicle Delay (seconds)
A	0 to 10
B	>10 to 15
C	>15 to 25
D	>25 to 35
E	>35 to 50
F	> 50

Source: *Highway Capacity Manual,* Transportation Research Board, 2000.

TABLE 4
LEVEL OF SERVICE DEFINITIONS FOR
FREEWAY MAINLINE AND
MULTILANE HIGHWAY SEGMENT ANALYSES

LOS Criteria for Freeway Segments [1]

Level of Service	Density Range (pc/mi/ln)*
A	0-11
B	>11-18
C	>18-26
D	>26-35
E	>35-45
F	>45

LOS Criteria for Multilane Highway Segments [2]

Level of Service	Density Range (pc/mi/ln)*
A	≤ 11
B	≤ 18
C	≤ 26
D	≤ 35
E	≤ 40
F	> 40

Note:
* pc/mi/ln denotes passenger cars per mile per lane
Sources:
1. *Highway Capacity Manual,* Exhibit 23-3, Transportation Research Board, 2000.
2. *Highway Capacity Manual*, Exhibit 21-2.

TABLE 5
LEVEL OF SERVICE DEFINITIONS FOR
FREEWAY RAMPS AND RAMP JUNCTIONS

LOS Criteria for Merge and Diverge Areas

Level of Service	Density Range (pc/mi/ln) [a]
A	≤ 10
B	>10-20
C	>20-28
D	>28-35
E	>35
F	Demand exceeds capacity [b]

Source: Highway Capacity Manual, Exhibit 25-4.

[a] Basic freeway segments, ramp junctions, and weaving areas level of service are measured with density (passenger car per mile per lane or pc/mi/ln).

[b] LOS F exists when the total flow departing from the merge area exceeds the capacity of the downstream freeway segments. No density will be predicted for such cases - Exhibit 25-4, HCM 2000.

HCM methodologies were used for analysis of the stop-controlled intersections; the controlled vehicular delay in seconds is reported rather than V/C ratio. Twenty-one of the analyzed intersections are currently stop-controlled.

The Freeway and Multilane Highway methodologies as described in the HCM were used to determine the vehicle density on each analyzed segment (passenger cars per mile per lane) by direction and the corresponding level of service.

The methodology for evaluating ramps and ramp junctions described in the HCM were used to determine the vehicle density (passenger cars per mile per lane) of each ramp junction by direction and the corresponding level of service.

The Circulation Element of the City of Santa Paula General Plan defines LOS C as the minimum desirable level of service for intersection operations. The VCCMP indicates that LOS E is the minimum desirable level of service across the CMP roadway network.

Existing Intersection Levels of Service

Table 6 summarizes the existing weekday a.m. and p.m. peak hour LOS at the 35 analyzed intersections. The detailed LOS calculations are presented in Appendix C. Of the 14 signalized intersections, all currently operate at LOS C or better during both the a.m. and p.m. peak hours. Of the 21 stop-controlled intersections, all currently operate at LOS C or better during the a.m. peak hour. Three stop-controlled intersections operate at LOS D or worse during the p.m. peak period, including:

17. 10th Street & SR-126 eastbound ramps
27. Palm Avenue & SR-126 eastbound ramps
34. Peck Road & SR-126 eastbound ramps

TABLE 6
EXTERNAL INTERSECTION LEVEL OF SERVICE ANALYSIS
EXISTING (2006) CONDITIONS

Intersections	Peak Hour	Existing Year 2006	
		V/C or Delay	LOS
1. Santa Paula Freeway (SR-126) & Hallock Drive	AM PM	0.476 0.584	A A
2. Telegraph Road & Hallock Drive [a]	AM PM	13 16	B C
3. Telegraph Road/Main Street & Harvard Boulevard [a]	AM PM	10 10	A A
4. 12th Street & Santa Paula Street [a]	AM PM	9 11	A B
5. 12th Street & Santa Barbara Street [a]	AM PM	12 14	B B
6. 12th Street & Main Street	AM PM	0.268 0.377	A A
7. 12th Street & Harvard Boulevard	AM PM	0.367 0.389	A A
8. 12th Street/South Mountain Road & Lemon Road [a]	AM PM	9 10	A B
9. Ojai Road (SR-150) & Richmond Road [a]	AM PM	21 21	C C
10. Ojai Road (SR-150) & Orchard Street [a]	AM PM	18 17	C C
11. Ojai Road (SR-150) & Saticoy Street [a]	AM PM	20 23	C C
12. Ojai Road (SR-150)/10th Street & Santa Paula Street	AM PM	0.694 0.762	B C
13. 10th Street (SR-150) & Santa Barbara Street	AM PM	0.640 0.592	B A
14. 10th Street (SR-150) & Main Street	AM PM	0.575 0.549	A A
15. 10th Street (SR-150) & Harvard Boulevard	AM PM	0.762 0.723	C C
16. 10th Street (SR-150) & SR-126 WB ramps [a]	AM PM	11 14	B B
17. 10th Street (SR-150) & SR-126 EB ramps [a]	AM PM	14 77	B F

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*
Fehr & Peers/Kaku Associates, June 2007.

TABLE 6 (continued)
EXTERNAL INTERSECTION LEVEL OF SERVICE ANALYSIS
EXISTING (2006) CONDITIONS

Intersections	Peak Hour	Existing Year 2006	
		V/C or Delay	LOS
18. 8th Street & Santa Paula Street [a]	AM PM	11 10	B B
19. 8th Street & Main Street	AM PM	0.289 0.386	A A
20. 8th Street & Harvard Boulevard	AM PM	0.244 0.360	A A
21. 6th Street & Santa Paula Street [a]	AM PM	16 14	C B
22. Palm Avenue & Santa Paula Street [a]	AM PM	13 11	B B
23. Palm Avenue & Santa Barbara Street [a]	AM PM	12 13	B B
24. Palm Avenue & Main Street	AM PM	0.441 0.438	A A
25. Palm Avenue & Harvard Boulevard	AM PM	0.496 0.615	A B
26. Palm Avenue & SR-126 WB ramps [a]	AM PM	11 13	B B
27. Palm Avenue & SR-126 EB ramps [a]	AM PM	14 25	B D
28. Steckel Drive & Santa Paula Street [a]	AM PM	10 10	B B
29. Steckel Drive & Main Street [a]	AM PM	12 13	B B
30. Steckel Drive & Harvard Boulevard	AM PM	0.401 0.392	A A
31. Peck Road & Santa Paula Street [a]	AM PM	9 8	A A
32. Peck Road & Main Street/Harvard Boulevard	AM PM	0.498 0.688	A B
33. Peck Road & Faulkner Road	AM PM	0.312 0.509	A A
34. Peck Road & SR-126 EB ramps [a]	AM PM	9 30	A D
35. Faulkner Road & SR-126 WB ramps [a]	AM PM	16 12	C B

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*
Fehr & Peers/Kaku Associates, June 2007.

Existing Freeway Analysis

Table 7 summarizes the results of the freeway and multilane highway analyses. As indicated, the freeway segments currently operate at LOS C or better in both directions during both peak periods. On the multilane highway segment, the current operating conditions are LOS B or better in both directions during both peak periods.

Table 8 summarizes the results of the ramp and ramp junction analyses under existing conditions. As indicated, each ramp currently operates at LOS D or better during both peak periods in both directions.

TABLE 7
EXISTING (2006) LEVEL OF SERVICE ANALYSIS - FREEWAY AND MULTILANE HIGHWAY SEGMENTS

Roadway Segment	Peak Hour	Westbound		Eastbound	
		Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS
1. SR-126 - Sespe Ranch Road to Hallock Dr [a]	AM	13.3	B	7.5	A
	PM	9.5	A	15.0	B
2. SR-126 - Hallock Dr to 10th St (SR-150) [b]	AM	10.7	B	6.4	A
	PM	8.4	A	12.0	B
3. SR-126 - 10th St (SR-150) to Palm Av [b]	AM	15.0	B	8.1	A
	PM	10.9	A	15.1	B
4. SR-126 - Palm Av to Peck Rd [b]	AM	16.7	B	9.2	A
	PM	12.2	B	17.3	B
5. SR-126 Peck Rd to Briggs Rd [b]	AM	19.5	C	10.4	A
	PM	13.2	B	21.8	C

Notes:
* pc/mi/ln denotes passenger cars per mile per lane
[a] Analyzed using Multilane Highway methodology from *Highway Capacity Manual*, Transportation Research Board, 2000.
[b] Analyzed using Freeway methodology from *Highway Capacity Manual.*

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 8
EXISTING (2006) LEVEL OF SERVICE ANALYSIS -
RAMP-FREEWAY JUNCTION AREAS OF INFLUENCE

RAMP	EXISTING (2006) CONDITIONS			
	A.M.		P.M.	
	DENSITY [a]	LOS	DENSITY [a]	LOS
10th St westbound off-ramp	15.5	B	12.9	B
10th St westbound on-ramp	18.5	B	14.3	B
10th St eastbound off-ramp	12.9	B	21.1	C
10th St eastbound on-ramp	9.8	A	15.8	B
Palm Av westbound off-ramp	20.5	C	15.9	B
Palm Av westbound on-ramp	20.1	C	15.2	B
Palm Av eastbound off-ramp	14.2	B	23.6	C
Palm Av eastbound on-ramp	10.9	B	18.4	B
Peck Rd westbound off-ramp	22.2	C	16.9	B
Peck Rd westbound on-ramp	24.3	C	17.9	B
Peck Rd eastbound off-ramp	15.6	B	28.6	D
Peck Rd eastbound on-ramp	12.8	B	21.5	C

[a] Basic freeway segments, ramp junctions, and weaving areas level of service are measured with density (passenger car per mile per lane or pc/mi/ln).
Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

III. FUTURE TRAFFIC PROJECTIONS

In order to evaluate the potential impact of the proposed project on the local street system, it was necessary to develop estimates of future traffic conditions both with and without the proposed project. The cumulative base traffic scenario represents future traffic conditions without the addition of the proposed project. The cumulative plus project scenario represents future traffic conditions with the development of the proposed project. These future traffic scenarios were developed with the aid of City's Transportation Model.

CUMULATIVE BASE TRAFFIC PROJECTIONS

The cumulative base traffic projections normally reflect the changes to existing traffic conditions that can be expected from two sources. The first source is the ambient growth in traffic, which reflects increases in traffic due to regional growth and development. The second source is traffic generated by specific development projects located within, or in the vicinity of, the study area. These projected traffic volumes represent cumulative base conditions.

The year 2020 future traffic projections were developed using the City's Transportation Model, which was last modified for use in the analysis of the Fagan Canyon project. For the present analysis, the existing model was calibrated against the new baseline 2006 traffic volumes to form the base model upon which the future conditions were developed. Outside of the City of Santa Paula, no changes were made to the 2020 Model, which incorporates adopted regional growth projects developed by the Southern California Association of Governments (SCAG) and reviewed by local agencies throughout the SCAG region. The resulting model of the future traffic scenarios reflects local and regional growth as projected for the year 2020. A detailed discussion of the model calibration and validation is presented in Appendix D.

Information on cumulative projects was obtained from the City of Santa Paula Planning Department. These developments are assumed to be in place by the year 2020 and are included in the model forecasts. For reference, the locations of the cumulative projects are

illustrated in Figure 4 and trip generation estimates were prepared for the cumulative projects in the City using the standard trip generation rates from *Trip Generation, 7th Edition* (Institute of Transportation Engineers [ITE], 2003). The list of cumulative projects and trip generation estimates are shown in Table 9. The cumulative projects are estimated to add approximately 47,144 total daily trips, including approximately 3,160 a.m. peak hour trips and 4,746 p.m. peak hour trips.

The projected traffic volumes representing year 2020 cumulative base conditions without the project are shown in Figure 5.

TRANSPORTATION SYSTEM IMPROVEMENTS

Physical street system improvements that are expected to be implemented by 2020 in the study area were included in the analysis of cumulative base conditions. Information about these expected improvements was provided by City of Santa Paula staff in 2006. Any improvements that may be developed in the future to mitigate specific traffic impacts generated by the cumulative projects listed in Table 9 are not assumed in the cumulative base conditions.

Intersection Signalization

The City has indicated that several currently unsignalized intersections will be upgraded to signal control by the year 2020. They are located along both 10th Street and Palm Avenue, specifically at their intersections with the SR-126 ramps:

16. 10th Street & SR-126 westbound ramps
17. 10th Street & SR-126 eastbound ramps
26. Palm Avenue & SR-126 westbound ramps
27. Palm Avenue & SR-126 eastbound ramps

The signalization of these intersections will result in the analysis of 18 signalized intersections and 17 stop-controlled intersections under future conditions.

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FIGURE 4
LOCATION OF RELATED PROJECTS

TABLE 9
TRIP GENERATION ESTIMATES FOR SANTA PAULA RELATED PROJECTS

	PROJECT LOCATION	LAND USE	SIZE		ITE Code	TRIP GENERATION						
						DAILY	A.M. PEAK HOUR TRIPS			P.M. PEAK HOUR TRIPS		
							IN	OUT	TOTAL	IN	OUT	TOTAL
City of Santa Paula												
1	234 W. Harvard Blvd.	Multifamily apartments	36	du	220	242	4	14	18	14	8	22
		Commercial	2.7	ksf	814	120	1	1	2	3	4	7
2	Santa Ana Street	Multifamily apartments	15	du	220	101	2	6	8	6	3	9
3	611 E. Harvard Blvd.	Multifamily apartments	28	du	220	188	3	11	14	11	6	17
		Retail	5.2	ksf	814	230	2	2	4	6	8	14
4	622 E. Main Street	Multifamily apartments	41	du	220	276	4	17	21	16	9	25
5	Santa Ana Street	Multifamily apartments	24	du	220	161	2	10	12	10	5	15
6	840 N. 10th Street	Single Family Units	75	du	210	718	14	42	56	48	28	76
7	Grant Line	Single Family Units	9	du	210	86	2	5	7	6	3	9
8	126-132 12th Street	Multifamily apartments	11	du	220	74	1	5	6	5	2	7
9	Grant Line	Residential Lots	19	du	210	182	4	11	14	12	7	19
10	1318 Richmond Rd	Apartments	6	du	220	40	1	2	3	3	1	4
11	928 W. Telegraph	Multifamily condos	24	du	230	141	2	9	11	8	4	12
		Offices	20	ksf	710	220	27	4	31	5	25	30
12	NW Foothill / Peck Rd	Single Family Units	74	du	210	708	14	42	56	47	28	75
13	210 W. Santa Barbara	Multifamily apartments	81	du	220	544	8	33	41	33	18	50
		Condominiums	70	du	230	410	5	26	31	24	12	36
14	109 S. Montebello St	Condominiums and hangers	34	du	230	199	3	12	15	12	6	18
15	263 Dove Ct	Industrial	28	ksf	110	195	23	3	26	3	24	27
16	Santa Maria St	General Light Industrial	13	ac	110	673	81	17	98	21	73	94
17	12th St	General Light Industrial	84	ksf	110	585	68	9	77	10	72	82
18	East Area II	General Light Industrial	495	ksf	110	3,450	401	54	455	58	427	485
		Shopping Center	355	ksf	820	15,244	224	142	366	639	692	1,331
		Offices	120	ksf	710	1,321	164	22	186	30	149	179
		Asphalt Plant	from traffic study [a]			236	28	28	56	0	6	6
19	Fagan Canyon	Single Family Units	1176	du	210	11,254	221	661	882	748	440	1,188
		Multifamily apartments	179	du	220	1,203	18	73	91	74	37	111
		Condominiums/Townhomes	145	du	230	850	11	53	64	50	25	75
		Retail	25	ksf	814	1,108	12	7	19	30	38	68
20	Adams Canyon	Single Family Units	600	du	210	5,742	113	337	450	382	224	606
		Golf Course	18	hole	430	643	32	8	40	22	28	49
TOTAL RELATED PROJECT TRAFFIC						**47,144**	**1,494**	**1,666**	**3,160**	**2,335**	**2,412**	**4,746**

Notes:
ac = acres
du = dwelling unit
ksf = one thousand square feet
[a] Source: *Traffic Study for A.J. Diani Asphalt Plant*, Associated Transportation Engineers, December 18, 2006.

Trip generation data obtained from the City of Santa Paula related project database and estimates prepared using *Trip Generation, 7th Edition,* Institute of Transportation Engineers, 2003.

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FIGURE 5
CUMULATIVE BASE INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

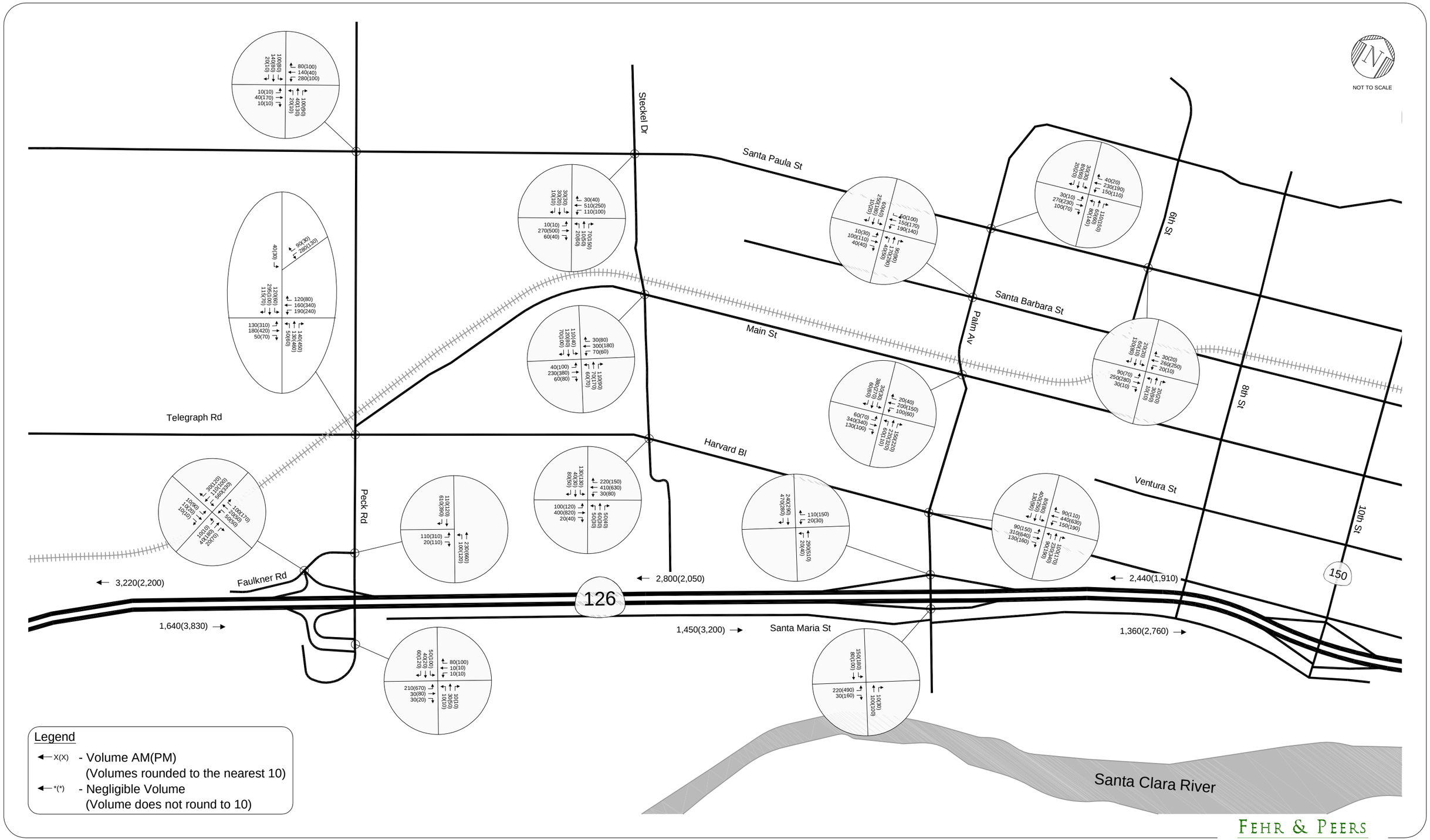

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FIGURE 5 (CONTINUED)
CUMULATIVE BASE INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

PROJECT TRAFFIC VOLUMES

Development of the traffic generation estimates for the proposed project involved a three-step process including traffic generation, trip distribution, and traffic assignment.

Project Traffic Generation

Trip generation rates and equations from *Trip Generation, 7th Edition* were used to develop trip generation estimates for the proposed project. Most of the proposed land uses have an associated trip generation rate as found in *Trip Generation*; the proposed live/work residential use does not have a readily applicable trip generation rate. For the purposes of this study, the trip generation rate for this land use was assumed to be similar to that of an apartment (ITE Code 220). Given the description of this use in the draft Specific Plan and its primary function as living quarters, the apartment trip rates, which are higher than the rates for residential condominiums, offer the most conservative estimate of trip generation for the proposed live/work units. The trip generation estimates for each proposed land use are summarized in Table 10.

Internal capture credits were applied to several of the project land uses. Internal credits reflect the tendency of users of one land use to visit other land uses within the project. For example, project residents may be employed at the office space or industrial uses on site. The retail space in East Area 1 may draw employees of the on-site offices as well as residents. Service areas also factored into the application of the trip credits; the estimated enrollment areas for both the elementary and high schools and the community college were considered in addition to the civic facilities. The assumptions regarding internal capture for the project were developed in conjunction with City staff and the development team.

Pass-by trip reduction credits were not taken for the project's commercial components. Pass-by credits account for trips that would have been passing by the project site regardless of the project, primarily along SR-126, and would therefore not contribute to external project traffic impacts beyond the access routes used between the project and the freeway. Although this is a suggested practice as part of the use of the ITE data, these credits were not applied in this analysis to ensure that the traffic generation was not underestimated, resulting in inadequate future roadway capacities.

Transit trip reduction credits were also not applied to any of the proposed land uses within the project site. Transit credits account for those project-related trips that may be made by public transportation and the resulting reduction in vehicle trips. Although limited transit service is currently available in the City, no transit lines currently serve the project site. The project allows for the introduction of public transit to the site and service to East Area 1 should be considered as the City and transit agencies continue to plan for future public transit service in the City.

As summarized in Table 10, the proposed project is estimated to generate approximately 30,329 daily external and internal trips on weekdays, with approximately 2,775 external and internal trips during the weekday a.m. peak hour and 2,662 external and internal trips during the weekday p.m. peak hour. This study analyzes the impacts of the external trips to the roadway network. The projected number of daily external trips is approximately 25,848 with 2,244 trips during the a.m. peak hour and 2,229 trips during the p.m. peak hour. These external trips formed the basis of the traffic impact analysis.

Project Traffic Distribution

The geographic distribution of traffic generated by the proposed project depends on several factors, including the nature of the proposed land uses, the location of site access points in relation to the surrounding street system, the geographic distribution of existing and future population centers, existing travel patterns and topographic constraints.

The estimated distribution of trips generated by the proposed project was developed with the aid of the City's Transportation Model. The trip distribution pattern is illustrated in Figure 6 and described below:

- 18% internal trips within East Area 1
- 26% local trips within town
- 3% to/from the north
- 5% to/from the south
- 17% to/from the east
- 31% to/from the west

TABLE 10
PROJECT TRIP GENERATION ESTIMATES

Land Use	ITE Code	Size	Units	Daily	Weekday					
					A.M. Peak Hour			P.M. Peak Hour		
				Trips	In	Out	Total	In	Out	Total
A - Santa Paula Creek Neigborhood										
Residential - Single Family	210	306	DU	2,928	58	172	230	195	114	309
Residential - Apartment (assum 50% MF)	220	20	DU	134	2	8	10	8	4	12
Open Space [a]	412	19.4	Acre	44	0	0	0	0	1	1
B - Foothill Neigborhood										
Residential - Single Family	210	359	DU	3,436	67	202	269	229	134	363
Open Space [a]	412	131.5	Acre	300	1	0	1	3	5	8
C - Santa Paula Creek Civic District										
High School	530	110,400	SF	1,423	240	98	338	58	49	107
(75% internal capture)				(1,067)	(180)	(74)	(254)	(44)	(37)	(80)
Community College	540	165,000	SF	4,536	365	128	493	243	176	419
(5% internal capture)				(227)	(18)	(6)	(25)	(12)	(9)	(21)
Civic Facilities	730	65,000	SF	4,480	321	61	382	24	55	79
(5% internal capture)				(224)	(16)	(3)	(19)	(1)	(3)	(4)
Open Space - Park	412	12.0	Acre	27	0	0	0	0	1	1
D - Haun Creek Neigborhood										
Residential - Single Family	210	208	DU	1,991	39	117	156	132	78	210
Residential - Condominium	230	268	DU	1,570	20	98	118	93	46	139
Residential - Apartment	220	269	DU	1,808	27	110	137	109	58	167
Assisted Living (Assume 1 bed per 500 s.f)	254	150	Bed	399	14	7	21	15	18	33
Shopping Center	820	75,000	SF	3,221	47	30	77	135	146	281
(65% internal capture)				(2,093)	(31)	(20)	(50)	(88)	(95)	(183)
Office	710	75,000	SF	826	102	14	116	19	93	112
(65% internal capture)				(537)	(66)	(9)	(75)	(12)	(60)	(73)
Elementary School	520	35,400	SF	513	90	76	166	48	63	111
(65% internal capture)				(333)	(59)	(49)	(108)	(31)	(41)	(72)
Open Space [a]	412	58.3	Acre	133	1	0	1	1	2	3
E - East Sant Paula Railroad District										
Residential - Live/Work	220	70	DU	470	7	29	36	28	15	43
Commercial (Assume 20%)	820	12,000	SF	515	7	5	12	22	23	45
Office (Assume 80%)	710	48,000	SF	528	65	9	74	12	60	72
Light Industrial	110	150,000	SF	1,046	121	17	138	18	129	147
TOTAL EXTERNAL TRIPS				**25,848**	**1,224**	**1,020**	**2,244**	**1,204**	**1,025**	**2,229**

Notes:
DU = dwelling unit
SF = square foot
[a] includes park and preserve land

Trip generation estimates based on Trip Generation, 7th Edition.
Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

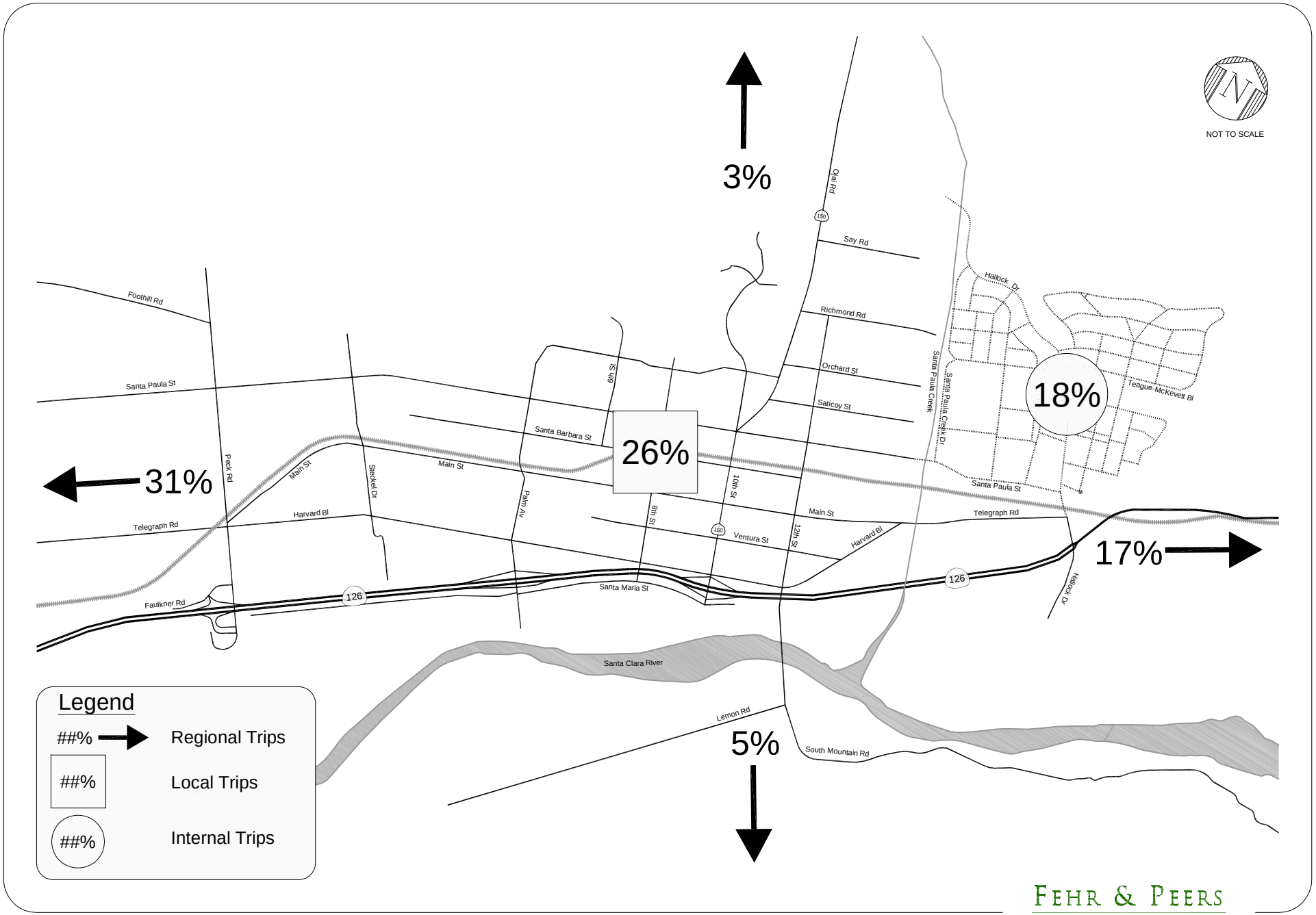
Project Traffic Assignment

The trip generation estimates summarized in Table 10 and the distribution pattern illustrated in Figure 6 were used to assign the project-generated traffic to the local and regional street system. Figure 7A illustrates the estimated project-generated peak hour traffic volumes at each of the analyzed intersections during typical weekday a.m. and p.m. peak hours.

The City's Transportation Model was used to estimate the total traffic shifts that would be associated with the extension of Santa Paula Street eastward as part of the project and they are illustrated in Figure 7B. The general result of these shifts would be a reduction in traffic along Ojai Road and 10th Street through the study area and an increase in traffic through East Area 1, as well as minor changes elsewhere in the City.

CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

The proposed project traffic volumes were then added to the cumulative base traffic projections to develop the cumulative plus project traffic forecasts. Figure 8 illustrates the resulting projected cumulative plus project peak hour traffic volumes for a typical weekday a.m. and p.m. peak hour, representing future traffic conditions following completion of the proposed project.

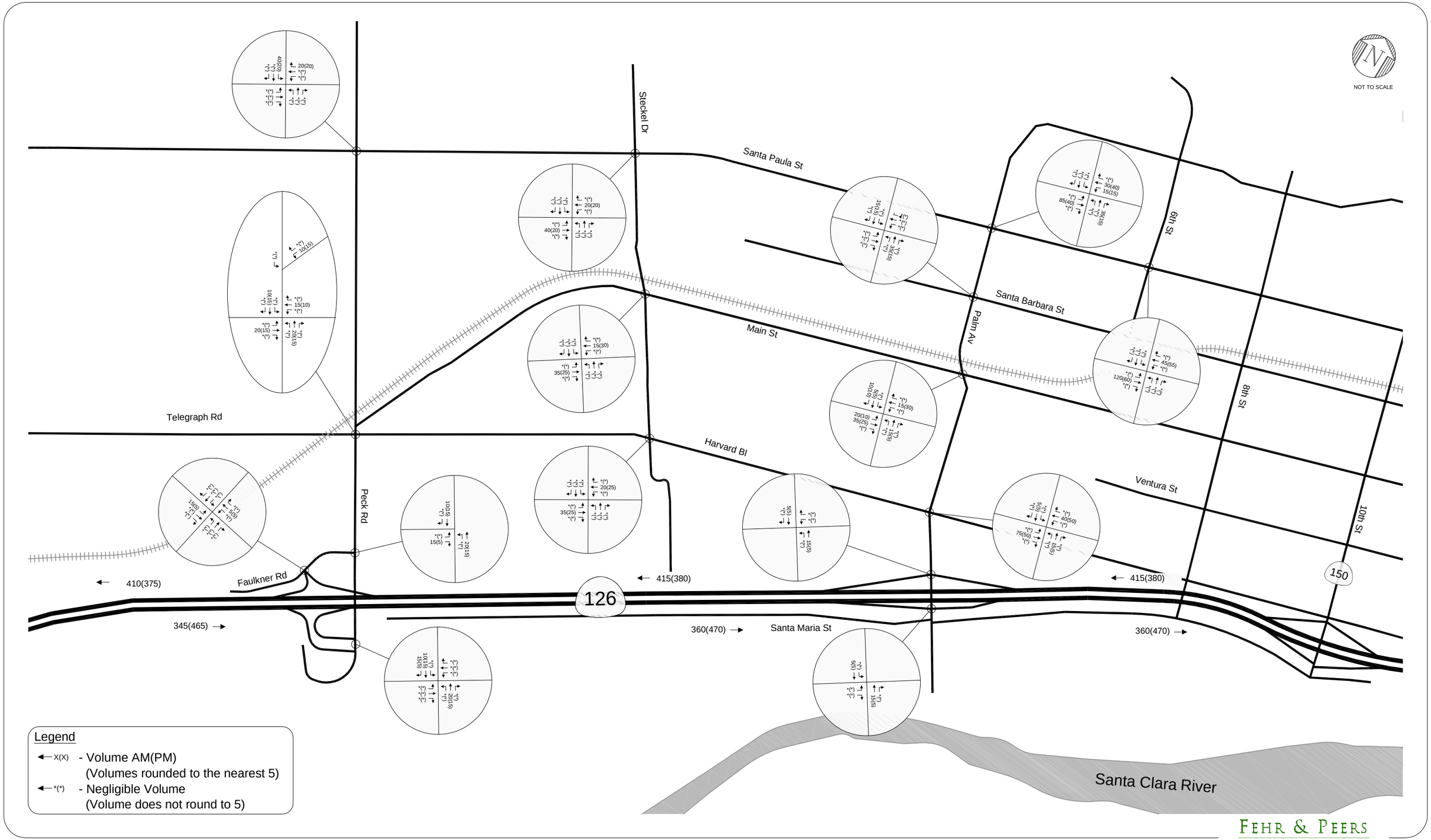


FEHR & PEERS
KAKU ASSOCIATES

FIGURE 6
PROJECT TRIP DISTRIBUTION

FEHR & PEERS
KAKU ASSOCIATES

FIGURE 7A
PROJECT ONLY INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES



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KAKU ASSOCIATES

FIGURE 7A (CONTINUED)
PROJECT ONLY INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

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FIGURE 7B
BACKGROUND TRAFFIC SHIFTS DUE TO SANTA PAULA STREET EXTENSION

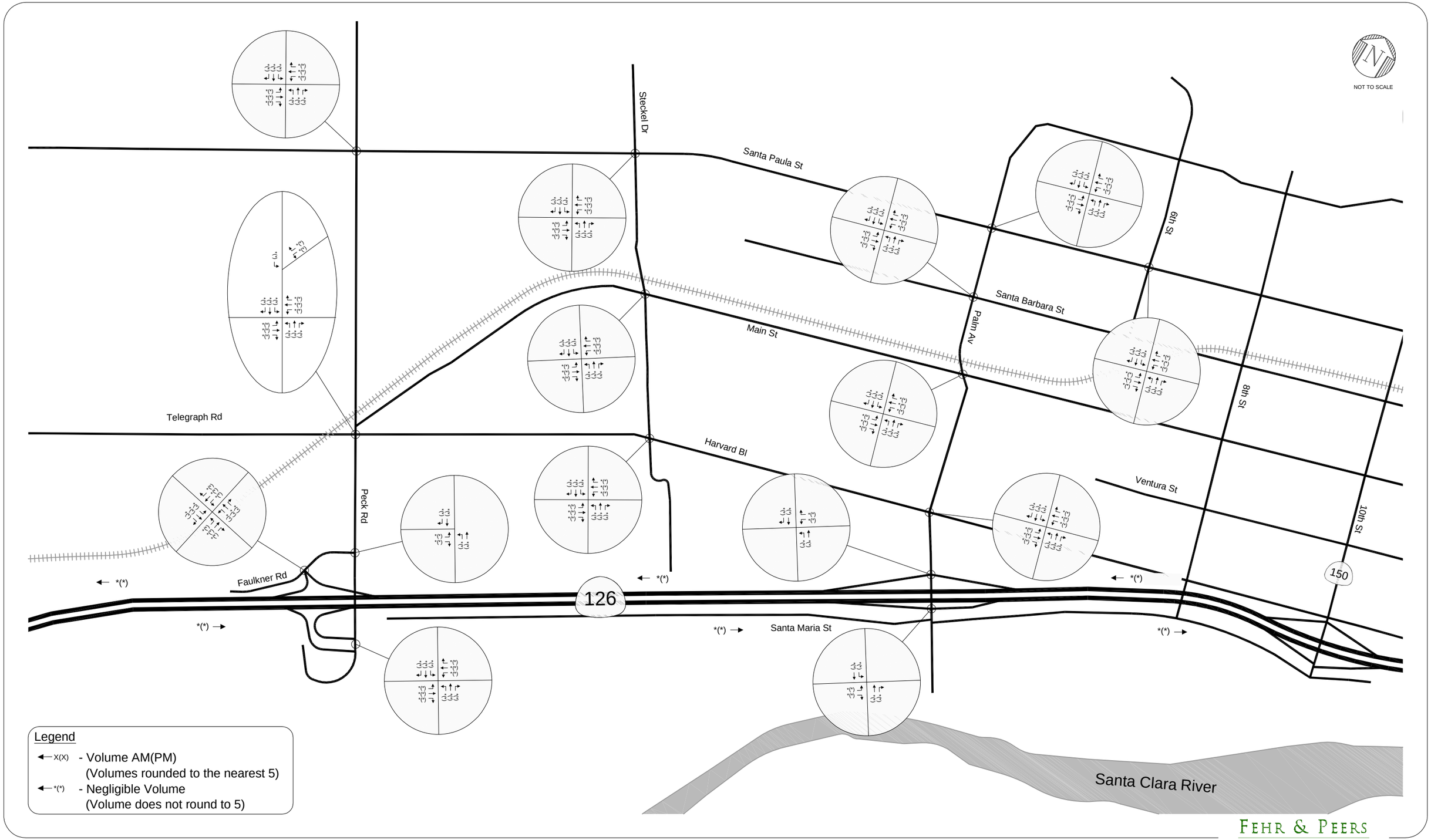

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FIGURE 7B (CONTINUED)
BACKGROUND TRAFFIC SHIFTS DUE TO SANTA PAULA STREET EXTENSION

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FIGURE 8
CUMULATIVE PLUS PROJECT INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

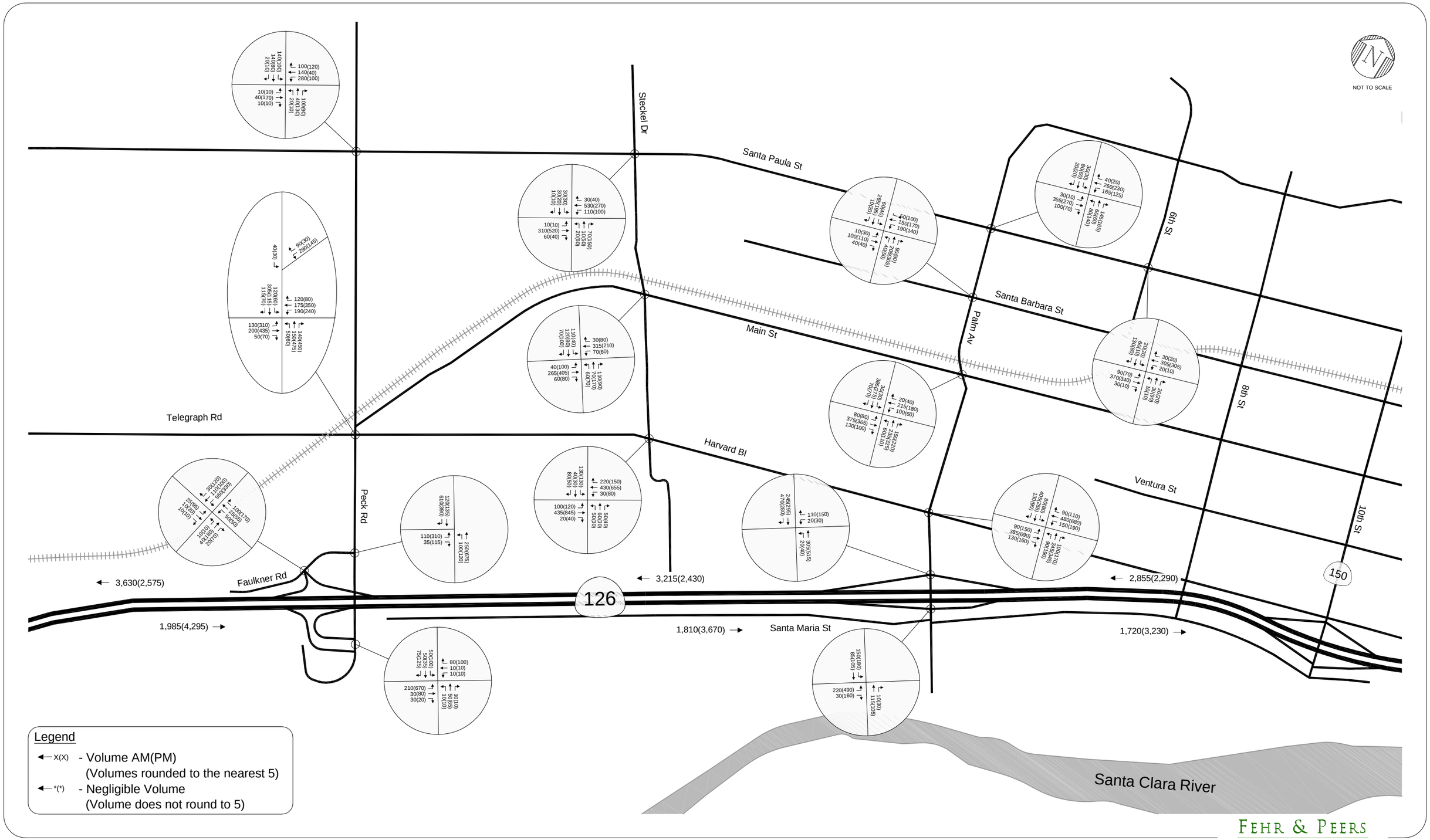

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FIGURE 8 (CONTINUED)
CUMULATIVE PLUS PROJECT INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES

IV. TRAFFIC IMPACT ANALYSIS

This section presents an analysis of the projected future volumes to determine the potential impacts of the proposed project on the operating conditions of the surrounding street system.

SIGNIFICANT IMPACT CRITERIA

As adopted in the 1998 Circulation Element of the City of Santa Paula General Plan, the minimum acceptable level of service at intersections in the City is LOS C. An intersection operating at LOS D or worse under the cumulative base conditions is considered a cumulatively impacted intersection. An intersection projected to operate at LOS D or worse after the addition of project traffic is considered significantly impacted by the project. Therefore, any contribution resulting in or worsening projected intersection operating conditions of LOS D or worse is considered as a significant impact.

The minimum desirable level of service on the analyzed freeway segments is LOS E, as described in the VCCMP. If the addition of project traffic were to cause or worsen LOS F, it would be considered as a significant impact.

CUMULATIVE BASE OPERATING CONDITIONS

The year 2020 cumulative base (without project) traffic volumes shown in Figure 5 were analyzed using the LOS methodologies described in Chapter II to project future levels of service at the study intersections for the weekday a.m. and p.m. peak hours. This analysis assumed completion of the related projects described in Chapter III as well as regional traffic growth as estimated by the City's Transportation Model. The results of the intersection analysis are summarized in Table 11. The roadway segment analysis is presented in Table 12 and ramp junction analysis is in Table 13. Detailed LOS calculations are presented in Appendix C.

TABLE 11
INTERSECTION LEVEL OF SERVICE ANALYSIS
FUTURE (YEAR 2020) CONDITIONS

Intersections	Peak Hour	Cumbase Year 2020		Cumbase plus Project Year 2020				
		V/C or Delay	LOS	V/C or Delay	LOS	Change	Significant Impact Cumulative?	Significant Impact Project?
1. Santa Paula Freeway (SR-126) & Hallock Drive	AM	0.694	B	1.070	F	0.376	NO	**YES**
	PM	0.939	E	1.183	F	0.244	**YES**	**YES**
2. Telegraph Road & Hallock Drive [a]	AM	133	F	286	F	153	**YES**	**YES**
	PM	77	F	364	F	287	**YES**	**YES**
3. Telegraph Road/Main Street & Harvard Boulevard [a]	AM	17	C	21	C	4	NO	NO
	PM	13	B	14	B	1	NO	NO
4. 12th Street & Santa Paula Street [a]	AM	13	B	159	F	146	NO	**YES**
	PM	39	E	250	F	211	**YES**	**YES**
5. 12th Street & Santa Barbara Street [a]	AM	16	C	15	C	-1	NO	NO
	PM	22	C	20	C	-2	NO	NO
6. 12th Street & Main Street	AM	0.550	A	0.481	A	-0.069	NO	NO
	PM	0.720	C	0.595	A	-0.125	NO	NO
7. 12th Street & Harvard Boulevard	AM	0.432	A	0.481	A	0.049	NO	NO
	PM	0.633	B	0.689	B	0.056	NO	NO
8. 12th Street/South Mountain Road & Lemon Road [a]	AM	9	A	10	A	1	NO	NO
	PM	13	B	13	B	0	NO	NO
9. Ojai Road (SR-150) & Richmond Road [a]	AM	36	E	45	E	9	**YES**	**YES**
	PM	40	E	46	E	6	**YES**	**YES**
10. Ojai Road (SR-150) & Orchard Street [a]	AM	27	D	31	D	4	**YES**	**YES**
	PM	34	D	40	E	6	**YES**	**YES**
11. Ojai Road (SR-150) & Saticoy Street [a]	AM	47	E	41	E	-6	**YES**	NO
	PM	30	D	21	C	-9	**YES**	NO
12. Ojai Road (SR-150)/10th Street & Santa Paula Street	AM	0.833	D	0.867	D	0.034	**YES**	**YES**
	PM	0.845	D	0.826	D	-0.019	**YES**	NO
13. 10th Street (SR-150) & Santa Barbara Street	AM	0.725	C	0.700	B	-0.025	NO	NO
	PM	0.625	B	0.563	A	-0.062	NO	NO
14. 10th Street (SR-150) & Main Street	AM	0.751	C	0.745	C	-0.006	NO	NO
	PM	0.701	C	0.663	B	-0.038	NO	NO
15. 10th Street (SR-150) & Harvard Boulevard	AM	0.869	D	0.956	E	0.087	**YES**	**YES**
	PM	0.864	D	0.929	E	0.065	**YES**	**YES**
16. 10th Street (SR-150) & SR-126 WB ramps	AM	0.682	B	0.666	B	-0.016	NO	NO
	PM	0.557	A	0.518	A	-0.039	NO	NO
17. 10th Street (SR-150) & SR-126 EB ramps	AM	0.362	A	0.353	A	-0.009	NO	NO
	PM	0.526	A	0.541	A	0.015	NO	NO

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 11 (continued)
INTERSECTION LEVEL OF SERVICE ANALYSIS
FUTURE (YEAR 2020) CONDITIONS

Intersections	Peak Hour	Cumbase Year 2020		Cumbase plus Project Year 2020				
		V/C or Delay	LOS	V/C or Delay	LOS	Change	Significant Impact Cumulative?	Significant Impact Project?
18. 8th Street & Santa Paula Street [a]	AM	14	B	29	D	15	NO	**YES**
	PM	15	B	25	D	10	NO	**YES**
19. 8th Street & Main Street	AM	0.426	A	0.503	A	0.077	NO	NO
	PM	0.607	B	0.628	B	0.021	NO	NO
20. 8th Street & Harvard Boulevard	AM	0.307	A	0.406	A	0.099	NO	NO
	PM	0.529	A	0.564	A	0.035	NO	NO
21. 6th Street & Santa Paula Street [a]	AM	19	C	24	C	5	NO	NO
	PM	20	C	24	C	4	NO	NO
22. Palm Avenue & Santa Paula Street [a]	AM	17	C	26	D	9	NO	**YES**
	PM	14	B	17	C	3	NO	NO
23. Palm Avenue & Santa Barbara Street [a]	AM	16	C	18	C	2	NO	NO
	PM	20	C	22	C	2	NO	NO
24. Palm Avenue & Main Street	AM	0.608	B	0.638	B	0.030	NO	NO
	PM	0.545	A	0.569	A	0.024	NO	NO
25. Palm Avenue & Harvard Boulevard	AM	0.619	B	0.645	B	0.026	NO	NO
	PM	0.738	C	0.757	C	0.019	NO	NO
26. Palm Avenue & SR-126 WB ramps	AM	0.526	A	0.529	A	0.003	NO	NO
	PM	0.475	A	0.478	A	0.003	NO	NO
27. Palm Avenue & SR-126 EB ramps	AM	0.301	A	0.310	A	0.009	NO	NO
	PM	0.500	A	0.503	A	0.003	NO	NO
28. Steckel Drive & Santa Paula Street [a]	AM	23	C	27	D	4	NO	**YES**
	PM	22	C	25	C	3	NO	NO
29. Steckel Drive & Main Street [a]	AM	14	B	15	B	1	NO	NO
	PM	16	C	17	C	1	NO	NO
30. Steckel Drive & Harvard Boulevard	AM	0.447	A	0.453	A	0.006	NO	NO
	PM	0.469	A	0.477	A	0.008	NO	NO
31. Peck Road & Santa Paula Street [a]	AM	16	C	17	C	1	NO	NO
	PM	10	B	10	B	0	NO	NO
32. Peck Road & Main Street/Harvard Boulevard	AM	0.678	B	0.697	B	0.019	NO	NO
	PM	0.833	D	0.858	D	0.025	**YES**	**YES**
33. Peck Road & Faulkner Road	AM	0.445	A	0.445	A	0.000	NO	NO
	PM	0.607	B	0.616	B	0.009	NO	NO
34. Peck Road & SR-126 EB ramps [a]	AM	9	A	10	A	1	NO	NO
	PM	55	F	58	F	3	**YES**	**YES**
35. Faulkner Road & SR-126 WB ramps [a]	AM	28	D	29	D	1	**YES**	**YES**
	PM	14	B	15	B	1	NO	NO

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 12
FUTURE CONDITIONS (2020) LEVEL OF SERVICE ANALYSIS - FREEWAY AND MULTILANE HIGHWAY SEGMENTS

Roadway Segment	Peak Hour	Cumulative Base				Cumulative plus Project - No By-Pass				Significant Impacts	
		Westbound		Eastbound		Westbound		Eastbound			
		Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS	Cumulative Impact?	Project Impact?
1. SR-126 - Sespe Ranch Road to	AM	18.9	C	9.6	A	21.2	C	11.8	B	NO	NO
Hallock Dr [a]	PM	13.1	B	20.8	C	15.6	B	22.9	C	NO	NO
2. SR-126 - Hallock Dr to	AM	14.0	B	8.6	A	16.3	B	10.4	A	NO	NO
10th St (SR-150) [b]	PM	12.8	B	18.0	B	14.4	B	20.3	C	NO	NO
3. SR-126 - 10th St (SR-150) to	AM	19.7	C	11.0	A	23.3	C	13.9	B	NO	NO
Palm Av [b]	PM	15.4	B	22.4	C	18.5	C	27.0	D	NO	NO
4. SR-126 - Palm Av to	AM	22.8	C	11.7	B	26.8	D	14.6	B	NO	NO
Peck Rd [b]	PM	16.5	B	26.7	D	19.6	C	32.8	D	NO	NO
5. SR-126 Peck Rd to	AM	26.9	D	13.2	B	32.1	D	16.0	B	NO	NO
Briggs Rd [b] [c]	PM	17.8	B	35.4	E	20.8	C	OVFL**	F	NO	YES

Notes:
* pc/mi/ln denotes passenger cars per mile per lane
** OVFL denotes overflow conditions
[a] Analyzed using Multilane Highway methodology from *Highway Capacity Manual*.
[b] Analyzed using Freeway methodology from *Highway Capacity Manual*.
[c] Mitigated to LOS D or better in both directions and peak hour: Eastbound in the a.m. peak hour 14.6 pc/mi/ln LOS B; Eastbound in the p.m. peak hour 26.2 pc/mi/ln LOS D.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 13
FUTURE CONDITIONS (2020) LEVEL OF SERVICE ANALYSIS -
RAMP-FREEWAY JUNCTION AREAS OF INFLUENCE

RAMP	CUMULATIVE BASE (2020) CONDITIONS				CUMULATIVE PLUS PROJECT (2020) CONDITIONS				Significant Impact	
	A.M.		P.M.		A.M.		P.M.			
	DENSITY [a]	LOS	DENSITY [a]	LOS	DENSITY [a]	LOS	DENSITY [a]	LOS	Cumulative?	Project?
10th St westbound off-ramp	19.4	B	17.9	B	22.1	C	19.9	B	NO	NO
10th St westbound on-ramp	23.4	C	19.0	B	26.5	C	22.3	C	NO	NO
10th St eastbound off-ramp	16.2	B	29.3	D	19.6	B	33.7	D	NO	NO
10th St eastbound on-ramp	12.2	B	22.2	C	14.1	B	24.7	C	NO	NO
Palm Av westbound off-ramp	26.0	C	21.0	C	29.9	D	24.6	C	NO	NO
Palm Av westbound on-ramp	26.3	C	19.9	B	29.9	D	23.2	C	NO	NO
Palm Av eastbound off-ramp	17.1	B	33.5	D	20.5	C	37.9	E	NO	NO
Palm Av eastbound on-ramp	14.0	B	26.1	C	17.1	B	30.2	D	NO	NO
Peck Rd westbound off-ramp	29.0	D	22.0	C	32.9	D	25.5	C	NO	NO
Peck Rd westbound on-ramp	31.2	D	22.5	C	34.8	D	25.7	C	NO	NO
Peck Rd eastbound off-ramp	18.8	B	39.3	E	22.0	C	43.6	E	NO	NO
Peck Rd eastbound on-ramp	15.5	B	30.6	D	18.6	B	34.7	D	NO	NO

[a] Basic freeway segments, ramp junctions, and weaving areas level of service are measured with density (passenger car per mile per lane or pc/mi/ln).

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

Of the 35 intersections selected for analysis, 24 total intersections are projected to operate at LOS C or better during both a.m. and p.m. peak hours under Cumulative Base conditions. The 11 intersections listed below are projected to operate at LOS D or worse during either peak hour:

1. SR-126 & Hallock Drive (LOS E p.m.)
2. Telegraph Road & Hallock Drive (LOS F a.m. and p.m.)
4. 12th Street & Santa Paula Street (LOS E p.m.)
9. Ojai Road & Richmond Road (LOS E a.m. and p.m.)
10. Ojai Road & Orchard Street (LOS D a.m. and p.m.)
11. Ojai Road & Saticoy Street (LOS E a.m. and LOS D p.m.)
12. Ojai Road/10th Street & Santa Paula Street (LOS D a.m. and p.m.)
15. 10th Street & Harvard Boulevard (LOS D a.m. and p.m.)
32. Peck Road & Main Street/Harvard Boulevard (LOS D p.m.)
34. Peck Road & SR-126 eastbound ramps (LOS F p.m.)
35. Faulkner Road & SR-126 westbound ramps (LOS D a.m.)

As defined by the City of Santa Paula, the minimum desirable intersection level of service is LOS C. The 11 study intersections above are projected to operate at undesirable levels of service in one or both peak hours under future year 2020 cumulative base conditions. Therefore, these intersections would be significantly impacted due to cumulative development and are noted as such in Table 11.

The five freeway and multilane highway segments and the 12 freeway ramp junctions selected for analysis are projected to operate at LOS E or better in both directions and both peak periods under cumulative base conditions, as shown in Tables 12 and 13. Thus, projected conditions at each location would meet or exceed the minimum desirable level of service on these facilities (LOS E or better).

CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

The resulting cumulative plus project peak hour traffic volumes, illustrated in Figure 8, were analyzed to determine the projected future 2020 operating conditions following completion of the proposed project. The results of the analysis are summarized in Table 11.

A total of 21 intersections are projected to operate at LOS C or better during both a.m. and p.m. peak hours. The 14 intersections listed below are projected to operate at LOS D or worse during the a.m. peak hour, the p.m. peak hour, or both:

1. SR-126 & Hallock Drive (LOS F a.m. and p.m.)
2. Telegraph Road & Hallock Drive (LOS F a.m. and p.m.)
4. 12th Street & Santa Paula Street (LOS F a.m. and p.m.)
9. Ojai Road & Richmond Road (LOS E a.m. and p.m.)
10. Ojai Road & Orchard Street (LOS D a.m. and LOS E p.m.)
11. Ojai Road & Saticoy Street (LOS E a.m.)
12. Ojai Road/10th Street & Santa Paula Street (LOS D a.m. and p.m.)
15. 10th Street & Harvard Boulevard (LOS E a.m. and p.m.)
18. 8th Street & Santa Paula Street (LOS D a.m. and p.m.)
22. Palm Avenue & Santa Paula Street (LOS D a.m.)
28. Steckel Drive & Santa Paula Street (LOS D p.m.)
32. Peck Road & Main Street/Harvard Boulevard (LOS D p.m.)
34. Peck Road & SR-126 eastbound ramps (LOS F p.m.)
35. Faulkner Road & SR-126 westbound ramps (LOS D a.m.)

According to the City of Santa Paula's definition of minimum desirable intersection level of service (LOS C), traffic generated by the proposed project would cause or contribute to significant traffic impacts at all of these intersections except intersection 11, where there would be a minor decrease in delay due to the shift in background traffic caused by the project. Of the 13 impacted intersections, project-specific impacts (impacts directly related to the addition of project traffic) are identified at the following five intersections: SR-126 & Hallock Drive (intersection 1 in the a.m. peak hour), 12th Street & Santa Paula Street (intersection 4 in the a.m. peak hour), 8th Street & Santa Paula Street (intersection 18 in the a.m. and p.m. peak hours); Palm Avenue & Santa Paula Street (intersection 22 in the a.m. peak hour); and Steckel Drive & Santa Paula

Street (intersection 28 in the a.m. peak hour). The project related traffic added to these five intersections during these peak hours would contribute to a projected decline below LOS C operations under cumulative base plus project conditions. The addition of project-related traffic to the eight other impacted intersections, as well as at intersection 1 and intersection 4 in the p.m. peak hour, would contribute to the projected undesirable levels of service. As mentioned, because the project would slightly reduce delay at intersection 11, no impact was identified there.

At six intersections not identified as significantly impacted, the analysis revealed minor improvements in either LOS or V/C ratio under cumulative plus project conditions. These improvements are attributable to the fact that the project would construct a new link in the City's street system (a bridge over Santa Paula Creek) which would divert some background traffic from the routes that would otherwise be available. As discussed, the City's Transportation Model was used to estimate the location and magnitude of these shifts.

Appendix F presents impact analysis of the intersections lying along SR-126 using the HCM methodology, as requested by the California Department of Transportation (Caltrans). The results of that analysis do not differ from what is presented in this chapter, either in the locations where significant impacts are identified or in the effectiveness of the proposed mitigation measures.

Of the five analyzed freeway and multilane highway segments, four are projected to operate at LOS E or better in both directions and in both peak periods, thereby meeting the minimum desirable level of service. The segment of SR-126 from Peck Road to Briggs Road, however, is projected to operate at LOS F in the p.m. peak hour in the eastbound with the addition of project traffic, falling below the minimum desirable level of service on freeway segments (LOS E or better) and the project would contribute to a significant impact there.

Of the 12 analyzed ramp junction facilities, each is projected to operate at LOS E or better during both peak hours under cumulative plus project conditions, as summarized in Table 13. Therefore, each ramp junction would operate within the minimum acceptable level of service for these facilities (LOS E or better) and would not be not significantly impacted by the addition of project traffic.

INTERNAL INTERSECTIONS

Projected traffic volumes for the key intersections within East Area 1 (intersections 36 through 40) were analyzed in the cumulative plus project condition, as they would only exist with the development of the project. The recommended lane configurations at these intersections are found in Appendix A and could be accommodated within the thoroughfare design standards proposed in the draft Specific Plan. Four of the five analyzed internal intersections would operate acceptably with stop-controls; one intersection (Hallock Drive and Santa Paula Street) would require signalization to achieve LOS C or better operations. Table 14 summarizes the results of the internal intersection analysis.

MITIGATION MEASURES

Mitigation measures were developed to alleviate the impacts at the locations identified above. Recommended mitigation measures include both operational and physical improvements. Table 15 presents a summary of the LOS analysis results with these mitigation measures in place.

Peak Period Parking Restrictions

A peak period parking restriction is recommended along Ojai Road/10th Street to allow for an additional travel lane during the designated peak periods. The restriction would require striping the pavement to indicate the additional lane and signage noting the parking restriction. In the study area, the affected sections include Ojai Road from Richmond Road to Santa Paula Street and a portion of 10th Street north of Harvard Boulevard. During the a.m. peak period, parking would be restricted along the west side of the street and there would be one additional travel lane in the southbound direction. Conversely, in the p.m. peak period, parking would be restricted along the east side of the street and there would be one additional northbound lane.

Secondary impacts caused by the proposed peak period parking restrictions include increased demand and competition for available parking on the adjacent streets in the vicinity of the restrictions and on the opposite side of the street where the parking restriction would not be in

TABLE 14
INTERNAL INTERSECTION LEVELS OF SERVICE
FUTURE (2020) WITH PROJECT

Intersections	Peak Hour	Cumulative plus Project	
		V/C or Delay	LOS
36. Hallock Drive & Santa Paula Street (signal control)	AM PM	0.668 0.698	B B
37. Hallock Drive & Teague-McKevett Boulevard (all-way stop control)	AM PM	9 8	A A
38. Santa Paula Creek Drive & Santa Paula Street (all-way stop control)	AM PM	17 16	C C
39. Santa Paula Creek Drive & Teague-McKevett Boulevard (minor approach stop control)	AM PM	9 9	A A
40. Hallock Drive & Santa Paula Creek Drive (minor approach stop control)	AM PM	9 9	A A

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan,*
Fehr & Peers/Kaku Associates, June 2007.

TABLE 15
INTERSECTION LEVEL OF SERVICE ANALYSIS
FUTURE (2020) CONDITIONS WITH MITIGATION

Intersections	Peak Hour	Cumbase Year 2020		Cumulative plus Project Year 2020				With Mitigations Year 2020		
		V/C or Delay	LOS	V/C or Delay	LOS	Significant Impact Cumulative?	Significant Impact Project?	V/C or Delay	LOS	Signif. Impact
1. Santa Paula Freeway (SR-126)	AM	0.694	B	1.070	F	NO	**YES**	0.687	B	NO
& Hallock Drive	PM	0.939	E	1.183	F	**YES**	**YES**	0.750	C	NO
2. Telegraph Road	AM	133	F	286	F	**YES**	**YES**	0.678	B	NO
& Hallock Drive [a]	PM	77	F	364	F	**YES**	**YES**	0.616	B	NO
4. 12th Street	AM	13	B	159	F	NO	**YES**	0.788	C	NO
& Santa Paula Street [a]	PM	39	E	250	F	**YES**	**YES**	0.773	C	NO
9. Ojai Road (SR-150)	AM	36	E	45	E	**YES**	**YES**	12	B	NO
& Richmond Road [a]	PM	40	E	46	E	**YES**	**YES**	11	B	NO
10. Ojai Road (SR-150)	AM	27	D	31	D	**YES**	**YES**	0.407	A	NO
& Orchard Street [a]	PM	34	D	40	E	**YES**	**YES**	0.622	B	NO
11. Ojai Road (SR-150)	AM	47	E	41	E	**YES**	NO	13	B	NO
& Saticoy Street [a]	PM	30	D	21	C	**YES**	NO	11	B	NO
12. Ojai Road (SR-150)/10th Street	AM	0.833	D	0.867	D	**YES**	**YES**	0.792	C	NO
& Santa Paula Street	PM	0.845	D	0.826	D	**YES**	NO	0.668	B	NO
15. 10th Street (SR-150)	AM	0.869	D	0.956	E	**YES**	**YES**	0.720	C	NO
& Harvard Boulevard	PM	0.864	D	0.929	E	**YES**	**YES**	0.754	C	NO
18. 8th Street	AM	14	B	29	D	NO	**YES**	24	C	NO
& Santa Paula Street [a]	PM	15	B	25	D	NO	**YES**	20	C	NO
22. Palm Avenue	AM	17	C	26	D	NO	**YES**	23	C	NO
& Santa Paula Street [a]	PM	14	B	17	C	NO	NO	15	B	NO
28. Palm Avenue	AM	23	C	27	D	NO	**YES**	20	C	NO
& Harvard Boulevard	PM	22	C	25	C	NO	NO	24	C	NO
32. Peck Road	AM	0.678	B	0.697	B	NO	NO	0.564	A	NO
& Main Street/Harvard Boulevard	PM	0.833	D	0.858	D	**YES**	**YES**	0.709	C	NO
34. Peck Road	AM	9	A	10	A	NO	NO	0.296	A	NO
& SR-126 EB ramps [a]	PM	55	F	58	F	**YES**	**YES**	0.656	B	NO
35. Faulkner Road	AM	28	D	29	D	**YES**	**YES**	12	B	NO
& SR-126 WB ramps [a]	PM	14	B	15	B	NO	NO	12	B	NO

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

place. Parking adjacent to these five intersections could be affected by the proposed peak period parking restriction:

9. Ojai Road & Richmond Road
10. Ojai Road & Orchard Street
11. Ojai Road & Saticoy Street
12. Ojai Road/10th Street & Santa Paula Street
15. 10th Street & Harvard Boulevard

Left-Turn Restrictions

Peak period left-turn restrictions are recommended at the following intersections:

9. Ojai Road & Richmond Road
11. Ojai Road & Saticoy Street

The peak period left-turn restriction would only be applied to the westbound movements at these intersections. The restricted left turns would be expected to utilize nearby signalized intersections to complete westbound left-turn movements. For the purposes of assessing the potential secondary impacts of these restrictions, the displaced westbound left turns from the two intersections were assumed to utilize the nearby intersection at Ojai Road and Orchard Street, which is proposed for signalization.

Intersection Improvements

At the 14 intersections projected to operate at LOS D or worse, the suggested mitigation measures would fully mitigate the identified cumulative and project impacts. The lane configuration diagrams in Appendix A illustrate the proposed mitigation measures at the impacted intersections. The following provides a description of the proposed improvements:

- SR-126 & Hallock Drive (Intersection 1) – The intersection of the SR-126 and Hallock Drive can be mitigated to LOS C or better by widening and reconfiguring the intersection

on all four approaches. The northbound approach on Hallock Drive may require additional right-of-way to accommodate the proposed lane configuration. Additionally, the SR-126 would be widened on both approaches to accommodate an additional through lane at the intersection. The southbound approach would provide one right-turn lane, one shared through/right-turn lane, one through lane, and two left-turn lanes; the westbound approach would consist of one right-turn lane, three through lanes, and one left-turn lane; the northbound approach would consist of one right-turn lane, one through lane, and one left-turn lane; and the eastbound approach would consist of one right-turn lane, three through lanes, and two left-turn lanes. These improvements would require coordination with and approval by Caltrans. The widening of the north leg of Hallock Drive should be coordinated with the improvements proposed for the Telegraph Road and Hallock Drive intersection.

- Telegraph Road & Hallock Drive (Intersection 2) – The intersection of the Telegraph Road and Hallock Drive can be mitigated to LOS C or better by installing a traffic signal and modifying the existing lane configuration. A peak hour signal warrant analysis was performed based on the Peak Hour Warrant presented in *California Manual on Uniform Traffic Control Devices (FWHA's MUTCD 2003 Edition, as amended for use in California)* (CA MUTCD) (Caltrans, 2006) and is included in Appendix E. It indicates that a traffic signal installation at this intersection would be warranted under cumulative plus project conditions. The resulting lane configuration would be one right-turn lane, two through lanes, and one left-turn lane on the southbound approach; one shared right/through lane and one left-turn lane on the westbound approach; one shared right-through lane, one through lane and one left-turn lane on the northbound approach; and one left-turn lane, one through lane and one right-turn lane on the eastbound approach. Improvements on the south leg and operation of the proposed traffic signal will require coordination with the improvements proposed for the SR-126 and Hallock Drive intersection.

- 12th Street & Santa Paula Street (Intersection 4) - The intersection of 12th Street and Santa Paula Street can be mitigated to LOS C or better by installing a traffic signal, reconfiguring the intersection, and widening the west leg. A peak hour signal warrant analysis was conducted based on the Peak Hour Warrant presented in the CA MUTCD and is included in Appendix E. It indicates that a traffic signal installation at this intersection would be warranted under cumulative plus project conditions. Physical modifications to the

intersection include restriping the eastbound, northbound, and westbound approaches. The eastbound approach can be restriped to provide one left-turn lane, one through lane and one right-turn lane; the northbound approach would consist of one right-turn lane and one shared left-turn/through lane; the westbound approach would consist of one left-turn lane and one shared through/right-turn lane. The west leg would also be widened to a width of 50 feet from curb to curb, as described above and recommended in the Circulation Element.

- Ojai Road (SR-150) & Richmond Road (Intersection 9) – The intersection of Ojai Road and Richmond Road can be mitigated to LOS C or better with the addition of peak period parking restriction, a peak period left-turn restriction, and pavement widening on Ojai Road. The parking restriction would result in one additional southbound lane in the a.m. peak period and one additional northbound lane in the p.m. peak period. The peak hour left-turn restriction would apply to the westbound approach of the intersection only, where left-turning vehicles would be expected to utilize nearby signalized intersections to make this movement. The widening of Ojai Road is consistent with the improvements recommended in the Circulation Element. These improvements would require coordination with and approval by Caltrans.

- Ojai Road (SR-150) & Orchard Road (Intersection 10) – The intersection of Ojai Road and Orchard Road can be mitigated to LOS C or better with the addition of peak period parking restrictions and a traffic signal. The projected peak hour traffic volumes at this location for the future with project with mitigation scenario assume that the proposed peak period left-turn restrictions would be in place at study intersections 9 and 11. The parking restriction on Ojai Road would result in one additional southbound lane in the a.m. peak period and one additional northbound lane in the p.m. peak period. A peak hour signal warrant analysis is provided in Appendix E and indicates that a traffic signal installation at this intersection would be warranted under cumulative plus project conditions. These improvements would require coordination with and approval by Caltrans.

- Ojai Road (SR-150) & Saticoy Street (Intersection 11) – The cumulative impact at the intersection of Ojai Road and Saticoy Street can be mitigated to LOS C or better with the addition of peak period parking and turning restrictions. The parking restriction would result in one additional southbound lane in the a.m. peak period and one additional

northbound lane in the p.m. peak period. The peak hour left-turn restriction would apply to the westbound approach of the intersection only, where left-turning vehicles would be expected to utilize nearby signalized intersections to make this movement. These improvements would require coordination with and approval by Caltrans.

- Ojai Road (SR-150)/10th Street & Santa Paula Street (Intersection 12) – The intersection of Ojai Road/10th Street and Santa Paula Street can be mitigated to LOS C or better with a peak period parking restriction and physical improvements to the intersection. The parking restriction would result in one additional southbound lane in the a.m. peak period and one additional northbound lane in the p.m. peak period. Proposed physical improvements to the intersection include widening, consistent with recommendations in the Circulation Element for this location, and reconfiguration of the intersection. The intersection would be reconfigured to a typical four-legged intersection, instead of the current five-legged configuration. This would result in the southbound and northbound approaches providing one left-turn lane and one shared through/right-turn lane during the off-peak period. Both the eastbound and westbound approaches would both provide one right-turn lane, one through lane, and one left-turn lane. These improvements would entail the widening of the Ojai Road/10th Street roadway to slightly more than 50 feet but appear feasible within the existing rights-of-way. These improvements would require coordination with and approval by Caltrans.

  Access to 10th Street north of Santa Paula Street would be restricted to right turns only from and to Ojai Road. Northbound vehicles wishing to travel north onto 10th Street would be expected to take other routes into the area. A total of approximately 100 vehicles and 150 vehicles would be diverted due to the intersection reconfiguration during the a.m. and p.m. peak hours, respectively. It is assumed that the one–half of the displaced vehicles (50 or 75 vehicles) would divert to the northbound Ojai Road movement and the other half (50 or 75 vehicles) would divert to the northbound left turn onto Santa Paula Street. The analysis did not reveal any impacts that would be generated by the diverted traffic.

- 10th Street & Harvard Boulevard (Intersection 15) – The intersection of 10th Street and Harvard Boulevard can be mitigated LOS C or better with the addition of a peak period parking restriction on the southbound approach and reconfiguration of the northbound approach. The parking restriction would result in one additional southbound lane in the

a.m. and p.m. peak periods. The southbound lane configuration would be striped to include one shared through/right-turn lane, one through lane (during peak hours), and one left-turn lane. The northbound approach can be restriped to provide one right-turn lane, one through lane, and one left-turn lane.

- 8th Street & Santa Paula Street (Intersection 18) – The intersection of 8th Street and Santa Paula Street can be mitigated to LOS C or better with widening and reconfiguring the northbound approach. This would result in a right-turn lane and a shared through/left-turn lane.

- Palm Avenue & Santa Paula Street (Intersection 22) – The all-way stop controlled intersection of Palm Avenue and Santa Paula Street can be mitigated to LOS C or better with the reconfiguration of travel lanes on the northbound and westbound approaches. This would result in a right-turn lane and a shared through/left-turn lane on the northbound approach and one left-turn and one shared through/right-turn lane on the westbound approach.

- Steckel Drive & Santa Paula Street (Intersection 28) – The all-way stop-controlled intersection of Steckel Drive and Santa Paula Street can be mitigated to LOS C or better with the reconfiguration of travel lanes on the westbound approach to provide one left-turn lane and one shared through/right-turn lane.

- Peck Road & Main Street and Harvard Boulevard (Intersection 32) – This intersection can be mitigated to LOS C or better with the addition of one travel lane to both the northbound and southbound approaches on Peck Road. The northbound leg would be configured with one right-turn lane, two through lanes, and one left-turn lane and one shared through/right-turn lane, one through lane, and one left-turn lane on the southbound leg.

- Peck Road & SR-126 Eastbound Ramps (Intersection 34) – This intersection can be mitigated to LOS C or better by installing a traffic signal. A peak hour signal warrant analysis is provided in Appendix E and indicates that the installation of a traffic signal would be warranted under cumulative plus project conditions. This improvement would require coordination with and approval by Caltrans.

- Faulkner Road & SR-126 Westbound Ramps (Intersection 35) – The intersection of Faulkner Road and SR-126 westbound ramps can be mitigated to LOS C or better with the reconfiguration of the westbound approach to provide one shared through/right-turn lane and two left-turn lanes. While the freeway on-ramp at this location currently provides two lanes, this improvement would require coordination with and approval by Caltrans.

Freeway Improvement

The VCCMP recommends the widening of SR-126 to three lanes in each direction for a total of six lanes; the widening of SR-126 will be required to accommodate existing and anticipated development in the City, as well as projected increases in regional through traffic. The widening can be accomplished within the existing freeway right-of-way. Based on the LOS criteria for the analyzed roadway segments, the segment of SR-126 between Peck Road and Briggs Road would be significantly impacted under the cumulative plus project conditions. The addition of a third through lane in both directions on this portion of SR-126 would mitigate the impacts identified there, resulting in LOS D or better.

MITIGATION FUNDING

Fair-share calculations for developer contributions were made for the intersections impacted by project generated traffic. The calculations were developed by calculating the increase in projected traffic volumes from the existing condition to the cumulative plus project condition; the increase establishes the total amount of projected growth at each location. Next, the project only volumes are divided by the total volume increase at each impacted intersection. This step determines the amount of traffic the project is contributing to the intersection and the approximate proportional contribution towards funding the proposed mitigation measure.

The fair share calculations were performed for both the a.m. and p.m. peak hours, as shown in Table 16. The range of maximum project contribution is between 5.6% and 67.4%. At three locations, the calculated maximum fair share does not accurately reflect the cause of the impacts at the intersections. Based on the intersection analysis, the impacts at the following intersections are project-related impacts (rather than cumulative impacts to which the project would contribute):

TABLE 16
2020 PROJECT FAIR SHARE INTERSECTION TRAFFIC CONTRIBUTION

Int #	Intersection	A.M. Peak Hour					P.M. Peak Hour					Maximum Contribution
		Existing Traffic	2020 Projected Traffic	Project Only Traffic	Total New Traffic	Project % of New Traffic	Existing Traffic	2020 Projected Traffic	Project Only Traffic	Total New Traffic	Project % of New Traffic	
1	Santa Paula Freeway & Hallock Drive	2,249	4,865	1,135	2,616	43.4%	2,923	5,855	1,205	2,932	41.1%	43.4%
2	Telegraph Road & Hallock Drive	412	2,785	1,575	2,373	66.4%	507	2,940	1,640	2,433	67.4%	67.4%
4	12th Street & Santa Paula Street	658	1,905	650	1,247	52.1%	850	2,235	560	1,385	40.4%	52.1%
9	Ojai Road & Richmond Road	1,184	1,635	105	451	23.3%	1,204	1,650	70	446	15.7%	23.3%
10	Ojai Road & Orchard Street	1,021	1,485	105	464	22.6%	1,064	1,610	70	546	12.8%	22.6%
11	Ojai Road & Saticoy Street	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
12	Ojai Road/10th Street & Santa Paula Street	1,794	2,200	270	406	66.5%	[b]	[b]	[b]	[b]	[b]	66.5%
15	10th Street & Harvard Boulevard	1,990	2,465	235	475	49.5%	2,166	2,725	195	559	34.9%	49.5%
18	8th Street & Santa Paula Street	828	1,430	310	602	51.5%	764	1,350	230	586	39.2%	100% [a]
22	Palm Avenue & Santa Paula Street	1,000	1,365	165	365	45.2%	[b]	[b]	[b]	[b]	[b]	100% [a]
28	Palm Avenue & Harvard Boulevard	745	1,220	60	475	12.6%	[b]	[b]	[b]	[b]	[b]	100% [a]
32	Peck Road & Main Street/Harvard Boulevard	1,731	2,185	95	454	20.9%	2,407	2,935	85	528	16.1%	20.9%
34	Peck Road & SR-126 EB ramps	[b]	[b]	[b]	[b]	[b]	1,034	1,235	35	201	17.4%	28.5%
35	Faulkner Road & SR-126 WB ramps	631	990	20	359	5.6%	857	1,210	10	353	2.8%	5.6%
n/a	Eastbound SR-126 from Briggs Rd. to Peck Rd.	[b]	[b]	[b]	[b]	[b]	2,686	4,295	465	1,609	28.9%	28.9%

Notes:
[a] Based on Table 11, the impact at this intersection is only attributed to the project. Therefore, the maximum contribution is recommended for this intersection.
Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.
[b] Because no project impact was identified in this peak hour, no fair-share contribution was calculated.

18. 8th Street & Santa Paula Street
22. Palm Avenue & Santa Paula Street
28. Palm Avenue & Harvard Boulevard

As projected-related impacts, a 100% contribution is identified for these three locations.

SANTA PAULA GENERAL PLAN CONSISTENCY

In addition to the extension of Santa Paula Street over Santa Paula Creek and the improvement of Hallock Drive south of East Area 1, the Circulation Element of the Santa Paula General Plan anticipates one other roadway improvement in conjunction with the development of East Area 1: the provision of a new roadway connection from westbound SR-126 to Telegraph Road to relieve the intersection of SR-126 & Hallock Drive. The primary effect is that most vehicles previously performing the westbound right turn at Hallock Drive would divert to this new roadway link located west of Hallock Drive.

As analyzed in this chapter, the LOS projected for both intersections do not reflect the implementation of this improvement. Although this improvement is not necessary to mitigate the identified cumulative and project impacts, the potential effect of this access point was analyzed in relation to the two adjacent intersections (study intersections 1 and 2). Should the westbound roadway link be built, the resulting levels of service would be acceptable (LOS C or better) at the two intersections under both the a.m. and p.m. peak hours. These projected results are similar to the results generated by the mitigation analysis.

The mitigations proposed for study intersections 1 and 2 would be slightly different if the westbound roadway link from SR-126 to Telegraph Road were constructed. At the westbound approach of Hallock Drive & SR-126, the proposed separate right-turn lane would no longer be necessary; the proposed third westbound through lane would be converted into a shared through/right-turn lane. The mitigations to other approaches at the intersection would remain the same. On the westbound approach of Hallock Drive and Telegraph Road, the lanes would be configured to provide a right-turn lane, a through lane, and a left-turn lane. The remaining mitigations at this location would be unchanged.

The Circulation Element of the Santa Paula General Plan also recommends a series of roadway improvements to accommodate the projected growth in traffic volume to accommodate General Plan buildout. The potential widening of Ojai Road and to Santa Paula Street is among those improvements and is consistent with the mitigation measures described previously.

Ojai Road. Ojai Road is recommended to be widened to a pavement width of 50 feet. In the study area, widening is recommended on the section of Ojai Road between Santa Paula Street and Say Road. Sections of the existing roadway vary in width between 35 feet to 42 feet; the recommended roadway width is 50 feet. This widening can be accomplished within the existing right-of-way and would affect four analyzed intersections: Ojai Road/10th Street & Santa Paula Street (Intersection 12), Ojai Road & Saticoy Street (Intersection 11), Ojai Road & Orchard Street (Intersection 10), and Ojai Road & Richmond Road (Intersection 9).

Santa Paula Street. Santa Paula Street is recommended to be widened to a pavement width of 50 feet. Within the study area, this would apply to the section between SR-150 and the Santa Paula Creek. The existing roadway width is 36 feet; the widening can be accomplished within the existing right-of-way. This roadway widening would affect two analyzed intersections: Ojai Road/10th Street & Santa Paula Street (Intersection 12) and 12th Street & Santa Paula Street (Intersection 4). In particular, the west leg of the 12th Street intersection and the east leg of the Ojai Road/10th Street intersection would be widened.

CONGESTION MANAGEMENT PLAN ANALYSIS

An analysis was completed to comply with the monitoring requirements found in the Ventura County Transportation Commission's (VCTC) 2004/2005 VCCMP. The VCTC has adopted LOS E as a minimum system-wide level of service on all VCCMP roadways. Within the study area, SR-126 and SR-150, as well as Harvard Boulevard/Telegraph Road west of SR-150 (including study intersections 15, 20, 35, 30 and 32) are part of the CMP roadway network.

The results of the intersection analysis in Table 11 and the freeway and freeway ramp junction analysis presented in Tables 12 and 13 indicate that most of these facilities would operate at LOS E or better during both peak hours under cumulative base plus project conditions. The exception is the eastbound segment of SR-126 from Peck Road to Briggs Road, where LOS F conditions

are projected in the p.m. peak hour with the addition traffic. With the improvements identified above, this facility would operate at LOS E or better during both peak hours with the addition of project traffic, mitigating the CMP impact at this location.

INTERIM IMPACT ANALYSIS

An analysis was performed to estimate the potential interim impacts generated by the project prior to full buildout to assist in the sequencing of the proposed mitigation measures described earlier in this chapter. The interim impacts were calculated by estimating the level of cumulative traffic and adding the estimated traffic generated at the midpoint of the planned ten-year construction of the project. This midpoint was estimated by utilizing a preliminary project phasing timeline developed for other studies related to the overall development. The midpoint of project completion is estimated to be 2015, with full buildout by 2020.

The 35 external intersections (study intersections 1 through 35) were analyzed for 2015 conditions and the results of this analysis are summarized in Table 17. Applying the intersection significant impact criteria (an impact would occur if the projected level of service were LOS D or worse), the project would contribute to cumulative impacts at the following eight intersections under the interim 2015 conditions:

1. SR-126 & Hallock Drive
2. Telegraph Road & Hallock Drive
4. 12th Street & Santa Paula Street
9. Ojai Road & Richmond Road
10. Ojai Road & Orchard Street
12. Ojai Road/10th Street & Santa Paula Street
15. 10th Street & Harvard Boulevard
34. Peck Road & SR-126 eastbound ramps

As discussed previously, because the project would result in a shift in background traffic and would slightly reduce delay at Ojai Road & Saticoy Street (Intersection 11), no project impact was identified there.

TABLE 17
INTERSECTION LEVEL OF SERVICE INTERIM ANALYSIS

Intersections	Peak Hour	Existing Conditions (Year 2006)		Interim Base Conditions (Year 2015)		Interim with Project Conditions (Year 2015)		Significant Impact?	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	Cumulative?	Project?
1. Santa Paula Freeway (SR-126) & Hallock Drive	AM	0.476	A	0.616	B	0.691	B	NO	NO
	PM	0.584	A	0.812	D	0.873	D	**YES**	**YES**
2. Telegraph Road & Hallock Drive [a]	AM	13	B	90	F	121	F	**YES**	**YES**
	PM	16	C	55	F	127	F	**YES**	**YES**
3. Telegraph Road/Main Street & Harvard Boulevard [a]	AM	10	A	15	B	15	C	NO	NO
	PM	10	A	12	B	12	B	NO	NO
4. 12th Street & Santa Paula Street [a]	AM	9	A	12	B	41	E	NO	**YES**
	PM	11	B	29	D	82	F	**YES**	**YES**
5. 12th Street & Santa Barbara Street [a]	AM	12	B	14	B	14	B	NO	NO
	PM	14	B	19	C	19	C	NO	NO
6. 12th Street & Main Street	AM	0.268	A	0.449	A	0.436	A	NO	NO
	PM	0.377	A	0.598	A	0.566	A	NO	NO
7. 12th Street & Harvard Boulevard	AM	0.367	A	0.409	A	0.419	A	NO	NO
	PM	0.389	A	0.546	A	0.560	A	NO	NO
8. 12th Street/South Mountain Road & Lemon Road [a]	AM	9	A	9	A	9	A	NO	NO
	PM	10	B	12	B	12	B	NO	NO
9. Ojai Road (SR-150) & Richmond Road [a]	AM	21	C	31	D	32	D	**YES**	**YES**
	PM	21	C	33	D	35	D	**YES**	**YES**
10. Ojai Road (SR-150) & Orchard Street [a]	AM	18	C	23	C	24	C	NO	NO
	PM	17	C	28	D	30	D	**YES**	**YES**
11. Ojai Road (SR-150) & Saticoy Street [a]	AM	20	C	38	E	36	E	**YES**	NO
	PM	23	C	28	D	26	D	**YES**	NO
12. Ojai Road (SR-150)/10th Street & Santa Paula Street	AM	0.694	B	0.783	C	0.790	C	NO	NO
	PM	0.762	C	0.815	D	0.811	D	**YES**	**YES**
13. 10th Street (SR-150) & Santa Barbara Street	AM	0.640	B	0.695	B	0.690	B	NO	NO
	PM	0.592	A	0.613	B	0.598	A	NO	NO
14. 10th Street (SR-150) & Main Street	AM	0.575	A	0.688	B	0.687	B	NO	NO
	PM	0.549	A	0.647	B	0.637	B	NO	NO
15. 10th Street (SR-150) & Harvard Boulevard	AM	0.762	C	0.831	D	0.848	D	**YES**	**YES**
	PM	0.723	C	0.814	D	0.830	D	**YES**	**YES**
16. 10th Street (SR-150) & SR-126 WB ramps	AM	11	B	[a]		[a]		NO	NO
	PM	14	B	[a]		[a]		NO	NO
17. 10th Street (SR-150) & SR-126 EB ramps	AM	14	B	[a]		[a]		NO	NO
	PM	77	F	[a]		[a]		NO	NO

Note:
[a] Intersection to be signalized in future. Analysis of buildout at Year 2020 does not indicate impacts, therefore no interim impacts are projected.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 17 (continued)
INTERSECTION LEVEL OF SERVICE INTERIM ANALYSIS

Intersections	Peak Hour	Existing Conditions (Year 2006)		Interim Base Conditions (Year 2015)		Interim with Project Conditions (Year 2015)		Significant Impact?	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	Cumulative?	Project?
18. 8th Street & Santa Paula Street [a]	AM	11	B	13	B	16	C	NO	NO
	PM	10	B	13	B	16	C	NO	NO
19. 8th Street & Main Street	AM	0.289	A	0.377	A	0.392	A	NO	NO
	PM	0.386	A	0.528	A	0.533	A	NO	NO
20. 8th Street & Harvard Boulevard	AM	0.244	A	0.285	A	0.291	A	NO	NO
	PM	0.360	A	0.469	A	0.477	A	NO	NO
21. 6th Street & Santa Paula Street [a]	AM	16	C	17	C	18	C	NO	NO
	PM	14	B	17	C	18	C	NO	NO
22. Palm Avenue & Santa Paula Street [a]	AM	13	B	15	C	17	C	NO	NO
	PM	11	B	13	B	14	B	NO	NO
23. Palm Avenue & Santa Barbara Street [a]	AM	12	B	15	B	15	C	NO	NO
	PM	13	B	18	C	18	C	NO	NO
24. Palm Avenue & Main Street	AM	0.441	A	0.548	A	0.554	A	NO	NO
	PM	0.438	A	0.507	A	0.513	A	NO	NO
25. Palm Avenue & Harvard Boulevard	AM	0.496	A	0.575	A	0.580	A	NO	NO
	PM	0.615	B	0.694	B	0.699	B	NO	NO
26. Palm Avenue & SR-126 WB ramps	AM	11	B	[a]		[a]		NO	NO
	PM	13	B	[a]		[a]		NO	NO
27. Palm Avenue & SR-126 EB ramps	AM	14	B	[a]		[a]		NO	NO
	PM	25	D	[a]		[a]		NO	NO
28. Steckel Drive & Santa Paula Street [a]	AM	10	B	19	C	19	C	NO	NO
	PM	10	B	18	C	18	C	NO	NO
29. Steckel Drive & Main Street [a]	AM	12	B	13	B	13	B	NO	NO
	PM	13	B	15	B	15	B	NO	NO
30. Steckel Drive & Harvard Boulevard	AM	0.401	A	0.431	A	0.432	A	NO	NO
	PM	0.392	A	0.442	A	0.444	A	NO	NO
31. Peck Road & Santa Paula Street [a]	AM	9	A	13	B	13	B	NO	NO
	PM	8	A	10	A	10	A	NO	NO
32. Peck Road & Main Street/Harvard Boulevard	AM	0.498	A	0.614	B	0.618	B	NO	NO
	PM	0.688	B	0.781	C	0.787	C	NO	NO
33. Peck Road & Faulkner Road	AM	0.312	A	0.398	A	0.398	A	NO	NO
	PM	0.509	A	0.572	A	0.574	A	NO	NO
34. Peck Road & SR-126 EB ramps [a]	AM	9	A	9	A	9	A	NO	NO
	PM	30	D	46	E	47	E	**YES**	**YES**
35. Faulkner Road & SR-126 WB ramps [a]	AM	16	C	24	C	24	C	NO	NO
	PM	12	B	14	B	14	B	NO	NO

Note:
[a] Intersection to be signalized in future. Analysis of buildout at Year 2020 does not indicate impacts, therefore no interim impacts are projected.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

The remaining 26 external intersections are projected to operate at LOS C or better under projected interim (2015) conditions. Based on this analysis, the proposed mitigation measures at the following five intersections would not be necessary until after 2015:

18. 8th Street & Santa Paula Street (LOS D a.m. and p.m.)
22. Palm Avenue & Santa Paula Street (LOS D a.m.)
28. Steckel Drive & Santa Paula Street (LOS D p.m.)
32. Peck Road & Main Street/Harvard Boulevard (LOS D p.m.)
35. Faulkner Road & SR-126 westbound ramps (LOS D a.m.)

A brief discussion of the methodology used to develop this interim analysis is provided in Appendix G.

V. ALTERNATIVE FUTURE SCENARIO ANALYSIS

An alternative future scenario was evaluated that assumed that Hallock Drive would be extended northwest of East Area 1 over the Santa Paula Creek to form a functional by-pass to SR-150 as it runs through the City. Figure 9 illustrates the approximate location of the by-pass route that would be formed through East Area 1 and where it would tie in to the surrounding street system. The full development of East Area 1 was assumed in this scenario, as it is described earlier in this report. The number and location of analyzed intersections and roadway segments was identical to what was analyzed for the cumulative base plus project conditions (without by-pass). This chapter summarizes the results of the analysis of this alternative future scenario.

FUTURE WITH BY-PASS ROUTE TRAFFIC PROJECTIONS

Due to the nature of the alternative future scenario, which would not occur without development of proposed project, the cumulative base traffic conditions discussed as part of Chapter III are unchanged in this analysis. For this reason, only the future traffic projections including traffic generated by the proposed project were evaluated for this scenario.

The future traffic volumes are affected by the proposed by-pass in two ways: some of the local and regional traffic traveling on SR-150 through the City (along Ojai Road and 10th Street) or other north-south streets would shift to utilize the functional by-pass route. In addition, some project traffic would also shift to utilize this potential roadway link. The general result of these shifts would be a reduction in traffic along Ojai Road and 10th Street through the study area and an increase in traffic through East Area 1. The City's Transportation Model was used to estimate the total traffic shifts that would be associated with the extension of Hallock Drive northward. The estimated shifts, relative to the volumes shown in Figure 8 for the cumulative plus project scenario, illustrated in Figure 10. They would include both project-related traffic and a shift of background traffic that would otherwise have used Santa Paula Street or parallel routes.

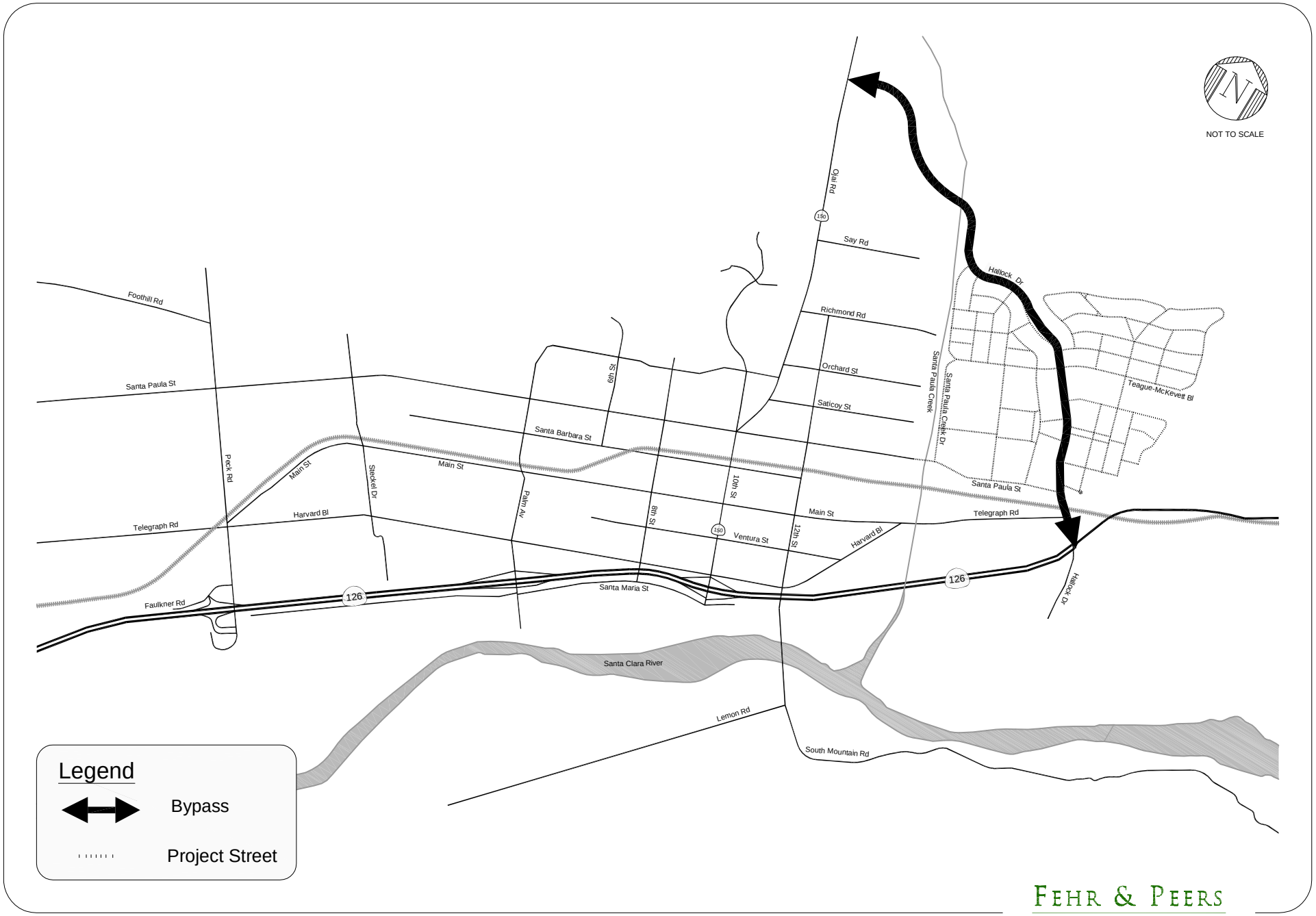

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FIGURE 9
LOCATION OF BY-PASS ROUTE

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FIGURE 10
ESTIMATED TOTAL TRAFFIC SHIFTS WITH BY-PASS ROUTE

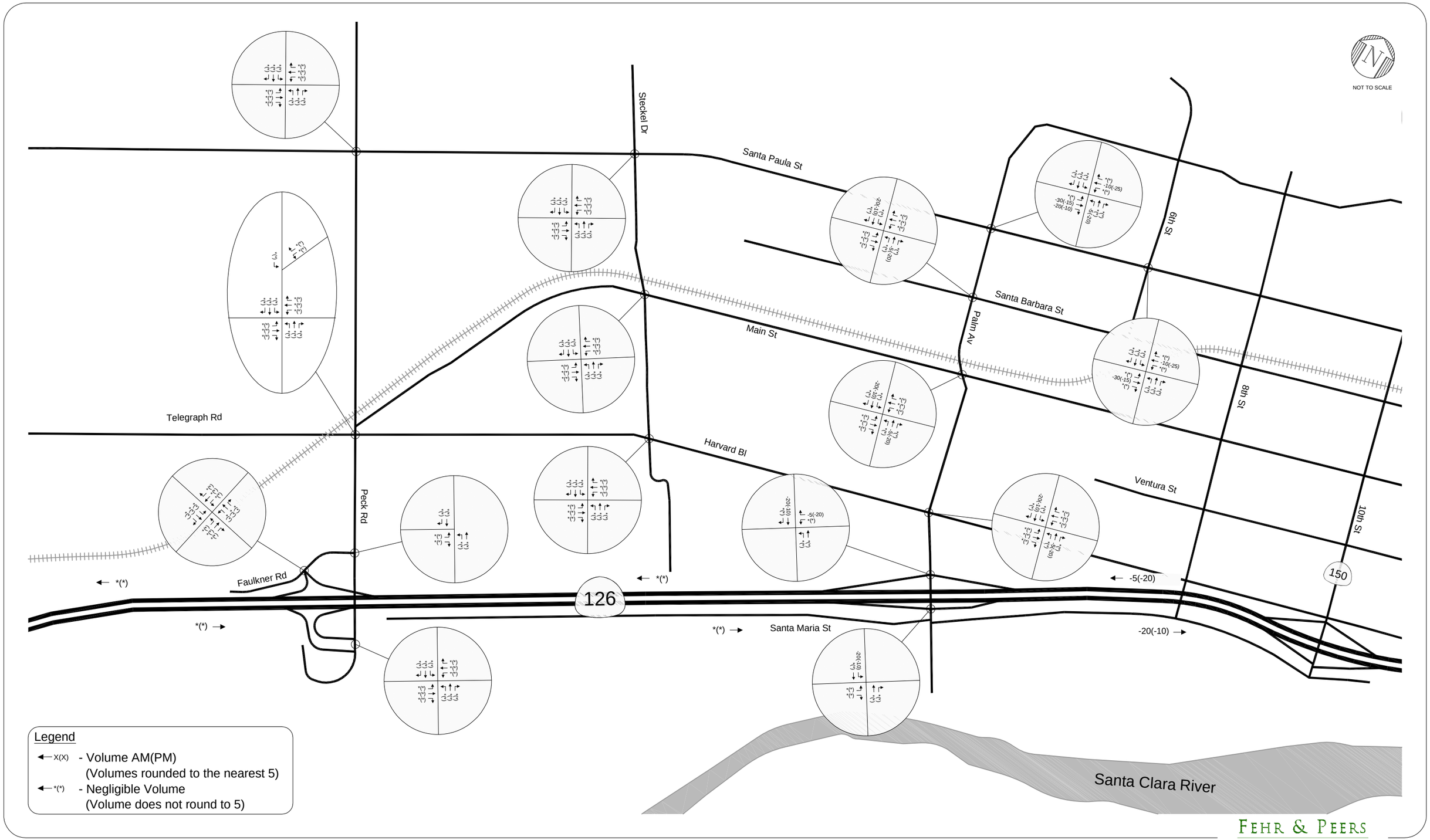

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FIGURE 10 (CONTINUED)
ESTIMATED TOTAL TRAFFIC SHIFTS WITH BY-PASS ROUTE

CUMULATIVE PLUS PROJECT WITH BY-PASS TRAFFIC CONDITIONS

The projected total future traffic volumes under cumulative plus project plus by-pass conditions are illustrated in Figure 11. These volumes were analyzed to determine the projected future operating conditions under this scenario. The results of the intersection analysis, segment analysis, and ramp junction analysis are summarized in Tables 18 and 19, respectively.

A total of 11 intersections are projected to operate at LOS D or worse during either a.m. or p.m. peak hour under the cumulative plus project plus by-pass conditions. Ten of these intersections would also be significantly impacted under the future plus project scenario described in Chapter IV:

1. SR-126 & Hallock Drive (LOS F a.m. and p.m.)
2. Telegraph Road & Hallock Drive (LOS F a.m. and p.m.)
4. 12th Street & Santa Paula Street (LOS E a.m. and LOS F p.m.)
12. Ojai Road/10th Street & Santa Paula Street (LOS D a.m. and p.m.)
15. 10th Street & Harvard Boulevard (LOS E a.m. and p.m.)
18. 8th Street & Santa Paula Street (LOS D a.m.)
28. Steckel Drive & Santa Paula Street (LOS D a.m.)
32. Peck Road & Main Street/Harvard Boulevard (LOS D p.m.)
34. Peck Road & SR-126 eastbound ramps (LOS F p.m.)
35. Faulkner Road & SR-126 westbound ramps (LOS D a.m.)

Of these 10 impacted intersections under this scenario, project-specific impacts are identified at the following four intersections: SR-126 & Hallock Drive (intersection 1 in the a.m. peak hour), 12th Street & Santa Paula Street (intersection 4 in the a.m. peak hour), 8th Street & Santa Paula Street (intersection 18 in the a.m. peak hour); and Steckel Drive & Santa Paula Street (intersection 28 in the a.m. peak hour). The project-related traffic added to these four intersections would contribute to a decline from LOS C or better operations under cumulative base conditions. The addition of project related traffic to the six other impacted intersections, as well as at intersection 1 and intersection 4 in the p.m. peak hour, would contribute to the projected undesirable levels of service.

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FIGURE 11
CUMULATIVE PLUS PROJECT INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES - ALTERNATIVE

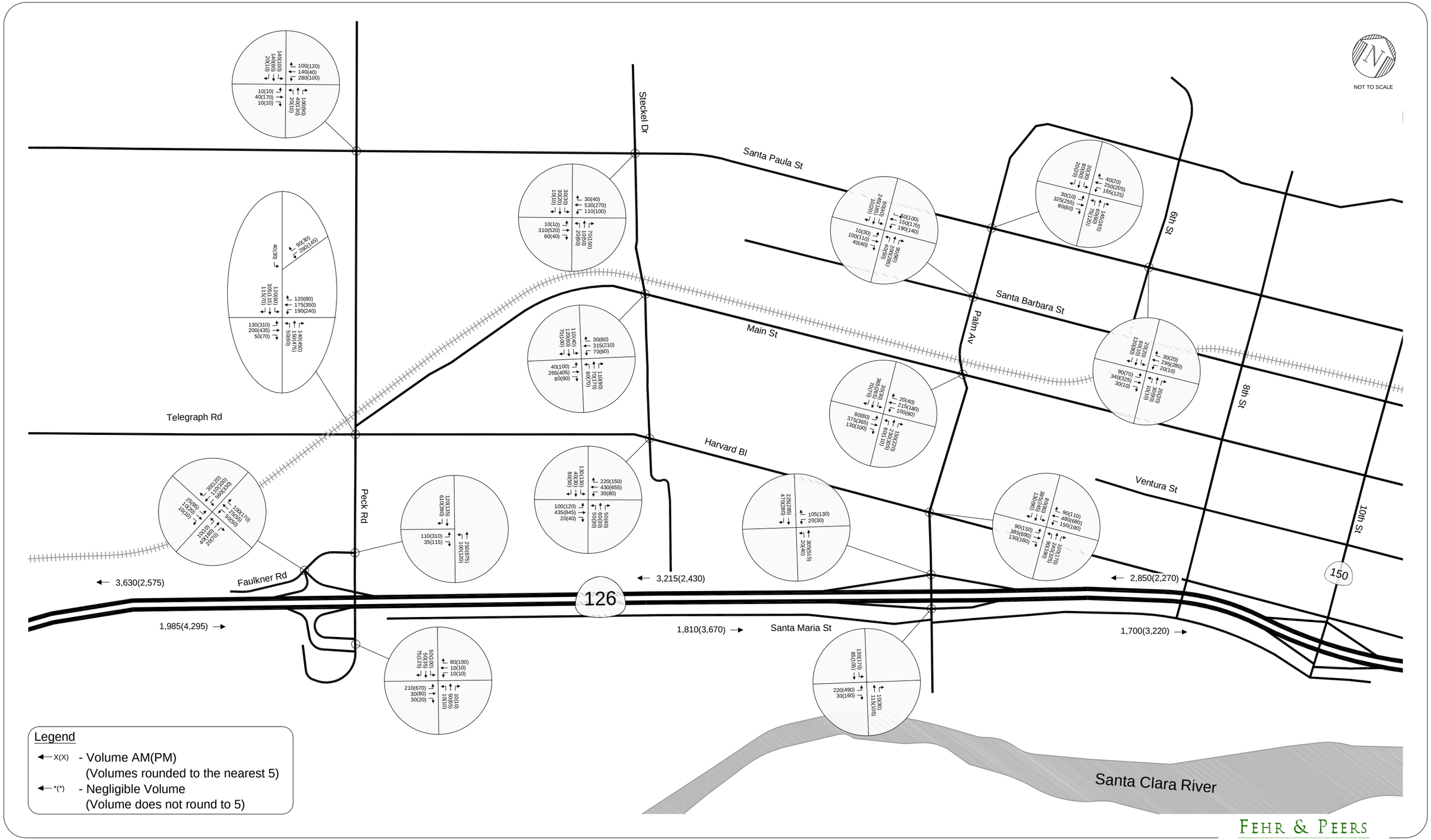

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FIGURE 11 (CONTINUED)
CUMULATIVE PLUS PROJECT INTERSECTION AND ROADWAY SEGMENT PEAK HOUR TRAFFIC VOLUMES - ALTERNATIVE

TABLE 18
INTERSECTION LEVEL OF SERVICE ANALYSIS
FUTURE (2020) CONDITIONS WITH BY-PASS

Intersections	Peak Hour	Cumbase Year 2020		Cumulative plus Project with Bypass Year 2020				
		V/C or Delay	LOS	V/C or Delay	LOS	Change	Significant Impact Cumulative?	Significant Impact Project?
1. Santa Paula Freeway (SR-126)	AM	0.694	B	1.080	F	0.386	NO	**YES**
& Hallock Drive	PM	0.939	E	1.183	F	0.244	**YES**	**YES**
2. Telegraph Road	AM	133	F	296	F	163	**YES**	**YES**
& Hallock Drive [a]	PM	77	F	376	F	298	**YES**	**YES**
3. Telegraph Road/Main Street	AM	17	C	21	C	4	NO	NO
& Harvard Boulevard [a]	PM	13	B	14	B	1	NO	NO
4. 12th Street	AM	13	B	47	E	34.2	NO	**YES**
& Santa Paula Street [a]	PM	39	E	122	F	83.2	**YES**	**YES**
5. 12th Street	AM	16	C	15	C	-1	NO	NO
& Santa Barbara Street [a]	PM	22	C	20	C	-3	NO	NO
6. 12th Street	AM	0.550	A	0.481	A	-0.069	NO	NO
& Main Street	PM	0.720	C	0.595	A	-0.125	NO	NO
7. 12th Street	AM	0.432	A	0.481	A	0.049	NO	NO
& Harvard Boulevard	PM	0.633	B	0.689	B	0.056	NO	NO
8. 12th Street/South Mountain Roa	AM	9	A	10	A	0	NO	NO
& Lemon Road [a]	PM	13	B	13	B	1	NO	NO
9. Ojai Road (SR-150)	AM	36	E	24	C	-13	**YES**	NO
& Richmond Road [a]	PM	40	E	23	C	-18	**YES**	NO
10. Ojai Road (SR-150)	AM	27	D	20	C	-7	**YES**	NO
& Orchard Street [a]	PM	34	D	18	C	-16	**YES**	NO
11. Ojai Road (SR-150)	AM	47	E	26	D	-21	**YES**	NO
& Saticoy Street [a]	PM	30	D	28	D	-2	**YES**	NO
12. Ojai Road (SR-150)/10th Street	AM	0.833	D	0.848	D	0.015	**YES**	**YES**
& Santa Paula Street	PM	0.845	D	0.817	D	-0.028	**YES**	NO
13. 10th Street (SR-150)	AM	0.725	C	0.700	B	-0.025	NO	NO
& Santa Barbara Street	PM	0.625	B	0.563	A	-0.062	NO	NO
14. 10th Street (SR-150)	AM	0.751	C	0.745	C	-0.006	NO	NO
& Main Street	PM	0.701	C	0.663	B	-0.038	NO	NO
15. 10th Street (SR-150)	AM	0.869	D	0.956	E	0.087	**YES**	**YES**
& Harvard Boulevard	PM	0.864	D	0.929	E	0.065	**YES**	**YES**
16. 10th Street (SR-150)	AM	0.682	B	0.666	B	-0.016	NO	NO
& SR-126 WB ramps	PM	0.557	A	0.518	A	-0.039	NO	NO
17. 10th Street (SR-150)	AM	0.362	A	0.353	A	-0.009	NO	NO
& SR-126 EB ramps	PM	0.526	A	0.541	A	0.015	NO	NO

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 18 (continued)
INTERSECTION LEVEL OF SERVICE ANALYSIS
FUTURE (2020) CONDITIONS WITH BY-PASS

Intersections	Peak Hour	Cumbase Year 2020		Cumulative plus Project with Bypass Year 2020				
		V/C or Delay	LOS	V/C or Delay	LOS	Change	Significant Impact Cumulative?	Significant Impact Project?
18. 8th Street & Santa Paula Street [a]	AM	14	B	25	D	11	NO	**YES**
	PM	15	B	22	C	7	NO	NO
19. 8th Street & Main Street	AM	0.426	A	0.503	A	0.077	NO	NO
	PM	0.607	B	0.628	B	0.021	NO	NO
20. 8th Street & Harvard Boulevard	AM	0.307	A	0.406	A	0.099	NO	NO
	PM	0.529	A	0.564	A	0.035	NO	NO
21. 6th Street & Santa Paula Street [a]	AM	19	C	22	C	4	NO	NO
	PM	20	C	22	C	2	NO	NO
22. Palm Avenue & Santa Paula Street [a]	AM	17	C	21	C	4	NO	NO
	PM	14	B	15	B	1	NO	NO
23. Palm Avenue & Santa Barbara Street [a]	AM	16	C	17	C	1	NO	NO
	PM	20	C	20	C	0	NO	NO
24. Palm Avenue & Main Street	AM	0.608	B	0.626	B	0.018	NO	NO
	PM	0.545	A	0.563	A	0.018	NO	NO
25. Palm Avenue & Harvard Boulevard	AM	0.619	B	0.633	B	0.014	NO	NO
	PM	0.738	C	0.744	C	0.006	NO	NO
26. Palm Avenue & SR-126 WB ramps	AM	0.526	A	0.513	A	-0.013	NO	NO
	PM	0.475	A	0.459	A	-0.016	NO	NO
27. Palm Avenue & SR-126 EB ramps	AM	0.301	A	0.297	A	-0.004	NO	NO
	PM	0.500	A	0.496	A	-0.004	NO	NO
28. Steckel Drive & Santa Paula Street [a]	AM	23	C	27	D	4	NO	**YES**
	PM	22	C	25	C	3	NO	NO
29. Steckel Drive & Main Street [a]	AM	14	B	15	B	1	NO	NO
	PM	16	C	17	C	1	NO	NO
30. Steckel Drive & Harvard Boulevard	AM	0.447	A	0.453	A	0.006	NO	NO
	PM	0.469	A	0.477	A	0.008	NO	NO
31. Peck Road & Santa Paula Street [a]	AM	16	C	17	C	1	NO	NO
	PM	10	B	10	B	0	NO	NO
32. Peck Road & Main Street/Harvard Boulevard	AM	0.678	B	0.697	B	0.019	NO	NO
	PM	0.833	D	0.858	D	0.025	**YES**	**YES**
33. Peck Road & Faulkner Road	AM	0.445	A	0.445	A	0.000	NO	NO
	PM	0.607	B	0.616	B	0.009	NO	NO
34. Peck Road & SR-126 EB ramps [a]	AM	9	A	10	A	0	NO	NO
	PM	55	F	58	F	3	**YES**	**YES**
35. Faulkner Road & SR-126 WB ramps [a]	AM	28	D	29	D	1	**YES**	**YES**
	PM	14	B	15	B	0	NO	NO

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan* (Fehr & Peers/Kaku Associates, June 2007).

Under this scenario, the shifts in background traffic projected to occur with the construction of two new access routes in the eastern part of the City (Santa Paula Street eastward and Hallock Street northward) would result in reductions in traffic volumes projected under the cumulative base scenario at 11 study intersections. These reductions would avoid cumulative and project impacts at three locations (intersections 9, 10, and 11).

Compared to the cumulative plus project conditions, the by-pass alternative results in three fewer impacted intersections: Ojai Road & Richmond Road (intersection 9), Ojai Road & Orchard Street (intersection 10), and Palm Avenue & Santa Paula Street (intersection 22). Of these, the first two would be improved over projected cumulative base conditions and would operate acceptably under this scenario (LOS C). The improvement at these intersections, as well as at seven others not identified as impacted, is due to the diversion of project and background traffic from Ojai Road onto the northward extension of Hallock Drive that is assumed in this alternative future scenario.

Of the five analyzed freeway and multilane highway segments, four are projected to operate at LOS E or better in both directions and in both peak periods, thereby meeting the minimum desirable level of service. The segment of SR-126 between Peck Road and Briggs Road, however, is projected to operate at LOS F in the eastbound with the addition of project traffic, falling below the minimum desirable level of service on freeway segments (LOS E or better) and the project would contribute to a significant impact there. The results are summarized in Table 19.

All 12 analyzed freeway ramp junction facilities are projected to operate at LOS E or better during both peak hours under cumulative plus project conditions in this alternative future scenario, as summarized in Table 20. Therefore, each location would meet or exceed the minimum acceptable level of service for these facilities (LOS E) and would not be significantly impacted by the addition of project traffic.

TABLE 19
FUTURE CONDITIONS (2020) LEVEL OF SERVICE ANALYSIS - FREEWAY AND MULTILANE HIGHWAY SEGMENTS

Roadway Segment	Peak Hour	Cumulative Base				Cumulative plus Project - With By-Pass				Significant Impacts	
		Westbound		Eastbound		Westbound		Eastbound			
		Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS	Density (pc/mi/ln)*	LOS	Cumulative Impact?	Project Impact?
1. SR-126 - Sespe Ranch Road to	AM	18.9	C	9.6	A	21.2	C	11.8	B	NO	NO
Hallock Dr [a]	PM	13.1	B	20.8	C	15.6	B	22.9	C	NO	NO
2. SR-126 - Hallock Dr to	AM	14.0	B	8.6	A	16.3	B	10.2	A	NO	NO
10th St (SR-150) [b]	PM	12.8	B	18.0	B	14.3	B	20.2	C	NO	NO
3. SR-126 - 10th St (SR-150) to	AM	19.7	C	11.0	A	23.2	C	13.7	B	NO	NO
Palm Av [b]	PM	15.4	B	22.4	C	18.3	C	26.9	D	NO	NO
4. SR-126 - Palm Av to	AM	22.8	C	11.7	B	26.8	D	14.6	B	NO	NO
Peck Rd [b]	PM	16.5	B	26.7	D	19.6	C	32.8	D	NO	NO
5. SR-126 Peck Rd to	AM	26.9	D	13.2	B	32.1	D	16.0	B	NO	NO
Briggs Rd [b] [c]	PM	17.8	B	35.4	E	20.8	C	OVFL**	F	NO	YES

Notes:
* pc/mi/ln denotes passenger cars per mile per lane
** OVFL denotes overflow conditions
[a] Analyzed using Multilane Highway methodology from *Highway Capacity Manual*, Transportation Research Board, 2000.
[b] Analyzed using Freeway methodology from *Highway Capacity Manual*.
[c] Mitigated to LOS D or better in both directions and peak hour:
EB a.m. - 14.6 B; p.m. 26.2 D.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

TABLE 20
FUTURE CONDITIONS (2020) LEVEL OF SERVICE ANALYSIS -
RAMP-FREEWAY JUNCTION AREAS OF INFLUENCE

RAMP	CUMULATIVE BASE (2020) CONDITIONS				CUMULATIVE PLUS BYPASS (2020) CONDITIONS				Significant Impact	
	A.M.		P.M.		A.M.		P.M.			
	DENSITY [a]	LOS	DENSITY [a]	LOS	DENSITY [a]	LOS	DENSITY [a]	LOS	Cumulative?	Project?
10th St westbound off-ramp	19.4	B	17.9	B	22.0	C	19.7	B	NO	NO
10th St westbound on-ramp	23.4	C	19.0	B	26.4	C	22.1	C	NO	NO
10th St eastbound off-ramp	16.2	B	29.3	D	19.4	B	33.6	D	NO	NO
10th St eastbound on-ramp	12.2	B	22.2	C	13.9	B	24.6	C	NO	NO
Palm Av westbound off-ramp	26.0	C	21.0	C	29.8	D	24.4	C	NO	NO
Palm Av westbound on-ramp	26.3	C	19.9	B	29.9	D	23.2	C	NO	NO
Palm Av eastbound off-ramp	17.1	B	33.5	D	20.5	C	37.9	E	NO	NO
Palm Av eastbound on-ramp	14.0	B	26.1	C	16.9	B	30.1	D	NO	NO
Peck Rd westbound off-ramp	29.0	D	22.0	C	32.9	D	25.5	C	NO	NO
Peck Rd westbound on-ramp	31.2	D	22.5	C	34.8	D	25.7	C	NO	NO
Peck Rd eastbound off-ramp	18.8	B	39.3	E	22.0	C	43.6	E	NO	NO
Peck Rd eastbound on-ramp	15.5	B	30.6	D	18.6	B	34.7	D	NO	NO

[a] Basic freeway segments, ramp junctions, and weaving areas level of service are measured with density (passenger car per mile per lane or pc/mi/ln).

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

INTERNAL INTERSECTIONS

Projected traffic volume for key internal intersections within East Area 1 (study intersections 36 through 40) were analyzed in the cumulative plus project plus by-pass alternative future scenario (as they would only exist with the development of the project). The recommended lane configurations at these intersections are found in Appendix A and could be accommodated within the thoroughfare design standards proposed in the draft Specific Plan. Four of the five analyzed internal intersections would operate acceptably with stop controls; one intersection (Hallock Drive and Santa Paula Street) would require signalization to achieve LOS C or better operations. Table 21 summarizes the results of the internal intersection analysis.

MITIGATION MEASURES

The mitigation measures discussed in Chapter IV for these significantly impacted locations (10 intersections and one freeway segment) would fully mitigate the identified intersection impacts to LOS C or better, as shown in Table 22, and the identified freeway impact to LOS E or better, as shown in Table 19.

SANTA PAULA GENERAL PLAN CONSISTENCY

As discussed in Chapter IV, the Circulation Element of the Santa Paula General Plan identifies three roadway improvements in conjunction with the development of East Area 1: the extension of Santa Paula Street over Santa Paula Creek, the improvement of Hallock Drive south of East Area 1, and the provision of a new roadway connection from westbound SR-126 to Telegraph Road to relieve the intersection of SR-126 & Hallock Drive. The northward extension of Hallock Drive to form a functional by-pass route to SR-150 is not identified in the Circulation Element in conjunction with the development of East Area 1.

The construction of a westbound roadway link from SR-126 to Telegraph Road would reduce the necessary improvements at Hallock Drive & SR-126 and at Hallock Drive & Telegraph Road (study intersections 1 and 2) in the same way as discussed in the General Plan consistency analysis presented in Chapter IV. At the westbound approach of Hallock Drive & SR-126, the

TABLE 21
INTERNAL INTERSECTION LEVELS OF SERVICE
FUTURE (2020) WITH BY-PASS

Intersections	Peak Hour	Cumulative plus Bypass	
		V/C or Delay	LOS
36. Hallock Drive & Santa Paula Street (signal control)	AM PM	0.687 0.666	B B
37. Hallock Drive & Teague-McKevett Boulevard (all-way stop control)	AM PM	12 12	B B
38. Santa Paula Creek Drive & Santa Paula Street (all-way stop control)	AM PM	10 10	B B
39. Santa Paula Creek Drive & Teague-McKevett Boulevard (minor approach stop control)	AM PM	9 9	A A
40. Hallock Drive & Santa Paula Creek Drive (minor approach stop control)	AM PM	11 13	B B

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan,*
Fehr & Peers/Kaku Associates, June 2007.

TABLE 22
INTERSECTION LEVEL OF SERVICE ANALYSIS
FUTURE (2020) CONDITIONS WITH BY-PASS WITH MITIGATION

Intersections	Peak Hour	Cumbase Year 2020		Cumulative plus Project with Bypass Year 2020				With Mitigations Year 2020		
		V/C or Delay	LOS	V/C or Delay	LOS	Significant Impact Cumulative?	Significant Impact Project?	V/C or Delay	LOS	Signif. Impact
1. Santa Paula Freeway (SR-126)	AM	0.694	D	1.080	F	**YES**	**YES**	0.693	B	NO
& Hallock Drive	PM	0.939	F	1.183	F	**YES**	**YES**	0.750	C	NO
2. Telegraph Road	AM	133	F	296	F	**YES**	**YES**	0.685	B	NO
& Hallock Drive [a]	PM	77	F	376	F	**YES**	**YES**	0.619	B	NO
4. 12th Street	AM	13	B	47	E	NO	**YES**	0.604	B	NO
& Santa Paula Street [a]	PM	39	E	122	F	**YES**	**YES**	0.616	B	NO
11. Ojai Road (SR-150)	AM	47	F	26	D	**YES**	NO	11	B	NO
& Saticoy Street [a]	PM	30	E	28	D	**YES**	NO	10	B	NO
12. Ojai Road (SR-150)/10th Street	AM	0.833	D	0.848	D	**YES**	**YES**	0.609	B	NO
& Santa Paula Street	PM	0.845	E	0.817	D	**YES**	**YES**	0.576	A	NO
15. 10th Street (SR-150)	AM	0.869	D	0.956	E	**YES**	**YES**	0.720	C	NO
& Harvard Boulevard	PM	0.864	D	0.929	E	**YES**	**YES**	0.754	C	NO
18. 8th Street	AM	14	B	25	D	NO	**YES**	24	C	NO
& Santa Paula Street [a]	PM	15	B	22	C	NO	NO	20	C	NO
28. Steckel Drive	AM	23	C	27	D	NO	**YES**	20	C	NO
& Santa Paula Street [a]	PM	22	C	25	C	NO	NO	24	C	NO
32. Peck Road	AM	0.678	B	0.697	B	NO	NO	0.565	A	NO
& Main Street/Harvard Boulevard	PM	0.833	D	0.858	D	**YES**	**YES**	0.709	C	NO
34. Peck Road	AM	9	F	10	F	**YES**	**YES**	0.296	A	NO
& SR-126 EB ramps [a]	PM	55	F	58	F	**YES**	**YES**	0.656	B	NO
35. Faulkner Road	AM	28	D	29	D	**YES**	**YES**	12	B	NO
& SR-126 WB ramps [a]	PM	14	B	15	B	NO	NO	12	B	NO

Note:
[a] Intersection is controlled by stop signs. Average vehicular delay in seconds is reported rather than V/C ratio.

Source: *Draft Traffic Impact Analysis for the East Area 1 Specific Plan*, Fehr & Peers/Kaku Associates, June 2007.

proposed separate right-turn lane would no longer be necessary; the proposed third westbound through lane would be converted into a shared through/right-turn lane. The mitigations to other approaches at the intersection would remain the same. On the westbound approach of Hallock Drive & Telegraph Road, the lanes would be configured to provide a right-turn lane, a through lane, and a left-turn lane. The remaining mitigations at this location would be unchanged.

As discussed in Chapter IV, among the series of roadway improvements to accommodate the projected growth in traffic volume to accommodate General Plan buildout described in the Circulation Element of the Santa Paula General Plan is the potential widening of Ojai Road and Santa Paula Street. The recommended traffic mitigation measures described previously are consistent with these improvements.

CONGESTION MANAGEMENT PLAN ANALYSIS

An analysis was completed to comply with the monitoring requirements found in the Ventura County Transportation Commission's (VCTC) 2004/2005 VCCMP. The VCTC has adopted LOS E as a minimum system-wide level of service on all VCCMP roadways. Within the study area, SR-126 and SR-150, as well as Harvard Boulevard/Telegraph Road west of SR-150 (including study intersections 15, 20, 35, 30 and 32) are part of the CMP roadway network.

The results of the intersection analysis in Table 18 and the freeway and freeway ramp junction analysis presented in Tables 19 and 20 indicate that most of these facilities would operate at LOS E or better during both peak hours under cumulative base plus project conditions. With the mitigation measures identified above, all study locations would operate at LOS E or better during both peak hours with the addition of project traffic, resulting in no significant CMP impacts.

REFERENCES

2004/2005 Ventura County Congestion Management Program, Ventura County Transportation Commission, March 4, 2005.

City of Santa Paula General Plan, City of Santa Paula, April 13, 1998.

Draft Program Environmental Impact Report, Fagan Canyon Specific Plan, RBF Consulting, June 21, 2005.

East Area 1 Specific Plan, HDR Town Planning, June 1, 2006.

Final Environmental Impact Report for City of Santa Paula General Plan, Rincon Consultants, Inc., February 1998.

Highway Capacity Manual, Transportation Research Board, 2000.

California Manual on Uniform Traffic Control Devices (FHWA's MUTCD 2003 Edition, as amended for use in California), Caltrans, 2006.

Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003.

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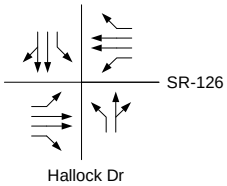
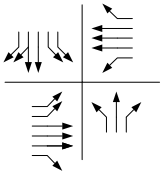
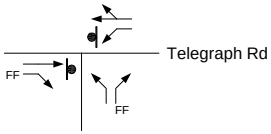
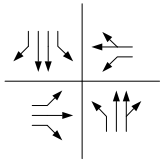
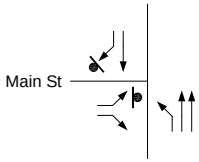
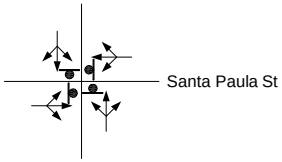
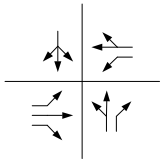
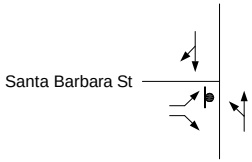
APPENDIX A

INTERSECTION LANE CONFIGURATIONS

INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
1. Hallock Dr & SR-126		Same As Existing	
2. Hallock Dr & Telegraph Rd		Same As Existing	
3. Harvard Bl/Telegraph Rd & Main St		Same As Existing	Same As Existing
4. 12th St & Santa Paula St		Same As Existing	
5. 12th St & Santa Barbara St		Same As Existing	Same As Existing

LEGEND

Stop Controlled

FF Free Flow right-turn

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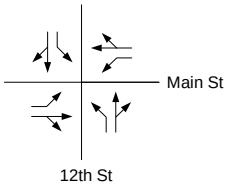
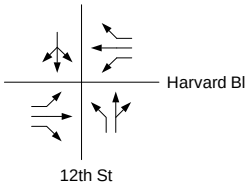
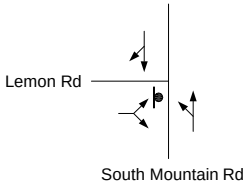
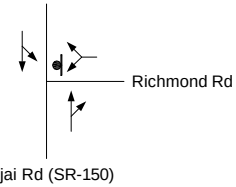
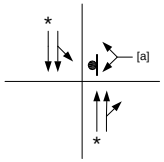
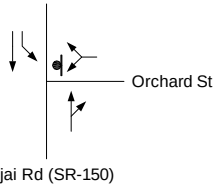
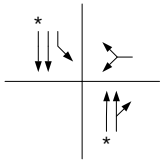
INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
6. 12th St & Main St		Same As Existing	Same As Existing
7. 12th St & Harvard Bl		Same As Existing	Same As Existing
8. South Mountain Rd & Lemon Rd		Same As Existing	Same As Existing
9. Ojai Rd (SR-150) & Richmond Rd		Same As Existing	
10. Ojai Rd (SR-150) & Orchard St		Same As Existing	 Signalize

LEGEND

- Stop Controlled
- * Requires peak period peak direction parking restrictions [AM - southbound ; PM - northbound]
- [a] Westbound left turn restricted during peak periods

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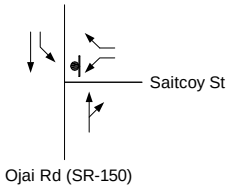
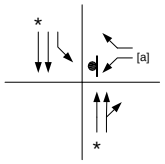
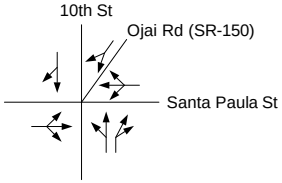
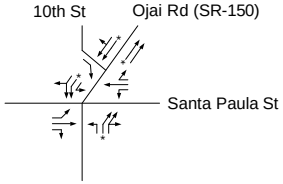
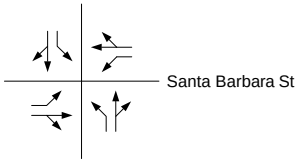
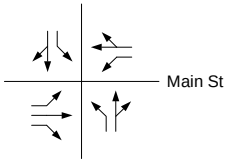
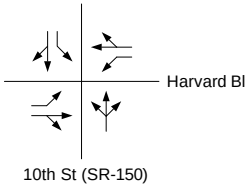
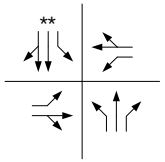
INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
11. Ojai Rd (SR-150) & Saticoy St		Same As Existing	
12. Ojai Rd (SR-150)/10th St & Santa Paula St		Same As Existing	
13. 10th St (SR-150) & Santa Barbara St		Same As Existing	Same As Existing
14. 10th St (SR-150) & Main St		Same As Existing	Same As Existing
15. 10th St (SR-150) & Harvard Bl		Same As Existing	

LEGEND

- Stop Controlled
- * Requires peak period peak direction parking restrictions [AM - southbound; PM - northbound]
- ** Requires peak period parking restriction
- [a] Westbound left turn restricted during peak periods

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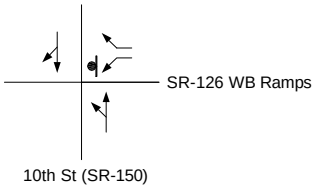
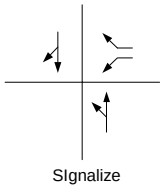
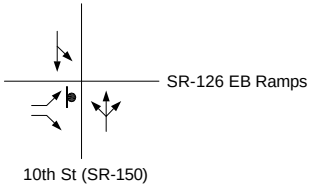
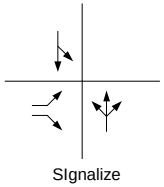
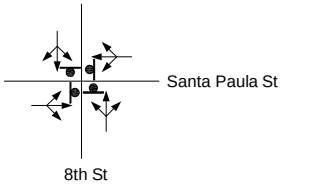
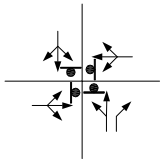
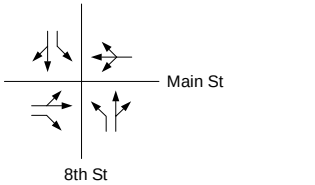
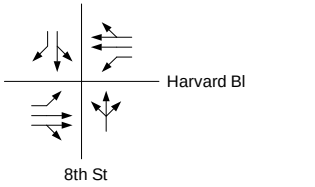
INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
16. 10th St (SR-150) & SR-126 WB Ramps			Same As Future Condition
17. 10th St (SR-150) & SR-126 EB Ramps			Same As Future Condition
18. 8th St & Santa Paula St		Same As Existing	
19. 8th St & Main St		Same As Existing	Same As Existing
20. 8th St & Harvard Bl		Same As Existing	Same As Existing

LEGEND

Stop Controlled

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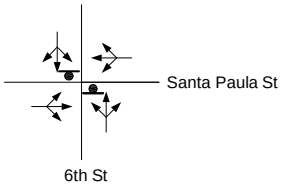
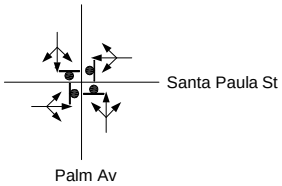
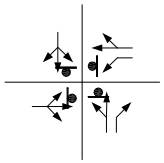
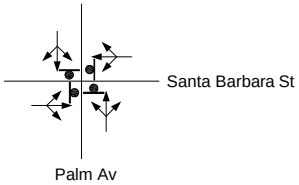
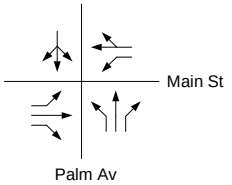
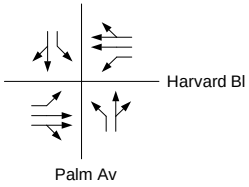
INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
21. 6th St & Santa Paula St		Same As Existing	Same As Existing
22. Palm Av & Santa Paula St		Same As Existing	
23. Palm Av & Santa Barbara St		Same As Existing	Same As Existing
24. Palm Av & Main St		Same As Existing	Same As Existing
25. Palm Av & Harvard Bl		Same As Existing	Same As Existing

LEGEND

Stop Controlled

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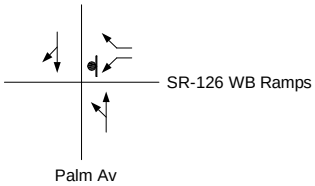
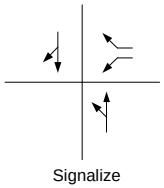
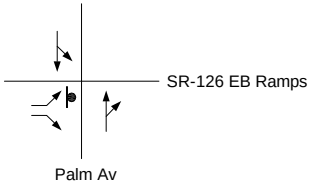
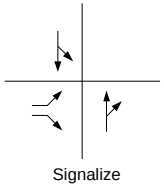
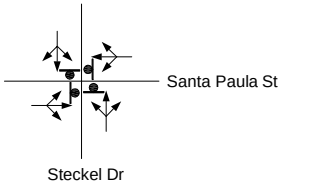
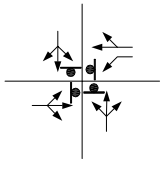
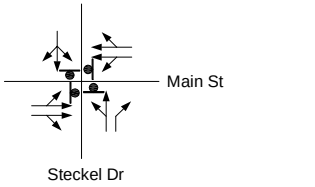
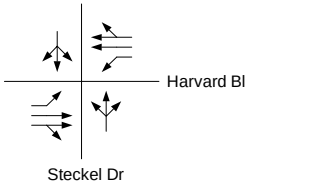
INTERSECTION LANE CONFIGURATIONS

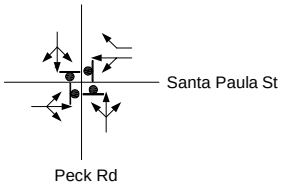
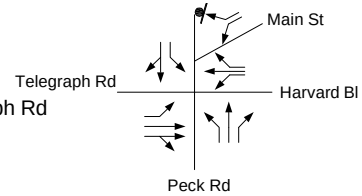
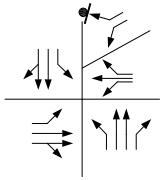
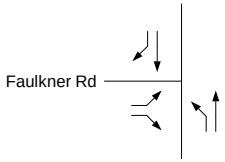
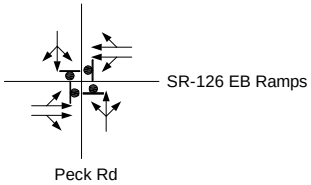
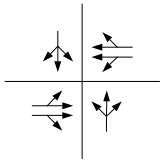
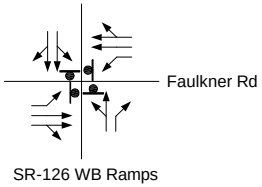
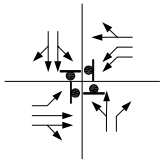
	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
26. Palm Av & SR-126 WB Ramps			Same As Future Condition
27. Palm Av & SR-126 EB Ramps			Same As Future Condition
28. Steckel Dr & Santa Paula St		Same As Existing	
29. Steckel Dr & Main St		Same As Existing	Same As Existing
30. Steckel Dr & Harvard Bl		Same As Existing	Same As Existing

LEGEND

Stop Controlled

FEHR & PEERS
KAKU ASSOCIATES

INTERSECTION LANE CONFIGURATIONS

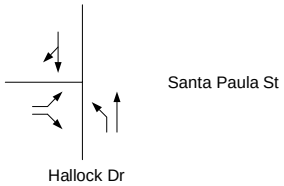
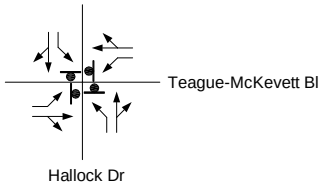
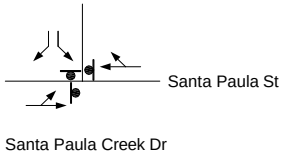
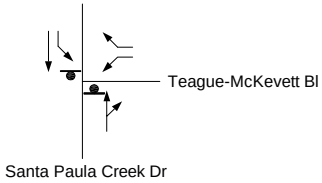
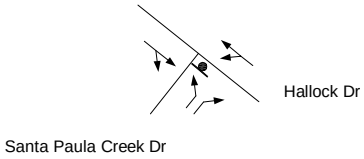
	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
31. Peck Rd & Santa Paula St		Same As Existing	Same As Existing
32. Peck Rd & Main St/Harvard Bl/Telegraph Rd		Same As Existing	
33. Peck Rd & Faulkner Rd		Same As Existing	Same As Existing
34. Peck Rd & SR-126 EB Ramps		Same As Existing	
35. SR-126 Ramps & Faulkner Rd		Same As Existing	

LEGEND

Stop Controlled

FEHR & PEERS
KAKU ASSOCIATES

INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	CUMULATIVE PROJECT + MITIGATIONS CONDITIONS
36. Hallock Dr & Santa Paula St	Future Intersection		Same As Future
37. Hallock Dr & Teague-McKevett Bl	Future Intersection		Same As Future
38. Santa Paula Creek Dr & Santa Paula St	Future Intersection		Same As Future
39. Santa Paula Creek Dr & Teague-McKevett Bl	Future Intersection		Same As Future
40. Hallock Dr & Santa Paula Creek Dr	Future Intersection		Same As Future

LEGEND

Stop Controlled

FEHR & PEERS
KAKU ASSOCIATES

APPENDIX B

TRAFFIC COUNTS

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Hallock Dr DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 DAY: WEDNESDAY PROJECT# 06-2421-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	1	1	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	5	4	11	18	4	20	7	135	14	6	319	45	588
7:15 AM	8	2	5	26	10	19	8	182	32	11	372	50	725
7:30 AM	13	0	7	29	4	16	5	176	20	15	265	21	571
7:45 AM	3	1	2	14	5	15	11	191	18	9	268	28	565
8:00 AM	9	2	11	18	4	10	4	197	13	8	291	20	587
8:15 AM	11	5	10	10	4	9	6	160	9	6	218	22	470
8:30 AM	6	4	2	22	3	9	8	125	10	7	207	38	441
8:45 AM	5	5	4	18	2	8	3	119	13	8	187	30	402
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 60	NT 23	NR 52	SL 155	ST 36	SR 106	EL 52	ET 1285	ER 129	WL 70	WT 2127	WR 254	TOTAL 4349

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	29	7	25	87	23	70	31	684	84	41	1224	144	2449
PEAK HR. FACTOR:		0.763			0.818			0.900			0.814		0.844

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Hallock Dr DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 DAY: WEDNESDAY PROJECT# 06-2421-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	1	1	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	23	6	12	26	2	12	17	269	9	6	205	39	626
4:15 PM	38	5	13	22	5	10	18	289	11	1	200	46	658
4:30 PM	41	8	12	36	2	16	12	320	10	3	210	50	720
4:45 PM	35	15	12	30	7	18	16	347	8	1	170	38	697
5:00 PM	45	7	7	42	1	10	12	373	3	1	227	39	767
5:15 PM	22	4	11	42	0	4	18	364	6	0	238	30	739
5:30 PM	10	0	5	30	0	6	14	334	3	2	209	30	643
5:45 PM	10	1	9	26	2	6	14	232	5	0	190	11	506
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	224	46	81	254	19	82	121	2528	55	14	1649	283	5356

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	143	34	42	150	10	48	58	1404	27	5	845	157	2923
PEAK HR. FACTOR:		0.883			0.945			0.959			0.939		0.953

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Hallock Dr DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Telegraph Rd DAY: WEDNESDAY PROJECT# 06-2421-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	1	1	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	45		2					2	43	7	1		100
7:15 AM	65		4					6	59	6	4		144
7:30 AM	28		1					7	40	6	3		85
7:45 AM	36		6					5	30	6	0		83
8:00 AM	29		2					1	25	3	1		61
8:15 AM	26		1					1	19	4	1		52
8:30 AM	42		3					1	23	6	1		76
8:45 AM	35		0					1	19	3	1		59
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 306	NT 0	NR 19	SL 0	ST 0	SR 0	EL 0	ET 24	ER 258	WL 41	WT 12	WR 0	TOTAL 660

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	174	0	13	0	0	0	0	20	172	25	8	0	412
PEAK HR. FACTOR:		0.678			0.000			0.738			0.825		0.715

CONTROL: 3-Way Stop N, E & W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Hallock Dr DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Telegraph Rd DAY: WEDNESDAY PROJECT# 06-2421-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	1	1	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	60		2					2	48	5	1		118
4:15 PM	73		4					3	46	5	2		133
4:30 PM	65		1					2	47	2	1		118
4:45 PM	58		1					4	64	3	1		131
5:00 PM	59		0					2	56	4	4		125
5:15 PM	35		0					1	31	1	2		70
5:30 PM	46		0					2	29	4	0		81
5:45 PM	29		1					1	17	3	2		53
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	425	0	9	0	0	0	0	17	338	27	13	0	829

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	255	0	6	0	0	0	0	11	213	14	8	0	507
PEAK HR. FACTOR:		0.847			0.000			0.824			0.688		0.953

CONTROL: 3-Way Stop N, E & W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Main St & Harvard Bl DATE: 11/9/2006 LOCATION: City of Santa Paula

E-W STREET: Telegraph Rd DAY: THURSDAY PROJECT# 06-2421-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	1	1	1	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3		15					20	2	12	34		86
7:15 AM	3		25					38	2	26	53		147
7:30 AM	0		19					44	5	9	31		108
7:45 AM	0		16					31	2	13	19		81
8:00 AM	4		11					19	1	9	25		69
8:15 AM	0		10					10	5	15	24		64
8:30 AM	4		14					17	3	14	25		77
8:45 AM	4		7					16	3	16	25		71
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 18	NT 0	NR 117	SL 0	ST 0	SR 0	EL 0	ET 195	ER 23	WL 114	WT 236	WR 0	TOTAL 703

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	6	0	75	0	0	0	0	133	11	60	137	0	422
PEAK HR. FACTOR:		0.723			0.000			0.735			0.623		0.718

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Main St & Harvard Bl DATE: 11/9/2006 LOCATION: City of Santa Paula

E-W STREET: Telegraph Rd DAY: THURSDAY PROJECT# 06-2421-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	1	1	1	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4		19					28	11	16	39		117
4:15 PM	3		18					32	5	18	41		117
4:30 PM	6		23					34	8	16	56		143
4:45 PM	3		27					27	6	17	49		129
5:00 PM	1		22					37	3	21	60		144
5:15 PM	2		25					24	11	17	49		128
5:30 PM	2		12					23	3	22	44		106
5:45 PM	5		16					23	4	9	37		94
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	26	0	162	0	0	0	0	228	51	136	375	0	978

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	12	0	97	0	0	0	0	122	28	71	214	0	544
PEAK HR. FACTOR:		0.908			0.000			0.893			0.880		0.944

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: WEDNESDAY PROJECT# 06-2421-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	1	0	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	18	26	15	1	46	7	1	9	6	59	16	4	208
7:15 AM	14	43	18	0	58	7	1	12	8	42	20	2	225
7:30 AM	5	14	20	2	33	9	3	9	12	30	8	0	145
7:45 AM	2	15	9	0	23	2	1	2	2	19	4	1	80
8:00 AM	1	13	10	0	15	2	1	2	2	17	2	1	66
8:15 AM	6	13	10	0	16	1	0	2	2	16	4	0	70
8:30 AM	5	21	12	0	22	0	1	6	6	23	2	1	99
8:45 AM	6	19	17	0	28	6	0	6	5	17	3	1	108
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 57	NT 164	NR 111	SL 3	ST 241	SR 34	EL 8	ET 48	ER 43	WL 223	WT 59	WR 10	TOTAL 1001

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	39	98	62	3	160	25	6	32	28	150	48	7	658
PEAK HR. FACTOR:		0.663			0.723			0.688			0.649		0.731

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: WEDNESDAY PROJECT# 06-2421-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	1	0	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	9	64	31	0	38	3	2	5	10	37	10	0	209
4:15 PM	1	60	56	0	29	13	4	11	6	32	4	2	218
4:30 PM	11	61	36	0	55	5	2	10	6	33	9	1	229
4:45 PM	7	48	37	2	46	7	2	10	4	22	7	2	194
5:00 PM	7	46	28	0	41	5	3	11	4	23	18	1	187
5:15 PM	7	61	52	1	35	4	6	15	3	25	22	1	232
5:30 PM	1	32	14	1	29	1	1	5	2	16	3	1	106
5:45 PM	3	58	31	1	26	4	0	4	2	25	15	0	169
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	46	430	285	5	299	42	20	71	37	213	88	8	1544

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	28	233	160	2	168	28	10	36	26	124	30	5	850
PEAK HR. FACTOR:		0.900			0.825			0.857			0.846		0.928

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Barbara St DAY: TUESDAY PROJECT# 06-2421-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0.5	0	0.5	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	7	43			72	26	7		9				164
7:15 AM	20	55			93	23	13		19				223
7:30 AM	10	50			80	16	14		15				185
7:45 AM	4	24			45	8	6		11				98
8:00 AM	7	21			28	5	3		2				66
8:15 AM	2	24			28	9	7		9				79
8:30 AM	5	25			33	11	8		8				90
8:45 AM	7	31			36	11	5		5				95
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 62	NT 273	NR 0	SL 0	ST 415	SR 109	EL 63	ET 0	ER 78	WL 0	WT 0	WR 0	TOTAL 1000

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	41	172	0	0	290	73	40	0	54	0	0	0	670
PEAK HR. FACTOR:		0.710			0.782			0.734			0.000		0.751

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Barbara St DAY: TUESDAY PROJECT# 06-2421-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0.5	0	0.5	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11	64			62	12	23		14				186
4:15 PM	15	63			44	20	14		9				165
4:30 PM	11	87			61	19	20		6				204
4:45 PM	15	77			59	23	12		13				199
5:00 PM	14	77			51	19	19		12				192
5:15 PM	10	97			52	13	16		12				200
5:30 PM	9	87			57	16	20		11				200
5:45 PM	12	79			44	8	14		5				162
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 97	NT 631	NR 0	SL 0	ST 430	SR 130	EL 138	ET 0	ER 82	WL 0	WT 0	WR 0	TOTAL 1508

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	50	338	0	0	223	74	67	0	43	0	0	0	795
PEAK HR. FACTOR:		0.907			0.905			0.887			0.000		0.974

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: WEDNESDAY PROJECT# 06-2421-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	1	0	0	1	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	22	0	18	49	10	5	14	4	5	22	19	168
7:15 AM	2	33	1	37	67	12	5	18	5	8	23	37	248
7:30 AM	4	28	2	33	50	10	15	21	7	4	14	19	207
7:45 AM	3	16	5	23	28	6	4	14	4	6	13	11	133
8:00 AM	1	5	3	7	13	6	8	11	6	3	14	14	91
8:15 AM	3	12	1	5	27	5	5	10	2	0	13	12	95
8:30 AM	6	13	2	14	18	7	3	10	0	3	21	14	111
8:45 AM	4	19	3	14	15	7	6	5	0	0	23	5	101
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	23	148	17	151	267	63	51	103	28	29	143	131	1154

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	9	99	8	111	194	38	29	67	20	23	72	86	756
PEAK HR. FACTOR:		0.806			0.739			0.674			0.665		0.762

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: WEDNESDAY PROJECT# 06-2421-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	1	0	0	1	0	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	48	6	27	47	12	13	14	3	3	30	20	228
4:15 PM	2	41	4	15	24	1	7	21	2	0	22	17	156
4:30 PM	0	42	2	5	24	3	2	17	2	1	25	12	135
4:45 PM	1	44	4	24	41	10	9	18	8	3	16	28	206
5:00 PM	5	58	7	21	37	10	15	15	10	7	37	32	254
5:15 PM	6	64	3	15	48	9	20	14	6	1	18	28	232
5:30 PM	7	50	2	13	38	17	27	19	5	1	30	27	236
5:45 PM	7	46	2	15	33	15	21	15	6	2	27	25	214
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 33	NT 393	NR 30	SL 135	ST 292	SR 77	EL 114	ET 133	ER 42	WL 18	WT 205	WR 189	TOTAL 1661

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	25	218	14	64	156	51	83	63	27	11	112	112	936
PEAK HR. FACTOR:		0.880			0.941			0.848			0.773		0.921

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: TUESDAY PROJECT# 06-2421-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	1	1	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	54	21	1	1	10	34	31	28	4	7	26	0	217
7:15 AM	23	27	5	0	10	32	35	22	7	3	19	0	183
7:30 AM	30	23	2	1	7	17	32	20	19	0	9	2	162
7:45 AM	57	27	9	2	8	37	41	31	17	5	29	0	263
8:00 AM	37	18	5	1	5	35	48	18	24	4	27	4	226
8:15 AM	34	18	5	2	5	32	46	33	12	4	19	0	210
8:30 AM	19	12	2	1	3	29	44	32	21	1	26	2	192
8:45 AM	19	18	3	1	2	22	32	31	15	1	19	2	165
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 273	NT 164	NR 32	SL 9	ST 50	SR 238	EL 309	ET 215	ER 119	WL 25	WT 174	WR 10	TOTAL 1618

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	147	75	21	6	21	133	179	114	74	14	101	6	891
PEAK HR. FACTOR:		0.653			0.851			0.946			0.864		0.847

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 12th St DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: TUESDAY PROJECT# 06-2421-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	1	1	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	59	21	5	2	11	37	30	37	8	4	37	2	253
4:15 PM	45	36	3	0	7	31	30	29	13	4	30	2	230
4:30 PM	24	27	1	0	9	30	40	25	11	2	24	2	195
4:45 PM	54	26	8	2	11	36	38	30	18	5	20	1	249
5:00 PM	44	25	6	1	4	37	45	29	23	1	26	8	249
5:15 PM	38	14	0	1	6	45	48	34	17	6	39	2	250
5:30 PM	29	14	6	2	1	26	38	24	18	3	23	2	186
5:45 PM	24	18	3	3	4	34	45	41	20	2	32	3	229
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	317	181	32	11	53	276	314	249	128	27	231	22	1841

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	160	92	15	4	30	148	171	118	69	14	109	13	943
PEAK HR. FACTOR:		0.759			0.875			0.904			0.723		0.943

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Richmond Rd DAY: WEDNESDAY PROJECT# 06-2421-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		61	6	3	146				0	16		8	240
7:15 AM		83	8	2	174				0	16		7	290
7:30 AM		115	16	1	204				0	16		10	362
7:45 AM		96	16	6	162				0	7		5	292
8:00 AM		54	8	3	84				2	12		6	169
8:15 AM		55	9	1	101				1	7		6	180
8:30 AM		53	4	1	88				0	9		5	160
8:45 AM		46	7	3	98				1	9		5	169
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 563	NR 74	SL 20	ST 1057	SR 0	EL 0	ET 0	ER 4	WL 92	WT 0	WR 52	TOTAL 1862

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	0	355	46	12	686	0	0	0	0	55	0	30	1184
PEAK HR. FACTOR:		0.765			0.851			0.000			0.817		0.818

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Richmond Rd DAY: WEDNESDAY PROJECT# 06-2421-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		128	12	1	96					5		2	244
4:15 PM		129	15	3	112					11		10	280
4:30 PM		148	23	7	110					14		9	311
4:45 PM		184	16	7	98					9		4	318
5:00 PM		148	22	5	106					6		8	295
5:15 PM		110	10	1	88					6		6	221
5:30 PM		115	11	2	74					4		8	214
5:45 PM		129	11	1	79					4		3	227
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	1091	120	27	763	0	0	0	0	59	0	50	2110

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	0	609	76	22	426	0	0	0	0	40	0	31	1204
PEAK HR. FACTOR:		0.856			0.957			0.000			0.772		0.947

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Orchard St DAY: TUESDAY PROJECT# 06-2421-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	56	6	2	121	10	5	0	4	10	1	1	218
7:15 AM	5	76	4	5	153	37	5	1	5	5	2	1	299
7:30 AM	12	104	7	5	166	72	13	1	6	5	5	1	397
7:45 AM	6	111	8	3	153	28	13	4	13	10	3	8	360
8:00 AM	4	64	4	3	107	8	5	1	3	8	1	3	211
8:15 AM	5	60	7	6	91	14	3	0	4	3	2	2	197
8:30 AM	1	42	4	0	71	24	2	0	1	2	0	2	149
8:45 AM	1	54	4	0	89	2	3	0	5	5	1	1	165
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 36	NT 567	NR 44	SL 24	ST 951	SR 195	EL 49	ET 7	ER 41	WL 48	WT 15	WR 19	TOTAL 1996

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	25	347	25	15	593	147	36	6	28	30	11	11	1274
PEAK HR. FACTOR:		0.794			0.777			0.583			0.619		0.802

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Orchard St DAY: TUESDAY PROJECT# 06-2421-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	121	8	1	98	17	8	2	11	0	0	0	270
4:15 PM	10	116	8	1	108	12	19	0	5	2	0	0	281
4:30 PM	15	139	8	1	106	19	7	2	9	0	0	0	306
4:45 PM	6	150	13	2	80	18	13	2	8	0	0	0	292
5:00 PM	6	146	16	2	102	12	8	0	8	4	0	2	306
5:15 PM	9	146	13	0	133	5	8	1	3	1	1	0	320
5:30 PM	3	173	6	0	98	15	5	0	1	0	0	0	301
5:45 PM	7	132	5	0	112	11	17	0	5	0	0	0	289
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	60	1123	77	7	837	109	85	7	50	7	1	2	2365

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	36	581	50	5	421	54	36	5	28	5	1	2	1224
PEAK HR. FACTOR:		0.987			0.870			0.750			0.333		0.956

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Saticoy St. DAY: TUESDAY PROJECT# 06-2421-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	0.5	0	0.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	87	8	7	170					7		0	279
7:15 AM	0	131	17	7	156					9		0	320
7:30 AM	1	103	14	10	148					1		1	278
7:45 AM	0	72	11	8	98					5		1	195
8:00 AM	0	60	9	3	110					5		0	187
8:15 AM	0	55	1	3	113					8		0	180
8:30 AM	0	64	6	2	115					5		0	192
8:45 AM	0	50	7	1	72					5		0	135
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	1	622	73	41	982	0	0	0	0	45	0	2	1766

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	1	393	50	32	572	0	0	0	0	22	0	2	1072
PEAK HR. FACTOR:		0.750			0.853			0.000			0.667		0.838

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Saticoy St. DAY: TUESDAY PROJECT# 06-2421-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	0.5	0	0.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		139	12	6	118					10		0	285
4:15 PM		128	19	3	105					10		1	266
4:30 PM		163	27	8	87					6		0	291
4:45 PM		177	28	17	116					11		0	349
5:00 PM		141	24	11	93					6		3	278
5:15 PM		156	16	5	91					7		3	278
5:30 PM		172	22	8	118					5		1	326
5:45 PM		180	15	2	115					10		0	322
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	1256	163	60	843	0	0	0	0	65	0	8	2395

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	646	90	41	418	0	0	0	0	29	0	7	1231
PEAK HR. FACTOR:		0.898			0.863			0.000			0.818		0.882

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/8/2006 LOCATION: City of Santa P

E-W STREET: 10th St & Santa Paula St DAY: WEDNESDAY PROJECT# 06-2421-011

	NORTHBOUND				SOUTHBOUND				EASTBOUND			WESTBOUND			
	NL	NT	NR	NRR	ST	STT	SR	SRR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	2		0	1	0		0	1	0	2	1	0	
6:00 AM															
6:15 AM															
6:30 AM															
6:45 AM															
7:00 AM	9	28	85	5	168	36	1	12	0	21	11	5	41	1	406
7:15 AM	8	31	126	3	161	54	4	15	0	38	8	4	75	5	514
7:30 AM	6	14	134	2	146	65	3	10	11	47	14	5	59	2	506
7:45 AM	5	21	63	1	109	33	1	14	0	23	9	6	35	1	306
8:00 AM	5	17	60	1	110	15	0	11	0	13	8	3	22	1	254
8:15 AM	4	21	55	3	112	18	0	15	3	10	6	7	14	1	251
8:30 AM	3	16	61	1	111	23	0	13	0	20	5	6	20	0	265
8:45 AM	2	19	48	0	66	22	0	12	1	16	13	5	22	0	214
9:00 AM															
9:15 AM															
9:30 AM															
9:45 AM															
10:00 AM															
10:15 AM															
10:30 AM															
10:45 AM															
11:00 AM															
11:15 AM															
11:30 AM															
11:45 AM															
TOTAL VOLUMES =	NL 42	NT 167	NR 632	NRR 16	ST 983	STT 266	SR 9	SRR 102	EL 15	ET 188	ER 74	WL 41	WT 288	WR 11	TOTAL 2834

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	28	94	408	11	584	188	9	51	11	129	42	20	210	9	1794
PEAK HR. FACTOR:	0.778	0.758	0.761	0.550	0.869	0.723	0.563	0.850	0.250	0.686	0.750	0.833	0.700	0.450	
	0.803				0.892				0.632			0.711			0.842

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Ojai Rd DATE: 11/8/2006 LOCATION: City of Santa P

E-W STREET: 10th St & Santa Paula St DAY: WEDNESDAY PROJECT# 06-2421-011

	NORTHBOUND				SOUTHBOUND				EASTBOUND			WESTBOUND			
	NL	NT	NR	NRR	ST	STT	SR	SRR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	2		0	1	0		0	1	0	2	1	0	
2:00 PM															
2:15 PM															
2:30 PM															
2:45 PM															
3:00 PM															
3:15 PM															
3:30 PM															
3:45 PM															
4:00 PM	2	23	136	5	105	29	3	12	0	34	5	5	30	0	372
4:15 PM	2	28	173	2	117	25	0	10	4	22	7	4	30	1	413
4:30 PM	10	17	145	1	106	18	2	15	0	55	10	5	43	0	411
4:45 PM	2	32	152	2	93	20	1	8	5	39	11	2	43	2	402
5:00 PM	3	22	196	3	89	30	1	10	0	47	10	4	38	2	442
5:15 PM	9	19	213	0	91	21	1	11	0	48	17	4	41	1	465
5:30 PM	5	28	224	1	129	22	1	12	0	54	4	5	55	0	527
5:45 PM	6	41	173	4	114	19	1	14	0	59	13	6	59	0	491
6:00 PM															
6:15 PM															
TOTAL VOLUMES =	39	210	1412	18	844	184	10	92	9	358	77	35	339	6	3633

AM Peak Hr Begins at: 530 PM

PEAK VOLUMES =	23	110	806	8	423	92	4	47	0	208	44	19	193	3	1980
PEAK HR. FACTOR:	0.639	0.671	0.900	0.500	0.820	0.767	1.000	0.839	0.000	0.881	0.647	0.792	0.818	0.000	
		0.913				0.854				0.875			0.827		0.913

CONTROL: Signalized

NR= From 10th St. to Ojai Rd. NB

NRR= Cars from 10th St. to Santa Paula St.

SRR= Cars From Ojai Rd. to Santa Paula St.

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Barbara St DAY: TUESDAY PROJECT# 06-2421-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	1	1	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	6	55	3	2	126	11	6	11	1	2	9	2	234
7:15 AM	3	71	0	3	157	12	7	6	2	3	8	3	275
7:30 AM	6	92	3	6	177	20	25	15	9	4	33	2	392
7:45 AM	9	113	1	7	185	33	38	21	16	14	35	9	481
8:00 AM	5	98	1	10	179	22	29	18	13	5	18	9	407
8:15 AM	5	85	3	5	114	10	10	9	13	3	5	3	265
8:30 AM	4	84	2	6	116	12	11	10	8	4	10	1	268
8:45 AM	9	69	2	2	112	13	4	9	10	5	8	5	248
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 47	NT 667	NR 15	SL 41	ST 1166	SR 133	EL 130	ET 99	ER 72	WL 40	WT 126	WR 34	TOTAL 2570

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	23	374	5	26	698	87	99	60	40	26	94	23	1555
PEAK HR. FACTOR:		0.817			0.901			0.663			0.616		0.808

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/14/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Barbara St DAY: TUESDAY PROJECT# 06-2421-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	1	1	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	17	118	6	3	92	22	50	12	11	10	25	1	367
4:15 PM	14	108	5	5	143	16	53	22	7	4	24	9	410
4:30 PM	6	163	5	4	131	19	40	18	6	5	19	7	423
4:45 PM	14	157	6	9	109	12	45	26	9	7	20	7	421
5:00 PM	17	130	9	9	121	16	40	26	14	2	26	4	414
5:15 PM	12	166	5	4	115	14	46	21	8	3	20	6	420
5:30 PM	11	142	0	6	125	10	43	20	6	5	26	10	404
5:45 PM	10	144	3	4	101	20	37	11	5	0	13	9	357
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	101	1128	39	44	937	129	354	156	66	36	173	53	3216

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	49	616	25	26	476	61	171	91	37	17	85	24	1678
PEAK HR. FACTOR:		0.943			0.914			0.934			0.926		0.992

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: WEDNESDAY PROJECT# 06-2421-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	2	0.5	0.5	2	0.5	0.5	1	0.5	0.5	1	0.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	49	4	3	129	2	8	6	5	4	7	2	221
7:15 AM	2	76	2	3	167	9	5	8	1	5	13	0	291
7:30 AM	1	89	6	3	173	13	9	9	9	8	9	6	335
7:45 AM	8	94	3	3	198	11	28	29	8	10	24	6	422
8:00 AM	7	89	13	10	172	12	20	23	3	9	23	3	384
8:15 AM	7	78	3	3	113	7	8	15	6	8	10	8	266
8:30 AM	11	79	6	8	117	6	7	13	10	7	11	7	282
8:45 AM	11	71	8	4	110	15	7	9	8	8	15	4	270
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 49	NT 625	NR 45	SL 37	ST 1179	SR 75	EL 92	ET 112	ER 50	WL 59	WT 112	WR 36	TOTAL 2471

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	18	348	24	19	710	45	62	69	21	32	69	15	1432
PEAK HR. FACTOR:		0.894			0.913			0.585			0.725		0.848

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: WEDNESDAY PROJECT# 06-2421-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	2	0.5	0.5	2	0.5	0.5	1	0.5	0.5	1	0.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	17	134	6	4	110	10	13	34	12	6	34	7	387
4:15 PM	21	139	10	11	130	23	9	35	12	10	36	8	444
4:30 PM	18	163	11	6	119	14	18	48	20	15	43	3	478
4:45 PM	7	141	6	5	133	9	15	42	17	14	39	6	434
5:00 PM	12	144	8	4	136	6	10	40	15	12	38	5	430
5:15 PM	13	155	12	9	120	11	13	38	10	6	37	4	428
5:30 PM	8	114	8	6	110	13	9	44	12	11	32	4	371
5:45 PM	10	145	6	4	94	7	8	40	6	8	30	5	363
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	106	1135	67	49	952	93	95	321	104	82	289	42	3335

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	58	587	35	26	518	52	52	165	64	51	156	22	1786
PEAK HR. FACTOR:		0.885			0.909			0.817			0.939		0.934

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Blvd DAY: WEDNESDAY PROJECT# 06-2421-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1.5	0.5	1	1	0	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	6	56	20	5	134	31	27	37	17	43	61	7	444
7:15 AM	8	60	24	6	129	38	24	48	24	37	72	8	478
7:30 AM	11	67	26	7	137	32	23	56	21	44	69	6	499
7:45 AM	12	90	22	4	136	53	18	75	23	29	70	2	534
8:00 AM	6	67	21	4	146	42	31	52	20	40	45	5	479
8:15 AM	10	57	21	11	102	20	21	31	13	35	28	1	350
8:30 AM	8	67	15	5	84	32	23	37	18	24	32	4	349
8:45 AM	5	70	12	13	82	22	22	33	12	25	27	1	324
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 66	NT 534	NR 161	SL 55	ST 950	SR 270	EL 189	ET 369	ER 148	WL 277	WT 404	WR 34	TOTAL 3457

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	37	284	93	21	548	165	96	231	88	150	256	21	1990
PEAK HR. FACTOR:		0.835			0.951			0.894			0.897		0.932

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Blvd DAY: WEDNESDAY PROJECT# 06-2421-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1.5	0.5	1	1	0	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11	132	31	3	94	47	38	56	15	32	75	11	545
4:15 PM	8	129	27	5	81	54	36	64	16	28	68	9	525
4:30 PM	14	124	28	4	110	44	33	58	22	25	70	11	543
4:45 PM	9	137	29	5	73	54	36	49	23	29	71	10	525
5:00 PM	9	113	37	6	115	48	33	65	19	31	82	7	565
5:15 PM	6	122	36	4	97	37	45	48	29	34	65	10	533
5:30 PM	5	130	30	8	92	45	36	43	17	33	59	5	503
5:45 PM	9	99	27	4	76	43	36	45	11	22	49	12	433
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	71	986	245	39	738	372	293	428	152	234	539	75	4172

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	38	496	130	19	395	183	147	220	93	119	288	38	2166
PEAK HR. FACTOR:		0.949			0.883			0.943			0.927		0.958

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 WB Ramps DAY: WEDNESDAY PROJECT# 06-2421-015

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	1	0	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	69			28	158				0	0	28	283
7:15 AM	1	78			23	162				0	0	21	285
7:30 AM	1	85			27	173				1	0	25	312
7:45 AM	0	91			41	147				1	0	45	325
8:00 AM	1	68			41	164				0	1	24	299
8:15 AM	0	65			32	120				3	0	26	246
8:30 AM	1	71			29	93				0	0	23	217
8:45 AM	1	59			29	85				0	0	28	202
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	5	586	0	0	250	1102	0	0	0	5	1	220	2169

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	3	322	0	0	132	646	0	0	0	2	1	115	1221
PEAK HR. FACTOR:		0.893			0.949			0.000			0.641		0.939

CONTROL: No Control

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 WB Ramps DAY: WEDNESDAY PROJECT# 06-2421-015

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	1	0	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	134		46	101				0		31	312	
4:15 PM	0	142		38	83				0		25	288	
4:30 PM	3	139		41	114				1		22	320	
4:45 PM	3	142		44	80				1		32	302	
5:00 PM	3	138		54	107				1		21	324	
5:15 PM	4	142		46	117				0		23	332	
5:30 PM	1	136		40	93				0		21	291	
5:45 PM	1	110		43	68				0		18	240	
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	15	1083	0	0	352	763	0	0	0	3	0	193	2409

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	13	561	0	0	185	418	0	0	0	3	0	98	1278
PEAK HR. FACTOR:		0.983			0.925			0.000			0.765		0.962

CONTROL: No Control

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 EB Ramps DAY: WEDNESDAY PROJECT# 06-2421-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	2		18	2	1	62	1	1			0	87
7:15 AM	0	4		23	3	0	69	1	1			0	101
7:30 AM	0	1		25	1	3	89	0	3			0	122
7:45 AM	0	0		36	2	1	87	0	2			0	128
8:00 AM	0	0		36	3	5	73	1	0			0	118
8:15 AM	0	0		27	1	3	68	0	0			0	99
8:30 AM	2	0		22	3	9	76	0	0			0	112
8:45 AM	0	1		20	0	3	56	1	1			1	83
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 2	NT 8	NR 0	SL 207	ST 15	SR 25	EL 580	ET 4	ER 8	WL 0	WT 0	WR 1	TOTAL 850

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	0	5	0	120	9	9	318	2	6	0	0	0	469
PEAK HR. FACTOR:		0.313			0.784			0.886			0.000		0.916

CONTROL: 2-Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 10th St DATE: 11/8/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 EB Ramps DAY: WEDNESDAY PROJECT# 06-2421-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		1	0	23	1	2	133	1	1	0			162
4:15 PM		1	0	28	2	0	136	1	1	0			169
4:30 PM		5	2	45	2	2	152	2	0	0			210
4:45 PM		5	0	40	0	3	131	4	6	0			189
5:00 PM		2	1	59	1	0	146	3	0	1			213
5:15 PM		2	0	43	1	0	141	1	1	0			189
5:30 PM		1	0	38	0	0	126	1	0	0			166
5:45 PM		3	0	39	1	2	103	4	0	0			152
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 20	NR 3	SL 315	ST 8	SR 9	EL 1068	ET 17	ER 9	WL 1	WT 0	WR 0	TOTAL 1450

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	0	14	3	187	4	5	570	10	7	1	0	0	801
PEAK HR. FACTOR:		0.607			0.817			0.953			0.250		0.940

CONTROL: 2-Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 8th St DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: TUESDAY PROJECT# 06-2455-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	10	3	2	13	5	1	22	2	3	27	1	93
7:15 AM	4	12	1	1	18	5	2	30	5	4	31	3	116
7:30 AM	13	19	5	6	40	14	2	52	6	12	44	7	220
7:45 AM	13	44	8	15	62	9	5	53	10	18	59	7	303
8:00 AM	8	13	6	4	26	11	3	47	8	14	45	4	189
8:15 AM	2	9	1	2	17	5	2	24	4	2	31	1	100
8:30 AM	3	3	2	1	11	3	1	18	2	6	18	1	69
8:45 AM	4	6	2	3	8	6	2	15	3	4	23	2	78
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 51	NT 116	NR 28	SL 34	ST 195	SR 58	EL 18	ET 261	ER 40	WL 63	WT 278	WR 26	TOTAL 1168

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	38	88	20	26	146	39	12	182	29	48	179	21	828
PEAK HR. FACTOR:		0.562			0.613			0.820			0.738		0.683

CONTROL: 4 Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 8th St DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: TUESDAY PROJECT# 06-2455-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	7	19	8	2	14	3	3	41	20	10	32	1	160
4:15 PM	9	31	8	4	14	3	1	64	6	12	33	2	187
4:30 PM	9	25	13	1	10	5	6	58	8	7	46	3	191
4:45 PM	13	34	8	1	20	5	6	51	12	8	33	2	193
5:00 PM	11	31	4	1	13	7	6	50	18	5	46	1	193
5:15 PM	13	30	4	1	13	4	8	54	2	11	44	3	187
5:30 PM	8	24	7	2	11	3	5	61	8	4	54	0	187
5:45 PM	11	29	10	3	16	3	4	56	6	4	46	2	190
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	81	223	62	15	111	33	39	435	80	61	334	14	1488

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	46	120	29	4	56	21	26	213	40	31	169	9	764
PEAK HR. FACTOR:		0.886			0.779			0.943			0.901		0.990

CONTROL: 4 Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 8th St DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: THURSDAY PROJECT# 06-2455-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0	1	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	9	5	3	17	8	2	11	0	4	16	3	79
7:15 AM	3	9	4	6	29	4	9	30	1	9	15	3	122
7:30 AM	4	34	9	14	60	10	13	42	6	6	18	4	220
7:45 AM	3	36	7	7	71	11	20	59	9	12	23	7	265
8:00 AM	7	13	8	3	26	2	3	23	6	7	11	9	118
8:15 AM	2	7	5	9	8	6	3	15	4	9	9	6	83
8:30 AM	7	6	9	2	3	2	1	11	6	11	5	5	68
8:45 AM	3	8	5	4	10	1	2	9	0	2	8	3	55
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 30	NT 122	NR 52	SL 48	ST 224	SR 44	EL 53	ET 200	ER 32	WL 60	WT 105	WR 40	TOTAL 1010

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	17	92	28	30	186	27	45	154	22	34	67	23	725
PEAK HR. FACTOR:		0.729			0.683			0.628			0.738		0.684

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 8th St DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: THURSDAY PROJECT# 06-2455-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0	1	0	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	8	23	15	17	26	9	13	56	14	14	39	14	248
4:15 PM	8	33	20	13	18	12	22	62	24	14	35	9	270
4:30 PM	15	30	15	10	23	5	18	56	25	14	28	11	250
4:45 PM	7	34	18	10	19	8	11	62	12	23	29	11	244
5:00 PM	5	34	19	8	25	14	9	65	23	16	35	10	263
5:15 PM	6	27	21	3	21	11	13	55	13	16	31	7	224
5:30 PM	13	22	15	7	8	7	14	64	8	17	52	6	233
5:45 PM	10	25	18	6	12	8	15	46	6	13	39	4	202
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	72	228	141	74	152	74	115	466	125	127	288	72	1934

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	35	131	72	41	85	39	60	245	84	67	127	41	1027
PEAK HR. FACTOR:		0.975			0.878			0.900			0.933		0.951

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 8th St DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: TUESDAY PROJECT# 06-2455-019

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	1	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	1	3	5	2	16	6	51	0	2	68	1	157
7:15 AM	1	4	5	6	4	19	8	53	1	4	74	0	179
7:30 AM	4	6	4	14	2	47	17	74	1	4	78	12	263
7:45 AM	1	8	9	10	8	62	31	86	1	9	163	7	395
8:00 AM	3	5	5	12	11	33	16	84	0	4	98	7	278
8:15 AM	0	2	0	4	2	15	8	55	2	8	58	8	162
8:30 AM	0	6	7	8	3	29	16	58	0	5	57	5	194
8:45 AM	2	7	4	8	2	16	16	54	2	3	66	4	184
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 13	NT 39	NR 37	SL 67	ST 34	SR 237	EL 118	ET 515	ER 7	WL 39	WT 662	WR 44	TOTAL 1812

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	9	23	23	42	25	161	72	297	3	21	413	26	1115
PEAK HR. FACTOR:		0.764			0.713			0.788			0.642		0.706

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 8th St DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: TUESDAY PROJECT# 06-2455-019

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	1	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1	14	11	13	2	40	36	111	2	8	102	2	342
4:15 PM	0	15	5	9	8	36	34	136	1	8	129	13	394
4:30 PM	4	11	11	17	6	41	35	125	2	11	138	21	422
4:45 PM	0	7	5	11	3	34	34	125	0	4	126	15	364
5:00 PM	1	5	15	15	7	30	41	129	0	3	124	11	381
5:15 PM	0	15	11	11	1	32	34	133	1	4	135	17	394
5:30 PM	1	11	9	10	5	25	29	127	0	5	127	13	362
5:45 PM	0	7	6	7	1	21	26	120	1	1	122	10	322
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	7	85	73	93	33	259	269	1006	7	44	1003	102	2981

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	5	38	42	54	17	137	144	512	3	22	523	64	1561
PEAK HR. FACTOR:		0.817			0.813			0.969			0.896		0.925

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th St DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: WEDNESDAY PROJECT# 06-2455-020

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	1	1	6	2	12	0	0	26	3	51
7:15 AM	0	1	1	1	1	13	13	34	2	1	31	1	99
7:30 AM	1	14	3	1	8	23	33	47	6	3	70	11	220
7:45 AM	3	13	4	10	13	34	34	70	15	7	75	8	286
8:00 AM	0	2	0	1	4	17	14	51	5	1	76	3	174
8:15 AM	0	0	4	2	2	11	2	44	3	2	34	2	106
8:30 AM	0	1	0	0	0	6	5	22	1	2	22	2	61
8:45 AM	2	2	0	2	0	10	14	16	1	0	26	1	74
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 6	NT 33	NR 12	SL 18	ST 29	SR 120	EL 117	ET 296	ER 33	WL 16	WT 360	WR 31	TOTAL 1071

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	4	29	11	14	27	85	83	212	29	13	255	24	786
PEAK HR. FACTOR:		0.550			0.553			0.681			0.811		0.687

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th St DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: WEDNESDAY PROJECT# 06-2455-020

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1	1	0	2	1	8	7	44	3	2	41	2	112
4:15 PM	1	4	4	2	1	10	11	70	5	1	58	3	170
4:30 PM	1	1	2	4	1	31	15	67	1	0	40	6	169
4:45 PM	2	3	0	5	1	12	7	70	1	4	62	6	173
5:00 PM	2	0	1	3	2	18	9	71	2	1	59	2	170
5:15 PM	4	0	0	0	0	5	4	55	2	2	44	2	118
5:30 PM	3	2	2	3	1	13	11	77	5	2	62	0	181
5:45 PM	1	2	1	3	2	11	15	54	5	4	59	2	159
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	15	13	10	22	9	108	79	508	24	16	425	23	1252

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	6	8	7	14	5	71	42	278	9	6	219	17	682
PEAK HR. FACTOR:		0.583			0.625			0.956			0.840		0.986

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: THURSDAY PROJECT# 06-2455-021

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	7	0	11	1	11	2	0	16	15	20	21	0	104
7:15 AM	9	7	22	0	10	3	0	31	13	15	28	1	139
7:30 AM	11	8	24	7	14	3	0	60	22	30	51	2	232
7:45 AM	25	16	39	11	29	7	4	74	14	35	73	11	338
8:00 AM	22	15	21	6	18	1	7	64	21	23	76	17	291
8:15 AM	6	9	3	2	4	4	1	44	13	14	28	4	132
8:30 AM	10	3	9	2	6	4	2	22	15	13	26	1	113
8:45 AM	11	6	5	1	10	2	1	26	14	7	21	4	108
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	101	64	134	30	102	26	15	337	127	157	324	40	1457

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	67	46	106	24	71	14	11	229	70	103	228	31	1000
PEAK HR. FACTOR:		0.684			0.580			0.842			0.761		0.740

CONTROL: 2-Way Stop E & W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: THURSDAY PROJECT# 06-2455-021

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11	11	14	2	15	3	2	43	6	21	44	1	173
4:15 PM	14	15	16	5	15	0	3	59	10	16	50	2	205
4:30 PM	23	9	27	4	8	1	2	54	13	25	50	3	219
4:45 PM	15	12	27	5	13	3	2	47	21	20	37	2	204
5:00 PM	23	7	22	2	21	2	2	58	10	14	36	3	200
5:15 PM	14	10	15	9	15	3	1	66	14	28	45	5	225
5:30 PM	16	12	20	3	16	4	4	64	9	15	17	2	182
5:45 PM	15	5	15	0	12	0	1	68	13	15	35	4	183
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	131	81	156	30	115	16	17	459	96	154	314	22	1591

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	75	38	91	20	57	9	7	225	58	87	168	13	848
PEAK HR. FACTOR:		0.864			0.796			0.895			0.859		0.942

CONTROL: 2-Way Stop E & W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Barbara St DAY: THURSDAY PROJECT# 06-2455-022

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	17	5	7	44	0	1	6	6	14	5	6	115
7:15 AM	6	26	8	4	33	0	2	5	11	11	7	5	118
7:30 AM	10	41	14	15	56	0	3	14	12	32	21	6	224
7:45 AM	15	58	30	19	58	1	1	37	13	48	50	20	350
8:00 AM	11	33	14	12	42	0	3	20	6	41	50	14	246
8:15 AM	3	13	13	8	25	1	1	16	5	16	22	6	129
8:30 AM	2	16	8	6	28	0	0	10	7	12	12	6	107
8:45 AM	7	19	14	10	22	2	0	12	3	15	21	8	133
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 58	NT 223	NR 106	SL 81	ST 308	SR 4	EL 11	ET 120	ER 63	WL 189	WT 188	WR 71	TOTAL 1422

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	39	145	71	54	181	2	8	87	36	137	143	46	949
PEAK HR. FACTOR:		0.619			0.760			0.642			0.691		0.678

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Barbara St DAY: THURSDAY PROJECT# 06-2455-022

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	28	20	5	24	2	4	27	12	38	43	14	221
4:15 PM	8	52	31	7	42	2	0	35	7	29	42	14	269
4:30 PM	17	52	25	8	40	1	2	24	8	31	43	19	270
4:45 PM	7	53	10	13	38	4	2	19	6	32	31	20	235
5:00 PM	11	44	19	9	38	1	0	21	12	37	44	15	251
5:15 PM	12	53	19	10	34	1	2	16	7	27	35	17	233
5:30 PM	11	55	24	9	41	2	2	19	8	19	40	11	241
5:45 PM	7	59	13	4	20	2	1	18	10	15	20	7	176
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 77	NT 396	NR 161	SL 65	ST 277	SR 15	EL 13	ET 179	ER 70	WL 228	WT 298	WR 117	TOTAL 1896

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	43	201	85	37	158	8	4	99	33	129	160	68	1025
PEAK HR. FACTOR:		0.875			0.923			0.810			0.930		0.949

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: TUESDAY PROJECT# 06-2455-023

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	1	0	1	0	0	1	1	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	13	13	1	50	2	5	11	12	11	8	3	132
7:15 AM	8	37	28	4	57	7	15	32	18	12	24	4	246
7:30 AM	13	59	33	7	71	12	17	48	20	23	35	3	341
7:45 AM	17	65	49	4	80	17	24	56	25	31	50	2	420
8:00 AM	13	37	33	3	71	11	9	68	22	25	48	1	341
8:15 AM	11	29	29	4	58	13	7	38	15	12	27	4	247
8:30 AM	12	25	23	3	44	9	4	24	10	6	15	2	177
8:45 AM	9	13	15	4	32	8	6	17	13	7	11	3	138
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 86	NT 278	NR 223	SL 30	ST 463	SR 79	EL 87	ET 294	ER 135	WL 127	WT 218	WR 22	TOTAL 2042

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	54	190	144	18	280	53	57	210	82	91	160	10	1349
PEAK HR. FACTOR:		0.740			0.869			0.831			0.786		0.803

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: TUESDAY PROJECT# 06-2455-023

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	1	0	1	0	0	1	1	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12	44	48	3	48	13	21	74	17	4	8	0	292
4:15 PM	15	53	42	3	55	18	17	62	23	8	12	2	310
4:30 PM	19	68	40	4	61	13	14	78	10	8	10	3	328
4:45 PM	13	76	55	6	73	21	18	81	16	9	16	5	389
5:00 PM	13	58	49	2	65	17	13	72	21	5	8	5	328
5:15 PM	18	69	62	3	55	12	11	52	28	19	18	2	349
5:30 PM	21	64	43	4	45	4	19	64	17	26	34	2	343
5:45 PM	14	50	36	3	37	7	25	55	11	16	27	4	285
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	125	482	375	28	439	105	138	538	143	95	133	23	2624

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	65	267	209	15	238	54	61	269	82	59	76	14	1409
PEAK HR. FACTOR:		0.908			0.768			0.896			0.601		0.906

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: WEDNESDAY PROJECT# 06-2455-024

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	15	49	33	12	57	14	13	43	19	21	32	3	311
7:15 AM	18	44	25	16	61	21	11	39	22	19	50	4	330
7:30 AM	15	64	34	25	60	22	18	67	34	31	69	18	457
7:45 AM	17	58	26	12	68	47	30	92	19	40	167	40	616
8:00 AM	32	43	13	14	73	30	20	39	28	33	133	21	479
8:15 AM	22	33	21	7	34	12	27	54	24	22	59	7	322
8:30 AM	23	32	11	10	29	17	15	50	32	14	67	6	306
8:45 AM	22	43	11	4	36	10	10	50	17	14	65	14	296
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 164	NT 366	NR 174	SL 100	ST 418	SR 173	EL 144	ET 434	ER 195	WL 194	WT 642	WR 113	TOTAL 3117

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	82	209	98	67	262	120	79	237	103	123	419	83	1882
PEAK HR. FACTOR:		0.861			0.884			0.743			0.633		0.764

CONTROL:

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: WEDNESDAY PROJECT# 06-2455-024

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	54	64	29	17	59	24	30	121	43	38	142	19	640
4:15 PM	36	68	19	25	54	17	43	136	38	49	130	25	640
4:30 PM	52	55	18	23	40	9	31	157	36	42	98	26	587
4:45 PM	46	74	30	7	55	30	34	120	35	35	132	26	624
5:00 PM	36	73	18	18	63	20	30	129	47	36	124	21	615
5:15 PM	53	90	24	22	65	25	30	110	30	24	101	16	590
5:30 PM	33	62	12	16	45	21	20	106	24	22	68	20	449
5:45 PM	34	62	12	9	31	20	15	115	25	13	76	13	425
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 344	NT 548	NR 162	SL 137	ST 412	SR 166	EL 233	ET 994	ER 278	WL 259	WT 871	WR 166	TOTAL 4570

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	188	261	96	72	208	80	138	534	152	164	502	96	2491
PEAK HR. FACTOR:		0.908			0.900			0.920			0.934		0.973

CONTROL:

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 WB Ramps DAY: TUESDAY PROJECT# 06-2455-025

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	1	0	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	78			23	57				2		25	189
7:15 AM	1	82			29	68				2		29	211
7:30 AM	1	90			37	97				5		24	254
7:45 AM	1	64			46	84				4		24	223
8:00 AM	2	49			53	72				1		22	199
8:15 AM	1	73			34	54				2		20	184
8:30 AM	3	45			25	42				1		24	140
8:45 AM	3	36			23	30				2		24	118
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 16	NT 517	NR 0	SL 0	ST 270	SR 504	EL 0	ET 0	ER 0	WL 19	WT 0	WR 192	TOTAL 1518

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	5	285	0	0	165	321	0	0	0	12	0	99	887
PEAK HR. FACTOR:		0.797			0.907			0.000			0.895		0.873

CONTROL: 1-Way Stop W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 WB Ramps DAY: TUESDAY PROJECT# 06-2455-025

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	1	0	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	88			47	63				9	0	37	249
4:15 PM	9	101			69	72				8	1	41	301
4:30 PM	8	97			50	74				6	0	39	274
4:45 PM	10	90			64	50				4	0	36	254
5:00 PM	10	102			59	80				5	0	30	286
5:15 PM	12	112			45	87				3	2	34	295
5:30 PM	5	120			48	58				0	0	33	264
5:45 PM	7	89			51	50				2	0	22	221
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	66	799	0	0	433	534	0	0	0	37	3	272	2144

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	37	390	0	0	242	276	0	0	0	23	1	146	1115
PEAK HR. FACTOR:		0.953			0.918			0.000			0.850		0.926

CONTROL: 1-Way Stop W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 EB Ramps DAY: WEDNESDAY PROJECT# 06-2455-026

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		20	1	17	11		58	1	3				111
7:15 AM		22	0	21	12		63	1	5				124
7:30 AM		23	1	32	11		65	0	5				137
7:45 AM		17	2	22	29		48	1	10				129
8:00 AM		15	1	26	23		41	0	7				113
8:15 AM		23	2	20	16		54	1	5				121
8:30 AM		11	0	19	12		33	0	5				80
8:45 AM		11	1	15	10		26	0	5				68
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 142	NR 8	SL 172	ST 124	SR 0	EL 388	ET 4	ER 45	WL 0	WT 0	WR 0	TOTAL 883

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	0	77	4	101	75	0	217	2	27	0	0	0	503
PEAK HR. FACTOR:		0.844			0.863			0.879			0.000		0.918

CONTROL: 1-Way Stop E

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Palm Ave DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 EB Ramps DAY: WEDNESDAY PROJECT# 06-2455-026

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		21	5	35	31		73	0	9				174
4:15 PM		19	4	40	33		83	1	15				195
4:30 PM		31	5	31	28		74	0	15				184
4:45 PM		17	3	36	32		81	0	21				190
5:00 PM		31	8	43	20		83	1	15				201
5:15 PM		30	7	29	20		92	1	17				196
5:30 PM		20	5	31	17		108	0	15				196
5:45 PM		21	3	39	10		76	0	11				160
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	190	40	284	191	0	670	3	118	0	0	0	1496

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	98	23	139	89	0	364	2	68	0	0	0	783
PEAK HR. FACTOR:		0.776			0.838			0.882			0.000		0.974

CONTROL: 1-Way Stop E

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Steckel Dr DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: TUESDAY PROJECT# 06-2455-027

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	2	10	8	5	0	3	29	3	16	38	3	119
7:15 AM	2	0	24	5	4	3	1	37	4	17	63	2	162
7:30 AM	5	2	10	9	8	0	0	50	5	16	53	7	165
7:45 AM	4	1	19	7	11	0	2	57	5	22	68	7	203
8:00 AM	4	2	13	5	4	1	3	63	5	28	81	6	215
8:15 AM	3	1	10	6	8	4	2	34	5	18	49	4	144
8:30 AM	2	0	9	6	4	2	1	20	2	10	28	2	86
8:45 AM	3	2	7	6	9	1	4	17	4	15	21	1	90
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 25	NT 10	NR 102	SL 52	ST 53	SR 11	EL 16	ET 307	ER 33	WL 142	WT 401	WR 32	TOTAL 1184

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	15	5	66	26	27	4	6	207	19	83	265	22	745
PEAK HR. FACTOR:		0.827			0.792			0.817			0.804		0.866

CONTROL: 4 way stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Steckel Dr DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: TUESDAY PROJECT# 06-2455-027

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	6	21	3	1	3	0	37	6	18	29	5	134
4:15 PM	0	5	26	7	0	0	0	63	7	12	39	7	166
4:30 PM	3	9	34	8	3	2	1	76	5	21	49	8	219
4:45 PM	6	15	28	4	3	1	1	58	9	29	42	8	204
5:00 PM	7	12	24	2	6	0	1	41	7	24	34	8	166
5:15 PM	2	7	29	8	0	1	3	52	3	21	45	6	177
5:30 PM	4	14	23	6	4	3	1	43	5	17	48	5	173
5:45 PM	3	8	26	5	2	2	4	51	2	13	37	6	159
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	30	76	211	43	19	12	11	421	44	155	323	53	1398

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	18	43	115	22	12	4	6	227	24	95	170	30	766
PEAK HR. FACTOR:		0.898			0.731			0.784			0.934		0.874

CONTROL: 4 way stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Steckel Dr DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: TUESDAY PROJECT# 06-2455-028

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	0	2	0	0	2	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	4	5	2	10	14	4	19	1	4	20	3	88
7:15 AM	4	10	10	10	11	14	3	27	8	6	25	1	129
7:30 AM	13	15	20	21	32	17	7	51	13	15	55	8	267
7:45 AM	23	22	42	20	23	24	9	77	13	29	77	7	366
8:00 AM	10	14	28	14	25	14	12	52	17	13	82	9	290
8:15 AM	5	8	10	4	10	12	5	18	7	7	31	1	118
8:30 AM	3	4	10	2	3	7	7	43	3	9	26	2	119
8:45 AM	2	2	6	6	14	11	6	39	11	9	29	3	138
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 62	NT 79	NR 131	SL 79	ST 128	SR 113	EL 53	ET 326	ER 73	WL 92	WT 345	WR 34	TOTAL 1515

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	50	61	100	65	91	69	31	207	51	63	239	25	1052
PEAK HR. FACTOR:		0.606			0.804			0.730			0.723		0.719

CONTROL: 4-Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Steckel Dr DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Main St DAY: TUESDAY PROJECT# 06-2455-028

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	0	2	0	0	2	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	14	10	4	9	12	10	60	14	4	16	13	171
4:15 PM	6	19	17	7	12	7	9	67	10	5	28	9	196
4:30 PM	7	24	24	8	16	11	13	85	10	9	50	10	267
4:45 PM	7	29	13	4	15	18	22	88	13	8	38	9	264
5:00 PM	13	31	19	8	24	29	34	79	19	15	43	15	329
5:15 PM	21	26	12	10	17	21	20	73	26	24	34	10	294
5:30 PM	17	28	21	4	11	26	15	77	14	12	49	13	287
5:45 PM	12	21	17	5	14	13	25	69	13	19	46	8	262
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	88	192	133	50	118	137	148	598	119	96	304	87	2070

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	58	114	65	26	67	94	91	317	72	59	164	47	1174
PEAK HR. FACTOR:		0.898			0.766			0.909			0.912		0.892

CONTROL: 4-Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Steckel Dr DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: THURSDAY PROJECT# 06-2455-029

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	10	6	11	2	4	17	35	2	3	33	20	145
7:15 AM	13	9	11	11	1	15	14	47	6	8	44	20	199
7:30 AM	15	22	15	25	10	12	32	63	2	5	65	49	315
7:45 AM	15	21	14	37	7	14	22	95	7	10	114	97	453
8:00 AM	9	8	11	36	12	19	17	70	2	8	128	41	361
8:15 AM	5	1	3	21	4	8	20	62	7	2	67	25	225
8:30 AM	3	2	11	10	3	9	21	60	2	2	70	15	208
8:45 AM	3	8	9	13	3	5	13	62	6	4	70	9	205
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 65	NT 81	NR 80	SL 164	ST 42	SR 86	EL 156	ET 494	ER 34	WL 42	WT 591	WR 276	TOTAL 2111

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	44	52	43	119	33	53	91	290	18	25	374	212	1354
PEAK HR. FACTOR:		0.668			0.765			0.804			0.691		0.747

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Steckel Dr DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Harvard Bl DAY: THURSDAY PROJECT# 06-2455-029

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	7	14	35	9	10	21	139	12	12	117	32	412
4:15 PM	6	7	6	28	3	13	20	191	2	24	143	41	484
4:30 PM	5	7	2	32	7	11	14	197	9	16	128	26	454
4:45 PM	6	3	12	22	3	7	14	157	4	18	124	21	391
5:00 PM	6	10	7	32	11	5	17	130	10	8	153	20	409
5:15 PM	2	6	10	17	14	4	26	161	8	10	115	35	408
5:30 PM	6	5	11	23	12	14	14	153	6	10	131	27	412
5:45 PM	4	4	7	17	8	7	10	130	10	11	107	22	337
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	39	49	69	206	67	71	136	1258	61	109	1018	224	3307

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	21	24	34	117	22	41	69	684	27	70	512	120	1741
PEAK HR. FACTOR:		0.790			0.833			0.886			0.844		0.899

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: THURSDAY PROJECT# 06-2455-030

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	3	4	7	12	0	0	3	0	19	4	10	62
7:15 AM	2	9	6	6	5	3	2	6	0	18	11	9	77
7:30 AM	3	10	17	9	20	2	0	5	0	31	16	16	129
7:45 AM	1	7	19	18	19	4	0	8	1	50	20	25	172
8:00 AM	5	7	38	17	13	6	0	6	1	22	23	21	159
8:15 AM	1	2	12	10	10	4	1	5	2	9	5	11	72
8:30 AM	1	6	6	8	15	3	1	6	4	11	5	4	70
8:45 AM	2	9	10	4	7	0	0	2	2	10	5	5	56
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 15	NT 53	NR 112	SL 79	ST 101	SR 22	EL 4	ET 41	ER 10	WL 170	WT 89	WR 101	TOTAL 797

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	11	33	80	50	57	15	2	25	2	121	70	71	537
PEAK HR. FACTOR:		0.620			0.744			0.806			0.689		0.781

CONTROL: 4 way stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: Santa Paula St DAY: THURSDAY PROJECT# 06-2455-030

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	9	23	10	14	2	1	11	4	19	5	8	106
4:15 PM	1	9	27	12	7	1	3	16	2	18	7	7	110
4:30 PM	3	16	24	16	13	0	4	23	3	16	8	9	135
4:45 PM	2	13	20	10	9	2	2	17	2	17	5	14	113
5:00 PM	0	13	22	9	9	1	1	8	4	18	5	12	102
5:15 PM	0	14	14	20	14	0	2	20	0	16	7	10	117
5:30 PM	0	11	22	15	14	0	2	21	0	16	8	8	117
5:45 PM	1	8	19	13	16	2	1	17	1	14	6	5	103
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	7	93	171	105	96	8	16	133	16	134	51	73	903

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	5	56	80	55	45	3	9	68	9	67	25	45	467
PEAK HR. FACTOR:		0.820			0.757			0.717			0.951		0.865

CONTROL: 4 way stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/6/2006 LOCATION: City of Santa Paula

E-W STREET: Main St-Harvard Bl DAY: WEDNESDAY PROJECT# 06-2455-031

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NRR	SL	ST	SR	SLL	EL	ET	ER	WLL	WL	WT	WR	WRR	TOTAL
LANES:	1	1	1		1	1	0		1	2	0		1	1	1		
6:00 AM																	
6:15 AM																	
6:30 AM																	
6:45 AM																	
7:00 AM	11	12	19	9	2	41	7	5	9	21	7	41	33	14	5	4	181
7:15 AM	3	22	27	7	4	53	18	5	21	29	11	42	48	33	11	10	280
7:30 AM	11	27	47	10	14	81	22	7	32	45	11	54	45	41	27	25	403
7:45 AM	19	42	33	13	29	106	30	14	38	46	11	61	39	22	56	31	471
8:00 AM	13	25	27	18	24	95	26	12	20	34	6	52	47	34	21	15	372
8:15 AM	9	15	42	10	9	40	19	3	14	28	8	34	37	31	5	5	257
8:30 AM	6	14	39	16	4	40	14	3	17	28	4	39	44	27	8	0	245
8:45 AM	3	14	37	6	5	15	13	0	9	38	10	14	29	18	8	3	199
9:00 AM																	
9:15 AM																	
9:30 AM																	
9:45 AM																	
10:00 AM																	
10:15 AM																	
10:30 AM																	
10:45 AM																	
11:00 AM																	
11:15 AM																	
11:30 AM																	
11:45 AM																	
TOTAL VOLUMES =	75	171	271	89	91	471	149	49	160	269	68	337	322	220	141	93	2976

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	46	116	134		71	335	96		111	154	39		179	130	115		1526
PEAK HR. FACTOR:	0.605	0.690	0.713	0.787	0.612	0.790	0.800	0.761	0.730	0.837	0.886	0.800	0.932	0.793	0.513	0.906	0.810

CONTROL: Signalized

NRR= Into Main St.
SLL= Into Main St.
WLL= Out of Main St.
WRR= Out of Main St.

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/6/2006 LOCATION: City of Santa Paula

E-W STREET: Main St-Harvard Bl DAY: WEDNESDAY PROJECT# 06-2455-031

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NRR	SL	ST	SR	SLL	EL	ET	ER	WLL	WL	WT	WR	WRR	TOTAL
LANES:	1	1	1		1	1	0		1	2	0		1	1	1		
2:00 PM																	
2:15 PM																	
2:30 PM																	
2:45 PM																	
3:00 PM																	
3:15 PM																	
3:30 PM																	
3:45 PM																	
4:00 PM	10	92	99	23	9	49	15	6	38	62	10	35	51	72	19	1	526
4:15 PM	9	70	114	16	10	39	19	8	45	84	17	26	58	66	13	9	544
4:30 PM	12	76	121	35	6	40	17	4	48	88	18	29	55	75	11	11	567
4:45 PM	14	77	107	29	12	44	21	7	51	73	16	25	74	69	16	7	574
5:00 PM	13	74	95	30	3	39	12	6	36	58	24	22	68	60	7	4	489
5:15 PM	14	80	105	34	5	41	20	5	36	80	14	32	60	59	15	1	529
5:30 PM	11	75	94	26	4	38	13	3	33	71	12	27	58	56	9	0	474
5:45 PM	10	71	90	29	6	35	10	1	28	64	9	21	53	51	7	1	434
6:00 PM																	
6:15 PM																	
TOTAL VOLUMES =	93	615	825	222	55	325	127	40	315	580	120	217	477	508	97	34	4650

AM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	45	315	441		37	172	72		182	307	61		238	282	59		2211
PEAK HR. FACTOR:	0.804	0.856	0.911		0.771	0.878	0.857		0.892	0.872	0.847		0.804	0.940	0.645		
		0.958				0.912				0.893				0.910			0.963

CONTROL: Signalized
NRR= Into Main St.
SLL= Into Main St.
WLL= Out of Main St.
WRR= Out of Main St.

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Faulkner RD DAY: TUESDAY PROJECT# 06-2455-032

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	1	1	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	11	39			16	99	14		1				180
7:15 AM	14	47			19	117	11		3				211
7:30 AM	19	59			15	134	14		3				244
7:45 AM	11	72			32	110	28		5				258
8:00 AM	10	51			38	84	32		8				223
8:15 AM	14	46			21	76	17		6				180
8:30 AM	18	43			16	66	22		7				172
8:45 AM	10	47			18	50	29		8				162
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 107	NT 404	NR 0	SL 0	ST 175	SR 736	EL 167	ET 0	ER 41	WL 0	WT 0	WR 0	TOTAL 1630

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	54	229	0	0	104	445	85	0	19	0	0	0	936
PEAK HR. FACTOR:		0.852			0.921			0.650			0.000		0.907

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Faulkner RD DAY: TUESDAY PROJECT# 06-2455-032

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	0	1	1	1	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	13	141			21	58	25		9				267
4:15 PM	17	148			27	72	34		11				309
4:30 PM	17	169			38	83	42		13				362
4:45 PM	25	151			31	91	50		20				368
5:00 PM	18	143			23	104	60		27				375
5:15 PM	13	153			29	96	54		22				367
5:30 PM	28	148			28	89	55		18				366
5:45 PM	19	131			20	80	52		26				328
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	150	1184	0	0	217	673	372	0	146	0	0	0	2742

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	84	595	0	0	111	380	219	0	87	0	0	0	1476
PEAK HR. FACTOR:		0.964			0.967			0.879			0.000		0.984

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 EB Ramps DAY: WEDNESDAY PROJECT# 06-2455-033

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	2	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	2	1	8	4	10	30	7	2	0	4	21	90
7:15 AM	1	1	1	3	2	14	37	3	2	0	0	25	89
7:30 AM	0	4	0	3	0	10	40	8	1	0	0	33	99
7:45 AM	1	6	0	16	10	20	54	9	6	2	0	20	144
8:00 AM	0	3	0	21	8	13	33	4	10	4	1	15	112
8:15 AM	1	5	0	7	5	10	44	2	4	1	2	17	98
8:30 AM	0	10	0	5	8	14	38	5	3	1	1	18	103
8:45 AM	3	5	0	2	8	13	40	2	3	0	0	14	90
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	7	36	2	65	45	104	316	40	31	8	8	163	825

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	2	24	0	49	31	57	169	20	23	8	4	70	457
PEAK HR. FACTOR:		0.650			0.745			0.768			0.932		0.793

CONTROL: 4-Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Peck Rd DATE: 12/06/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 EB Ramps DAY: WEDNESDAY PROJECT# 06-2455-033

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	2	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	3	1	24	5	11	115	11	2	1	0	18	194
4:15 PM	5	9	1	13	2	24	134	8	1	1	0	18	216
4:30 PM	3	13	2	20	3	34	152	16	3	1	3	29	279
4:45 PM	2	16	0	28	4	26	146	20	2	3	2	23	272
5:00 PM	0	7	1	19	5	23	136	22	4	1	2	19	239
5:15 PM	2	7	0	26	2	23	145	12	2	0	0	25	244
5:30 PM	3	10	2	20	3	16	131	15	2	2	1	27	232
5:45 PM	4	8	1	14	2	16	121	9	2	0	2	18	197
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 22	NT 73	NR 8	SL 164	ST 26	SR 173	EL 1080	ET 113	ER 18	WL 9	WT 10	WR 177	TOTAL 1873

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	7	43	3	93	14	106	579	70	11	5	7	96	1034
PEAK HR. FACTOR:		0.736			0.918			0.965			0.818		0.927

CONTROL: 4-Way Stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Faulkner St DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 WB Ramps DAY: THURSDAY PROJECT# 06-2455-034

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0.5	1	0	2	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	2	16	2	5	0	0	2	1	94	3	5	131
7:15 AM	3	1	19	1	2	0	0	0	0	107	1	5	139
7:30 AM	1	4	17	1	3	1	2	1	2	121	3	8	164
7:45 AM	2	4	26	4	2	2	0	3	0	114	1	9	167
8:00 AM	0	5	37	2	1	0	1	2	0	108	0	5	161
8:15 AM	4	2	21	1	1	1	1	2	1	89	3	10	136
8:30 AM	2	5	26	5	4	2	1	0	1	82	0	7	135
8:45 AM	3	2	20	4	3	0	3	2	1	64	1	4	107
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 16	NT 25	NR 182	SL 20	ST 21	SR 6	EL 8	ET 12	ER 6	WL 779	WT 12	WR 53	TOTAL 1140

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	6	14	99	8	8	3	3	6	2	450	5	27	631
PEAK HR. FACTOR:		0.708			0.594			0.550			0.913		0.945

CONTROL: 4 way stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Faulkner St DATE: 12/07/2006 LOCATION: City of Santa Paula

E-W STREET: SR-126 WB Ramps DAY: THURSDAY PROJECT# 06-2455-034

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0.5	1	0	2	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	5	19	7	4	0	3	9	3	52	2	17	124
4:15 PM	1	7	20	14	2	1	0	13	1	69	3	23	154
4:30 PM	2	4	23	19	4	1	2	11	2	66	4	30	168
4:45 PM	4	9	38	12	3	0	0	15	4	78	4	32	199
5:00 PM	2	14	52	16	5	2	1	19	6	86	7	29	239
5:15 PM	3	11	43	22	2	3	4	14	2	82	3	20	209
5:30 PM	4	11	34	27	3	1	0	12	5	75	6	32	210
5:45 PM	1	6	40	22	1	0	1	16	1	63	4	30	185
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 20	NT 67	NR 269	SL 139	ST 24	SR 8	EL 11	ET 109	ER 24	WL 571	WT 33	WR 213	TOTAL 1488

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	13	45	167	77	13	6	5	60	17	321	20	113	857
PEAK HR. FACTOR:		0.827			0.774			0.788			0.930		0.896

CONTROL: 4 way stop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: South Mountain Rd DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Lemon Rd DAY: TUESDAY PROJECT# 06-2455-035

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	10		0	11	0	5		0				26
7:15 AM	0	13		0	10	2	9		0				34
7:30 AM	1	15		0	11	5	6		0				38
7:45 AM	0	17		0	12	3	8		2				42
8:00 AM	0	19		0	17	4	5		0				45
8:15 AM	0	16		0	13	0	1		0				30
8:30 AM	3	14		1	20	5	3		1				47
8:45 AM	1	12		0	18	9	8		2				50
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	5	116	0	1	112	28	45	0	5	0	0	0	312

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	4	61	0	1	68	18	17	0	3	0	0	0	172
PEAK HR. FACTOR:		0.855			0.806			0.500			0.000		0.860

CONTROL: ONE STOP SING

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: South Mountain Rd DATE: 12/12/2006 LOCATION: City of Santa Paula

E-W STREET: Lemon Rd DAY: TUESDAY PROJECT# 06-2455-035

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	55		0	24	6	13		1			0	99
4:15 PM	1	51		0	16	4	18		0			0	90
4:30 PM	0	54		0	16	3	9		0			0	82
4:45 PM	0	49		1	19	0	4		0			0	73
5:00 PM	0	54		0	18	3	4		0			1	80
5:15 PM	0	48		0	23	4	4		0			0	79
5:30 PM	0	42		0	21	1	5		0			1	70
5:45 PM	0	32		0	16	6	2		0			0	56
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	1	385	0	1	153	27	59	0	1	0	0	2	629

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	1	209	0	1	75	13	44	0	1	0	0	0	344
PEAK HR. FACTOR:		0.955			0.742			0.625			0.000		0.869

CONTROL: ONE STOP SING

APPENDIX C

INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING (2006)

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **HALLOCK DR AND SR 126 / VENTURA ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	1,600	0.044	N-S(1):	0.074 *
	TH	2.00	23	1,600	0.014	N-S(2):	0.062
	LT	1.00	87	1,600	0.054 *	E-W(1):	0.240
Westbound	RT	1.00	144	1,600	0.036	E-W(2):	0.402 *
	TH	2.00	1,224	3,200	0.383 *		
	LT	1.00	41	1,600	0.026	V/C:	0.476
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.000
	TH	1.00	7	1,600	0.020 *		
	LT	1.00	29	1,600	0.018		
Eastbound	RT	1.00	84	1,600	0.034	ICU:	0.476
	TH	2.00	684	3,200	0.214		
	LT	1.00	31	1,600	0.019 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	48	1,600	0.030	N-S(1):	0.142 *
	TH	2.00	10	1,600	0.006	N-S(2):	0.119
	LT	1.00	150	1,600	0.094 *	E-W(1):	0.442 *
Westbound	RT	1.00	157	1,600	0.004	E-W(2):	0.300
	TH	2.00	845	3,200	0.264		
	LT	1.00	5	1,600	0.003 *	V/C:	0.584
Northbound	RT	0.00	42	0	0.000	Lost Time:	0.000
	TH	1.00	34	1,600	0.048 *		
	LT	1.00	143	1,600	0.089		
Eastbound	RT	1.00	27	1,600	0.000	ICU:	0.584
	TH	2.00	1,404	3,200	0.439 *		
	LT	1.00	58	1,600	0.036	LOS:	A

* - Denotes critical movement

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #2 Hallock Dr & Telegraph Rd
******************************************************************************
Average Delay (sec/veh):     10.6       Worst Case Level Of Service: B[ 13.1
******************************************************************************
Street Name:            Hallock Dr                      Telegraph Rd
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Ignore           Include          Ignore           Include
Lanes:        1  0  0  0  1    0  0  0  0  0    0  0  1  0  1    1  0  1  0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:     174    0    13     0    0     0     0   20   172    25    8     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:  174    0    13     0    0     0     0   20   172    25    8     0
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:   174    0     0     0    0     0     0   20     0    25    8     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:  174    0     0     0    0     0     0   20     0    25    8     0
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  6.5   6.2   7.1  6.5 xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  4.0   3.3   3.5  4.0 xxxxx
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol:    0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx  348     0   358  348 xxxxx
Potent Cap.:  900 xxxx xxxxx  xxxx xxxx xxxxx  xxxx  579   900   601  579 xxxxx
Move Cap.:    900 xxxx xxxxx  xxxx xxxx xxxxx  xxxx  467   900   496  467 xxxxx
Volume/Cap:  0.19 xxxx  xxxx  xxxx xxxx  xxxx  xxxx 0.04  0.00  0.05 0.02  xxxx
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:    0.7 xxxx xxxxx  xxxx xxxx xxxxx  xxxx  0.1 xxxxx   0.2  0.1 xxxxx
Control Del: 10.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 13.1 xxxxx  12.6 12.8 xxxxx
LOS by Move:   A    *     *     *    *     *     *    B     *     B    B     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             13.1             12.
ApproachLOS:        *                *                B                B
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #2 Hallock Dr & Telegraph Rd

****

Average Delay (sec/veh): 11.2 Worst Case Level Of Service: C[16.1]

****

Street Name:	Hallock Dr						Telegraph Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Ignore			Include			Ignore			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 0 1			1 0 1 0 0		
Volume Module:												
Base Vol:	255	0	6	0	0	0	0	11	213	14	8	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:	255	0	6	0	0	0	0	11	213	14	8	0
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:	255	0	0	0	0	0	0	11	0	14	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	255	0	0	0	0	0	0	11	0	14	8	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx
Capacity Module:												
Cnflict Vol:	0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	510	0	516	510	xxxxx
Potent Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	469	900	473	469	xxxxx
Move Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	336	900	361	336	xxxxx
Volume/Cap:	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	0.00	0.04	0.02	xxxx
Level Of Service Module:												
2Way95thQ:	1.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.1	xxxxx	0.1	0.1	xxxxx
Control Del:	10.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.1	xxxxx	15.4	16.0	xxxxx
LOS by Move:	B	*	*	*	*	*	*	C	*	C	C	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			16.1			15.6		
ApproachLOS:	*			*			C			C		

****

Note: Queue reported is the number of cars per lane.

****

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Harvard Bl  / Telegraph Rd & Main St
******************************************************************************
Average Delay (sec/veh):      3.4       Worst Case Level Of Service: A[  9.7
******************************************************************************
Street Name:    Harvard Bl  / Telegraph Rd                 Main St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  2  0  0    0  0  1  0  1    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       6   75     0     0   60   137   133    0    11     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:    6   75     0     0   60   137   133    0    11     0    0     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:     6   75     0     0   60   137   133    0    11     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    6   75     0     0   60   137   133    0    11     0    0     0
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol:  197 xxxx xxxxx  xxxx xxxx xxxxx   109 xxxx    60  xxxx xxxx xxxxx
Potent Cap.: 1388 xxxx xxxxx  xxxx xxxx xxxxx   892 xxxx  1011  xxxx xxxx xxxxx
Move Cap.:   1388 xxxx xxxxx  xxxx xxxx xxxxx   890 xxxx  1011  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.15 xxxx  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.5 xxxx   0.0  xxxx xxxx xxxxx
Control Del:  7.6 xxxx xxxxx xxxxx xxxx xxxxx   9.8 xxxx   8.6 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     A    *     A     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              9.7           xxxxx
ApproachLOS:        *                *               A                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #3 Harvard Bl / Telegraph Rd & Main St

****

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: A[9.7]

****

Street Name:	Harvard Bl / Telegraph Rd						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2 0 0			0 0 1 0 1			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	12	97	0	0	71	214	122	0	28	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:	12	97	0	0	71	214	122	0	28	0	0	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:	12	97	0	0	71	214	122	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	97	0	0	71	214	122	0	28	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	285	xxxx	xxxxx	xxxx	xxxx	xxxxx	144	xxxx	71	xxxx	xxxx	xxxxx
Potent Cap.:	1289	xxxx	xxxxx	xxxx	xxxx	xxxxx	854	xxxx	997	xxxx	xxxx	xxxxx
Move Cap.:	1289	xxxx	xxxxx	xxxx	xxxx	xxxxx	848	xxxx	997	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	0.03	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	0.1	xxxx	xxxx	xxxxx
Control Del:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.0	xxxx	8.7	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	A	*	A	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.7			xxxxxx		
ApproachLOS:	*			*			A			*		

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #4 12th St & Santa Paula St

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.30
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.
Optimal Cycle: 0 Level Of Service: ,

****

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	39	98	62	3	160	25	6	32	28	150	48	7
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:	39	98	62	3	160	25	6	32	28	150	48	7
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:	39	98	62	3	160	25	6	32	28	150	48	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	98	62	3	160	25	6	32	28	150	48	7
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:	39	98	62	3	160	25	6	32	28	150	48	7
Saturation Flow Module:												
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:	0.20	0.49	0.31	0.02	0.85	0.13	0.09	0.49	0.42	0.74	0.23	0.03
Final Sat.:	144	362	229	12	615	96	62	331	290	498	159	23
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.26	0.26	0.26	0.10	0.10	0.10	0.30	0.30	0.30
Crit Moves:		****		****				****			****	
Delay/Veh:	9.3	9.3	9.3	9.3	9.3	9.3	8.3	8.3	8.3	10.0	10.0	10.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.3	9.3	9.3	9.3	9.3	9.3	8.3	8.3	8.3	10.0	10.0	10.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		9.3			9.3			8.3			10.	
Delay Adj:		1.00			1.00			1.00			1.0	
ApprAdjDel:		9.3			9.3			8.3			10.	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.4	0.4	0.4

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.550
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	28	233	160	2	168	28	10	36	26	124	30	5
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:	28	233	160	2	168	28	10	36	26	124	30	5
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	233	160	2	168	28	10	36	26	124	30	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	233	160	2	168	28	10	36	26	124	30	5
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	233	160	2	168	28	10	36	26	124	30	5
Saturation Flow Module:												
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:	0.07	0.55	0.38	0.01	0.85	0.14	0.14	0.50	0.36	0.78	0.19	0.03
Final Sat.:	51	423	291	7	586	98	82	297	214	465	112	19
Capacity Analysis Module:												
Vol/Sat:	0.55	0.55	0.55	0.29	0.29	0.29	0.12	0.12	0.12	0.27	0.27	0.27
Crit Moves:	****					****		****			****	
Delay/Veh:	12.7	12.7	12.7	9.8	9.8	9.8	9.0	9.0	9.0	10.3	10.3	10.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.7	12.7	12.7	9.8	9.8	9.8	9.0	9.0	9.0	10.3	10.3	10.3
LOS by Move:	B	B	B	A	A	A	A	A	A	B	B	B
ApproachDel:	12.7			9.8			9.0			10.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			9.8			9.0			10.3		
LOS by Appr:	B			A			A			B		
AllWayAvgQ:	1.1	1.1	1.1	0.4	0.4	0.4	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

```
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #5 12th St & Santa Barbara St
******************************************************************************
Average Delay (sec/veh):      2.1       Worst Case Level Of Service: B[ 11.7
******************************************************************************
Street Name:             12th St                      Santa Barbara St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:      41  172     0     0  290    73    40    0    54     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:   41  172     0     0  290    73    40    0    54     0    0     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:    41  172     0     0  290    73    40    0    54     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   41  172     0     0  290    73    40    0    54     0    0     0
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol:  363 xxxx xxxxx  xxxx xxxx xxxxx   581 xxxx   327  xxxx xxxx xxxxx
Potent Cap.: 1207 xxxx xxxxx  xxxx xxxx xxxxx   480 xxxx   719  xxxx xxxx xxxxx
Move Cap.:   1207 xxxx xxxxx  xxxx xxxx xxxxx   467 xxxx   719  xxxx xxxx xxxxx
Volume/Cap:  0.03 xxxx  xxxx  xxxx xxxx  xxxx  0.09 xxxx  0.08  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:    0.1 xxxx xxxxx  xxxx xxxx xxxxx   0.3 xxxx   0.2  xxxx xxxx xxxxx
Control Del:  8.1 xxxx xxxxx xxxxx xxxx xxxxx  13.4 xxxx  10.4 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     B    *     B     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  8.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             11.7           xxxxx
ApproachLOS:        *                *                B                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #5 12th St & Santa Barbara St

****

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: B[13.5]

****

Street Name:	12th St									Santa Barbara St												
Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Rights:	Include					Include					Include					Include						
Lanes:	0	1	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0		
Volume Module:																						
Base Vol:	50	338	0		0	223		74			67		0		43	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:	50	338	0		0	223		74			67		0		43	0		0			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:	50	338	0		0	223		74			67		0		43	0		0			0	
Reduct Vol:	0	0	0		0	0		0			0		0		0	0		0			0	
FinalVolume:	50	338	0		0	223		74			67		0		43	0		0			0	
Critical Gap Module:																						
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					6.4	xxxx			6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					3.5	xxxx			3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																						
Cnflict Vol:	297	xxxx	xxxxx	xxxx	xxxx	xxxxx					698	xxxx			260	xxxx	xxxx	xxxxx				
Potent Cap.:	1276	xxxx	xxxxx	xxxx	xxxx	xxxxx					410	xxxx			784	xxxx	xxxx	xxxxx				
Move Cap.:	1276	xxxx	xxxxx	xxxx	xxxx	xxxxx					397	xxxx			784	xxxx	xxxx	xxxxx				
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx					0.17	xxxx			0.05	xxxx	xxxx	xxxx				
Level Of Service Module:																						
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx					0.6	xxxx			0.2	xxxx	xxxx	xxxxx				
Control Del:	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx					15.9	xxxx			9.9	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*					C	*			A	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx				
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				
Shrd ConDel:	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*					*	*	*			*	*	*				
ApproachDel:	xxxxxx					xxxxxx							13.5					xxxxxx				
ApproachLOS:	*					*							B					*				

****

Note: Queue reported is the number of cars per lane.

****

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST AND MAIN ST
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	38	0	0.000	N-S(1):	0.136
	TH	1.00	194	1,600	0.145 *	N-S(2):	0.151 *
	LT	1.00	111	1,600	0.069	E-W(1):	0.068
Westbound	RT	0.00	86	0	0.000	E-W(2):	0.117 *
	TH	1.00	72	1,600	0.099 *		
	LT	1.00	23	1,600	0.014	V/C:	0.268
Northbound	RT	0.00	8	0	0.000	Lost Time:	0.000
	TH	1.00	99	1,600	0.067		
	LT	1.00	9	1,600	0.006 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.268
	TH	1.00	67	1,600	0.054		
	LT	1.00	29	1,600	0.018 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	51	0	0.000	N-S(1):	0.185 *
	TH	1.00	156	1,600	0.129	N-S(2):	0.145
	LT	1.00	64	1,600	0.040 *	E-W(1):	0.063
Westbound	RT	0.00	112	0	0.000	E-W(2):	0.192 *
	TH	1.00	112	1,600	0.140 *		
	LT	1.00	11	1,600	0.007	V/C:	0.377
Northbound	RT	0.00	14	0	0.000	Lost Time:	0.000
	TH	1.00	218	1,600	0.145 *		
	LT	1.00	25	1,600	0.016		
Eastbound	RT	0.00	27	0	0.000	ICU:	0.377
	TH	1.00	63	1,600	0.056		
	LT	1.00	83	1,600	0.052 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST AND HARVARD BL
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	133	0	0.000	N-S(1):	0.064
	TH	1.00	21	1,600	0.100 *	N-S(2):	0.192 *
	LT	0.00	6	1,600	0.004	E-W(1):	0.080
Westbound	RT	1.00	6	1,600	0.000	E-W(2):	0.175 *
	TH	1.00	101	1,600	0.063 *		
	LT	1.00	14	1,600	0.009	V/C:	0.367
Northbound	RT	0.00	21	0	0.000	Lost Time:	0.000
	TH	1.00	75	1,600	0.060		
	LT	1.00	147	1,600	0.092 *		
Eastbound	RT	1.00	74	1,600	0.000	ICU:	0.367
	TH	1.00	114	1,600	0.071		
	LT	1.00	179	1,600	0.112 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	148	0	0.000	N-S(1):	0.070
	TH	1.00	30	1,600	0.114 *	N-S(2):	0.214 *
	LT	0.00	4	1,600	0.003	E-W(1):	0.083
Westbound	RT	1.00	13	1,600	0.006	E-W(2):	0.175 *
	TH	1.00	109	1,600	0.068 *		
	LT	1.00	14	1,600	0.009	V/C:	0.389
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.000
	TH	1.00	92	1,600	0.067		
	LT	1.00	160	1,600	0.100 *		
Eastbound	RT	1.00	69	1,600	0.000	ICU:	0.389
	TH	1.00	118	1,600	0.074		
	LT	1.00	171	1,600	0.107 *	LOS:	A

* - Denotes critical movement

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #8 S Mountain Rd & Lemon Rd
******************************************************************************
Average Delay (sec/veh):      1.3       Worst Case Level Of Service: A[  9.2
******************************************************************************
Street Name:          S Mountain Rd                S Mountain Rd / Lemon Rd
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       4   61     0     0   68    18    17    0     3     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:    4   61     0     0   68    18    17    0     3     0    0     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:     4   61     0     0   68    18    17    0     3     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    4   61     0     0   68    18    17    0     3     0    0     0
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol:   86 xxxx xxxxx  xxxx xxxx xxxxx   146  146    77  xxxx xxxx xxxxx
Potent Cap.: 1523 xxxx xxxxx  xxxx xxxx xxxxx   851  749   990  xxxx xxxx xxxxx
Move Cap.:   1523 xxxx xxxxx  xxxx xxxx xxxxx   849  747   990  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.02 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  868 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.2 xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              9.2           xxxxx
ApproachLOS:        *                *               A                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[10.4]

Street Name:	S Mountain Rd									S Mountain Rd / Lemon Rd								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	1	209		0		0		75		13	44		0		1	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:	1	209		0		0		75		13	44		0		1	0		0		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:	1	209		0		0		75		13	44		0		1	0		0		0
Reduct Vol:	0	0		0		0		0		0	0		0		0	0		0		0
FinalVolume:	1	209		0		0		75		13	44		0		1	0		0		0
Critical Gap Module:																				
Critical Gp:	4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		6.5		6.2	xxxxx		xxxx		xxxxx
FollowUpTim:	2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		4.0		3.3	xxxxx		xxxx		xxxxx
Capacity Module:																				
Cnflict Vol:	88	xxxx		xxxxx		xxxx		xxxx		xxxxx	293		293		82	xxxx		xxxx		xxxxx
Potent Cap.:	1520	xxxx		xxxxx		xxxx		xxxx		xxxxx	703		622		984	xxxx		xxxx		xxxxx
Move Cap.:	1520	xxxx		xxxxx		xxxx		xxxx		xxxxx	702		621		984	xxxx		xxxx		xxxxx
Volume/Cap:	0.00	xxxx		xxxx		xxxx		xxxx		xxxx	0.06		0.00		0.00	xxxx		xxxx		xxxx
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	7.4	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	A	*		*		*		*		*	*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		707		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	0.0	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		0.2		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	7.4	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		10.4		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	A	*		*		*		*		*	*		B		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					10.4					xxxxxx				
ApproachLOS:	*					*					B					*				

Note: Queue reported is the number of cars per lane.

```
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Ojai Rd & Richmond Rd
******************************************************************************
Average Delay (sec/veh):      1.6       Worst Case Level Of Service: C[ 21.0
******************************************************************************
Street Name:             Ojai Rd                         Richmond Rd
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       0  355    46    12  686     0     0    0     0    55    0    30
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  355    46    12  686     0     0    0     0    55    0    30
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  355    46    12  686     0     0    0     0    55    0    30
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  355    46    12  686     0     0    0     0    55    0    30
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   401 xxxx xxxxx  xxxx xxxx xxxxx  1088 1088   378
Potent Cap.: xxxx xxxx xxxxx  1169 xxxx xxxxx  xxxx xxxx xxxxx   241  218   673
Move Cap.:   xxxx xxxx xxxxx  1169 xxxx xxxxx  xxxx xxxx xxxxx   239  215   673
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.23 0.00  0.04
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  309 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  1.1 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 21.0 xxxxx
Shared LOS:    *    *     *     A    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             21.
ApproachLOS:        *                *                *                C
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Ojai Rd & Richmond Rd
******************************************************************************
Average Delay (sec/veh):      1.4       Worst Case Level Of Service: C[ 21.1]
******************************************************************************
Street Name:             Ojai Rd                         Richmond Rd
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  609    76    22  426     0     0    0     0    40    0    31
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  609    76    22  426     0     0    0     0    40    0    31
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  609    76    22  426     0     0    0     0    40    0    31
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  609    76    22  426     0     0    0     0    40    0    31
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   685 xxxx xxxxx  xxxx xxxx xxxxx  1117 1117   647
Potent Cap.: xxxx xxxx xxxxx   918 xxxx xxxxx  xxxx xxxx xxxxx   231  209   475
Move Cap.:   xxxx xxxx xxxxx   918 xxxx xxxxx  xxxx xxxx xxxxx   227  204   475
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  xxxx xxxx  xxxx  0.18 0.00  0.07
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  294 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.9 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 21.1 xxxxx
Shared LOS:    *    *     *     A    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             21.1
ApproachLOS:        *                *                *                 C
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Ojai Rd & Orchard St
******************************************************************************
Average Delay (sec/veh):      0.8       Worst Case Level Of Service: C[ 17.5
******************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       0  347    25    15  593     0     0    0     0    30    0    11
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  347    25    15  593     0     0    0     0    30    0    11
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  347    25    15  593     0     0    0     0    30    0    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  347    25    15  593     0     0    0     0    30    0    11
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   372 xxxx xxxxx  xxxx xxxx xxxxx   982  982   360
Potent Cap.: xxxx xxxx xxxxx  1198 xxxx xxxxx  xxxx xxxx xxxxx   278  251   689
Move Cap.:   xxxx xxxx xxxxx  1198 xxxx xxxxx  xxxx xxxx xxxxx   276  248   689
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.11 0.00  0.02
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  329 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.4 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 17.5 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             17.5
ApproachLOS:        *                *                *                C
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Ojai Rd & Orchard St
******************************************************************************
Average Delay (sec/veh):      0.2       Worst Case Level Of Service: C[ 17.3]
******************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  581    50     5  421     0     0    0     0     5    0     2
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  581    50     5  421     0     0    0     0     5    0     2
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  581    50     5  421     0     0    0     0     5    0     2
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  581    50     5  421     0     0    0     0     5    0     2
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   631 xxxx xxxxx  xxxx xxxx xxxxx  1037 1037   606
Potent Cap.: xxxx xxxx xxxxx   961 xxxx xxxxx  xxxx xxxx xxxxx   258  233   501
Move Cap.:   xxxx xxxx xxxxx   961 xxxx xxxxx  xxxx xxxx xxxxx   257  232   501
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.02 0.00  0.00
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  299 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 17.3 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             17.3
ApproachLOS:        *                *                *                 C
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[20.1

Street Name:	Ojai Rd						Saticoy St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	393	50	32	572	0	0	0	0	22	0	2
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	393	50	32	572	0	0	0	0	22	0	2
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	393	50	32	572	0	0	0	0	22	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	393	50	32	572	0	0	0	0	22	0	2
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	443	xxxx	xxxxx	xxxx	xxxx	xxxxx	1054	xxxx	418
Potent Cap.:	xxxx	xxxx	xxxxx	1128	xxxx	xxxxx	xxxx	xxxx	xxxxx	252	xxxx	639
Move Cap.:	xxxx	xxxx	xxxxx	1128	xxxx	xxxxx	xxxx	xxxx	xxxxx	247	xxxx	639
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	0.0
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	21.0	xxxx	10.6
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			20.		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #11 Ojai Rd & Saticoy St

****

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C[23.4]

****

Street Name:	Ojai Rd									Saticoy St								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	646		90		41	418		0		0	0		0		29	0		7	
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	646		90		41	418		0		0	0		0		29	0		7	
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	646		90		41	418		0		0	0		0		29	0		7	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
FinalVolume:	0	646		90		41	418		0		0	0		0		29	0		7	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx		6.4	xxxx		6.2				
FollowUpTim:	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx		3.5	xxxx		3.3				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		736	xxxx	xxxxx	xxxx		xxxx	xxxxx		1191	xxxx		691				
Potent Cap.:	xxxx	xxxx	xxxxx		879	xxxx	xxxxx	xxxx		xxxx	xxxxx		209	xxxx		448				
Move Cap.:	xxxx	xxxx	xxxxx		879	xxxx	xxxxx	xxxx		xxxx	xxxxx		202	xxxx		448				
Volume/Cap:	xxxx	xxxx	xxxx		0.05	xxxx	xxxx	xxxx		xxxx	xxxx		0.14	xxxx		0.02				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	xxxx		xxxx	xxxxx		0.5	xxxx		0.0				
Control Del:	xxxxx	xxxx	xxxxx		9.3	xxxx	xxxxx	xxxxx		xxxx	xxxxx		25.8	xxxx		13.2				
LOS by Move:	*	*	*		A	*	*	*		*	*		D	*		B				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	xxxx		xxxx	xxxxx		xxxx	xxxx		xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx		xxxxx	xxxx		xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx		xxxxx	xxxx		xxxxx				
Shared LOS:	*	*	*		*	*	*	*		*	*		*	*		*				
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					23.4				
ApproachLOS:	*					*					*					C				

****

Note: Queue reported is the number of cars per lane.

****

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	51	0	0.000	N-S(1):	0.262
	TH	1.00	584	1,600	0.397 *	N-S(2):	0.397 *
	LT	0.00		0	0.000	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.397
Northbound	RT	0.00	11	0	0.000	Lost Time:	0.000
	TH	1.00	408	1,600	0.262		
	LT	0.00		0	0.000 *		
Eastbound	RT	0.00		0	0.000	ICU:	0.397
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	47	0	0.000	N-S(1):	0.509 *
	TH	1.00	423	1,600	0.294	N-S(2):	0.294
	LT	0.00		0	0.000 *	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.509
Northbound	RT	0.00	8	0	0.000	Lost Time:	0.000
	TH	1.00	806	1,600	0.509 *		
	LT	0.00		0	0.000		
Eastbound	RT	0.00		0	0.000	ICU:	0.509
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	9	0	0.000	N-S(1):	0.076
	TH	1.00	188	1,600	0.123 *	N-S(2):	0.141 *
	LT	0.00		0	0.000	E-W(1):	0.127
Westbound	RT	0.00	9	0	0.000	E-W(2):	0.156 *
	TH	1.00	210	1,600	0.149 *		
	LT	0.00	20	1,600	0.013	V/C:	0.297
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	94	1,600	0.076		
	LT	0.00	28	1,600	0.018 *		
Eastbound	RT	0.00	42	0	0.000	ICU:	0.297
	TH	1.00	129	1,600	0.114		
	LT	0.00	11	1,600	0.007 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	4	0	0.000	N-S(1):	0.083 *
	TH	1.00	92	1,600	0.060	N-S(2):	0.074
	LT	0.00		0	0.000 *	E-W(1):	0.170 *
Westbound	RT	0.00	3	0	0.000	E-W(2):	0.134
	TH	1.00	193	1,600	0.134		
	LT	0.00	19	1,600	0.012 *	V/C:	0.253
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	110	1,600	0.083 *		
	LT	0.00	23	1,600	0.014		
Eastbound	RT	0.00	44	0	0.000	ICU:	0.253
	TH	1.00	208	1,600	0.158 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA BARBARA ST
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	87	0	0.000	N-S(1):	0.253
	TH	1.00	698	1,600	0.491 *	N-S(2):	0.505 *
	LT	1.00	26	1,600	0.016	E-W(1):	0.079
Westbound	RT	0.00	23	0	0.000	E-W(2):	0.135 *
	TH	1.00	94	1,600	0.073 *		
	LT	1.00	26	1,600	0.016	V/C:	0.640
Northbound	RT	0.00	5	0	0.000	Lost Time:	0.000
	TH	1.00	374	1,600	0.237		
	LT	1.00	23	1,600	0.014 *		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.640
	TH	1.00	60	1,600	0.063		
	LT	1.00	99	1,600	0.062 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.417 *
	TH	1.00	476	1,600	0.336	N-S(2):	0.367
	LT	1.00	26	1,600	0.016 *	E-W(1):	0.091
Westbound	RT	0.00	24	0	0.000	E-W(2):	0.175 *
	TH	1.00	85	1,600	0.068 *		
	LT	1.00	17	1,600	0.011	V/C:	0.592
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.000
	TH	1.00	616	1,600	0.401 *		
	LT	1.00	49	1,600	0.031		
Eastbound	RT	0.00	37	0	0.000	ICU:	0.592
	TH	1.00	91	1,600	0.080		
	LT	1.00	171	1,600	0.107 *	LOS:	A

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **10TH ST AND MAIN ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.245
	TH	1.00	710	1,600	0.472 *	N-S(2):	0.483 *
	LT	1.00	19	1,600	0.012	E-W(1):	0.063
Westbound	RT	0.00	15	0	0.000	E-W(2):	0.092 *
	TH	1.00	69	1,600	0.053 *		
	LT	1.00	32	1,600	0.020	V/C:	0.575
Northbound	RT	0.00	24	0	0.000	Lost Time:	0.000
	TH	1.00	348	1,600	0.233		
	LT	1.00	18	1,600	0.011 *		
Eastbound	RT	1.00	21	1,600	0.002	ICU:	0.575
	TH	1.00	69	1,600	0.043		
	LT	1.00	62	1,600	0.039 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	52	0	0.000	N-S(1):	0.405 *
	TH	1.00	518	1,600	0.356	N-S(2):	0.392
	LT	1.00	26	1,600	0.016 *	E-W(1):	0.135
Westbound	RT	0.00	22	0	0.000	E-W(2):	0.144 *
	TH	1.00	156	1,600	0.111 *		
	LT	1.00	51	1,600	0.032	V/C:	0.549
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.000
	TH	1.00	587	1,600	0.389 *		
	LT	1.00	58	1,600	0.036		
Eastbound	RT	1.00	64	1,600	0.004	ICU:	0.549
	TH	1.00	165	1,600	0.103		
	LT	1.00	52	1,600	0.033 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND HARVARD BL
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	165	0	0.000	N-S(1):	0.272
	TH	1.00	548	1,600	0.446 *	N-S(2):	0.469 *
	LT	1.00	21	1,600	0.013	E-W(1):	0.293 *
Westbound	RT	0.00	21	0	0.000	E-W(2):	0.233
	TH	1.00	256	1,600	0.173		
	LT	1.00	150	1,600	0.094 *	V/C:	0.762
Northbound	RT	0.00	93	0	0.000	Lost Time:	0.000
	TH	1.00	284	1,600	0.259		
	LT	0.00	37	1,600	0.023 *		
Eastbound	RT	0.00	88	0	0.000	ICU:	0.762
	TH	1.00	231	1,600	0.199 *		
	LT	1.00	96	1,600	0.060	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	183	0	0.000	N-S(1):	0.427 *
	TH	1.00	395	1,600	0.361	N-S(2):	0.385
	LT	1.00	19	1,600	0.012 *	E-W(1):	0.270
Westbound	RT	0.00	38	0	0.000	E-W(2):	0.296 *
	TH	1.00	288	1,600	0.204 *		
	LT	1.00	119	1,600	0.074	V/C:	0.723
Northbound	RT	0.00	130	0	0.000	Lost Time:	0.000
	TH	1.00	496	1,600	0.415 *		
	LT	0.00	38	1,600	0.024		
Eastbound	RT	0.00	93	0	0.000	ICU:	0.723
	TH	1.00	220	1,600	0.196		
	LT	1.00	147	1,600	0.092 *	LOS:	C

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 10th St & SR 126 WB Ramps

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[11.1

Street Name:	10th St						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	0 0		0 0 0	1 0		0 0 0	0 0		1 0 0	1 0	
Volume Module:												
Base Vol:	3	322	0	0	132	646	0	0	0	2	1	115
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:	3	322	0	0	132	646	0	0	0	2	1	115
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:	3	322	0	0	132	646	0	0	0	2	1	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	322	0	0	132	646	0	0	0	2	1	115
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	778	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	783	1106	322
Potent Cap.:	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	365	212	724
Move Cap.:	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	364	211	724
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.16
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.9	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	709
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.6
Shrd ConDel:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.1
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	B
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 10th St & SR 126 WB Ramps

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: B[13.5]

Street Name:	10th St									SR 126 WB Ramps								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0
Volume Module:																				
Base Vol:	13	561		0		0	185		418		0		0			3		0		98
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:	13	561		0		0	185		418		0		0			3		0		98
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:	13	561		0		0	185		418		0		0			3		0		98
Reduct Vol:	0	0		0		0	0		0		0		0			0		0		0
FinalVolume:	13	561		0		0	185		418		0		0			3		0		98
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0		3.3	
Capacity Module:																				
Cnflict Vol:	603	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							981	1190		561	
Potent Cap.:	984	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							279	189		531	
Move Cap.:	984	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							276	187		531	
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx							0.01	0.00		0.18	
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							0.0	xxxx		xxxxx	
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							18.2	xxxx		xxxxx	
LOS by Move:	A	*		*		*	*		*		*		*			C	*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx	xxxx		531	
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	xxxx		0.7	
Shrd ConDel:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	xxxx		13.3	
Shared LOS:	A	*		*		*	*		*		*		*			*	*		B	
ApproachDel:	xxxxxx					xxxxxx					xxxxxx						13.5			
ApproachLOS:	*					*					*						B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #17 10th St & SR 126 EB Ramps

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Average Delay (sec/veh): 12.2 Worst Case Level Of Service: B[14.4

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Street Name:	10th St						SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1 0 0			0 1 0 0 0			0 1 0 1 0			0 0 0 0 0		
Volume Module:												
Base Vol:	0	5	0	120	9	0	318	2	6	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:	0	5	0	120	9	0	318	2	6	0	0	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:	0	5	0	120	9	0	318	2	6	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	5	0	120	9	0	318	2	6	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	5	xxxx	xxxxx	254	254	9	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1630	xxxx	xxxxx	739	653	1079	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1630	xxxx	xxxxx	694	601	1079	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	0.46	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	694	xxxx	900	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	2.4	xxxx	0.0	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	14.6	xxxx	9.0	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	B	*	A	*	*	*
ApproachDel:	xxxxxx			xxxxxx			14.4			xxxxx		
ApproachLOS:	*			*			B			*		

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #17 10th St & SR 126 EB Ramps

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Average Delay (sec/veh): 59.4 Worst Case Level Of Service: F[77.4]

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Street Name:	10th St						SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	14	3	187	4	0	570	10	7	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:	0	14	3	187	4	0	570	10	7	0	0	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:	0	14	3	187	4	0	570	10	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	14	3	187	4	0	570	10	7	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	17	xxxx	xxxxx	394	395	4	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1613	xxxx	xxxxx	615	545	1085	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1613	xxxx	xxxxx	554	474	1085	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.12	xxxx	xxxx	1.03	0.02	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	552	xxxx	618	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	16.6	xxxx	0.1	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	79.4	xxxx	11.0	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	F	*	B	*	*	*
ApproachDel:	xxxxxx			xxxxxx			77.4			xxxxxx		
ApproachLOS:	*			*			F			*		

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #18 8th St & Santa Paula St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.37
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.
Optimal Cycle: 0 Level Of Service: |

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Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	38	88	20	26	146	39	12	182	29	48	179	21
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:	38	88	20	26	146	39	12	182	29	48	179	21
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:	38	88	20	26	146	39	12	182	29	48	179	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	88	20	26	146	39	12	182	29	48	179	21
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:	38	88	20	26	146	39	12	182	29	48	179	21
Saturation Flow Module:												
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:	0.26	0.60	0.14	0.12	0.70	0.18	0.05	0.82	0.13	0.19	0.73	0.08
Final Sat.:	160	371	84	79	445	119	36	541	86	128	479	56
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	0.33	0.33	0.33	0.34	0.34	0.34	0.37	0.37	0.37
Crit Moves:			****	****				****			****	
Delay/Veh:	9.8	9.8	9.8	10.5	10.5	10.5	10.4	10.4	10.4	10.9	10.9	10.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	9.8	9.8	10.5	10.5	10.5	10.4	10.4	10.4	10.9	10.9	10.9
LOS by Move:	A	A	A	B	B	B	B	B	B	B	B	B
ApproachDel:	9.8			10.5			10.4			10.		
Delay Adj:	1.00			1.00			1.00			1.0		
ApprAdjDel:	9.8			10.5			10.4			10.		
LOS by Appr:	A			B			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.389
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	46	120	29	4	56	21	26	213	40	31	169	9
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:	46	120	29	4	56	21	26	213	40	31	169	9
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:	46	120	29	4	56	21	26	213	40	31	169	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	120	29	4	56	21	26	213	40	31	169	9
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:	46	120	29	4	56	21	26	213	40	31	169	9
Saturation Flow Module:												
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:	0.24	0.61	0.15	0.05	0.69	0.26	0.09	0.77	0.14	0.15	0.81	0.04
Final Sat.:	154	403	97	31	433	162	67	547	103	102	558	30
Capacity Analysis Module:												
Vol/Sat:	0.30	0.30	0.30	0.13	0.13	0.13	0.39	0.39	0.39	0.30	0.30	0.30
Crit Moves:		****			****			****			****	
Delay/Veh:	10.1	10.1	10.1	8.9	8.9	8.9	10.6	10.6	10.6	10.0	10.0	10.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.1	10.1	10.1	8.9	8.9	8.9	10.6	10.6	10.6	10.0	10.0	10.0
LOS by Move:	B	B	B	A	A	A	B	B	B	A	A	A
ApproachDel:		10.1			8.9			10.6			10.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.1			8.9			10.6			10.0	
LOS by Appr:		B			A			B			A	
AllWayAvgQ:	0.4	0.4	0.4	0.1	0.1	0.1	0.6	0.6	0.6	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **8TH ST AND MAIN ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	27	0	0.000	N-S(1):	0.094
	TH	1.00	186	1,600	0.133 *	N-S(2):	0.144 *
	LT	1.00	30	1,600	0.019	E-W(1):	0.145 *
Westbound	RT	0.00	23	0	0.000	E-W(2):	0.106
	TH	1.00	67	1,600	0.078		
	LT	0.00	34	1,600	0.021 *	V/C:	0.289
Northbound	RT	0.00	28	0	0.000	Lost Time:	0.000
	TH	1.00	92	1,600	0.075		
	LT	1.00	17	1,600	0.011 *		
Eastbound	RT	1.00	22	1,600	0.003	ICU:	0.289
	TH	1.00	154	1,600	0.124 *		
	LT	0.00	45	1,600	0.028	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	39	0	0.000	N-S(1):	0.153 *
	TH	1.00	85	1,600	0.078	N-S(2):	0.100
	LT	1.00	41	1,600	0.026 *	E-W(1):	0.233 *
Westbound	RT	0.00	41	0	0.000	E-W(2):	0.185
	TH	1.00	127	1,600	0.147		
	LT	0.00	67	1,600	0.042 *	V/C:	0.386
Northbound	RT	0.00	72	0	0.000	Lost Time:	0.000
	TH	1.00	131	1,600	0.127 *		
	LT	1.00	35	1,600	0.022		
Eastbound	RT	1.00	84	1,600	0.031	ICU:	0.386
	TH	1.00	245	1,600	0.191 *		
	LT	0.00	60	1,600	0.038	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 8TH ST AND HARVARD BL
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	161	1,600	0.056 *	N-S(1):	0.060
	TH	1.00	25	1,600	0.042	N-S(2):	0.062 *
	LT	0.00	42	1,600	0.026	E-W(1):	0.107
Westbound	RT	0.00	26	0	0.000	E-W(2):	0.182 *
	TH	2.00	413	3,200	0.137 *		
	LT	1.00	21	1,600	0.013	V/C:	0.244
Northbound	RT	0.00	23	0	0.000	Lost Time:	0.000
	TH	1.00	23	1,600	0.034		
	LT	0.00	9	1,600	0.006 *		
Eastbound	RT	0.00	3	0	0.000	ICU:	0.244
	TH	2.00	297	3,200	0.094		
	LT	1.00	72	1,600	0.045 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	137	1,600	0.000	N-S(1):	0.087 *
	TH	1.00	17	1,600	0.044	N-S(2):	0.047
	LT	0.00	54	1,600	0.034 *	E-W(1):	0.175
Westbound	RT	0.00	64	0	0.000	E-W(2):	0.273 *
	TH	2.00	523	3,200	0.183 *		
	LT	1.00	22	1,600	0.014	V/C:	0.360
Northbound	RT	0.00	42	0	0.000	Lost Time:	0.000
	TH	1.00	38	1,600	0.053 *		
	LT	0.00	5	1,600	0.003		
Eastbound	RT	0.00	3	0	0.000	ICU:	0.360
	TH	2.00	512	3,200	0.161		
	LT	1.00	144	1,600	0.090 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #21 6th St & Santa Paula St

****

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: C[15.5

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Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolle		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	4	29	11	14	27	85	83	212	29	13	255	24
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:	4	29	11	14	27	85	83	212	29	13	255	24
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:	4	29	11	14	27	85	83	212	29	13	255	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	4	29	11	14	27	85	83	212	29	13	255	24
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	742	698	227	706	700	267	279	xxxx	xxxxx	241	xxxx	xxxxx
Potent Cap.:	334	367	818	354	366	777	1295	xxxx	xxxxx	1337	xxxx	xxxxx
Move Cap.:	264	339	818	307	338	777	1295	xxxx	xxxxx	1337	xxxx	xxxxx
Volume/Cap:	0.02	0.09	0.01	0.05	0.08	0.11	0.06	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	385	xxxxx	xxxx	536	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.5	xxxxx	xxxxx	13.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	B	*	*	*	*	*	*	*
ApproachDel:		15.5			13.8		xxxxxx			xxxxx		
ApproachLOS:		C			B		*			*		

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[13.5]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	6	8	7	14	5	71	42	278	9	6	219	17
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:	6	8	7	14	5	71	42	278	9	6	219	17
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:	6	8	7	14	5	71	42	278	9	6	219	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	8	7	14	5	71	42	278	9	6	219	17
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	644	615	283	614	611	228	236	xxxx	xxxxx	287	xxxx	xxxxx
Potent Cap.:	389	409	761	407	412	817	1343	xxxx	xxxxx	1287	xxxx	xxxxx
Move Cap.:	342	395	761	386	397	817	1343	xxxx	xxxxx	1287	xxxx	xxxxx
Volume/Cap:	0.02	0.02	0.01	0.04	0.01	0.09	0.03	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	446	xxxxx	xxxx	663	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.5	xxxxx	xxxxx	11.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:		13.5			11.3			xxxxxx			xxxxxx	
ApproachLOS:		B			B			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #22 Palm Av & Santa Paula St

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.55
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.
Optimal Cycle: 0 Level Of Service: |

****

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	67	46	106	24	71	14	11	229	70	103	228	31
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:	67	46	106	24	71	14	11	229	70	103	228	31
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:	67	46	106	24	71	14	11	229	70	103	228	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	46	106	24	71	14	11	229	70	103	228	31
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:	67	46	106	24	71	14	11	229	70	103	228	31
Saturation Flow Module:												
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:	0.31	0.21	0.48	0.22	0.65	0.13	0.03	0.74	0.23	0.28	0.63	0.09
Final Sat.:	182	125	288	117	346	68	23	485	148	187	413	56
Capacity Analysis Module:												
Vol/Sat:	0.37	0.37	0.37	0.20	0.20	0.20	0.47	0.47	0.47	0.55	0.55	0.55
Crit Moves:	****				****				****		****	
Delay/Veh:	11.3	11.3	11.3	10.2	10.2	10.2	12.4	12.4	12.4	14.0	14.0	14.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.3	11.3	11.3	10.2	10.2	10.2	12.4	12.4	12.4	14.0	14.0	14.0
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.3			10.2			12.4			14.		
Delay Adj:	1.00			1.00			1.00			1.0		
ApprAdjDel:	11.3			10.2			12.4			14.		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.5	0.5	0.5	0.2	0.2	0.2	0.8	0.8	0.8	1.1	1.1	1.1

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.7
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	75	38	91	20	57	9	7	225	58	87	168	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:	75	38	91	20	57	9	7	225	58	87	168	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:	75	38	91	20	57	9	7	225	58	87	168	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	75	38	91	20	57	9	7	225	58	87	168	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:	75	38	91	20	57	9	7	225	58	87	168	13
Saturation Flow Module:												
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:	0.37	0.19	0.44	0.23	0.67	0.10	0.02	0.78	0.20	0.32	0.63	0.05
Final Sat.:	236	120	286	135	385	61	17	544	140	220	425	33
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.15	0.15	0.15	0.41	0.41	0.41	0.40	0.40	0.40
Crit Moves:		****			****			****			****	
Delay/Veh:	10.3	10.3	10.3	9.4	9.4	9.4	11.1	11.1	11.1	11.1	11.1	11.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	9.4	9.4	9.4	11.1	11.1	11.1	11.1	11.1	11.1
LOS by Move:	B	B	B	A	A	A	B	B	B	B	B	B
ApproachDel:		10.3			9.4			11.1			11.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.3			9.4			11.1			11.1	
LOS by Appr:		B			A			B			B	
AllWayAvgQ:	0.4	0.4	0.4	0.1	0.1	0.1	0.6	0.6	0.6	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #23 Palm Av & Santa Barbara St

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.51
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.
Optimal Cycle: 0 Level Of Service: |

****

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	39	145	71	54	181	2	8	87	36	137	143	46
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:	39	145	71	54	181	2	8	87	36	137	143	46
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:	39	145	71	54	181	2	8	87	36	137	143	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	145	71	54	181	2	8	87	36	137	143	46
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:	39	145	71	54	181	2	8	87	36	137	143	46
Saturation Flow Module:												
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:	0.15	0.57	0.28	0.23	0.76	0.01	0.06	0.67	0.27	0.42	0.44	0.14
Final Sat.:	96	356	174	138	461	5	35	384	159	265	277	89
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.41	0.39	0.39	0.39	0.23	0.23	0.23	0.52	0.52	0.52
Crit Moves:		****				****	****					***
Delay/Veh:	11.6	11.6	11.6	11.7	11.7	11.7	10.0	10.0	10.0	13.5	13.5	13.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	11.6	11.6	11.7	11.7	11.7	10.0	10.0	10.0	13.5	13.5	13.5
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:		11.6			11.7			10.0			13.	
Delay Adj:		1.00			1.00			1.00			1.0	
ApprAdjDel:		11.6			11.7			10.0			13.	
LOS by Appr:		B			B			A			B	
AllWayAvgQ:	0.6	0.6	0.6	0.5	0.5	0.5	0.2	0.2	0.2	0.9	0.9	0.9

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #23 Palm Av & Santa Barbara St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.576
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	43	201	85	37	158	8	4	99	33	129	160	68
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:	43	201	85	37	158	8	4	99	33	129	160	68
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:	43	201	85	37	158	8	4	99	33	129	160	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	201	85	37	158	8	4	99	33	129	160	68
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:	43	201	85	37	158	8	4	99	33	129	160	68
Saturation Flow Module:												
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:	0.13	0.61	0.26	0.18	0.78	0.04	0.03	0.73	0.24	0.36	0.45	0.19
Final Sat.:	81	380	161	104	443	22	16	400	133	224	278	118
Capacity Analysis Module:												
Vol/Sat:	0.53	0.53	0.53	0.36	0.36	0.36	0.25	0.25	0.25	0.58	0.58	0.58
Crit Moves:		****			****		****				****	
Delay/Veh:	13.8	13.8	13.8	11.6	11.6	11.6	10.4	10.4	10.4	15.0	15.0	15.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.8	13.8	13.8	11.6	11.6	11.6	10.4	10.4	10.4	15.0	15.0	15.0
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
ApproachDel:		13.8			11.6			10.4			15.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.8			11.6			10.4			15.0	
LOS by Appr:		B			B			B			C	
AllWayAvgQ:	0.9	0.9	0.9	0.4	0.4	0.4	0.2	0.2	0.2	1.1	1.1	1.1

Note: Queue reported is the number of cars per lane.

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **PALM AV AND MAIN ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	53	0	0.000	N-S(1):	0.130
	TH	1.00	280	1,600	0.219 *	N-S(2):	0.253 *
	LT	0.00	18	1,600	0.011	E-W(1):	0.188 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.142
	TH	1.00	160	1,600	0.106		
	LT	1.00	91	1,600	0.057 *	V/C:	0.441
Northbound	RT	1.00	144	1,600	0.033	Lost Time:	0.000
	TH	1.00	190	1,600	0.119		
	LT	1.00	54	1,600	0.034 *		
Eastbound	RT	1.00	82	1,600	0.018	ICU:	0.441
	TH	1.00	210	1,600	0.131 *		
	LT	1.00	57	1,600	0.036	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	54	0	0.000	N-S(1):	0.176
	TH	1.00	238	1,600	0.192 *	N-S(2):	0.233 *
	LT	0.00	15	1,600	0.009	E-W(1):	0.205 *
Westbound	RT	0.00	14	0	0.000	E-W(2):	0.094
	TH	1.00	76	1,600	0.056		
	LT	1.00	59	1,600	0.037 *	V/C:	0.438
Northbound	RT	1.00	209	1,600	0.094	Lost Time:	0.000
	TH	1.00	267	1,600	0.167		
	LT	1.00	65	1,600	0.041 *		
Eastbound	RT	1.00	82	1,600	0.011	ICU:	0.438
	TH	1.00	269	1,600	0.168 *		
	LT	1.00	61	1,600	0.038	LOS:	A

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **PALM AV AND HARVARD BL**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	120	0	0.000	N-S(1):	0.234
	TH	1.00	262	1,600	0.239 *	N-S(2):	0.290 *
	LT	1.00	67	1,600	0.042	E-W(1):	0.183
Westbound	RT	0.00	83	0	0.000	E-W(2):	0.206 *
	TH	2.00	419	3,200	0.157 *		
	LT	1.00	123	1,600	0.077	V/C:	0.496
Northbound	RT	0.00	98	0	0.000	Lost Time:	0.000
	TH	1.00	209	1,600	0.192		
	LT	1.00	82	1,600	0.051 *		
Eastbound	RT	0.00	103	0	0.000	ICU:	0.496
	TH	2.00	237	3,200	0.106		
	LT	1.00	79	1,600	0.049 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.268
	TH	1.00	208	1,600	0.180 *	N-S(2):	0.298 *
	LT	1.00	72	1,600	0.045	E-W(1):	0.317 *
Westbound	RT	0.00	96	0	0.000	E-W(2):	0.273
	TH	2.00	502	3,200	0.187		
	LT	1.00	164	1,600	0.103 *	V/C:	0.615
Northbound	RT	0.00	96	0	0.000	Lost Time:	0.000
	TH	1.00	261	1,600	0.223		
	LT	1.00	188	1,600	0.118 *		
Eastbound	RT	0.00	152	0	0.000	ICU:	0.615
	TH	2.00	534	3,200	0.214 *		
	LT	1.00	138	1,600	0.086	LOS:	B

* - Denotes critical movement

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------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #26 Palm Av & SR 126 WB Ramps
******************************************************************************
Average Delay (sec/veh):      1.4       Worst Case Level Of Service: B[ 10.7
******************************************************************************
Street Name:             Palm Av                        SR 126 WB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       5  285     0     0  165   321     0    0     0    12    0    99
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:    5  285     0     0  165   321     0    0     0    12    0    99
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:     5  285     0     0  165   321     0    0     0    12    0    99
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5  285     0     0  165   321     0    0     0    12    0    99
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol:  486 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   621 xxxx   285
Potent Cap.: 1087 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   455 xxxx   759
Move Cap.:   1087 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   453 xxxx   759
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.03 xxxx  0.13
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx   0.4
Control Del:  8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  13.2 xxxx  10.5
LOS by Move:   A    *     *     *    *     *     *    *     *     B    *     B
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             10.
ApproachLOS:        *                *                *                B
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #26 Palm Av & SR 126 WB Ramps

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: B[12.8]

Street Name:	Palm Av						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	0 0	0	0 1	0 1	0
Volume Module:												
Base Vol:	37	390	0	0	242	276	0	0	0	23	1	146
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:	37	390	0	0	242	276	0	0	0	23	1	146
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:	37	390	0	0	242	276	0	0	0	23	1	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	390	0	0	242	276	0	0	0	23	1	146
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	518	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	844	982	390
Potent Cap.:	1058	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	336	251	663
Move Cap.:	1058	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	327	242	663
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	0.00	0.22
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	322	xxxx	655
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.2	xxxx	0.9
Shrd ConDel:	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.1	xxxx	12.1
Shared LOS:	A	*	*	*	*	*	*	*	*	C	*	B
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.8		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #27 Palm Av & SR 126 EB Ramps
******************************************************************************
Average Delay (sec/veh):      8.1       Worst Case Level Of Service: B[ 13.5
******************************************************************************
Street Name:             Palm Av                        SR 126 EB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  1  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       0   77     4   101   75     0   217    2    27     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:    0   77     4   101   75     0   217    2    27     0    0     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:     0   77     4   101   75     0   217    2    27     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   77     4   101   75     0   217    2    27     0    0     0
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    81 xxxx xxxxx   356  358    75  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  1529 xxxx xxxxx   646  572   992  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  1529 xxxx xxxxx   612  532   992  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.07 xxxx  xxxx  0.35 0.00  0.03  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.2 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   611 xxxx   936  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.2 xxxx xxxxx   1.6 xxxx   0.1 xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.5 xxxx xxxxx  14.2 xxxx   9.0 xxxxx xxxx xxxxx
Shared LOS:    *    *     *     A    *     *     B    *     A     *    *     *
ApproachDel:    xxxxxx           xxxxxx             13.5           xxxxx
ApproachLOS:        *                *                B                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #27 Palm Av & SR 126 EB Ramps

****

Average Delay (sec/veh): 15.4 Worst Case Level Of Service: D[25.3]

****

Street Name:	Palm Av						SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	98	23	139	89	0	364	2	68	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:	0	98	23	139	89	0	364	2	68	0	0	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:	0	98	23	139	89	0	364	2	68	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	98	23	139	89	0	364	2	68	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	121	xxxx	xxxxx	477	488	89	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1479	xxxx	xxxxx	551	483	975	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1479	xxxx	xxxxx	508	434	975	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	0.72	0.00	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	507	xxxx	941	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	5.8	xxxx	0.2	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	28.3	xxxx	9.1	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	D	*	A	*	*	*
ApproachDel:	xxxxxx			xxxxxx			25.3			xxxxxx		
ApproachLOS:	*			*			D			*		

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #28 Steckel Dr & Santa Paula St

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.47
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.
Optimal Cycle: 0 Level Of Service: |

****

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	15	5	66	26	27	4	6	207	19	83	265	22
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:	15	5	66	26	27	4	6	207	19	83	265	22
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:	15	5	66	26	27	4	6	207	19	83	265	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	5	66	26	27	4	6	207	19	83	265	22
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:	15	5	66	26	27	4	6	207	19	83	265	22
Saturation Flow Module:												
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:	0.17	0.06	0.77	0.46	0.47	0.07	0.03	0.89	0.08	0.22	0.72	0.06
Final Sat.:	116	39	509	274	285	42	19	672	62	174	556	46
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.09	0.09	0.09	0.31	0.31	0.31	0.48	0.48	0.48
Crit Moves:		****		****				****			****	
Delay/Veh:	8.5	8.5	8.5	8.9	8.9	8.9	9.6	9.6	9.6	11.4	11.4	11.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.5	8.5	8.5	8.9	8.9	8.9	9.6	9.6	9.6	11.4	11.4	11.4
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:		8.5			8.9			9.6			11.	
Delay Adj:		1.00			1.00			1.00			1.0	
ApprAdjDel:		8.5			8.9			9.6			11.	
LOS by Appr:		A			A			A			B	
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.8	0.8	0.8

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.402
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	18	43	115	22	12	4	6	227	24	95	170	30
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:	18	43	115	22	12	4	6	227	24	95	170	30
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:	18	43	115	22	12	4	6	227	24	95	170	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	43	115	22	12	4	6	227	24	95	170	30
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:	18	43	115	22	12	4	6	227	24	95	170	30
Saturation Flow Module:												
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:	0.10	0.24	0.66	0.58	0.32	0.10	0.02	0.89	0.09	0.32	0.58	0.10
Final Sat.:	70	167	448	340	185	62	17	646	68	236	423	75
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.06	0.06	0.06	0.35	0.35	0.35	0.40	0.40	0.40
Crit Moves:		****				****		****		****		
Delay/Veh:	9.3	9.3	9.3	8.8	8.8	8.8	10.1	10.1	10.1	10.7	10.7	10.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.3	9.3	9.3	8.8	8.8	8.8	10.1	10.1	10.1	10.7	10.7	10.7
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
ApproachDel:	9.3			8.8			10.1			10.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.3			8.8			10.1			10.7		
LOS by Appr:	A			A			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.1	0.1	0.1	0.5	0.5	0.5	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #29 Steckel Dr & Main St

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.41
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.
Optimal Cycle: 0 Level Of Service: |

****

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	50	61	100	65	91	69	31	207	51	63	239	25
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:	50	61	100	65	91	69	31	207	51	63	239	25
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:	50	61	100	65	91	69	31	207	51	63	239	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	61	100	65	91	69	31	207	51	63	239	25
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:	50	61	100	65	91	69	31	207	51	63	239	25
Saturation Flow Module:												
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:	0.45	0.55	1.00	0.29	0.40	0.31	0.21	1.44	0.35	0.39	1.46	0.15
Final Sat.:	226	276	577	156	218	165	115	790	200	207	808	86
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.17	0.42	0.42	0.42	0.27	0.26	0.25	0.30	0.30	0.29
Crit Moves:		****		****			****			****		
Delay/Veh:	11.2	11.2	9.6	13.5	13.5	13.5	11.3	11.0	10.6	11.7	11.4	11.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.2	11.2	9.6	13.5	13.5	13.5	11.3	11.0	10.6	11.7	11.4	11.1
LOS by Move:	B	B	A	B	B	B	B	B	B	B	B	B
ApproachDel:		10.5			13.5			11.0			11.	
Delay Adj:		1.00			1.00			1.00			1.0	
ApprAdjDel:		10.5			13.5			11.0			11.	
LOS by Appr:		B			B			B			B	
AllWayAvgQ:	0.2	0.2	0.2	0.6	0.6	0.6	0.3	0.3	0.3	0.4	0.4	0.4

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.441
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	58	114	65	26	67	94	91	317	72	59	164	47
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:	58	114	65	26	67	94	91	317	72	59	164	47
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:	58	114	65	26	67	94	91	317	72	59	164	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	114	65	26	67	94	91	317	72	59	164	47
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:	58	114	65	26	67	94	91	317	72	59	164	47
Saturation Flow Module:												
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:	0.34	0.66	1.00	0.14	0.36	0.50	0.38	1.32	0.30	0.44	1.21	0.35
Final Sat.:	165	325	553	72	185	259	206	743	174	223	642	190
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.12	0.36	0.36	0.36	0.44	0.43	0.41	0.27	0.26	0.25
Crit Moves:	****				****		****			****		
Delay/Veh:	13.1	13.1	9.5	13.0	13.0	13.0	13.9	13.3	12.7	11.7	11.3	10.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.1	13.1	9.5	13.0	13.0	13.0	13.9	13.3	12.7	11.7	11.3	10.9
LOS by Move:	B	B	A	B	B	B	B	B	B	B	B	B
ApproachDel:	12.1			13.0			13.3			11.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.1			13.0			13.3			11.3		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.5	0.5	0.1	0.5	0.5	0.5	0.7	0.6	0.6	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: STECKEL DR AND HARVARD BL
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	53	0	0.000	N-S(1):	0.161 *
	TH	1.00	33	1,600	0.128	N-S(2):	0.156
	LT	0.00	119	1,600	0.074 *	E-W(1):	0.112
Westbound	RT	0.00	212	0	0.000	E-W(2):	0.240 *
	TH	2.00	374	3,200	0.183 *		
	LT	1.00	25	1,600	0.016	V/C:	0.401
Northbound	RT	0.00	43	0	0.000	Lost Time:	0.000
	TH	1.00	52	1,600	0.087 *		
	LT	0.00	44	1,600	0.028		
Eastbound	RT	0.00	18	0	0.000	ICU:	0.401
	TH	2.00	290	3,200	0.096		
	LT	1.00	91	1,600	0.057 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	41	0	0.000	N-S(1):	0.122
	TH	1.00	22	1,600	0.113 *	N-S(2):	0.126 *
	LT	0.00	117	1,600	0.073	E-W(1):	0.266 *
Westbound	RT	0.00	120	0	0.000	E-W(2):	0.241
	TH	2.00	512	3,200	0.198		
	LT	1.00	70	1,600	0.044 *	V/C:	0.392
Northbound	RT	0.00	34	0	0.000	Lost Time:	0.000
	TH	1.00	24	1,600	0.049		
	LT	0.00	21	1,600	0.013 *		
Eastbound	RT	0.00	27	0	0.000	ICU:	0.392
	TH	2.00	684	3,200	0.222 *		
	LT	1.00	69	1,600	0.043	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #31 Peck Rd & Santa Paula St

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.29
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.
Optimal Cycle: 0 Level Of Service:

****

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	11	33	80	50	57	15	2	25	2	121	70	71
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	33	80	50	57	15	2	25	2	121	70	71
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	33	80	50	57	15	2	25	2	121	70	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	33	80	50	57	15	2	25	2	121	70	71
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	33	80	50	57	15	2	25	2	121	70	71
Saturation Flow Module:												
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:	0.09	0.27	0.64	0.41	0.47	0.12	0.07	0.86	0.07	0.63	0.37	1.00
Final Sat.:	69	208	503	296	338	89	48	604	48	410	237	793
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.17	0.17	0.17	0.04	0.04	0.04	0.29	0.29	0.09
Crit Moves:		****			****			****			****	
Delay/Veh:	8.2	8.2	8.2	8.7	8.7	8.7	8.0	8.0	8.0	10.3	10.3	7.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	8.2	8.7	8.7	8.7	8.0	8.0	8.0	10.3	10.3	7.5
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	A
ApproachDel:		8.2			8.7			8.0			9.	
Delay Adj:		1.00			1.00			1.00			1.0	
ApprAdjDel:		8.2			8.7			8.0			9.	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.4	0.4	0.1

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Peck Rd & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.173
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.3
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0	0 1
Volume Module:												
Base Vol:	5	56	80	55	45	3	9	68	9	67	25	45
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:	5	56	80	55	45	3	9	68	9	67	25	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:	5	56	80	55	45	3	9	68	9	67	25	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	56	80	55	45	3	9	68	9	67	25	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:	5	56	80	55	45	3	9	68	9	67	25	45
Saturation Flow Module:												
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:	0.03	0.40	0.57	0.53	0.44	0.03	0.10	0.80	0.10	0.73	0.27	1.00
Final Sat.:	29	324	462	393	322	21	77	581	77	461	172	780
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.14	0.14	0.14	0.12	0.12	0.12	0.15	0.15	0.06
Crit Moves:		****		****				****			****	
Delay/Veh:	8.1	8.1	8.1	8.4	8.4	8.4	8.2	8.2	8.2	9.1	9.1	7.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.1	8.1	8.1	8.4	8.4	8.4	8.2	8.2	8.2	9.1	9.1	7.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.1			8.4			8.2			8.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.1			8.4			8.2			8.5	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND HARVARD BL (AS PART OF INTERSECTION 32)
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	49	0	0.000	N-S(1):	0.171 *
	TH	1.00	173	1,600	0.139	N-S(2):	0.168
	LT	1.00	109	1,600	0.068 *	E-W(1):	0.172 *
Westbound	RT	1.00	115	1,600	0.004	E-W(2):	0.150
	TH	1.00	130	1,600	0.081		
	LT	1.00	179	1,600	0.112 *	V/C:	0.343
Northbound	RT	1.00	134	1,600	0.000	Lost Time:	0.000
	TH	1.00	164	1,600	0.103 *		
	LT	1.00	46	1,600	0.029		
Eastbound	RT	0.00	39	0	0.000	ICU:	0.343
	TH	2.00	154	3,200	0.060 *		
	LT	1.00	111	1,600	0.069	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	38	0	0.000	N-S(1):	0.314 *
	TH	1.00	91	1,600	0.081	N-S(2):	0.109
	LT	1.00	59	1,600	0.037 *	E-W(1):	0.264
Westbound	RT	1.00	59	1,600	0.000	E-W(2):	0.290 *
	TH	1.00	282	1,600	0.176 *		
	LT	1.00	238	1,600	0.149	V/C:	0.604
Northbound	RT	1.00	441	1,600	0.127	Lost Time:	0.000
	TH	1.00	443	1,600	0.277 *		
	LT	1.00	45	1,600	0.028		
Eastbound	RT	0.00	61	0	0.000	ICU:	0.604
	TH	2.00	307	3,200	0.115		
	LT	1.00	182	1,600	0.114 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND MAIN ST (AS PART OF INTERSECTION 32)
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.024 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	38	1,600	0.024 *	E-W(1):	0.131 *
Westbound	RT	1.00	81	1,600	0.027	E-W(2):	0.027
	TH	0.00	0	0	0.000		
	LT	1.00	209	1,600	0.131 *	V/C:	0.155
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.155
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.016 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	25	1,600	0.016 *	E-W(1):	0.068 *
Westbound	RT	1.00	28	1,600	0.002	E-W(2):	0.002
	TH	0.00	0	0	0.000		
	LT	1.00	108	1,600	0.068 *	V/C:	0.084
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.084
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND FAULKNER RD
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	445	1,600	0.225 *	N-S(1):	0.143
	TH	1.00	104	1,600	0.065	N-S(2):	0.259 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.053 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.312
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	229	1,600	0.143		
	LT	1.00	54	1,600	0.034 *		
Eastbound	RT	1.00	19	1,600	0.000	ICU:	0.312
	TH	0.00	0	0	0.000		
	LT	1.00	85	1,600	0.053 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	380	1,600	0.101	N-S(1):	0.372 *
	TH	1.00	111	1,600	0.069	N-S(2):	0.154
	LT	0.00	0	0	0.000 *	E-W(1):	0.002
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.137 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.509
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	595	1,600	0.372 *		
	LT	1.00	84	1,600	0.053		
Eastbound	RT	1.00	87	1,600	0.002	ICU:	0.509
	TH	0.00	0	0	0.000		
	LT	1.00	219	1,600	0.137 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.26
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.
Optimal Cycle: 0 Level Of Service:

****

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	2	24	0	49	31	57	169	20	23	8	4	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:	2	24	0	49	31	57	169	20	23	8	4	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:	2	24	0	49	31	57	169	20	23	8	4	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	24	0	49	31	57	169	20	23	8	4	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:	2	24	0	49	31	57	169	20	23	8	4	70
Saturation Flow Module:												
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:	0.08	0.92	0.00	0.36	0.23	0.41	1.00	0.78	0.22	0.20	0.80	1.00
Final Sat.:	52	623	0	262	166	305	643	570	158	130	535	779
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	xxxx	0.19	0.19	0.19	0.26	0.04	0.15	0.06	0.01	0.09
Crit Moves:		****		****			****					***
Delay/Veh:	8.2	8.2	0.0	8.6	8.6	8.6	10.1	8.3	8.3	8.3	8.3	7.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	0.0	8.6	8.6	8.6	10.1	8.3	8.3	8.3	8.3	7.6
LOS by Move:	A	A	*	A	A	A	B	A	A	A	A	A
ApproachDel:	8.2			8.6			9.4			7.		
Delay Adj:	1.00			1.00			1.00			1.0		
ApprAdjDel:	8.2			8.6			9.4			7.		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.964
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.5
Optimal Cycle:	0	Level Of Service:	D

****

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	7	43	3	93	14	106	579	70	11	5	7	96
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	43	3	93	14	106	579	70	11	5	7	96
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	43	3	93	14	106	579	70	11	5	7	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	43	3	93	14	106	579	70	11	5	7	96
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	43	3	93	14	106	579	70	11	5	7	96
Saturation Flow Module:												
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:	0.13	0.81	0.06	0.44	0.06	0.50	1.00	0.97	0.03	0.09	0.91	1.00
Final Sat.:	71	436	30	262	39	298	601	635	22	50	487	604
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.36	0.36	0.36	0.96	0.11	0.50	0.10	0.01	0.16
Crit Moves:	****			****			****					****
Delay/Veh:	10.1	10.1	10.1	12.0	12.0	12.0	51.9	13.5	13.5	9.9	9.9	9.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.1	10.1	10.1	12.0	12.0	12.0	51.9	13.5	13.5	9.9	9.9	9.4
LOS by Move:	B	B	B	B	B	B	F	B	B	A	A	A
ApproachDel:	10.1			12.0			38.0			9.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			12.0			38.0			9.6		
LOS by Appr:	B			B			E			A		
AllWayAvgQ:	0.1	0.1	0.1	0.5	0.5	0.5	7.2	1.0	1.0	0.1	0.2	0.2

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #35 Faulkner Rd & SR 126 WB Ramps

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.68
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.
Optimal Cycle: 0 Level Of Service:

****

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	6	14	99	8	8	3	3	6	2	450	5	27
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:	6	14	99	8	8	3	3	6	2	450	5	27
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:	6	14	99	8	8	3	3	6	2	450	5	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	14	99	8	8	3	3	6	2	450	5	27
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:	6	14	99	8	8	3	3	6	2	450	5	27
Saturation Flow Module:												
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:	0.30	0.70	1.00	0.84	0.84	0.32	1.00	1.50	0.50	1.00	1.00	1.00
Final Sat.:	168	392	648	438	474	181	526	869	301	657	716	833
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.15	0.02	0.02	0.02	0.01	0.01	0.01	0.69	0.01	0.03
Crit Moves:			****	****				****		****		
Delay/Veh:	8.9	8.9	8.7	9.2	8.7	8.5	9.2	8.6	8.3	18.9	7.7	7.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	8.9	8.7	9.2	8.7	8.5	9.2	8.6	8.3	18.9	7.7	7.1
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	A
ApproachDel:	8.7			8.9			8.7			18.		
Delay Adj:	1.00			1.00			1.00			1.0		
ApprAdjDel:	8.7			8.9			8.7			18.		
LOS by Appr:	A			A			A			C		
AllWayAvgQ:	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #35 Faulkner Rd & SR 126 WB Ramps

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.575
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.2
Optimal Cycle:	0	Level Of Service:	B

****

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	13	45	167	77	13	6	5	60	17	321	20	113
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:	13	45	167	77	13	6	5	60	17	321	20	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:	13	45	167	77	13	6	5	60	17	321	20	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	45	167	77	13	6	5	60	17	321	20	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:	13	45	167	77	13	6	5	60	17	321	20	113
Saturation Flow Module:												
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:	0.22	0.78	1.00	1.00	0.87	0.13	1.00	1.56	0.44	1.00	1.00	1.00
Final Sat.:	122	421	621	501	477	68	474	805	234	558	599	680
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.27	0.15	0.03	0.09	0.01	0.07	0.07	0.58	0.03	0.17
Crit Moves:			****	****				****		****		
Delay/Veh:	9.7	9.7	10.0	10.6	9.4	9.4	9.9	9.7	9.4	16.8	8.7	8.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.7	10.0	10.6	9.4	9.4	9.9	9.7	9.4	16.8	8.7	8.8
LOS by Move:	A	A	A	B	A	A	A	A	A	C	A	A
ApproachDel:	9.9			10.2			9.6			14.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			10.2			9.6			14.4		
LOS by Appr:	A			B			A			B		
AllWayAvgQ:	0.1	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.1	1.2	0.0	0.2

****

Note: Queue reported is the number of cars per lane.

****

CUMULATIVE BASE (2020)

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR AND SR 126 / VENTURA ST
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.182 *
	TH	2.00	160	3,200	0.091	N-S(2):	0.135
	LT	1.00	150	1,600	0.094 *	E-W(1):	0.322
Westbound	RT	1.00	360	1,600	0.131	E-W(2):	0.512 *
	TH	2.00	1,540	3,200	0.481 *		
	LT	1.00	110	1,600	0.069	V/C:	0.694
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	1.00	80	1,600	0.088 *		
	LT	1.00	70	1,600	0.044		
Eastbound	RT	1.00	210	1,600	0.088	ICU:	0.694
	TH	2.00	810	3,200	0.253		
	LT	1.00	50	1,600	0.031 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	150	1,600	0.094	N-S(1):	0.313 *
	TH	2.00	100	1,600	0.063	N-S(2):	0.269
	LT	1.00	200	1,600	0.125 *	E-W(1):	0.626 *
Westbound	RT	1.00	180	1,600	0.000	E-W(2):	0.459
	TH	2.00	1,150	3,200	0.359		
	LT	1.00	60	1,600	0.038 *	V/C:	0.939
Northbound	RT	0.00	130	0	0.000	Lost Time:	0.000
	TH	1.00	170	1,600	0.188 *		
	LT	1.00	280	1,600	0.175		
Eastbound	RT	1.00	190	1,600	0.000	ICU:	0.939
	TH	2.00	1,880	3,200	0.588 *		
	LT	1.00	160	1,600	0.100	LOS:	E

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #2 Hallock Dr & Telegraph Rd

****

Average Delay (sec/veh): 39.6 Worst Case Level Of Service: F[133.4]

****

Street Name:	Hallock Dr								Telegraph Rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Ignore				Include				Ignore				Include			
Lanes:	1 0	0	0	1	0 0	0	0	0	0 0	1	0	1	1 0	1	0	0
Volume Module:																
Base Vol:	460	0	40		0	0	0		0	100	410		50	30	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:	460	0	40		0	0	0		0	100	410		50	30	0	
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:	460	0	0		0	0	0		0	100	0		50	30	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	460	0	0		0	0	0		0	100	0		50	30	0	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		6.5	6.2			7.1	6.5	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		4.0	3.3			3.5	4.0	xxxxx	
Capacity Module:																
Cnflict Vol:	0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx		920	0			970	920	xxxxx	
Potent Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx		273	900			235	273	xxxxx	
Move Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx		133	900			59	133	xxxxx	
Volume/Cap:	0.51	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.75	0.00			0.85	0.22	xxxx	
Level Of Service Module:																
2Way95thQ:	3.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx		4.4	xxxxx			3.8	0.8	xxxxx	
Control Del:	13.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		86.4	xxxxx			189.7	39.6	xxxxx	
LOS by Move:	B	*	*	*	*	*	*		F	*			F	E	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx		xxxx	xxxxx			xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx			xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx			xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*		*	*			*	*	*	
ApproachDel:	xxxxxx			xxxxxx					86.4				133.4			
ApproachLOS:	*			*					F				F			

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hallock Dr & Telegraph Rd

Average Delay (sec/veh): 29.8 Worst Case Level Of Service: F[77.3]

Street Name:	Hallock Dr						Telegraph Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Ignore			Include			Ignore			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 0 1			1 0 1 0 0		
Volume Module:												
Base Vol:	470	0	50	0	0	0	0	60	420	50	80	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:	470	0	50	0	0	0	0	60	420	50	80	0
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:	470	0	0	0	0	0	0	60	0	50	80	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	470	0	0	0	0	0	0	60	0	50	80	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx
Capacity Module:												
Cnflict Vol:	0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	940	0	970	940	xxxxx
Potent Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	266	900	235	266	xxxxx
Move Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	127	900	91	127	xxxxx
Volume/Cap:	0.52	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.47	0.00	0.55	0.63	xxxx
Level Of Service Module:												
2Way95thQ:	3.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	2.1	xxxxx	2.5	3.3	xxxxx
Control Del:	13.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	56.5	xxxxx	85.0	72.5	xxxxx
LOS by Move:	B	*	*	*	*	*	*	F	*	F	F	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			56.5			77.3		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #3 Harvard Bl / Telegraph Rd & Main St

****

Average Delay (sec/veh): 7.5 Worst Case Level Of Service: C[17.2]

****

Street Name:	Harvard Bl / Telegraph Rd						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2 0 0			0 0 1 0 1			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	10	180	0	0	100	390	500	0	20	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:	10	180	0	0	100	390	500	0	20	0	0	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:	10	180	0	0	100	390	500	0	20	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	180	0	0	100	390	500	0	20	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	490	xxxx	xxxxx	xxxx	xxxx	xxxxx	210	xxxx	100	xxxx	xxxx	xxxxx
Potent Cap.:	1084	xxxx	xxxxx	xxxx	xxxx	xxxxx	783	xxxx	961	xxxx	xxxx	xxxxx
Move Cap.:	1084	xxxx	xxxxx	xxxx	xxxx	xxxxx	777	xxxx	961	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.64	xxxx	0.02	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.8	xxxx	0.1	xxxx	xxxx	xxxxx
Control Del:	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.6	xxxx	8.8	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	C	*	A	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			17.2			xxxxxx		
ApproachLOS:	*			*			C			*		

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #3 Harvard Bl / Telegraph Rd & Main St

****

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: B[13.0]

****

Street Name:	Harvard Bl / Telegraph Rd									Main St								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	2	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module:																				
Base Vol:	20	150		0		0	140		500		300		0		30	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:	20	150		0		0	140		500		300		0		30	0		0		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:	20	150		0		0	140		500		300		0		30	0		0		0
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	20	150		0		0	140		500		300		0		30	0		0		0
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					6.4	xxxx			6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					3.5	xxxx			3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	640	xxxx	xxxxx	xxxx	xxxx	xxxxx					255	xxxx			140	xxxx	xxxx	xxxxx		
Potent Cap.:	954	xxxx	xxxxx	xxxx	xxxx	xxxxx					738	xxxx			913	xxxx	xxxx	xxxxx		
Move Cap.:	954	xxxx	xxxxx	xxxx	xxxx	xxxxx					726	xxxx			913	xxxx	xxxx	xxxxx		
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx					0.41	xxxx			0.03	xxxx	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx					2.0	xxxx			0.1	xxxx	xxxx	xxxxx		
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx					13.4	xxxx			9.1	xxxxx	xxxx	xxxxx		
LOS by Move:	A	*		*		*	*		*		B	*			A	*	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*		*		*	*		*		*	*			*	*	*	*		
ApproachDel:	xxxxxx					xxxxxx					13.0					xxxxxx				
ApproachLOS:	*					*					B					*				

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.561
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	60	100	100	10	320	30	10	40	40	230	60	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:	60	100	100	10	320	30	10	40	40	230	60	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:	60	100	100	10	320	30	10	40	40	230	60	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	100	100	10	320	30	10	40	40	230	60	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:	60	100	100	10	320	30	10	40	40	230	60	10
Saturation Flow Module:												
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:	0.23	0.39	0.38	0.03	0.89	0.08	0.11	0.45	0.44	0.77	0.20	0.03
Final Sat.:	145	241	241	18	570	53	60	238	238	450	117	20
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.41	0.56	0.56	0.56	0.17	0.17	0.17	0.51	0.51	0.51
Crit Moves:		****			****			****			****	
Delay/Veh:	11.8	11.8	11.8	14.4	14.4	14.4	9.8	9.8	9.8	14.0	14.0	14.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.8	14.4	14.4	14.4	9.8	9.8	9.8	14.0	14.0	14.0
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:		11.8			14.4			9.8			14.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.8			14.4			9.8			14.0	
LOS by Appr:		B			B			A			B	
AllWayAvgQ:	0.6	0.6	0.6	1.1	1.1	1.1	0.1	0.1	0.1	0.9	0.9	0.9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.019
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	39.1
Optimal Cycle:	0	Level Of Service:	E

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	380	240	10	250	30	20	80	30	190	40	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:	50	380	240	10	250	30	20	80	30	190	40	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:	50	380	240	10	250	30	20	80	30	190	40	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	380	240	10	250	30	20	80	30	190	40	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:	50	380	240	10	250	30	20	80	30	190	40	10
Saturation Flow Module:												
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:	0.07	0.57	0.36	0.03	0.87	0.10	0.15	0.62	0.23	0.79	0.17	0.04
Final Sat.:	49	373	236	20	488	59	75	299	112	403	85	21
Capacity Analysis Module:												
Vol/Sat:	1.02	1.02	1.02	0.51	0.51	0.51	0.27	0.27	0.27	0.47	0.47	0.47
Crit Moves:	****				****			****				****
Delay/Veh:	63.1	63.1	63.1	15.1	15.1	15.1	12.3	12.3	12.3	15.5	15.5	15.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.1	63.1	63.1	15.1	15.1	15.1	12.3	12.3	12.3	15.5	15.5	15.5
LOS by Move:	F	F	F	C	C	C	B	B	B	C	C	C
ApproachDel:	63.1			15.1			12.3			15.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	63.1			15.1			12.3			15.5		
LOS by Appr:	F			C			B			C		
AllWayAvgQ:	10.0	10.0	10.0	0.9	0.9	0.9	0.3	0.3	0.3	0.8	0.8	0.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #5 12th St & Santa Barbara St

****

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C[15.9]

****

Street Name:	12th St									Santa Barbara St												
Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Rights:	Include					Include					Include					Include						
Lanes:	0	1	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0		
Volume Module:																						
Base Vol:	50	240	0		0	540		80			50		0		70	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				
Initial Bse:	50	240	0		0	540		80			50		0		70	0		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				
PHF Adj:	1.00	1.00	1.00		1.00	1.00		1.00			1.00		1.00		1.00	1.00		1.00				
PHF Volume:	50	240	0		0	540		80			50		0		70	0		0				
Reduct Vol:	0	0	0		0	0		0			0		0		0	0		0				
FinalVolume:	50	240	0		0	540		80			50		0		70	0		0				
Critical Gap Module:																						
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					6.4	xxxx			6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					3.5	xxxx			3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																						
Cnflict Vol:	620	xxxx	xxxxx	xxxx	xxxx	xxxxx					920	xxxx			580	xxxx	xxxx	xxxxx				
Potent Cap.:	970	xxxx	xxxxx	xxxx	xxxx	xxxxx					303	xxxx			518	xxxx	xxxx	xxxxx				
Move Cap.:	970	xxxx	xxxxx	xxxx	xxxx	xxxxx					291	xxxx			518	xxxx	xxxx	xxxxx				
Volume/Cap:	0.05	xxxx	xxxx	xxxx	xxxx	xxxx					0.17	xxxx			0.14	xxxx	xxxx	xxxx				
Level Of Service Module:																						
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx					0.6	xxxx			0.5	xxxx	xxxx	xxxxx				
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx					19.9	xxxx			13.0	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*					C	*			B	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx				
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				
Shrd ConDel:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*					*	*	*			*	*	*				
ApproachDel:	xxxxxx					xxxxxx							15.9					xxxxxx				
ApproachLOS:	*					*							C					*				

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 12th St & Santa Barbara St

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: C[22.3]

Street Name:	12th St								Santa Barbara St							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0 0	0	0	0	1 0	1	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	60	560	0	0	380	80			80	0	50		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:	60	560	0	0	380	80			80	0	50		0	0	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:	60	560	0	0	380	80			80	0	50		0	0	0	
Reduct Vol:	0	0	0	0	0	0			0	0	0		0	0	0	
FinalVolume:	60	560	0	0	380	80			80	0	50		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	xxxx	6.2		xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	460	xxxx	xxxxx	xxxx	xxxx	xxxxx			1100	xxxx	420		xxxx	xxxx	xxxxx	
Potent Cap.:	1112	xxxx	xxxxx	xxxx	xxxx	xxxxx			237	xxxx	638		xxxx	xxxx	xxxxx	
Move Cap.:	1112	xxxx	xxxxx	xxxx	xxxx	xxxxx			227	xxxx	638		xxxx	xxxx	xxxxx	
Volume/Cap:	0.05	xxxx	xxxx	xxxx	xxxx	xxxx			0.35	xxxx	0.08		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx			1.5	xxxx	0.3		xxxx	xxxx	xxxxx	
Control Del:	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx			29.3	xxxx	11.1		xxxxx	xxxx	xxxxx	
LOS by Move:	A	*	*	*	*	*			D	*	B		*	*	*	
Movement:	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	A	*	*	*	*	*			*	*	*		*	*	*	
ApproachDel:	xxxxxx			xxxxxx					22.3				xxxxxx			
ApproachLOS:	*			*					C				*			

Note: Queue reported is the number of cars per lane.

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **12TH ST AND MAIN ST**
Description: **CUMULATIVE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.269 *
	TH	1.00	270	1,600	0.194	N-S(2):	0.200
	LT	1.00	320	1,600	0.200 *	E-W(1):	0.175
Westbound	RT	0.00	130	0	0.000	E-W(2):	0.281 *
	TH	1.00	270	1,600	0.250 *		
	LT	1.00	30	1,600	0.019	V/C:	0.550
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.069 *		
	LT	1.00	10	1,600	0.006		
Eastbound	RT	0.00	30	0	0.000	ICU:	0.550
	TH	1.00	220	1,600	0.156		
	LT	1.00	50	1,600	0.031 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.351 *
	TH	1.00	220	1,600	0.181	N-S(2):	0.219
	LT	1.00	140	1,600	0.088 *	E-W(1):	0.138
Westbound	RT	0.00	250	0	0.000	E-W(2):	0.369 *
	TH	1.00	250	1,600	0.313 *		
	LT	1.00	20	1,600	0.013	V/C:	0.720
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	390	1,600	0.263 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	60	0	0.000	ICU:	0.720
	TH	1.00	140	1,600	0.125		
	LT	1.00	90	1,600	0.056 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST AND HARVARD BL
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.075
	TH	1.00	30	1,600	0.144 *	N-S(2):	0.238 *
	LT	0.00	10	1,600	0.006	E-W(1):	0.150
Westbound	RT	1.00	10	1,600	0.000	E-W(2):	0.194 *
	TH	1.00	120	1,600	0.075 *		
	LT	1.00	30	1,600	0.019	V/C:	0.432
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	80	1,600	0.069		
	LT	1.00	150	1,600	0.094 *		
Eastbound	RT	1.00	80	1,600	0.000	ICU:	0.432
	TH	1.00	210	1,600	0.131		
	LT	1.00	190	1,600	0.119 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	200	0	0.000	N-S(1):	0.131
	TH	1.00	130	1,600	0.213 *	N-S(2):	0.332 *
	LT	0.00	10	1,600	0.006	E-W(1):	0.106
Westbound	RT	1.00	20	1,600	0.006	E-W(2):	0.301 *
	TH	1.00	140	1,600	0.088 *		
	LT	1.00	40	1,600	0.025	V/C:	0.633
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	180	1,600	0.125		
	LT	1.00	190	1,600	0.119 *		
Eastbound	RT	1.00	70	1,600	0.000	ICU:	0.633
	TH	1.00	130	1,600	0.081		
	LT	1.00	340	1,600	0.213 *	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: A[9.3]

Street Name:	S Mountain Rd						S Mountain Rd / Lemon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	10	70	0	0	70	30	20	0	10	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:	10	70	0	0	70	30	20	0	10	0	0	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:	10	70	0	0	70	30	20	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	70	0	0	70	30	20	0	10	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	100	xxxx	xxxxx	xxxx	xxxx	xxxxx	175	175	85	xxxx	xxxx	xxxxx
Potent Cap.:	1505	xxxx	xxxxx	xxxx	xxxx	xxxxx	819	722	980	xxxx	xxxx	xxxxx
Move Cap.:	1505	xxxx	xxxxx	xxxx	xxxx	xxxxx	815	717	980	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	864	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.3	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.3			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[12.6]

Street Name:	S Mountain Rd						S Mountain Rd / Lemon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0 0 0			0 0 0 1 0			0 0 1! 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	20	330	0	0	170	20	50	0	10	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:	20	330	0	0	170	20	50	0	10	0	0	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:	20	330	0	0	170	20	50	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	330	0	0	170	20	50	0	10	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	190	xxxx	xxxxx	xxxx	xxxx	xxxxx	550	550	180	xxxx	xxxx	xxxxx
Potent Cap.:	1396	xxxx	xxxxx	xxxx	xxxx	xxxxx	500	446	868	xxxx	xxxx	xxxxx
Move Cap.:	1396	xxxx	xxxxx	xxxx	xxxx	xxxxx	494	439	868	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	532	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	12.6	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.6			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #9 Ojai Rd & Richmond Rd
******************************************************************************
Average Delay (sec/veh):      2.5       Worst Case Level Of Service: E[ 36.0]
******************************************************************************
Street Name:             Ojai Rd                         Richmond Rd
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  430    50    20  930     0     0    0     0    60    0    40
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  430    50    20  930     0     0    0     0    60    0    40
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  430    50    20  930     0     0    0     0    60    0    40
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  430    50    20  930     0     0    0     0    60    0    40
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   480 xxxx xxxxx  xxxx xxxx xxxxx  1425 1425   455
Potent Cap.: xxxx xxxx xxxxx  1093 xxxx xxxxx  xxxx xxxx xxxxx   151  137   609
Move Cap.:   xxxx xxxx xxxxx  1093 xxxx xxxxx  xxxx xxxx xxxxx   149  134   609
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  xxxx xxxx  xxxx  0.40 0.00  0.07
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  213 xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx  2.3 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 36.0 xxxxx
Shared LOS:    *    *     *     A    *     *     *    *     *     *    E     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             36.0
ApproachLOS:        *                *                *                 E
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: E[40.2]

Street Name:	Ojai Rd						Richmond Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	790	80	30	590	0	0	0	0	50	0	40
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	790	80	30	590	0	0	0	0	50	0	40
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	790	80	30	590	0	0	0	0	50	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	790	80	30	590	0	0	0	0	50	0	40
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	870	xxxx	xxxxx	xxxx	xxxx	xxxxx	1480	1480	830
Potent Cap.:	xxxx	xxxx	xxxxx	783	xxxx	xxxxx	xxxx	xxxx	xxxxx	140	127	373
Move Cap.:	xxxx	xxxx	xxxxx	783	xxxx	xxxxx	xxxx	xxxx	xxxxx	136	122	373
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.37	0.00	0.11
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	189	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	40.2	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			40.2		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

```
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Ojai Rd & Orchard St
******************************************************************************
Average Delay (sec/veh):      1.3       Worst Case Level Of Service: D[ 26.6]
******************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  420    30    20  850     0     0    0     0    40    0    20
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  420    30    20  850     0     0    0     0    40    0    20
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  420    30    20  850     0     0    0     0    40    0    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  420    30    20  850     0     0    0     0    40    0    20
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   450 xxxx xxxxx  xxxx xxxx xxxxx  1325 1325   435
Potent Cap.: xxxx xxxx xxxxx  1121 xxxx xxxxx  xxxx xxxx xxxxx   174  157   625
Move Cap.:   xxxx xxxx xxxxx  1121 xxxx xxxxx  xxxx xxxx xxxxx   171  154   625
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  xxxx xxxx  xxxx  0.23 0.00  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  226 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  1.0 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 26.6 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    D     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             26.6
ApproachLOS:        *                *                *                 D
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Ojai Rd & Orchard St
******************************************************************************
Average Delay (sec/veh):      6.7       Worst Case Level Of Service: D[ 34.0]
******************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  590    60    10  580     0     0    0     0    40    0   260
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  590    60    10  580     0     0    0     0    40    0   260
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  590    60    10  580     0     0    0     0    40    0   260
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  590    60    10  580     0     0    0     0    40    0   260
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   650 xxxx xxxxx  xxxx xxxx xxxxx  1220 1220   620
Potent Cap.: xxxx xxxx xxxxx   946 xxxx xxxxx  xxxx xxxx xxxxx   201  182   492
Move Cap.:   xxxx xxxx xxxxx   946 xxxx xxxxx  xxxx xxxx xxxxx   199  180   492
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.20 0.00  0.53
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  411 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  5.7 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 34.0 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    D     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             34.0
ApproachLOS:        *                *                *                 D
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #11 Ojai Rd & Saticoy St

****

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: E[47.2]

****

Street Name:	Ojai Rd									Saticoy St							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	460		60		210	820		0		0	0		0		30	0		20	
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	460		60		210	820		0		0	0		0		30	0		20	
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	460		60		210	820		0		0	0		0		30	0		20	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
FinalVolume:	0	460		60		210	820		0		0	0		0		30	0		20	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx		6.4	xxxx		6.2	
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx		3.5	xxxx		3.3	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		520	xxxx		xxxxx		xxxx	xxxx		xxxxx		1730	xxxx		490	
Potent Cap.:	xxxx	xxxx		xxxxx		1056	xxxx		xxxxx		xxxx	xxxx		xxxxx		98	xxxx		582	
Move Cap.:	xxxx	xxxx		xxxxx		1056	xxxx		xxxxx		xxxx	xxxx		xxxxx		83	xxxx		582	
Volume/Cap:	xxxx	xxxx		xxxx		0.20	xxxx		xxxx		xxxx	xxxx		xxxx		0.36	xxxx		0.03	
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.7	xxxx		xxxxx		xxxx	xxxx		xxxxx		1.4	xxxx		0.1	
Control Del:	xxxxx	xxxx		xxxxx		9.3	xxxx		xxxxx		xxxxx	xxxx		xxxxx		71.0	xxxx		11.4	
LOS by Move:	*	*		*		A	*		*		*	*		*		F	*		B	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*		*		*	*		*		*	*		*		*	*		*	
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					47.2				
ApproachLOS:	*					*					*					E				

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: D[30.4]

Street Name:	Ojai Rd									Saticoy St								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	650		100		120	600			0	0		0		0	30		0		30
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	650		100		120	600			0	0		0		0	30		0		30
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	650		100		120	600			0	0		0		0	30		0		30
Reduct Vol:	0	0		0		0	0			0	0		0		0	0		0		0
FinalVolume:	0	650		100		120	600			0	0		0		0	30		0		30
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx	xxxxx	xxxx		xxxxx			6.4	xxxx			6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx	xxxxx	xxxx		xxxxx			3.5	xxxx			3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		750	xxxx		xxxxx	xxxx	xxxx		xxxxx			1540	xxxx			700
Potent Cap.:	xxxx	xxxx		xxxxx		868	xxxx		xxxxx	xxxx	xxxx		xxxxx			128	xxxx			443
Move Cap.:	xxxx	xxxx		xxxxx		868	xxxx		xxxxx	xxxx	xxxx		xxxxx			115	xxxx			443
Volume/Cap:	xxxx	xxxx		xxxx		0.14	xxxx		xxxx	xxxx	xxxx		xxxx			0.26	xxxx			0.07
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.5	xxxx		xxxxx	xxxx	xxxx		xxxxx			1.0	xxxx			0.2
Control Del:	xxxxx	xxxx		xxxxx		9.8	xxxx		xxxxx	xxxxx	xxxx		xxxxx			47.1	xxxx			13.7
LOS by Move:	*	*		*		A	*		*	*	*		*			E	*			B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	xxxx	xxxx		xxxxx			xxxx	xxxx			xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx			xxxxx	xxxx			xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx			xxxxx	xxxx			xxxxx
Shared LOS:	*	*		*		*	*		*	*	*		*			*	*			*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					30.4				
ApproachLOS:	*					*					*					D				

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.275
	TH	1.00	590	1,600	0.419 *	N-S(2):	0.419 *
	LT	0.00		0	0.000	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.419
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	420	1,600	0.275		
	LT	0.00		0	0.000 *		
Eastbound	RT	0.00		0	0.000	ICU:	0.419
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.513 *
	TH	1.00	430	1,600	0.350	N-S(2):	0.350
	LT	0.00		0	0.000 *	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.513
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	810	1,600	0.513 *		
	LT	0.00		0	0.000		
Eastbound	RT	0.00		0	0.000	ICU:	0.513
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.081
	TH	1.00	300	1,600	0.213 *	N-S(2):	0.232 *
	LT	0.00		0	0.000	E-W(1):	0.169
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.182 *
	TH	1.00	230	1,600	0.169 *		
	LT	0.00	30	1,600	0.019	V/C:	0.414
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.081		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.414
	TH	1.00	170	1,600	0.150		
	LT	0.00	20	1,600	0.013 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.113 *
	TH	1.00	120	1,600	0.094 *	N-S(2):	0.113 *
	LT	0.00		0	0.000 *	E-W(1):	0.219 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.150
	TH	1.00	200	1,600	0.144		
	LT	0.00	20	1,600	0.013 *	V/C:	0.332
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	150	1,600	0.113 *		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.332
	TH	1.00	270	1,600	0.206 *		
	LT	0.00	10	1,600	0.006	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA BARBARA ST
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	110	0	0.000	N-S(1):	0.275
	TH	1.00	780	1,600	0.556 *	N-S(2):	0.575 *
	LT	1.00	50	1,600	0.031	E-W(1):	0.094
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.150 *
	TH	1.00	100	1,600	0.081 *		
	LT	1.00	30	1,600	0.019	V/C:	0.725
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	380	1,600	0.244		
	LT	1.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.725
	TH	1.00	70	1,600	0.075		
	LT	1.00	110	1,600	0.069 *	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.425 *
	TH	1.00	480	1,600	0.350	N-S(2):	0.381
	LT	1.00	30	1,600	0.019 *	E-W(1):	0.107
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.200 *
	TH	1.00	100	1,600	0.081 *		
	LT	1.00	20	1,600	0.013	V/C:	0.625
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	620	1,600	0.406 *		
	LT	1.00	50	1,600	0.031		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.625
	TH	1.00	110	1,600	0.094		
	LT	1.00	190	1,600	0.119 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND MAIN ST
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.269
	TH	1.00	750	1,600	0.513 *	N-S(2):	0.526 *
	LT	1.00	50	1,600	0.031	E-W(1):	0.156
Westbound	RT	0.00	130	0	0.000	E-W(2):	0.225 *
	TH	1.00	160	1,600	0.181 *		
	LT	1.00	40	1,600	0.025	V/C:	0.751
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	350	1,600	0.238		
	LT	1.00	20	1,600	0.013 *		
Eastbound	RT	1.00	30	1,600	0.006	ICU:	0.751
	TH	1.00	210	1,600	0.131		
	LT	1.00	70	1,600	0.044 *	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.432 *
	TH	1.00	520	1,600	0.363	N-S(2):	0.401
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.194
Westbound	RT	0.00	100	0	0.000	E-W(2):	0.269 *
	TH	1.00	270	1,600	0.231 *		
	LT	1.00	60	1,600	0.038	V/C:	0.701
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	1.00	590	1,600	0.394 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	1.00	70	1,600	0.006	ICU:	0.701
	TH	1.00	250	1,600	0.156		
	LT	1.00	60	1,600	0.038 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND HARVARD BL
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	170	0	0.000	N-S(1):	0.294
	TH	1.00	570	1,600	0.463 *	N-S(2):	0.488 *
	LT	1.00	30	1,600	0.019	E-W(1):	0.381 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.257
	TH	1.00	280	1,600	0.194		
	LT	1.00	200	1,600	0.125 *	V/C:	0.869
Northbound	RT	0.00	110	0	0.000	Lost Time:	0.000
	TH	1.00	290	1,600	0.275		
	LT	0.00	40	1,600	0.025 *		
Eastbound	RT	0.00	120	0	0.000	ICU:	0.869
	TH	1.00	290	1,600	0.256 *		
	LT	1.00	100	1,600	0.063	LOS:	D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.501 *
	TH	1.00	400	1,600	0.369	N-S(2):	0.419
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.351
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.363 *
	TH	1.00	390	1,600	0.269 *		
	LT	1.00	140	1,600	0.088	V/C:	0.864
Northbound	RT	0.00	200	0	0.000	Lost Time:	0.000
	TH	1.00	500	1,600	0.488 *		
	LT	0.00	80	1,600	0.050		
Eastbound	RT	0.00	110	0	0.000	ICU:	0.864
	TH	1.00	310	1,600	0.263		
	LT	1.00	150	1,600	0.094 *	LOS:	D

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **10TH ST AND WB SR-126 RAMPS**
Description: **CUMULATIVE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	770	0	0.000	N-S(1):	0.263
	TH	1.00	140	1,600	0.569 *	N-S(2):	0.607 *
	LT	0.00	0	0	0.000	E-W(1):	0.006
Westbound	RT	1.00	120	1,600	0.075 *	E-W(2):	0.075 *
	TH	0.00	0	0	0.000		
	LT	1.00	10	1,600	0.006	V/C:	0.682
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	360	1,600	0.263		
	LT	0.00	60	1,600	0.038 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.682
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	460	0	0.000	N-S(1):	0.394
	TH	1.00	190	1,600	0.406 *	N-S(2):	0.444 *
	LT	0.00	0	0	0.000	E-W(1):	0.006
Westbound	RT	1.00	180	1,600	0.113 *	E-W(2):	0.113 *
	TH	0.00	0	0	0.000		
	LT	1.00	10	1,600	0.006	V/C:	0.557
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	570	1,600	0.394		
	LT	0.00	60	1,600	0.038 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.557
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **10TH ST AND EB SR-126 RAMPS**
Description: **CUMULATIVE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.137 *
	TH	1.00	10	1,600	0.088	N-S(2):	0.088
	LT	0.00	130	1,600	0.081 *	E-W(1):	0.050
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.225 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.362
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	70	1,600	0.056 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	80	1,600	0.050	ICU:	0.362
	TH	0.00	0	0	0.000		
	LT	1.00	360	1,600	0.225 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.163 *
	TH	1.00	10	1,600	0.125	N-S(2):	0.125
	LT	0.00	190	1,600	0.119 *	E-W(1):	0.094
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.363 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.526
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	60	1,600	0.044 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	150	1,600	0.094	ICU:	0.526
	TH	0.00	0	0	0.000		
	LT	1.00	580	1,600	0.363 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.577
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	110	100	30	200	40	20	200	40	120	180	30
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:	50	110	100	30	200	40	20	200	40	120	180	30
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:	50	110	100	30	200	40	20	200	40	120	180	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	110	100	30	200	40	20	200	40	120	180	30
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:	50	110	100	30	200	40	20	200	40	120	180	30
Saturation Flow Module:												
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:	0.19	0.43	0.38	0.11	0.74	0.15	0.08	0.77	0.15	0.36	0.55	0.09
Final Sat.:	107	236	214	61	408	82	43	427	85	208	312	52
Capacity Analysis Module:												
Vol/Sat:	0.47	0.47	0.47	0.49	0.49	0.49	0.47	0.47	0.47	0.58	0.58	0.58
Crit Moves:		****			****			****			****	
Delay/Veh:	13.3	13.3	13.3	13.9	13.9	13.9	13.4	13.4	13.4	15.7	15.7	15.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.3	13.3	13.3	13.9	13.9	13.9	13.4	13.4	13.4	15.7	15.7	15.7
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
ApproachDel:		13.3			13.9			13.4			15.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.3			13.9			13.4			15.7	
LOS by Appr:		B			B			B			C	
AllWayAvgQ:	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.1	1.1	1.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.0
Optimal Cycle:	0	Level Of Service:	C

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	210	110	10	80	30	40	220	50	120	190	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:	50	210	110	10	80	30	40	220	50	120	190	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:	50	210	110	10	80	30	40	220	50	120	190	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	210	110	10	80	30	40	220	50	120	190	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:	50	210	110	10	80	30	40	220	50	120	190	10
Saturation Flow Module:												
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:	0.13	0.57	0.30	0.08	0.67	0.25	0.13	0.71	0.16	0.38	0.59	0.03
Final Sat.:	81	338	177	41	330	124	75	413	94	216	342	18
Capacity Analysis Module:												
Vol/Sat:	0.62	0.62	0.62	0.24	0.24	0.24	0.53	0.53	0.53	0.56	0.56	0.56
Crit Moves:		****		****			****				****	
Delay/Veh:	16.6	16.6	16.6	10.9	10.9	10.9	14.5	14.5	14.5	15.3	15.3	15.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.6	16.6	16.6	10.9	10.9	10.9	14.5	14.5	14.5	15.3	15.3	15.3
LOS by Move:	C	C	C	B	B	B	B	B	B	C	C	C
ApproachDel:		16.6			10.9			14.5			15.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.6			10.9			14.5			15.3	
LOS by Appr:		C			B			B			C	
AllWayAvgQ:	1.3	1.3	1.3	0.2	0.2	0.2	0.9	0.9	0.9	1.0	1.0	1.0

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 8TH ST AND MAIN ST
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.150
	TH	1.00	240	1,600	0.175 *	N-S(2):	0.188 *
	LT	1.00	70	1,600	0.044	E-W(1):	0.238 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.169
	TH	1.00	110	1,600	0.113		
	LT	0.00	40	1,600	0.025 *	V/C:	0.426
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	140	1,600	0.106		
	LT	1.00	20	1,600	0.013 *		
Eastbound	RT	1.00	30	1,600	0.006	ICU:	0.426
	TH	1.00	250	1,600	0.213 *		
	LT	0.00	90	1,600	0.056	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.300 *
	TH	1.00	170	1,600	0.150	N-S(2):	0.175
	LT	1.00	70	1,600	0.044 *	E-W(1):	0.288
Westbound	RT	0.00	110	0	0.000	E-W(2):	0.307 *
	TH	1.00	210	1,600	0.244 *		
	LT	0.00	70	1,600	0.044	V/C:	0.607
Northbound	RT	0.00	80	0	0.000	Lost Time:	0.000
	TH	1.00	330	1,600	0.256 *		
	LT	1.00	40	1,600	0.025		
Eastbound	RT	1.00	90	1,600	0.031	ICU:	0.607
	TH	1.00	290	1,600	0.244		
	LT	0.00	100	1,600	0.063 *	LOS:	B

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **8TH ST AND HARVARD BL**
Description: **CUMULATIVE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	190	1,600	0.038	N-S(1):	0.082 *
	TH	1.00	50	1,600	0.069	N-S(2):	0.075
	LT	0.00	60	1,600	0.038 *	E-W(1):	0.122
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.225 *
	TH	2.00	430	3,200	0.144 *		
	LT	1.00	30	1,600	0.019	V/C:	0.307
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	30	1,600	0.044 *		
	LT	0.00	10	1,600	0.006		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.307
	TH	2.00	320	3,200	0.103		
	LT	1.00	130	1,600	0.081 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	220	1,600	0.013	N-S(1):	0.188 *
	TH	1.00	20	1,600	0.056	N-S(2):	0.062
	LT	0.00	70	1,600	0.044 *	E-W(1):	0.216
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.341 *
	TH	2.00	610	3,200	0.216 *		
	LT	1.00	30	1,600	0.019	V/C:	0.529
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	1.00	170	1,600	0.144 *		
	LT	0.00	10	1,600	0.006		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.529
	TH	2.00	620	3,200	0.197		
	LT	1.00	200	1,600	0.125 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 6.2 Worst Case Level Of Service: C[18.5]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	30	20	20	60	130	90	250	30	20	260	30
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	30	20	20	60	130	90	250	30	20	260	30
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	30	20	20	60	130	90	250	30	20	260	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	30	20	20	60	130	90	250	30	20	260	30
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	855	775	265	785	775	275	290	xxxx	xxxxx	280	xxxx	xxxxx
Potent Cap.:	281	331	779	313	331	769	1283	xxxx	xxxxx	1294	xxxx	xxxxx
Move Cap.:	185	302	779	263	302	769	1283	xxxx	xxxxx	1294	xxxx	xxxxx
Volume/Cap:	0.05	0.10	0.03	0.08	0.20	0.17	0.07	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	335	xxxxx	xxxx	473	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.1	xxxxx	xxxxx	18.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		18.1			18.5			xxxxxx			xxxxxx	
ApproachLOS:		C			C			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: C[19.7]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	90	20	20	10	80	70	280	10	10	250	20
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	90	20	20	10	80	70	280	10	10	250	20
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	90	20	20	10	80	70	280	10	10	250	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	90	20	20	10	80	70	280	10	10	250	20
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	750	715	285	760	710	260	270	xxxx	xxxxx	290	xxxx	xxxxx
Potent Cap.:	330	359	759	325	361	784	1305	xxxx	xxxxx	1283	xxxx	xxxxx
Move Cap.:	276	336	759	239	338	784	1305	xxxx	xxxxx	1283	xxxx	xxxxx
Volume/Cap:	0.04	0.27	0.03	0.08	0.03	0.10	0.05	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	363	xxxxx	xxxx	511	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.4	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	19.7	xxxxx	xxxxx	14.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	B	*	*	*	*	*	*	*
ApproachDel:		19.7			14.0			xxxxxx			xxxxxx	
ApproachLOS:		C			B			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.9
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	80	60	110	30	80	20	30	270	100	150	230	40
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:	80	60	110	30	80	20	30	270	100	150	230	40
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:	80	60	110	30	80	20	30	270	100	150	230	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	60	110	30	80	20	30	270	100	150	230	40
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:	80	60	110	30	80	20	30	270	100	150	230	40
Saturation Flow Module:												
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:	0.32	0.24	0.44	0.23	0.62	0.15	0.07	0.68	0.25	0.36	0.55	0.09
Final Sat.:	170	127	233	106	284	71	46	413	153	216	331	58
Capacity Analysis Module:												
Vol/Sat:	0.47	0.47	0.47	0.28	0.28	0.28	0.65	0.65	0.65	0.69	0.69	0.69
Crit Moves:		****			****		****			****		
Delay/Veh:	13.7	13.7	13.7	11.7	11.7	11.7	17.7	17.7	17.7	19.7	19.7	19.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.7	13.7	13.7	11.7	11.7	11.7	17.7	17.7	17.7	19.7	19.7	19.7
LOS by Move:	B	B	B	B	B	B	C	C	C	C	C	C
ApproachDel:		13.7			11.7			17.7			19.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.7			11.7			17.7			19.7	
LOS by Appr:		B			B			C			C	
AllWayAvgQ:	0.7	0.7	0.7	0.3	0.3	0.3	1.5	1.5	1.5	1.8	1.8	1.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.580
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	140	60	150	30	60	20	10	230	70	110	190	20
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:	140	60	150	30	60	20	10	230	70	110	190	20
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:	140	60	150	30	60	20	10	230	70	110	190	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	60	150	30	60	20	10	230	70	110	190	20
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:	140	60	150	30	60	20	10	230	70	110	190	20
Saturation Flow Module:												
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:	0.40	0.17	0.43	0.27	0.55	0.18	0.03	0.74	0.23	0.34	0.60	0.06
Final Sat.:	241	103	259	136	272	91	19	447	136	204	352	37
Capacity Analysis Module:												
Vol/Sat:	0.58	0.58	0.58	0.22	0.22	0.22	0.51	0.51	0.51	0.54	0.54	0.54
Crit Moves:	****				****			****			****	
Delay/Veh:	15.2	15.2	15.2	10.7	10.7	10.7	13.8	13.8	13.8	14.6	14.6	14.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.2	15.2	15.2	10.7	10.7	10.7	13.8	13.8	13.8	14.6	14.6	14.6
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:	15.2			10.7			13.8			14.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.2			10.7			13.8			14.6		
LOS by Appr:	C			B			B			B		
AllWayAvgQ:	1.1	1.1	1.1	0.2	0.2	0.2	0.9	0.9	0.9	1.0	1.0	1.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #23 Palm Av & Santa Barbara St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.2
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	170	90	60	250	10	10	100	40	190	150	50
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:	40	170	90	60	250	10	10	100	40	190	150	50
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:	40	170	90	60	250	10	10	100	40	190	150	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	170	90	60	250	10	10	100	40	190	150	50
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:	40	170	90	60	250	10	10	100	40	190	150	50
Saturation Flow Module:												
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:	0.13	0.57	0.30	0.19	0.78	0.03	0.06	0.67	0.27	0.49	0.38	0.13
Final Sat.:	75	318	169	104	434	17	33	328	131	279	221	74
Capacity Analysis Module:												
Vol/Sat:	0.53	0.53	0.53	0.58	0.58	0.58	0.31	0.31	0.31	0.68	0.68	0.68
Crit Moves:	****				****		****					****
Delay/Veh:	14.7	14.7	14.7	16.0	16.0	16.0	11.6	11.6	11.6	19.4	19.4	19.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.7	14.7	14.7	16.0	16.0	16.0	11.6	11.6	11.6	19.4	19.4	19.4
LOS by Move:	B	B	B	C	C	C	B	B	B	C	C	C
ApproachDel:	14.7			16.0			11.6			19.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.7			16.0			11.6			19.4		
LOS by Appr:	B			C			B			C		
AllWayAvgQ:	0.9	0.9	0.9	1.1	1.1	1.1	0.3	0.3	0.3	1.7	1.7	1.7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #23 Palm Av & Santa Barbara St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.761
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.4
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	290	90	40	180	20	30	110	40	140	170	100
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:	50	290	90	40	180	20	30	110	40	140	170	100
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:	50	290	90	40	180	20	30	110	40	140	170	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	290	90	40	180	20	30	110	40	140	170	100
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:	50	290	90	40	180	20	30	110	40	140	170	100
Saturation Flow Module:												
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:	0.12	0.67	0.21	0.17	0.75	0.08	0.17	0.61	0.22	0.34	0.42	0.24
Final Sat.:	66	381	118	82	369	41	77	282	103	189	229	135
Capacity Analysis Module:												
Vol/Sat:	0.76	0.76	0.76	0.49	0.49	0.49	0.39	0.39	0.39	0.74	0.74	0.74
Crit Moves:		****			****		****				****	
Delay/Veh:	24.1	24.1	24.1	14.7	14.7	14.7	13.1	13.1	13.1	23.0	23.0	23.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.1	24.1	24.1	14.7	14.7	14.7	13.1	13.1	13.1	23.0	23.0	23.0
LOS by Move:	C	C	C	B	B	B	B	B	B	C	C	C
ApproachDel:		24.1			14.7			13.1			23.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		24.1			14.7			13.1			23.0	
LOS by Appr:		C			B			B			C	
AllWayAvgQ:	2.3	2.3	2.3	0.7	0.7	0.7	0.4	0.4	0.4	2.1	2.1	2.1

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND MAIN ST
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.157
	TH	1.00	380	1,600	0.294 *	N-S(2):	0.332 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.276 *
Westbound	RT	0.00	20	0	0.000	E-W(2):	0.176
	TH	1.00	200	1,600	0.138		
	LT	1.00	100	1,600	0.063 *	V/C:	0.608
Northbound	RT	1.00	150	1,600	0.031	Lost Time:	0.000
	TH	1.00	220	1,600	0.138		
	LT	1.00	60	1,600	0.038 *		
Eastbound	RT	1.00	130	1,600	0.044	ICU:	0.608
	TH	1.00	340	1,600	0.213 *		
	LT	1.00	60	1,600	0.038	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.219
	TH	1.00	270	1,600	0.225 *	N-S(2):	0.294 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.251 *
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.163
	TH	1.00	150	1,600	0.119		
	LT	1.00	60	1,600	0.038 *	V/C:	0.545
Northbound	RT	1.00	220	1,600	0.100	Lost Time:	0.000
	TH	1.00	320	1,600	0.200		
	LT	1.00	110	1,600	0.069 *		
Eastbound	RT	1.00	100	1,600	0.000	ICU:	0.545
	TH	1.00	340	1,600	0.213 *		
	LT	1.00	70	1,600	0.044	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND HARVARD BL
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.256
	TH	1.00	400	1,600	0.331 *	N-S(2):	0.387 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.232 *
Westbound	RT	0.00	90	0	0.000	E-W(2):	0.222
	TH	2.00	440	3,200	0.166		
	LT	1.00	150	1,600	0.094 *	V/C:	0.619
Northbound	RT	0.00	100	0	0.000	Lost Time:	0.000
	TH	1.00	230	1,600	0.206		
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	130	0	0.000	ICU:	0.619
	TH	2.00	310	3,200	0.138 *		
	LT	1.00	90	1,600	0.056	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	90	0	0.000	N-S(1):	0.369 *
	TH	1.00	250	1,600	0.213	N-S(2):	0.332
	LT	1.00	80	1,600	0.050 *	E-W(1):	0.369 *
Westbound	RT	0.00	110	0	0.000	E-W(2):	0.325
	TH	2.00	630	3,200	0.231		
	LT	1.00	190	1,600	0.119 *	V/C:	0.738
Northbound	RT	0.00	170	0	0.000	Lost Time:	0.000
	TH	1.00	340	1,600	0.319 *		
	LT	1.00	190	1,600	0.119		
Eastbound	RT	0.00	160	0	0.000	ICU:	0.738
	TH	2.00	640	3,200	0.250 *		
	LT	1.00	150	1,600	0.094	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND WB SR-126 RAMPS
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	470	0	0.000	N-S(1):	0.194
	TH	1.00	240	1,600	0.444 *	N-S(2):	0.457 *
	LT	0.00	0	0	0.000	E-W(1):	0.013
Westbound	RT	1.00	110	1,600	0.069 *	E-W(2):	0.069 *
	TH	0.00	0	0	0.000		
	LT	1.00	20	1,600	0.013	V/C:	0.526
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	290	1,600	0.194		
	LT	0.00	20	1,600	0.013 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.526
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	280	0	0.000	N-S(1):	0.344
	TH	1.00	290	1,600	0.356 *	N-S(2):	0.381 *
	LT	0.00	0	0	0.000	E-W(1):	0.019
Westbound	RT	1.00	150	1,600	0.094 *	E-W(2):	0.094 *
	TH	0.00	0	0	0.000		
	LT	1.00	30	1,600	0.019	V/C:	0.475
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	510	1,600	0.344		
	LT	0.00	40	1,600	0.025 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.475
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND EB SR-126 RAMPS
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.163 *
	TH	1.00	80	1,600	0.144	N-S(2):	0.144
	LT	0.00	150	1,600	0.094 *	E-W(1):	0.019
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.138 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.301
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.069 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	30	1,600	0.019	ICU:	0.301
	TH	0.00	0	0	0.000		
	LT	1.00	220	1,600	0.138 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.194 *
	TH	1.00	100	1,600	0.175	N-S(2):	0.175
	LT	0.00	180	1,600	0.113 *	E-W(1):	0.100
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.306 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.500
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.081 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	160	1,600	0.100	ICU:	0.500
	TH	0.00	0	0	0.000		
	LT	1.00	490	1,600	0.306 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.882
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.1
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	20	10	70	30	30	10	10	270	60	110	510	30
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:	20	10	70	30	30	10	10	270	60	110	510	30
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:	20	10	70	30	30	10	10	270	60	110	510	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	10	70	30	30	10	10	270	60	110	510	30
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:	20	10	70	30	30	10	10	270	60	110	510	30
Saturation Flow Module:												
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:	0.20	0.10	0.70	0.43	0.43	0.14	0.03	0.79	0.18	0.17	0.78	0.05
Final Sat.:	112	56	393	223	223	74	20	541	120	125	578	34
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.13	0.13	0.13	0.50	0.50	0.50	0.88	0.88	0.88
Crit Moves:	****			****				****			****	
Delay/Veh:	10.1	10.1	10.1	10.2	10.2	10.2	12.8	12.8	12.8	31.9	31.9	31.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.1	10.1	10.1	10.2	10.2	10.2	12.8	12.8	12.8	31.9	31.9	31.9
LOS by Move:	B	B	B	B	B	B	B	B	B	D	D	D
ApproachDel:	10.1			10.2			12.8			31.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			10.2			12.8			31.9		
LOS by Appr:	B			B			B			D		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	0.9	0.9	0.9	4.9	4.9	4.9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.848
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.9
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	60	50	150	30	20	10	10	500	40	100	250	40
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:	60	50	150	30	20	10	10	500	40	100	250	40
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:	60	50	150	30	20	10	10	500	40	100	250	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	50	150	30	20	10	10	500	40	100	250	40
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:	60	50	150	30	20	10	10	500	40	100	250	40
Saturation Flow Module:												
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:	0.23	0.19	0.58	0.50	0.33	0.17	0.02	0.91	0.07	0.26	0.64	0.10
Final Sat.:	126	105	315	223	149	74	12	589	47	156	389	62
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	0.48	0.13	0.13	0.13	0.85	0.85	0.85	0.64	0.64	0.64
Crit Moves:		****		****				****		****		
Delay/Veh:	13.8	13.8	13.8	10.9	10.9	10.9	30.1	30.1	30.1	17.6	17.6	17.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.8	13.8	13.8	10.9	10.9	10.9	30.1	30.1	30.1	17.6	17.6	17.6
LOS by Move:	B	B	B	B	B	B	D	D	D	C	C	C
ApproachDel:	13.8			10.9			30.1			17.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.8			10.9			30.1			17.6		
LOS by Appr:	B			B			D			C		
AllWayAvgQ:	0.7	0.7	0.7	0.1	0.1	0.1	3.9	3.9	3.9	1.5	1.5	1.5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1!	0 0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	60	70	110	110	120	70	40	230	60	70	300	30
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:	60	70	110	110	120	70	40	230	60	70	300	30
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:	60	70	110	110	120	70	40	230	60	70	300	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	70	110	110	120	70	40	230	60	70	300	30
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:	60	70	110	110	120	70	40	230	60	70	300	30
Saturation Flow Module:												
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:	0.46	0.54	1.00	0.37	0.40	0.23	0.24	1.40	0.36	0.35	1.50	0.15
Final Sat.:	213	248	523	185	201	117	119	699	187	174	764	78
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.21	0.60	0.60	0.60	0.34	0.33	0.32	0.40	0.39	0.39
Crit Moves:		****				****	****			****		
Delay/Veh:	12.7	12.7	10.7	18.8	18.8	18.8	13.0	12.7	12.2	14.0	13.6	13.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.7	12.7	10.7	18.8	18.8	18.8	13.0	12.7	12.2	14.0	13.6	13.3
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:		11.8			18.8			12.6			13.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.8			18.8			12.6			13.6	
LOS by Appr:		B			C			B			B	
AllWayAvgQ:	0.3	0.3	0.2	1.2	1.2	1.2	0.4	0.4	0.4	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.8
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	70	170	90	40	80	100	100	380	80	60	180	80
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:	70	170	90	40	80	100	100	380	80	60	180	80
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:	70	170	90	40	80	100	100	380	80	60	180	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	170	90	40	80	100	100	380	80	60	180	80
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:	70	170	90	40	80	100	100	380	80	60	180	80
Saturation Flow Module:												
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:	0.29	0.71	1.00	0.18	0.36	0.46	0.36	1.36	0.28	0.37	1.13	0.50
Final Sat.:	135	327	516	85	170	213	178	695	150	174	538	249
Capacity Analysis Module:												
Vol/Sat:	0.52	0.52	0.17	0.47	0.47	0.47	0.56	0.55	0.53	0.35	0.33	0.32
Crit Moves:		****				****	****			****		
Delay/Veh:	17.4	17.4	10.7	16.0	16.0	16.0	18.0	17.2	16.4	13.8	13.2	12.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.4	17.4	10.7	16.0	16.0	16.0	18.0	17.2	16.4	13.8	13.2	12.6
LOS by Move:	C	C	B	C	C	C	C	C	C	B	B	B
ApproachDel:		15.6			16.0			17.2			13.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.6			16.0			17.2			13.2	
LOS by Appr:		C			C			C			B	
AllWayAvgQ:	0.9	0.9	0.2	0.7	0.7	0.7	1.1	1.0	1.0	0.5	0.4	0.4

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: STECKEL DR AND HARVARD BL
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.181
	TH	1.00	40	1,600	0.156 *	N-S(2):	0.187 *
	LT	0.00	130	1,600	0.081	E-W(1):	0.150
Westbound	RT	0.00	220	0	0.000	E-W(2):	0.260 *
	TH	2.00	410	3,200	0.197 *		
	LT	1.00	30	1,600	0.019	V/C:	0.447
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	1.00	60	1,600	0.100		
	LT	0.00	50	1,600	0.031 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.447
	TH	2.00	400	3,200	0.131		
	LT	1.00	100	1,600	0.063 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	50	0	0.000	N-S(1):	0.144
	TH	1.00	30	1,600	0.131 *	N-S(2):	0.150 *
	LT	0.00	130	1,600	0.081	E-W(1):	0.319 *
Westbound	RT	0.00	150	0	0.000	E-W(2):	0.319 *
	TH	2.00	630	3,200	0.244 *		
	LT	1.00	80	1,600	0.050 *	V/C:	0.469
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	1.00	30	1,600	0.063		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.469
	TH	2.00	820	3,200	0.269 *		
	LT	1.00	120	1,600	0.075 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Peck Rd & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.7
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0	0 1
Volume Module:												
Base Vol:	20	40	100	100	140	20	10	40	10	280	140	80
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:	20	40	100	100	140	20	10	40	10	280	140	80
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:	20	40	100	100	140	20	10	40	10	280	140	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	40	100	100	140	20	10	40	10	280	140	80
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:	20	40	100	100	140	20	10	40	10	280	140	80
Saturation Flow Module:												
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:	0.12	0.25	0.63	0.38	0.54	0.08	0.17	0.66	0.17	0.67	0.33	1.00
Final Sat.:	76	152	379	231	323	46	93	371	93	389	194	702
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.43	0.43	0.43	0.11	0.11	0.11	0.72	0.72	0.11
Crit Moves:		****			****		****			****		
Delay/Veh:	10.3	10.3	10.3	12.6	12.6	12.6	9.5	9.5	9.5	22.0	22.0	8.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	12.6	12.6	12.6	9.5	9.5	9.5	22.0	22.0	8.4
LOS by Move:	B	B	B	B	B	B	A	A	A	C	C	A
ApproachDel:		10.3			12.6			9.5			19.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.3			12.6			9.5			19.8	
LOS by Appr:		B			B			A			C	
AllWayAvgQ:	0.3	0.3	0.3	0.7	0.7	0.7	0.1	0.1	0.1	2.1	2.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Peck Rd & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.342
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	10	130	90	80	80	10	10	170	10	100	40	100
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	130	90	80	80	10	10	170	10	100	40	100
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	130	90	80	80	10	10	170	10	100	40	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	130	90	80	80	10	10	170	10	100	40	100
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	130	90	80	80	10	10	170	10	100	40	100
Saturation Flow Module:												
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:	0.04	0.57	0.39	0.47	0.47	0.06	0.05	0.90	0.05	0.71	0.29	1.00
Final Sat.:	29	380	263	294	294	37	33	566	33	400	160	671
Capacity Analysis Module:												
Vol/Sat:	0.34	0.34	0.34	0.27	0.27	0.27	0.30	0.30	0.30	0.25	0.25	0.15
Crit Moves:		****			****			****			****	
Delay/Veh:	10.4	10.4	10.4	10.2	10.2	10.2	10.4	10.4	10.4	10.7	10.7	8.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	10.4	10.4	10.2	10.2	10.2	10.4	10.4	10.4	10.7	10.7	8.6
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	A
ApproachDel:		10.4			10.2			10.4			9.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.4			10.2			10.4			9.8	
LOS by Appr:		B			B			B			A	
AllWayAvgQ:	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.2

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND HARVARD BL (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	113	0	0.000	N-S(1):	0.156
	TH	1.00	297	1,600	0.256 *	N-S(2):	0.287 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.191 *
Westbound	RT	1.00	120	1,600	0.000	E-W(2):	0.181
	TH	1.00	160	1,600	0.100		
	LT	1.00	190	1,600	0.119 *	V/C:	0.478
Northbound	RT	1.00	140	1,600	0.000	Lost Time:	0.000
	TH	1.00	130	1,600	0.081		
	LT	1.00	50	1,600	0.031 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.478
	TH	2.00	180	3,200	0.072 *		
	LT	1.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	68	0	0.000	N-S(1):	0.326 *
	TH	1.00	102	1,600	0.106	N-S(2):	0.144
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.303
Westbound	RT	1.00	80	1,600	0.013	E-W(2):	0.407 *
	TH	1.00	340	1,600	0.213 *		
	LT	1.00	240	1,600	0.150	V/C:	0.733
Northbound	RT	1.00	450	1,600	0.131	Lost Time:	0.000
	TH	1.00	460	1,600	0.288 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	70	0	0.000	ICU:	0.733
	TH	2.00	420	3,200	0.153		
	LT	1.00	310	1,600	0.194 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND MAIN ST (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.025 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	40	1,600	0.025 *	E-W(1):	0.175 *
Westbound	RT	1.00	90	1,600	0.031	E-W(2):	0.031
	TH	0.00	0	0	0.000		
	LT	1.00	280	1,600	0.175 *	V/C:	0.200
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.200
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.019 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	30	1,600	0.019 *	E-W(1):	0.081 *
Westbound	RT	1.00	30	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	130	1,600	0.081 *	V/C:	0.100
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND FAULKNER RD
Description: CUMULATIVE BASE CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	610	1,600	0.313 *	N-S(1):	0.144
	TH	1.00	110	1,600	0.069	N-S(2):	0.376 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.069 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.445
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	230	1,600	0.144		
	LT	1.00	100	1,600	0.063 *		
Eastbound	RT	1.00	20	1,600	0.000	ICU:	0.445
	TH	0.00	0	0	0.000		
	LT	1.00	110	1,600	0.069 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	390	1,600	0.050	N-S(1):	0.413 *
	TH	1.00	120	1,600	0.075	N-S(2):	0.150
	LT	0.00	0	0	0.000 *	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.194 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.607
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	660	1,600	0.413 *		
	LT	1.00	120	1,600	0.075		
Eastbound	RT	1.00	110	1,600	0.000	ICU:	0.607
	TH	0.00	0	0	0.000		
	LT	1.00	310	1,600	0.194 *	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.335
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	10	30	10	50	40	60	210	30	30	10	10	80
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	30	10	50	40	60	210	30	30	10	10	80
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	30	10	50	40	60	210	30	30	10	10	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	30	10	50	40	60	210	30	30	10	10	80
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	30	10	50	40	60	210	30	30	10	10	80
Saturation Flow Module:												
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:	0.20	0.60	0.20	0.33	0.27	0.40	1.00	0.78	0.22	0.20	0.80	1.00
Final Sat.:	130	390	130	231	185	277	627	551	157	127	508	740
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.22	0.22	0.22	0.33	0.05	0.19	0.08	0.02	0.11
Crit Moves:		****			****		****					****
Delay/Veh:	8.5	8.5	8.5	9.2	9.2	9.2	11.0	8.8	8.8	8.6	8.6	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.5	8.5	8.5	9.2	9.2	9.2	11.0	8.8	8.8	8.6	8.6	7.9
LOS by Move:	A	A	A	A	A	A	B	A	A	A	A	A
ApproachDel:		8.5			9.2			10.2			8.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.5			9.2			10.2			8.2	
LOS by Appr:		A			A			B			A	
AllWayAvgQ:	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.147
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	54.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	10	50	10	100	20	120	670	80	20	10	10	100
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	50	10	100	20	120	670	80	20	10	10	100
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	50	10	100	20	120	670	80	20	10	10	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	50	10	100	20	120	670	80	20	10	10	100
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	50	10	100	20	120	670	80	20	10	10	100
Saturation Flow Module:												
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:	0.14	0.72	0.14	0.42	0.08	0.50	1.00	0.95	0.05	0.17	0.83	1.00
Final Sat.:	76	379	76	247	49	296	584	605	33	86	429	580
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.41	0.41	0.41	1.15	0.13	0.60	0.12	0.02	0.17
Crit Moves:		****			****		****					****
Delay/Veh:	10.5	10.5	10.5	12.9	12.9	12.9	107.3	16.5	16.5	10.3	10.3	9.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	10.5	12.9	12.9	12.9	107.3	16.5	16.5	10.3	10.3	9.9
LOS by Move:	B	B	B	B	B	B	F	C	C	B	B	A
ApproachDel:		10.5			12.9			74.2			10.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.5			12.9			74.2			10.0	
LOS by Appr:		B			B			F			B	
AllWayAvgQ:	0.1	0.1	0.1	0.6	0.6	0.6	16.0	1.4	1.4	0.1	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.914
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	28.0
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	20	100	10	10	10	10	40	20	560	110	30
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:	50	20	100	10	10	10	10	40	20	560	110	30
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:	50	20	100	10	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	20	100	10	10	10	10	40	20	560	110	30
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:	50	20	100	10	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.71	0.29	1.00	0.67	0.67	0.66	1.00	1.33	0.67	1.00	1.57	0.43
Final Sat.:	362	145	595	324	344	364	485	706	372	613	1061	300
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.17	0.03	0.03	0.03	0.02	0.06	0.05	0.91	0.10	0.10
Crit Moves:			****	****				****		****		
Delay/Veh:	10.7	10.7	9.7	10.0	9.6	9.2	10.0	9.6	9.2	41.6	8.5	8.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	10.7	9.7	10.0	9.6	9.2	10.0	9.6	9.2	41.6	8.5	8.3
LOS by Move:	B	B	A	B	A	A	B	A	A	E	A	A
ApproachDel:	10.1			9.6			9.6			34.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			9.6			9.6			34.9		
LOS by Appr:	B			A			A			D		
AllWayAvgQ:	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	5.6	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.667
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	50	50	170	90	20	10	10	180	70	330	100	120
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:	50	50	170	90	20	10	10	180	70	330	100	120
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:	50	50	170	90	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	50	170	90	20	10	10	180	70	330	100	120
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:	50	50	170	90	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.50	0.50	1.00	1.00	0.83	0.17	1.00	1.44	0.56	1.00	1.00	1.00
Final Sat.:	236	236	541	441	396	79	438	689	278	495	524	583
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.31	0.20	0.05	0.13	0.02	0.26	0.25	0.67	0.19	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	11.8	11.8	11.6	12.2	10.7	10.7	10.6	12.2	11.7	22.4	10.8	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.6	12.2	10.7	10.7	10.6	12.2	11.7	22.4	10.8	10.1
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
ApproachDel:	11.7			11.6			12.0			17.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.7			11.6			12.0			17.6		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.2	0.2	0.4	0.2	0.1	0.1	0.0	0.3	0.3	1.7	0.2	0.2

Note: Queue reported is the number of cars per lane.

CUMULATIVE BASE PLUS PROJECT (2020)

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR AND SR 126 / VENTURA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	450	1,600	0.281	N-S(1):	0.385 *
	TH	2.00	190	1,600	0.119	N-S(2):	0.325
	LT	1.00	460	1,600	0.288 *	E-W(1):	0.297
Westbound	RT	1.00	645	1,600	0.116	E-W(2):	0.685 *
	TH	2.00	1,500	3,200	0.469 *		
	LT	1.00	110	1,600	0.069	V/C:	1.070
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	1.00	95	1,600	0.097 *		
	LT	1.00	70	1,600	0.044		
Eastbound	RT	1.00	210	1,600	0.088	ICU:	1.070
	TH	2.00	730	3,200	0.228		
	LT	1.00	345	1,600	0.216 *	LOS:	F

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	445	1,600	0.278	N-S(1):	0.522 *
	TH	2.00	125	1,600	0.078	N-S(2):	0.453
	LT	1.00	500	1,600	0.313 *	E-W(1):	0.601
Westbound	RT	1.00	530	1,600	0.019	E-W(2):	0.661 *
	TH	2.00	1,065	3,200	0.333 *		
	LT	1.00	60	1,600	0.038	V/C:	1.183
Northbound	RT	0.00	130	0	0.000	Lost Time:	0.000
	TH	1.00	205	1,600	0.209 *		
	LT	1.00	280	1,600	0.175		
Eastbound	RT	1.00	190	1,600	0.000	ICU:	1.183
	TH	2.00	1,800	3,200	0.563		
	LT	1.00	525	1,600	0.328 *	LOS:	F

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Hallock Dr & Telegraph (Future)

Cycle (sec):	100	Critical Vol./Cap.(X):	2.234
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	285.6
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hallock Dr						Telegraph					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 1 0			1 0 0 1 0			0 1 0 0 1			1 0 0 1 0		
Volume Module:												
Base Vol:	390	665	40	10	820	175	250	100	250	50	30	5
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:	390	665	40	10	820	175	250	100	250	50	30	5
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:	390	665	40	10	820	175	250	100	250	50	30	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	390	665	40	10	820	175	250	100	250	50	30	5
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:	390	665	40	10	820	175	250	100	250	50	30	5
Saturation Flow Module:												
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	0.94	0.06	1.00	0.82	0.18	0.71	0.29	1.00	1.00	0.86	0.14
Final Sat.:	439	443	27	401	367	78	307	123	493	363	331	55
Capacity Analysis Module:												
Vol/Sat:	0.89	1.50	1.50	0.02	2.23	2.23	0.81	0.81	0.51	0.14	0.09	0.09
Crit Moves:			****		****			****		****		
Delay/Veh:	48.1	256	255.8	11.6	580	580.3	38.3	38.3	17.2	14.0	12.7	12.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.1	256	255.8	11.6	580	580.3	38.3	38.3	17.2	14.0	12.7	12.7
LOS by Move:	E	F	F	B	F	F	E	E	C	B	B	B
ApproachDel:	181.9			574.6			29.5			13.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	181.9			574.6			29.5			13.5		
LOS by Appr:	F			F			D			B		
AllWayAvgQ:	4.5	32.0	32.0	0.0	70.5	70.5	3.3	3.3	1.0	0.2	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Hallock Dr & Telegraph (Future)

Cycle (sec):	100	Critical Vol./Cap.(X):	2.157
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	364.0
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hallock Dr						Telegraph					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 1 0			1 0 0 1 0			0 1 0 0 1			1 0 0 1 0		
Volume Module:												
Base Vol:	295	935	50	5	775	200	215	60	265	50	80	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:	295	935	50	5	775	200	215	60	265	50	80	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:	295	935	50	5	775	200	215	60	265	50	80	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	295	935	50	5	775	200	215	60	265	50	80	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:	295	935	50	5	775	200	215	60	265	50	80	10
Saturation Flow Module:												
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	0.95	0.05	1.00	0.79	0.21	0.78	0.22	1.00	1.00	0.89	0.11
Final Sat.:	436	443	24	409	359	93	329	92	482	370	349	44
Capacity Analysis Module:												
Vol/Sat:	0.68	2.11	2.11	0.01	2.16	2.16	0.65	0.65	0.55	0.14	0.23	0.23
Crit Moves:		****			****			****			****	
Delay/Veh:	26.5	524	524.0	11.4	546	545.9	25.9	25.9	18.8	13.7	14.3	14.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.5	524	524.0	11.4	546	545.9	25.9	25.9	18.8	13.7	14.3	14.3
LOS by Move:	D	F	F	B	F	F	D	D	C	B	B	B
ApproachDel:	409.3			543.2			22.4			14.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	409.3			543.2			22.4			14.1		
LOS by Appr:	F			F			C			B		
AllWayAvgQ:	1.9	66.6	66.6	0.0	67.2	67.2	1.7	1.7	1.2	0.2	0.3	0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Harvard Bl / Telegraph Rd & Main St

Average Delay (sec/veh): 7.1 Worst Case Level Of Service: C[21.3]

Street Name:	Harvard Bl / Telegraph Rd						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2 0 0			0 0 1 0 1			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	10	325	0	0	195	360	420	0	20	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:	10	325	0	0	195	360	420	0	20	0	0	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:	10	325	0	0	195	360	420	0	20	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	325	0	0	195	360	420	0	20	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	555	xxxx	xxxxx	xxxx	xxxx	xxxxx	378	xxxx	195	xxxx	xxxx	xxxxx
Potent Cap.:	1026	xxxx	xxxxx	xxxx	xxxx	xxxxx	628	xxxx	851	xxxx	xxxx	xxxxx
Move Cap.:	1026	xxxx	xxxxx	xxxx	xxxx	xxxxx	623	xxxx	851	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.67	xxxx	0.02	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	5.2	xxxx	0.1	xxxx	xxxx	xxxxx
Control Del:	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	21.9	xxxx	9.3	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	C	*	A	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			21.3			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Harvard Bl  / Telegraph Rd & Main St
******************************************************************************
Average Delay (sec/veh):      2.8       Worst Case Level Of Service: B[ 13.7]
******************************************************************************
Street Name:    Harvard Bl  / Telegraph Rd                 Main St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  2  0  0    0  0  1  0  1    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      20  265     0     0  250   380   195    0    30     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:   20  265     0     0  250   380   195    0    30     0    0     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:    20  265     0     0  250   380   195    0    30     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   20  265     0     0  250   380   195    0    30     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  630 xxxx xxxxx  xxxx xxxx xxxxx   422 xxxx   250  xxxx xxxx xxxxx
Potent Cap.:  962 xxxx xxxxx  xxxx xxxx xxxxx   592 xxxx   794  xxxx xxxx xxxxx
Move Cap.:    962 xxxx xxxxx  xxxx xxxx xxxxx   582 xxxx   794  xxxx xxxx xxxxx
Volume/Cap:  0.02 xxxx  xxxx  xxxx xxxx  xxxx  0.33 xxxx  0.04  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.1 xxxx xxxxx  xxxx xxxx xxxxx   1.5 xxxx   0.1  xxxx xxxx xxxxx
Control Del:  8.8 xxxx xxxxx xxxxx xxxx xxxxx  14.3 xxxx   9.7 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     B    *     A     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             13.7           xxxxxx
ApproachLOS:        *                *               B                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.448
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	158.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	60	90	90	335	285	30	10	340	40	210	265	150
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:	60	90	90	335	285	30	10	340	40	210	265	150
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:	60	90	90	335	285	30	10	340	40	210	265	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	90	90	335	285	30	10	340	40	210	265	150
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:	60	90	90	335	285	30	10	340	40	210	265	150
Saturation Flow Module:												
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:	0.25	0.37	0.38	0.51	0.44	0.05	0.03	0.87	0.10	0.34	0.42	0.24
Final Sat.:	101	152	152	231	197	21	11	385	45	154	194	110
Capacity Analysis Module:												
Vol/Sat:	0.59	0.59	0.59	1.45	1.45	1.45	0.88	0.88	0.88	1.37	1.37	1.37
Crit Moves:	****			****			****			****		
Delay/Veh:	22.9	22.9	22.9	236.0	236	236.0	46.6	46.6	46.6	201.1	201	201.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.9	22.9	22.9	236.0	236	236.0	46.6	46.6	46.6	201.1	201	201.1
LOS by Move:	C	C	C	F	F	F	E	E	E	F	F	F
ApproachDel:	22.9			236.0			46.6			201.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	22.9			236.0			46.6			201.1		
LOS by Appr:	C			F			E			F		
AllWayAvgQ:	1.3	1.3	1.3	28.0	28.0	28.0	4.4	4.4	4.4	24.2	24.2	24.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.792
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	249.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	340	220	270	215	30	20	330	30	175	265	290
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:	50	340	220	270	215	30	20	330	30	175	265	290
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:	50	340	220	270	215	30	20	330	30	175	265	290
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	340	220	270	215	30	20	330	30	175	265	290
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:	50	340	220	270	215	30	20	330	30	175	265	290
Saturation Flow Module:												
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:	0.08	0.56	0.36	0.52	0.42	0.06	0.05	0.87	0.08	0.24	0.36	0.40
Final Sat.:	33	227	147	207	165	23	21	344	31	98	148	162
Capacity Analysis Module:												
Vol/Sat:	1.50	1.50	1.50	1.30	1.30	1.30	0.96	0.96	0.96	1.79	1.79	1.79
Crit Moves:		****			****			****			****	
Delay/Veh:	259.2	259	259.2	179.7	180	179.7	66.2	66.2	66.2	387.4	387	387.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	259.2	259	259.2	179.7	180	179.7	66.2	66.2	66.2	387.4	387	387.4
LOS by Move:	F	F	F	F	F	F	F	F	F	F	F	F
ApproachDel:	259.2			179.7			66.2			387.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	259.2			179.7			66.2			387.4		
LOS by Appr:	F			F			F			F		
AllWayAvgQ:	28.0	28.0	28.0	18.4	18.4	18.4	6.0	6.0	6.0	42.5	42.5	42.5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 12th St & Santa Barbara St

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[15.3]

Street Name:	12th St						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	45	220	0	0	485	80	50	0	40	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:	45	220	0	0	485	80	50	0	40	0	0	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:	45	220	0	0	485	80	50	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	45	220	0	0	485	80	50	0	40	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	565	xxxx	xxxxx	xxxx	xxxx	xxxxx	835	xxxx	525	xxxx	xxxx	xxxxx
Potent Cap.:	1017	xxxx	xxxxx	xxxx	xxxx	xxxxx	340	xxxx	556	xxxx	xxxx	xxxxx
Move Cap.:	1017	xxxx	xxxxx	xxxx	xxxx	xxxxx	329	xxxx	556	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.15	xxxx	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	0.2	xxxx	xxxx	xxxxx
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.9	xxxx	12.0	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	C	*	B	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			15.3			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 12th St & Santa Barbara St

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C[19.7]

Street Name:	12th St								Santa Barbara St							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 1	0 0	0		0 0	0 1	0		1 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	30	500	0		0	335	80		80	0	20		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:	30	500	0		0	335	80		80	0	20		0	0	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:	30	500	0		0	335	80		80	0	20		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	30	500	0		0	335	80		80	0	20		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	xxxx	6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	415	xxxx	xxxxx	xxxx	xxxx	xxxxx			935	xxxx	375	xxxx	xxxx	xxxxx		
Potent Cap.:	1155	xxxx	xxxxx	xxxx	xxxx	xxxxx			297	xxxx	676	xxxx	xxxx	xxxxx		
Move Cap.:	1155	xxxx	xxxxx	xxxx	xxxx	xxxxx			291	xxxx	676	xxxx	xxxx	xxxxx		
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx			0.27	xxxx	0.03	xxxx	xxxx	xxxx		
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx			1.1	xxxx	0.1	xxxx	xxxx	xxxxx		
Control Del:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			22.0	xxxx	10.5	xxxxx	xxxx	xxxxx		
LOS by Move:	A	*	*	*	*	*			C	*	B	*	*	*		
Movement:	LT -	LTR -	RT	LT -	LTR -	RT			LT -	LTR -	RT	LT -	LTR -	RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Shrd ConDel:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Shared LOS:	A	*	*	*	*	*			*	*	*	*	*	*		
ApproachDel:	xxxxxx			xxxxxx					19.7			xxxxxx				
ApproachLOS:	*			*					C			*				

Note: Queue reported is the number of cars per lane.

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **12TH ST AND MAIN ST**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.216 *
	TH	1.00	270	1,600	0.194	N-S(2):	0.200
	LT	1.00	235	1,600	0.147 *	E-W(1):	0.178
Westbound	RT	0.00	105	0	0.000	E-W(2):	0.265 *
	TH	1.00	270	1,600	0.234 *		
	LT	1.00	30	1,600	0.019	V/C:	0.481
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.069 *		
	LT	1.00	10	1,600	0.006		
Eastbound	RT	0.00	30	0	0.000	ICU:	0.481
	TH	1.00	225	1,600	0.159		
	LT	1.00	50	1,600	0.031 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.301 *
	TH	1.00	225	1,600	0.184	N-S(2):	0.222
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.122
Westbound	RT	0.00	160	0	0.000	E-W(2):	0.294 *
	TH	1.00	220	1,600	0.238 *		
	LT	1.00	20	1,600	0.013	V/C:	0.595
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	390	1,600	0.263 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	60	0	0.000	ICU:	0.595
	TH	1.00	115	1,600	0.109		
	LT	1.00	90	1,600	0.056 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.084
	TH	1.00	30	1,600	0.144 *	N-S(2):	0.238 *
	LT	0.00	10	1,600	0.006	E-W(1):	0.243 *
Westbound	RT	1.00	10	1,600	0.000	E-W(2):	0.238
	TH	1.00	190	1,600	0.119		
	LT	1.00	55	1,600	0.034 *	V/C:	0.481
Northbound	RT	0.00	45	0	0.000	Lost Time:	0.000
	TH	1.00	80	1,600	0.078		
	LT	1.00	150	1,600	0.094 *		
Eastbound	RT	1.00	80	1,600	0.000	ICU:	0.481
	TH	1.00	335	1,600	0.209 *		
	LT	1.00	190	1,600	0.119	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	200	0	0.000	N-S(1):	0.150
	TH	1.00	135	1,600	0.216 *	N-S(2):	0.335 *
	LT	0.00	10	1,600	0.006	E-W(1):	0.175
Westbound	RT	1.00	20	1,600	0.006	E-W(2):	0.354 *
	TH	1.00	225	1,600	0.141 *		
	LT	1.00	65	1,600	0.041	V/C:	0.689
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	1.00	180	1,600	0.144		
	LT	1.00	190	1,600	0.119 *		
Eastbound	RT	1.00	70	1,600	0.000	ICU:	0.689
	TH	1.00	215	1,600	0.134		
	LT	1.00	340	1,600	0.213 *	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: A[9.6]

Street Name:	S Mountain Rd						S Mountain Rd / Lemon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0 0 0			0 0 0 1 0			0 0 1! 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	10	90	0	0	95	30	20	0	10	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:	10	90	0	0	95	30	20	0	10	0	0	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:	10	90	0	0	95	30	20	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	90	0	0	95	30	20	0	10	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	125	xxxx	xxxxx	xxxx	xxxx	xxxxx	220	220	110	xxxx	xxxx	xxxxx
Potent Cap.:	1474	xxxx	xxxxx	xxxx	xxxx	xxxxx	773	682	949	xxxx	xxxx	xxxxx
Move Cap.:	1474	xxxx	xxxxx	xxxx	xxxx	xxxxx	769	677	949	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	821	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.6	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.6			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[13.3]

Street Name:	S Mountain Rd						S Mountain Rd / Lemon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0 0 0			0 0 0 1 0			0 0 1! 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	20	360	0	0	200	20	50	0	10	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:	20	360	0	0	200	20	50	0	10	0	0	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:	20	360	0	0	200	20	50	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	360	0	0	200	20	50	0	10	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	220	xxxx	xxxxx	xxxx	xxxx	xxxxx	610	610	210	xxxx	xxxx	xxxxx
Potent Cap.:	1361	xxxx	xxxxx	xxxx	xxxx	xxxxx	461	412	835	xxxx	xxxx	xxxxx
Move Cap.:	1361	xxxx	xxxxx	xxxx	xxxx	xxxxx	456	406	835	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	493	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.3	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.3			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: E[44.6]

Street Name:	Ojai Rd						Richmond Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	460	50	20	1005	0	0	0	0	60	0	40
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	460	50	20	1005	0	0	0	0	60	0	40
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	460	50	20	1005	0	0	0	0	60	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	460	50	20	1005	0	0	0	0	60	0	40
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	510	xxxx	xxxxx	xxxx	xxxx	xxxxx	1530	1530	485
Potent Cap.:	xxxx	xxxx	xxxxx	1065	xxxx	xxxxx	xxxx	xxxx	xxxxx	130	118	586
Move Cap.:	xxxx	xxxx	xxxxx	1065	xxxx	xxxxx	xxxx	xxxx	xxxxx	128	116	586
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.47	0.00	0.07
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	187	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	44.6	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			44.6		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: E[46.3]

Street Name:	Ojai Rd						Richmond Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	825	80	30	625	0	0	0	0	50	0	40
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	825	80	30	625	0	0	0	0	50	0	40
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	825	80	30	625	0	0	0	0	50	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	825	80	30	625	0	0	0	0	50	0	40
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	905	xxxx	xxxxx	xxxx	xxxx	xxxxx	1550	1550	865
Potent Cap.:	xxxx	xxxx	xxxxx	760	xxxx	xxxxx	xxxx	xxxx	xxxxx	127	115	356
Move Cap.:	xxxx	xxxx	xxxxx	760	xxxx	xxxxx	xxxx	xxxx	xxxxx	123	110	356
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.41	0.00	0.11
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	173	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	46.3	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			46.3		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Ojai Rd & Orchard St
********************************************************************************
Average Delay (sec/veh):      1.4       Worst Case Level Of Service: D[ 31.0]
********************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  450    30    20  925     0     0    0     0    40    0    20
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  450    30    20  925     0     0    0     0    40    0    20
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  450    30    20  925     0     0    0     0    40    0    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  450    30    20  925     0     0    0     0    40    0    20
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   480 xxxx xxxxx  xxxx xxxx xxxxx  1430 1430   465
Potent Cap.: xxxx xxxx xxxxx  1093 xxxx xxxxx  xxxx xxxx xxxxx   150  136   602
Move Cap.:   xxxx xxxx xxxxx  1093 xxxx xxxxx  xxxx xxxx xxxxx   148  133   602
Volume/Cap:  xxxx xxxx  xxxx  0.02 xxxx  xxxx  xxxx xxxx  xxxx  0.27 0.00  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  197 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  1.2 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 31.0 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    D     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             31.0
ApproachLOS:        *                *                *                 D
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Ojai Rd & Orchard St
******************************************************************************
Average Delay (sec/veh):      7.5       Worst Case Level Of Service: E[ 39.9]
******************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  625    60    10  615     0     0    0     0    40    0   260
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  625    60    10  615     0     0    0     0    40    0   260
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  625    60    10  615     0     0    0     0    40    0   260
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  625    60    10  615     0     0    0     0    40    0   260
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   685 xxxx xxxxx  xxxx xxxx xxxxx  1290 1290   655
Potent Cap.: xxxx xxxx xxxxx   918 xxxx xxxxx  xxxx xxxx xxxxx   182  165   470
Move Cap.:   xxxx xxxx xxxxx   918 xxxx xxxxx  xxxx xxxx xxxxx   181  163   470
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.22 0.00  0.55
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   9.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  387 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  6.5 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 39.9 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    E     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             39.9
ApproachLOS:        *                *                *                 E
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 6.4 Worst Case Level Of Service: E[40.8]

Street Name:	Ojai Rd									Saticoy St								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	385		60		445	660		0		0		0		0	30		0		125
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	385		60		445	660		0		0		0		0	30		0		125
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	385		60		445	660		0		0		0		0	30		0		125
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	385		60		445	660		0		0		0		0	30		0		125
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx			xxxxx	xxxx	xxxxx			6.4	xxxx			6.2
FollowUpTim:	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx			xxxxx	xxxx	xxxxx			3.5	xxxx			3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			445	xxxx	xxxxx			xxxx	xxxx	xxxxx			1965	xxxx			415
Potent Cap.:	xxxx	xxxx	xxxxx			1126	xxxx	xxxxx			xxxx	xxxx	xxxxx			70	xxxx			642
Move Cap.:	xxxx	xxxx	xxxxx			1126	xxxx	xxxxx			xxxx	xxxx	xxxxx			49	xxxx			642
Volume/Cap:	xxxx	xxxx	xxxx			0.40	xxxx	xxxx			xxxx	xxxx	xxxx			0.62	xxxx			0.19
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			1.9	xxxx	xxxxx			xxxx	xxxx	xxxxx			2.4	xxxx			0.7
Control Del:	xxxxx	xxxx	xxxxx			10.3	xxxx	xxxxx			xxxxx	xxxx	xxxxx			160.7	xxxx			12.0
LOS by Move:	*	*	*			B	*	*			*	*	*			F	*			B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx			xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx			xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx			xxxxx
Shared LOS:	*	*	*			*	*	*			*	*	*			*	*			*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					40.8				
ApproachLOS:	*					*					*					E				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: C[21.4]

Street Name:	Ojai Rd						Saticoy St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	475	100	310	445	0	0	0	0	30	0	240
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	475	100	310	445	0	0	0	0	30	0	240
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	475	100	310	445	0	0	0	0	30	0	240
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	475	100	310	445	0	0	0	0	30	0	240
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	575	xxxx	xxxxx	xxxx	xxxx	xxxxx	1590	xxxx	525
Potent Cap.:	xxxx	xxxx	xxxxx	1008	xxxx	xxxxx	xxxx	xxxx	xxxxx	120	xxxx	556
Move Cap.:	xxxx	xxxx	xxxxx	1008	xxxx	xxxxx	xxxx	xxxx	xxxxx	91	xxxx	556
Volume/Cap:	xxxx	xxxx	xxxx	0.31	xxxx	xxxx	xxxx	xxxx	xxxx	0.33	xxxx	0.43
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	1.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.3	xxxx	2.2
Control Del:	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	62.8	xxxx	16.3
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			21.4		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.228
	TH	1.00	430	1,600	0.319 *	N-S(2):	0.319 *
	LT	0.00		0	0.000	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.319
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	345	1,600	0.228		
	LT	0.00		0	0.000 *		
Eastbound	RT	0.00		0	0.000	ICU:	0.319
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.403 *
	TH	1.00	275	1,600	0.253	N-S(2):	0.253
	LT	0.00		0	0.000 *	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.403
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	635	1,600	0.403 *		
	LT	0.00		0	0.000		
Eastbound	RT	0.00		0	0.000	ICU:	0.403
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.081
	TH	1.00	300	1,600	0.213 *	N-S(2):	0.232 *
	LT	0.00		0	0.000	E-W(1):	0.316 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.251
	TH	1.00	340	1,600	0.238		
	LT	0.00	30	1,600	0.019 *	V/C:	0.548
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.081		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.548
	TH	1.00	405	1,600	0.297 *		
	LT	0.00	20	1,600	0.013	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.113 *
	TH	1.00	120	1,600	0.094 *	N-S(2):	0.113 *
	LT	0.00		0	0.000 *	E-W(1):	0.310 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.237
	TH	1.00	340	1,600	0.231		
	LT	0.00	20	1,600	0.013 *	V/C:	0.423
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	150	1,600	0.113 *		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.423
	TH	1.00	415	1,600	0.297 *		
	LT	0.00	10	1,600	0.006	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA BARBARA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	110	0	0.000	N-S(1):	0.254
	TH	1.00	745	1,600	0.534 *	N-S(2):	0.553 *
	LT	1.00	20	1,600	0.013	E-W(1):	0.094
Westbound	RT	0.00	25	0	0.000	E-W(2):	0.147 *
	TH	1.00	100	1,600	0.078 *		
	LT	1.00	30	1,600	0.019	V/C:	0.700
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	375	1,600	0.241		
	LT	1.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.700
	TH	1.00	70	1,600	0.075		
	LT	1.00	110	1,600	0.069 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.381 *
	TH	1.00	440	1,600	0.325	N-S(2):	0.356
	LT	1.00	0	1,600	0.000 *	E-W(1):	0.107
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.182 *
	TH	1.00	100	1,600	0.063 *		
	LT	1.00	20	1,600	0.013	V/C:	0.563
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	580	1,600	0.381 *		
	LT	1.00	50	1,600	0.031		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.563
	TH	1.00	110	1,600	0.094		
	LT	1.00	190	1,600	0.119 *	LOS:	A

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **10TH ST AND MAIN ST**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.287
	TH	1.00	765	1,600	0.522 *	N-S(2):	0.535 *
	LT	1.00	5	1,600	0.003	E-W(1):	0.176
Westbound	RT	0.00	105	0	0.000	E-W(2):	0.210 *
	TH	1.00	160	1,600	0.166 *		
	LT	1.00	60	1,600	0.038	V/C:	0.745
Northbound	RT	0.00	80	0	0.000	Lost Time:	0.000
	TH	1.00	375	1,600	0.284		
	LT	1.00	20	1,600	0.013 *		
Eastbound	RT	1.00	30	1,600	0.006	ICU:	0.745
	TH	1.00	220	1,600	0.138		
	LT	1.00	70	1,600	0.044 *	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.431 *
	TH	1.00	525	1,600	0.366	N-S(2):	0.404
	LT	1.00	15	1,600	0.009 *	E-W(1):	0.209
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.232 *
	TH	1.00	270	1,600	0.194 *		
	LT	1.00	85	1,600	0.053	V/C:	0.663
Northbound	RT	0.00	65	0	0.000	Lost Time:	0.000
	TH	1.00	610	1,600	0.422 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	1.00	70	1,600	0.006	ICU:	0.663
	TH	1.00	250	1,600	0.156		
	LT	1.00	60	1,600	0.038 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	170	0	0.000	N-S(1):	0.310
	TH	1.00	585	1,600	0.472 *	N-S(2):	0.497 *
	LT	1.00	30	1,600	0.019	E-W(1):	0.459 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.301
	TH	1.00	350	1,600	0.238		
	LT	1.00	200	1,600	0.125 *	V/C:	0.956
Northbound	RT	0.00	110	0	0.000	Lost Time:	0.000
	TH	1.00	315	1,600	0.291		
	LT	0.00	40	1,600	0.025 *		
Eastbound	RT	0.00	120	0	0.000	ICU:	0.956
	TH	1.00	415	1,600	0.334 *		
	LT	1.00	100	1,600	0.063	LOS:	E

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.513 *
	TH	1.00	405	1,600	0.372	N-S(2):	0.422
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.404
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.416 *
	TH	1.00	475	1,600	0.322 *		
	LT	1.00	140	1,600	0.088	V/C:	0.929
Northbound	RT	0.00	200	0	0.000	Lost Time:	0.000
	TH	1.00	520	1,600	0.500 *		
	LT	0.00	80	1,600	0.050		
Eastbound	RT	0.00	110	0	0.000	ICU:	0.929
	TH	1.00	395	1,600	0.316		
	LT	1.00	150	1,600	0.094 *	LOS:	E

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND WB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	865	0	0.000	N-S(1):	0.303
	TH	1.00	60	1,600	0.578 *	N-S(2):	0.616 *
	LT	0.00	0	0	0.000	E-W(1):	0.006
Westbound	RT	1.00	80	1,600	0.050 *	E-W(2):	0.050 *
	TH	0.00	0	0	0.000		
	LT	1.00	10	1,600	0.006	V/C:	0.666
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	425	1,600	0.303		
	LT	0.00	60	1,600	0.038 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.666
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	545	0	0.000	N-S(1):	0.459 *
	TH	1.00	110	1,600	0.409	N-S(2):	0.447
	LT	0.00	0	0	0.000 *	E-W(1):	0.006
Westbound	RT	1.00	95	1,600	0.059 *	E-W(2):	0.059 *
	TH	0.00	0	0	0.000		
	LT	1.00	10	1,600	0.006	V/C:	0.518
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	675	1,600	0.459 *		
	LT	0.00	60	1,600	0.038		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.518
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND EB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.087 *
	TH	1.00	10	1,600	0.038	N-S(2):	0.038
	LT	0.00	50	1,600	0.031 *	E-W(1):	0.050
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.266 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.353
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	70	1,600	0.056 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	80	1,600	0.050	ICU:	0.353
	TH	0.00	0	0	0.000		
	LT	1.00	425	1,600	0.266 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.113 *
	TH	1.00	10	1,600	0.075	N-S(2):	0.075
	LT	0.00	110	1,600	0.069 *	E-W(1):	0.094
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.428 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.541
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	60	1,600	0.044 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	150	1,600	0.094	ICU:	0.541
	TH	0.00	0	0	0.000		
	LT	1.00	685	1,600	0.428 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.872
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.2
Optimal Cycle:	0	Level Of Service:	D

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
Saturation Flow Module:												
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:	0.14	0.31	0.55	0.11	0.74	0.15	0.05	0.84	0.11	0.40	0.53	0.07
Final Sat.:	66	145	257	47	312	62	25	400	50	195	258	34
Capacity Analysis Module:												
Vol/Sat:	0.76	0.76	0.76	0.64	0.64	0.64	0.80	0.80	0.80	0.87	0.87	0.87
Crit Moves:		****			****			****			****	
Delay/Veh:	25.3	25.3	25.3	20.2	20.2	20.2	29.4	29.4	29.4	37.9	37.9	37.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.3	25.3	25.3	20.2	20.2	20.2	29.4	29.4	29.4	37.9	37.9	37.9
LOS by Move:	D	D	D	C	C	C	D	D	D	E	E	E
ApproachDel:		25.3			20.2			29.4			37.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		25.3			20.2			29.4			37.9	
LOS by Appr:		D			C			D			E	
AllWayAvgQ:	2.0	2.0	2.0	1.1	1.1	1.1	2.5	2.5	2.5	3.8	3.8	3.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.1
Optimal Cycle:	0	Level Of Service:	D

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	10
Saturation Flow Module:												
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:	0.12	0.49	0.39	0.08	0.67	0.25	0.11	0.76	0.13	0.41	0.57	0.02
Final Sat.:	63	264	214	34	272	102	57	396	71	217	304	12
Capacity Analysis Module:												
Vol/Sat:	0.79	0.79	0.79	0.29	0.29	0.29	0.71	0.71	0.71	0.81	0.81	0.81
Crit Moves:	****			****				****				****
Delay/Veh:	27.1	27.1	27.1	12.7	12.7	12.7	22.0	22.0	22.0	29.1	29.1	29.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.1	27.1	27.1	12.7	12.7	12.7	22.0	22.0	22.0	29.1	29.1	29.1
LOS by Move:	D	D	D	B	B	B	C	C	C	D	D	D
ApproachDel:	27.1			12.7			22.0			29.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	27.1			12.7			22.0			29.1		
LOS by Appr:	D			B			C			D		
AllWayAvgQ:	2.7	2.7	2.7	0.3	0.3	0.3	1.8	1.8	1.8	2.9	2.9	2.9

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 8TH ST AND MAIN ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.169
	TH	1.00	270	1,600	0.206 *	N-S(2):	0.219 *
	LT	1.00	45	1,600	0.028	E-W(1):	0.284 *
Westbound	RT	0.00	15	0	0.000	E-W(2):	0.194
	TH	1.00	125	1,600	0.113		
	LT	0.00	40	1,600	0.025 *	V/C:	0.503
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	195	1,600	0.141		
	LT	1.00	20	1,600	0.013 *		
Eastbound	RT	1.00	30	1,600	0.006	ICU:	0.503
	TH	1.00	285	1,600	0.259 *		
	LT	0.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	95	0	0.000	N-S(1):	0.306 *
	TH	1.00	205	1,600	0.188	N-S(2):	0.213
	LT	1.00	45	1,600	0.028 *	E-W(1):	0.319
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.322 *
	TH	1.00	240	1,600	0.244 *		
	LT	0.00	70	1,600	0.044	V/C:	0.628
Northbound	RT	0.00	80	0	0.000	Lost Time:	0.000
	TH	1.00	365	1,600	0.278 *		
	LT	1.00	40	1,600	0.025		
Eastbound	RT	1.00	90	1,600	0.031	ICU:	0.628
	TH	1.00	315	1,600	0.275		
	LT	0.00	125	1,600	0.078 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 8TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.094
	TH	1.00	60	1,600	0.156 *	N-S(2):	0.162 *
	LT	1.00	60	1,600	0.038	E-W(1):	0.164
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.244 *
	TH	2.00	490	3,200	0.163 *		
	LT	1.00	40	1,600	0.025	V/C:	0.406
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	1.00	40	1,600	0.056		
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.406
	TH	2.00	435	3,200	0.139		
	LT	1.00	130	1,600	0.081 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	220	0	0.000	N-S(1):	0.200 *
	TH	1.00	30	1,600	0.156	N-S(2):	0.162
	LT	1.00	70	1,600	0.044 *	E-W(1):	0.245
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.364 *
	TH	2.00	685	3,200	0.239 *		
	LT	1.00	40	1,600	0.025	V/C:	0.564
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	1.00	180	1,600	0.156 *		
	LT	0.00	10	1,600	0.006		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.564
	TH	2.00	695	3,200	0.220		
	LT	1.00	200	1,600	0.125 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 6.5 Worst Case Level Of Service: C[23.8]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	30	20	20	60	130	90	370	30	20	305	30
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	30	20	20	60	130	90	370	30	20	305	30
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	30	20	20	60	130	90	370	30	20	305	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	30	20	20	60	130	90	370	30	20	305	30
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1020	940	385	950	940	320	335	xxxx	xxxxx	400	xxxx	xxxxx
Potent Cap.:	217	266	667	242	266	725	1236	xxxx	xxxxx	1170	xxxx	xxxxx
Move Cap.:	134	241	667	198	241	725	1236	xxxx	xxxxx	1170	xxxx	xxxxx
Volume/Cap:	0.07	0.12	0.03	0.10	0.25	0.18	0.07	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	262	xxxxx	xxxx	397	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.9	xxxxx	xxxxx	3.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	22.8	xxxxx	xxxxx	23.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		22.8			23.8			xxxxxx			xxxxxx	
ApproachLOS:		C			C			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: C[23.6]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	90	20	20	10	80	70	340	10	10	305	20
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	90	20	20	10	80	70	340	10	10	305	20
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	90	20	20	10	80	70	340	10	10	305	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	90	20	20	10	80	70	340	10	10	305	20
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	865	830	345	875	825	315	325	xxxx	xxxxx	350	xxxx	xxxxx
Potent Cap.:	276	308	702	272	310	730	1246	xxxx	xxxxx	1220	xxxx	xxxxx
Move Cap.:	227	287	702	191	289	730	1246	xxxx	xxxxx	1220	xxxx	xxxxx
Volume/Cap:	0.04	0.31	0.03	0.10	0.03	0.11	0.06	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	8.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	311	xxxxx	xxxx	442	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.8	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	23.6	xxxxx	xxxxx	15.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		23.6			15.8			xxxxxx			xxxxxx	
ApproachLOS:		C			C			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.837
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.8
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
Saturation Flow Module:												
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:	0.28	0.21	0.51	0.23	0.62	0.15	0.06	0.73	0.21	0.35	0.56	0.09
Final Sat.:	138	104	251	99	264	66	36	424	119	200	316	49
Capacity Analysis Module:												
Vol/Sat:	0.58	0.58	0.58	0.30	0.30	0.30	0.84	0.84	0.84	0.82	0.82	0.82
Crit Moves:		****			****				****		****	
Delay/Veh:	16.8	16.8	16.8	13.0	13.0	13.0	30.7	30.7	30.7	29.9	29.9	29.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.8	16.8	16.8	13.0	13.0	13.0	30.7	30.7	30.7	29.9	29.9	29.9
LOS by Move:	C	C	C	B	B	B	D	D	D	D	D	D
ApproachDel:		16.8			13.0			30.7			29.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.8			13.0			30.7			29.9	
LOS by Appr:		C			B			D			D	
AllWayAvgQ:	1.0	1.0	1.0	0.3	0.3	0.3	3.5	3.5	3.5	3.2	3.2	3.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.653
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.0
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	140	60	165	30	60	20	10	270	70	125	230	20
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:	140	60	165	30	60	20	10	270	70	125	230	20
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:	140	60	165	30	60	20	10	270	70	125	230	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	60	165	30	60	20	10	270	70	125	230	20
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:	140	60	165	30	60	20	10	270	70	125	230	20
Saturation Flow Module:												
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:	0.38	0.16	0.46	0.27	0.55	0.18	0.03	0.77	0.20	0.33	0.62	0.05
Final Sat.:	219	94	258	122	245	82	17	446	116	191	352	31
Capacity Analysis Module:												
Vol/Sat:	0.64	0.64	0.64	0.25	0.25	0.25	0.61	0.61	0.61	0.65	0.65	0.65
Crit Moves:			****		****			****			****	
Delay/Veh:	17.6	17.6	17.6	11.4	11.4	11.4	16.5	16.5	16.5	18.4	18.4	18.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.6	17.6	17.6	11.4	11.4	11.4	16.5	16.5	16.5	18.4	18.4	18.4
LOS by Move:	C	C	C	B	B	B	C	C	C	C	C	C
ApproachDel:	17.6			11.4			16.5			18.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	17.6			11.4			16.5			18.4		
LOS by Appr:	C			B			C			C		
AllWayAvgQ:	1.4	1.4	1.4	0.2	0.2	0.2	1.2	1.2	1.2	1.5	1.5	1.5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #23 Palm Av & Santa Barbara St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.7
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	205	90	60	265	10	10	100	40	190	150	50
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:	40	205	90	60	265	10	10	100	40	190	150	50
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:	40	205	90	60	265	10	10	100	40	190	150	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	205	90	60	265	10	10	100	40	190	150	50
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:	40	205	90	60	265	10	10	100	40	190	150	50
Saturation Flow Module:												
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:	0.12	0.61	0.27	0.18	0.79	0.03	0.06	0.67	0.27	0.49	0.38	0.13
Final Sat.:	66	340	149	98	431	16	31	310	124	270	214	71
Capacity Analysis Module:												
Vol/Sat:	0.60	0.60	0.60	0.61	0.61	0.61	0.32	0.32	0.32	0.70	0.70	0.70
Crit Moves:		****		****				****			****	
Delay/Veh:	16.7	16.7	16.7	17.4	17.4	17.4	12.0	12.0	12.0	20.8	20.8	20.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.7	16.7	16.7	17.4	17.4	17.4	12.0	12.0	12.0	20.8	20.8	20.8
LOS by Move:	C	C	C	C	C	C	B	B	B	C	C	C
ApproachDel:		16.7			17.4			12.0			20.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.7			17.4			12.0			20.8	
LOS by Appr:		C			C			B			C	
AllWayAvgQ:	1.2	1.2	1.2	1.2	1.2	1.2	0.3	0.3	0.3	1.8	1.8	1.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #23 Palm Av & Santa Barbara St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.795
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.0
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	305	90	40	195	20	30	110	40	140	170	100
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:	50	305	90	40	195	20	30	110	40	140	170	100
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:	50	305	90	40	195	20	30	110	40	140	170	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	305	90	40	195	20	30	110	40	140	170	100
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:	50	305	90	40	195	20	30	110	40	140	170	100
Saturation Flow Module:												
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	0.69	0.20	0.16	0.76	0.08	0.17	0.61	0.22	0.34	0.42	0.24
Final Sat.:	63	383	113	76	373	38	74	273	99	185	225	132
Capacity Analysis Module:												
Vol/Sat:	0.80	0.80	0.80	0.52	0.52	0.52	0.40	0.40	0.40	0.76	0.76	0.76
Crit Moves:		****		****			****				****	
Delay/Veh:	27.0	27.0	27.0	15.6	15.6	15.6	13.5	13.5	13.5	24.3	24.3	24.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.0	27.0	27.0	15.6	15.6	15.6	13.5	13.5	13.5	24.3	24.3	24.3
LOS by Move:	D	D	D	C	C	C	B	B	B	C	C	C
ApproachDel:		27.0			15.6			13.5			24.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		27.0			15.6			13.5			24.3	
LOS by Appr:		D			C			B			C	
AllWayAvgQ:	2.8	2.8	2.8	0.8	0.8	0.8	0.4	0.4	0.4	2.2	2.2	2.2

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND MAIN ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.166
	TH	1.00	385	1,600	0.303 *	N-S(2):	0.341 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.297 *
Westbound	RT	0.00	20	0	0.000	E-W(2):	0.197
	TH	1.00	215	1,600	0.147		
	LT	1.00	100	1,600	0.063 *	V/C:	0.638
Northbound	RT	1.00	150	1,600	0.031	Lost Time:	0.000
	TH	1.00	235	1,600	0.147		
	LT	1.00	60	1,600	0.038 *		
Eastbound	RT	1.00	130	1,600	0.044	ICU:	0.638
	TH	1.00	375	1,600	0.234 *		
	LT	1.00	80	1,600	0.050	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.222
	TH	1.00	275	1,600	0.234 *	N-S(2):	0.303 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.266 *
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.188
	TH	1.00	180	1,600	0.138		
	LT	1.00	60	1,600	0.038 *	V/C:	0.569
Northbound	RT	1.00	220	1,600	0.100	Lost Time:	0.000
	TH	1.00	325	1,600	0.203		
	LT	1.00	110	1,600	0.069 *		
Eastbound	RT	1.00	100	1,600	0.000	ICU:	0.569
	TH	1.00	365	1,600	0.228 *		
	LT	1.00	80	1,600	0.050	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.266
	TH	1.00	405	1,600	0.334 *	N-S(2):	0.390 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.255 *
Westbound	RT	0.00	90	0	0.000	E-W(2):	0.234
	TH	2.00	480	3,200	0.178		
	LT	1.00	150	1,600	0.094 *	V/C:	0.645
Northbound	RT	0.00	100	0	0.000	Lost Time:	0.000
	TH	1.00	245	1,600	0.216		
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	130	0	0.000	ICU:	0.645
	TH	2.00	385	3,200	0.161 *		
	LT	1.00	90	1,600	0.056	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	90	0	0.000	N-S(1):	0.372 *
	TH	1.00	255	1,600	0.216	N-S(2):	0.335
	LT	1.00	80	1,600	0.050 *	E-W(1):	0.385 *
Westbound	RT	0.00	110	0	0.000	E-W(2):	0.341
	TH	2.00	680	3,200	0.247		
	LT	1.00	190	1,600	0.119 *	V/C:	0.757
Northbound	RT	0.00	170	0	0.000	Lost Time:	0.000
	TH	1.00	345	1,600	0.322 *		
	LT	1.00	190	1,600	0.119		
Eastbound	RT	0.00	160	0	0.000	ICU:	0.757
	TH	2.00	690	3,200	0.266 *		
	LT	1.00	150	1,600	0.094	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND WB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	470	0	0.000	N-S(1):	0.203
	TH	1.00	245	1,600	0.447 *	N-S(2):	0.460 *
	LT	0.00	0	0	0.000	E-W(1):	0.013
Westbound	RT	1.00	110	1,600	0.069 *	E-W(2):	0.069 *
	TH	0.00	0	0	0.000		
	LT	1.00	20	1,600	0.013	V/C:	0.529
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	305	1,600	0.203		
	LT	0.00	20	1,600	0.013 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.529
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	280	0	0.000	N-S(1):	0.347
	TH	1.00	295	1,600	0.359 *	N-S(2):	0.384 *
	LT	0.00	0	0	0.000	E-W(1):	0.019
Westbound	RT	1.00	150	1,600	0.094 *	E-W(2):	0.094 *
	TH	0.00	0	0	0.000		
	LT	1.00	30	1,600	0.019	V/C:	0.478
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	515	1,600	0.347		
	LT	0.00	40	1,600	0.025 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.478
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND EB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.172 *
	TH	1.00	85	1,600	0.147	N-S(2):	0.147
	LT	0.00	150	1,600	0.094 *	E-W(1):	0.019
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.138 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.310
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	115	1,600	0.078 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	30	1,600	0.019	ICU:	0.310
	TH	0.00	0	0	0.000		
	LT	1.00	220	1,600	0.138 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.197 *
	TH	1.00	105	1,600	0.178	N-S(2):	0.178
	LT	0.00	180	1,600	0.113 *	E-W(1):	0.100
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.306 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.503
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	105	1,600	0.084 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	160	1,600	0.100	ICU:	0.503
	TH	0.00	0	0	0.000		
	LT	1.00	490	1,600	0.306 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.922
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.7
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
Saturation Flow Module:												
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:	0.20	0.10	0.70	0.43	0.43	0.14	0.03	0.81	0.16	0.16	0.80	0.04
Final Sat.:	110	55	386	219	219	73	18	552	107	119	575	33
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.14	0.14	0.14	0.56	0.56	0.56	0.92	0.92	0.92
Crit Moves:			****	****				****				****
Delay/Veh:	10.3	10.3	10.3	10.5	10.5	10.5	14.2	14.2	14.2	38.0	38.0	38.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	10.5	10.5	10.5	14.2	14.2	14.2	38.0	38.0	38.0
LOS by Move:	B	B	B	B	B	B	B	B	B	E	E	E
ApproachDel:	10.3			10.5			14.2			38.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.3			10.5			14.2			38.0		
LOS by Appr:	B			B			B			E		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	1.1	1.1	1.1	6.1	6.1	6.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.8
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
Saturation Flow Module:												
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:	0.23	0.19	0.58	0.50	0.33	0.17	0.02	0.91	0.07	0.24	0.66	0.10
Final Sat.:	125	104	313	220	147	73	11	587	45	147	397	59
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	0.48	0.14	0.14	0.14	0.89	0.89	0.89	0.68	0.68	0.68
Crit Moves:		****				****		****		****		
Delay/Veh:	14.2	14.2	14.2	11.0	11.0	11.0	35.1	35.1	35.1	19.2	19.2	19.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.2	14.2	14.2	11.0	11.0	11.0	35.1	35.1	35.1	19.2	19.2	19.2
LOS by Move:	B	B	B	B	B	B	E	E	E	C	C	C
ApproachDel:		14.2			11.0			35.1			19.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.2			11.0			35.1			19.2	
LOS by Appr:		B			B			E			C	
AllWayAvgQ:	0.7	0.7	0.7	0.1	0.1	0.1	4.8	4.8	4.8	1.8	1.8	1.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.607
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.7
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	60	70	110	110	120	70	40	265	60	70	315	30
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:	60	70	110	110	120	70	40	265	60	70	315	30
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:	60	70	110	110	120	70	40	265	60	70	315	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	70	110	110	120	70	40	265	60	70	315	30
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:	60	70	110	110	120	70	40	265	60	70	315	30
Saturation Flow Module:												
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:	0.46	0.54	1.00	0.37	0.40	0.23	0.22	1.45	0.33	0.34	1.52	0.14
Final Sat.:	208	243	511	181	198	115	107	724	168	166	763	74
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.22	0.61	0.61	0.61	0.37	0.37	0.36	0.42	0.41	0.41
Crit Moves:		****			****		****			****		
Delay/Veh:	13.0	13.0	10.9	19.5	19.5	19.5	13.7	13.3	12.9	14.5	14.1	13.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	13.0	10.9	19.5	19.5	19.5	13.7	13.3	12.9	14.5	14.1	13.8
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:		12.0			19.5			13.3			14.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		12.0			19.5			13.3			14.1	
LOS by Appr:		B			C			B			B	
AllWayAvgQ:	0.3	0.3	0.2	1.3	1.3	1.3	0.5	0.5	0.5	0.7	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.593
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.5
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	70	170	90	40	80	100	100	405	80	60	210	80
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:	70	170	90	40	80	100	100	405	80	60	210	80
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:	70	170	90	40	80	100	100	405	80	60	210	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	170	90	40	80	100	100	405	80	60	210	80
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:	70	170	90	40	80	100	100	405	80	60	210	80
Saturation Flow Module:												
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:	0.29	0.71	1.00	0.18	0.36	0.46	0.34	1.39	0.27	0.34	1.20	0.46
Final Sat.:	132	321	505	84	167	209	169	702	142	158	570	225
Capacity Analysis Module:												
Vol/Sat:	0.53	0.53	0.18	0.48	0.48	0.48	0.59	0.58	0.56	0.38	0.37	0.36
Crit Moves:		****			****		****			****		
Delay/Veh:	18.0	18.0	10.9	16.5	16.5	16.5	19.3	18.4	17.5	14.4	13.9	13.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.0	18.0	10.9	16.5	16.5	16.5	19.3	18.4	17.5	14.4	13.9	13.3
LOS by Move:	C	C	B	C	C	C	C	C	C	B	B	B
ApproachDel:		16.0			16.5			18.4			13.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.0			16.5			18.4			13.9	
LOS by Appr:		C			C			C			B	
AllWayAvgQ:	1.0	1.0	0.2	0.8	0.8	0.8	1.3	1.2	1.2	0.5	0.5	0.5

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: STECKEL DR AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.181
	TH	1.00	40	1,600	0.156 *	N-S(2):	0.187 *
	LT	0.00	130	1,600	0.081	E-W(1):	0.161
Westbound	RT	0.00	220	0	0.000	E-W(2):	0.266 *
	TH	2.00	430	3,200	0.203 *		
	LT	1.00	30	1,600	0.019	V/C:	0.453
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	1.00	60	1,600	0.100		
	LT	0.00	50	1,600	0.031 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.453
	TH	2.00	435	3,200	0.142		
	LT	1.00	100	1,600	0.063 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	50	0	0.000	N-S(1):	0.144
	TH	1.00	30	1,600	0.131 *	N-S(2):	0.150 *
	LT	0.00	130	1,600	0.081	E-W(1):	0.327 *
Westbound	RT	0.00	150	0	0.000	E-W(2):	0.327 *
	TH	2.00	655	3,200	0.252 *		
	LT	1.00	80	1,600	0.050 *	V/C:	0.477
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	1.00	30	1,600	0.063		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.477
	TH	2.00	845	3,200	0.277 *		
	LT	1.00	120	1,600	0.075 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Peck Rd & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.5
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0	0 1
Volume Module:												
Base Vol:	20	40	100	140	140	20	10	40	10	280	140	100
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:	20	40	100	140	140	20	10	40	10	280	140	100
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:	20	40	100	140	140	20	10	40	10	280	140	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	40	100	140	140	20	10	40	10	280	140	100
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:	20	40	100	140	140	20	10	40	10	280	140	100
Saturation Flow Module:												
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:	0.12	0.25	0.63	0.47	0.47	0.06	0.17	0.66	0.17	0.67	0.33	1.00
Final Sat.:	74	148	371	278	278	40	89	357	89	381	191	683
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.50	0.50	0.50	0.11	0.11	0.11	0.73	0.73	0.15
Crit Moves:		****			****		****			****		
Delay/Veh:	10.5	10.5	10.5	14.0	14.0	14.0	9.7	9.7	9.7	23.3	23.3	8.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	10.5	14.0	14.0	14.0	9.7	9.7	9.7	23.3	23.3	8.7
LOS by Move:	B	B	B	B	B	B	A	A	A	C	C	A
ApproachDel:		10.5			14.0			9.7			20.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.5			14.0			9.7			20.5	
LOS by Appr:		B			B			A			C	
AllWayAvgQ:	0.3	0.3	0.3	0.9	0.9	0.9	0.1	0.1	0.1	2.3	2.3	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Peck Rd & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0	0 1
Volume Module:												
Base Vol:	10	130	90	100	80	10	10	170	10	100	40	120
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	130	90	100	80	10	10	170	10	100	40	120
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	130	90	100	80	10	10	170	10	100	40	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	130	90	100	80	10	10	170	10	100	40	120
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	130	90	100	80	10	10	170	10	100	40	120
Saturation Flow Module:												
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:	0.04	0.57	0.39	0.53	0.42	0.05	0.05	0.90	0.05	0.71	0.29	1.00
Final Sat.:	29	373	258	325	260	32	33	554	33	396	158	662
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.35	0.31	0.31	0.31	0.31	0.31	0.31	0.25	0.25	0.18
Crit Moves:		****			****			****			****	
Delay/Veh:	10.6	10.6	10.6	10.7	10.7	10.7	10.6	10.6	10.6	10.8	10.8	8.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	10.6	10.6	10.7	10.7	10.7	10.6	10.6	10.6	10.8	10.8	8.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	A
ApproachDel:		10.6			10.7			10.6			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.6			10.7			10.6			9.9	
LOS by Appr:		B			B			B			A	
AllWayAvgQ:	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND HARVARD BL (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	115	0	0.000	N-S(1):	0.169
	TH	1.00	305	1,600	0.263 *	N-S(2):	0.294 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.197 *
Westbound	RT	1.00	120	1,600	0.000	E-W(2):	0.190
	TH	1.00	175	1,600	0.109		
	LT	1.00	190	1,600	0.119 *	V/C:	0.491
Northbound	RT	1.00	140	1,600	0.000	Lost Time:	0.000
	TH	1.00	150	1,600	0.094		
	LT	1.00	50	1,600	0.031 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.491
	TH	2.00	200	3,200	0.078 *		
	LT	1.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.335 *
	TH	1.00	115	1,600	0.116	N-S(2):	0.154
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.308
Westbound	RT	1.00	80	1,600	0.013	E-W(2):	0.413 *
	TH	1.00	350	1,600	0.219 *		
	LT	1.00	240	1,600	0.150	V/C:	0.748
Northbound	RT	1.00	450	1,600	0.131	Lost Time:	0.000
	TH	1.00	475	1,600	0.297 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	70	0	0.000	ICU:	0.748
	TH	2.00	435	3,200	0.158		
	LT	1.00	310	1,600	0.194 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND MAIN ST (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.025 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	40	1,600	0.025 *	E-W(1):	0.181 *
Westbound	RT	1.00	90	1,600	0.031	E-W(2):	0.031
	TH	0.00	0	0	0.000		
	LT	1.00	290	1,600	0.181 *	V/C:	0.206
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.206
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.019 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	30	1,600	0.019 *	E-W(1):	0.091 *
Westbound	RT	1.00	30	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	145	1,600	0.091 *	V/C:	0.110
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.110
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND FAULKNER RD
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	610	1,600	0.313 *	N-S(1):	0.156
	TH	1.00	120	1,600	0.075	N-S(2):	0.376 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.069 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.445
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	250	1,600	0.156		
	LT	1.00	100	1,600	0.063 *		
Eastbound	RT	1.00	35	1,600	0.000	ICU:	0.445
	TH	0.00	0	0	0.000		
	LT	1.00	110	1,600	0.069 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	390	1,600	0.050	N-S(1):	0.422 *
	TH	1.00	135	1,600	0.084	N-S(2):	0.159
	LT	0.00	0	0	0.000 *	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.194 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.616
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	675	1,600	0.422 *		
	LT	1.00	120	1,600	0.075		
Eastbound	RT	1.00	115	1,600	0.000	ICU:	0.616
	TH	0.00	0	0	0.000		
	LT	1.00	310	1,600	0.194 *	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.343
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.6
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	10	50	10	50	50	75	210	30	30	10	10	80
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	50	10	50	50	75	210	30	30	10	10	80
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	50	10	50	50	75	210	30	30	10	10	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	50	10	50	50	75	210	30	30	10	10	80
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	50	10	50	50	75	210	30	30	10	10	80
Saturation Flow Module:												
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:	0.14	0.72	0.14	0.28	0.29	0.43	1.00	0.78	0.22	0.20	0.80	1.00
Final Sat.:	92	458	92	197	197	296	611	535	153	123	492	713
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.11	0.25	0.25	0.25	0.34	0.06	0.20	0.08	0.02	0.11
Crit Moves:	****			****			****					****
Delay/Veh:	8.8	8.8	8.8	9.5	9.5	9.5	11.3	9.0	9.0	8.8	8.8	8.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.8	8.8	8.8	9.5	9.5	9.5	11.3	9.0	9.0	8.8	8.8	8.1
LOS by Move:	A	A	A	A	A	A	B	A	A	A	A	A
ApproachDel:	8.8			9.5			10.4			8.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.8			9.5			10.4			8.3		
LOS by Appr:	A			A			B			A		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	0.5	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.170
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	58.1
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	10	65	10	100	35	125	670	80	20	10	10	100
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	65	10	100	35	125	670	80	20	10	10	100
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	65	10	100	35	125	670	80	20	10	10	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	65	10	100	35	125	670	80	20	10	10	100
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	65	10	100	35	125	670	80	20	10	10	100
Saturation Flow Module:												
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:	0.12	0.76	0.12	0.38	0.13	0.49	1.00	0.95	0.05	0.17	0.83	1.00
Final Sat.:	62	401	62	226	79	282	573	592	32	84	420	566
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.44	0.44	0.44	1.17	0.14	0.62	0.12	0.02	0.18
Crit Moves:		****			****		****					****
Delay/Veh:	10.8	10.8	10.8	13.7	13.7	13.7	116.3	17.2	17.2	10.5	10.5	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	10.8	10.8	13.7	13.7	13.7	116.3	17.2	17.2	10.5	10.5	10.1
LOS by Move:	B	B	B	B	B	B	F	C	C	B	B	B
ApproachDel:		10.8			13.7			80.2			10.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.8			13.7			80.2			10.2	
LOS by Appr:		B			B			F			B	
AllWayAvgQ:	0.2	0.2	0.2	0.8	0.8	0.8	17.1	1.5	1.5	0.1	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.2
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.67	0.33	1.00	1.00	0.56	0.44	1.00	1.33	0.67	1.00	1.57	0.43
Final Sat.:	337	168	591	475	296	237	479	696	366	604	1042	294
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.17	0.05	0.03	0.04	0.02	0.06	0.05	0.93	0.11	0.10
Crit Moves:			****	****				****		****		
Delay/Veh:	10.8	10.8	9.7	10.4	9.5	9.5	10.1	9.7	9.3	44.3	8.7	8.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	10.8	9.7	10.4	9.5	9.5	10.1	9.7	9.3	44.3	8.7	8.4
LOS by Move:	B	B	A	B	A	A	B	A	A	E	A	A
ApproachDel:	10.2			10.0			9.7			37.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.2			10.0			9.7			37.2		
LOS by Appr:	B			A			A			E		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	6.0	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.48	0.52	1.00	1.00	0.84	0.16	1.00	1.44	0.56	1.00	1.00	1.00
Final Sat.:	225	247	538	440	398	76	435	683	276	491	520	578
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.32	0.22	0.05	0.13	0.02	0.26	0.25	0.67	0.19	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	11.9	11.9	11.7	12.4	10.8	10.8	10.7	12.3	11.8	22.7	10.9	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.9	11.9	11.7	12.4	10.8	10.8	10.7	12.3	11.8	22.7	10.9	10.2
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
ApproachDel:	11.8			11.7			12.1			17.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.8			11.7			12.1			17.8		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.3	0.3	1.8	0.2	0.2

Note: Queue reported is the number of cars per lane.

CUMULATIVE BASE PLUS PROJECT PLUS MITIGATION (2020)

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **HALLOCK DR AND SR 126 / VENTURA ST**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS W/MITS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	450	3,200	0.087	N-S(1):	0.239 *
	TH	1.00	190	1,600	0.119	N-S(2):	0.163
	LT	2.00	460	2,560	0.180 *	E-W(1):	0.221
Westbound	RT	1.00	645	1,600	0.259	E-W(2):	0.448 *
	TH	3.00	1,500	4,800	0.313 *		
	LT	1.00	110	1,600	0.069	V/C:	0.687
Northbound	RT	1.00	60	1,600	0.000	Lost Time:	0.000
	TH	1.00	95	1,600	0.059 *		
	LT	1.00	70	1,600	0.044		
Eastbound	RT	1.00	210	1,600	0.088	ICU:	0.687
	TH	3.00	730	4,800	0.152		
	LT	2.00	345	2,560	0.135 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	445	3,200	0.057	N-S(1):	0.323 *
	TH	1.00	125	1,600	0.078	N-S(2):	0.253
	LT	2.00	500	2,560	0.195 *	E-W(1):	0.413
Westbound	RT	1.00	530	1,600	0.175	E-W(2):	0.427 *
	TH	3.00	1,065	4,800	0.222 *		
	LT	1.00	60	1,600	0.038	V/C:	0.750
Northbound	RT	1.00	130	1,600	0.044	Lost Time:	0.000
	TH	1.00	205	1,600	0.128 *		
	LT	1.00	280	1,600	0.175		
Eastbound	RT	1.00	190	1,600	0.000	ICU:	0.750
	TH	3.00	1,800	4,800	0.375		
	LT	2.00	525	2,560	0.205 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR AND TELEGRAPH RD
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	175	1,600	0.000	N-S(1):	0.226
	TH	2.00	820	3,200	0.256 *	N-S(2):	0.500 *
	LT	1.00	10	1,600	0.006	E-W(1):	0.094
Westbound	RT	0.00	5	0	0.000	E-W(2):	0.178 *
	TH	1.00	30	1,600	0.022 *		
	LT	1.00	50	1,600	0.031	V/C:	0.678
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	2.00	665	3,200	0.220		
	LT	1.00	390	1,600	0.244 *		
Eastbound	RT	1.00	250	1,600	0.000	ICU:	0.678
	TH	1.00	100	1,600	0.063		
	LT	1.00	250	1,600	0.156 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	200	1,600	0.000	N-S(1):	0.311
	TH	2.00	775	3,200	0.242 *	N-S(2):	0.426 *
	LT	1.00	5	1,600	0.003	E-W(1):	0.069
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.190 *
	TH	1.00	80	1,600	0.056 *		
	LT	1.00	50	1,600	0.031	V/C:	0.616
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	2.00	935	3,200	0.308		
	LT	1.00	295	1,600	0.184 *		
Eastbound	RT	1.00	265	1,600	0.000	ICU:	0.616
	TH	1.00	60	1,600	0.038		
	LT	1.00	215	1,600	0.134 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST & SANTA PAULA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.303
	TH	1.00	285	1,600	0.406 *	N-S(2):	0.444 *
	LT	0.00	335	1,600	0.209	E-W(1):	0.344 *
Westbound	RT	0.00	150	0	0.000	E-W(2):	0.265
	TH	1.00	265	1,600	0.259		
	LT	1.00	210	1,600	0.131 *	V/C:	0.788
Northbound	RT	1.00	90	1,600	0.000	Lost Time:	0.000
	TH	1.00	90	1,600	0.094		
	LT	0.00	60	1,600	0.038 *		
Eastbound	RT	1.00	40	1,600	0.000	ICU:	0.788
	TH	1.00	340	1,600	0.213 *		
	LT	1.00	10	1,600	0.006	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.413 *
	TH	1.00	215	1,600	0.322	N-S(2):	0.353
	LT	0.00	270	1,600	0.169 *	E-W(1):	0.315
Westbound	RT	0.00	290	0	0.000	E-W(2):	0.360 *
	TH	1.00	265	1,600	0.347 *		
	LT	1.00	175	1,600	0.109	V/C:	0.773
Northbound	RT	1.00	220	1,600	0.028	Lost Time:	0.000
	TH	1.00	340	1,600	0.244 *		
	LT	0.00	50	1,600	0.031		
Eastbound	RT	1.00	30	1,600	0.000	ICU:	0.773
	TH	1.00	330	1,600	0.206		
	LT	1.00	20	1,600	0.013 *	LOS:	C

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[11.6]

Street Name:	Ojai Rd								Richmond Rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	460		50		20	1005		0		0		0		0	0		0		40
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	460		50		20	1005		0		0		0		0	0		0		40
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	460		50		20	1005		0		0		0		0	0		0		40
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	460		50		20	1005		0		0		0		0	0		0		40
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		510	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		485
Potent Cap.:	xxxx	xxxx		xxxxx		1065	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		586
Move Cap.:	xxxx	xxxx		xxxxx		1065	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		586
Volume/Cap:	xxxx	xxxx		xxxx		0.02	xxxx		xxxx		xxxx		xxxx		xxxx	xxxx		xxxx		0.07
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		0.2
Control Del:	xxxxx	xxxx		xxxxx		8.4	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		11.6
LOS by Move:	*	*		*		A	*		*		*		*		*	*		*		B
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		8.4	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*	*		*		A	*		*		*		*		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.6				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.3]

Street Name:	Ojai Rd								Richmond Rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	825		80		30	625		0		0		0		0	0		0		40
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	825		80		30	625		0		0		0		0	0		0		40
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	825		80		30	625		0		0		0		0	0		0		40
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	825		80		30	625		0		0		0		0	0		0		40
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		905	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		453
Potent Cap.:	xxxx	xxxx		xxxxx		760	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		611
Move Cap.:	xxxx	xxxx		xxxxx		760	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		611
Volume/Cap:	xxxx	xxxx		xxxx		0.04	xxxx		xxxx		xxxx		xxxx		xxxx	xxxx		xxxx		0.07
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		0.2
Control Del:	xxxxx	xxxx		xxxxx		9.9	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		11.3
LOS by Move:	*	*		*		A	*		*		*		*		*	*		*		B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		9.9	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*	*		*		A	*		*		*		*		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.3				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI ST & ORCHARD ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.313 *
	TH	2.00	925	3,200	0.289	N-S(2):	0.289
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.094 *
Westbound	RT	0.13	20	213	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.87	130	1,387	0.094 *	V/C:	0.407
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	450	1,600	0.300 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.407
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.220
	TH	1.00	615	1,600	0.384 *	N-S(2):	0.384 *
	LT	1.00	10	1,600	0.006	E-W(1):	0.238 *
Westbound	RT	0.68	260	1,095	0.228	E-W(2):	0.228
	TH	0.00	0	0	0.000		
	LT	0.32	120	505	0.238 *	V/C:	0.622
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	2.00	625	3,200	0.214		
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.622
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #11 Ojai Rd & Saticoy St

****

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[10.7]

****

Street Name:	Ojai Rd									Saticoy St								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	435		60		445	830		0		0		0		0	0		0		125
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	435		60		445	830		0		0		0		0	0		0		125
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	435		60		445	830		0		0		0		0	0		0		125
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	435		60		445	830		0		0		0		0	0		0		125
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		xxxx		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		xxxx		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		495	xxxx		xxxxx		xxxx		xxxx		xxxxx	2185		xxxx		248
Potent Cap.:	xxxx	xxxx		xxxxx		1079	xxxx		xxxxx		xxxx		xxxx		xxxxx	51		xxxx		796
Move Cap.:	xxxx	xxxx		xxxxx		1079	xxxx		xxxxx		xxxx		xxxx		xxxxx	35		xxxx		796
Volume/Cap:	xxxx	xxxx		xxxx		0.41	xxxx		xxxx		xxxx		xxxx		xxxx	0.00		xxxx		0.16
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		2.1	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		0.6
Control Del:	xxxxx	xxxx		xxxxx		10.7	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		10.4
LOS by Move:	*	*		*		B	*		*		*		*		*	*		*		B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*	*		*		*	*		*		*		*		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					10.4				
ApproachLOS:	*					*					*					B				

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #11 Ojai Rd & Saticoy St

****

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: B[10.7]

****

Street Name:	Ojai Rd									Saticoy St								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	550		100		310	520		0		0		0		0	0		0		30
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	550		100		310	520		0		0		0		0	0		0		30
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	550		100		310	520		0		0		0		0	0		0		30
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	550		100		310	520		0		0		0		0	0		0		30
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		xxxx		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		xxxx		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		650	xxxx		xxxxx		xxxx		xxxx		xxxxx	1740		xxxx		325
Potent Cap.:	xxxx	xxxx		xxxxx		946	xxxx		xxxxx		xxxx		xxxx		xxxxx	97		xxxx		721
Move Cap.:	xxxx	xxxx		xxxxx		946	xxxx		xxxxx		xxxx		xxxx		xxxxx	72		xxxx		721
Volume/Cap:	xxxx	xxxx		xxxx		0.33	xxxx		xxxx		xxxx		xxxx		xxxx	0.00		xxxx		0.04
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		1.4	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		0.1
Control Del:	xxxxx	xxxx		xxxxx		10.7	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		10.2
LOS by Move:	*	*		*		B	*		*		*		*		*	*		*		B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*	*		*		*	*		*		*		*		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					10.2				
ApproachLOS:	*					*					*					B				

****

Note: Queue reported is the number of cars per lane.

****

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD AND SANTA PAULA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	120	0	0.000	N-S(1):	0.520 *
	TH	2.00	730	3,200	0.266	N-S(2):	0.316
	LT	1.00	418	1,600	0.261 *	E-W(1):	0.272 *
Westbound	RT	1.00	143	1,600	0.000	E-W(2):	0.226
	TH	1.00	340	1,600	0.213		
	LT	1.00	30	1,600	0.019 *	V/C:	0.792
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	395	1,600	0.259 *		
	LT	1.00	80	1,600	0.050		
Eastbound	RT	1.00	50	1,600	0.000	ICU:	0.792
	TH	1.00	405	1,600	0.253 *		
	LT	1.00	20	1,600	0.013	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	160	1,600	0.094	N-S(1):	0.396 *
	TH	1.00	395	1,600	0.247	N-S(2):	0.313
	LT	1.00	274	1,600	0.171 *	E-W(1):	0.272 *
Westbound	RT	1.00	392	1,600	0.074	E-W(2):	0.219
	TH	1.00	340	1,600	0.213		
	LT	1.00	20	1,600	0.013 *	V/C:	0.668
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	2.00	710	3,200	0.225 *		
	LT	1.00	105	1,600	0.066		
Eastbound	RT	1.00	50	1,600	0.000	ICU:	0.668
	TH	1.00	415	1,600	0.259 *		
	LT	1.00	10	1,600	0.006	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	170	0	0.000	N-S(1):	0.216
	TH	2.00	585	3,200	0.236 *	N-S(2):	0.261 *
	LT	1.00	30	1,600	0.019	E-W(1):	0.459 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.301
	TH	1.00	350	1,600	0.238		
	LT	1.00	200	1,600	0.125 *	V/C:	0.720
Northbound	RT	1.00	110	1,600	0.000	Lost Time:	0.000
	TH	1.00	315	1,600	0.197		
	LT	1.00	40	1,600	0.025 *		
Eastbound	RT	0.00	120	0	0.000	ICU:	0.720
	TH	1.00	415	1,600	0.334 *		
	LT	1.00	100	1,600	0.063	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.338 *
	TH	2.00	405	3,200	0.186	N-S(2):	0.236
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.404
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.416 *
	TH	1.00	475	1,600	0.322 *		
	LT	1.00	140	1,600	0.088	V/C:	0.754
Northbound	RT	1.00	200	1,600	0.038	Lost Time:	0.000
	TH	1.00	520	1,600	0.325 *		
	LT	1.00	80	1,600	0.050		
Eastbound	RT	0.00	110	0	0.000	ICU:	0.754
	TH	1.00	395	1,600	0.316		
	LT	1.00	150	1,600	0.094 *	LOS:	C

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.9
Optimal Cycle:	0	Level Of Service:	C

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
Saturation Flow Module:												
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:	0.31	0.69	1.00	0.11	0.74	0.15	0.05	0.84	0.11	0.40	0.53	0.07
Final Sat.:	132	291	470	49	330	66	26	422	53	204	270	36
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.41	0.61	0.61	0.61	0.76	0.76	0.76	0.83	0.83	0.83
Crit Moves:			****		****			****			****	
Delay/Veh:	14.8	14.8	14.0	19.2	19.2	19.2	26.1	26.1	26.1	32.9	32.9	32.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.8	14.8	14.0	19.2	19.2	19.2	26.1	26.1	26.1	32.9	32.9	32.9
LOS by Move:	B	B	B	C	C	C	D	D	D	D	D	D
ApproachDel:	14.3			19.2			26.1			32.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.3			19.2			26.1			32.9		
LOS by Appr:	B			C			D			D		
AllWayAvgQ:	0.5	0.5	0.6	1.1	1.1	1.1	2.3	2.3	2.3	3.3	3.3	3.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.771
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.6
Optimal Cycle:	0	Level Of Service:	C

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	10
Saturation Flow Module:												
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:	0.19	0.81	1.00	0.08	0.67	0.25	0.11	0.76	0.13	0.41	0.57	0.02
Final Sat.:	92	388	538	36	286	107	60	417	74	227	318	13
Capacity Analysis Module:												
Vol/Sat:	0.54	0.54	0.32	0.28	0.28	0.28	0.67	0.67	0.67	0.77	0.77	0.77
Crit Moves:		****		****				****		****		
Delay/Veh:	17.2	17.2	11.7	12.4	12.4	12.4	20.1	20.1	20.1	25.9	25.9	25.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.2	17.2	11.7	12.4	12.4	12.4	20.1	20.1	20.1	25.9	25.9	25.9
LOS by Move:	C	C	B	B	B	B	C	C	C	D	D	D
ApproachDel:		15.1			12.4			20.1			25.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.1			12.4			20.1			25.9	
LOS by Appr:		C			B			C			D	
AllWayAvgQ:	1.0	1.0	0.4	0.3	0.3	0.3	1.6	1.6	1.6	2.6	2.6	2.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.884
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.4
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
Saturation Flow Module:												
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:	0.57	0.43	1.00	0.23	0.62	0.15	0.06	0.73	0.21	1.00	0.87	0.13
Final Sat.:	254	191	506	99	264	66	34	402	113	488	461	71
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.29	0.30	0.30	0.30	0.88	0.88	0.88	0.34	0.56	0.56
Crit Moves:	****				****				****		****	
Delay/Veh:	13.6	13.6	11.9	13.8	13.8	13.8	39.6	39.6	39.6	13.4	17.0	17.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.6	13.6	11.9	13.8	13.8	13.8	39.6	39.6	39.6	13.4	17.0	17.0
LOS by Move:	B	B	B	B	B	B	E	E	E	B	C	C
ApproachDel:	12.7			13.8			39.6			15.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			13.8			39.6			15.7		
LOS by Appr:	B			B			E			C		
AllWayAvgQ:	0.4	0.4	0.3	0.4	0.4	0.4	4.6	4.6	4.6	0.5	1.1	1.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.640
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Palm Av									Santa Paula St								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign					
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	0	1!	0	0	0	0	1!	0	0	1	0	0	1	0
Volume Module:																				
Base Vol:	140		60		165	30		60		20	10		270		70	125		230		20
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:	140		60		165	30		60		20	10		270		70	125		230		20
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:	140		60		165	30		60		20	10		270		70	125		230		20
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	140		60		165	30		60		20	10		270		70	125		230		20
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:	140		60		165	30		60		20	10		270		70	125		230		20
Saturation Flow Module:																				
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:	0.70	0.30		1.00		0.27	0.55		0.18		0.03	0.77		0.20		1.00	0.92		0.08	
Final Sat.:	339		145		563	123		246		82	16		422		109	497		496		43
Capacity Analysis Module:																				
Vol/Sat:	0.41	0.41		0.29		0.24	0.24		0.24		0.64	0.64		0.64		0.25	0.46		0.46	
Crit Moves:	****						****					****					****			
Delay/Veh:	14.4	14.4		11.1		12.3	12.3		12.3		19.4	19.4		19.4		11.9	14.3		14.3	
Delay Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
AdjDel/Veh:	14.4	14.4		11.1		12.3	12.3		12.3		19.4	19.4		19.4		11.9	14.3		14.3	
LOS by Move:	B		B		B	B		B		B	C		C		C	B		B		B
ApproachDel:	12.9					12.3					19.4					13.5				
Delay Adj:	1.00					1.00					1.00					1.00				
ApprAdjDel:	12.9					12.3					19.4					13.5				
LOS by Appr:	B					B					C					B				
AllWayAvgQ:	0.6	0.6		0.4		0.3	0.3		0.3		1.5	1.5		1.5		0.3	0.8		0.8	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.838
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.1
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
Saturation Flow Module:												
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:	0.20	0.10	0.70	0.43	0.43	0.14	0.03	0.81	0.16	1.00	0.95	0.05
Final Sat.:	110	55	385	218	218	73	18	552	107	607	632	36
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.14	0.14	0.14	0.56	0.56	0.56	0.18	0.84	0.84
Crit Moves:	****			****				****				****
Delay/Veh:	10.2	10.2	10.2	10.3	10.3	10.3	14.4	14.4	14.4	9.9	28.9	28.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.2	10.2	10.2	10.3	10.3	10.3	14.4	14.4	14.4	9.9	28.9	28.9
LOS by Move:	B	B	B	B	B	B	B	B	B	A	D	D
ApproachDel:	10.2			10.3			14.4			25.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.2			10.3			14.4			25.8		
LOS by Appr:	B			B			B			D		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	1.2	1.2	1.2	0.2	3.9	3.9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.893
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.9
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
Saturation Flow Module:												
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:	0.23	0.19	0.58	0.50	0.33	0.17	0.02	0.91	0.07	1.00	0.87	0.13
Final Sat.:	127	106	318	229	153	76	11	583	45	518	493	73
Capacity Analysis Module:												
Vol/Sat:	0.47	0.47	0.47	0.13	0.13	0.13	0.89	0.89	0.89	0.19	0.55	0.55
Crit Moves:		****		****				****			****	
Delay/Veh:	14.0	14.0	14.0	11.0	11.0	11.0	36.5	36.5	36.5	11.0	15.6	15.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.0	14.0	14.0	11.0	11.0	11.0	36.5	36.5	36.5	11.0	15.6	15.6
LOS by Move:	B	B	B	B	B	B	E	E	E	B	C	C
ApproachDel:		14.0			11.0			36.5			14.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.0			11.0			36.5			14.5	
LOS by Appr:		B			B			E			B	
AllWayAvgQ:	0.7	0.7	0.7	0.1	0.1	0.1	4.9	4.9	4.9	0.2	1.1	1.1

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND HARVARD BL (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	115	0	0.000	N-S(1):	0.122
	TH	2.00	305	3,200	0.131 *	N-S(2):	0.162 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.197 *
Westbound	RT	1.00	120	1,600	0.000	E-W(2):	0.190
	TH	1.00	175	1,600	0.109		
	LT	1.00	190	1,600	0.119 *	V/C:	0.359
Northbound	RT	1.00	140	1,600	0.000	Lost Time:	0.000
	TH	2.00	150	3,200	0.047		
	LT	1.00	50	1,600	0.031 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.359
	TH	2.00	200	3,200	0.078 *		
	LT	1.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.186 *
	TH	2.00	115	3,200	0.058	N-S(2):	0.096
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.308
Westbound	RT	1.00	80	1,600	0.013	E-W(2):	0.413 *
	TH	1.00	350	1,600	0.219 *		
	LT	1.00	240	1,600	0.150	V/C:	0.599
Northbound	RT	1.00	450	1,600	0.131	Lost Time:	0.000
	TH	2.00	475	3,200	0.148 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	70	0	0.000	ICU:	0.599
	TH	2.00	435	3,200	0.158		
	LT	1.00	310	1,600	0.194 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND MAIN ST (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.025 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	40	1,600	0.025 *	E-W(1):	0.181 *
Westbound	RT	1.00	90	1,600	0.031	E-W(2):	0.031
	TH	0.00	0	0	0.000		
	LT	1.00	290	1,600	0.181 *	V/C:	0.206
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.206
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.019 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	30	1,600	0.019 *	E-W(1):	0.091 *
Westbound	RT	1.00	30	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	145	1,600	0.091 *	V/C:	0.110
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.110
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND SR-126 EB RAMPS
Description: CUMULATIVE BASE + PROJECT + MITIGATIONS CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	75	0	0.000	N-S(1):	0.075
	TH	1.00	50	1,600	0.109 *	N-S(2):	0.115 *
	LT	0.00	50	1,600	0.031	E-W(1):	0.175
Westbound	RT	0.00	80	1,600	0.050 *	E-W(2):	0.181 *
	TH	2.00	10	1,600	0.013		
	LT	0.00	10	1,600	0.006	V/C:	0.296
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	50	1,600	0.044		
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	30	0	0.000	ICU:	0.296
	TH	2.00	30	1,600	0.169		
	LT	0.00	210	1,600	0.131 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	125	0	0.000	N-S(1):	0.116
	TH	1.00	35	1,600	0.163 *	N-S(2):	0.169 *
	LT	0.00	100	1,600	0.063	E-W(1):	0.487 *
Westbound	RT	0.00	100	1,600	0.063	E-W(2):	0.482
	TH	2.00	10	1,600	0.013		
	LT	0.00	10	1,600	0.006 *	V/C:	0.656
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	65	1,600	0.053		
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.656
	TH	2.00	80	1,600	0.481 *		
	LT	0.00	670	1,600	0.419	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.467
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	2 0	0 1	0
Volume Module:												
Base Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.67	0.33	1.00	1.00	0.56	0.44	1.00	1.33	0.67	2.00	0.79	0.21
Final Sat.:	339	170	596	479	298	238	477	695	365	1198	526	143
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.17	0.05	0.03	0.04	0.02	0.06	0.05	0.47	0.21	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	10.5	10.5	9.4	10.1	9.2	9.2	10.0	9.6	9.2	13.6	9.3	9.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	9.4	10.1	9.2	9.2	10.0	9.6	9.2	13.6	9.3	9.3
LOS by Move:	B	B	A	B	A	A	A	A	A	B	A	A
ApproachDel:	9.9			9.7			9.5			12.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			9.7			9.5			12.7		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.3	0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.398
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	2 0	0 1	0
Volume Module:												
Base Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.48	0.52	1.00	1.00	0.84	0.16	1.00	1.44	0.56	2.00	0.45	0.55
Final Sat.:	227	249	546	445	403	77	438	688	278	974	251	302
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.31	0.21	0.05	0.13	0.02	0.26	0.25	0.34	0.40	0.40
Crit Moves:			****	****				****				****
Delay/Veh:	11.8	11.8	11.5	12.2	10.7	10.7	10.6	12.2	11.7	13.3	12.9	12.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.5	12.2	10.7	10.7	10.6	12.2	11.7	13.3	12.9	12.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.6			11.6			12.0			13.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.6			11.6			12.0			13.2		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.3	0.3	0.5	0.6	0.6

Note: Queue reported is the number of cars per lane.

CUMULATIVE BASE PLUS PROJECT PLUS BY-PASS ROUTE (2020)

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **HALLOCK DR AND SR 126 / VENTURA ST**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	450	1,600	0.281	N-S(1):	0.397 *
	TH	2.00	190	1,600	0.119	N-S(2):	0.325
	LT	1.00	480	1,600	0.300 *	E-W(1):	0.291
Westbound	RT	1.00	650	1,600	0.106	E-W(2):	0.683 *
	TH	2.00	1,495	3,200	0.467 *		
	LT	1.00	110	1,600	0.069	V/C:	1.080
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	1.00	95	1,600	0.097 *		
	LT	1.00	70	1,600	0.044		
Eastbound	RT	1.00	210	1,600	0.088	ICU:	1.080
	TH	2.00	710	3,200	0.222		
	LT	1.00	345	1,600	0.216 *	LOS:	F

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	445	1,600	0.278	N-S(1):	0.528 *
	TH	2.00	125	1,600	0.078	N-S(2):	0.453
	LT	1.00	510	1,600	0.319 *	E-W(1):	0.597
Westbound	RT	1.00	550	1,600	0.025	E-W(2):	0.655 *
	TH	2.00	1,045	3,200	0.327 *		
	LT	1.00	60	1,600	0.038	V/C:	1.183
Northbound	RT	0.00	130	0	0.000	Lost Time:	0.000
	TH	1.00	205	1,600	0.209 *		
	LT	1.00	280	1,600	0.175		
Eastbound	RT	1.00	190	1,600	0.000	ICU:	1.183
	TH	2.00	1,790	3,200	0.559		
	LT	1.00	525	1,600	0.328 *	LOS:	F

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Hallock Dr & Telegraph (Future)

Cycle (sec):	100	Critical Vol./Cap.(X):	2.279
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	296.2
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hallock Dr						Telegraph					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	390	670	40	10	840	175	250	100	250	50	30	5
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:	390	670	40	10	840	175	250	100	250	50	30	5
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:	390	670	40	10	840	175	250	100	250	50	30	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	390	670	40	10	840	175	250	100	250	50	30	5
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:	390	670	40	10	840	175	250	100	250	50	30	5
Saturation Flow Module:												
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	0.94	0.06	1.00	0.83	0.17	0.71	0.29	1.00	1.00	0.86	0.14
Final Sat.:	439	443	26	401	369	77	307	123	493	363	331	55
Capacity Analysis Module:												
Vol/Sat:	0.89	1.51	1.51	0.02	2.28	2.28	0.81	0.81	0.51	0.14	0.09	0.09
Crit Moves:		****			****			****		****		
Delay/Veh:	48.1	260	260.4	11.6	601	600.6	38.3	38.3	17.2	14.0	12.7	12.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.1	260	260.4	11.6	601	600.6	38.3	38.3	17.2	14.0	12.7	12.7
LOS by Move:	E	F	F	B	F	F	E	E	C	B	B	B
ApproachDel:	185.2			594.9			29.5			13.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	185.2			594.9			29.5			13.5		
LOS by Appr:	F			F			D			B		
AllWayAvgQ:	4.5	32.6	32.6	0.0	73.0	73.0	3.3	3.3	1.0	0.2	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Hallock Dr & Telegraph (Future)

Cycle (sec):	100	Critical Vol./Cap.(X):	2.180
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	375.5
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Hallock Dr						Telegraph					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 1 0			1 0 0 1 0			0 1 0 0 1			1 0 0 1 0		
Volume Module:												
Base Vol:	295	955	50	5	785	200	215	60	265	50	80	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:	295	955	50	5	785	200	215	60	265	50	80	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:	295	955	50	5	785	200	215	60	265	50	80	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	295	955	50	5	785	200	215	60	265	50	80	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:	295	955	50	5	785	200	215	60	265	50	80	10
Saturation Flow Module:												
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	0.95	0.05	1.00	0.80	0.20	0.78	0.22	1.00	1.00	0.89	0.11
Final Sat.:	436	444	23	409	360	92	329	92	482	370	349	44
Capacity Analysis Module:												
Vol/Sat:	0.68	2.15	2.15	0.01	2.18	2.18	0.65	0.65	0.55	0.14	0.23	0.23
Crit Moves:		****			****			****			****	
Delay/Veh:	26.5	543	543.1	11.4	556	555.9	25.9	25.9	18.8	13.7	14.3	14.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.5	543	543.1	11.4	556	555.9	25.9	25.9	18.8	13.7	14.3	14.3
LOS by Move:	D	F	F	B	F	F	D	D	C	B	B	B
ApproachDel:	425.9			553.2			22.4			14.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	425.9			553.2			22.4			14.1		
LOS by Appr:	F			F			C			B		
AllWayAvgQ:	1.9	69.1	69.1	0.0	68.4	68.4	1.7	1.7	1.2	0.2	0.3	0.3

Note: Queue reported is the number of cars per lane.

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #3 Harvard Bl  / Telegraph Rd & Main St
******************************************************************************
Average Delay (sec/veh):      7.1       Worst Case Level Of Service: C[ 21.3]
******************************************************************************
Street Name:    Harvard Bl  / Telegraph Rd                 Main St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  2  0  0    0  0  1  0  1    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10  325     0     0  195   360   420    0    20     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:   10  325     0     0  195   360   420    0    20     0    0     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:    10  325     0     0  195   360   420    0    20     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   10  325     0     0  195   360   420    0    20     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  555 xxxx xxxxx  xxxx xxxx xxxxx   378 xxxx   195  xxxx xxxx xxxxx
Potent Cap.: 1026 xxxx xxxxx  xxxx xxxx xxxxx   628 xxxx   851  xxxx xxxx xxxxx
Move Cap.:   1026 xxxx xxxxx  xxxx xxxx xxxxx   623 xxxx   851  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.67 xxxx  0.02  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx   5.2 xxxx   0.1  xxxx xxxx xxxxx
Control Del:  8.5 xxxx xxxxx xxxxx xxxx xxxxx  21.9 xxxx   9.3 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     C    *     A     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             21.3           xxxxxx
ApproachLOS:        *                *                C                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Harvard Bl / Telegraph Rd & Main St

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B[13.7]

Street Name:	Harvard Bl / Telegraph Rd						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2 0 0			0 0 1 0 1			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	20	265	0	0	250	380	195	0	30	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:	20	265	0	0	250	380	195	0	30	0	0	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:	20	265	0	0	250	380	195	0	30	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	265	0	0	250	380	195	0	30	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	630	xxxx	xxxxx	xxxx	xxxx	xxxxx	422	xxxx	250	xxxx	xxxx	xxxxx
Potent Cap.:	962	xxxx	xxxxx	xxxx	xxxx	xxxxx	592	xxxx	794	xxxx	xxxx	xxxxx
Move Cap.:	962	xxxx	xxxxx	xxxx	xxxx	xxxxx	582	xxxx	794	xxxx	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.33	xxxx	0.04	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.5	xxxx	0.1	xxxx	xxxx	xxxxx
Control Del:	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.3	xxxx	9.7	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	B	*	A	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.7			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.045
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	47.4
Optimal Cycle:	0	Level Of Service:	E

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	60	90	90	70	285	30	10	310	40	210	255	50
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:	60	90	90	70	285	30	10	310	40	210	255	50
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:	60	90	90	70	285	30	10	310	40	210	255	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	90	90	70	285	30	10	310	40	210	255	50
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:	60	90	90	70	285	30	10	310	40	210	255	50
Saturation Flow Module:												
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:	0.25	0.37	0.38	0.18	0.74	0.08	0.03	0.86	0.11	0.41	0.49	0.10
Final Sat.:	105	157	157	84	342	36	13	397	51	201	244	48
Capacity Analysis Module:												
Vol/Sat:	0.57	0.57	0.57	0.83	0.83	0.83	0.78	0.78	0.78	1.04	1.04	1.04
Crit Moves:		****			****		****				****	
Delay/Veh:	19.9	19.9	19.9	36.6	36.6	36.6	30.9	30.9	30.9	79.8	79.8	79.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.9	19.9	19.9	36.6	36.6	36.6	30.9	30.9	30.9	79.8	79.8	79.8
LOS by Move:	C	C	C	E	E	E	D	D	D	F	F	F
ApproachDel:		19.9			36.6			30.9			79.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		19.9			36.6			30.9			79.8	
LOS by Appr:		C			E			D			F	
AllWayAvgQ:	1.0	1.0	1.0	3.3	3.3	3.3	2.6	2.6	2.6	9.5	9.5	9.5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 12th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.419
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	122.3
Optimal Cycle:	0	Level Of Service:	F

Street Name:	12th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	340	220	105	215	30	20	315	30	175	240	40
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:	50	340	220	105	215	30	20	315	30	175	240	40
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:	50	340	220	105	215	30	20	315	30	175	240	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	340	220	105	215	30	20	315	30	175	240	40
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:	50	340	220	105	215	30	20	315	30	175	240	40
Saturation Flow Module:												
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:	0.08	0.56	0.36	0.30	0.61	0.09	0.05	0.87	0.08	0.38	0.53	0.09
Final Sat.:	35	240	155	121	247	34	22	352	33	161	221	37
Capacity Analysis Module:												
Vol/Sat:	1.42	1.42	1.42	0.87	0.87	0.87	0.90	0.90	0.90	1.09	1.09	1.09
Crit Moves:		****		****				****			****	
Delay/Veh:	225.1	225	225.1	47.4	47.4	47.4	51.2	51.2	51.2	98.9	98.9	98.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	225.1	225	225.1	47.4	47.4	47.4	51.2	51.2	51.2	98.9	98.9	98.9
LOS by Move:	F	F	F	E	E	E	F	F	F	F	F	F
ApproachDel:	225.1			47.4			51.2			98.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	225.1			47.4			51.2			98.9		
LOS by Appr:	F			E			F			F		
AllWayAvgQ:	25.5	25.5	25.5	4.0	4.0	4.0	4.5	4.5	4.5	10.1	10.1	10.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 12th St & Santa Barbara St

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[15.3]

Street Name:	12th St						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	45	220	0	0	485	80	50	0	40	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:	45	220	0	0	485	80	50	0	40	0	0	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:	45	220	0	0	485	80	50	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	45	220	0	0	485	80	50	0	40	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	565	xxxx	xxxxx	xxxx	xxxx	xxxxx	835	xxxx	525	xxxx	xxxx	xxxxx
Potent Cap.:	1017	xxxx	xxxxx	xxxx	xxxx	xxxxx	340	xxxx	556	xxxx	xxxx	xxxxx
Move Cap.:	1017	xxxx	xxxxx	xxxx	xxxx	xxxxx	329	xxxx	556	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.15	xxxx	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	0.2	xxxx	xxxx	xxxxx
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.9	xxxx	12.0	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	C	*	B	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			15.3			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 12th St & Santa Barbara St

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C[19.7]

Street Name:	12th St								Santa Barbara St							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0 0	0	0	0	1 0	1	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	30	500		0	0	335		80	80		0	20	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:	30	500		0	0	335		80	80		0	20	0		0	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:	30	500		0	0	335		80	80		0	20	0		0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	30	500		0	0	335		80	80		0	20	0		0	0
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	xxxx		6.2	xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	415	xxxx	xxxxx	xxxx	xxxx	xxxxx			935	xxxx		375	xxxx	xxxx	xxxxx	
Potent Cap.:	1155	xxxx	xxxxx	xxxx	xxxx	xxxxx			297	xxxx		676	xxxx	xxxx	xxxxx	
Move Cap.:	1155	xxxx	xxxxx	xxxx	xxxx	xxxxx			291	xxxx		676	xxxx	xxxx	xxxxx	
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx			0.27	xxxx		0.03	xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx			1.1	xxxx		0.1	xxxx	xxxx	xxxxx	
Control Del:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			22.0	xxxx		10.5	xxxxx	xxxx	xxxxx	
LOS by Move:	A	*	*	*	*	*			C	*		B	*	*	*	
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	A	*	*	*	*	*			*	*		*	*	*	*	
ApproachDel:	xxxxxx				xxxxxx				19.7				xxxxxx			
ApproachLOS:	*				*				C				*			

Note: Queue reported is the number of cars per lane.

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **12TH ST AND MAIN ST**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.216 *
	TH	1.00	270	1,600	0.194	N-S(2):	0.200
	LT	1.00	235	1,600	0.147 *	E-W(1):	0.178
Westbound	RT	0.00	105	0	0.000	E-W(2):	0.265 *
	TH	1.00	270	1,600	0.234 *		
	LT	1.00	30	1,600	0.019	V/C:	0.481
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.069 *		
	LT	1.00	10	1,600	0.006		
Eastbound	RT	0.00	30	0	0.000	ICU:	0.481
	TH	1.00	225	1,600	0.159		
	LT	1.00	50	1,600	0.031 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.301 *
	TH	1.00	225	1,600	0.184	N-S(2):	0.222
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.122
Westbound	RT	0.00	160	0	0.000	E-W(2):	0.294 *
	TH	1.00	220	1,600	0.238 *		
	LT	1.00	20	1,600	0.013	V/C:	0.595
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	390	1,600	0.263 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	60	0	0.000	ICU:	0.595
	TH	1.00	115	1,600	0.109		
	LT	1.00	90	1,600	0.056 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.084
	TH	1.00	30	1,600	0.144 *	N-S(2):	0.238 *
	LT	0.00	10	1,600	0.006	E-W(1):	0.243 *
Westbound	RT	1.00	10	1,600	0.000	E-W(2):	0.238
	TH	1.00	190	1,600	0.119		
	LT	1.00	55	1,600	0.034 *	V/C:	0.481
Northbound	RT	0.00	45	0	0.000	Lost Time:	0.000
	TH	1.00	80	1,600	0.078		
	LT	1.00	150	1,600	0.094 *		
Eastbound	RT	1.00	80	1,600	0.000	ICU:	0.481
	TH	1.00	335	1,600	0.209 *		
	LT	1.00	190	1,600	0.119	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	200	0	0.000	N-S(1):	0.150
	TH	1.00	135	1,600	0.216 *	N-S(2):	0.335 *
	LT	0.00	10	1,600	0.006	E-W(1):	0.175
Westbound	RT	1.00	20	1,600	0.006	E-W(2):	0.354 *
	TH	1.00	225	1,600	0.141 *		
	LT	1.00	65	1,600	0.041	V/C:	0.689
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	1.00	180	1,600	0.144		
	LT	1.00	190	1,600	0.119 *		
Eastbound	RT	1.00	70	1,600	0.000	ICU:	0.689
	TH	1.00	215	1,600	0.134		
	LT	1.00	340	1,600	0.213 *	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: A[9.6]

Street Name:	S Mountain Rd						S Mountain Rd / Lemon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0 0 0			0 0 0 1 0			0 0 1! 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	10	90	0	0	95	30	20	0	10	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:	10	90	0	0	95	30	20	0	10	0	0	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:	10	90	0	0	95	30	20	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	90	0	0	95	30	20	0	10	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	125	xxxx	xxxxx	xxxx	xxxx	xxxxx	220	220	110	xxxx	xxxx	xxxxx
Potent Cap.:	1474	xxxx	xxxxx	xxxx	xxxx	xxxxx	773	682	949	xxxx	xxxx	xxxxx
Move Cap.:	1474	xxxx	xxxxx	xxxx	xxxx	xxxxx	769	677	949	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	821	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.6	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.6			xxxxxx		
ApproachLOS:	*			*			A			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 S Mountain Rd & Lemon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[13.3]

Street Name:	S Mountain Rd						S Mountain Rd / Lemon Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	20	360	0	0	200	20	50	0	10	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:	20	360	0	0	200	20	50	0	10	0	0	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:	20	360	0	0	200	20	50	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	360	0	0	200	20	50	0	10	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	220	xxxx	xxxxx	xxxx	xxxx	xxxxx	610	610	210	xxxx	xxxx	xxxxx
Potent Cap.:	1361	xxxx	xxxxx	xxxx	xxxx	xxxxx	461	412	835	xxxx	xxxx	xxxxx
Move Cap.:	1361	xxxx	xxxxx	xxxx	xxxx	xxxxx	456	406	835	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	493	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.3	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.3			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[23.5]

Street Name:	Ojai Rd						Richmond Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	360	50	20	740	0	0	0	0	60	0	40
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	360	50	20	740	0	0	0	0	60	0	40
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	360	50	20	740	0	0	0	0	60	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	360	50	20	740	0	0	0	0	60	0	40
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	410	xxxx	xxxxx	xxxx	xxxx	xxxxx	1165	1165	385
Potent Cap.:	xxxx	xxxx	xxxxx	1160	xxxx	xxxxx	xxxx	xxxx	xxxxx	217	196	667
Move Cap.:	xxxx	xxxx	xxxxx	1160	xxxx	xxxxx	xxxx	xxxx	xxxxx	214	192	667
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.28	0.00	0.06
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	294	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	23.5	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			23.5		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ojai Rd & Richmond Rd

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[22.7]

Street Name:	Ojai Rd						Richmond Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	575	80	30	460	0	0	0	0	50	0	40
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	575	80	30	460	0	0	0	0	50	0	40
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	575	80	30	460	0	0	0	0	50	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	575	80	30	460	0	0	0	0	50	0	40
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	655	xxxx	xxxxx	xxxx	xxxx	xxxxx	1135	1135	615
Potent Cap.:	xxxx	xxxx	xxxxx	942	xxxx	xxxxx	xxxx	xxxx	xxxxx	226	204	495
Move Cap.:	xxxx	xxxx	xxxxx	942	xxxx	xxxxx	xxxx	xxxx	xxxxx	220	197	495
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.23	0.00	0.08
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	292	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	22.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			22.7		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Ojai Rd & Orchard St

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: C[20.0]

Street Name:	Ojai Rd						Orchard St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	1 0	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	355	30	20	660	0	0	0	0	40	0	15
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	355	30	20	660	0	0	0	0	40	0	15
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	355	30	20	660	0	0	0	0	40	0	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	355	30	20	660	0	0	0	0	40	0	15
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	385	xxxx	xxxxx	xxxx	xxxx	xxxxx	1070	1070	370
Potent Cap.:	xxxx	xxxx	xxxxx	1185	xxxx	xxxxx	xxxx	xxxx	xxxxx	247	223	680
Move Cap.:	xxxx	xxxx	xxxxx	1185	xxxx	xxxxx	xxxx	xxxx	xxxxx	244	219	680
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	0.00	0.02
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	295	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	20.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			20.0		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #10 Ojai Rd & Orchard St
******************************************************************************
Average Delay (sec/veh):      4.4       Worst Case Level Of Service: C[ 18.0]
******************************************************************************
Street Name:             Ojai Rd                          Orchard St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  390    60    10  450     0     0    0     0    40    0   245
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  390    60    10  450     0     0    0     0    40    0   245
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  390    60    10  450     0     0    0     0    40    0   245
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  390    60    10  450     0     0    0     0    40    0   245
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4  6.5   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   450 xxxx xxxxx  xxxx xxxx xxxxx   890  890   420
Potent Cap.: xxxx xxxx xxxxx  1121 xxxx xxxxx  xxxx xxxx xxxxx   316  284   638
Move Cap.:   xxxx xxxx xxxxx  1121 xxxx xxxxx  xxxx xxxx xxxxx   314  282   638
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.13 0.00  0.38
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   8.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  557 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  2.9 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 18.0 xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    C     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             18.0
ApproachLOS:        *                *                *                 C
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: D[25.8]

Street Name:	Ojai Rd						Saticoy St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	385	60	180	660	0	0	0	0	30	0	30
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	385	60	180	660	0	0	0	0	30	0	30
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	385	60	180	660	0	0	0	0	30	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	385	60	180	660	0	0	0	0	30	0	30
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	445	xxxx	xxxxx	xxxx	xxxx	xxxxx	1435	xxxx	415
Potent Cap.:	xxxx	xxxx	xxxxx	1126	xxxx	xxxxx	xxxx	xxxx	xxxxx	149	xxxx	642
Move Cap.:	xxxx	xxxx	xxxxx	1126	xxxx	xxxxx	xxxx	xxxx	xxxxx	131	xxxx	642
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	0.23	xxxx	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.8	xxxx	0.1
Control Del:	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	40.6	xxxx	10.9
LOS by Move:	*	*	*	A	*	*	*	*	*	E	*	B
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			25.8		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: D[28.1]

Street Name:	Ojai Rd						Saticoy St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			1 0 0 0 1		
Volume Module:												
Base Vol:	0	475	100	145	445	0	0	0	0	30	0	5
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	475	100	145	445	0	0	0	0	30	0	5
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	475	100	145	445	0	0	0	0	30	0	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	475	100	145	445	0	0	0	0	30	0	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	575	xxxx	xxxxx	xxxx	xxxx	xxxxx	1260	xxxx	525
Potent Cap.:	xxxx	xxxx	xxxxx	1008	xxxx	xxxxx	xxxx	xxxx	xxxxx	190	xxxx	556
Move Cap.:	xxxx	xxxx	xxxxx	1008	xxxx	xxxxx	xxxx	xxxx	xxxxx	169	xxxx	556
Volume/Cap:	xxxx	xxxx	xxxx	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	0.18	xxxx	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.6	xxxx	0.0
Control Del:	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	30.8	xxxx	11.5
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			28.1		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.228
	TH	1.00	430	1,600	0.319 *	N-S(2):	0.319 *
	LT	0.00		0	0.000	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.319
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	345	1,600	0.228		
	LT	0.00		0	0.000 *		
Eastbound	RT	0.00		0	0.000	ICU:	0.319
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.403 *
	TH	1.00	275	1,600	0.253	N-S(2):	0.253
	LT	0.00		0	0.000 *	E-W(1):	0.000 *
Westbound	RT	0.00		0	0.000	E-W(2):	0.000 *
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	V/C:	0.403
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	635	1,600	0.403 *		
	LT	0.00		0	0.000		
Eastbound	RT	0.00		0	0.000	ICU:	0.403
	TH	0.00		0	0.000 *		
	LT	0.00		0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA PAULA ST (AS PART OF INTERSECTION 12
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	40	0	0.000	N-S(1):	0.081
	TH	1.00	300	1,600	0.213 *	N-S(2):	0.232 *
	LT	0.00		0	0.000	E-W(1):	0.297 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.244
	TH	1.00	330	1,600	0.231		
	LT	0.00	30	1,600	0.019 *	V/C:	0.529
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	100	1,600	0.081		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.529
	TH	1.00	375	1,600	0.278 *		
	LT	0.00	20	1,600	0.013	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.113 *
	TH	1.00	120	1,600	0.094 *	N-S(2):	0.113 *
	LT	0.00		0	0.000 *	E-W(1):	0.301 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.222
	TH	1.00	315	1,600	0.216		
	LT	0.00	20	1,600	0.013 *	V/C:	0.414
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	1.00	150	1,600	0.113 *		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.414
	TH	1.00	400	1,600	0.288 *		
	LT	0.00	10	1,600	0.006	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND SANTA BARBARA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	110	0	0.000	N-S(1):	0.254
	TH	1.00	745	1,600	0.534 *	N-S(2):	0.553 *
	LT	1.00	20	1,600	0.013	E-W(1):	0.094
Westbound	RT	0.00	25	0	0.000	E-W(2):	0.147 *
	TH	1.00	100	1,600	0.078 *		
	LT	1.00	30	1,600	0.019	V/C:	0.700
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	375	1,600	0.241		
	LT	1.00	30	1,600	0.019 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.700
	TH	1.00	70	1,600	0.075		
	LT	1.00	110	1,600	0.069 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.381 *
	TH	1.00	440	1,600	0.325	N-S(2):	0.356
	LT	1.00	0	1,600	0.000 *	E-W(1):	0.107
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.182 *
	TH	1.00	100	1,600	0.063 *		
	LT	1.00	20	1,600	0.013	V/C:	0.563
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	580	1,600	0.381 *		
	LT	1.00	50	1,600	0.031		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.563
	TH	1.00	110	1,600	0.094		
	LT	1.00	190	1,600	0.119 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND MAIN ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.287
	TH	1.00	765	1,600	0.522 *	N-S(2):	0.535 *
	LT	1.00	5	1,600	0.003	E-W(1):	0.176
Westbound	RT	0.00	105	0	0.000	E-W(2):	0.210 *
	TH	1.00	160	1,600	0.166 *		
	LT	1.00	60	1,600	0.038	V/C:	0.745
Northbound	RT	0.00	80	0	0.000	Lost Time:	0.000
	TH	1.00	375	1,600	0.284		
	LT	1.00	20	1,600	0.013 *		
Eastbound	RT	1.00	30	1,600	0.006	ICU:	0.745
	TH	1.00	220	1,600	0.138		
	LT	1.00	70	1,600	0.044 *	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.431 *
	TH	1.00	525	1,600	0.366	N-S(2):	0.404
	LT	1.00	15	1,600	0.009 *	E-W(1):	0.209
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.232 *
	TH	1.00	270	1,600	0.194 *		
	LT	1.00	85	1,600	0.053	V/C:	0.663
Northbound	RT	0.00	65	0	0.000	Lost Time:	0.000
	TH	1.00	610	1,600	0.422 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	1.00	70	1,600	0.006	ICU:	0.663
	TH	1.00	250	1,600	0.156		
	LT	1.00	60	1,600	0.038 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	170	0	0.000	N-S(1):	0.310
	TH	1.00	585	1,600	0.472 *	N-S(2):	0.497 *
	LT	1.00	30	1,600	0.019	E-W(1):	0.459 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.301
	TH	1.00	350	1,600	0.238		
	LT	1.00	200	1,600	0.125 *	V/C:	0.956
Northbound	RT	0.00	110	0	0.000	Lost Time:	0.000
	TH	1.00	315	1,600	0.291		
	LT	0.00	40	1,600	0.025 *		
Eastbound	RT	0.00	120	0	0.000	ICU:	0.956
	TH	1.00	415	1,600	0.334 *		
	LT	1.00	100	1,600	0.063	LOS:	E

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.513 *
	TH	1.00	405	1,600	0.372	N-S(2):	0.422
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.404
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.416 *
	TH	1.00	475	1,600	0.322 *		
	LT	1.00	140	1,600	0.088	V/C:	0.929
Northbound	RT	0.00	200	0	0.000	Lost Time:	0.000
	TH	1.00	520	1,600	0.500 *		
	LT	0.00	80	1,600	0.050		
Eastbound	RT	0.00	110	0	0.000	ICU:	0.929
	TH	1.00	395	1,600	0.316		
	LT	1.00	150	1,600	0.094 *	LOS:	E

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **10TH ST AND WB SR-126 RAMPS**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	865	0	0.000	N-S(1):	0.303
	TH	1.00	60	1,600	0.578 *	N-S(2):	0.616 *
	LT	0.00	0	0	0.000	E-W(1):	0.006
Westbound	RT	1.00	80	1,600	0.050 *	E-W(2):	0.050 *
	TH	0.00	0	0	0.000		
	LT	1.00	10	1,600	0.006	V/C:	0.666
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	425	1,600	0.303		
	LT	0.00	60	1,600	0.038 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.666
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	545	0	0.000	N-S(1):	0.459 *
	TH	1.00	110	1,600	0.409	N-S(2):	0.447
	LT	0.00	0	0	0.000 *	E-W(1):	0.006
Westbound	RT	1.00	95	1,600	0.059 *	E-W(2):	0.059 *
	TH	0.00	0	0	0.000		
	LT	1.00	10	1,600	0.006	V/C:	0.518
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	675	1,600	0.459 *		
	LT	0.00	60	1,600	0.038		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.518
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 10TH ST AND EB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.087 *
	TH	1.00	10	1,600	0.038	N-S(2):	0.038
	LT	0.00	50	1,600	0.031 *	E-W(1):	0.050
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.266 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.353
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	70	1,600	0.056 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	80	1,600	0.050	ICU:	0.353
	TH	0.00	0	0	0.000		
	LT	1.00	425	1,600	0.266 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.113 *
	TH	1.00	10	1,600	0.075	N-S(2):	0.075
	LT	0.00	110	1,600	0.069 *	E-W(1):	0.094
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.428 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.541
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	60	1,600	0.044 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	150	1,600	0.094	ICU:	0.541
	TH	0.00	0	0	0.000		
	LT	1.00	685	1,600	0.428 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.2
Optimal Cycle:	0	Level Of Service:	D

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	110	195	30	200	40	20	290	40	170	215	30
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:	50	110	195	30	200	40	20	290	40	170	215	30
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:	50	110	195	30	200	40	20	290	40	170	215	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	110	195	30	200	40	20	290	40	170	215	30
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:	50	110	195	30	200	40	20	290	40	170	215	30
Saturation Flow Module:												
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:	0.14	0.31	0.55	0.11	0.74	0.15	0.06	0.83	0.11	0.41	0.52	0.07
Final Sat.:	68	151	267	48	323	65	27	397	55	204	259	36
Capacity Analysis Module:												
Vol/Sat:	0.73	0.73	0.73	0.62	0.62	0.62	0.73	0.73	0.73	0.83	0.83	0.83
Crit Moves:		****				****		****		****		
Delay/Veh:	23.1	23.1	23.1	18.9	18.9	18.9	23.8	23.8	23.8	32.3	32.3	32.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.1	23.1	23.1	18.9	18.9	18.9	23.8	23.8	23.8	32.3	32.3	32.3
LOS by Move:	C	C	C	C	C	C	C	C	C	D	D	D
ApproachDel:		23.1			18.9			23.8			32.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		23.1			18.9			23.8			32.3	
LOS by Appr:		C			C			C			D	
AllWayAvgQ:	1.8	1.8	1.8	1.0	1.0	1.0	1.8	1.8	1.8	3.1	3.1	3.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.4
Optimal Cycle:	0	Level Of Service:	C

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	210	170	10	80	30	40	265	50	175	220	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:	50	210	170	10	80	30	40	265	50	175	220	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:	50	210	170	10	80	30	40	265	50	175	220	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	210	170	10	80	30	40	265	50	175	220	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:	50	210	170	10	80	30	40	265	50	175	220	10
Saturation Flow Module:												
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:	0.12	0.49	0.39	0.08	0.67	0.25	0.11	0.75	0.14	0.43	0.55	0.02
Final Sat.:	64	271	219	34	274	103	60	396	75	232	292	13
Capacity Analysis Module:												
Vol/Sat:	0.78	0.78	0.78	0.29	0.29	0.29	0.67	0.67	0.67	0.75	0.75	0.75
Crit Moves:		****		****				****			****	
Delay/Veh:	25.2	25.2	25.2	12.3	12.3	12.3	19.9	19.9	19.9	24.6	24.6	24.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.2	25.2	25.2	12.3	12.3	12.3	19.9	19.9	19.9	24.6	24.6	24.6
LOS by Move:	D	D	D	B	B	B	C	C	C	C	C	C
ApproachDel:		25.2			12.3			19.9			24.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		25.2			12.3			19.9			24.6	
LOS by Appr:		D			B			C			C	
AllWayAvgQ:	2.5	2.5	2.5	0.3	0.3	0.3	1.5	1.5	1.5	2.3	2.3	2.3

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 8TH ST AND MAIN ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.169
	TH	1.00	270	1,600	0.206 *	N-S(2):	0.219 *
	LT	1.00	45	1,600	0.028	E-W(1):	0.284 *
Westbound	RT	0.00	15	0	0.000	E-W(2):	0.194
	TH	1.00	125	1,600	0.113		
	LT	0.00	40	1,600	0.025 *	V/C:	0.503
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	195	1,600	0.141		
	LT	1.00	20	1,600	0.013 *		
Eastbound	RT	1.00	30	1,600	0.006	ICU:	0.503
	TH	1.00	285	1,600	0.259 *		
	LT	0.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	95	0	0.000	N-S(1):	0.306 *
	TH	1.00	205	1,600	0.188	N-S(2):	0.213
	LT	1.00	45	1,600	0.028 *	E-W(1):	0.319
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.322 *
	TH	1.00	240	1,600	0.244 *		
	LT	0.00	70	1,600	0.044	V/C:	0.628
Northbound	RT	0.00	80	0	0.000	Lost Time:	0.000
	TH	1.00	365	1,600	0.278 *		
	LT	1.00	40	1,600	0.025		
Eastbound	RT	1.00	90	1,600	0.031	ICU:	0.628
	TH	1.00	315	1,600	0.275		
	LT	0.00	125	1,600	0.078 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 8TH ST AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.094
	TH	1.00	60	1,600	0.156 *	N-S(2):	0.162 *
	LT	1.00	60	1,600	0.038	E-W(1):	0.164
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.244 *
	TH	2.00	490	3,200	0.163 *		
	LT	1.00	40	1,600	0.025	V/C:	0.406
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	1.00	40	1,600	0.056		
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.406
	TH	2.00	435	3,200	0.139		
	LT	1.00	130	1,600	0.081 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	220	0	0.000	N-S(1):	0.200 *
	TH	1.00	30	1,600	0.156	N-S(2):	0.162
	LT	1.00	70	1,600	0.044 *	E-W(1):	0.245
Westbound	RT	0.00	80	0	0.000	E-W(2):	0.364 *
	TH	2.00	685	3,200	0.239 *		
	LT	1.00	40	1,600	0.025	V/C:	0.564
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	1.00	180	1,600	0.156 *		
	LT	0.00	10	1,600	0.006		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.564
	TH	2.00	695	3,200	0.220		
	LT	1.00	200	1,600	0.125 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 6.4 Worst Case Level Of Service: C[22.3]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	30	20	20	60	130	90	340	30	20	295	30
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	30	20	20	60	130	90	340	30	20	295	30
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	30	20	20	60	130	90	340	30	20	295	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	30	20	20	60	130	90	340	30	20	295	30
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	980	900	355	910	900	310	325	xxxx	xxxxx	370	xxxx	xxxxx
Potent Cap.:	231	280	693	258	280	735	1246	xxxx	xxxxx	1200	xxxx	xxxxx
Move Cap.:	145	255	693	212	255	735	1246	xxxx	xxxxx	1200	xxxx	xxxxx
Volume/Cap:	0.07	0.12	0.03	0.09	0.24	0.18	0.07	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	278	xxxxx	xxxx	414	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.8	xxxxx	xxxxx	2.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	21.5	xxxxx	xxxxx	22.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		21.5			22.3			xxxxxx			xxxxxx	
ApproachLOS:		C			C			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 6th St & Santa Paula St

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: C[22.1]

Street Name:	6th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	90	20	20	10	80	70	325	10	10	280	20
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	90	20	20	10	80	70	325	10	10	280	20
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	90	20	20	10	80	70	325	10	10	280	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	90	20	20	10	80	70	325	10	10	280	20
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	825	790	330	835	785	290	300	xxxx	xxxxx	335	xxxx	xxxxx
Potent Cap.:	294	325	716	289	327	754	1273	xxxx	xxxxx	1236	xxxx	xxxxx
Move Cap.:	244	304	716	207	306	754	1273	xxxx	xxxxx	1236	xxxx	xxxxx
Volume/Cap:	0.04	0.30	0.03	0.10	0.03	0.11	0.06	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	328	xxxxx	xxxx	467	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.6	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	22.1	xxxxx	xxxxx	15.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		22.1			15.1			xxxxxx			xxxxxx	
ApproachLOS:		C			C			*			*	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.3
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	75	60	145	30	80	20	30	325	80	165	250	40
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:	75	60	145	30	80	20	30	325	80	165	250	40
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:	75	60	145	30	80	20	30	325	80	165	250	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	75	60	145	30	80	20	30	325	80	165	250	40
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:	75	60	145	30	80	20	30	325	80	165	250	40
Saturation Flow Module:												
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:	0.27	0.21	0.52	0.23	0.62	0.15	0.07	0.75	0.18	0.36	0.55	0.09
Final Sat.:	137	109	265	99	265	66	40	436	107	210	319	51
Capacity Analysis Module:												
Vol/Sat:	0.55	0.55	0.55	0.30	0.30	0.30	0.75	0.75	0.75	0.78	0.78	0.78
Crit Moves:		****			****			****			****	
Delay/Veh:	15.6	15.6	15.6	12.4	12.4	12.4	22.8	22.8	22.8	25.8	25.8	25.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.6	15.6	15.6	12.4	12.4	12.4	22.8	22.8	22.8	25.8	25.8	25.8
LOS by Move:	C	C	C	B	B	B	C	C	C	D	D	D
ApproachDel:		15.6			12.4			22.8			25.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.6			12.4			22.8			25.8	
LOS by Appr:		C			B			C			D	
AllWayAvgQ:	0.9	0.9	0.9	0.3	0.3	0.3	2.2	2.2	2.2	2.7	2.7	2.7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.593
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.0
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	120	60	165	30	60	20	10	255	60	125	205	20
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:	120	60	165	30	60	20	10	255	60	125	205	20
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:	120	60	165	30	60	20	10	255	60	125	205	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	60	165	30	60	20	10	255	60	125	205	20
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:	120	60	165	30	60	20	10	255	60	125	205	20
Saturation Flow Module:												
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:	0.35	0.17	0.48	0.27	0.55	0.18	0.03	0.79	0.18	0.36	0.58	0.06
Final Sat.:	205	103	282	131	262	87	18	466	110	211	346	34
Capacity Analysis Module:												
Vol/Sat:	0.58	0.58	0.58	0.23	0.23	0.23	0.55	0.55	0.55	0.59	0.59	0.59
Crit Moves:		****			****			****			****	
Delay/Veh:	15.5	15.5	15.5	10.9	10.9	10.9	14.7	14.7	14.7	16.1	16.1	16.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.5	15.5	15.5	10.9	10.9	10.9	14.7	14.7	14.7	16.1	16.1	16.1
LOS by Move:	C	C	C	B	B	B	B	B	B	C	C	C
ApproachDel:		15.5			10.9			14.7			16.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.5			10.9			14.7			16.1	
LOS by Appr:		C			B			B			C	
AllWayAvgQ:	1.1	1.1	1.1	0.2	0.2	0.2	1.0	1.0	1.0	1.2	1.2	1.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #23 Palm Av & Santa Barbara St

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.9
Optimal Cycle:	0	Level Of Service:	C

****

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	200	90	60	245	10	10	100	40	190	150	50
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:	40	200	90	60	245	10	10	100	40	190	150	50
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:	40	200	90	60	245	10	10	100	40	190	150	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	200	90	60	245	10	10	100	40	190	150	50
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:	40	200	90	60	245	10	10	100	40	190	150	50
Saturation Flow Module:												
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:	0.12	0.61	0.27	0.19	0.78	0.03	0.06	0.67	0.27	0.49	0.38	0.13
Final Sat.:	68	341	153	104	425	17	32	319	128	275	217	72
Capacity Analysis Module:												
Vol/Sat:	0.59	0.59	0.59	0.58	0.58	0.58	0.31	0.31	0.31	0.69	0.69	0.69
Crit Moves:	****				****			****			****	
Delay/Veh:	16.1	16.1	16.1	16.2	16.2	16.2	11.8	11.8	11.8	20.1	20.1	20.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.1	16.1	16.1	16.2	16.2	16.2	11.8	11.8	11.8	20.1	20.1	20.1
LOS by Move:	C	C	C	C	C	C	B	B	B	C	C	C
ApproachDel:	16.1			16.2			11.8			20.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	16.1			16.2			11.8			20.1		
LOS by Appr:	C			C			B			C		
AllWayAvgQ:	1.1	1.1	1.1	1.1	1.1	1.1	0.3	0.3	0.3	1.7	1.7	1.7

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #23 Palm Av & Santa Barbara St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.755
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.2
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Barbara St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	285	90	40	185	20	30	110	40	140	170	100
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:	50	285	90	40	185	20	30	110	40	140	170	100
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:	50	285	90	40	185	20	30	110	40	140	170	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	285	90	40	185	20	30	110	40	140	170	100
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:	50	285	90	40	185	20	30	110	40	140	170	100
Saturation Flow Module:												
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:	0.12	0.67	0.21	0.16	0.76	0.08	0.17	0.61	0.22	0.34	0.42	0.24
Final Sat.:	66	378	119	81	373	40	77	282	102	189	229	135
Capacity Analysis Module:												
Vol/Sat:	0.75	0.75	0.75	0.50	0.50	0.50	0.39	0.39	0.39	0.74	0.74	0.74
Crit Moves:			****		****		****				****	
Delay/Veh:	23.7	23.7	23.7	14.9	14.9	14.9	13.1	13.1	13.1	23.0	23.0	23.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.7	23.7	23.7	14.9	14.9	14.9	13.1	13.1	13.1	23.0	23.0	23.0
LOS by Move:	C	C	C	B	B	B	B	B	B	C	C	C
ApproachDel:		23.7			14.9			13.1			23.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		23.7			14.9			13.1			23.0	
LOS by Appr:		C			B			B			C	
AllWayAvgQ:	2.3	2.3	2.3	0.7	0.7	0.7	0.4	0.4	0.4	2.1	2.1	2.1

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND MAIN ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.163
	TH	1.00	365	1,600	0.291 *	N-S(2):	0.329 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.297 *
Westbound	RT	0.00	20	0	0.000	E-W(2):	0.197
	TH	1.00	215	1,600	0.147		
	LT	1.00	100	1,600	0.063 *	V/C:	0.626
Northbound	RT	1.00	150	1,600	0.031	Lost Time:	0.000
	TH	1.00	230	1,600	0.144		
	LT	1.00	60	1,600	0.038 *		
Eastbound	RT	1.00	130	1,600	0.044	ICU:	0.626
	TH	1.00	375	1,600	0.234 *		
	LT	1.00	80	1,600	0.050	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.210
	TH	1.00	265	1,600	0.228 *	N-S(2):	0.297 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.266 *
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.188
	TH	1.00	180	1,600	0.138		
	LT	1.00	60	1,600	0.038 *	V/C:	0.563
Northbound	RT	1.00	220	1,600	0.100	Lost Time:	0.000
	TH	1.00	305	1,600	0.191		
	LT	1.00	110	1,600	0.069 *		
Eastbound	RT	1.00	100	1,600	0.000	ICU:	0.563
	TH	1.00	365	1,600	0.228 *		
	LT	1.00	80	1,600	0.050	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.263
	TH	1.00	385	1,600	0.322 *	N-S(2):	0.378 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.255 *
Westbound	RT	0.00	90	0	0.000	E-W(2):	0.234
	TH	2.00	480	3,200	0.178		
	LT	1.00	150	1,600	0.094 *	V/C:	0.633
Northbound	RT	0.00	100	0	0.000	Lost Time:	0.000
	TH	1.00	240	1,600	0.213		
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	130	0	0.000	ICU:	0.633
	TH	2.00	385	3,200	0.161 *		
	LT	1.00	90	1,600	0.056	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	90	0	0.000	N-S(1):	0.359 *
	TH	1.00	245	1,600	0.209	N-S(2):	0.328
	LT	1.00	80	1,600	0.050 *	E-W(1):	0.385 *
Westbound	RT	0.00	110	0	0.000	E-W(2):	0.341
	TH	2.00	680	3,200	0.247		
	LT	1.00	190	1,600	0.119 *	V/C:	0.744
Northbound	RT	0.00	170	0	0.000	Lost Time:	0.000
	TH	1.00	325	1,600	0.309 *		
	LT	1.00	190	1,600	0.119		
Eastbound	RT	0.00	160	0	0.000	ICU:	0.744
	TH	2.00	690	3,200	0.266 *		
	LT	1.00	150	1,600	0.094	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND WB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	470	0	0.000	N-S(1):	0.203
	TH	1.00	225	1,600	0.434 *	N-S(2):	0.447 *
	LT	0.00	0	0	0.000	E-W(1):	0.013
Westbound	RT	1.00	105	1,600	0.066 *	E-W(2):	0.066 *
	TH	0.00	0	0	0.000		
	LT	1.00	20	1,600	0.013	V/C:	0.513
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	305	1,600	0.203		
	LT	0.00	20	1,600	0.013 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.513
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	280	0	0.000	N-S(1):	0.347
	TH	1.00	285	1,600	0.353 *	N-S(2):	0.378 *
	LT	0.00	0	0	0.000	E-W(1):	0.019
Westbound	RT	1.00	130	1,600	0.081 *	E-W(2):	0.081 *
	TH	0.00	0	0	0.000		
	LT	1.00	30	1,600	0.019	V/C:	0.459
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	515	1,600	0.347		
	LT	0.00	40	1,600	0.025 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.459
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PALM AV AND EB SR-126 RAMPS
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.159 *
	TH	1.00	85	1,600	0.134	N-S(2):	0.134
	LT	0.00	130	1,600	0.081 *	E-W(1):	0.019
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.138 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.297
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	115	1,600	0.078 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	30	1,600	0.019	ICU:	0.297
	TH	0.00	0	0	0.000		
	LT	1.00	220	1,600	0.138 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.190 *
	TH	1.00	105	1,600	0.172	N-S(2):	0.172
	LT	0.00	170	1,600	0.106 *	E-W(1):	0.100
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.306 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.496
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	105	1,600	0.084 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	160	1,600	0.100	ICU:	0.496
	TH	0.00	0	0	0.000		
	LT	1.00	490	1,600	0.306 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.922
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.7
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	10	70	30	30	10	10	310	60	110	530	30
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:	20	10	70	30	30	10	10	310	60	110	530	30
Saturation Flow Module:												
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:	0.20	0.10	0.70	0.43	0.43	0.14	0.03	0.81	0.16	0.16	0.80	0.04
Final Sat.:	110	55	386	219	219	73	18	552	107	119	575	33
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.14	0.14	0.14	0.56	0.56	0.56	0.92	0.92	0.92
Crit Moves:			****	****				****				****
Delay/Veh:	10.3	10.3	10.3	10.5	10.5	10.5	14.2	14.2	14.2	38.0	38.0	38.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	10.5	10.5	10.5	14.2	14.2	14.2	38.0	38.0	38.0
LOS by Move:	B	B	B	B	B	B	B	B	B	E	E	E
ApproachDel:	10.3			10.5			14.2			38.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.3			10.5			14.2			38.0		
LOS by Appr:	B			B			B			E		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	1.1	1.1	1.1	6.1	6.1	6.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #28 Steckel Dr & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.8
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	50	150	30	20	10	10	520	40	100	270	40
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:	60	50	150	30	20	10	10	520	40	100	270	40
Saturation Flow Module:												
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:	0.23	0.19	0.58	0.50	0.33	0.17	0.02	0.91	0.07	0.24	0.66	0.10
Final Sat.:	125	104	313	220	147	73	11	587	45	147	397	59
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	0.48	0.14	0.14	0.14	0.89	0.89	0.89	0.68	0.68	0.68
Crit Moves:		****				****		****		****		
Delay/Veh:	14.2	14.2	14.2	11.0	11.0	11.0	35.1	35.1	35.1	19.2	19.2	19.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.2	14.2	14.2	11.0	11.0	11.0	35.1	35.1	35.1	19.2	19.2	19.2
LOS by Move:	B	B	B	B	B	B	E	E	E	C	C	C
ApproachDel:		14.2			11.0			35.1			19.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.2			11.0			35.1			19.2	
LOS by Appr:		B			B			E			C	
AllWayAvgQ:	0.7	0.7	0.7	0.1	0.1	0.1	4.8	4.8	4.8	1.8	1.8	1.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.607
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.7
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1!	0 0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	60	70	110	110	120	70	40	265	60	70	315	30
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:	60	70	110	110	120	70	40	265	60	70	315	30
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:	60	70	110	110	120	70	40	265	60	70	315	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	70	110	110	120	70	40	265	60	70	315	30
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:	60	70	110	110	120	70	40	265	60	70	315	30
Saturation Flow Module:												
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:	0.46	0.54	1.00	0.37	0.40	0.23	0.22	1.45	0.33	0.34	1.52	0.14
Final Sat.:	208	243	511	181	198	115	107	724	168	166	763	74
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.22	0.61	0.61	0.61	0.37	0.37	0.36	0.42	0.41	0.41
Crit Moves:		****			****		****			****		
Delay/Veh:	13.0	13.0	10.9	19.5	19.5	19.5	13.7	13.3	12.9	14.5	14.1	13.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	13.0	10.9	19.5	19.5	19.5	13.7	13.3	12.9	14.5	14.1	13.8
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:		12.0			19.5			13.3			14.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		12.0			19.5			13.3			14.1	
LOS by Appr:		B			C			B			B	
AllWayAvgQ:	0.3	0.3	0.2	1.3	1.3	1.3	0.5	0.5	0.5	0.7	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Steckel Dr & Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.593
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.5
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Steckel Dr						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	70	170	90	40	80	100	100	405	80	60	210	80
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:	70	170	90	40	80	100	100	405	80	60	210	80
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:	70	170	90	40	80	100	100	405	80	60	210	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	170	90	40	80	100	100	405	80	60	210	80
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:	70	170	90	40	80	100	100	405	80	60	210	80
Saturation Flow Module:												
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:	0.29	0.71	1.00	0.18	0.36	0.46	0.34	1.39	0.27	0.34	1.20	0.46
Final Sat.:	132	321	505	84	167	209	169	702	142	158	570	225
Capacity Analysis Module:												
Vol/Sat:	0.53	0.53	0.18	0.48	0.48	0.48	0.59	0.58	0.56	0.38	0.37	0.36
Crit Moves:		****			****		****			****		
Delay/Veh:	18.0	18.0	10.9	16.5	16.5	16.5	19.3	18.4	17.5	14.4	13.9	13.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.0	18.0	10.9	16.5	16.5	16.5	19.3	18.4	17.5	14.4	13.9	13.3
LOS by Move:	C	C	B	C	C	C	C	C	C	B	B	B
ApproachDel:		16.0			16.5			18.4			13.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.0			16.5			18.4			13.9	
LOS by Appr:		C			C			C			B	
AllWayAvgQ:	1.0	1.0	0.2	0.8	0.8	0.8	1.3	1.2	1.2	0.5	0.5	0.5

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: STECKEL DR AND HARVARD BL
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.181
	TH	1.00	40	1,600	0.156 *	N-S(2):	0.187 *
	LT	0.00	130	1,600	0.081	E-W(1):	0.161
Westbound	RT	0.00	220	0	0.000	E-W(2):	0.266 *
	TH	2.00	430	3,200	0.203 *		
	LT	1.00	30	1,600	0.019	V/C:	0.453
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	1.00	60	1,600	0.100		
	LT	0.00	50	1,600	0.031 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.453
	TH	2.00	435	3,200	0.142		
	LT	1.00	100	1,600	0.063 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	50	0	0.000	N-S(1):	0.144
	TH	1.00	30	1,600	0.131 *	N-S(2):	0.150 *
	LT	0.00	130	1,600	0.081	E-W(1):	0.327 *
Westbound	RT	0.00	150	0	0.000	E-W(2):	0.327 *
	TH	2.00	655	3,200	0.252 *		
	LT	1.00	80	1,600	0.050 *	V/C:	0.477
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	1.00	30	1,600	0.063		
	LT	0.00	30	1,600	0.019 *		
Eastbound	RT	0.00	40	0	0.000	ICU:	0.477
	TH	2.00	845	3,200	0.277 *		
	LT	1.00	120	1,600	0.075 *	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #31 Peck Rd & Santa Paula St

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.5
Optimal Cycle:	0	Level Of Service:	C

****

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		0 0 1!	0 0		0 1	0 0	1
Volume Module:												
Base Vol:	20	40	100	140	140	20	10	40	10	280	140	100
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:	20	40	100	140	140	20	10	40	10	280	140	100
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:	20	40	100	140	140	20	10	40	10	280	140	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	40	100	140	140	20	10	40	10	280	140	100
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:	20	40	100	140	140	20	10	40	10	280	140	100
Saturation Flow Module:												
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:	0.12	0.25	0.63	0.47	0.47	0.06	0.17	0.66	0.17	0.67	0.33	1.00
Final Sat.:	74	148	371	278	278	40	89	357	89	381	191	683
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.50	0.50	0.50	0.11	0.11	0.11	0.73	0.73	0.15
Crit Moves:		****			****		****			****		
Delay/Veh:	10.5	10.5	10.5	14.0	14.0	14.0	9.7	9.7	9.7	23.3	23.3	8.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	10.5	14.0	14.0	14.0	9.7	9.7	9.7	23.3	23.3	8.7
LOS by Move:	B	B	B	B	B	B	A	A	A	C	C	A
ApproachDel:		10.5			14.0			9.7			20.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.5			14.0			9.7			20.5	
LOS by Appr:		B			B			A			C	
AllWayAvgQ:	0.3	0.3	0.3	0.9	0.9	0.9	0.1	0.1	0.1	2.3	2.3	0.2

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #31 Peck Rd & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Peck Rd						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	10	130	90	100	80	10	10	170	10	100	40	120
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	130	90	100	80	10	10	170	10	100	40	120
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	130	90	100	80	10	10	170	10	100	40	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	130	90	100	80	10	10	170	10	100	40	120
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	130	90	100	80	10	10	170	10	100	40	120
Saturation Flow Module:												
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:	0.04	0.57	0.39	0.53	0.42	0.05	0.05	0.90	0.05	0.71	0.29	1.00
Final Sat.:	29	373	258	325	260	32	33	554	33	396	158	662
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.35	0.31	0.31	0.31	0.31	0.31	0.31	0.25	0.25	0.18
Crit Moves:		****			****			****			****	
Delay/Veh:	10.6	10.6	10.6	10.7	10.7	10.7	10.6	10.6	10.6	10.8	10.8	8.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	10.6	10.6	10.7	10.7	10.7	10.6	10.6	10.6	10.8	10.8	8.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	A
ApproachDel:		10.6			10.7			10.6			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.6			10.7			10.6			9.9	
LOS by Appr:		B			B			B			A	
AllWayAvgQ:	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND HARVARD BL (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	115	0	0.000	N-S(1):	0.169
	TH	1.00	305	1,600	0.263 *	N-S(2):	0.294 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.197 *
Westbound	RT	1.00	120	1,600	0.000	E-W(2):	0.190
	TH	1.00	175	1,600	0.109		
	LT	1.00	190	1,600	0.119 *	V/C:	0.491
Northbound	RT	1.00	140	1,600	0.000	Lost Time:	0.000
	TH	1.00	150	1,600	0.094		
	LT	1.00	50	1,600	0.031 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.491
	TH	2.00	200	3,200	0.078 *		
	LT	1.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.335 *
	TH	1.00	115	1,600	0.116	N-S(2):	0.154
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.308
Westbound	RT	1.00	80	1,600	0.013	E-W(2):	0.413 *
	TH	1.00	350	1,600	0.219 *		
	LT	1.00	240	1,600	0.150	V/C:	0.748
Northbound	RT	1.00	450	1,600	0.131	Lost Time:	0.000
	TH	1.00	475	1,600	0.297 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	70	0	0.000	ICU:	0.748
	TH	2.00	435	3,200	0.158		
	LT	1.00	310	1,600	0.194 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND MAIN ST (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.025 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	40	1,600	0.025 *	E-W(1):	0.181 *
Westbound	RT	1.00	90	1,600	0.031	E-W(2):	0.031
	TH	0.00	0	0	0.000		
	LT	1.00	290	1,600	0.181 *	V/C:	0.206
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.206
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.019 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	30	1,600	0.019 *	E-W(1):	0.091 *
Westbound	RT	1.00	30	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	145	1,600	0.091 *	V/C:	0.110
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.110
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND FAULKNER RD
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	610	1,600	0.313 *	N-S(1):	0.156
	TH	1.00	120	1,600	0.075	N-S(2):	0.376 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.069 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.445
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	250	1,600	0.156		
	LT	1.00	100	1,600	0.063 *		
Eastbound	RT	1.00	35	1,600	0.000	ICU:	0.445
	TH	0.00	0	0	0.000		
	LT	1.00	110	1,600	0.069 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	390	1,600	0.050	N-S(1):	0.422 *
	TH	1.00	135	1,600	0.084	N-S(2):	0.159
	LT	0.00	0	0	0.000 *	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.194 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.616
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	675	1,600	0.422 *		
	LT	1.00	120	1,600	0.075		
Eastbound	RT	1.00	115	1,600	0.000	ICU:	0.616
	TH	0.00	0	0	0.000		
	LT	1.00	310	1,600	0.194 *	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.343
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.6
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	10	50	10	50	50	75	210	30	30	10	10	80
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	50	10	50	50	75	210	30	30	10	10	80
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	50	10	50	50	75	210	30	30	10	10	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	50	10	50	50	75	210	30	30	10	10	80
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	50	10	50	50	75	210	30	30	10	10	80
Saturation Flow Module:												
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:	0.14	0.72	0.14	0.28	0.29	0.43	1.00	0.78	0.22	0.20	0.80	1.00
Final Sat.:	92	458	92	197	197	296	611	535	153	123	492	713
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.11	0.25	0.25	0.25	0.34	0.06	0.20	0.08	0.02	0.11
Crit Moves:	****			****			****					****
Delay/Veh:	8.8	8.8	8.8	9.5	9.5	9.5	11.3	9.0	9.0	8.8	8.8	8.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.8	8.8	8.8	9.5	9.5	9.5	11.3	9.0	9.0	8.8	8.8	8.1
LOS by Move:	A	A	A	A	A	A	B	A	A	A	A	A
ApproachDel:	8.8			9.5			10.4			8.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.8			9.5			10.4			8.3		
LOS by Appr:	A			A			B			A		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	0.5	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.170
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	58.1
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	10	65	10	100	35	125	670	80	20	10	10	100
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	65	10	100	35	125	670	80	20	10	10	100
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	65	10	100	35	125	670	80	20	10	10	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	65	10	100	35	125	670	80	20	10	10	100
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	65	10	100	35	125	670	80	20	10	10	100
Saturation Flow Module:												
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:	0.12	0.76	0.12	0.38	0.13	0.49	1.00	0.95	0.05	0.17	0.83	1.00
Final Sat.:	62	401	62	226	79	282	573	592	32	84	420	566
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.44	0.44	0.44	1.17	0.14	0.62	0.12	0.02	0.18
Crit Moves:		****			****		****					****
Delay/Veh:	10.8	10.8	10.8	13.7	13.7	13.7	116.3	17.2	17.2	10.5	10.5	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	10.8	10.8	13.7	13.7	13.7	116.3	17.2	17.2	10.5	10.5	10.1
LOS by Move:	B	B	B	B	B	B	F	C	C	B	B	B
ApproachDel:		10.8			13.7			80.2			10.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.8			13.7			80.2			10.2	
LOS by Appr:		B			B			F			B	
AllWayAvgQ:	0.2	0.2	0.2	0.8	0.8	0.8	17.1	1.5	1.5	0.1	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.2
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.67	0.33	1.00	1.00	0.56	0.44	1.00	1.33	0.67	1.00	1.57	0.43
Final Sat.:	337	168	591	475	296	237	479	696	366	604	1042	294
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.17	0.05	0.03	0.04	0.02	0.06	0.05	0.93	0.11	0.10
Crit Moves:			****	****				****		****		
Delay/Veh:	10.8	10.8	9.7	10.4	9.5	9.5	10.1	9.7	9.3	44.3	8.7	8.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	10.8	9.7	10.4	9.5	9.5	10.1	9.7	9.3	44.3	8.7	8.4
LOS by Move:	B	B	A	B	A	A	B	A	A	E	A	A
ApproachDel:	10.2			10.0			9.7			37.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.2			10.0			9.7			37.2		
LOS by Appr:	B			A			A			E		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	6.0	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.48	0.52	1.00	1.00	0.84	0.16	1.00	1.44	0.56	1.00	1.00	1.00
Final Sat.:	225	247	538	440	398	76	435	683	276	491	520	578
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.32	0.22	0.05	0.13	0.02	0.26	0.25	0.67	0.19	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	11.9	11.9	11.7	12.4	10.8	10.8	10.7	12.3	11.8	22.7	10.9	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.9	11.9	11.7	12.4	10.8	10.8	10.7	12.3	11.8	22.7	10.9	10.2
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
ApproachDel:	11.8			11.7			12.1			17.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.8			11.7			12.1			17.8		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.3	0.3	1.8	0.2	0.2

Note: Queue reported is the number of cars per lane.

CUMULATIVE BASE PLUS PROJECT PLUS BY-PASS ROUTE PLUS MITIGATION (2020)

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR AND SR 126 / VENTURA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	450	3,200	0.087	N-S(1):	0.247 *
	TH	1.00	190	1,600	0.119	N-S(2):	0.163
	LT	2.00	480	2,560	0.188 *	E-W(1):	0.217
Westbound	RT	1.00	650	1,600	0.256	E-W(2):	0.446 *
	TH	3.00	1,495	4,800	0.311 *		
	LT	1.00	110	1,600	0.069	V/C:	0.693
Northbound	RT	1.00	60	1,600	0.000	Lost Time:	0.000
	TH	1.00	95	1,600	0.059 *		
	LT	1.00	70	1,600	0.044		
Eastbound	RT	1.00	210	1,600	0.088	ICU:	0.693
	TH	3.00	710	4,800	0.148		
	LT	2.00	345	2,560	0.135 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	445	3,200	0.057	N-S(1):	0.327 *
	TH	1.00	125	1,600	0.078	N-S(2):	0.253
	LT	2.00	510	2,560	0.199 *	E-W(1):	0.411
Westbound	RT	1.00	550	1,600	0.184	E-W(2):	0.423 *
	TH	3.00	1,045	4,800	0.218 *		
	LT	1.00	60	1,600	0.038	V/C:	0.750
Northbound	RT	1.00	130	1,600	0.044	Lost Time:	0.000
	TH	1.00	205	1,600	0.128 *		
	LT	1.00	280	1,600	0.175		
Eastbound	RT	1.00	190	1,600	0.000	ICU:	0.750
	TH	3.00	1,790	4,800	0.373		
	LT	2.00	525	2,560	0.205 *	LOS:	C

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR AND TELEGRAPH RD
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	175	1,600	0.000	N-S(1):	0.228
	TH	2.00	840	3,200	0.263 *	N-S(2):	0.507 *
	LT	1.00	10	1,600	0.006	E-W(1):	0.094
Westbound	RT	0.00	5	0	0.000	E-W(2):	0.178 *
	TH	1.00	30	1,600	0.022 *		
	LT	1.00	50	1,600	0.031	V/C:	0.685
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.000
	TH	2.00	670	3,200	0.222		
	LT	1.00	390	1,600	0.244 *		
Eastbound	RT	1.00	250	1,600	0.000	ICU:	0.685
	TH	1.00	100	1,600	0.063		
	LT	1.00	250	1,600	0.156 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	200	1,600	0.000	N-S(1):	0.317
	TH	2.00	785	3,200	0.245 *	N-S(2):	0.429 *
	LT	1.00	5	1,600	0.003	E-W(1):	0.069
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.190 *
	TH	1.00	80	1,600	0.056 *		
	LT	1.00	50	1,600	0.031	V/C:	0.619
Northbound	RT	0.00	50	0	0.000	Lost Time:	0.000
	TH	2.00	955	3,200	0.314		
	LT	1.00	295	1,600	0.184 *		
Eastbound	RT	1.00	265	1,600	0.000	ICU:	0.619
	TH	1.00	60	1,600	0.038		
	LT	1.00	215	1,600	0.134 *	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: 12TH ST AND SANTA PAULA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.138
	TH	1.00	285	1,600	0.241 *	N-S(2):	0.279 *
	LT	0.00	70	1,600	0.044	E-W(1):	0.325 *
Westbound	RT	0.00	50	0	0.000	E-W(2):	0.197
	TH	1.00	255	1,600	0.191		
	LT	1.00	210	1,600	0.131 *	V/C:	0.604
Northbound	RT	1.00	90	1,600	0.000	Lost Time:	0.000
	TH	1.00	90	1,600	0.094		
	LT	0.00	60	1,600	0.038 *		
Eastbound	RT	1.00	40	1,600	0.000	ICU:	0.604
	TH	1.00	310	1,600	0.194 *		
	LT	1.00	10	1,600	0.006	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.310 *
	TH	1.00	215	1,600	0.219	N-S(2):	0.250
	LT	0.00	105	1,600	0.066 *	E-W(1):	0.306 *
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.188
	TH	1.00	240	1,600	0.175		
	LT	1.00	175	1,600	0.109 *	V/C:	0.616
Northbound	RT	1.00	220	1,600	0.028	Lost Time:	0.000
	TH	1.00	340	1,600	0.244 *		
	LT	0.00	50	1,600	0.031		
Eastbound	RT	1.00	30	1,600	0.000	ICU:	0.616
	TH	1.00	315	1,600	0.197 *		
	LT	1.00	20	1,600	0.013	LOS:	B

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD & ORCHARD ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.254 *
	TH	2.00	660	3,200	0.206	N-S(2):	0.206
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.091 *
Westbound	RT	0.10	15	166	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.90	130	1,434	0.091 *	V/C:	0.345
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.000
	TH	1.00	355	1,600	0.241 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.345
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.147
	TH	1.00	450	1,600	0.281 *	N-S(2):	0.281 *
	LT	1.00	10	1,600	0.006	E-W(1):	0.228 *
Westbound	RT	0.67	245	1,074	0.219	E-W(2):	0.219
	TH	0.00	0	0	0.000		
	LT	0.33	120	526	0.228 *	V/C:	0.509
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	2.00	390	3,200	0.141		
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.509
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[11.3]

Street Name:	Ojai Rd									Saticoy St							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	435		60		180	830		0		0		0		0	0		0		30
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	435		60		180	830		0		0		0		0	0		0		30
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	435		60		180	830		0		0		0		0	0		0		30
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	435		60		180	830		0		0		0		0	0		0		30
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		xxxx		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		xxxx		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		495	xxxx		xxxxx		xxxx		xxxx		xxxxx	1240		xxxx		465
Potent Cap.:	xxxx	xxxx		xxxxx		1079	xxxx		xxxxx		xxxx		xxxx		xxxxx	195		xxxx		602
Move Cap.:	xxxx	xxxx		xxxxx		1079	xxxx		xxxxx		xxxx		xxxx		xxxxx	170		xxxx		602
Volume/Cap:	xxxx	xxxx		xxxx		0.17	xxxx		xxxx		xxxx		xxxx		xxxx	0.00		xxxx		0.05
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.6	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		0.2
Control Del:	xxxxx	xxxx		xxxxx		9.0	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		11.3
LOS by Move:	*	*		*		A	*		*		*		*		*	*		*		B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*	*		*		*	*		*		*		*		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.3				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ojai Rd & Saticoy St

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[10.2]

Street Name:	Ojai Rd									Saticoy St							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	550		100		40	520		0		0		0		0	0		0		30
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	550		100		40	520		0		0		0		0	0		0		30
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	550		100		40	520		0		0		0		0	0		0		30
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	550		100		40	520		0		0		0		0	0		0		30
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx		6.4	xxxx		6.2	
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx		3.5	xxxx		3.3	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		650	xxxx		xxxxx		xxxx	xxxx		xxxxx		1200	xxxx		325	
Potent Cap.:	xxxx	xxxx		xxxxx		946	xxxx		xxxxx		xxxx	xxxx		xxxxx		206	xxxx		721	
Move Cap.:	xxxx	xxxx		xxxxx		946	xxxx		xxxxx		xxxx	xxxx		xxxxx		200	xxxx		721	
Volume/Cap:	xxxx	xxxx		xxxx		0.04	xxxx		xxxx		xxxx	xxxx		xxxx		0.00	xxxx		0.04	
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		0.1	
Control Del:	xxxxx	xxxx		xxxxx		9.0	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		10.2	
LOS by Move:	*	*		*		A	*		*		*	*		*		*	*		B	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*		*		*	*		*		*	*		*		*	*		*	
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					10.2				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: OJAI RD & SANTA PAULA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS W/MITS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	120	0	0.000	N-S(1):	0.356 *
	TH	2.00	730	3,200	0.266	N-S(2):	0.316
	LT	1.00	155	1,600	0.097 *	E-W(1):	0.253 *
Westbound	RT	1.00	55	1,600	0.000	E-W(2):	0.219
	TH	1.00	330	1,600	0.206		
	LT	1.00	30	1,600	0.019 *	V/C:	0.609
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	1.00	395	1,600	0.259 *		
	LT	1.00	80	1,600	0.050		
Eastbound	RT	1.00	50	1,600	0.000	ICU:	0.609
	TH	1.00	375	1,600	0.234 *		
	LT	1.00	20	1,600	0.013	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	160	1,600	0.094	N-S(1):	0.294
	TH	1.00	395	1,600	0.247 *	N-S(2):	0.313 *
	LT	1.00	110	1,600	0.069	E-W(1):	0.263 *
Westbound	RT	1.00	150	1,600	0.025	E-W(2):	0.203
	TH	1.00	315	1,600	0.197		
	LT	1.00	20	1,600	0.013 *	V/C:	0.576
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	2.00	710	3,200	0.225		
	LT	1.00	105	1,600	0.066 *		
Eastbound	RT	1.00	50	1,600	0.000	ICU:	0.576
	TH	1.00	400	1,600	0.250 *		
	LT	1.00	10	1,600	0.006	LOS:	A

* - Denotes critical movement

Project Title: **SANTA PAULA TRAFFIC IMPACT ANALYSIS**
Intersection: **10TH ST AND HARVARD BL**
Description: **CUMULATIVE BASE + PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	170	0	0.000	N-S(1):	0.216
	TH	2.00	585	3,200	0.236 *	N-S(2):	0.261 *
	LT	1.00	30	1,600	0.019	E-W(1):	0.459 *
Westbound	RT	0.00	30	0	0.000	E-W(2):	0.301
	TH	1.00	350	1,600	0.238		
	LT	1.00	200	1,600	0.125 *	V/C:	0.720
Northbound	RT	1.00	110	1,600	0.000	Lost Time:	0.000
	TH	1.00	315	1,600	0.197		
	LT	1.00	40	1,600	0.025 *		
Eastbound	RT	0.00	120	0	0.000	ICU:	0.720
	TH	1.00	415	1,600	0.334 *		
	LT	1.00	100	1,600	0.063	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	190	0	0.000	N-S(1):	0.338 *
	TH	2.00	405	3,200	0.186	N-S(2):	0.236
	LT	1.00	20	1,600	0.013 *	E-W(1):	0.404
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.416 *
	TH	1.00	475	1,600	0.322 *		
	LT	1.00	140	1,600	0.088	V/C:	0.754
Northbound	RT	1.00	200	1,600	0.038	Lost Time:	0.000
	TH	1.00	520	1,600	0.325 *		
	LT	1.00	80	1,600	0.050		
Eastbound	RT	0.00	110	0	0.000	ICU:	0.754
	TH	1.00	395	1,600	0.316		
	LT	1.00	150	1,600	0.094 *	LOS:	C

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.9
Optimal Cycle:	0	Level Of Service:	C

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	110	195	30	200	40	20	320	40	170	225	30
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:	50	110	195	30	200	40	20	320	40	170	225	30
Saturation Flow Module:												
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:	0.31	0.69	1.00	0.11	0.74	0.15	0.05	0.84	0.11	0.40	0.53	0.07
Final Sat.:	132	291	470	49	330	66	26	422	53	204	270	36
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.41	0.61	0.61	0.61	0.76	0.76	0.76	0.83	0.83	0.83
Crit Moves:			****		****			****			****	
Delay/Veh:	14.8	14.8	14.0	19.2	19.2	19.2	26.1	26.1	26.1	32.9	32.9	32.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.8	14.8	14.0	19.2	19.2	19.2	26.1	26.1	26.1	32.9	32.9	32.9
LOS by Move:	B	B	B	C	C	C	D	D	D	D	D	D
ApproachDel:		14.3			19.2			26.1			32.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.3			19.2			26.1			32.9	
LOS by Appr:		B			C			D			D	
AllWayAvgQ:	0.5	0.5	0.6	1.1	1.1	1.1	2.3	2.3	2.3	3.3	3.3	3.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 8th St & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.771
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.6
Optimal Cycle:	0	Level Of Service:	C

Street Name:	8th St						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	210	170	10	80	30	40	280	50	175	245	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:	50	210	170	10	80	30	40	280	50	175	245	10
Saturation Flow Module:												
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:	0.19	0.81	1.00	0.08	0.67	0.25	0.11	0.76	0.13	0.41	0.57	0.02
Final Sat.:	92	388	538	36	286	107	60	417	74	227	318	13
Capacity Analysis Module:												
Vol/Sat:	0.54	0.54	0.32	0.28	0.28	0.28	0.67	0.67	0.67	0.77	0.77	0.77
Crit Moves:		****		****				****		****		
Delay/Veh:	17.2	17.2	11.7	12.4	12.4	12.4	20.1	20.1	20.1	25.9	25.9	25.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.2	17.2	11.7	12.4	12.4	12.4	20.1	20.1	20.1	25.9	25.9	25.9
LOS by Move:	C	C	B	B	B	B	C	C	C	D	D	D
ApproachDel:		15.1			12.4			20.1			25.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.1			12.4			20.1			25.9	
LOS by Appr:		C			B			C			D	
AllWayAvgQ:	1.0	1.0	0.4	0.3	0.3	0.3	1.6	1.6	1.6	2.6	2.6	2.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.884
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.4
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	60	145	30	80	20	30	355	100	165	260	40
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:	80	60	145	30	80	20	30	355	100	165	260	40
Saturation Flow Module:												
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:	0.57	0.43	1.00	0.23	0.62	0.15	0.06	0.73	0.21	1.00	0.87	0.13
Final Sat.:	254	191	506	99	264	66	34	402	113	488	461	71
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.29	0.30	0.30	0.30	0.88	0.88	0.88	0.34	0.56	0.56
Crit Moves:	****				****				****		****	
Delay/Veh:	13.6	13.6	11.9	13.8	13.8	13.8	39.6	39.6	39.6	13.4	17.0	17.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.6	13.6	11.9	13.8	13.8	13.8	39.6	39.6	39.6	13.4	17.0	17.0
LOS by Move:	B	B	B	B	B	B	E	E	E	B	C	C
ApproachDel:	12.7			13.8			39.6			15.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			13.8			39.6			15.7		
LOS by Appr:	B			B			E			C		
AllWayAvgQ:	0.4	0.4	0.3	0.4	0.4	0.4	4.6	4.6	4.6	0.5	1.1	1.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #22 Palm Av & Santa Paula St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.640
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Palm Av						Santa Paula St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	140	60	165	30	60	20	10	270	70	125	230	20
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:	140	60	165	30	60	20	10	270	70	125	230	20
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:	140	60	165	30	60	20	10	270	70	125	230	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	60	165	30	60	20	10	270	70	125	230	20
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:	140	60	165	30	60	20	10	270	70	125	230	20
Saturation Flow Module:												
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:	0.70	0.30	1.00	0.27	0.55	0.18	0.03	0.77	0.20	1.00	0.92	0.08
Final Sat.:	339	145	563	123	246	82	16	422	109	497	496	43
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.29	0.24	0.24	0.24	0.64	0.64	0.64	0.25	0.46	0.46
Crit Moves:	****				****			****			****	
Delay/Veh:	14.4	14.4	11.1	12.3	12.3	12.3	19.4	19.4	19.4	11.9	14.3	14.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.4	14.4	11.1	12.3	12.3	12.3	19.4	19.4	19.4	11.9	14.3	14.3
LOS by Move:	B	B	B	B	B	B	C	C	C	B	B	B
ApproachDel:	12.9			12.3			19.4			13.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.9			12.3			19.4			13.5		
LOS by Appr:	B			B			C			B		
AllWayAvgQ:	0.6	0.6	0.4	0.3	0.3	0.3	1.5	1.5	1.5	0.3	0.8	0.8

Note: Queue reported is the number of cars per lane.

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND HARVARD BL (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	115	0	0.000	N-S(1):	0.122
	TH	2.00	305	3,200	0.131 *	N-S(2):	0.162 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.197 *
Westbound	RT	1.00	120	1,600	0.000	E-W(2):	0.190
	TH	1.00	175	1,600	0.109		
	LT	1.00	190	1,600	0.119 *	V/C:	0.359
Northbound	RT	1.00	140	1,600	0.000	Lost Time:	0.000
	TH	2.00	150	3,200	0.047		
	LT	1.00	50	1,600	0.031 *		
Eastbound	RT	0.00	50	0	0.000	ICU:	0.359
	TH	2.00	200	3,200	0.078 *		
	LT	1.00	130	1,600	0.081	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.186 *
	TH	2.00	115	3,200	0.058	N-S(2):	0.096
	LT	1.00	60	1,600	0.038 *	E-W(1):	0.308
Westbound	RT	1.00	80	1,600	0.013	E-W(2):	0.413 *
	TH	1.00	350	1,600	0.219 *		
	LT	1.00	240	1,600	0.150	V/C:	0.599
Northbound	RT	1.00	450	1,600	0.131	Lost Time:	0.000
	TH	2.00	475	3,200	0.148 *		
	LT	1.00	60	1,600	0.038		
Eastbound	RT	0.00	70	0	0.000	ICU:	0.599
	TH	2.00	435	3,200	0.158		
	LT	1.00	310	1,600	0.194 *	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND MAIN ST (AS PART OF INTERSECTION 32)
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.025 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	40	1,600	0.025 *	E-W(1):	0.181 *
Westbound	RT	1.00	90	1,600	0.031	E-W(2):	0.031
	TH	0.00	0	0	0.000		
	LT	1.00	290	1,600	0.181 *	V/C:	0.206
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.206
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.019 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	1.00	30	1,600	0.019 *	E-W(1):	0.091 *
Westbound	RT	1.00	30	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	145	1,600	0.091 *	V/C:	0.110
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.110
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: PECK RD AND SR-126 EB RAMPS
Description: CUMULATIVE BASE + PROJECT + MITIGATIONS CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	75	0	0.000	N-S(1):	0.075
	TH	1.00	50	1,600	0.109 *	N-S(2):	0.115 *
	LT	0.00	50	1,600	0.031	E-W(1):	0.175
Westbound	RT	0.00	80	1,600	0.050 *	E-W(2):	0.181 *
	TH	2.00	10	1,600	0.013		
	LT	0.00	10	1,600	0.006	V/C:	0.296
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	50	1,600	0.044		
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	30	0	0.000	ICU:	0.296
	TH	2.00	30	1,600	0.169		
	LT	0.00	210	1,600	0.131 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	125	0	0.000	N-S(1):	0.116
	TH	1.00	35	1,600	0.163 *	N-S(2):	0.169 *
	LT	0.00	100	1,600	0.063	E-W(1):	0.487 *
Westbound	RT	0.00	100	1,600	0.063	E-W(2):	0.482
	TH	2.00	10	1,600	0.013		
	LT	0.00	10	1,600	0.006 *	V/C:	0.656
Northbound	RT	0.00	10	0	0.000	Lost Time:	0.000
	TH	1.00	65	1,600	0.053		
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.656
	TH	2.00	80	1,600	0.481 *		
	LT	0.00	670	1,600	0.419	LOS:	B

* - Denotes critical movement

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.467
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	2 0	0 1	0
Volume Module:												
Base Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.67	0.33	1.00	1.00	0.56	0.44	1.00	1.33	0.67	2.00	0.79	0.21
Final Sat.:	339	170	596	479	298	238	477	695	365	1198	526	143
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.17	0.05	0.03	0.04	0.02	0.06	0.05	0.47	0.21	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	10.5	10.5	9.4	10.1	9.2	9.2	10.0	9.6	9.2	13.6	9.3	9.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	9.4	10.1	9.2	9.2	10.0	9.6	9.2	13.6	9.3	9.3
LOS by Move:	B	B	A	B	A	A	A	A	A	B	A	A
ApproachDel:	9.9			9.7			9.5			12.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			9.7			9.5			12.7		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.3	0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.398
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	2 0	0 1	0
Volume Module:												
Base Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.48	0.52	1.00	1.00	0.84	0.16	1.00	1.44	0.56	2.00	0.45	0.55
Final Sat.:	227	249	546	445	403	77	438	688	278	974	251	302
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.31	0.21	0.05	0.13	0.02	0.26	0.25	0.34	0.40	0.40
Crit Moves:			****	****				****				****
Delay/Veh:	11.8	11.8	11.5	12.2	10.7	10.7	10.6	12.2	11.7	13.3	12.9	12.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.5	12.2	10.7	10.7	10.6	12.2	11.7	13.3	12.9	12.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.6			11.6			12.0			13.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.6			11.6			12.0			13.2		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.3	0.3	0.5	0.6	0.6

Note: Queue reported is the number of cars per lane.

INTERNAL INTERSECTION LEVEL OF SERVICE WORKSHEETS FOR CUMULATIVE BASE PLUS PROJECT (2020)

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR / SANTA PAULA ST
Description: CUMULATIVE BASE + PROJECT CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	15	0	0.000	N-S(1):	0.372
	TH	1.00	715	1,600	0.456 *	N-S(2):	0.659 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.009 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.668
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	595	1,600	0.372		
	LT	1.00	325	1,600	0.203 *		
Eastbound	RT	1.00	290	1,600	0.000	ICU:	0.668
	TH	0.00	0	0	0.000		
	LT	1.00	15	1,600	0.009 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	20	0	0.000	N-S(1):	0.522
	TH	1.00	695	1,600	0.447 *	N-S(2):	0.667 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.031 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.698
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	835	1,600	0.522		
	LT	1.00	352	1,600	0.220 *		
Eastbound	RT	1.00	285	1,600	0.000	ICU:	0.698
	TH	0.00	0	0	0.000		
	LT	1.00	50	1,600	0.031 *	LOS:	B

* - Denotes critical movement

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #37 Hallock / Teague McKevett
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.218
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         8.7
Optimal Cycle:         0                Level Of Service:                  A
*******************************************************************************
Street Name:            Hallock Dr                    Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  0  1  0    1  0  0  1  0    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   30    40    10   80    10    10   10    10   140   20    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:   10   30    40    10   80    10    10   10    10   140   20    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:    10   30    40    10   80    10    10   10    10   140   20    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   30    40    10   80    10    10   10    10   140   20    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:   10   30    40    10   80    10    10   10    10   140   20    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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 0.43  0.57  1.00 0.89  0.11  1.00 0.50  0.50  1.00 0.67  0.33
Final Sat.:   620  315   420   623  617    77   621  364   364   642  491   246
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.10  0.10  0.02 0.13  0.13  0.02 0.03  0.03  0.22 0.04  0.04
Crit Moves:             ****       ****             ****        ****
Delay/Veh:    8.4  7.9   7.9   8.4  8.4   8.4   8.4  7.6   7.6   9.6  7.6   7.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.4  7.9   7.9   8.4  8.4   8.4   8.4  7.6   7.6   9.6  7.6   7.6
LOS by Move:   A    A     A     A    A     A     A    A     A     A    A     A
ApproachDel:       8.0              8.4              7.9              9.3
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:        8.0              8.4              7.9              9.3
LOS by Appr:        A                A                A                A
AllWayAvgQ:   0.0  0.1   0.1   0.0  0.1   0.1   0.0  0.0   0.0   0.3  0.0   0.0
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #37 Hallock / Teague McKevett
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.176
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         8.1
Optimal Cycle:         0                Level Of Service:                  A
*******************************************************************************
Street Name:            Hallock Dr                    Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  0  1  0    1  0  0  1  0    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   10   130    10   10    10    10   70    10    60   40    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:   10   10   130    10   10    10    10   70    10    60   40    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:    10   10   130    10   10    10    10   70    10    60   40    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   10   130    10   10    10    10   70    10    60   40    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:   10   10   130    10   10    10    10   70    10    60   40    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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 0.07  0.93  1.00 0.50  0.50  1.00 0.87  0.13  1.00 0.80  0.20
Final Sat.:   632   57   738   618  362   362   633  620    89   637  574   144
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.18  0.18  0.02 0.03  0.03  0.02 0.11  0.11  0.09 0.07  0.07
Crit Moves:       ****             ****             ****        ****
Delay/Veh:    8.3  8.0   8.0   8.4  7.6   7.6   8.3  8.2   8.2   8.7  7.9   7.9
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.3  8.0   8.0   8.4  7.6   7.6   8.3  8.2   8.2   8.7  7.9   7.9
LOS by Move:   A    A     A     A    A     A     A    A     A     A    A     A
ApproachDel:       8.0              7.9              8.2              8.4
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:        8.0              7.9              8.2              8.4
LOS by Appr:        A                A                A                A
AllWayAvgQ:   0.0  0.2   0.2   0.0  0.0   0.0   0.0  0.1   0.1   0.1  0.1   0.1
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #38 Santa Paula Creek / Santa Paula
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.780
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        17.1
Optimal Cycle:         0                Level Of Service:                 C
*******************************************************************************
Street Name:       Santa Paula Creek Dr                 Santa Paula St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
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    0  1  0  0  0    0  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    10    0    25    10  630     0     0  330    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:    0    0     0    10    0    25    10  630     0     0  330    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:     0    0     0    10    0    25    10  630     0     0  330    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    10    0    25    10  630     0     0  330    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:    0    0     0    10    0    25    10  630     0     0  330    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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  0.02 0.98  0.00  0.00 0.97  0.03
Final Sat.:     0    0     0   483    0   573    13  808     0     0  743    23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.02 xxxx  0.04  0.78 0.78  xxxx  xxxx 0.44  0.44
Crit Moves:                                ****       ****                    ****
Delay/Veh:    0.0  0.0   0.0   9.8  0.0   8.7  20.7 20.7   0.0   0.0 11.1  11.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0   9.8  0.0   8.7  20.7 20.7   0.0   0.0 11.1  11.1
LOS by Move:   *    *     *     A    *     A     C    C     *     *    B     B
ApproachDel:    xxxxxx              9.0             20.7             11.1
Delay Adj:       xxxxx             1.00             1.00             1.00
ApprAdjDel:     xxxxxx              9.0             20.7             11.1
LOS by Appr:        *                A                C                B
AllWayAvgQ:   0.0  0.0   0.0   0.0  0.0   0.0   3.0  3.0   3.0   0.7  0.7   0.7
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #38 Santa Paula Creek / Santa Paula
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.704
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        15.7
Optimal Cycle:         0                Level Of Service:                 C
*******************************************************************************
Street Name:       Santa Paula Creek Dr                 Santa Paula St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
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    0  1  0  0  0    0  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    10    0    85   115  415     0     0  440    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:    0    0     0    10    0    85   115  415     0     0  440    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:     0    0     0    10    0    85   115  415     0     0  440    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    10    0    85   115  415     0     0  440    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:    0    0     0    10    0    85   115  415     0     0  440    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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  0.22 0.78  0.00  0.00 0.98  0.02
Final Sat.:     0    0     0   470    0   555   163  589     0     0  728    17
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.02 xxxx  0.15  0.70 0.70  xxxx  xxxx 0.60  0.60
Crit Moves:                                ****       ****             ****
Delay/Veh:    0.0  0.0   0.0   9.8  0.0   9.4  17.8 17.8   0.0   0.0 14.5  14.5
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0   9.8  0.0   9.4  17.8 17.8   0.0   0.0 14.5  14.5
LOS by Move:   *    *     *     A    *     A     C    C     *     *    B     B
ApproachDel:    xxxxxx              9.5             17.8             14.5
Delay Adj:       xxxxx             1.00             1.00             1.00
ApprAdjDel:     xxxxxx              9.5             17.8             14.5
LOS by Appr:        *                A                C                B
AllWayAvgQ:   0.0  0.0   0.0   0.0  0.0   0.1   2.1  2.1   2.1   1.4  1.4   1.4
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #39 Santa Paula Creek / Teague-McKevett
*******************************************************************************
Average Delay (sec/veh):      3.5       Worst Case Level Of Service: A[  8.6]
*******************************************************************************
Street Name:       Santa Paula Creek Dr                Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   10    10    10   20     0     0    0     0    10    0    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:    0   10    10    10   20     0     0    0     0    10    0    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:     0   10    10    10   20     0     0    0     0    10    0    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   10    10    10   20     0     0    0     0    10    0    10
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    20 xxxx xxxxx  xxxx xxxx xxxxx    55 xxxx    15
Potent Cap.: xxxx xxxx xxxxx  1609 xxxx xxxxx  xxxx xxxx xxxxx   958 xxxx  1070
Move Cap.:   xxxx xxxx xxxxx  1609 xxxx xxxxx  xxxx xxxx xxxxx   953 xxxx  1070
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 xxxx  0.01
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx   0.0
Control Del:xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx   8.4
LOS by Move:   *    *     *     A    *     *     *    *     *     A    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx              8.6
ApproachLOS:        *                *                *                A
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #39 Santa Paula Creek / Teague-McKevett
******************************************************************************
Average Delay (sec/veh):      2.3       Worst Case Level Of Service: A[  8.8]
******************************************************************************
Street Name:       Santa Paula Creek Dr               Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   40    10    10   30     0     0    0     0    10    0    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:    0   40    10    10   30     0     0    0     0    10    0    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:     0   40    10    10   30     0     0    0     0    10    0    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   40    10    10   30     0     0    0     0    10    0    10
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    50 xxxx xxxxx  xxxx xxxx xxxxx    95 xxxx    45
Potent Cap.: xxxx xxxx xxxxx  1570 xxxx xxxxx  xxxx xxxx xxxxx   909 xxxx  1031
Move Cap.:   xxxx xxxx xxxxx  1570 xxxx xxxxx  xxxx xxxx xxxxx   905 xxxx  1031
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 xxxx  0.01
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx   0.0
Control Del:xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx   8.5
LOS by Move:   *    *     *     A    *     *     *    *     *     A    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx               8.8
ApproachLOS:        *                *                *                 A
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #40 Hallock / Santa Paula Creek
*******************************************************************************
Average Delay (sec/veh):      4.1       Worst Case Level Of Service: A[  8.6]
*******************************************************************************
Street Name:            Hallock Dr                    Santa Paula Creek Dr
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   10     0     0   10    10    10    0    10     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:   10   10     0     0   10    10    10    0    10     0    0     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:    10   10     0     0   10    10    10    0    10     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   10   10     0     0   10    10    10    0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   20 xxxx xxxxx  xxxx xxxx xxxxx    45 xxxx    15  xxxx xxxx xxxxx
Potent Cap.: 1609 xxxx xxxxx  xxxx xxxx xxxxx   970 xxxx  1070  xxxx xxxx xxxxx
Move Cap.:   1609 xxxx xxxxx  xxxx xxxx xxxxx   966 xxxx  1070  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 xxxx  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx   0.0  xxxx xxxx xxxxx
Control Del:  7.3 xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx   8.4 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     A    *     A     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              8.6           xxxxxx
ApproachLOS:        *                *                A                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                       Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #40 Hallock / Santa Paula Creek
*******************************************************************************
Average Delay (sec/veh):      4.1       Worst Case Level Of Service: A[  8.6]
*******************************************************************************
Street Name:            Hallock Dr                    Santa Paula Creek Dr
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   10     0     0   10    10    10    0    10     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:   10   10     0     0   10    10    10    0    10     0    0     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:    10   10     0     0   10    10    10    0    10     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   10   10     0     0   10    10    10    0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:   20 xxxx xxxxx  xxxx xxxx xxxxx    45 xxxx    15  xxxx xxxx xxxxx
Potent Cap.: 1609 xxxx xxxxx  xxxx xxxx xxxxx   970 xxxx  1070  xxxx xxxx xxxxx
Move Cap.:   1609 xxxx xxxxx  xxxx xxxx xxxxx   966 xxxx  1070  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 xxxx  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx   0.0  xxxx xxxx xxxxx
Control Del:  7.3 xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx   8.4 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     A    *     A     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              8.6           xxxxxx
ApproachLOS:        *                *                A                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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INTERNAL INTERSECTION LEVEL OF SERVICE WORKSHEETS
FOR CUMULATIVE BASE PLUS PROJECT PLUS BY-PASS ROUTE (2020)

Project Title: SANTA PAULA TRAFFIC IMPACT ANALYSIS
Intersection: HALLOCK DR / SANTA PAULA ST
Description: CUMULATIVE BASE + BYPASS CONDITIONS

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	5	0	0.000	N-S(1):	0.419
	TH	1.00	835	1,600	0.525 *	N-S(2):	0.684 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.003 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.687
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	670	1,600	0.419		
	LT	1.00	255	1,600	0.159 *		
Eastbound	RT	1.00	190	1,600	0.000	ICU:	0.687
	TH	0.00	0	0	0.000		
	LT	1.00	5	1,600	0.003 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	20	0	0.000	N-S(1):	0.591
	TH	1.00	765	1,600	0.491 *	N-S(2):	0.638 *
	LT	0.00	0	0	0.000	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.028 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.666
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	1.00	945	1,600	0.591		
	LT	1.00	235	1,600	0.147 *		
Eastbound	RT	1.00	225	1,600	0.000	ICU:	0.666
	TH	0.00	0	0	0.000		
	LT	1.00	45	1,600	0.028 *	LOS:	B

* - Denotes critical movement

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                       Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #37 Hallock / Teague McKevett
******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.576
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        12.4
Optimal Cycle:         0                Level Of Service:                 B
******************************************************************************
Street Name:            Hallock Dr                    Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  0  1  0    1  0  0  1  0    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10  140    40    30  370    10    10   10    10   140   20    30
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  140    40    30  370    10    10   10    10   140   20    30
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  140    40    30  370    10    10   10    10   140   20    30
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10  140    40    30  370    10    10   10    10   140   20    30
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  140    40    30  370    10    10   10    10   140   20    30
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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 0.78  0.22  1.00 0.97  0.03  1.00 0.50  0.50  1.00 0.40  0.60
Final Sat.:   569  496   142   597  643    17   481  272   272   518  238   357
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.28  0.28  0.05 0.58  0.58  0.02 0.04  0.04  0.27 0.08  0.08
Crit Moves:       ****                    ****       ****       ****
Delay/Veh:    8.9 10.2  10.2   8.9 14.8  14.8   9.7  8.9   8.9  11.5  8.8   8.8
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.9 10.2  10.2   8.9 14.8  14.8   9.7  8.9   8.9  11.5  8.8   8.8
LOS by Move:   A    B     B     A    B     B     A    A     A     B    A     A
ApproachDel:      10.1             14.4              9.1             10.8
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       10.1             14.4              9.1             10.8
LOS by Appr:        B                B                A                B
AllWayAvgQ:   0.0  0.4   0.4   0.1  1.2   1.2   0.0  0.0   0.0   0.3  0.1   0.1
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #37 Hallock / Teague McKevett
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.582
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        12.0
Optimal Cycle:         0                Level Of Service:                 B
*******************************************************************************
Street Name:            Hallock Dr                    Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  0  1  0    1  0  0  1  0    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10  280   130    20  160    10    10   60    10    60   30    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:   10  280   130    20  160    10    10   60    10    60   30    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:    10  280   130    20  160    10    10   60    10    60   30    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10  280   130    20  160    10    10   60    10    60   30    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:   10  280   130    20  160    10    10   60    10    60   30    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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 0.68  0.32  1.00 0.94  0.06  1.00 0.86  0.14  1.00 0.75  0.25
Final Sat.:   612  481   224   586  608    38   499  468    78   505  418   139
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.58  0.58  0.03 0.26  0.26  0.02 0.13  0.13  0.12 0.07  0.07
Crit Moves:       ****             ****             ****        ****
Delay/Veh:    8.5 14.2  14.2   8.8  9.9   9.9   9.5  9.6   9.6  10.1  9.1   9.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.5 14.2  14.2   8.8  9.9   9.9   9.5  9.6   9.6  10.1  9.1   9.1
LOS by Move:   A    B     B     A    A     A     A    A     A     B    A     A
ApproachDel:      14.1             9.8             9.5             9.7
Delay Adj:        1.00            1.00            1.00            1.00
ApprAdjDel:       14.1             9.8             9.5             9.7
LOS by Appr:        B               A               A               A
AllWayAvgQ:   0.0  1.3   1.3   0.0  0.3   0.3   0.0  0.1   0.1   0.1  0.1   0.1
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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-------------------------------------------------------------------------------
                       Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #38 Santa Paula Creek / Santa Paula
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.495
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        10.4
Optimal Cycle:         0                Level Of Service:                 B
*******************************************************************************
Street Name:       Santa Paula Creek Dr                 Santa Paula St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
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    0  1  0  0  0    0  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    10    0    15    10  410     0     0  230    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:    0    0     0    10    0    15    10  410     0     0  230    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:     0    0     0    10    0    15    10  410     0     0  230    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    10    0    15    10  410     0     0  230    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:    0    0     0    10    0    15    10  410     0     0  230    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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  0.02 0.98  0.00  0.00 0.96  0.04
Final Sat.:     0    0     0   526    0   636    20  828     0     0  782    34
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.02 xxxx  0.02  0.49 0.49  xxxx  xxxx 0.29  0.29
Crit Moves:                                ****       ****             ****
Delay/Veh:    0.0  0.0   0.0   9.1  0.0   7.9  11.2 11.2   0.0   0.0  9.1   9.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0   9.1  0.0   7.9  11.2 11.2   0.0   0.0  9.1   9.1
LOS by Move:   *    *     *     A    *     A     B    B     *     *    A     A
ApproachDel:    xxxxxx              8.4             11.2              9.1
Delay Adj:       xxxxx             1.00             1.00             1.00
ApprAdjDel:     xxxxxx              8.4             11.2              9.1
LOS by Appr:        *                A                B                A
AllWayAvgQ:   0.0  0.0   0.0   0.0  0.0   0.0   0.9  0.9   0.9   0.4  0.4   0.4
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                       Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #38 Santa Paula Creek / Santa Paula
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.465
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        10.0
Optimal Cycle:         0                Level Of Service:                 B
*******************************************************************************
Street Name:       Santa Paula Creek Dr                 Santa Paula St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
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    0  1  0  0  0    0  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    10    0    45    85  300     0     0  205    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:    0    0     0    10    0    45    85  300     0     0  205    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:     0    0     0    10    0    45    85  300     0     0  205    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    10    0    45    85  300     0     0  205    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:    0    0     0    10    0    45    85  300     0     0  205    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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  0.22 0.78  0.00  0.00 0.95  0.05
Final Sat.:     0    0     0   538    0   654   183  645     0     0  766    37
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.02 xxxx  0.07  0.47 0.47  xxxx  xxxx 0.27  0.27
Crit Moves:                               ****  ****                  ****
Delay/Veh:    0.0  0.0   0.0   9.0  0.0   8.0  10.9 10.9   0.0   0.0  8.9   8.9
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0   9.0  0.0   8.0  10.9 10.9   0.0   0.0  8.9   8.9
LOS by Move:   *    *     *     A    *     A     B    B     *     *    A     A
ApproachDel:    xxxxxx              8.2             10.9              8.9
Delay Adj:       xxxxx             1.00             1.00             1.00
ApprAdjDel:     xxxxxx              8.2             10.9              8.9
LOS by Appr:        *                A                B                A
AllWayAvgQ:   0.0  0.0   0.0   0.0  0.0   0.1   0.8  0.8   0.8   0.3  0.3   0.3
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #39 Santa Paula Creek / Teague-McKevett
*******************************************************************************
Average Delay (sec/veh):      3.5       Worst Case Level Of Service: A[  8.7]
*******************************************************************************
Street Name:       Santa Paula Creek Dr               Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   10    10    20   30     0     0    0     0    10    0    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:    0   10    10    20   30     0     0    0     0    10    0    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:     0   10    10    20   30     0     0    0     0    10    0    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   10    10    20   30     0     0    0     0    10    0    10
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    20 xxxx xxxxx  xxxx xxxx xxxxx    85 xxxx    15
Potent Cap.: xxxx xxxx xxxxx  1609 xxxx xxxxx  xxxx xxxx xxxxx   921 xxxx  1070
Move Cap.:   xxxx xxxx xxxxx  1609 xxxx xxxxx  xxxx xxxx xxxxx   913 xxxx  1070
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 xxxx  0.01
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx   0.0
Control Del:xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx   8.4
LOS by Move:   *    *     *     A    *     *     *    *     *     A    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx               8.7
ApproachLOS:        *                *                *                  A
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #39 Santa Paula Creek / Teague-McKevett
*******************************************************************************
Average Delay (sec/veh):      3.7       Worst Case Level Of Service: A[  8.7]
*******************************************************************************
Street Name:       Santa Paula Creek Dr               Teague-McKevett Bl
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   30    10    20   20     0     0    0     0    10    0    20
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   30    10    20   20     0     0    0     0    10    0    20
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   30    10    20   20     0     0    0     0    10    0    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   30    10    20   20     0     0    0     0    10    0    20
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    40 xxxx xxxxx  xxxx xxxx xxxxx    95 xxxx    35
Potent Cap.: xxxx xxxx xxxxx  1583 xxxx xxxxx  xxxx xxxx xxxxx   909 xxxx  1044
Move Cap.:   xxxx xxxx xxxxx  1583 xxxx xxxxx  xxxx xxxx xxxxx   901 xxxx  1044
Volume/Cap:  xxxx xxxx  xxxx  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 xxxx  0.02
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx   0.1
Control Del:xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx   8.5
LOS by Move:   *    *     *     A    *     *     *    *     *     A    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx              8.7
ApproachLOS:        *                *                *                A
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                        Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #40 Hallock / Santa Paula Creek
******************************************************************************
Average Delay (sec/veh):      0.6       Worst Case Level Of Service: B[ 10.9]
******************************************************************************
Street Name:            Hallock Dr                    Santa Paula Creek Dr
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10  120     0     0  320    40    10    0    10     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:   10  120     0     0  320    40    10    0    10     0    0     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:    10  120     0     0  320    40    10    0    10     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   10  120     0     0  320    40    10    0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  360 xxxx xxxxx  xxxx xxxx xxxxx   480 xxxx   340  xxxx xxxx xxxxx
Potent Cap.: 1210 xxxx xxxxx  xxxx xxxx xxxxx   548 xxxx   707  xxxx xxxx xxxxx
Move Cap.:   1210 xxxx xxxxx  xxxx xxxx xxxxx   545 xxxx   707  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.02 xxxx  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx   0.0  xxxx xxxx xxxxx
Control Del:  8.0 xxxx xxxxx xxxxx xxxx xxxxx  11.7 xxxx  10.2 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     B    *     B     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  8.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             10.9           xxxxxx
ApproachLOS:        *                *                B                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #40 Hallock / Santa Paula Creek
*******************************************************************************
Average Delay (sec/veh):      1.5       Worst Case Level Of Service: B[ 12.8]
*******************************************************************************
Street Name:            Hallock Dr                   Santa Paula Creek Dr
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10  310     0     0  200    50    60    0    10     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:   10  310     0     0  200    50    60    0    10     0    0     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:    10  310     0     0  200    50    60    0    10     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   10  310     0     0  200    50    60    0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  250 xxxx xxxxx  xxxx xxxx xxxxx   555 xxxx   225  xxxx xxxx xxxxx
Potent Cap.: 1327 xxxx xxxxx  xxxx xxxx xxxxx   496 xxxx   819  xxxx xxxx xxxxx
Move Cap.:   1327 xxxx xxxxx  xxxx xxxx xxxxx   493 xxxx   819  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.12 xxxx  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx   0.4 xxxx   0.0  xxxx xxxx xxxxx
Control Del:  7.7 xxxx xxxxx xxxxx xxxx xxxxx  13.3 xxxx   9.4 xxxxx xxxx xxxxx
LOS by Move:   A    *     *     *    *     *     B    *     A     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  7.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             12.8           xxxxxx
ApproachLOS:        *                *                B                *
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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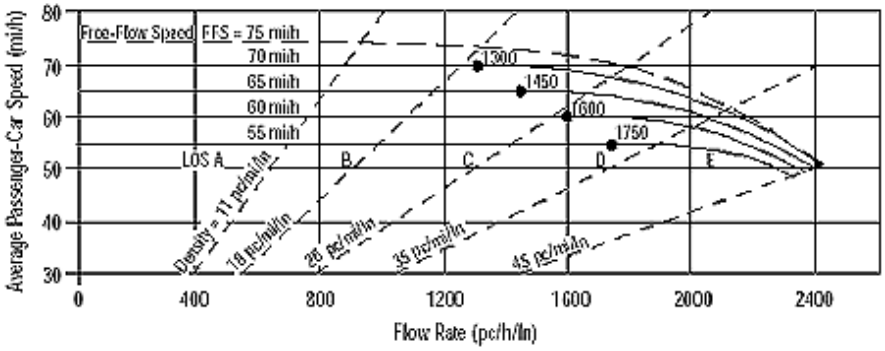
FREEWAY AND RAMP JUNCTION LEVEL OF SERVICE WORKSHEETS
EXISTING (2006)

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Hallock Dr to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1323*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*747*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*10.7*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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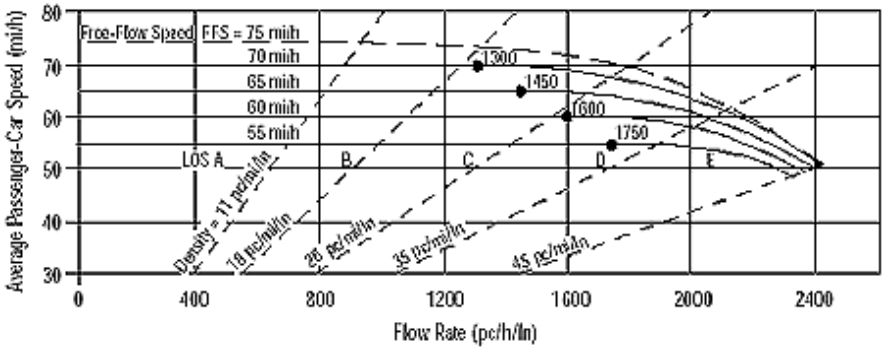

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Hallock Dr to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1036*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*585*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*8.4*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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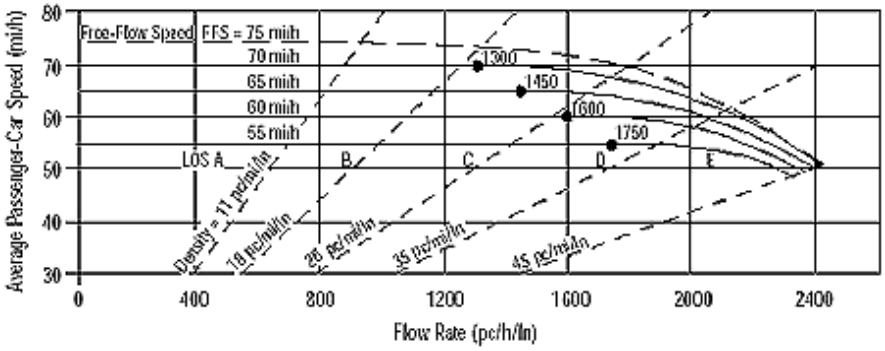

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*10th St (SR-150) to Palm Av*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1855*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1048*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
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f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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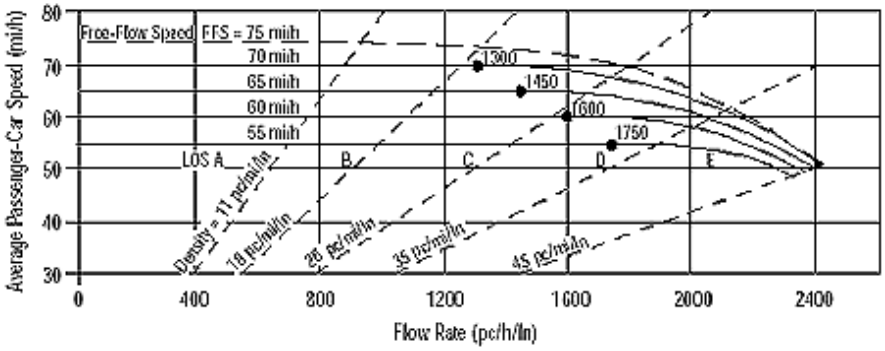

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*10th St (SR-150) to Palm Av*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1353*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*764*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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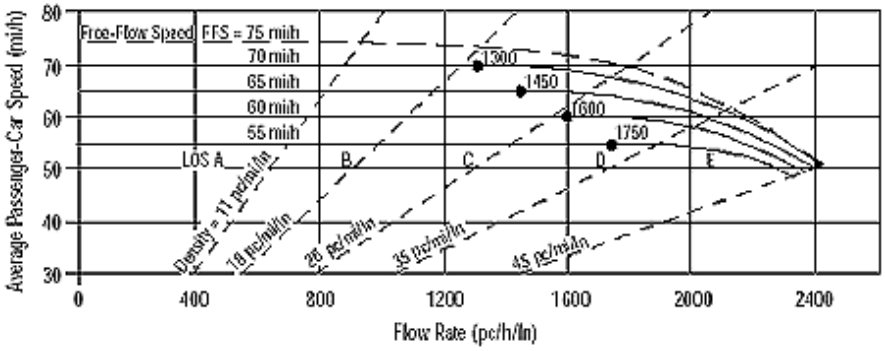

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Palm Av to Peck Rd*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2070*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1170*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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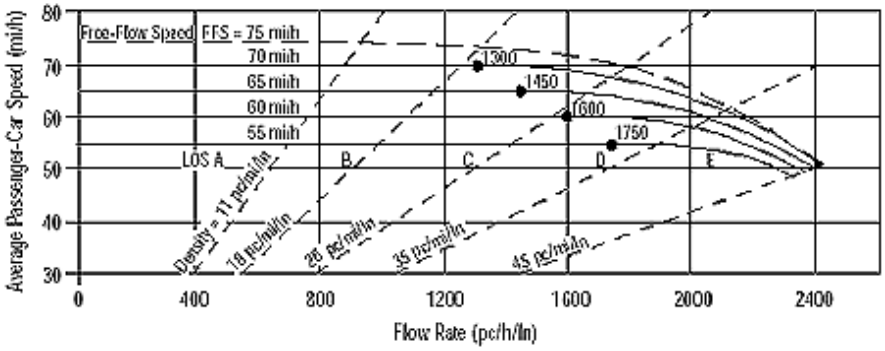

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1510*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*853*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*12.2*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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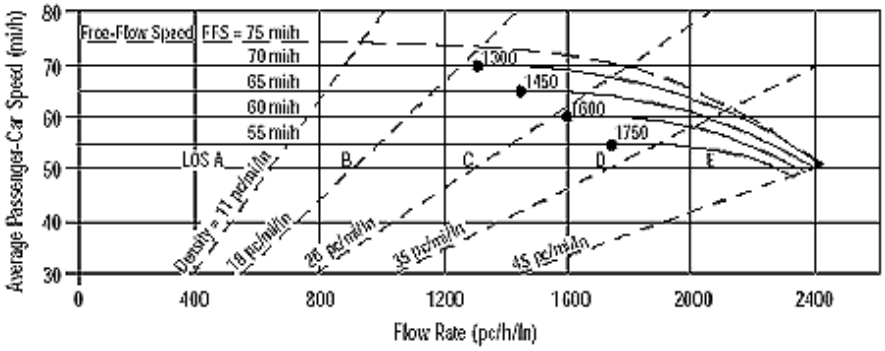

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Peck Rd to Briggs Rd*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2411*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1362*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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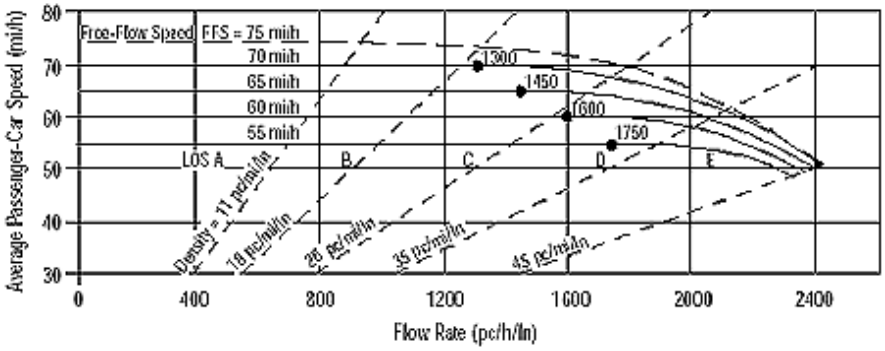

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Peck Rd to Briggs Rd*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1636*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*924*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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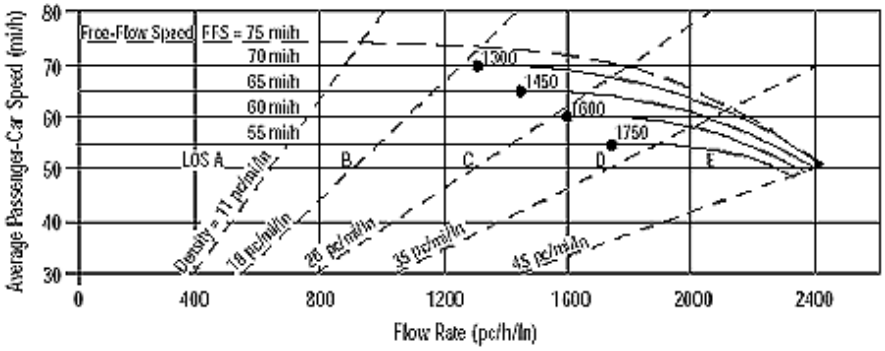
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Briggs Rd to Peck Rd*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1291*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*729*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*10.4*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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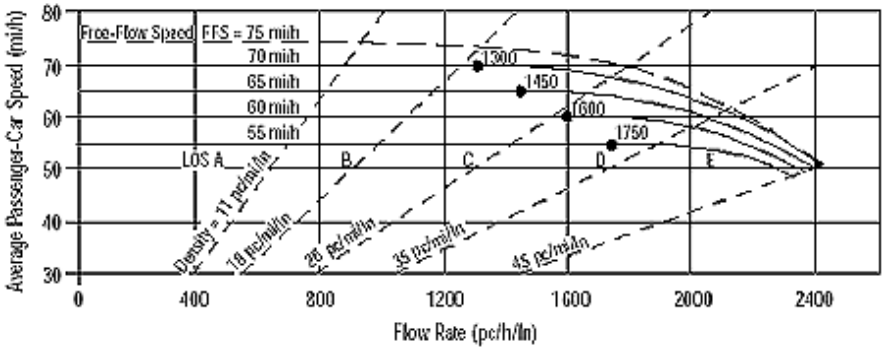

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Briggs Rd to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2686*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1518*	pc/h/ln	Design LOS	
S	*69.8*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*21.8*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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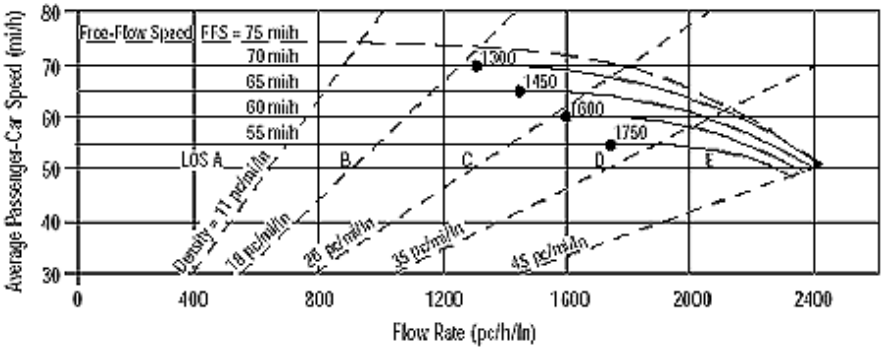

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Peck Rd to Palm Av*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1142*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*645*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*9.2*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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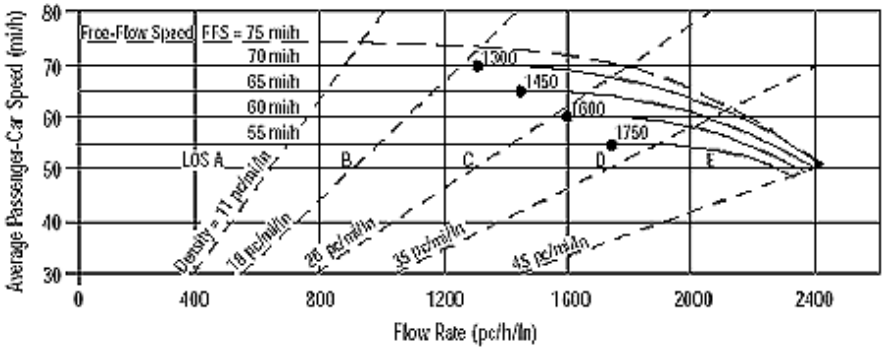

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Peck Rd to Palm Av*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2146*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1212*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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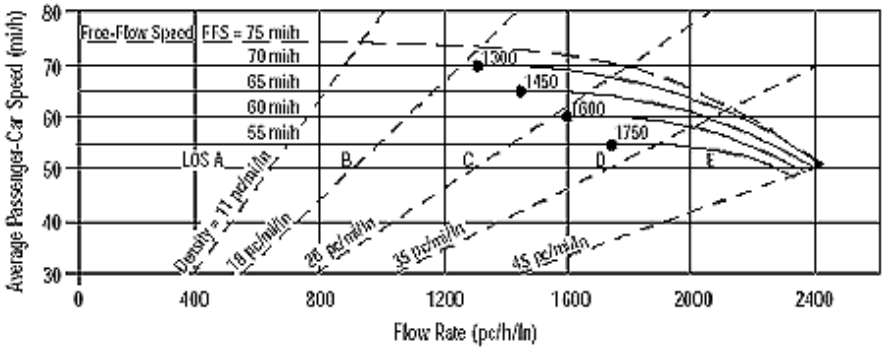

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1003*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*567*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*8.1*	pc/mi/ln	S	mi/h
LOS	*A*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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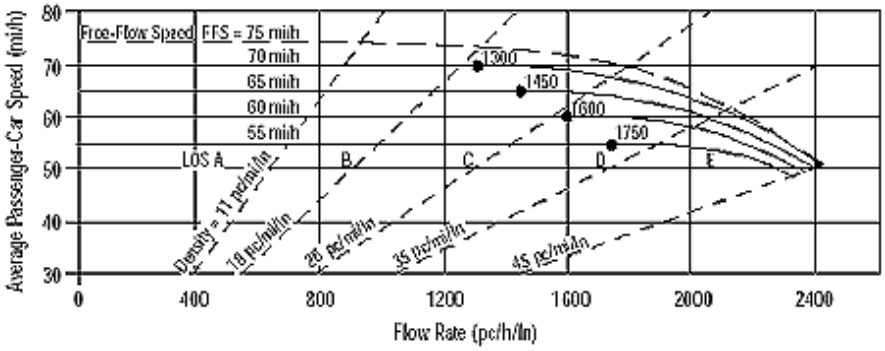

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1876*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1060*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*15.1*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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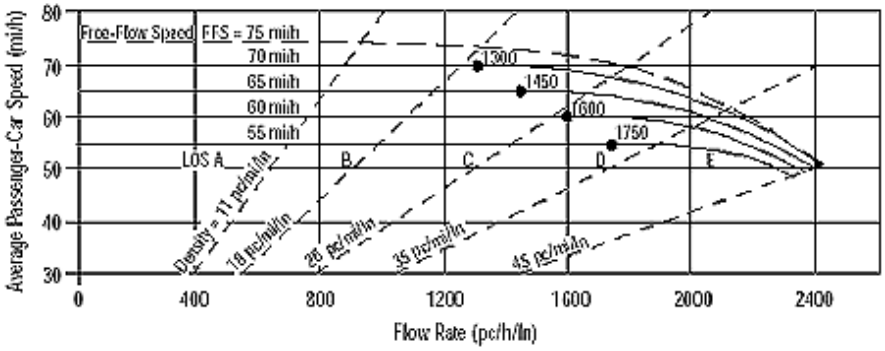

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*10th St (SR-150) to Hallock Dr*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*799*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*451*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*6.4*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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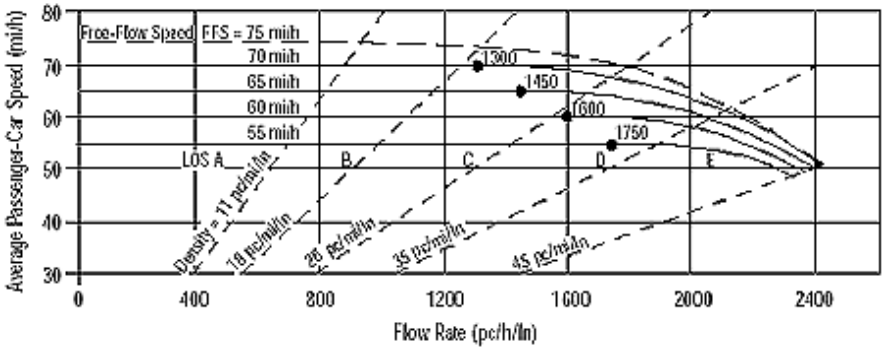
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*10th St (SR-150) to Hallock Dr*
Jurisdiction	
Analysis Year	*2006*

Project Description Existing

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1489*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*841*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*12.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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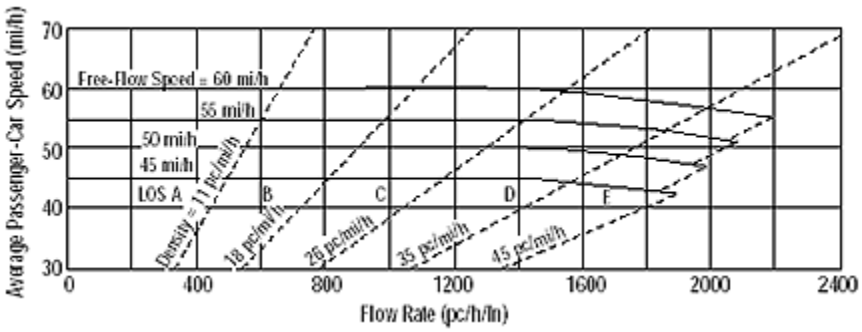
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2006

Project Description Existing

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1409	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	796
Speed, S (mi/h)	60.0
D (pc/mi/ln)	13.3
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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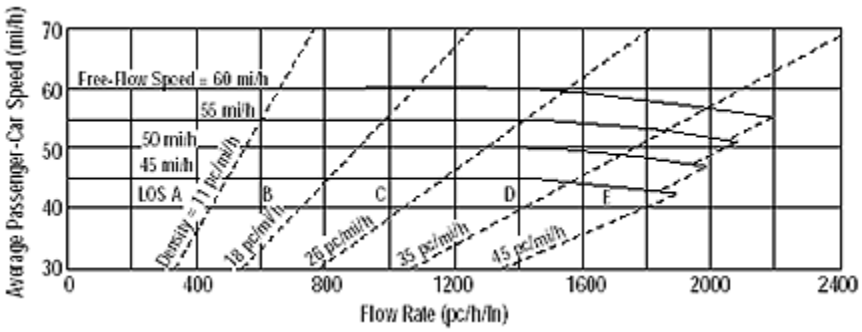
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2006

Project Description Existing

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	796	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	449
Speed, S (mi/h)	60.0
D (pc/mi/ln)	7.5
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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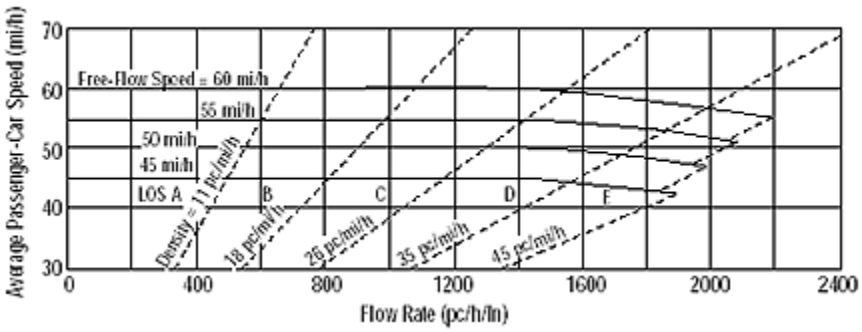
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2006

Project Description Existing

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1007	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	568
Speed, S (mi/h)	60.0
D (pc/mi/ln)	9.5
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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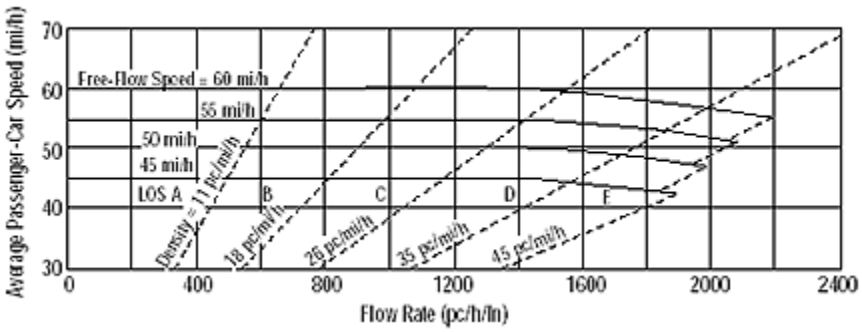
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2006

Project Description Existing

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1596	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	901
Speed, S (mi/h)	60.0
D (pc/mi/ln)	15.0
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1323	0.92	Level	0	0	1.000	1.00	1438
Ramp	117	0.92	Level	0	0	1.000	1.00	127
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1438 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1438	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1311	Exhibit 25-14	4700	No
V_R	127	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1438	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 15.5 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.439 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1036	0.92	Level	0	0	1.000	1.00	1126
Ramp	101	0.92	Level	0	0	1.000	1.00	110
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1126 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1126	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1016	Exhibit 25-14	4700	No
V_R	110	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1126	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 12.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.438 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1206	0.90	Level	0	0	1.000	1.00	1340
Ramp	649	0.90	Level	0	0	1.000	1.00	721
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1340 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2061	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2061	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 18.5 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.321 (Exibit 25-19)

S_R= 57.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.6 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	935	0.90	Level	0	0	1.000	1.00	1039
Ramp	431	0.90	Level	0	0	1.000	1.00	479
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1039 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1518	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1518	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 14.3 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.308 (Exibit 25-19)

S_R= 57.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1855	0.92	Level	0	0	1.000	1.00	2016
Ramp	111	0.92	Level	0	0	1.000	1.00	121
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2016 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2016	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1895	Exhibit 25-14	4700	No
V_R	121	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2016	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 20.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.439 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1366	0.92	Level	0	0	1.000	1.00	1485
Ramp	169	0.92	Level	0	0	1.000	1.00	184
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1485 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1485	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1301	Exhibit 25-14	4700	No
V_R	184	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1485	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 15.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.445 (Exhibit 25-19)

S_R= 54.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1744	0.90	Level	0	0	1.000	1.00	1938
Ramp	326	0.90	Level	0	0	1.000	1.00	362
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1938 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2300	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2300	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 20.1 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.324 (Exibit 25-19)

S_R= 57.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.5 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1197	0.90	Level	0	0	1.000	1.00	1330
Ramp	313	0.90	Level	0	0	1.000	1.00	348
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1330 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1678	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1678	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 15.2 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.306 (Exibit 25-19)

S_R= 58.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 58.0 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2070	0.92	Level	0	0	1.000	1.00	2250
Ramp	119	0.92	Level	0	0	1.000	1.00	129
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2250 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2250	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2121	Exhibit 25-14	4700	No
V_R	129	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2250	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 22.2 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.440 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1510	0.92	Level	0	0	1.000	1.00	1641
Ramp	225	0.92	Level	0	0	1.000	1.00	245
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1641 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1641	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1396	Exhibit 25-14	4700	No
V_R	245	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1641	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 16.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.450 (Exhibit 25-19)

S_R= 54.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.6 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1951	0.90	Level	0	0	1.000	1.00	2168
Ramp	460	0.90	Level	0	0	1.000	1.00	511
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2168 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2679	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2679	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 24.3 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.357 (Exibit 25-19)

S_R= 56.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

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Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1285	0.90	Level	0	0	1.000	1.00	1428
Ramp	351	0.90	Level	0	0	1.000	1.00	390
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1428 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1818	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1818	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 17.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.324 (Exibit 25-19)

S_R= 57.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.5 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1291	0.92	Level	0	0	1.000	1.00	1403
Ramp	212	0.92	Level	0	0	1.000	1.00	230
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1403 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1403	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1173	Exhibit 25-14	4700	No
V_R	230	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1403	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 15.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.449 (Exhibit 25-19)

S_R= 54.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.7 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2686	0.92	Level	0	0	1.000	1.00	2920
Ramp	660	0.92	Level	0	0	1.000	1.00	717
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2920 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2920	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2203	Exhibit 25-14	4700	No
V_R	717	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2920	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 28.6 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.493 (Exhibit 25-19)

S_R= 53.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.7 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1079	0.90	Level	0	0	1.000	1.00	1199
Ramp	63	0.90	Level	0	0	1.000	1.00	70
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1199 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1269	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1269	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 12.8 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.307 (Exibit 25-19)

S_R= 57.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.9 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

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Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2026	0.90	Level	0	0	1.000	1.00	2251
Ramp	120	0.90	Level	0	0	1.000	1.00	133
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2251 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2384	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2384	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 21.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.335 (Exibit 25-19)

S_R= 57.3 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.3 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1142	0.92	Level	0	0	1.000	1.00	1241
Ramp	244	0.92	Level	0	0	1.000	1.00	265
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1241 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1241	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	976	Exhibit 25-14	4700	No
V_R	265	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1241	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 14.2 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.452 (Exhibit 25-19)

S_R= 54.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.6 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2146	0.92	Level	0	0	1.000	1.00	2333
Ramp	432	0.92	Level	0	0	1.000	1.00	470
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2333 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2333	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1863	Exhibit 25-14	4700	No
V_R	470	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2333	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 23.6 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.470 (Exhibit 25-19)

S_R= 54.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.2 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	898	0.90	Level	0	0	1.000	1.00	998
Ramp	105	0.90	Level	0	0	1.000	1.00	117
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 998 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1115	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1115	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 10.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.297 (Exibit 25-19)

S_R= 58.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 58.2 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1714	0.90	Level	0	0	1.000	1.00	1904
Ramp	162	0.90	Level	0	0	1.000	1.00	180
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1904 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2084	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2084	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 18.4 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.317 (Exibit 25-19)

S_R= 57.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.7 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1003	0.92	Level	0	0	1.000	1.00	1090
Ramp	324	0.92	Level	0	0	1.000	1.00	352
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1090 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1090	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	738	Exhibit 25-14	4700	No
V_R	352	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1090	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 12.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.460 (Exhibit 25-19)

S_R= 54.4 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.4 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1876	0.92	Level	0	0	1.000	1.00	2039
Ramp	577	0.92	Level	0	0	1.000	1.00	627
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2039 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2039	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1412	Exhibit 25-14	4700	No
V_R	627	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2039	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 21.1 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.484 (Exhibit 25-19)

S_R= 53.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	679	0.90	Level	0	0	1.000	1.00	754
Ramp	120	0.90	Level	0	0	1.000	1.00	133
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 754 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	887	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	887	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 9.8 (pc/mi/ln)

LOS = A (Exhibit 25-4)

Speed Determination

M_S = 0.302 (Exibit 25-19)

S_R= 58.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 58.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2006

Project Description Existing

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1299	0.90	Level	0	0	1.000	1.00	1443
Ramp	190	0.90	Level	0	0	1.000	1.00	211
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1443 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1654	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1654	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 15.8 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.313 (Exibit 25-19)

S_R= 57.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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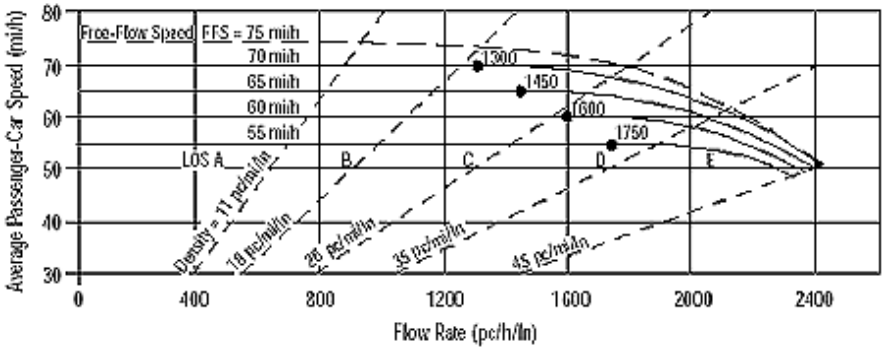
FREEWAY AND RAMP JUNCTION LEVEL OF SERVICE WORKSHEETS
CUMULATIVE BASE (2020)

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Hallock Rd to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1740*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*983*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*14.0*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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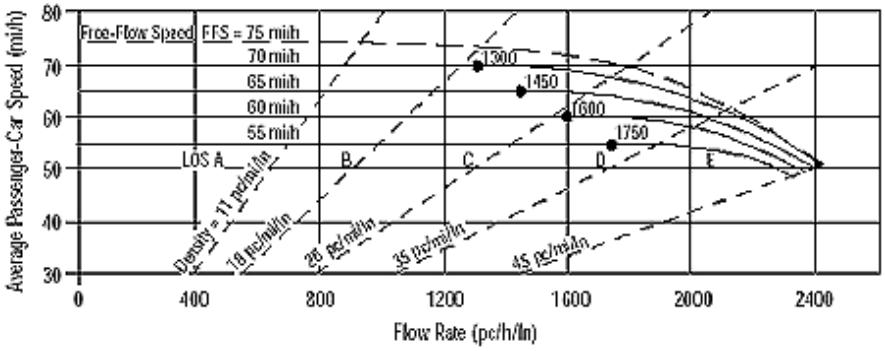
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Hallock Rd to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1580*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*893*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*12.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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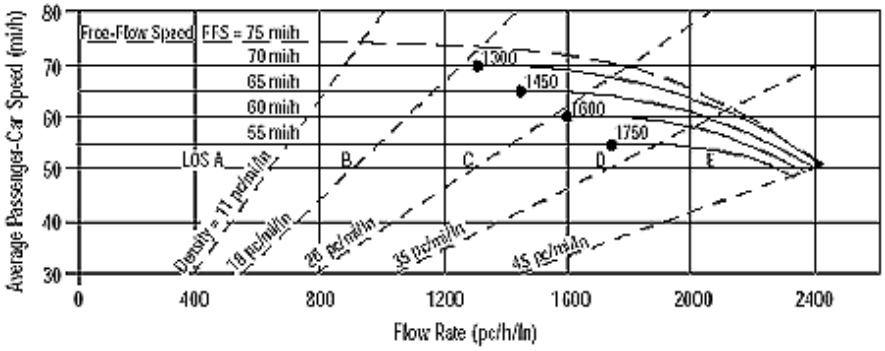
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*10th St (SR-150) to Palm Av*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2440*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1379*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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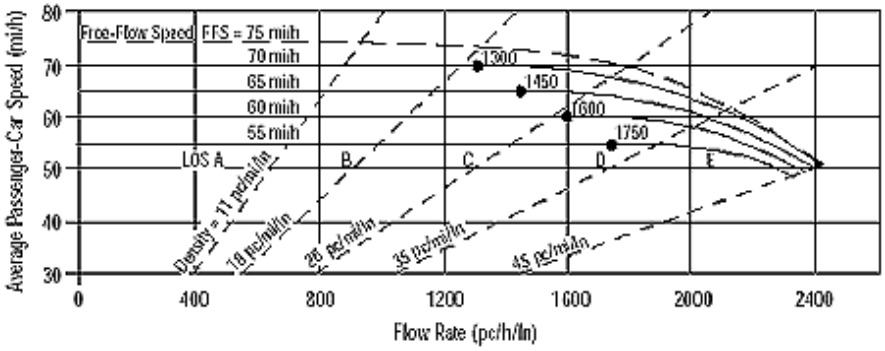
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*10th St (SR-150) to Palm Av*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1910*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1079*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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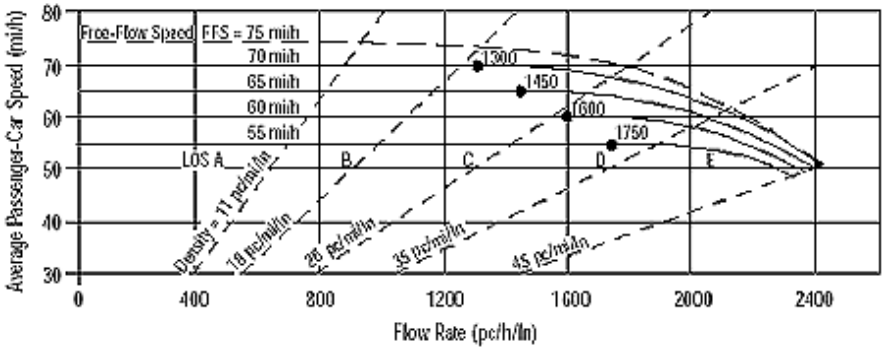
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2800*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1582*	pc/h/ln	Design LOS	
S	*69.5*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*22.8*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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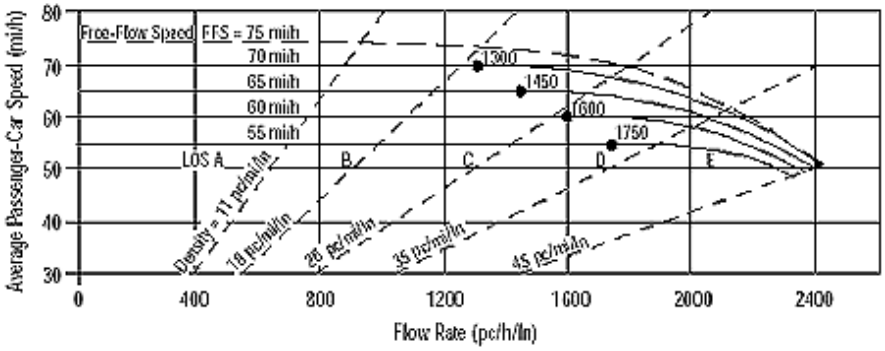
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2050*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1158*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*16.5*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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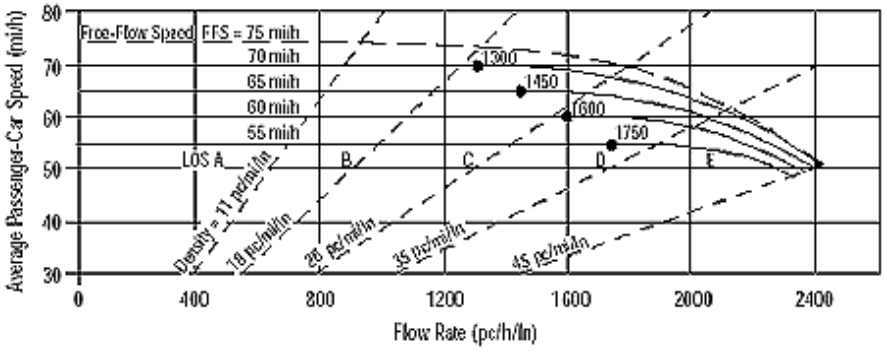
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3220*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1819*	pc/h/ln	Design LOS	
S	*67.6*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*26.9*	pc/mi/ln	S	mi/h
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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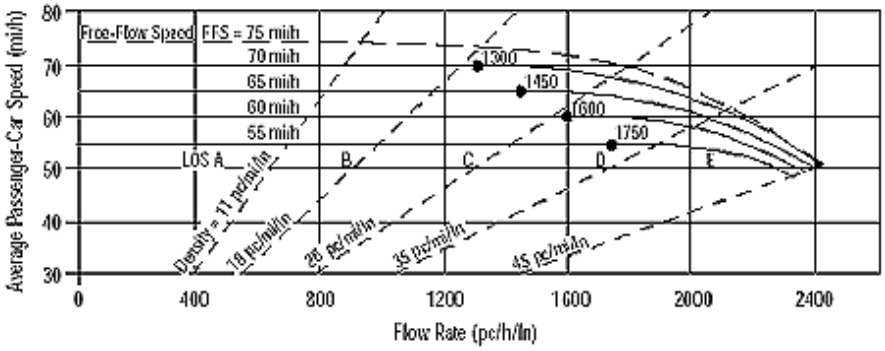
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2200*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1243*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*17.8*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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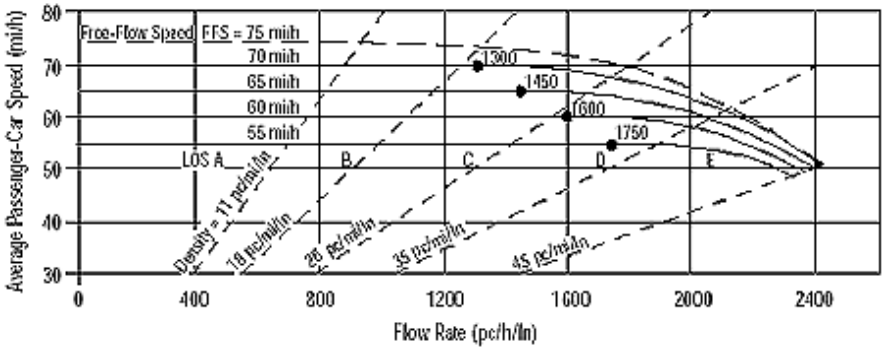

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Briggs Rd to Peck Rd*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1640*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*927*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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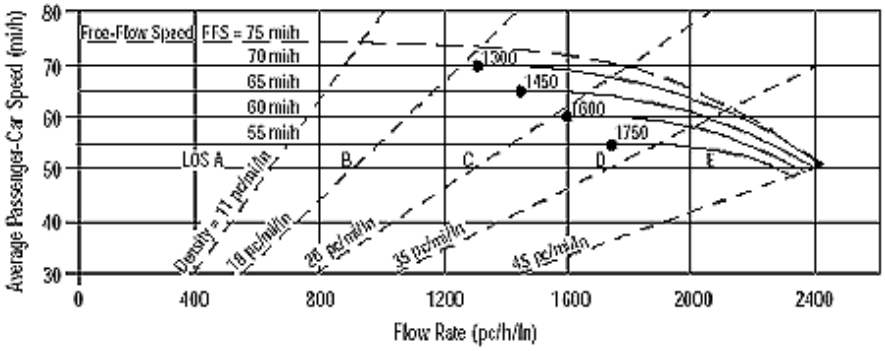

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Briggs Rd to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3830*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2164*	pc/h/ln	Design LOS	
S	*61.1*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*35.4*	pc/mi/ln	S	mi/h
LOS	*E*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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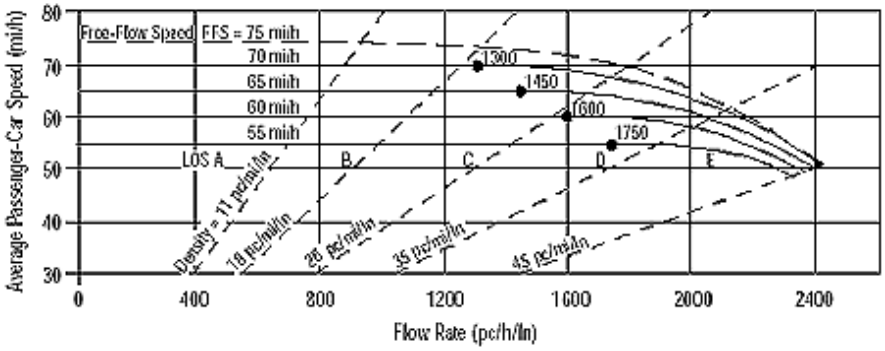

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1450*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*819*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*11.7*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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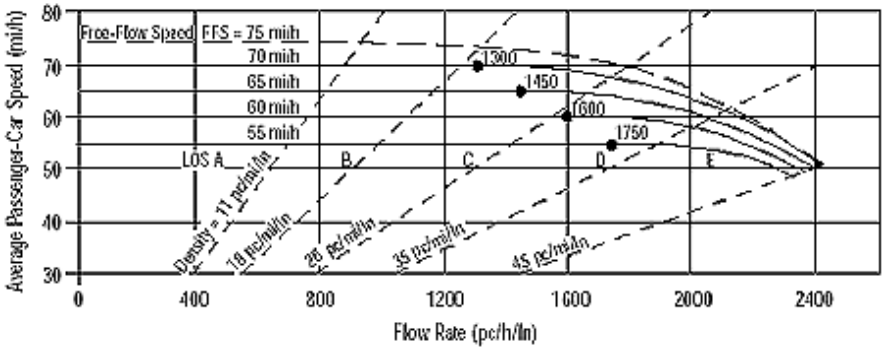

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Peck Rd to Palm Av*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3200*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1808*	pc/h/ln
S	*67.8*	mi/h
D = v_p / S	*26.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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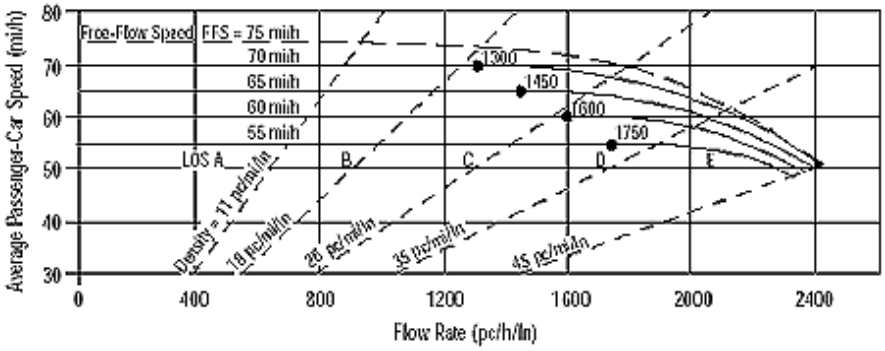
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Palm Av to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1360*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*768*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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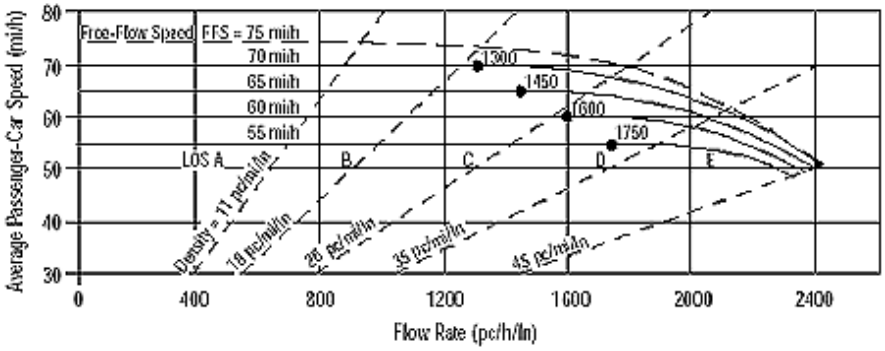
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Palm Av to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2760*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1559*	pc/h/ln
S	*69.6*	mi/h
D = v_p / S	*22.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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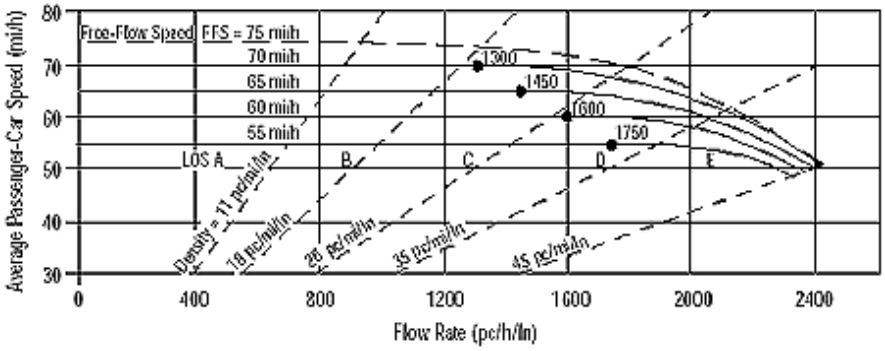
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*10th St (SR-150) to Hallock Rd*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1070*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*605*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*8.6*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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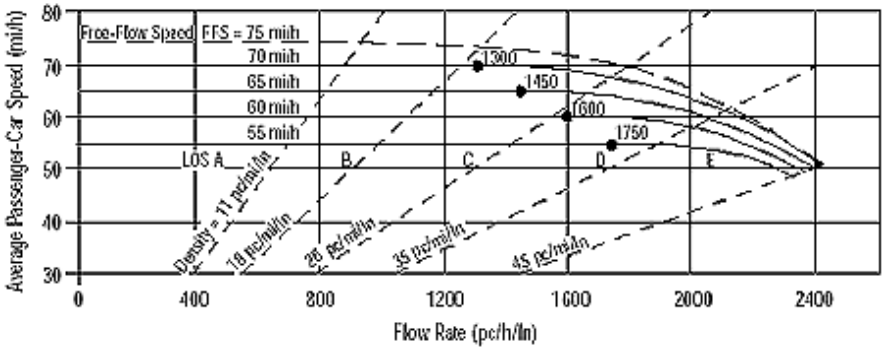
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*10th St (SR-150) to Hallock Rd*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2230*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1260*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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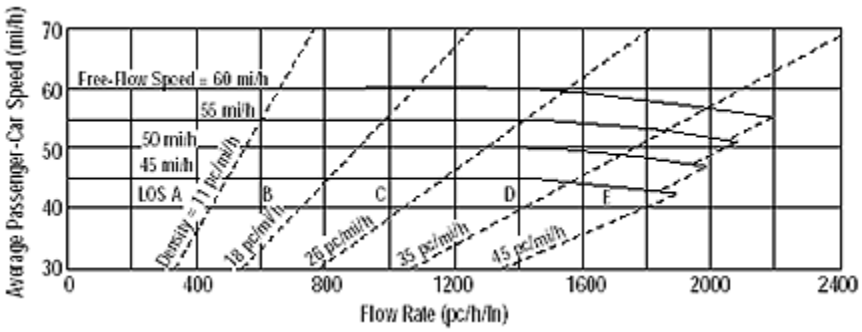
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	2010	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	1135
Speed, S (mi/h)	60.0
D (pc/mi/ln)	18.9
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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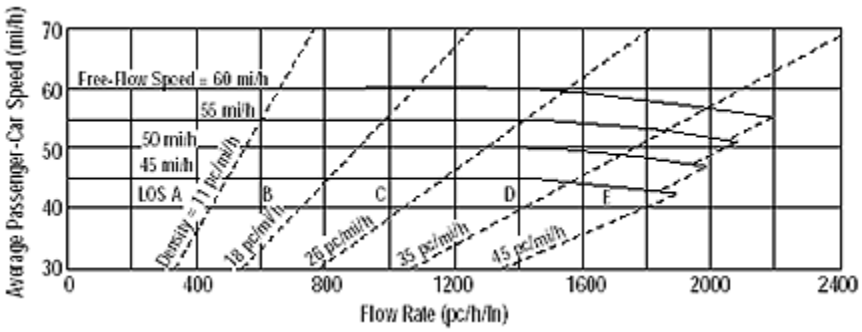
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1020	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	576
Speed, S (mi/h)	60.0
D (pc/mi/ln)	9.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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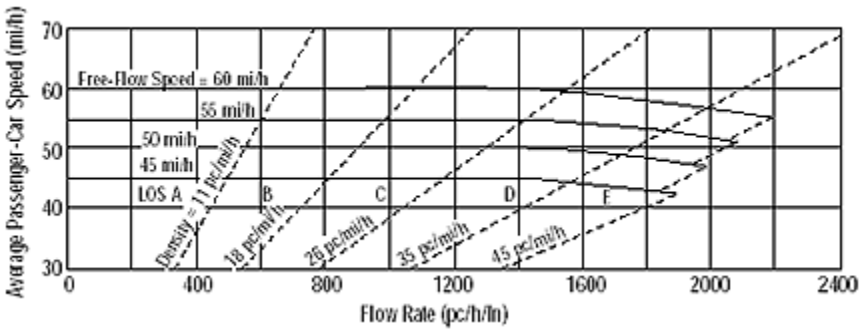
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1390	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	785
Speed, S (mi/h)	60.0
D (pc/mi/ln)	13.1
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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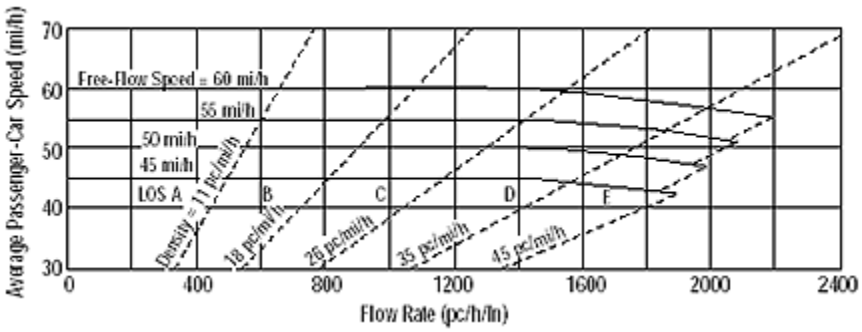
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	2210	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	1248
Speed, S (mi/h)	60.0
D (pc/mi/ln)	20.8
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1740	0.92	Level	0	0	1.000	1.00	1891
Ramp	130	0.92	Level	0	0	1.000	1.00	141
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1891 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1891	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1750	Exhibit 25-14	4700	No
V_R	141	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1891	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 19.4 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.441 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1580	0.92	Level	0	0	1.000	1.00	1717
Ramp	190	0.92	Level	0	0	1.000	1.00	207
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1717 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1717	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1510	Exhibit 25-14	4700	No
V_R	207	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1717	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 17.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.447 (Exhibit 25-19)

S_R= 54.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.7 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☐ Yes ☐ On
☑ No ☐ Off		☑ No ☐ Off
L_{up} = ft		L_{down} = ft
V_u = veh/h	S_{FF} = 65.0 mph S_{FR} = 35.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1610	0.90	Level	0	0	1.000	1.00	1789
Ramp	830	0.90	Level	0	0	1.000	1.00	922
UpStream								
DownStream								

Estimation of v_{12}

Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1789 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2711	Exhibit 25-7		No

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2711	Exhibit 25-7	4600:All	No

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 23.4 (pc/mi/ln)

LOS = C (Exhibit 25-4)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.349 (Exibit 25-19)

S_R= 57.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.0 mph (Exhibit 25-14)

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1390	0.90	Level	0	0	1.000	1.00	1544
Ramp	520	0.90	Level	0	0	1.000	1.00	578
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1544 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2122	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2122	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 19.0 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.323 (Exibit 25-19)

S_R= 57.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.6 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2440	0.92	Level	0	0	1.000	1.00	2652
Ramp	130	0.92	Level	0	0	1.000	1.00	141
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 2652 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2652	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2511	Exhibit 25-14	4700	No
V_R	141	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2652	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 26.0 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.441 (Exhibit 25-19)
S_R= 54.9 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

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Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1910	0.92	Level	0	0	1.000	1.00	2076
Ramp	180	0.92	Level	0	0	1.000	1.00	196
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 2076 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2076	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1880	Exhibit 25-14	4700	No
V_R	196	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2076	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 21.0 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.446 (Exhibit 25-19)
S_R= 54.8 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

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Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2310	0.90	Level	0	0	1.000	1.00	2567
Ramp	490	0.90	Level	0	0	1.000	1.00	544
UpStream								
DownStream								

Estimation of v_{12}

Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2567 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3111	Exhibit 25-7		No

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3111	Exhibit 25-7	4600:All	No

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 26.3 (pc/mi/ln)

LOS = C (Exhibit 25-4)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.373 (Exibit 25-19)

S_R= 56.4 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.4 mph (Exhibit 25-14)

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1730	0.90	Level	0	0	1.000	1.00	1922
Ramp	320	0.90	Level	0	0	1.000	1.00	356
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1922 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2278	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2278	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 19.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.323 (Exibit 25-19)

S_R= 57.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.6 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2800	0.92	Level	0	0	1.000	1.00	3043
Ramp	170	0.92	Level	0	0	1.000	1.00	185
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 3043 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3043	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2858	Exhibit 25-14	4700	No
V_R	185	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3043	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 29.0 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.445 (Exhibit 25-19)
S_R= 54.8 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2050	0.92	Level	0	0	1.000	1.00	2228
Ramp	270	0.92	Level	0	0	1.000	1.00	293
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2228 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2228	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1935	Exhibit 25-14	4700	No
V_R	293	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2228	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 22.0 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.454 (Exhibit 25-19)

S_R= 54.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2630	0.90	Level	0	0	1.000	1.00	2922
Ramp	590	0.90	Level	0	0	1.000	1.00	656
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2922 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3578	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3578	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 31.2 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.440 (Exibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1780	0.90	Level	0	0	1.000	1.00	1978
Ramp	420	0.90	Level	0	0	1.000	1.00	467
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1978 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2445	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2445	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 22.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.345 (Exibit 25-19)

S_R= 57.1 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.1 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1640	0.92	Level	0	0	1.000	1.00	1783
Ramp	270	0.92	Level	0	0	1.000	1.00	293
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1783 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1783	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1490	Exhibit 25-14	4700	No
V_R	293	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1783	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 18.8 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.454 (Exhibit 25-19)

S_R= 54.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3830	0.92	Level	0	0	1.000	1.00	4163
Ramp	770	0.92	Level	0	0	1.000	1.00	837
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 4163 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4163	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3326	Exhibit 25-14	4700	No
V_R	837	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4163	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 39.3 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.503 (Exhibit 25-19)

S_R= 53.4 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.4 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1370	0.90	Level	0	0	1.000	1.00	1522
Ramp	80	0.90	Level	0	0	1.000	1.00	89
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1522 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1611	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1611	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 15.5 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.313 (Exibit 25-19)

S_R= 57.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3060	0.90	Level	0	0	1.000	1.00	3400
Ramp	140	0.90	Level	0	0	1.000	1.00	156
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3400 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3556	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3556	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 30.6 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.430 (Exibit 25-19)

S_R= 55.1 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.1 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1450	0.92	Level	0	0	1.000	1.00	1576
Ramp	250	0.92	Level	0	0	1.000	1.00	272
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1576 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1576	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1304	Exhibit 25-14	4700	No
V_R	272	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1576	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 17.1 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.452 (Exhibit 25-19)

S_R= 54.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.6 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
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Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3200	0.92	Level	0	0	1.000	1.00	3478
Ramp	650	0.92	Level	0	0	1.000	1.00	707
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3478 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3478	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2771	Exhibit 25-14	4700	No
V_R	707	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3478	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 33.5 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.492 (Exhibit 25-19)

S_R= 53.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.7 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1200	0.90	Level	0	0	1.000	1.00	1333
Ramp	160	0.90	Level	0	0	1.000	1.00	178
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1333 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1511	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1511	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 14.0 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.303 (Exibit 25-19)

S_R= 58.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 58.0 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2550	0.90	Level	0	0	1.000	1.00	2833
Ramp	210	0.90	Level	0	0	1.000	1.00	233
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2833 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3066	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3066	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 26.1 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.369 (Exibit 25-19)

S_R= 56.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1360	0.92	Level	0	0	1.000	1.00	1478
Ramp	440	0.92	Level	0	0	1.000	1.00	478
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1478 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1478	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1000	Exhibit 25-14	4700	No
V_R	478	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1478	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 16.2 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.471 (Exhibit 25-19)

S_R= 54.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.2 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2760	0.92	Level	0	0	1.000	1.00	3000
Ramp	730	0.92	Level	0	0	1.000	1.00	793
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3000 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3000	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2207	Exhibit 25-14	4700	No
V_R	793	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3000	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 29.3 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.499 (Exhibit 25-19)

S_R= 53.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	920	0.90	Level	0	0	1.000	1.00	1022
Ramp	150	0.90	Level	0	0	1.000	1.00	167
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1022 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1189	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1189	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 12.2 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.306 (Exibit 25-19)

S_R= 58.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 58.0 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description CumBase

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2030	0.90	Level	0	0	1.000	1.00	2256
Ramp	200	0.90	Level	0	0	1.000	1.00	222
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2256 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2478	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2478	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 22.2 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.339 (Exibit 25-19)

S_R= 57.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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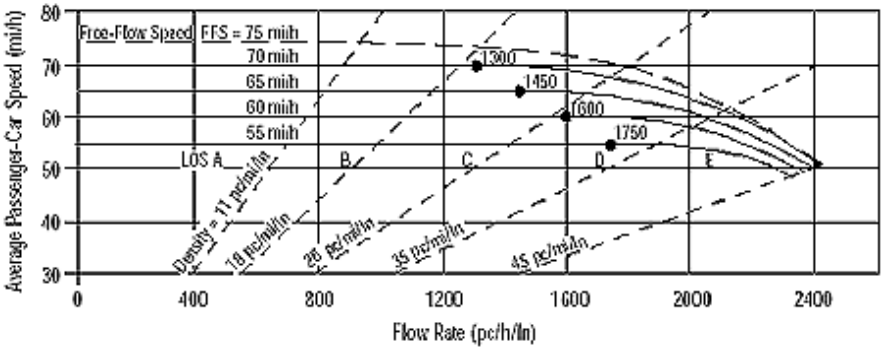
FREEWAY AND RAMP JUNCTION LEVEL OF SERVICE WORKSHEETS
CUMULATIVE BASE PLUS PROJECT (2020)

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Hallock Rd to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2020*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1141*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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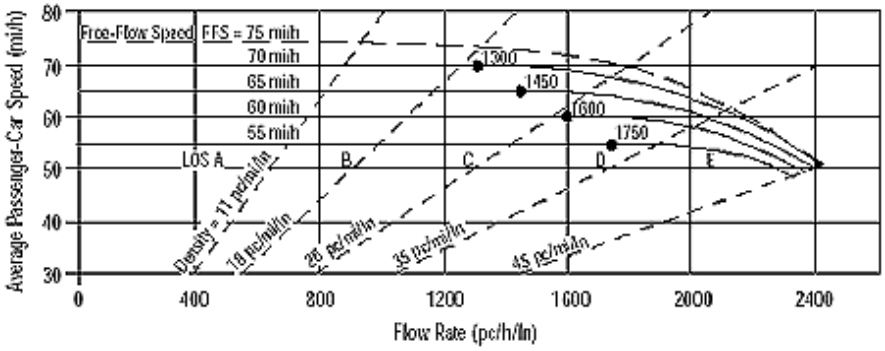
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Hallock Rd to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1790*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1011*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*14.4*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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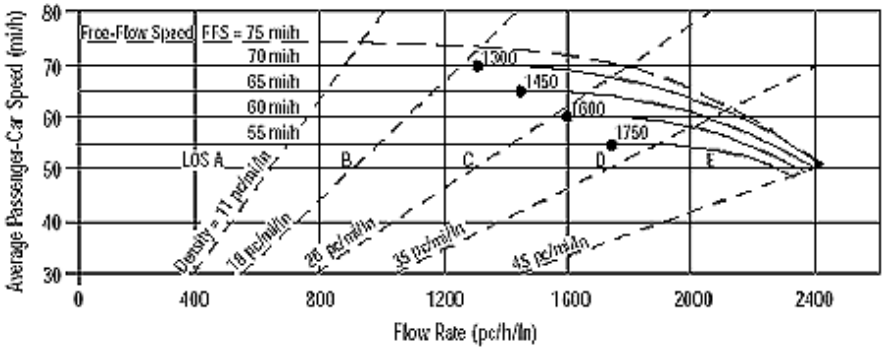
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*10th St (SR-150) to Palm Av*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2855*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1613*	pc/h/ln
S	*69.4*	mi/h
D = v_p / S	*23.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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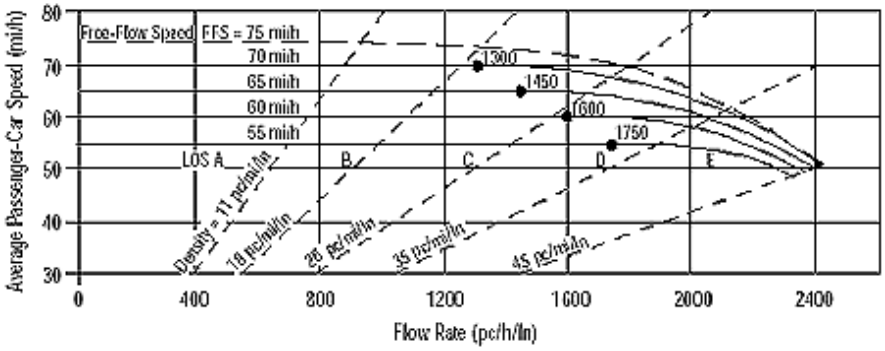

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*10th St (SR-150) to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2290*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1294*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*18.5*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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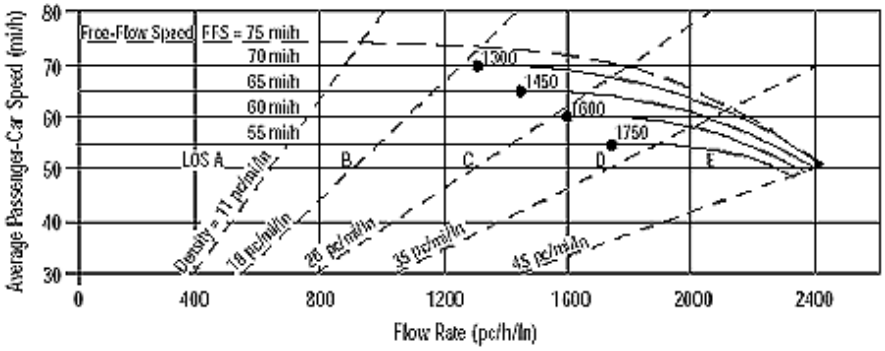

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3215*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1816*	pc/h/ln	Design LOS	
S	*67.7*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*26.8*	pc/mi/ln	S	mi/h
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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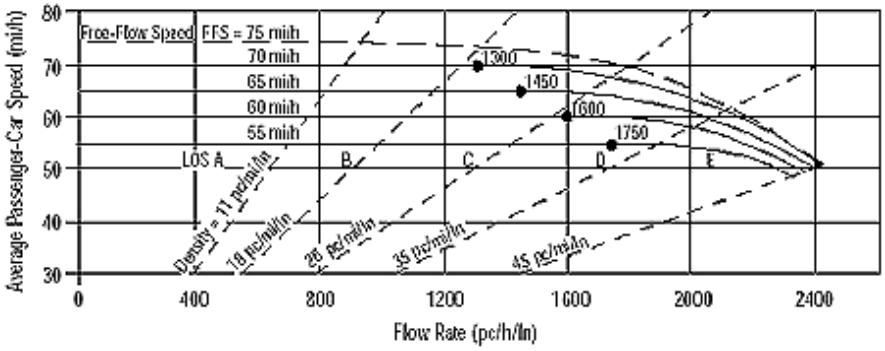

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2430*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1373*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*19.6*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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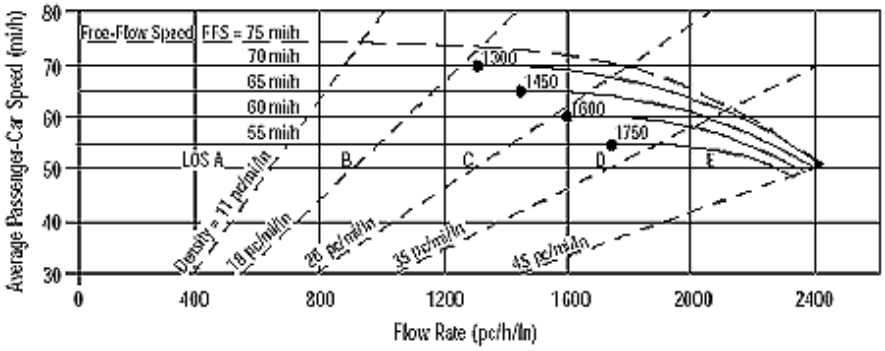

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3630*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2051*	pc/h/ln
S	*63.8*	mi/h
D = v_p / S	*32.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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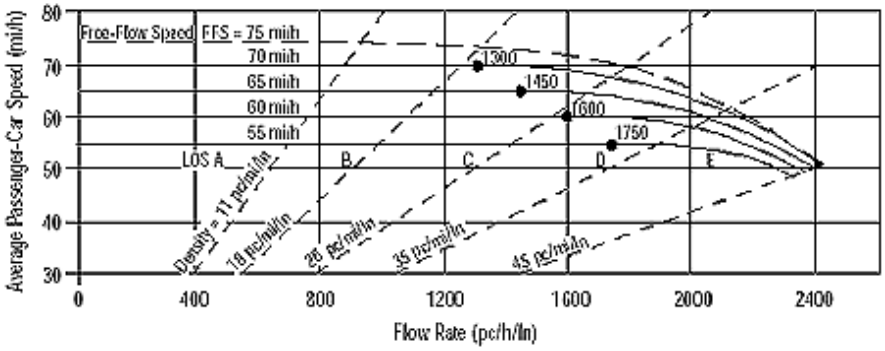

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 WB*
From/To	*Peck Rd to Briggs*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2575*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1455*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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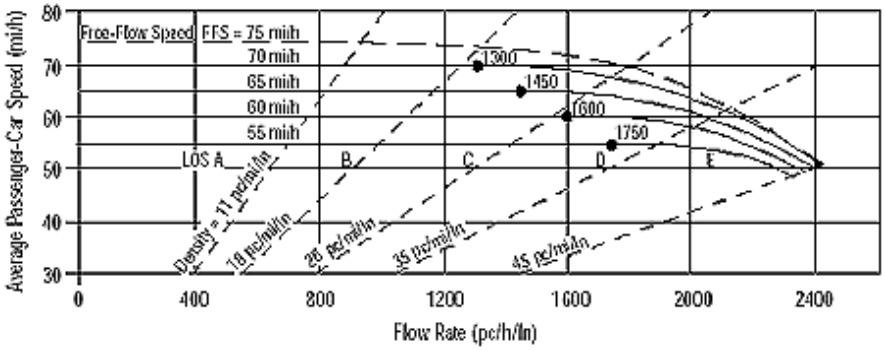

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Briggs Rd to Peck Rd*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1985*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1122*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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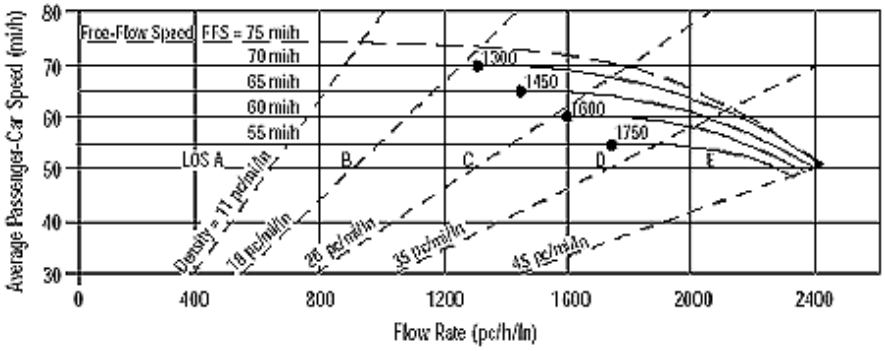

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Briggs Rd to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4295*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p) *2427*		pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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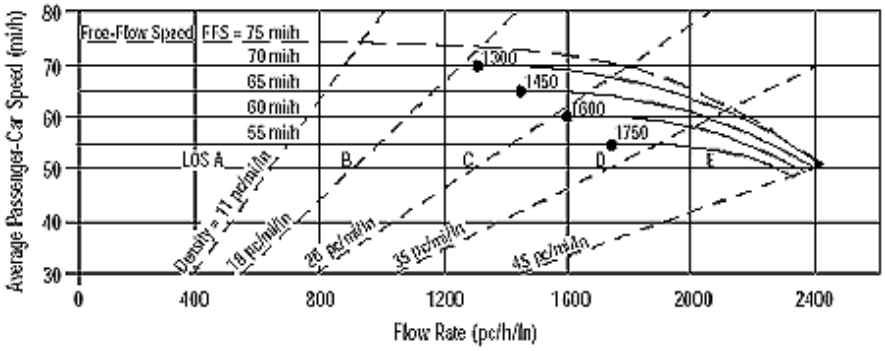
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1810*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1023*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*14.6*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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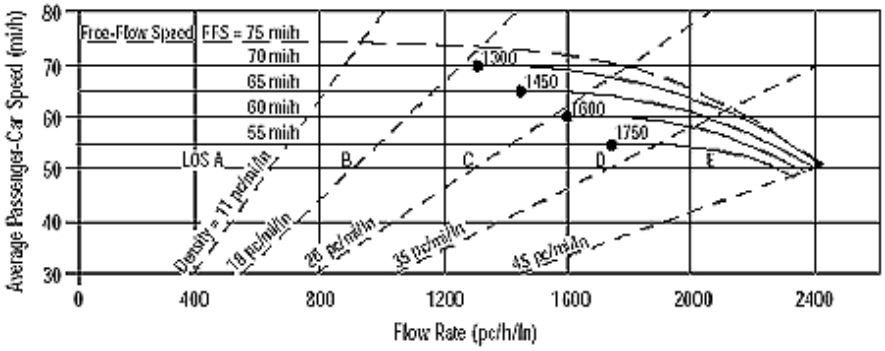

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3670*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2074*	pc/h/ln	Design LOS	
S	*63.3*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*32.8*	pc/mi/ln	S	mi/h
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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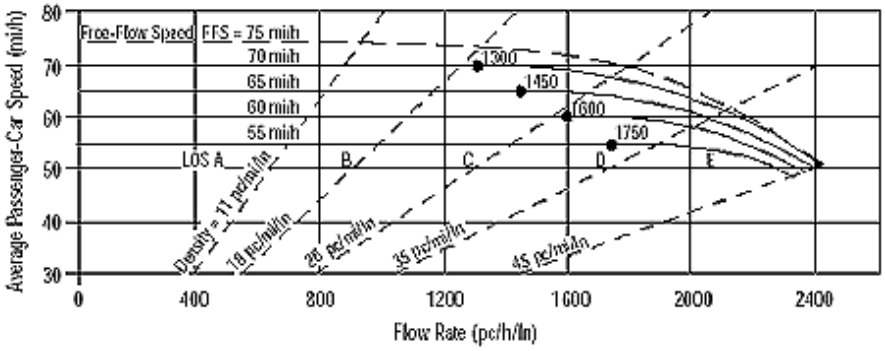

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Palm Av to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1720*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*972*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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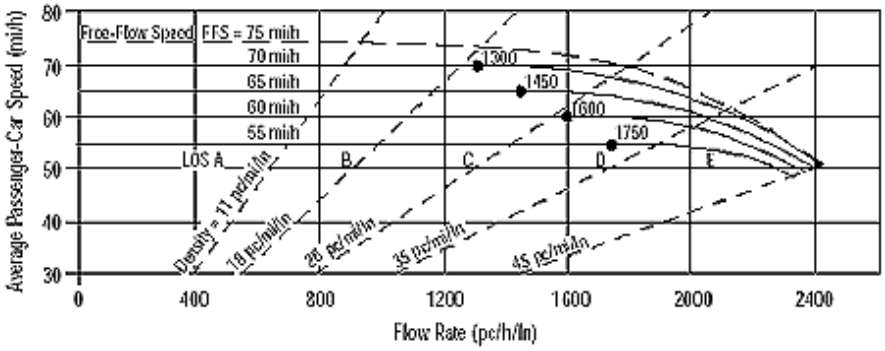

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Palm Av to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3230*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1825*	pc/h/ln
S	*67.6*	mi/h
D = v_p / S	*27.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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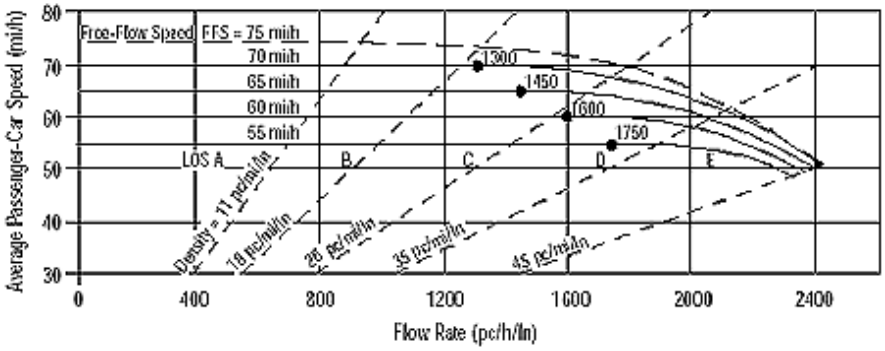

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*10th St (SR-150) to Hallock Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1285*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*726*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*10.4*	pc/mi/ln	S	mi/h
LOS	*A*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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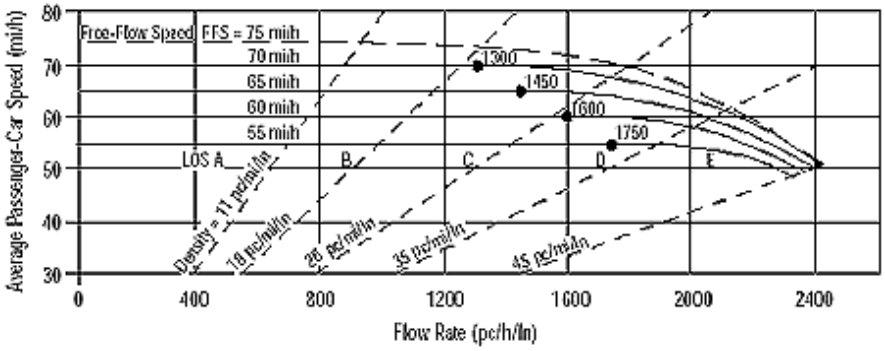

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*10th St (SR-150) to Hallock Rd*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (no by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2515*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1421*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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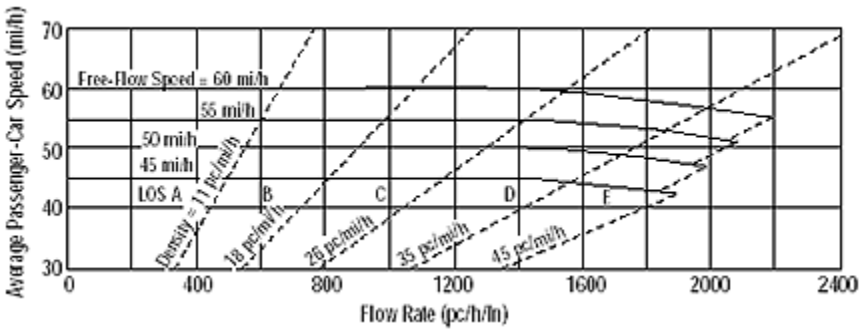
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (no-bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	2255	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	1274
Speed, S (mi/h)	60.0
D (pc/mi/ln)	21.2
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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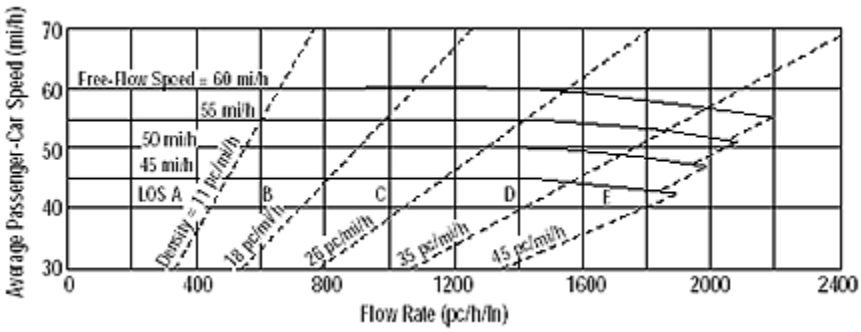
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (no-bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1250	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	706
Speed, S (mi/h)	60.0
D (pc/mi/ln)	11.8
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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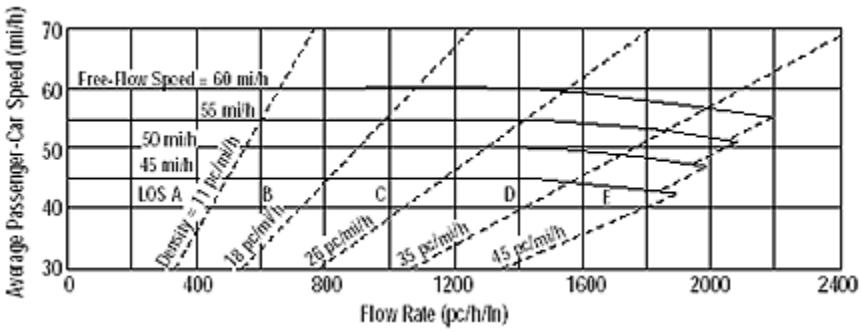
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (no-bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1655	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	935
Speed, S (mi/h)	60.0
D (pc/mi/ln)	15.6
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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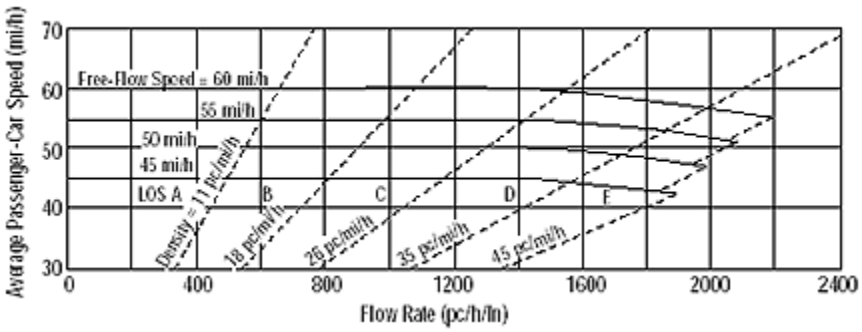
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (no-bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	2430	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	1372
Speed, S (mi/h)	60.0
D (pc/mi/ln)	22.9
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2020	0.92	Level	0	0	1.000	1.00	2196
Ramp	90	0.92	Level	0	0	1.000	1.00	98
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2196 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2196	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2098	Exhibit 25-14	4700	No
V_R	98	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2196	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 22.1 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.437 (Exhibit 25-19)

S_R= 55.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.0 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1790	0.92	Level	0	0	1.000	1.00	1946
Ramp	105	0.92	Level	0	0	1.000	1.00	114
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1946 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1946	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1832	Exhibit 25-14	4700	No
V_R	114	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1946	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 19.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.438 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	925	0.90	Level	0	0	1.000	1.00	1028
Ramp	1930	0.90	Level	0	0	1.000	1.00	2144
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1028 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3172	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3172	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 26.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.383 (Exibit 25-19)

S_R= 56.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1685	0.90	Level	0	0	1.000	1.00	1872
Ramp	605	0.90	Level	0	0	1.000	1.00	672
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1872 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2544	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2544	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 22.3 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.340 (Exibit 25-19)

S_R= 57.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2855	0.92	Level	0	0	1.000	1.00	3103
Ramp	130	0.92	Level	0	0	1.000	1.00	141
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 3103 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3103	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2962	Exhibit 25-14	4700	No
V_R	141	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3103	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 29.9 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.441 (Exhibit 25-19)
S_R= 54.9 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

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Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2290	0.92	Level	0	0	1.000	1.00	2489
Ramp	180	0.92	Level	0	0	1.000	1.00	196
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2489 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2489	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2293	Exhibit 25-14	4700	No
V_R	196	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2489	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 24.6 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.446 (Exhibit 25-19)

S_R= 54.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

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Date Performed	6/13/2007	Jurisdiction	
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Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2725	0.90	Level	0	0	1.000	1.00	3028
Ramp	490	0.90	Level	0	0	1.000	1.00	544
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3028 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3572	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3572	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 29.9 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.424 (Exibit 25-19)

S_R= 55.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2110	0.90	Level	0	0	1.000	1.00	2344
Ramp	320	0.90	Level	0	0	1.000	1.00	356
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2344 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2700	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2700	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 23.2 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.343 (Exibit 25-19)

S_R= 57.1 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.1 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3215	0.92	Level	0	0	1.000	1.00	3495
Ramp	175	0.92	Level	0	0	1.000	1.00	190
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3495 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3495	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3305	Exhibit 25-14	4700	No
V_R	190	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3495	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 32.9 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.445 (Exhibit 25-19)

S_R= 54.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

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Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
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Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2430	0.92	Level	0	0	1.000	1.00	2641
Ramp	275	0.92	Level	0	0	1.000	1.00	299
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2641 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2641	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2342	Exhibit 25-14	4700	No
V_R	299	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2641	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 25.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.455 (Exhibit 25-19)

S_R= 54.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

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Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3040	0.90	Level	0	0	1.000	1.00	3378
Ramp	590	0.90	Level	0	0	1.000	1.00	656
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3378 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4034	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4034	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 34.8 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.520 (Exibit 25-19)

S_R= 53.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.0 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2155	0.90	Level	0	0	1.000	1.00	2394
Ramp	420	0.90	Level	0	0	1.000	1.00	467
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2394 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2861	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2861	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 25.7 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.368 (Exibit 25-19)

S_R= 56.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.5 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1985	0.92	Level	0	0	1.000	1.00	2158
Ramp	270	0.92	Level	0	0	1.000	1.00	293
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2158 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2158	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1865	Exhibit 25-14	4700	No
V_R	293	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2158	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 22.0 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.454 (Exhibit 25-19)

S_R= 54.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4295	0.92	Level	0	0	1.000	1.00	4668
Ramp	770	0.92	Level	0	0	1.000	1.00	837
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 4668 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4668	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3831	Exhibit 25-14	4700	No
V_R	837	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4668	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 43.6 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.503 (Exhibit 25-19)

S_R= 53.4 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.4 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1715	0.90	Level	0	0	1.000	1.00	1906
Ramp	95	0.90	Level	0	0	1.000	1.00	106
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1906 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2012	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2012	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 18.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.322 (Exibit 25-19)

S_R= 57.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.6 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3525	0.90	Level	0	0	1.000	1.00	3917
Ramp	145	0.90	Level	0	0	1.000	1.00	161
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3917 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4078	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4078	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 34.7 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.523 (Exibit 25-19)

S_R= 53.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.0 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1810	0.92	Level	0	0	1.000	1.00	1967
Ramp	250	0.92	Level	0	0	1.000	1.00	272
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1967 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1967	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1695	Exhibit 25-14	4700	No
V_R	272	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1967	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 20.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.452 (Exhibit 25-19)

S_R= 54.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.6 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
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Date Performed	6/13/2007	Jurisdiction	
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Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3670	0.92	Level	0	0	1.000	1.00	3989
Ramp	650	0.92	Level	0	0	1.000	1.00	707
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3989 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3989	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3282	Exhibit 25-14	4700	No
V_R	707	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3989	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 37.9 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.492 (Exhibit 25-19)

S_R= 53.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.7 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1560	0.90	Level	0	0	1.000	1.00	1733
Ramp	160	0.90	Level	0	0	1.000	1.00	178
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1733 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1911	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1911	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 17.1 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.312 (Exibit 25-19)

S_R= 57.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
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Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3020	0.90	Level	0	0	1.000	1.00	3356
Ramp	210	0.90	Level	0	0	1.000	1.00	233
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3356 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3589	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3589	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 30.2 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.426 (Exibit 25-19)

S_R= 55.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1720	0.92	Level	0	0	1.000	1.00	1870
Ramp	505	0.92	Level	0	0	1.000	1.00	549
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1870 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1870	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1321	Exhibit 25-14	4700	No
V_R	549	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1870	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 19.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.477 (Exhibit 25-19)

S_R= 54.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.0 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

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Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3230	0.92	Level	0	0	1.000	1.00	3511
Ramp	835	0.92	Level	0	0	1.000	1.00	908
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3511 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3511	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2603	Exhibit 25-14	4700	No
V_R	908	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3511	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 33.7 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.510 (Exhibit 25-19)

S_R= 53.3 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.3 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1215	0.90	Level	0	0	1.000	1.00	1350
Ramp	70	0.90	Level	0	0	1.000	1.00	78
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1350 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1428	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1428	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 14.1 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.309 (Exibit 25-19)

S_R= 57.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.9 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

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Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2395	0.90	Level	0	0	1.000	1.00	2661
Ramp	120	0.90	Level	0	0	1.000	1.00	133
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2661 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2794	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2794	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 24.7 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.357 (Exibit 25-19)

S_R= 56.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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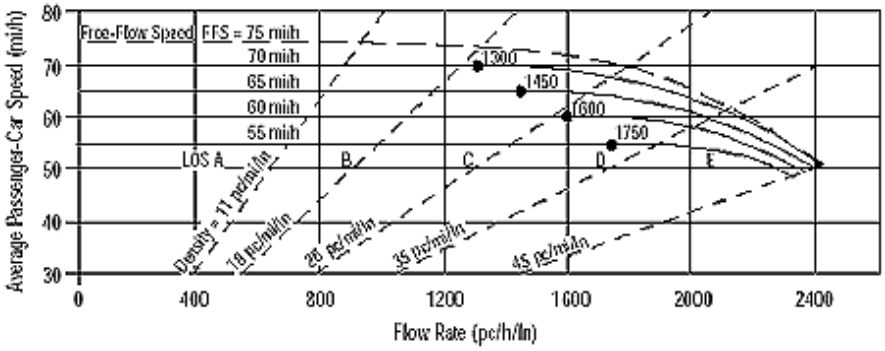
FREEWAY AND RAMP JUNCTION LEVEL OF SERVICE WORKSHEETS
CUMULATIVE BASE PLUS PROJECT PLUS BY-PASS ROUTE (2020)

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Hallock Rd to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2015*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1138*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*16.3*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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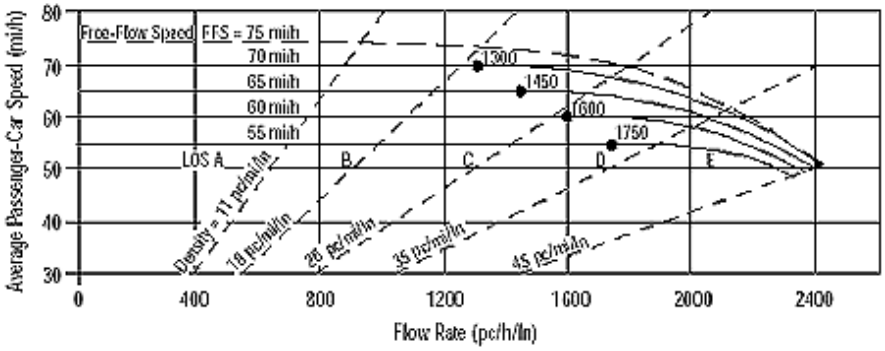
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Hallock Rd to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1770*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1000*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*14.3*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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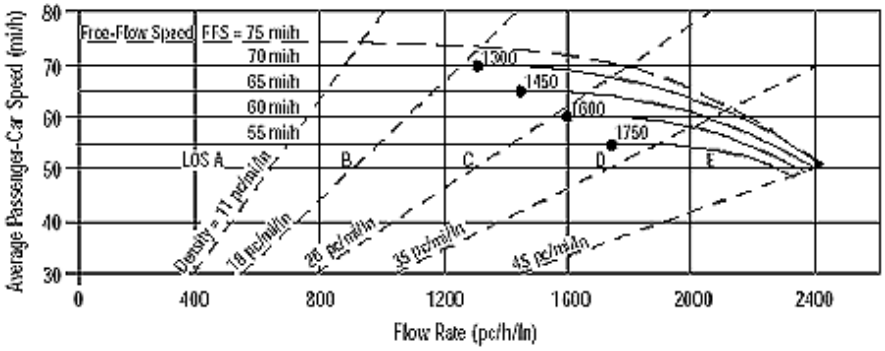
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*10th St (SR-150) to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2850*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1610*	pc/h/ln	Design LOS	
S	*69.4*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*23.2*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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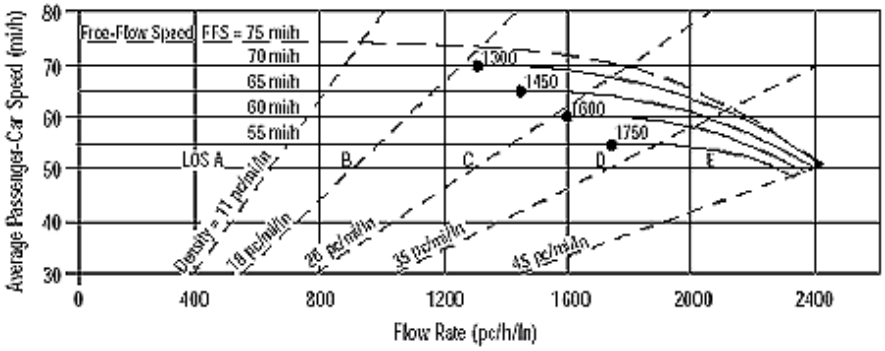
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*10th St (SR-150) to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2270*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1283*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*18.3*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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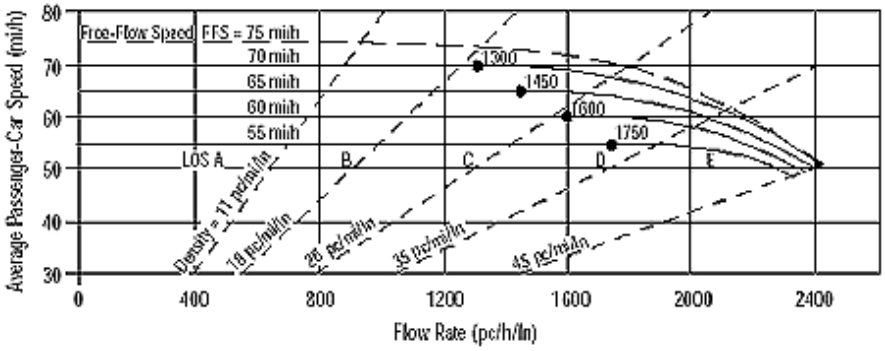

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3215*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1816*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*67.7*	mi/h	S	mi/h
D = v_p / S	*26.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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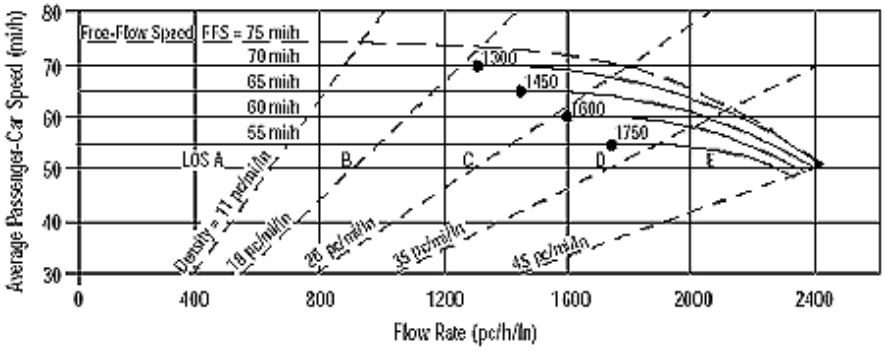
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2430*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1373*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*19.6*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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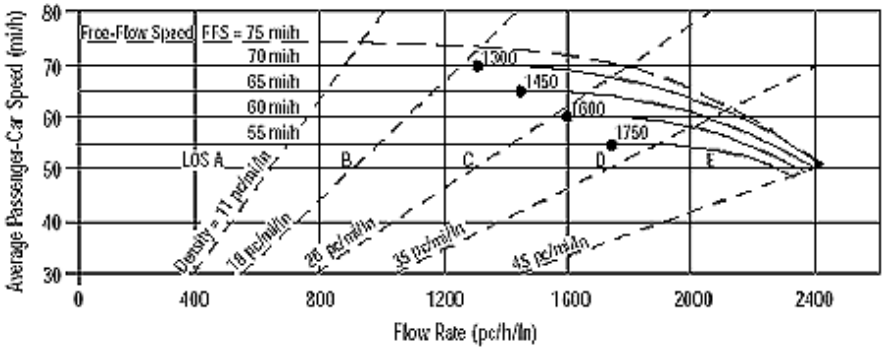
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3630*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2051*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*63.8*	mi/h	S	mi/h
D = v_p / S	*32.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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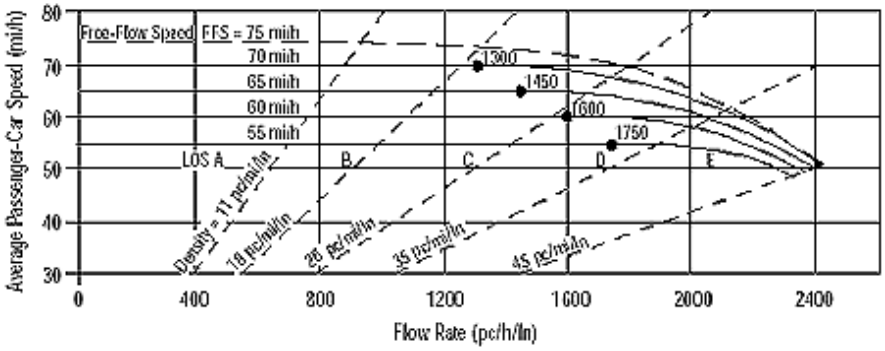

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2575*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1455*	pc/h/ln	Design LOS	
S	*69.9*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*20.8*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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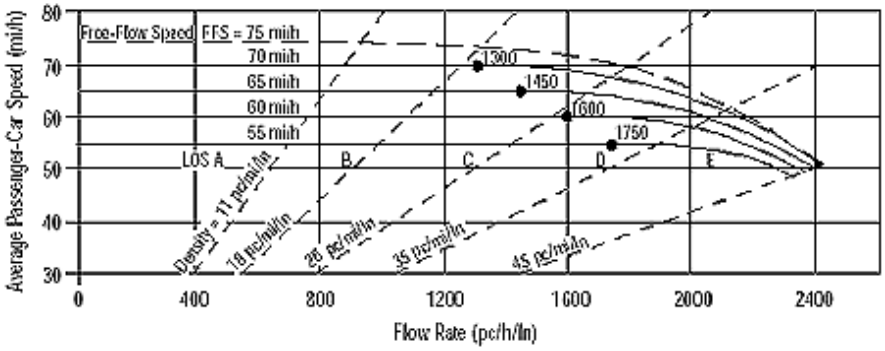

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Briggs Rd to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1985*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1122*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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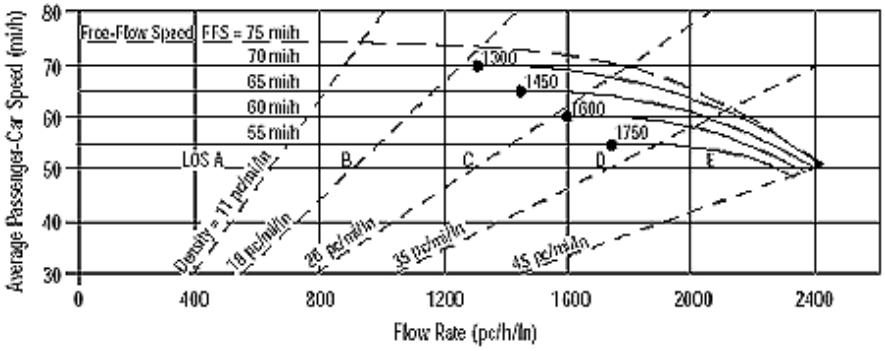

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Briggs Rd to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4295*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p) *2427*		pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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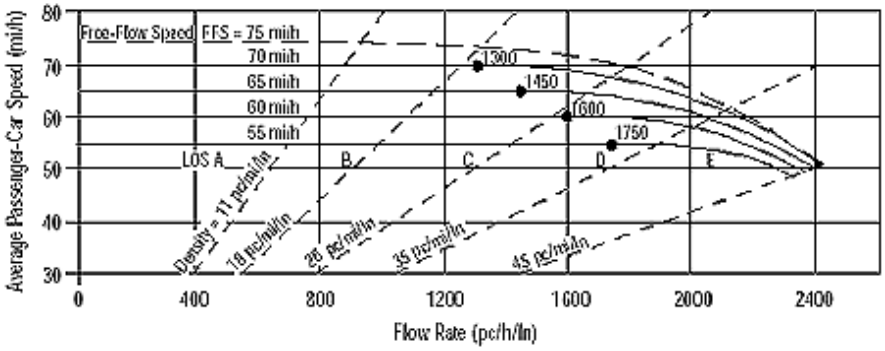

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1810*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1023*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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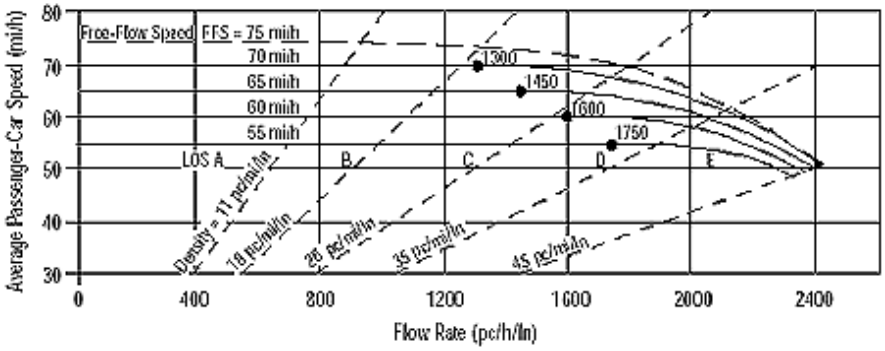

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Palm Av*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3670*	veh/h	Peak-Hour Factor, PHF	*0.90*	
AADT		veh/day	%Trucks and Buses, P_T	*3*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2074*	pc/h/ln
S	*63.3*	mi/h
D = v_p / S	*32.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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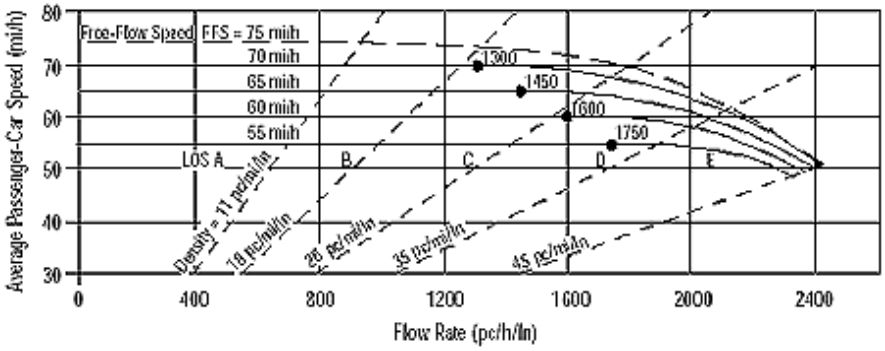

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Palm Av to 10th St (SR-150)*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1700*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*961*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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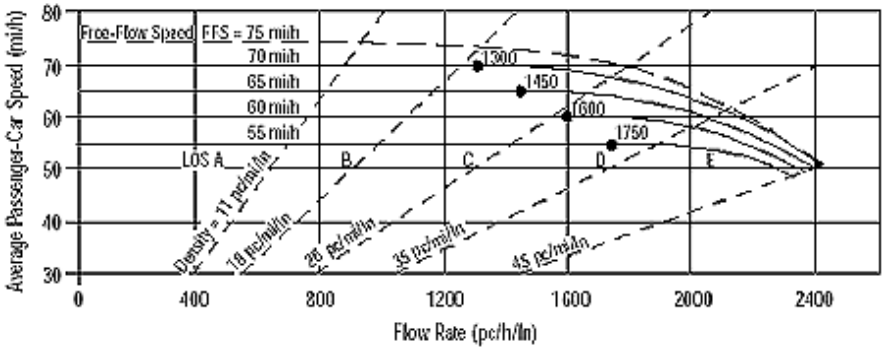

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Palm Av to 10th St (SR-150)*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3220*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1819*	pc/h/ln
S	*67.6*	mi/h
D = v_p / S	*26.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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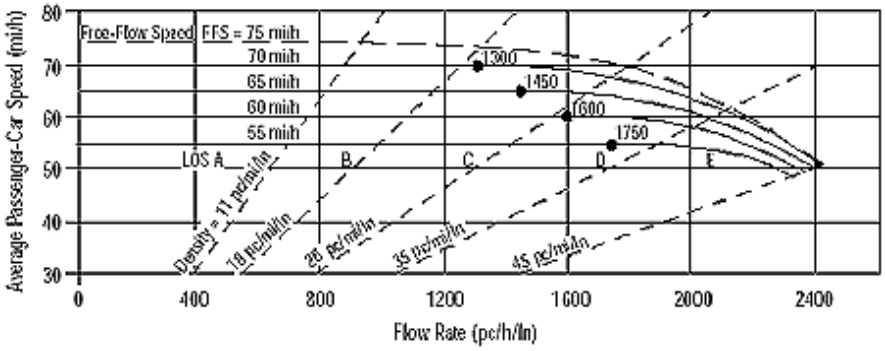
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*10th St (SR-150) to Hallock Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1265*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*715*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*10.2*	pc/mi/ln	S	mi/h
LOS	*A*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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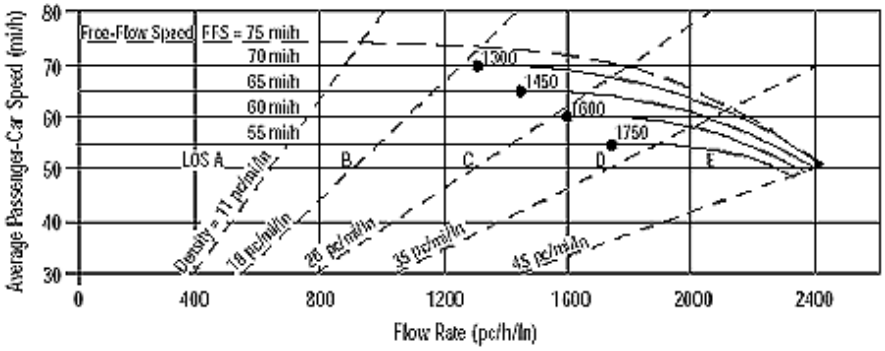
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*10th St (SR-150) to Hallock Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description Cumulative Base + Project (wiith by-pass)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2505*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1415*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*20.2*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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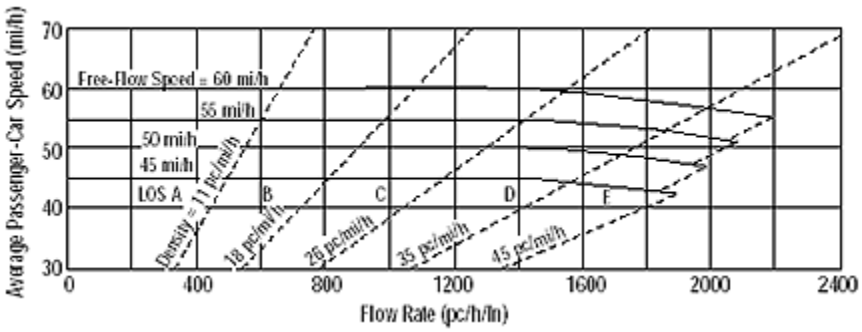
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (with bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	2255	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	1274
Speed, S (mi/h)	60.0
D (pc/mi/ln)	21.2
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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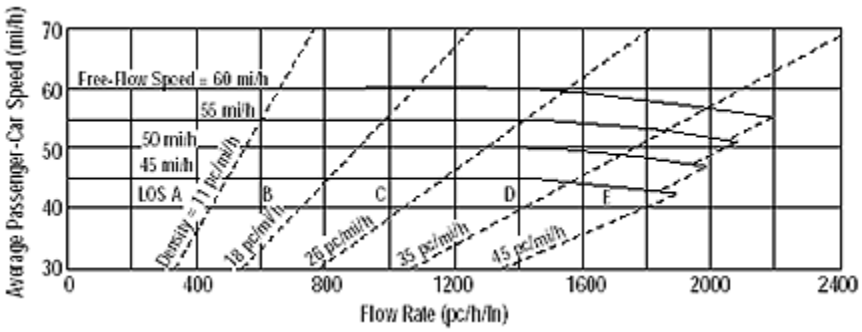
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (with bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1250	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	706
Speed, S (mi/h)	60.0
D (pc/mi/ln)	11.8
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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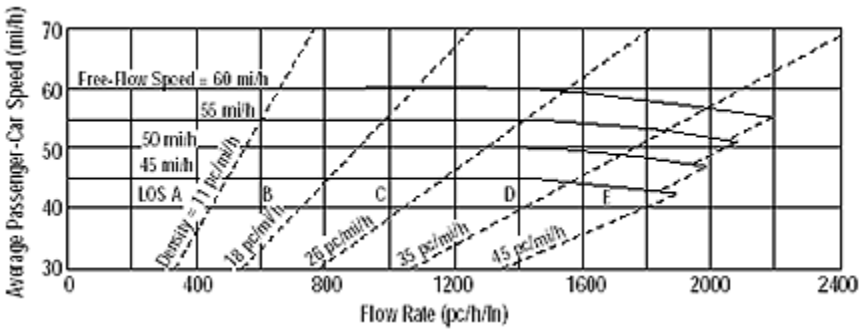
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (with bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1655	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	935
Speed, S (mi/h)	60.0
D (pc/mi/ln)	15.6
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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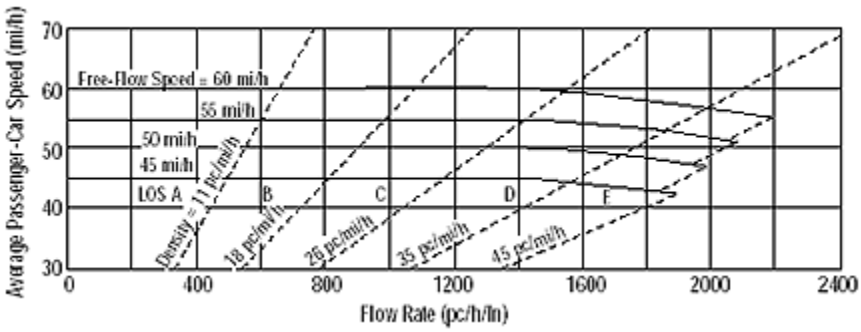
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	RK
Agency or Company	Fehr & Peers
Date Performed	2/25/2007
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction to Travel	SR-126
From/To	Sespe Ranch to Hallock Rd
Jurisdiction	
Analysis Year	2020

Project Description Cumulative Base + Project (with bypass)

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	2430	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	3
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	1
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.983

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	60.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	60.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	1372
Speed, S (mi/h)	60.0
D (pc/mi/ln)	22.9
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2015	0.92	Level	0	0	1.000	1.00	2190
Ramp	90	0.92	Level	0	0	1.000	1.00	98
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2190 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2190	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2092	Exhibit 25-14	4700	No
V_R	98	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2190	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 22.0 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.437 (Exhibit 25-19)

S_R= 55.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.0 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1770	0.92	Level	0	0	1.000	1.00	1924
Ramp	105	0.92	Level	0	0	1.000	1.00	114
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1924 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1924	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1810	Exhibit 25-14	4700	No
V_R	114	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1924	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 19.7 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.438 (Exhibit 25-19)

S_R= 54.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	925	0.90	Level	0	0	1.000	1.00	1028
Ramp	1925	0.90	Level	0	0	1.000	1.00	2139
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1028 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3167	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3167	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 26.4 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.383 (Exibit 25-19)

S_R= 56.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1665	0.90	Level	0	0	1.000	1.00	1850
Ramp	605	0.90	Level	0	0	1.000	1.00	672
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1850 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2522	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2522	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 22.1 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.339 (Exibit 25-19)

S_R= 57.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2850	0.92	Level	0	0	1.000	1.00	3098
Ramp	125	0.92	Level	0	0	1.000	1.00	136
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 3098 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3098	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2962	Exhibit 25-14	4700	No
V_R	136	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3098	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 29.8 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.440 (Exhibit 25-19)
S_R= 54.9 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.9 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2270	0.92	Level	0	0	1.000	1.00	2467
Ramp	160	0.92	Level	0	0	1.000	1.00	174
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 2467 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2467	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2293	Exhibit 25-14	4700	No
V_R	174	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2467	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 24.4 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.444 (Exhibit 25-19)
S_R= 54.8 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2725	0.90	Level	0	0	1.000	1.00	3028
Ramp	490	0.90	Level	0	0	1.000	1.00	544
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3028 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3572	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3572	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 29.9 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.424 (Exibit 25-19)

S_R= 55.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2110	0.90	Level	0	0	1.000	1.00	2344
Ramp	320	0.90	Level	0	0	1.000	1.00	356
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2344 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2700	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2700	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 23.2 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.343 (Exibit 25-19)

S_R= 57.1 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.1 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3215	0.92	Level	0	0	1.000	1.00	3495
Ramp	175	0.92	Level	0	0	1.000	1.00	190
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 3495 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3495	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3305	Exhibit 25-14	4700	No
V_R	190	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3495	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 32.9 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.445 (Exhibit 25-19)
S_R= 54.8 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 54.8 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

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Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2430	0.92	Level	0	0	1.000	1.00	2641
Ramp	275	0.92	Level	0	0	1.000	1.00	299
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2641 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2641	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2342	Exhibit 25-14	4700	No
V_R	299	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2641	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 25.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.455 (Exhibit 25-19)

S_R= 54.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3040	0.90	Level	0	0	1.000	1.00	3378
Ramp	590	0.90	Level	0	0	1.000	1.00	656
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3378 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4034	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4034	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 34.8 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.520 (Exibit 25-19)

S_R= 53.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.0 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 WB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2155	0.90	Level	0	0	1.000	1.00	2394
Ramp	420	0.90	Level	0	0	1.000	1.00	467
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2394 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2861	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2861	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 25.7 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.368 (Exibit 25-19)

S_R= 56.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.5 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1985	0.92	Level	0	0	1.000	1.00	2158
Ramp	270	0.92	Level	0	0	1.000	1.00	293
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 2158 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2158	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1865	Exhibit 25-14	4700	No
V_R	293	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2158	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 22.0 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.454 (Exhibit 25-19)

S_R= 54.5 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.5 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

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Analyst	RK	Freeway/Dir of Travel	SR-126 EB
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Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4295	0.92	Level	0	0	1.000	1.00	4668
Ramp	770	0.92	Level	0	0	1.000	1.00	837
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 4668 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4668	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3831	Exhibit 25-14	4700	No
V_R	837	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4668	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 43.6 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.503 (Exhibit 25-19)
S_R= 53.4 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 53.4 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
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Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1715	0.90	Level	0	0	1.000	1.00	1906
Ramp	95	0.90	Level	0	0	1.000	1.00	106
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1906 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2012	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2012	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 18.6 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.322 (Exibit 25-19)

S_R= 57.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.6 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Peck Rd
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3525	0.90	Level	0	0	1.000	1.00	3917
Ramp	145	0.90	Level	0	0	1.000	1.00	161
UpStream								
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3917 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4078	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4078	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 34.7 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.523 (Exibit 25-19)

S_R= 53.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1810	0.92	Level	0	0	1.000	1.00	1967
Ramp	250	0.92	Level	0	0	1.000	1.00	272
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1967 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1967	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1695	Exhibit 25-14	4700	No
V_R	272	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1967	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 20.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.452 (Exhibit 25-19)

S_R= 54.6 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.6 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3670	0.92	Level	0	0	1.000	1.00	3989
Ramp	650	0.92	Level	0	0	1.000	1.00	707
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3989 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3989	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	3282	Exhibit 25-14	4700	No
V_R	707	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3989	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 37.9 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.492 (Exhibit 25-19)

S_R= 53.7 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.7 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1560	0.90	Level	0	0	1.000	1.00	1733
Ramp	140	0.90	Level	0	0	1.000	1.00	156
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1733 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1889	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1889	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 16.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.311 (Exibit 25-19)

S_R= 57.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	Palm Av
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3020	0.90	Level	0	0	1.000	1.00	3356
Ramp	200	0.90	Level	0	0	1.000	1.00	222
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 3356 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3578	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3578	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 30.1 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.425 (Exibit 25-19)

S_R= 55.2 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 55.2 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1700	0.92	Level	0	0	1.000	1.00	1848
Ramp	505	0.92	Level	0	0	1.000	1.00	549
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 1848 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1848	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	1299	Exhibit 25-14	4700	No
V_R	549	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1848	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 19.4 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.477 (Exhibit 25-19)

S_R= 54.0 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 54.0 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3220	0.92	Level	0	0	1.000	1.00	3500
Ramp	835	0.92	Level	0	0	1.000	1.00	908
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 1.000 using Equation (Exhibit 25-12)

V_{12} = 3500 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3500	Exhibit 25-14	4700	No
$V_{FO} = V_F - V_R$	2592	Exhibit 25-14	4700	No
V_R	908	Exhibit 25-3	2000	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3500	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = 33.6 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Speed Determination

D_s = 0.510 (Exhibit 25-19)

S_R= 53.3 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 53.3 mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	AM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	1195	0.90	Level	0	0	1.000	1.00	1328
Ramp	70	0.90	Level	0	0	1.000	1.00	78
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 1328 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1406	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1406	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 13.9 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.309 (Exibit 25-19)

S_R= 57.9 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 57.9 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	RK	Freeway/Dir of Travel	SR-126 EB
Agency or Company	Fehr & Peers	Junction	10th St/SR-150
Date Performed	6/13/2007	Jurisdiction	
Analysis Time Period	PM	Analysis Year	2020

Project Description Cumulative + Project (with by-pass)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Terrain: Level

S_{FF} = 65.0 mph S_{FR} = 35.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2385	0.90	Level	0	0	1.000	1.00	2650
Ramp	120	0.90	Level	0	0	1.000	1.00	133
UpStream								
DownStream								

Estimation of v_{12} — Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 1.000 using Equation (Exhibit 25-5)

V_{12} = 2650 pc/h

V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Estimation of v_{12} — Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2783	Exhibit 25-7		No

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2783	Exhibit 25-7	4600:All	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 24.6 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.0009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = 0.356 (Exibit 25-19)

S_R= 56.8 mph (Exhibit 25-19)

S_0= N/A mph (Exhibit 25-19)

S = 56.8 mph (Exhibit 25-14)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

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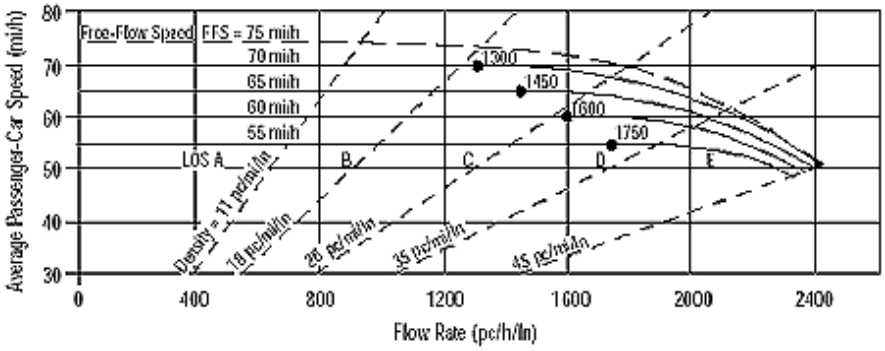
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020*

Project Description

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4128*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1555*	pc/h/ln
S	*69.6*	mi/h
D = v_p / S	*22.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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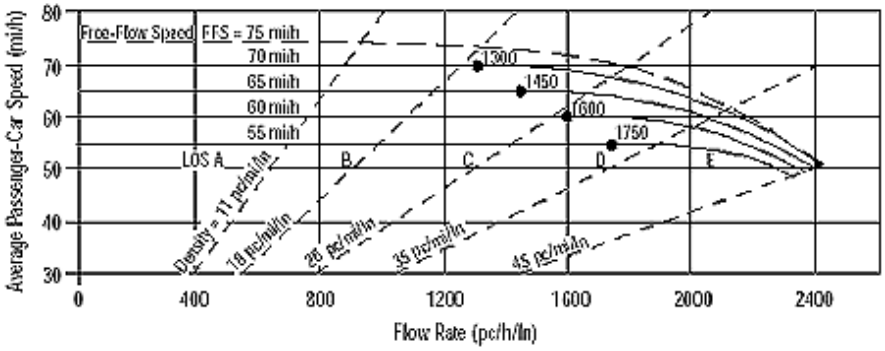
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RK*	Highway/Direction of Travel	*SR-126 WB*
Agency or Company	*Fehr & Peers*	From/To	*Peck Rd to Briggs*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3166*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1193*	pc/h/ln	Design LOS	
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*17.0*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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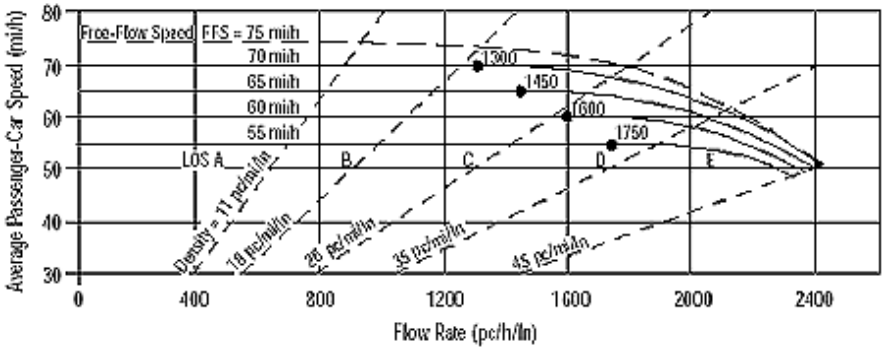
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*RK*
Agency or Company	*Fehr & Peers*
Date Performed	*2/25/2007*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-126 EB*
From/To	*Briggs Rd to Peck Rd*
Jurisdiction	
Analysis Year	*2020*

Project Description Cumulative Project (Mitigations)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2706*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1019*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
S - Speed
V - Hourly volume
D - Density
v_p - Flow rate
FFS - Free-flow speed
LOS - Level of service
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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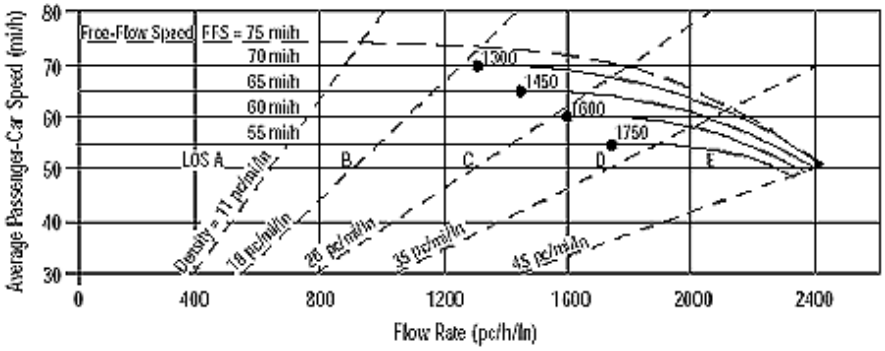
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RK*	Highway/Direction of Travel	*SR-126 EB*
Agency or Company	*Fehr & Peers*	From/To	*Briggs Rd to Peck Rd*
Date Performed	*2/25/2007*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020*

Project Description

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4734*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*1*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.983*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1783*	pc/h/ln	Design LOS	
S	*68.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*26.2*	pc/mi/ln	S	mi/h
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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APPENDIX D

DOCUMENTATION OF THE CITY OF SANTA PAULA TRANSPORTATION MODEL

FEHR & PEERS
KAKU ASSOCIATES

MEMORANDUM

TO: Project File

FROM: Chris Gray

DATE: June 6, 2007

SUBJECT: Santa Paula Model Development – East Area 1 Project **REF:** LA06-1993

This memorandum documents our development of a travel demand model suitable for use in the traffic analysis for the East Area 1 Project in Santa Paula, California. This memorandum includes the following items:

1.) Original model source
2.) Model validation
3.) Future model development
4.) Forecasting process

Each of these items is explained in detail below.

ORIGINAL MODEL SOURCE

The direction from City Staff and Impact Sciences (the firm preparing the Environmental Impact Report (EIR) for the East Area 1 Development) was to use the travel demand model developed for the previously proposed Fagan Canyon project. The modeling and traffic analysis for this project was performed by Crain & Associates in 2003. We determined that Crain & Associates had obtained the latest version of the Southern California Association of Governments (SCAG) model available at the time, converted the model from Tranplan to TP+, and added detail within the City of Santa Paula. The overall model structure and data outside of the City were maintained.

The model developed by Crain & Associates included a significant amount of detail added to the model for both the existing and future conditions. The files provided by Crain & Associates included input and output files for three scenarios including:

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fehrandpeers.com

- Existing (2003)
- 2020 No Project (No Fagan Canyon)
- 2020 With Project (With Fagan Canyon)

Once we obtained the model, we determined that we were able to run the model in TP+ for all scenarios. The script files were run in the order provided by Crain & Associates based on an Excel file that listed the input and output files for all of the script files.

MODEL VALIDATION

Following the confirmation that we were able to run the model, we proceeded with the model validation. As part of the model validation process, we compared the latest 2006 counts against the model results.

The model validation included the following steps:

- Developing existing year model
- Adding traffic count information
- Comparing counts against volumes

Develop Existing Year Model

The existing year model was defined to represent 2006 conditions. To convert the 2003 model to 2006 conditions, we performed the following actions:

- Interpolated the land use data for 2006 to account for additional growth outside of the City of Santa Paula. This process was employed by Crain & Associates to develop the 2003 model for Fagan Canyon.

- Added recently built projects (2003-2006) to the land use data used by the model. Information on these projects was provided by City of Santa Paula staff in the form of a list of approved and pending projects and relevant project-specific traffic studies.

Land use adjustments for all scenarios were done using the following assumptions:

- Three persons per household (based on existing values in the City of Santa Paula according to SCAG land use database)

- 1.5 workers per household (based on existing values in the City of Santa Paula according to SCAG land use database)

- Three service employees per 1,000 square feet (sf) of office or other similar use. This value is representative of typical development patterns and has been employed in other travel demand models prepared by Fehr & Peers.

- Two retail employees per 1,000 sf of commercial or other similar use. This value is representative of typical development patterns and has been employed in other travel demand models prepared by Fehr & Peers.

- One other employee per 1,000 sf of industrial or other similar. This value is representative of typical development patterns and has been employed in other travel demand models prepared by Fehr & Peers.

Using the above ratios, an additional seven single family residential dwelling units, 36 retail employees, and 144 other employees were added to the 2003 database within the City of Santa Paula.

We also made a few minor adjustments to the roadway network, including realigning a centroid connector to better reflect the location of South Mountain Road and adding Saticoy Street to the roadway network. No other roadway adjustments were made. A plot of the existing network is attached as Attachment 1. Attachment 2 highlights those items added to the existing year model.

Traffic Count Information

Traffic count data was entered into the model at all locations where counts were taken. Counts were entered on over 200 intersection approaches and included many of the major roadways within the City of Santa Paula including all major gateways to the City. A plot showing all a.m. peak hour counts entered into the model is provided as Attachment 3. Attachment 4 documents the p.m. peak hour counts entered into the model.

Results

We validated the model by comparing the model results against standard travel demand model guidelines, as established in *Travel Forecasting Guidelines* (California Department of Transportation [Caltrans], November 1992). These guidelines provide numerical thresholds to determine whether a travel model is validated. We applied criteria relating to screen-lines and roadway segments.

Screen-lines

A screen-line is a series of parallel roadway segments that are grouped together. We defined the following screenlines for our analysis:

- Screenline 1: North of Santa Paula Street
- Screenline 2: South of Telegraph Road/Harvard Boulevard

- Screenline 3: West of Peck Road
- Screenline 4: East of Ojai Road/10th Street
- Screenline 5: Eastern Boundary of Town
- Screenline 6: Northern Boundary of Town

We compared the model results against the count data and determined that all of our screenlines met or exceeded Caltrans standards.

Table 1 documents the screen results for the a.m. and p.m. peak hours.

TABLE 1
A.M. AND P.M. PEAK HOUR SCREENLINES

Screen-line	A.M. Deviation	Under Threshold	P.M. Deviation	Under Threshold	Total Deviation
1	95.0%	Yes	99.2%	Yes	97.2%
2	116.1%	Yes	98.0%	Yes	106.1%
3	66.6%	Yes	50.7%	Yes	57.0%
4	97.9%	Yes	85.1%	Yes	90.8%
5	82.9%	Yes	84.7%	Yes	83.9%
6	102.1%	Yes	114.0%	Yes	108.1%
Total	**97.3%**	**Yes**	**90.7%**	**Yes**	**93.8%**

The only screenline with a significant level of deviation is screenline 3, which is located along the western boundary of the City. This screen-line also has the lowest volume and is on the west side of town away from the East Area 1 study area.

Roadway Segments

We then evaluated the model performance at the roadway segment level. Over 70 percent of our roadway segments met or exceeded Caltrans standards during the a.m. and p.m. peak hours. Figures 1 and 2 graphically depict our validation results for both the a.m. and p.m. peak hours.

FUTURE MODEL DEVELOPMENT

We developed future year models for the both the no project (no East Area 1) and with project (with East Area 1) conditions.

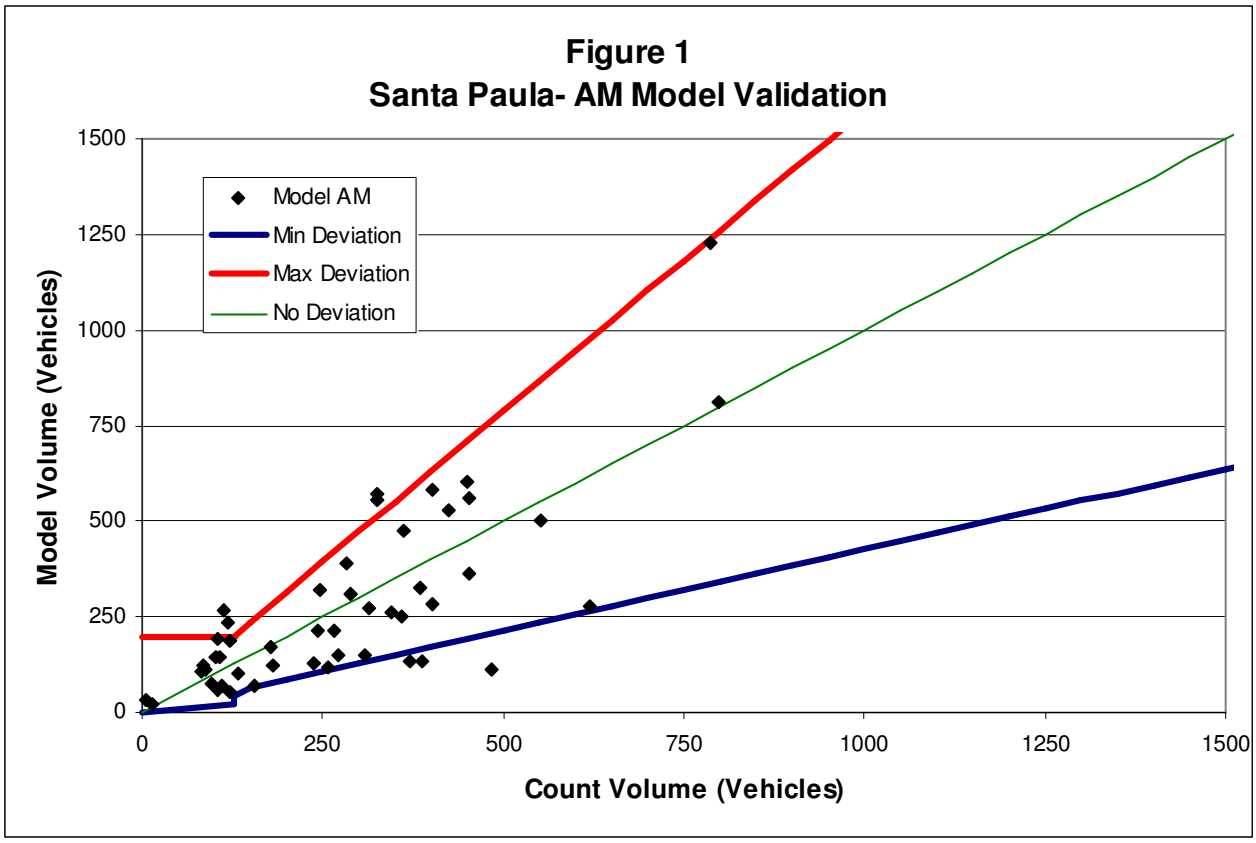
Figure 1
Santa Paula- AM Model Validation
Model AM
Min Deviation
Max Deviation
No Deviation
Model Volume (Vehicles)
Count Volume (Vehicles)
0
250
500
750
1000
1250
1500

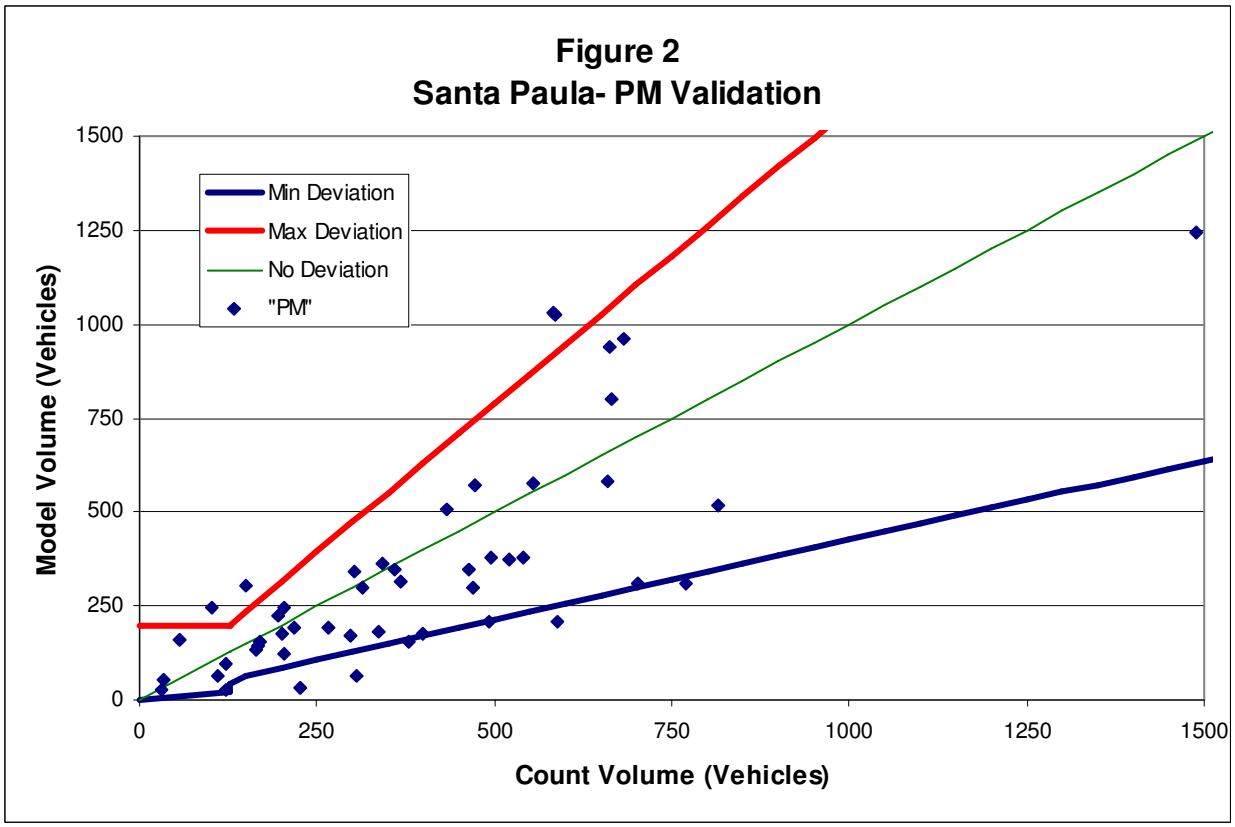
Figure 2
Santa Paula- PM Validation
Min Deviation
Max Deviation
No Deviation
"PM"
Model Volume (Vehicles)
Count Volume (Vehicles)
0
250
500
750
1000
1250
1500

No Project Model

Like the existing year model, the future year models were based on previous models developed by Crain & Associates. We modified the model for the following items:

- Adjusted future year roadway network to account for changes to existing network
- Reduced the level of development in Fagan Canyon to 1,500 total residential units with a 75%/25% split between single-family/multi-family.
- Modified the land use within the Adams Canyon project to 600 single-family residences
- Added the East Area 2 development including appropriate land use and modifications to the roadway network. Over 2,000 employees were added to the model for this project with 1,500 retail employees and 700 other employees. We modified the network to include an extension of Lemonwood Drive, which would be built in conjunction with this project. With this extension, East Area 2 would take access to 12th Street and Hallock Drive.
- We added all approved and pending projects to the model based on the City's latest project list (December 2006).

These development assumptions were confirmed in a meeting held at the City of Santa Paula on December 5, 2006. Additional information regarding the magnitude and location of future development in East Area 2 was provided in an e-mail from Impact Sciences on March 30, 2007.

In all, over 3,000 dwelling units and 4,000 employees were added to the future year land use database. A majority of this development resulted from the large projects discussed above (Fagan Canyon, East Area 2 and Adams Canyon).

The revised model assumes that the total city population in our model would be 43,000 with a total employment over 13,000. With this additional population and employment, the City's totals for 2020 would be higher than the latest regional forecasts developed by SCAG. Therefore, we consider our analysis a conservative view of the likely growth in the City.

With Project Model

We also created a future (2020) with project model that included all of the developments noted above for the No Project model with the addition of East Area 1. We modified the roadway networks and land use data to reflect this project. We added 14 zones to the network to account for the development in East Area 1. Attachment 5 documents the zonal network for East Area 1.

In total, we added 1,500 dwelling units of various types (both single and multi-family), about 800 employees of various types, and approximately 5,000 students distributed between elementary, high school and community college facilities. Attachment 6 documents the land use that was assumed in the model for the East Area 1 project.

SR-126 By-pass

It is our understanding that the City of Santa Paula seeks to assess the potential benefits of a by-pass that would connect from north of East Area 1 to SR-150. The purpose of this extension would be to provide additional capacity for traffic traveling between areas north of Santa Paula on SR-150 and areas east of Santa Paula on SR-126. Attachment 7 documents the assumptions regarding the bypass alignment and the number of lanes it would provide.

Attachment 1
2003 Fagan Canyon Network

cube

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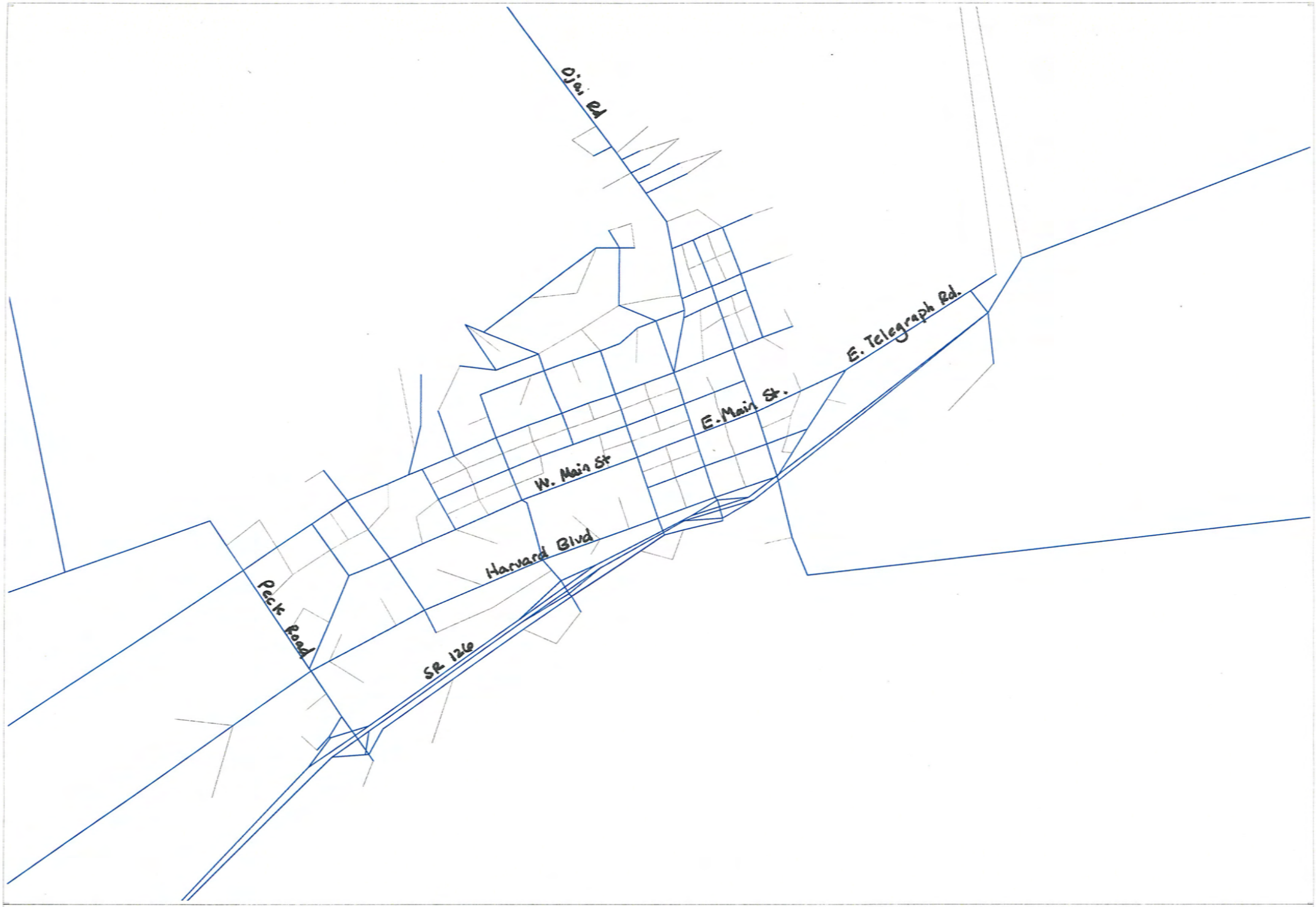

Attachment 2
2006 Existing Roadway Network

cube

Licensed to Fehr & Peers Associates, Inc.

Attachment 3

2006 AM Traffic Count Locations

cube

Licensed to Fehr & Peers Associates, Inc.

Attachment 4

2006 PM Traffic Count Locations

cube

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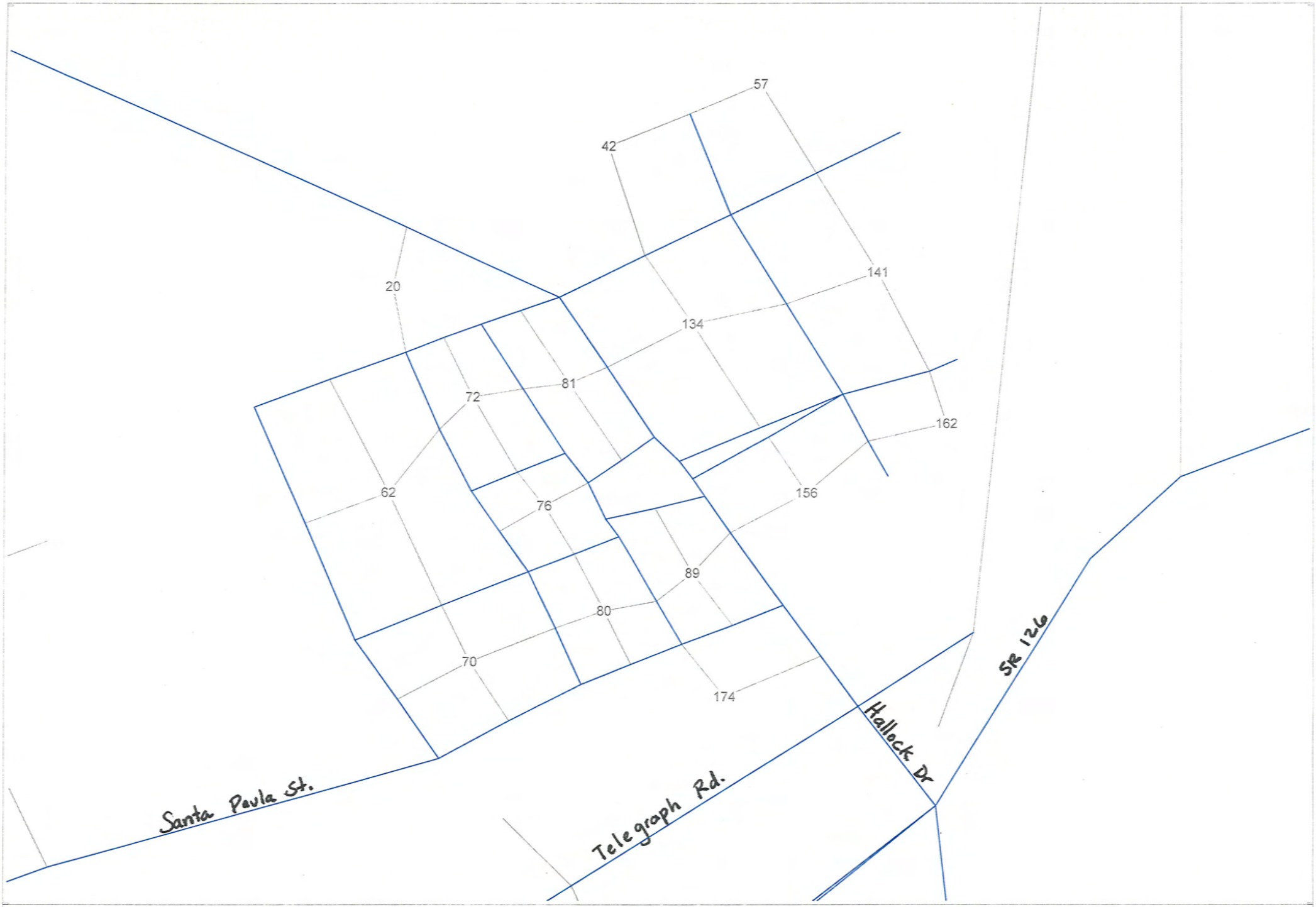

Attachment 5
East Area 1 Network and Zone System

cube

Licensed to Fehr & Peers Associates, Inc.

Attachment 6
East Area 1 Model Land Use Data

COUNTY	ZONE	TOTPOP	RESDPOP	GRPQ	WORKERS	TOTHH	SDU	MDU	TOTJOBS	RETJOBS	SRVJOBS	OTHJOBS	K12SCH	COLENR
Ventura	20	960	960	0	480	320	320	0	0	0	0	0	0	0
Ventura	42	510	510	0	255	170	170	0	0	0	0	0	0	0
Ventura	57	510	510	0	255	170	170	0	0	0	0	0	0	0
Ventura	62	0	0	0	0	0	0	0	0	0	0	65	0	0
Ventura	70	0	0	0	0	0	0	0	0	0	0	0	0	1267
Ventura	72	0	0	0	0	0	0	0	0	0	0	0	750	0
Ventura	76	0	0	0	0	0	0	0	0	0	0	0	0	1267
Ventura	80	0	0	0	0	0	0	0	0	0	0	0	0	1267
Ventura	81	0	0	0	0	0	0	0	94	38	56	0	0	0
Ventura	89	0	0	0	0	0	0	0	94	38	56	0	0	0
Ventura	134	450	450	0	225	150	0	150	94	38	56	0	400	0
Ventura	141	705	705	0	353	235	85	150	0	0	0	0	0	0
Ventura	156	600	450	150	225	150	0	150	94	38	56	0	0	0
Ventura	162	705	705	0	353	235	85	150	0	0	0	0	0	0
Ventura	174	210	210	0	100	70	0	70	318	24	144	150	0	0
		4650	4500	150	2245	1500	830	670	694	176	368	215	1150	3800

Attachment 7
East Area 1-SR 126 Bypass

cube

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APPENDIX E

TRAFFIC SIGNAL WARRANTS

TRAFFIC SIGNAL WARRANTS
FOUR HOUR VEHICULAR VOLUME (CA MUTCD Warrant 2)
PEAK HOUR VEHICULAR VOLUME (CA MUTCD Warrant 3)

Major Street:	Hallock Dr	
Minor Street:	Telegraph Rd	
Scenario:	PJ - PM	
Urban/Rural:	u	(U=urban, R=rural [a])

FOUR HOUR VOLUME (CA MUTCD Warrant 2)

Number of Lanes on Each Approach			
Major Street:	3		
Minor Street:	2		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	1,088	Major Street Left Turn (see note [b]):	251
Major Street (Approach 2):	833	Minor Street (Higher Volume App.):	459
Major Street Total (Both Approaches):	1,921	Minor Street Total:	710
Minimum Volume on Major Street to Satisfy Warrant (see note [c]):	470	Minimum Volume on Minor Street to Satisfy Warrant (see note [c]):	115

FOUR HOUR VOLUME WARRANT SATISFIED? **YES**

PEAK HOUR VOLUME (CA MUTCD Warrant 3)

Number of Lanes on Each Approach			
Major Street:	3		
Minor Street:	2		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	1,280	Major Street Left Turn (see note [b]):	295
Major Street (Approach 2):	980	Minor Street (Higher Volume App.):	540
Major Street Total (Both Approaches):	2,260	Minor Street Total:	835
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	620	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	150

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-1.

d. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-3.

Adopted from: State of California, Department of Transportation, California Manual on Uniform Traffic Control Devices, for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California), 2006.

TRAFFIC SIGNAL WARRANTS
FOUR HOUR VEHICULAR VOLUME (CA MUTCD Warrant 2)
PEAK HOUR VEHICULAR VOLUME (CA MUTCD Warrant 3)

Major Street:	Santa Paula St	
Minor Street:	12th St	
Scenario:	PJ - PM	
Urban/Rural:	u	(U=urban, R=rural [a])

FOUR HOUR VOLUME (CA MUTCD Warrant 2)

Number of Lanes on Each Approach			
Major Street:	1		
Minor Street:	1		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	323	Major Street Left Turn (see note [b]):	149
Major Street (Approach 2):	621	Minor Street (Higher Volume App.):	519
Major Street Total (Both Approaches):	944	Minor Street Total:	668
Minimum Volume on Major Street to Satisfy Warrant (see note [c]):	380	Minimum Volume on Minor Street to Satisfy Warrant (see note [c]):	120

FOUR HOUR VOLUME WARRANT SATISFIED? **YES**

PEAK HOUR VOLUME (CA MUTCD Warrant 3)

Number of Lanes on Each Approach			
Major Street:	1		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	380	Major Street Left Turn (see note [b]):	175
Major Street (Approach 2):	730	Minor Street (Higher Volume App.):	610
Major Street Total (Both Approaches):	1,110	Minor Street Total:	785
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	170

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-1.

d. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-3.

Adopted from: State of California, Department of Transportation, California Manual on Uniform Traffic Control Devices, for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California), 2006.

TRAFFIC SIGNAL WARRANTS
FOUR HOUR VEHICULAR VOLUME (CA MUTCD Warrant 2)
PEAK HOUR VEHICULAR VOLUME (CA MUTCD Warrant 3)

Major Street:	Ojai Rd	
Minor Street:	Orchard	
Scenario:	PJ - PM	
Urban/Rural:	u	(U=urban, R=rural [a])

FOUR HOUR VOLUME (CA MUTCD Warrant 2)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	531	Major Street Left Turn (see note [b]):	9
Major Street (Approach 2):	582	Minor Street (Higher Volume App.):	323
Major Street Total (Both Approaches):	1,113	Minor Street Total:	332
Minimum Volume on Major Street to Satisfy Warrant (see note [c]):	390	Minimum Volume on Minor Street to Satisfy Warrant (see note [c]):	120

FOUR HOUR VOLUME WARRANT SATISFIED? **YES**

PEAK HOUR VOLUME (CA MUTCD Warrant 3)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	625	Major Street Left Turn (see note [b]):	10
Major Street (Approach 2):	685	Minor Street (Higher Volume App.):	380
Major Street Total (Both Approaches):	1,310	Minor Street Total:	390
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	510	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	190

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-1.

d. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-3.

Adopted from: State of California, Department of Transportation, California Manual on Uniform Traffic Control Devices, for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California), 2006.

TRAFFIC SIGNAL WARRANTS
FOUR HOUR VEHICULAR VOLUME (CA MUTCD Warrant 2)
PEAK HOUR VEHICULAR VOLUME (CA MUTCD Warrant 3)

Major Street: SR-126 EB Ramps
Minor Street: Peck
Scenario: PJ - PM
Urban/Rural: u (U=urban, R=rural [a])

FOUR HOUR VOLUME (CA MUTCD Warrant 2)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	655	Major Street Left Turn (see note [b]):	570
Major Street (Approach 2):	102	Minor Street (Higher Volume App.):	221
Major Street Total (Both Approaches):	757	Minor Street Total:	791
Minimum Volume on Major Street to Satisfy Warrant (see note [c]):	390	Minimum Volume on Minor Street to Satisfy Warrant (see note [c]):	220

FOUR HOUR VOLUME WARRANT SATISFIED? **YES**

PEAK HOUR VOLUME (CA MUTCD Warrant 3)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	770	Major Street Left Turn (see note [b]):	670
Major Street (Approach 2):	120	Minor Street (Higher Volume App.):	260
Major Street Total (Both Approaches):	890	Minor Street Total:	930
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	510	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	320

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-1.

d. From: Caltrans, "California Manual on Uniform Traffic Control Devices," 2006, Figure 4C-3.

Adopted from: State of California, Department of Transportation, California Manual on Uniform Traffic Control Devices, for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California), 2006.

APPENDIX F

HCM ANALYSIS OF SR-126 INTERSECTIONS

APPENDIX F

At the request of the California Department of Transportation (Caltrans), the intersections along the Santa Paula Freeway (SR-126) were analyzed with the *Highway Capacity Manual* (HCM) methodology, as specified in *Guide to Preparation of Traffic Impact Studies* (Caltrans, December 2002). The traffic volumes used in this HCM analysis are described elsewhere in the report. The findings of this analysis are not significantly different from those presented in the body of the report. The following seven intersections along SR-126 were analyzed:

1. Santa Paula Freeway & Hallock Drive
16. 10th Street & SR-126 westbound ramps
17. 10th Street & SR-126 eastbound ramps
26. Palm Avenue & SR-126 westbound ramps
27. Palm Avenue & SR-126 eastbound ramps
34. Peck Road & SR-126 eastbound ramps
35. Faulkner Road & SR-126 westbound ramps

The HCM methodologies report the level of service based on the amount of delay experienced at an intersection. Table F-1 provides the level of service definitions for signalized intersections and Table F-2 provides the level of service definitions for unsignalized intersections.

OPERATING CONDITIONS

The results of the intersection analysis are summarized in Table F-3. Under existing conditions, four intersections are identified as operating at LOS C or better during both a.m. and p.m. peak hours. The three remaining intersections, listed below, operate at LOS D or worse during the p.m. peak hour:

17. 10th Street & SR-126 EB ramps
27. Palm Avenue & SR-126 EB ramps
34. Peck Road & SR-126 EB ramps

As discussed in Chapter III of the report, traffic signals will be installed by the City at four of the study intersections (study intersections 16, 17, 26 and 27) and were analyzed as signalized under all future scenarios.

The analysis of the cumulative base conditions at the intersections indicates that five intersections are projected to operate at LOS C or better during both the a.m. and p.m. peak hours. The two intersections projected to operate at LOS D or worse are:

34. Peck Road & SR-126 eastbound ramps (p.m. peak hour)
35. Faulkner Road & SR-126 westbound ramps (a.m. peak hour)

Under cumulative plus project conditions, four intersections are projected to operate at LOS C or better during both peak hours. The remaining three intersections projected to operate at LOS D or worse during one or both peak periods are:

1. Santa Paula Freeway & Hallock Drive (a.m. and p.m. peak hours)
34. Peck Road & SR-126 eastbound ramps (p.m. peak hour)
35. Faulkner Road & SR-126 westbound ramps (a.m. peak hour)

IMPACT ANALYSIS AND MITIGATION MEASURES

As indicated in *Guide to Preparation of Traffic Impact Studies,* the significant impact threshold at intersections is LOS D, similar to the City's threshold of significance. Therefore, the three intersections projected to operate at LOS D or worse during cumulative plus project conditions are considered impacted. The mitigation measures described in Chapter IV were applied to the impacted intersections. The results of the analysis indicate that each intersection can be mitigated to LOS C or better when analyzed with the HCM methodology.

TABLE F-1
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Average Control Delay per Vehicle (seconds)	Definition
A	≤10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>10.0 and ≤20.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	>20.0 and ≤35.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>35.0 and ≤55.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>55.0 and ≤80.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>80.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Highway Capacity Manual,* Transportation Research Board, 2000.

TABLE F-2
LEVEL OF SERVICE DEFINITIONS FOR
STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Stopped Delay (seconds/vehicle)
A	≤10.0
B	>10.0 and ≤15.0
C	>15.0 and ≤25.0
D	>25.0 and ≤35.0
E	>35.0 and ≤50.0
F	>50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.

TABLE F-3
INTERSECTION LEVEL OF SERVICE ANALYSIS ALONG SR-126

Intersections	Peak Hour	Existing		Cumulative Base		Cumulative plus Project		Impacted?	Cumulative plus Project with Mitigations	
		Delay	LOS	Delay	LOS	Delay	LOS		Delay	LOS
1. Santa Paula Freeway (SR-126) & Hallock Drive [a]	AM	8	A	15	B	53	D	YES	24	C
	PM	11	B	24	C	92	F	YES	20	B
16. 10th Street (SR-150) & SR-126 WB ramps [b]	AM	11	B	6	A	4	A	NO		
	PM	14	B	8	A	4	A	NO		
17. 10th Street (SR-150) & SR-126 EB ramps [b]	AM	14	B	13	B	10	B	NO		
	PM	77	F	13	B	9	A	NO		
26. Palm Avenue & SR-126 WB ramps [b]	AM	11	B	15	B	23	C	NO		
	PM	13	B	20	B	20	B	NO		
27. Palm Avenue & SR-126 EB ramps [b]	AM	14	B	22	C	22	C	NO		
	PM	25	D	21	C	21	C	NO		
34. Peck Road & SR-126 EB ramps [c]	AM	9	A	9	A	10	A	NO	14	B
	PM	30	D	55	F	58	F	YES	15	B
35. Faulkner Road & SR-126 WB ramps [d]	AM	16	C	28	D	29	D	YES	12	B
	PM	12	B	14	B	15	B	NO	12	B

Notes:
[a] Intersection is currently signalized.
[b] Intersection is un-signalized under existing conditions and is signalized under future conditions.
[c] Mitigation includes signalization of intersection.
[d] Intersection is currently unsignalized.

The locations of the identified impacts and the effectiveness of the proposed mitigation measures are consistent with what is presented in the body of the report using the City's analysis methodology.

INTERSECTION LEVEL OF SERVICE WORKSHEETS FOR HCM INTERSECTIONS
EXISTING (2006)

```
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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.425
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         7.6
Optimal Cycle:        32                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:        1  0  0  1  0    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      29    7    25    87   23    70    31  884    84    41 1224   144
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:   29    7    25    87   23    70    31  884    84    41 1224   144
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:    29    7    25    87   23    70    31  884    84    41 1224   144
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   29    7    25    87   23    70    31  884    84    41 1224   144
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:   29    7    25    87   23    70    31  884    84    41 1224   144
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.60 0.88  0.88  0.67 0.84  0.84  0.95 0.95  0.85  0.95 0.95  0.85
Lanes:       1.00 0.22  0.78  1.00 1.00  1.00  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:  1138  367  1311  1267 1601  1601  1805 3610  1615  1805 3610  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.02  0.02  0.07 0.01  0.04  0.02 0.24  0.05  0.02 0.34  0.09
Crit Moves:                   ****             ****                   ****
Green/Cycle: 0.16 0.16  0.16  0.16 0.16  0.16  0.04 0.77  0.77  0.07 0.80  0.80
Volume/Cap:  0.16 0.12  0.12  0.42 0.09  0.27  0.42 0.32  0.07  0.32 0.42  0.11
Uniform Del: 36.1 35.8  35.8  37.7 35.7  36.8  46.8  3.6   2.9  44.1  3.1   2.2
IncremntDel:  0.4  0.2   0.2   1.4  0.0   0.4   3.9  0.1   0.0   1.4  0.1   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   36.5 36.0  36.0  39.2 35.7  37.2  50.8  3.7   2.9  45.6  3.2   2.3
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  36.5 36.0  36.0  39.2 35.7  37.2  50.8  3.7   2.9  45.6  3.2   2.3
LOS by Move:   D    D     D     D    D     D     D    A     A     D    A     A
HCM2kAvgQ:      1    1     1     3    1     2     1    4     1     2    6     1
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #1
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.522
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        11.1
Optimal Cycle:        39                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:        1  0  0  1  0    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     143   34    42   150   10    48    58 1404    27     5  845    57
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:  143   34    42   150   10    48    58 1404    27     5  845    57
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:   143   34    42   150   10    48    58 1404    27     5  845    57
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  143   34    42   150   10    48    58 1404    27     5  845    57
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:  143   34    42   150   10    48    58 1404    27     5  845    57
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.69 0.92  0.92  0.61 0.83  0.83  0.95 0.95  0.85  0.95 0.95  0.85
Lanes:       1.00 0.45  0.55  1.00 1.00  1.00  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:  1302  779   963  1151 1581  1581  1805 3610  1615  1805 3610  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.04  0.04  0.13 0.01  0.03  0.03 0.39  0.02  0.00 0.23  0.04
Crit Moves:                   ****                   ****        ****
Green/Cycle: 0.25 0.25  0.25  0.25 0.25  0.25  0.09 0.75  0.75  0.01 0.66  0.66
Volume/Cap:  0.44 0.17  0.17  0.52 0.03  0.12  0.35 0.52  0.02  0.52 0.35  0.05
Uniform Del: 31.6 29.4  29.4  32.4 28.3  29.0  42.7  5.3   3.3  49.6  7.6   6.0
IncremntDel:  1.0  0.2   0.2   1.7  0.0   0.1   1.3  0.2   0.0  43.5  0.1   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   32.6 29.6  29.6  34.1 28.3  29.2  44.1  5.5   3.3  93.1  7.6   6.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  32.6 29.6  29.6  34.1 28.3  29.2  44.1  5.5   3.3  93.1  7.6   6.0
LOS by Move:   C    C     C     C    C     C     D    A     A     F    A     A
HCM2kAvgQ:      4    2     2     5    0     1     2   10     0     1    6     1
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 10th St & SR 126 WB Ramps

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[11.1

Street Name:	10th St						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	0 0		0 0 0	1 0		0 0 0	0 0		1 0 0	1 0	
Volume Module:												
Base Vol:	3	322	0	0	132	646	0	0	0	2	1	115
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:	3	322	0	0	132	646	0	0	0	2	1	115
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:	3	322	0	0	132	646	0	0	0	2	1	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	322	0	0	132	646	0	0	0	2	1	115
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	778	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	783	1106	322
Potent Cap.:	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	365	212	724
Move Cap.:	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	364	211	724
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.16
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.9	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	709
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.6
Shrd ConDel:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.1
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	B
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 10th St & SR 126 WB Ramps

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: B[13.5]

Street Name:	10th St									SR 126 WB Ramps								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0
Volume Module:																				
Base Vol:	13	561		0		0	185		418		0		0			3		0		98
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:	13	561		0		0	185		418		0		0			3		0		98
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:	13	561		0		0	185		418		0		0			3		0		98
Reduct Vol:	0	0		0		0	0		0		0		0			0		0		0
FinalVolume:	13	561		0		0	185		418		0		0			3		0		98
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0		3.3	
Capacity Module:																				
Cnflict Vol:	603	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							981	1190		561	
Potent Cap.:	984	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							279	189		531	
Move Cap.:	984	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							276	187		531	
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx							0.01	0.00		0.18	
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							0.0	xxxx		xxxxx	
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							18.2	xxxx		xxxxx	
LOS by Move:	A	*		*		*	*		*		*		*			C	*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx	xxxx		531	
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	xxxx		0.7	
Shrd ConDel:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	xxxx		13.3	
Shared LOS:	A	*		*		*	*		*		*		*			*	*		B	
ApproachDel:	xxxxxx					xxxxxx					xxxxxx						13.5			
ApproachLOS:	*					*					*						B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #17 10th St & SR 126 EB Ramps

****

Average Delay (sec/veh): 12.2 Worst Case Level Of Service: B[14.4

****

Street Name:	10th St						SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1 0 0			0 1 0 0 0			0 1 0 1 0			0 0 0 0 0		
Volume Module:												
Base Vol:	0	5	0	120	9	0	318	2	6	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:	0	5	0	120	9	0	318	2	6	0	0	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:	0	5	0	120	9	0	318	2	6	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	5	0	120	9	0	318	2	6	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	5	xxxx	xxxxx	254	254	9	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1630	xxxx	xxxxx	739	653	1079	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1630	xxxx	xxxxx	694	601	1079	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	0.46	0.00	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	694	xxxx	900	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	2.4	xxxx	0.0	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	14.6	xxxx	9.0	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	B	*	A	*	*	*
ApproachDel:	xxxxxx			xxxxxx			14.4			xxxxx		
ApproachLOS:	*			*			B			*		

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #17 10th St & SR 126 EB Ramps

****

Average Delay (sec/veh): 59.4 Worst Case Level Of Service: F[77.4]

****

Street Name:	10th St						SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	14	3	187	4	0	570	10	7	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:	0	14	3	187	4	0	570	10	7	0	0	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:	0	14	3	187	4	0	570	10	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	14	3	187	4	0	570	10	7	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	17	xxxx	xxxxx	394	395	4	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1613	xxxx	xxxxx	615	545	1085	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1613	xxxx	xxxxx	554	474	1085	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.12	xxxx	xxxx	1.03	0.02	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	552	xxxx	618	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	16.6	xxxx	0.1	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	79.4	xxxx	11.0	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	F	*	B	*	*	*
ApproachDel:	xxxxxx			xxxxxx			77.4			xxxxxx		
ApproachLOS:	*			*			F			*		

****

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #26 Palm Av & SR 126 WB Ramps
******************************************************************************
Average Delay (sec/veh):      1.4       Worst Case Level Of Service: B[ 10.7
******************************************************************************
Street Name:             Palm Av                        SR 126 WB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       5  285     0     0  165   321     0    0     0    12    0    99
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:    5  285     0     0  165   321     0    0     0    12    0    99
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:     5  285     0     0  165   321     0    0     0    12    0    99
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5  285     0     0  165   321     0    0     0    12    0    99
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol:  486 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   621 xxxx   285
Potent Cap.: 1087 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   455 xxxx   759
Move Cap.:   1087 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   453 xxxx   759
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.03 xxxx  0.13
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:    0.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx   0.4
Control Del:  8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  13.2 xxxx  10.5
LOS by Move:   A    *     *     *    *     *     *    *     *     B    *     B
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:  8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    A    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             10.
ApproachLOS:        *                *                *                B
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #26 Palm Av & SR 126 WB Ramps

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: B[12.8]

Street Name:	Palm Av						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	0 0	0	0 1	0 1	0
Volume Module:												
Base Vol:	37	390	0	0	242	276	0	0	0	23	1	146
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:	37	390	0	0	242	276	0	0	0	23	1	146
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:	37	390	0	0	242	276	0	0	0	23	1	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	390	0	0	242	276	0	0	0	23	1	146
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	518	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	844	982	390
Potent Cap.:	1058	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	336	251	663
Move Cap.:	1058	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	327	242	663
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	0.00	0.22
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	322	xxxx	655
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.2	xxxx	0.9
Shrd ConDel:	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.1	xxxx	12.1
Shared LOS:	A	*	*	*	*	*	*	*	*	C	*	B
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.8		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #27 Palm Av & SR 126 EB Ramps
******************************************************************************
Average Delay (sec/veh):      8.1       Worst Case Level Of Service: B[ 13.5
******************************************************************************
Street Name:             Palm Av                        SR 126 EB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  1  0    0  1  0  0  0    0  1  0  1  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------
Volume Module:
Base Vol:       0   77     4   101   75     0   217    2    27     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:    0   77     4   101   75     0   217    2    27     0    0     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:     0   77     4   101   75     0   217    2    27     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0   77     4   101   75     0   217    2    27     0    0     0
------------|---------------||---------------||---------------||---------------
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   4.1 xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx    81 xxxx xxxxx   356  358    75  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  1529 xxxx xxxxx   646  572   992  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  1529 xxxx xxxxx   612  532   992  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.07 xxxx  xxxx  0.35 0.00  0.03  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx   0.2 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx   7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     A    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   611 xxxx   936  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.2 xxxx xxxxx   1.6 xxxx   0.1 xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx   7.5 xxxx xxxxx  14.2 xxxx   9.0 xxxxx xxxx xxxxx
Shared LOS:    *    *     *     A    *     *     B    *     A     *    *     *
ApproachDel:    xxxxxx           xxxxxx             13.5           xxxxx
ApproachLOS:        *                *                B                *
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #27 Palm Av & SR 126 EB Ramps

****

Average Delay (sec/veh): 15.4 Worst Case Level Of Service: D[25.3]

****

Street Name:	Palm Av						SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	98	23	139	89	0	364	2	68	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:	0	98	23	139	89	0	364	2	68	0	0	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:	0	98	23	139	89	0	364	2	68	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	98	23	139	89	0	364	2	68	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	121	xxxx	xxxxx	477	488	89	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1479	xxxx	xxxxx	551	483	975	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1479	xxxx	xxxxx	508	434	975	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	0.72	0.00	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	507	xxxx	941	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	5.8	xxxx	0.2	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	28.3	xxxx	9.1	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	D	*	A	*	*	*
ApproachDel:	xxxxxx			xxxxxx			25.3			xxxxxx		
ApproachLOS:	*			*			D			*		

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.26
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.
Optimal Cycle: 0 Level Of Service:

****

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	2	24	0	49	31	57	169	20	23	8	4	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:	2	24	0	49	31	57	169	20	23	8	4	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:	2	24	0	49	31	57	169	20	23	8	4	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	24	0	49	31	57	169	20	23	8	4	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:	2	24	0	49	31	57	169	20	23	8	4	70
Saturation Flow Module:												
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:	0.08	0.92	0.00	0.36	0.23	0.41	1.00	0.78	0.22	0.20	0.80	1.00
Final Sat.:	52	623	0	262	166	305	643	570	158	130	535	779
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	xxxx	0.19	0.19	0.19	0.26	0.04	0.15	0.06	0.01	0.09
Crit Moves:		****		****			****					***
Delay/Veh:	8.2	8.2	0.0	8.6	8.6	8.6	10.1	8.3	8.3	8.3	8.3	7.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	0.0	8.6	8.6	8.6	10.1	8.3	8.3	8.3	8.3	7.6
LOS by Move:	A	A	*	A	A	A	B	A	A	A	A	A
ApproachDel:	8.2			8.6			9.4			7.		
Delay Adj:	1.00			1.00			1.00			1.0		
ApprAdjDel:	8.2			8.6			9.4			7.		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #34 Peck Rd & Acacia Wy / SR 126 EB Ramps

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.964
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.5
Optimal Cycle:	0	Level Of Service:	D

****

Street Name:	Peck Rd						Acacia Wy / SR 126 EB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	7	43	3	93	14	106	579	70	11	5	7	96
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	43	3	93	14	106	579	70	11	5	7	96
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	43	3	93	14	106	579	70	11	5	7	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	43	3	93	14	106	579	70	11	5	7	96
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	43	3	93	14	106	579	70	11	5	7	96
Saturation Flow Module:												
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:	0.13	0.81	0.06	0.44	0.06	0.50	1.00	0.97	0.03	0.09	0.91	1.00
Final Sat.:	71	436	30	262	39	298	601	635	22	50	487	604
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.36	0.36	0.36	0.96	0.11	0.50	0.10	0.01	0.16
Crit Moves:	****			****			****					****
Delay/Veh:	10.1	10.1	10.1	12.0	12.0	12.0	51.9	13.5	13.5	9.9	9.9	9.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.1	10.1	10.1	12.0	12.0	12.0	51.9	13.5	13.5	9.9	9.9	9.4
LOS by Move:	B	B	B	B	B	B	F	B	B	A	A	A
ApproachDel:	10.1			12.0			38.0			9.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			12.0			38.0			9.6		
LOS by Appr:	B			B			E			A		
AllWayAvgQ:	0.1	0.1	0.1	0.5	0.5	0.5	7.2	1.0	1.0	0.1	0.2	0.2

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #35 Faulkner Rd & SR 126 WB Ramps

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.68
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.
Optimal Cycle: 0 Level Of Service:

****

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	6	14	99	8	8	3	3	6	2	450	5	27
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:	6	14	99	8	8	3	3	6	2	450	5	27
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:	6	14	99	8	8	3	3	6	2	450	5	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	14	99	8	8	3	3	6	2	450	5	27
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:	6	14	99	8	8	3	3	6	2	450	5	27
Saturation Flow Module:												
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:	0.30	0.70	1.00	0.84	0.84	0.32	1.00	1.50	0.50	1.00	1.00	1.00
Final Sat.:	168	392	648	438	474	181	526	869	301	657	716	833
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.15	0.02	0.02	0.02	0.01	0.01	0.01	0.69	0.01	0.03
Crit Moves:			****	****				****		****		
Delay/Veh:	8.9	8.9	8.7	9.2	8.7	8.5	9.2	8.6	8.3	18.9	7.7	7.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	8.9	8.7	9.2	8.7	8.5	9.2	8.6	8.3	18.9	7.7	7.1
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	A
ApproachDel:	8.7			8.9			8.7			18.		
Delay Adj:	1.00			1.00			1.00			1.0		
ApprAdjDel:	8.7			8.9			8.7			18.		
LOS by Appr:	A			A			A			C		
AllWayAvgQ:	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0

****

Note: Queue reported is the number of cars per lane.

****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #35 Faulkner Rd & SR 126 WB Ramps

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.575
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.2
Optimal Cycle:	0	Level Of Service:	B

****

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	13	45	167	77	13	6	5	60	17	321	20	113
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:	13	45	167	77	13	6	5	60	17	321	20	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:	13	45	167	77	13	6	5	60	17	321	20	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	45	167	77	13	6	5	60	17	321	20	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:	13	45	167	77	13	6	5	60	17	321	20	113
Saturation Flow Module:												
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:	0.22	0.78	1.00	1.00	0.87	0.13	1.00	1.56	0.44	1.00	1.00	1.00
Final Sat.:	122	421	621	501	477	68	474	805	234	558	599	680
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.27	0.15	0.03	0.09	0.01	0.07	0.07	0.58	0.03	0.17
Crit Moves:			****	****				****		****		
Delay/Veh:	9.7	9.7	10.0	10.6	9.4	9.4	9.9	9.7	9.4	16.8	8.7	8.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.7	10.0	10.6	9.4	9.4	9.9	9.7	9.4	16.8	8.7	8.8
LOS by Move:	A	A	A	B	A	A	A	A	A	C	A	A
ApproachDel:	9.9			10.2			9.6			14.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			10.2			9.6			14.4		
LOS by Appr:	A			B			A			B		
AllWayAvgQ:	0.1	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.1	1.2	0.0	0.2

****

Note: Queue reported is the number of cars per lane.

****

INTERSECTION LEVEL OF SERVICE WORKSHEETS FOR HCM INTERSECTIONS
CUMULATIVE BASE (2020)

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.615
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        14.7
Optimal Cycle:        48                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:        1  0  0  1  0    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      70   80    60   150  160   130    50  810   210   110 1540   360
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:   70   80    60   150  160   130    50  810   210   110 1540   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:    70   80    60   150  160   130    50  810   210   110 1540   360
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   70   80    60   150  160   130    50  810   210   110 1540   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:   70   80    60   150  160   130    50  810   210   110 1540   360
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.43 0.94  0.94  0.49 0.89  0.89  0.95 0.95  0.85  0.95 0.95  0.85
Lanes:       1.00 0.57  0.43  1.00 1.10  0.90  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:   825 1016   762   935 1858  1510  1805 3610  1615  1805 3610  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.08  0.16 0.09  0.09  0.03 0.22  0.13  0.06 0.43  0.22
Crit Moves:                   ****             ****                   ****
Green/Cycle: 0.26 0.26  0.26  0.26 0.26  0.26  0.05 0.58  0.58  0.16 0.69  0.69
Volume/Cap:  0.33 0.30  0.30  0.61 0.33  0.33  0.61 0.39  0.22  0.39 0.61  0.32
Uniform Del: 29.8 29.6  29.6  32.5 29.9  29.9  46.9 11.3  10.1  37.8  8.2   6.0
IncremntDel:  0.9  0.4   0.4   4.6  0.2   0.2  13.2  0.1   0.1   0.9  0.5   0.2
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   30.7 30.0  30.0  37.2 30.1  30.1  60.1 11.4  10.2  38.6  8.6   6.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  30.7 30.0  30.0  37.2 30.1  30.1  60.1 11.4  10.2  38.6  8.6   6.2
LOS by Move:   C    C     C     D    C     C     E    B     B     D    A     A
HCM2kAvgQ:      2    4     4     5    4     4     3    7     3     3   14     4
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #1
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.858
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        24.3
Optimal Cycle:       131                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:        1  0  0  1  0    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     280  170   130   200  100   150   160 1880   190    60 1150   180
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:  280  170   130   200  100   150   160 1880   190    60 1150   180
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:   280  170   130   200  100   150   160 1880   190    60 1150   180
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  280  170   130   200  100   150   160 1880   190    60 1150   180
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:  280  170   130   200  100   150   160 1880   190    60 1150   180
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.52 0.94  0.94  0.35 0.86  0.86  0.95 0.95  0.85  0.95 0.95  0.85
Lanes:       1.00 0.57  0.43  1.00 1.00  1.00  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:   980 1007   770   657 1643  1643  1805 3610  1615  1805 3610  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.17  0.17  0.30 0.06  0.09  0.09 0.52  0.12  0.03 0.32  0.11
Crit Moves:                   ****                   ****        ****
Green/Cycle: 0.35 0.35  0.35  0.35 0.35  0.35  0.14 0.61  0.61  0.04 0.51  0.51
Volume/Cap:  0.81 0.48  0.48  0.86 0.17  0.26  0.63 0.86  0.19  0.86 0.63  0.22
Uniform Del: 29.2 25.1  25.1  29.9 22.2  22.9  40.5 16.1   8.8  47.8 18.0  13.8
IncremntDel: 12.9  0.6   0.6  25.8  0.1   0.1   5.1  3.6   0.1  61.4  0.7   0.1
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   42.1 25.6  25.6  55.7 22.2  23.1  45.6 19.8   8.9 109.2 18.7  13.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  42.1 25.6  25.6  55.7 22.2  23.1  45.6 19.8   8.9 109.2 18.7  13.9
LOS by Move:   D    C     C     E    C     C     D    B     A     F    B     B
HCM2kAvgQ:    10    7     7     8    2     3     6   27     3     4   14     3
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #16
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.625
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         6.1
Optimal Cycle:        38                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  1  0  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      60  360     0   140  770     0     0    0     0    10    0   120
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:   60  360     0   140  770     0     0    0     0    10    0   120
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:    60  360     0   140  770     0     0    0     0    10    0   120
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   60  360     0   140  770     0     0    0     0    10    0   120
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:   60  360     0   140  770     0     0    0     0    10    0   120
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.82 0.82  1.00  0.87 0.87  1.00  1.00 1.00  1.00  0.88 1.00  0.85
Lanes:       0.14 0.86  0.00  0.15 0.85  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Final Sat.:   222 1331     0   254 1399     0     0    0     0  1666    0  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.27 0.27  0.00  0.55 0.55  0.00  0.00 0.00  0.00  0.01 0.00  0.07
Crit Moves:                         ****                                    ****
Green/Cycle: 0.88 0.88  0.00  0.88 0.88  0.00  0.00 0.00  0.00  0.12 0.00  0.12
Volume/Cap:  0.31 0.31  0.00  0.62 0.62  0.00  0.00 0.00  0.00  0.05 0.00  0.62
Uniform Del:  1.0  1.0   0.0   1.6  1.6   0.0   0.0  0.0   0.0  39.0  0.0  41.9
IncremntDel:  0.1  0.1   0.0   0.9  0.9   0.0   0.0  0.0   0.0   0.1  0.0   6.3
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  1.00 1.00  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:    1.1  1.1   0.0   2.4  2.4   0.0   0.0  0.0   0.0  39.2  0.0  48.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   1.1  1.1   0.0   2.4  2.4   0.0   0.0  0.0   0.0  39.2  0.0  48.2
LOS by Move:   A    A     A     A    A     A     A    A     A     D    A     D
HCM2kAvgQ:      2    2     0     8    8     0     0    0     0     0    0     5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #16
******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.592
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         8.3
Optimal Cycle:        35                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  1  0  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      60  570     0   190  460     0     0    0     0    10    0   180
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:   60  570     0   190  460     0     0    0     0    10    0   180
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:    60  570     0   190  460     0     0    0     0    10    0   180
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   60  570     0   190  460     0     0    0     0    10    0   180
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:   60  570     0   190  460     0     0    0     0    10    0   180
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.90 0.90  1.00  0.71 0.71  1.00  1.00 1.00  1.00  0.90 1.00  0.85
Lanes:       0.10 0.90  0.00  0.29 0.71  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Final Sat.:   164 1554     0   395  957     0     0    0     0  1704    0  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.37 0.37  0.00  0.48 0.48  0.00  0.00 0.00  0.00  0.01 0.00  0.11
Crit Moves:                         ****                                    ****
Green/Cycle: 0.81 0.81  0.00  0.81 0.81  0.00  0.00 0.00  0.00  0.19 0.00  0.19
Volume/Cap:  0.45 0.45  0.00  0.59 0.59  0.00  0.00 0.00  0.00  0.03 0.00  0.59
Uniform Del:  2.8  2.8   0.0   3.4  3.4   0.0   0.0  0.0   0.0  33.1  0.0  37.1
IncremntDel:  0.2  0.2   0.0   0.9  0.9   0.0   0.0  0.0   0.0   0.0  0.0   3.1
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  1.00 1.00  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:    3.0  3.0   0.0   4.3  4.3   0.0   0.0  0.0   0.0  33.2  0.0  40.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   3.0  3.0   0.0   4.3  4.3   0.0   0.0  0.0   0.0  33.2  0.0  40.2
LOS by Move:   A    A     A     A    A     A     A    A     A     C    A     D
HCM2kAvgQ:      6    6     0     8    8     0     0    0     0     0    0     6
******************************************************************************
Note: Queue reported is the number of cars per lane.
******************************************************************************


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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #17
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.344
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        13.2
Optimal Cycle:        22                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   70    20   130   10     0   360    0    80     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:    0   70    20   130   10     0   360    0    80     0    0     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:     0   70    20   130   10     0   360    0    80     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0   70    20   130   10     0   360    0    80     0    0     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:    0   70    20   130   10     0   360    0    80     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.97  0.97  0.75 0.75  1.00  0.77 1.00  0.85  1.00 1.00  1.00
Lanes:       0.00 0.78  0.22  0.93 0.07  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:     0 1433   410  1321  102     0  1465    0  1615     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.05  0.05  0.10 0.10  0.00  0.25 0.00  0.05  0.00 0.00  0.00
Crit Moves:                          ****        ****
Green/Cycle: 0.00 0.29  0.29  0.29 0.29  0.00  0.71 0.00  0.71  0.00 0.00  0.00
Volume/Cap:  0.00 0.17  0.17  0.34 0.34  0.00  0.34 0.00  0.07  0.00 0.00  0.00
Uniform Del:  0.0 26.8  26.8  28.3 28.3   0.0   5.4  0.0   4.3   0.0  0.0   0.0
IncremntDel:  0.0  0.2   0.2   0.5  0.5   0.0   0.2  0.0   0.0   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 27.0  27.0  28.8 28.8   0.0   5.6  0.0   4.3   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 27.0  27.0  28.8 28.8   0.0   5.6  0.0   4.3   0.0  0.0   0.0
LOS by Move:   A    C     C     C    C     A     A    A     A     A    A     A
HCM2kAvgQ:      0    2     2     4    4     0     4    0     1     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #26
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.652
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        14.5
Optimal Cycle:        65                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        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  0    0  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      20  290     0     0  240   470     0    0     0    20    0   110
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:   20  290     0     0  240   470     0    0     0    20    0   110
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:    20  290     0     0  240   470     0    0     0    20    0   110
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   20  290     0     0  240   470     0    0     0    20    0   110
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:   20  290     0     0  240   470     0    0     0    20    0   110
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  1.00 0.91  0.91  1.00 1.00  1.00  0.88 1.00  0.88
Lanes:       0.06 0.94  0.00  0.00 0.34  0.66  0.00 0.00  0.00  0.15 0.00  0.85
Final Sat.:   122 1772     0     0  585  1146     0    0     0   257    0  1413
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.16  0.00  0.00 0.41  0.41  0.00 0.00  0.00  0.08 0.00  0.08
Crit Moves:  ****                  ****                           ****
Green/Cycle: 0.25 0.88  0.00  0.00 0.63  0.63  0.00 0.00  0.00  0.12 0.00  0.12
Volume/Cap:  0.65 0.19  0.00  0.00 0.65  0.65  0.00 0.00  0.00  0.65 0.00  0.65
Uniform Del: 33.5  0.9   0.0   0.0 11.6  11.6   0.0  0.0   0.0  42.0  0.0  42.0
IncremntDel:  3.2  0.1   0.0   0.0  1.4   1.4   0.0  0.0   0.0   7.5  0.0   7.5
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:   36.7  0.9   0.0   0.0 13.1  13.1   0.0  0.0   0.0  49.5  0.0  49.5
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  36.7  0.9   0.0   0.0 13.1  13.1   0.0  0.0   0.0  49.5  0.0  49.5
LOS by Move:   D    A     A     A    B     B     A    A     A     D    A     D
HCM2kAvgQ:      9    1     0     0   14    14     0    0     0     5    0     5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #26
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.719
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        19.8
Optimal Cycle:        81                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        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  0    0  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      40  510     0     0  290   280     0    0     0    30    0   150
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:   40  510     0     0  290   280     0    0     0    30    0   150
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:    40  510     0     0  290   280     0    0     0    30    0   150
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   40  510     0     0  290   280     0    0     0    30    0   150
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:   40  510     0     0  290   280     0    0     0    30    0   150
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  1.00 0.93  0.93  1.00 1.00  1.00  0.88 1.00  0.88
Lanes:       0.07 0.93  0.00  0.00 0.51  0.49  0.00 0.00  0.00  0.17 0.00  0.83
Final Sat.:   138 1755     0     0  903   872     0    0     0   279    0  1395
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.29  0.00  0.00 0.32  0.32  0.00 0.00  0.00  0.11 0.00  0.11
Crit Moves:  ****                  ****                           ****
Green/Cycle: 0.40 0.85  0.00  0.00 0.45  0.45  0.00 0.00  0.00  0.15 0.00  0.15
Volume/Cap:  0.72 0.34  0.00  0.00 0.72  0.72  0.00 0.00  0.00  0.72 0.00  0.72
Uniform Del: 25.0  1.6   0.0   0.0 22.6  22.6   0.0  0.0   0.0  40.5  0.0  40.5
IncremntDel:  3.3  0.1   0.0   0.0  3.2   3.2   0.0  0.0   0.0   9.7  0.0   9.7
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:   28.4  1.7   0.0   0.0 25.8  25.8   0.0  0.0   0.0  50.2  0.0  50.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  28.4  1.7   0.0   0.0 25.8  25.8   0.0  0.0   0.0  50.2  0.0  50.2
LOS by Move:   C    A     A     A    C     C     A    A     A     D    A     D
HCM2kAvgQ:     15    4     0     0   15    15     0    0     0     7    0     7
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #27
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.323
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        21.8
Optimal Cycle:        34                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  100    10   150   80     0   220    0    30     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:    0  100    10   150   80     0   220    0    30     0    0     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:     0  100    10   150   80     0   220    0    30     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  100    10   150   80     0   220    0    30     0    0     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:    0  100    10   150   80     0   220    0    30     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.99  0.99  0.97 0.97  1.00  0.94 1.00  0.94  1.00 1.00  1.00
Lanes:       0.00 0.91  0.09  0.65 0.35  0.00  0.88 0.00  0.12  0.00 0.00  0.00
Final Sat.:     0 1707   171  1199  640     0  1576    0   215     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.06  0.06  0.13 0.13  0.00  0.14 0.00  0.14  0.00 0.00  0.00
Crit Moves:       ****        ****              ****
Green/Cycle: 0.00 0.18  0.18  0.39 0.57  0.00  0.43 0.00  0.43  0.00 0.00  0.00
Volume/Cap:  0.00 0.32  0.32  0.32 0.22  0.00  0.32 0.00  0.32  0.00 0.00  0.00
Uniform Del:  0.0 35.6  35.6  21.5 10.7   0.0  18.8  0.0  18.8   0.0  0.0   0.0
IncremntDel:  0.0  0.6   0.6   0.3  0.1   0.0   0.2  0.0   0.2   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 36.2  36.2  21.7 10.8   0.0  19.0  0.0  19.0   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 36.2  36.2  21.7 10.8   0.0  19.0  0.0  19.0   0.0  0.0   0.0
LOS by Move:   A    D     D     C    B     A     B    A     B     A    A     A
HCM2kAvgQ:     0    3     3     5    3     0     5    0     5     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #27
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.590
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        21.1
Optimal Cycle:        56                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  100    30   180  100     0   490    0   160     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:    0  100    30   180  100     0   490    0   160     0    0     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:     0  100    30   180  100     0   490    0   160     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  100    30   180  100     0   490    0   160     0    0     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:    0  100    30   180  100     0   490    0   160     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.97  0.97  0.97 0.97  1.00  0.93 1.00  0.93  1.00 1.00  1.00
Lanes:       0.00 0.77  0.23  0.64 0.36  0.00  0.75 0.00  0.25  0.00 0.00  0.00
Final Sat.:     0 1416   425  1184  658     0  1335    0   436     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.07  0.07  0.15 0.15  0.00  0.37 0.00  0.37  0.00 0.00  0.00
Crit Moves:       ****        ****              ****
Green/Cycle: 0.00 0.12  0.12  0.26 0.38  0.00  0.62 0.00  0.62  0.00 0.00  0.00
Volume/Cap:  0.00 0.59  0.59  0.59 0.40  0.00  0.59 0.00  0.59  0.00 0.00  0.00
Uniform Del:  0.0 41.7  41.7  32.5 22.8   0.0  11.3  0.0  11.3   0.0  0.0   0.0
IncremntDel:  0.0  4.2   4.2   2.0  0.4   0.0   0.8  0.0   0.8   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 45.9  45.9  34.4 23.2   0.0  12.1  0.0  12.1   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 45.9  45.9  34.4 23.2   0.0  12.1  0.0  12.1   0.0  0.0   0.0
LOS by Move:   A    D     D     C    C     A     B    A     B     A    A     A
HCM2kAvgQ:      0    5     5     8    6     0    12    0    12     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #17
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.537
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        12.8
Optimal Cycle:        31                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   60    10   190   10     0   580    0   150     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:    0   60    10   190   10     0   580    0   150     0    0     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:     0   60    10   190   10     0   580    0   150     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0   60    10   190   10     0   580    0   150     0    0     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:    0   60    10   190   10     0   580    0   150     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.98  0.98  0.75 0.75  1.00  0.77 1.00  0.85  1.00 1.00  1.00
Lanes:       0.00 0.86  0.14  0.95 0.05  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:     0 1598   266  1354   71     0  1463    0  1615     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.04  0.04  0.14 0.14  0.00  0.40 0.00  0.09  0.00 0.00  0.00
Crit Moves:                          ****        ****
Green/Cycle: 0.00 0.26  0.26  0.26 0.26  0.00  0.74 0.00  0.74  0.00 0.00  0.00
Volume/Cap:  0.00 0.14  0.14  0.54 0.54  0.00  0.54 0.00  0.13  0.00 0.00  0.00
Uniform Del:  0.0 28.3  28.3  31.7 31.7   0.0   5.7  0.0   3.8   0.0  0.0   0.0
IncremntDel:  0.0  0.1   0.1   1.5  1.5   0.0   0.5  0.0   0.0   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 28.5  28.5  33.3 33.3   0.0   6.2  0.0   3.8   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 28.5  28.5  33.3 33.3   0.0   6.2  0.0   3.8   0.0  0.0   0.0
LOS by Move:   A    C     C     C    C     A     A    A     A     A    A     A
HCM2kAvgQ:      0    2     2     6    6     0     8    0     1     0    0     0
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #34
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.335
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         9.4
Optimal Cycle:         0                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:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   30    10    50   40    60   210   30    30    10   10    80
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   30    10    50   40    60   210   30    30    10   10    80
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   30    10    50   40    60   210   30    30    10   10    80
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   30    10    50   40    60   210   30    30    10   10    80
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   30    10    50   40    60   210   30    30    10   10    80
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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:       0.20 0.60  0.20  0.33 0.27  0.40  1.00 0.78  0.22  0.20 0.80  1.00
Final Sat.:   130  390   130   231  185   277   627  551   157   127  508   740
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.08  0.22 0.22  0.22  0.33 0.05  0.19  0.08 0.02  0.11
Crit Moves:       ****             ****        ****                        ****
Delay/Veh:    8.5  8.5   8.5   9.2  9.2   9.2  11.0  8.8   8.8   8.6  8.6   7.9
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.5  8.5   8.5   9.2  9.2   9.2  11.0  8.8   8.8   8.6  8.6   7.9
LOS by Move:   A    A     A     A    A     A     B    A     A     A    A     A
ApproachDel:       8.5              9.2             10.2              8.2
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:        8.5              9.2             10.2              8.2
LOS by Appr:        A                A                B                A
AllWayAvgQ:   0.1  0.1   0.1   0.2  0.2   0.2   0.5  0.2   0.2   0.1  0.1   0.1
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #34
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         1.147
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        54.9
Optimal Cycle:         0                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:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   50    10   100   20   120   670   80    20    10   10   100
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   50    10   100   20   120   670   80    20    10   10   100
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   50    10   100   20   120   670   80    20    10   10   100
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   50    10   100   20   120   670   80    20    10   10   100
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   50    10   100   20   120   670   80    20    10   10   100
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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:       0.14 0.72  0.14  0.42 0.08  0.50  1.00 0.95  0.05  0.17 0.83  1.00
Final Sat.:    76  379    76   247   49   296   584  605    33    86  429   580
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.13 0.13  0.13  0.41 0.41  0.41  1.15 0.13  0.60  0.12 0.02  0.17
Crit Moves:       ****             ****        ****                          ****
Delay/Veh:   10.5 10.5  10.5  12.9 12.9  12.9 107.3 16.5  16.5  10.3 10.3   9.9
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.5 10.5  10.5  12.9 12.9  12.9 107.3 16.5  16.5  10.3 10.3   9.9
LOS by Move:   B    B     B     B    B     B     F    C     C     B    B     A
ApproachDel:      10.5             12.9             74.2             10.0
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       10.5             12.9             74.2             10.0
LOS by Appr:        B                B                F                B
AllWayAvgQ:   0.1  0.1   0.1   0.6  0.6   0.6  16.0  1.4   1.4   0.1  0.2   0.2
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.914
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	28.0
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	20	100	10	10	10	10	40	20	560	110	30
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:	50	20	100	10	10	10	10	40	20	560	110	30
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:	50	20	100	10	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	20	100	10	10	10	10	40	20	560	110	30
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:	50	20	100	10	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.71	0.29	1.00	0.67	0.67	0.66	1.00	1.33	0.67	1.00	1.57	0.43
Final Sat.:	362	145	595	324	344	364	485	706	372	613	1061	300
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.17	0.03	0.03	0.03	0.02	0.06	0.05	0.91	0.10	0.10
Crit Moves:			****	****				****		****		
Delay/Veh:	10.7	10.7	9.7	10.0	9.6	9.2	10.0	9.6	9.2	41.6	8.5	8.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	10.7	9.7	10.0	9.6	9.2	10.0	9.6	9.2	41.6	8.5	8.3
LOS by Move:	B	B	A	B	A	A	B	A	A	E	A	A
ApproachDel:	10.1			9.6			9.6			34.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			9.6			9.6			34.9		
LOS by Appr:	B			A			A			D		
AllWayAvgQ:	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	5.6	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.667
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	50	50	170	90	20	10	10	180	70	330	100	120
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:	50	50	170	90	20	10	10	180	70	330	100	120
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:	50	50	170	90	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	50	170	90	20	10	10	180	70	330	100	120
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:	50	50	170	90	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.50	0.50	1.00	1.00	0.83	0.17	1.00	1.44	0.56	1.00	1.00	1.00
Final Sat.:	236	236	541	441	396	79	438	689	278	495	524	583
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.31	0.20	0.05	0.13	0.02	0.26	0.25	0.67	0.19	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	11.8	11.8	11.6	12.2	10.7	10.7	10.6	12.2	11.7	22.4	10.8	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.6	12.2	10.7	10.7	10.6	12.2	11.7	22.4	10.8	10.1
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
ApproachDel:	11.7			11.6			12.0			17.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.7			11.6			12.0			17.6		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.2	0.2	0.4	0.2	0.1	0.1	0.0	0.3	0.3	1.7	0.2	0.2

Note: Queue reported is the number of cars per lane.

INTERSECTION LEVEL OF SERVICE WORKSHEETS FOR HCM INTERSECTIONS
CUMULATIVE BASE PLUS PROJECT (2020)

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         1.041
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        52.5
Optimal Cycle:       180                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:        1  0  0  1  0    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      70   95    60   460  190   450   345  730   210   110 1500   645
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:   70   95    60   460  190   450   345  730   210   110 1500   645
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:    70   95    60   460  190   450   345  730   210   110 1500   645
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   70   95    60   460  190   450   345  730   210   110 1500   645
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:   70   95    60   460  190   450   345  730   210   110 1500   645
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.29 0.94  0.94  0.56 0.85  0.85  0.95 0.95  0.85  0.95 0.95  0.85
Lanes:       1.00 0.61  0.39  1.00 1.00  1.00  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:   553 1097   693  1058 1615  1615  1805 3610  1615  1805 3610  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.13 0.09  0.09  0.43 0.12  0.28  0.19 0.20  0.13  0.06 0.42  0.40
Crit Moves:                   ****             ****                   ****
Green/Cycle: 0.42 0.42  0.42  0.42 0.42  0.42  0.18 0.45  0.45  0.13 0.40  0.40
Volume/Cap:  0.30 0.21  0.21  1.04 0.28  0.67  1.04 0.45  0.29  0.45 1.04  1.00
Uniform Del: 19.4 18.6  18.6  29.1 19.2  23.5  40.8 19.1  17.5  39.8 30.0  30.0
IncremntDel:  0.7  0.1   0.1  54.0  0.1   1.8  60.6  0.2   0.2   1.3 35.2  35.7
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   20.2 18.7  18.7  83.1 19.3  25.3 101.4 19.3  17.8  41.2 65.3  65.7
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  20.2 18.7  18.7  83.1 19.3  25.3 101.4 19.3  17.8  41.2 65.3  65.7
LOS by Move:   C    B     B     F    B     C     F    B     B     D    E     E
HCM2kAvgQ:      2    3     3    22    4    13    17    8     4     4   34    27
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #1
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         1.252
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        92.1
Optimal Cycle:       180                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:         Permitted        Permitted       Protected        Protected
Rights:           Include          Include         Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  0  1  0    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     280  205   130   500  125   445   525 1800   190    60 1065   530
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:  280  205   130   500  125   445   525 1800   190    60 1065   530
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:   280  205   130   500  125   445   525 1800   190    60 1065   530
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  280  205   130   500  125   445   525 1800   190    60 1065   530
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:  280  205   130   500  125   445   525 1800   190    60 1065   530
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.36 0.94  0.94  0.42 0.84  0.84  0.95 0.95  0.85  0.95 0.95  0.85
Lanes:       1.00 0.61  0.39  1.00 1.00  1.00  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:   692 1095   695   790 1594  1594  1805 3610  1615  1805 3610  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.40 0.19  0.19  0.63 0.08  0.28  0.29 0.50  0.12  0.03 0.30  0.33
Crit Moves:                   ****             ****                          ****
Green/Cycle: 0.51 0.51  0.51  0.51 0.51  0.51  0.23 0.46  0.46  0.03 0.26  0.26
Volume/Cap:  0.80 0.37  0.37  1.25 0.16  0.55  1.25 1.08  0.25  1.08 1.13  1.25
Uniform Del: 20.6 15.0  15.0  24.7 13.3  17.0  38.4 26.8  16.3  48.5 36.9  36.9
IncremntDel: 12.4  0.3   0.3 132.4  0.0   0.7 131.6 45.4   0.2 143.0 70.1 131.4
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   33.0 15.3  15.3 157.1 13.3  17.6 170.0 72.2  16.5 191.5  107 168.3
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  33.0 15.3  15.3 157.1 13.3  17.6 170.0 72.2  16.5 191.5  107 168.3
LOS by Move:   C    B     B     F    B     B     F    E     B     F    F     F
HCM2kAvgQ:      9    6     6    30    2    10    32   42     4     5   29    32
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #16
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.607
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         4.2
Optimal Cycle:        37                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      60  425     0     0   60   865     0    0     0    10    0    80
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:   60  425     0     0   60   865     0    0     0    10    0    80
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:    60  425     0     0   60   865     0    0     0    10    0    80
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   60  425     0     0   60   865     0    0     0    10    0    80
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:   60  425     0     0   60   865     0    0     0    10    0    80
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.83 0.83  1.00  1.00 0.87  0.87  1.00 1.00  1.00  0.85 1.00  0.85
Lanes:       0.12 0.88  0.00  0.00 0.06  0.94  0.00 0.00  0.00  1.00 0.00  1.00
Final Sat.:   196 1389     0     0  108  1553     0    0     0  1619    0  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.31 0.31  0.00  0.00 0.56  0.56  0.00 0.00  0.00  0.01 0.00  0.05
Crit Moves:                          ****                                   ****
Green/Cycle: 0.92 0.92  0.00  0.00 0.92  0.92  0.00 0.00  0.00  0.08 0.00  0.08
Volume/Cap:  0.33 0.33  0.00  0.00 0.61  0.61  0.00 0.00  0.00  0.08 0.00  0.61
Uniform Del:  0.5  0.5   0.0   0.0  0.8   0.8   0.0  0.0   0.0  42.4  0.0  44.4
IncremntDel:  0.1  0.1   0.0   0.0  0.7   0.7   0.0  0.0   0.0   0.2  0.0   7.9
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:    0.6  0.6   0.0   0.0  1.5   1.5   0.0  0.0   0.0  42.7  0.0  52.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.6  0.6   0.0   0.0  1.5   1.5   0.0  0.0   0.0  42.7  0.0  52.2
LOS by Move:    A    A     A     A    A     A     A    A     A     D    A     D
HCM2kAvgQ:      2    2     0     0    6     6     0    0     0     0    0     3
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #16
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.482
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         4.4
Optimal Cycle:        28                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      60  675     0     0  110   545     0    0     0    10    0    95
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:   60  675     0     0  110   545     0    0     0    10    0    95
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:    60  675     0     0  110   545     0    0     0    10    0    95
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   60  675     0     0  110   545     0    0     0    10    0    95
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:   60  675     0     0  110   545     0    0     0    10    0    95
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.92  1.00  1.00 0.89  0.89  1.00 1.00  1.00  0.88 1.00  0.85
Lanes:       0.08 0.92  0.00  0.00 0.17  0.83  0.00 0.00  0.00  1.00 0.00  1.00
Final Sat.:   142 1597     0     0  283  1404     0    0     0  1668    0  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.42 0.42  0.00  0.00 0.39  0.39  0.00 0.00  0.00  0.01 0.00  0.06
Crit Moves:       ****                                                      ****
Green/Cycle: 0.88 0.88  0.00  0.00 0.88  0.88  0.00 0.00  0.00  0.12 0.00  0.12
Volume/Cap:  0.48 0.48  0.00  0.00 0.44  0.44  0.00 0.00  0.00  0.05 0.00  0.48
Uniform Del:  1.3  1.3   0.0   0.0  1.2   1.2   0.0  0.0   0.0  38.8  0.0  40.9
IncremntDel:  0.2  0.2   0.0   0.0  0.2   0.2   0.0  0.0   0.0   0.1  0.0   1.9
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:    1.5  1.5   0.0   0.0  1.4   1.4   0.0  0.0   0.0  38.9  0.0  42.8
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   1.5  1.5   0.0   0.0  1.4   1.4   0.0  0.0   0.0  38.9  0.0  42.8
LOS by Move:   A    A     A     A    A     A     A    A     A     D    A     D
HCM2kAvgQ:      5    5     0     0    4     4     0    0     0     0    0     3
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #17
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.339
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        10.1
Optimal Cycle:        22                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   70    20    50   10     0   425    0    80     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:    0   70    20    50   10     0   425    0    80     0    0     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:     0   70    20    50   10     0   425    0    80     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0   70    20    50   10     0   425    0    80     0    0     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:    0   70    20    50   10     0   425    0    80     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.97  0.97  0.87 0.87  1.00  0.77 1.00  0.85  1.00 1.00  1.00
Lanes:       0.00 0.78  0.22  0.83 0.17  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:     0 1433   410  1381  276     0  1463    0  1615     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.05  0.05  0.04 0.04  0.00  0.29 0.00  0.05  0.00 0.00  0.00
Crit Moves:       ****                         ****
Green/Cycle: 0.00 0.14  0.14  0.14 0.14  0.00  0.86 0.00  0.86  0.00 0.00  0.00
Volume/Cap:  0.00 0.34  0.34  0.25 0.25  0.00  0.34 0.00  0.06  0.00 0.00  0.00
Uniform Del:  0.0 38.5  38.5  38.0 38.0   0.0   1.5  0.0   1.1   0.0  0.0   0.0
IncremntDel:  0.0  0.8   0.8   0.6  0.6   0.0   0.2  0.0   0.0   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 39.3  39.3  38.6 38.6   0.0   1.6  0.0   1.1   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 39.3  39.3  38.6 38.6   0.0   1.6  0.0   1.1   0.0  0.0   0.0
LOS by Move:   A    D     D     D    D     A     A    A     A     A    A     A
HCM2kAvgQ:      0    3     3     2    2     0     3    0     0     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #17
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.544
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         9.4
Optimal Cycle:        32                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0   60    10   110   10     0   685    0   150     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:    0   60    10   110   10     0   685    0   150     0    0     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:     0   60    10   110   10     0   685    0   150     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0   60    10   110   10     0   685    0   150     0    0     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:    0   60    10   110   10     0   685    0   150     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.98  0.98  0.85 0.85  1.00  0.77 1.00  0.85  1.00 1.00  1.00
Lanes:       0.00 0.86  0.14  0.92 0.08  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:     0 1598   266  1472  134     0  1461    0  1615     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.04  0.04  0.07 0.07  0.00  0.47 0.00  0.09  0.00 0.00  0.00
Crit Moves:                          ****        ****
Green/Cycle: 0.00 0.14  0.14  0.14 0.14  0.00  0.86 0.00  0.86  0.00 0.00  0.00
Volume/Cap:  0.00 0.27  0.27  0.54 0.54  0.00  0.54 0.00  0.11  0.00 0.00  0.00
Uniform Del:  0.0 38.6  38.6  40.2 40.2   0.0   1.8  0.0   1.0   0.0  0.0   0.0
IncremntDel:  0.0  0.6   0.6   2.8  2.8   0.0   0.5  0.0   0.0   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 39.2  39.2  43.0 43.0   0.0   2.3  0.0   1.1   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 39.2  39.2  43.0 43.0   0.0   2.3  0.0   1.1   0.0  0.0   0.0
LOS by Move:   A    D     D     D    D     A     A    A     A     A    A     A
HCM2kAvgQ:      0    2     2     4    4     0     6    0     1     0    0     0
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #26
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.632
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        23.4
Optimal Cycle:        62                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      20  305     0   245  470     0     0    0     0    20    0   110
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:   20  305     0   245  470     0     0    0     0    20    0   110
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:    20  305     0   245  470     0     0    0     0    20    0   110
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   20  305     0   245  470     0     0    0     0    20    0   110
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:   20  305     0   245  470     0     0    0     0    20    0   110
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.98 0.98  1.00  1.00 1.00  1.00  0.88 1.00  0.88
Lanes:       0.06 0.94  0.00  0.34 0.66  0.00  0.00 0.00  0.00  0.15 0.00  0.85
Final Sat.:   117 1778     0   640 1228     0     0    0     0   257    0  1413
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.17 0.17  0.00  0.38 0.38  0.00  0.00 0.00  0.00  0.08 0.00  0.08
Crit Moves:        ****        ****                                ****
Green/Cycle: 0.27 0.27  0.00  0.61 0.61  0.00  0.00 0.00  0.00  0.12 0.00  0.12
Volume/Cap:  0.63 0.63  0.00  0.63 0.63  0.00  0.00 0.00  0.00  0.63 0.00  0.63
Uniform Del: 32.0 32.0   0.0  12.6 12.6   0.0   0.0  0.0   0.0  41.7  0.0  41.7
IncremntDel:  2.6  2.6   0.0   1.2  1.2   0.0   0.0  0.0   0.0   6.3  0.0   6.3
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  1.00 1.00  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:   34.6 34.6   0.0  13.8 13.8   0.0   0.0  0.0   0.0  47.9  0.0  47.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  34.6 34.6   0.0  13.8 13.8   0.0   0.0  0.0   0.0  47.9  0.0  47.9
LOS by Move:   C    C     A     B    B     A     A    A     A     D    A     D
HCM2kAvgQ:     10   10     0    14   14     0     0    0     0     5    0     5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #26
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.725
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        19.9
Optimal Cycle:        83                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        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  0    0  0  0  1  0    0  0  0  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      40  515     0     0  295   280     0    0     0    30    0   150
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:   40  515     0     0  295   280     0    0     0    30    0   150
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:    40  515     0     0  295   280     0    0     0    30    0   150
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   40  515     0     0  295   280     0    0     0    30    0   150
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:   40  515     0     0  295   280     0    0     0    30    0   150
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  1.00 0.93  0.93  1.00 1.00  1.00  0.88 1.00  0.88
Lanes:       0.07 0.93  0.00  0.00 0.51  0.49  0.00 0.00  0.00  0.17 0.00  0.83
Final Sat.:   136 1756     0     0  910   864     0    0     0   279    0  1395
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.29  0.00  0.00 0.32  0.32  0.00 0.00  0.00  0.11 0.00  0.11
Crit Moves:  ****                  ****                           ****
Green/Cycle: 0.40 0.85  0.00  0.00 0.45  0.45  0.00 0.00  0.00  0.15 0.00  0.15
Volume/Cap:  0.72 0.34  0.00  0.00 0.72  0.72  0.00 0.00  0.00  0.72 0.00  0.72
Uniform Del: 25.1  1.6   0.0   0.0 22.6  22.6   0.0  0.0   0.0  40.6  0.0  40.6
IncremntDel:  3.5  0.1   0.0   0.0  3.3   3.3   0.0  0.0   0.0  10.1  0.0  10.1
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 0.00  1.00
Delay/Veh:   28.5  1.7   0.0   0.0 26.0  26.0   0.0  0.0   0.0  50.8  0.0  50.8
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  28.5  1.7   0.0   0.0 26.0  26.0   0.0  0.0   0.0  50.8  0.0  50.8
LOS by Move:   C    A     A     A    C     C     A    A     A     D    A     D
HCM2kAvgQ:     15    4     0     0   15    15     0    0     0     7    0     7
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #27
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.334
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        22.2
Optimal Cycle:        34                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  115    10   150   85     0   220    0    30     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:    0  115    10   150   85     0   220    0    30     0    0     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:     0  115    10   150   85     0   220    0    30     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  115    10   150   85     0   220    0    30     0    0     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:    0  115    10   150   85     0   220    0    30     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.99  0.99  0.97 0.97  1.00  0.94 1.00  0.94  1.00 1.00  1.00
Lanes:       0.00 0.92  0.08  0.64 0.36  0.00  0.88 0.00  0.12  0.00 0.00  0.00
Final Sat.:     0 1729   150  1175  666     0  1576    0   215     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.07  0.07  0.13 0.13  0.00  0.14 0.00  0.14  0.00 0.00  0.00
Crit Moves:       ****        ****              ****
Green/Cycle: 0.00 0.20  0.20  0.38 0.58  0.00  0.42 0.00  0.42  0.00 0.00  0.00
Volume/Cap:  0.00 0.33  0.33  0.33 0.22  0.00  0.33 0.00  0.33  0.00 0.00  0.00
Uniform Del:  0.0 34.3  34.3  21.9 10.0   0.0  19.7  0.0  19.7   0.0  0.0   0.0
IncremntDel:  0.0  0.5   0.5   0.3  0.1   0.0   0.3  0.0   0.3   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 34.9  34.9  22.1 10.1   0.0  19.9  0.0  19.9   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 34.9  34.9  22.1 10.1   0.0  19.9  0.0  19.9   0.0  0.0   0.0
LOS by Move:   A    C     C     C    B     A     B    A     B     A    A     A
HCM2kAvgQ:      0    3     3     5    3     0     5    0     5     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #27
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.595
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        21.4
Optimal Cycle:        56                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  105    30   180  105     0   490    0   160     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:    0  105    30   180  105     0   490    0   160     0    0     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:     0  105    30   180  105     0   490    0   160     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  105    30   180  105     0   490    0   160     0    0     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:    0  105    30   180  105     0   490    0   160     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.97  0.97  0.97 0.97  1.00  0.93 1.00  0.93  1.00 1.00  1.00
Lanes:       0.00 0.78  0.22  0.63 0.37  0.00  0.75 0.00  0.25  0.00 0.00  0.00
Final Sat.:     0 1433   410  1163  678     0  1335    0   436     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.07  0.07  0.15 0.15  0.00  0.37 0.00  0.37  0.00 0.00  0.00
Crit Moves:       ****        ****              ****
Green/Cycle: 0.00 0.12  0.12  0.26 0.38  0.00  0.62 0.00  0.62  0.00 0.00  0.00
Volume/Cap:  0.00 0.60  0.60  0.60 0.40  0.00  0.60 0.00  0.60  0.00 0.00  0.00
Uniform Del:  0.0 41.5  41.5  32.4 22.5   0.0  11.6  0.0  11.6   0.0  0.0   0.0
IncremntDel:  0.0  4.2   4.2   2.0  0.4   0.0   0.9  0.0   0.9   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 45.7  45.7  34.4 22.9   0.0  12.5  0.0  12.5   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 45.7  45.7  34.4 22.9   0.0  12.5  0.0  12.5   0.0  0.0   0.0
LOS by Move:   A    D     D     C    C     A     B    A     B     A    A     A
HCM2kAvgQ:     0    5     5     8    6     0    12    0    12     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************


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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #34
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.343
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         9.6
Optimal Cycle:         0                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:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   50    10    50   50    75   210   30    30    10   10    80
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   50    10    50   50    75   210   30    30    10   10    80
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   50    10    50   50    75   210   30    30    10   10    80
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   50    10    50   50    75   210   30    30    10   10    80
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   50    10    50   50    75   210   30    30    10   10    80
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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:       0.14 0.72  0.14  0.28 0.29  0.43  1.00 0.78  0.22  0.20 0.80  1.00
Final Sat.:    92  458    92   197  197   296   611  535   153   123  492   713
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.11  0.11  0.25 0.25  0.25  0.34 0.06  0.20  0.08 0.02  0.11
Crit Moves:  ****             ****             ****                          ****
Delay/Veh:    8.8  8.8   8.8   9.5  9.5   9.5  11.3  9.0   9.0   8.8  8.8   8.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.8  8.8   8.8   9.5  9.5   9.5  11.3  9.0   9.0   8.8  8.8   8.1
LOS by Move:   A    A     A     A    A     A     B    A     A     A    A     A
ApproachDel:       8.8              9.5             10.4              8.3
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:        8.8              9.5             10.4              8.3
LOS by Appr:        A                A                B                A
AllWayAvgQ:   0.1  0.1   0.1   0.3  0.3   0.3   0.5  0.2   0.2   0.1  0.1   0.1
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #34
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         1.170
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        58.1
Optimal Cycle:         0                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:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   65    10   100   35   125   670   80    20    10   10   100
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   65    10   100   35   125   670   80    20    10   10   100
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   65    10   100   35   125   670   80    20    10   10   100
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   65    10   100   35   125   670   80    20    10   10   100
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   65    10   100   35   125   670   80    20    10   10   100
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
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:       0.12 0.76  0.12  0.38 0.13  0.49  1.00 0.95  0.05  0.17 0.83  1.00
Final Sat.:    62  401    62   226   79   282   573  592    32    84  420   566
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.16  0.16  0.44 0.44  0.44  1.17 0.14  0.62  0.12 0.02  0.18
Crit Moves:       ****             ****        ****                          ****
Delay/Veh:   10.8 10.8  10.8  13.7 13.7  13.7 116.3 17.2  17.2  10.5 10.5  10.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.8 10.8  10.8  13.7 13.7  13.7 116.3 17.2  17.2  10.5 10.5  10.1
LOS by Move:   B    B     B     B    B     B     F    C     C     B    B     B
ApproachDel:      10.8             13.7             80.2             10.2
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       10.8             13.7             80.2             10.2
LOS by Appr:        B                B                F                B
AllWayAvgQ:   0.2  0.2   0.2   0.8  0.8   0.8  17.1  1.5   1.5   0.1  0.2   0.2
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.2
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.67	0.33	1.00	1.00	0.56	0.44	1.00	1.33	0.67	1.00	1.57	0.43
Final Sat.:	337	168	591	475	296	237	479	696	366	604	1042	294
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.17	0.05	0.03	0.04	0.02	0.06	0.05	0.93	0.11	0.10
Crit Moves:			****	****				****		****		
Delay/Veh:	10.8	10.8	9.7	10.4	9.5	9.5	10.1	9.7	9.3	44.3	8.7	8.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	10.8	9.7	10.4	9.5	9.5	10.1	9.7	9.3	44.3	8.7	8.4
LOS by Move:	B	B	A	B	A	A	B	A	A	E	A	A
ApproachDel:	10.2			10.0			9.7			37.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.2			10.0			9.7			37.2		
LOS by Appr:	B			A			A			E		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	6.0	0.1	0.1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.48	0.52	1.00	1.00	0.84	0.16	1.00	1.44	0.56	1.00	1.00	1.00
Final Sat.:	225	247	538	440	398	76	435	683	276	491	520	578
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.32	0.22	0.05	0.13	0.02	0.26	0.25	0.67	0.19	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	11.9	11.9	11.7	12.4	10.8	10.8	10.7	12.3	11.8	22.7	10.9	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.9	11.9	11.7	12.4	10.8	10.8	10.7	12.3	11.8	22.7	10.9	10.2
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
ApproachDel:	11.8			11.7			12.1			17.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.8			11.7			12.1			17.8		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.3	0.3	1.8	0.2	0.2

Note: Queue reported is the number of cars per lane.

INTERSECTION LEVEL OF SERVICE WORKSHEETS FOR HCM INTERSECTIONS
CUMULATIVE BASE PLUS PROJECT PLUS MITIGATION (2020)

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #1
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.676
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        23.8
Optimal Cycle:        70                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  1  0  1    2  0  1  1  1    2  0  3  0  1    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      70   95    60   460  190   450   345  730   210   110 1500   645
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:   70   95    60   460  190   450   345  730   210   110 1500   645
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:    70   95    60   460  190   450   345  730   210   110 1500   645
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   70   95    60   460  190   450   345  730   210   110 1500   645
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:   70   95    60   460  190   450   345  730   210   110 1500   645
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 1.00  0.85  0.92 0.85  0.85  0.92 0.91  0.85  0.95 0.91  0.85
Lanes:       1.00 1.00  1.00  2.00 1.00  2.00  2.00 3.00  1.00  1.00 3.00  1.00
Final Sat.:  1805 1900  1615  3502 1615  3231  3502 5187  1615  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.05  0.04  0.13 0.12  0.14  0.10 0.14  0.13  0.06 0.29  0.40
Crit Moves:  ****                         ****  ****                         ****
Green/Cycle: 0.06 0.07  0.07  0.19 0.21  0.21  0.15 0.51  0.51  0.22 0.59  0.59
Volume/Cap:  0.68 0.69  0.51  0.69 0.57  0.68  0.68 0.27  0.25  0.27 0.49  0.68
Uniform Del: 46.2 45.3  44.7  37.7 35.7  36.6  40.5 13.7  13.6  32.2 11.8  13.9
IncremntDel: 16.4 13.7   3.8   3.0  0.7   2.0   3.6  0.1   0.2   0.4  0.1   1.9
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   62.6 59.0  48.4  40.7 36.4  38.6  44.1 13.8  13.7  32.6 11.9  15.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  62.6 59.0  48.4  40.7 36.4  38.6  44.1 13.8  13.7  32.6 11.9  15.9
LOS by Move:   E    E     D     D    D     D     D    B     B     C    B     B
HCM2kAvgQ:      3    4     3     8    6     8     6    5     4     3   10    14
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #1
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.602
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        20.0
Optimal Cycle:        57                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:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  1  0  1    2  0  1  1  1    2  0  3  0  1    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     280  170   130   200  100   150   160 1880   190    60 1150   180
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:  280  170   130   200  100   150   160 1880   190    60 1150   180
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:   280  170   130   200  100   150   160 1880   190    60 1150   180
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  280  170   130   200  100   150   160 1880   190    60 1150   180
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:  280  170   130   200  100   150   160 1880   190    60 1150   180
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 1.00  0.85  0.92 0.86  0.86  0.92 0.91  0.85  0.95 0.91  0.85
Lanes:       1.00 1.00  1.00  2.00 1.20  1.80  2.00 3.00  1.00  1.00 3.00  1.00
Final Sat.:  1805 1900  1615  3502 1971  2957  3502 5187  1615  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.09  0.08  0.06 0.05  0.05  0.05 0.36  0.12  0.03 0.22  0.11
Crit Moves:  ****                 ****             ****        ****
Green/Cycle: 0.26 0.21  0.21  0.13 0.08  0.08  0.11 0.60  0.60  0.06 0.55  0.55
Volume/Cap:  0.60 0.43  0.39  0.43 0.60  0.60  0.41 0.60  0.20  0.60 0.41  0.20
Uniform Del: 32.6 34.4  34.0  39.8 44.2  44.2  41.3 12.4   9.0  46.2 13.3  11.6
IncremntDel:  2.2  0.7   0.7   0.6  2.5   2.5   0.7  0.3   0.1   9.9  0.1   0.1
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   34.8 35.1  34.8  40.5 46.6  46.6  42.0 12.7   9.1  56.0 13.4  11.7
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  34.8 35.1  34.8  40.5 46.6  46.6  42.0 12.7   9.1  56.0 13.4  11.7
LOS by Move:   C    D     C     D    D     D     D    B     A     E    B     B
HCM2kAvgQ:     8    5     4     3    4     4     3   13     3     3    8     3
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #3400
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.273
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        13.5
Optimal Cycle:        20                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   50    10    50   50    75   210   30    30    10   10    80
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   50    10    50   50    75   210   30    30    10   10    80
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   50    10    50   50    75   210   30    30    10   10    80
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   50    10    50   50    75   210   30    30    10   10    80
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   50    10    50   50    75   210   30    30    10   10    80
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.95  0.95  0.86 0.86  0.86  0.66 0.66  0.66  0.78 0.78  0.78
Lanes:       0.14 0.72  0.14  0.28 0.29  0.43  1.00 0.50  0.50  0.50 0.50  1.00
Final Sat.:   257 1286   257   467  467   700  1263  632   632   738  738  1476
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04  0.04  0.11 0.11  0.11  0.17 0.05  0.05  0.01 0.01  0.05
Crit Moves:                         ****        ****
Green/Cycle: 0.39 0.39  0.39  0.39 0.39  0.39  0.61 0.61  0.61  0.61 0.61  0.61
Volume/Cap:  0.10 0.10  0.10  0.27 0.27  0.27  0.27 0.08  0.08  0.02 0.02  0.09
Uniform Del: 19.2 19.2  19.2  20.7 20.7  20.7   9.2  8.1   8.1   7.8  7.8   8.1
IncremntDel:  0.1  0.1   0.1   0.2  0.2   0.2   0.2  0.0   0.0   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   19.3 19.3  19.3  20.9 20.9  20.9   9.4  8.1   8.1   7.8  7.8   8.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  19.3 19.3  19.3  20.9 20.9  20.9   9.4  8.1   8.1   7.8  7.8   8.2
LOS by Move:   B    B     B     C    C     C     A    A     A     A    A     A
HCM2kAvgQ:      1    1     1     4    4     4     3    1     1     0    0     1
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #3400
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.710
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):        15.2
Optimal Cycle:        50                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        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   50    10   100   20   120   670   80    20    10   10   100
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   50    10   100   20   120   670   80    20    10   10   100
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   50    10   100   20   120   670   80    20    10   10   100
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   50    10   100   20   120   670   80    20    10   10   100
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   50    10   100   20   120   670   80    20    10   10   100
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.94 0.94  0.94  0.80 0.80  0.80  0.64 0.64  0.64  0.76 0.76  0.76
Lanes:       0.14 0.72  0.14  0.42 0.08  0.50  1.00 0.80  0.20  0.50 0.50  1.00
Final Sat.:   256 1279   256   635  127   762  1212  969   242   718  718  1436
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04  0.04  0.16 0.16  0.16  0.55 0.08  0.08  0.01 0.01  0.07
Crit Moves:                          ****        ****
Green/Cycle: 0.22 0.22  0.22  0.22 0.22  0.22  0.78 0.78  0.78  0.78 0.78  0.78
Volume/Cap:  0.18 0.18  0.18  0.71 0.71  0.71  0.71 0.11  0.11  0.02 0.02  0.09
Uniform Del: 31.5 31.5  31.5  36.0 36.0  36.0   5.5  2.7   2.7   2.5  2.5   2.6
IncremntDel:  0.2  0.2   0.2   6.9  6.9   6.9   2.2  0.0   0.0   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   31.7 31.7  31.7  42.8 42.8  42.8   7.7  2.7   2.7   2.5  2.5   2.7
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  31.7 31.7  31.7  42.8 42.8  42.8   7.7  2.7   2.7   2.5  2.5   2.7
LOS by Move:   C    C     C     D    D     D     A    A     A     A    A     A
HCM2kAvgQ:      2    2     2     8    8     8    12    1     1     0    0     1
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************


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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.467
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	2 0	0 1	0
Volume Module:												
Base Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	25	100	25	10	10	10	40	20	560	110	30
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:	50	25	100	25	10	10	10	40	20	560	110	30
Saturation Flow Module:												
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:	0.67	0.33	1.00	1.00	0.56	0.44	1.00	1.33	0.67	2.00	0.79	0.21
Final Sat.:	339	170	596	479	298	238	477	695	365	1198	526	143
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.17	0.05	0.03	0.04	0.02	0.06	0.05	0.47	0.21	0.21
Crit Moves:			****	****				****		****		
Delay/Veh:	10.5	10.5	9.4	10.1	9.2	9.2	10.0	9.6	9.2	13.6	9.3	9.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	9.4	10.1	9.2	9.2	10.0	9.6	9.2	13.6	9.3	9.3
LOS by Move:	B	B	A	B	A	A	A	A	A	B	A	A
ApproachDel:	9.9			9.7			9.5			12.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			9.7			9.5			12.7		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.3	0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #35 Faulkner Rd & SR 126 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.398
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Faulkner Rd						SR 126 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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 1	0	1 0	1 1	0	2 0	0 1	0
Volume Module:												
Base Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	55	170	95	20	10	10	180	70	330	100	120
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:	50	55	170	95	20	10	10	180	70	330	100	120
Saturation Flow Module:												
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:	0.48	0.52	1.00	1.00	0.84	0.16	1.00	1.44	0.56	2.00	0.45	0.55
Final Sat.:	227	249	546	445	403	77	438	688	278	974	251	302
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.31	0.21	0.05	0.13	0.02	0.26	0.25	0.34	0.40	0.40
Crit Moves:			****	****				****				****
Delay/Veh:	11.8	11.8	11.5	12.2	10.7	10.7	10.6	12.2	11.7	13.3	12.9	12.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.5	12.2	10.7	10.7	10.6	12.2	11.7	13.3	12.9	12.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.6			11.6			12.0			13.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.6			11.6			12.0			13.2		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.3	0.3	0.5	0.6	0.6

Note: Queue reported is the number of cars per lane.

APPENDIX G

METHODOLOGY FOR ASSESSING INTERIM YEAR (2015) CONDITIONS

APPENDIX G

An analysis was performed to estimate the potential interim impacts generated by the project prior to full buildout to assist in the sequencing of the proposed mitigation measures described in Chapter IV. The assumptions used to develop the interim year (2015) traffic impact analysis are described here.

The interim impacts were calculated by estimating the level of cumulative traffic and adding the estimated project-generated traffic at the midpoint of the assumed 10-year construction of the project (2010 through 2020), based on a preliminary conceptual project phasing plan developed for other studies related to the overall development process.

The cumulative base conditions for the interim year were estimated as follows. Complete buildout of East Area 1 is anticipated by 2020 (14 years from the 2006 baseline year). As a percentage of the total background growth, the interim cumulative base conditions are estimated to include approximately 64% (9 years /14 years = 64%) of the total background growth between 2006 and 2020.

Project trip generation was estimated for the 2015 interim year based on the amount of development identified in the first five years of the preliminary conceptual phasing plan. The interim trip estimates were then used to calculate the percentage of total project traffic in 2015, which would be approximately 20% of the total a.m. peak hour trip generation and approximately 25% of the total p.m. peak hour trip generation. Table G-1 summarizes these calculations.

The interim impact assessment was prepared by applying the interim base factor (64%) to the total cumulative growth, as quantified by the incremental increase in the intersection's volume-to-capacity (V/C) ratio or delay. Next, the incremental change in V/C ratio or delay from cumulative base to cumulative plus project conditions was multiplied by the peak hour percentages discussed above, and added to the interim base results. The interim base

conditions and interim project conditions were then compared for potential impacts based on the City's intersection impact criteria.

TABLE G-1
INTERIM PROJECT TRIP GENERATION ESTIMATES FOR 2015

Land Use	ITE Code	Size	Units	Trips	A.M. Peak Hour			P.M. Peak Hour		
					In	Out	Total	In	Out	Total
Total Trip Generation				25,848	1,224	1,020	2,244	1,204	1,025	2,229
Residential - Single Family	210	75	DU	718	14	42	56	48	28	76
Residential - Condominium	230	95	DU	557	7	35	42	33	16	49
Residential - Apartment	220	445	DU	2,990	45	182	227	179	97	276
Residential - Live/Work	220	35	DU	235	4	14	18	14	8	22
Office	710	75,000	SF	826	102	14	116	19	93	112
(65% internal capture)				(537)	(66)	(9)	(75)	(12)	(60)	(73)
Commercial - Neighborhood Retail	820	15,000	SF	644	9	6	15	27	29	56
(65% internal capture)				(419)	(6)	(4)	(10)	(18)	(19)	(36)
Industrial	110	50,000	SF	349	40	6	46	6	43	49
Interim Year (2015) Trip Generation				*5,363*	*149*	*286*	*435*	*296*	*235*	*531*
Percentage of Project Completed by 2015				**20.7%**	**19.4%**			**23.8%**		