



HEXAGON TRANSPORTATION CONSULTANTS, INC.



Big Wave North Parcel Alternative

Drafted Transportation Impact Analysis



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County of San Mateo



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Executive Summary

This report presents the results of the traffic study for the proposed Big Wave Project that would be located on Airport Street, north of the Princeton/Pillar Point Harbor area in unincorporated San Mateo County, CA. The 19.53-acre project site is currently vacant. The proposed project includes a 70,500 square-foot Wellness Center and five commercial buildings totaling 161,263 square feet. The proposed project includes the following components:

Wellness Center

- Housing for developmentally disabled adults and their aides: including 57 bedrooms to provide affordable housing for a maximum of 50 developmentally disabled adults and 20 staff persons.
- Gym and basketball court
- 27,500 s.f. of storage space

Office Park

- The proposed office/industrial park includes 161,263 square feet (s.f.) in five buildings. For purposes of the traffic study, based on parking constraints, the office/industrial park was assumed to include 64,505 s.f. of office use, 40,316 s.f. of research and development (R&D) use, 32,253 s.f. of light manufacturing use, and 24,189 s.f. of storage space.

South Parcel

- The project also includes free public parking for beach access and a gated boat storage yard, in which boat owners can rent storage space. The boat storage yard is intended to raise additional revenue for operations of the Wellness Center.

Access to the project site would be provided by driveways along Airport Street.

Project Trip Estimates

Trip generation estimates were based on rates obtained from the Institute of Transportation Engineers (ITE) published Trip Generation Manual, *Ninth Edition*, 2012. The General Office (ITE category 710) rates were applied to the proposed office use; the Research and Development (ITE category 760) rates were applied to the proposed R&D use, the ITE Manufacturing (ITE land use code 140) rates were applied to the proposed Light Manufacturing portion, and the ITE Warehousing (ITE category 150) rates were applied to the storage space because these rates best represent the project description. The 57 bedrooms for developmentally disabled adults would not generate any trips as the residents would not drive. The residents would have staff/care-givers residing on the project site who would drive them to and from activities, appointments, errands, etc. The residential units for the 20 staff/care-givers were treated as 20 apartments (Apartment, ITE category 220). In reality the trips probably would be less because the staff will live and work on site. Application of ITE standard trip generation rates to the proposed development shows that the project is estimated to generate 1,479 daily trips, including 199 trips (163 inbound and 36 outbound) during the AM peak hour, and 192 trips (42 inbound and 150 outbound) during the PM peak hour (see Table ES-1).

**Table ES 1
Project Trip Generation Estimates - Weekday**

Land Use	ITE Code	Size	Daily Trip Rates	Daily Trips	AM Peak Hour			PM Peak Hour					
					Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total	
Office Park													
Office Building ¹	710	64,505 s.f.	11.03	711	1.56	89	12	101	1.49	16	80	96	
Research & Development ²	760	40,316 s.f.	8.11	327	1.22	41	8	49	1.07	6	37	43	
Storage ³	150	24,189 s.f.	3.56	86	0.30	6	1	7	0.32	2	6	8	
Light Manufacturing ⁴	140	32,253 s.f.	3.82	123	0.73	18	6	24	0.73	8	16	24	
Office Park Total		161,263		1,248		154	27	181		32	139	171	
Wellness Center													
Storage ³	150	27,500 s.f.	3.56	98	0.30	7	1	8	0.32	2	7	9	
Apartments ⁵	220	20 units	6.65	133	0.51	2	8	10	0.62	8	4	12	
Wellness Center Total				231		9	9	18		10	11	21	
Total Project Trips				1,479		163	36	199		42	150	192	

Notes:
¹ Rate base on ITE Land Use Code 710 (General Office), average rates used.
² Rate base on ITE Land Use Code 760 (Research & Development), average rates used.
³ Rate base on ITE Land Use Code 150 (Warehousing), average rates used.
⁴ Rate base on ITE Land Use Code 140 (Manufacturing), average rates used.
⁵ Rates base on ITE Land Use Code 220 (Apartment), average rates used.
 Source: ITE Trip Generation, 9th Edition 2012.

Intersection Level of Service Impacts

Table ES-2 summarizes the results of the weekday peak hour intersection level of service analysis under the following conditions: existing (Chapter 2), existing plus project (Chapter 3), background (Chapter 4), background plus project (Chapter 5), and cumulative with project (Chapter 6) conditions. The results of the level of service calculations show that all of the study intersections, except for the intersection of Highway 1 and Cypress Avenue, would operate at level of service (LOS) C or better under existing, existing plus project, background, and background plus project conditions, which is in accordance with County of San Mateo LOS standards.

Under cumulative conditions, 8 of the 11 study intersections would operate at level of service (LOS) C or better. The intersection at Highway 1 and Cypress Avenue would operate at unacceptable LOS F during both AM and PM peak hours. The intersection at Highway 1 and Capistrano Road (N) would operate at an acceptable level of service during the AM peak hour and would operate at unacceptable LOS E during the PM peak hour. Highway 1 and Main Street would operate at an unacceptable LOS E during PM peak hour under both no project and with project conditions.

Table ES-3 summarizes the results of the Saturday midday peak hour intersection level of service analysis for the six intersections along state highways. The results of the level of service calculations show that most of the study intersections would operate at level of service (LOS) C or better under all conditions, which is in accordance with County of San Mateo LOS standards. At the intersection of Highway 1 and Capistrano Road (North), the eastbound left turn movement would operate at LOS E under existing and existing plus project conditions. The project would not add any trips to this movement. At the intersection of Highway 1 and Cypress Avenue, the eastbound to northbound left turn movement would operate at LOS F under project conditions. This constitutes a significant impact according to the San Mateo County LOS standards.

Recommended Improvements

At the intersection of Highway 1 and Cypress Avenue, two potential mitigation measures were tested:

Signalization of Intersection at Highway 1 and Cypress Avenue

Under project conditions, the peak hour signal warrant would be met at the intersection of Highway 1 at Cypress Avenue. With a traffic signal, the Highway 1/Cypress Avenue intersection would operate at LOS C during both the AM and PM peak hours under existing plus project, background, and background plus project conditions and would operate at LOS D under cumulative plus project conditions. Under signalized conditions, the existing roadway geometry would be adequate to handle the anticipated traffic demand.

Roundabout at the Intersection of Highway 1 and Cypress Avenue

Caltrans now considers roundabouts whenever evaluating potential intersection improvements. The roundabout analysis at the intersection of Highway 1 and Cypress Avenue shows that a one-lane roundabout would operate with acceptable delay and LOS during the AM and PM peak hour under background plus project conditions on weekdays. During the midday peak hour on Saturday, there would be a need for a bypass lane for the southbound right-turn traffic in order for the intersection to operate at an acceptable level of service C under existing plus project conditions. Under cumulative plus project conditions, a one-lane roundabout would not work well to bring an acceptable delay and LOS at this intersection. A detailed study for a feasible roundabout design to accommodate the future traffic would be recommended. The roundabout analysis calculation sheets are included in Appendix D. Hexagon has not evaluated whether the intersection is large enough to accommodate a roundabout or whether additional right-of-way would be required.

The proposed mitigations at the intersection of Highway 1 and Cypress Avenue fall within Caltrans' right of way. Therefore, approval of the proposed mitigation measures would be required from Caltrans. The approved mitigation measures should be constructed by the applicant as part of the project before occupancy.

Site Access and Circulation

The site access and circulation review is based on the site plan dated 5/28/2014 by Macleod and Associates. The site access was evaluated in accordance with generally accepted traffic engineering standards. Access to the north parcel project site would be provided by two full access driveways and one inbound only driveway on Airport Street. Access to the south parcel project site, where the boat storage is located, would be provided by one full access driveway on Airport Street. The onsite circulation was reviewed in accordance with generally accepted traffic engineering standards. Generally, the proposed plan would provide adequate access and on-site circulation for cars and trucks.

Table ES 2
Intersection Level of Service Summary - Weekday

Study Number	Intersection	Peak Hour	Count Date	Existing		Existing + Project		Background		Background + Project		Cumulative		Cumulative + Project													
				Average	Worst	Average	Worst	Average	Worst	Average	Worst	Average	Worst	Average	Worst												
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS										
1	Prospect Way and Capistrano Rd <i>(Unsignalized)</i>	AM	05/07/14	7.5	A	9.4	A	7.8	A	9.7	A	7.5	A	9.4	A	7.8	A	9.8	A	5.9	A	9.4	A	6.6	A	9.7	B
		PM	05/07/14	7.2	A	10.4	B	8.0	A	11.0	B	7.3	A	10.4	B	8.0	A	11.0	B	7.3	A	10.7	B	8.1	A	11.3	B
2	Broadway and Prospect Way <i>(Unsignalized)</i>	AM	05/07/14	8.4	A	10.2	B	9.0	A	10.6	B	8.5	A	10.2	B	9.0	A	10.7	B	8.7	A	10.5	A	9.3	A	11.0	B
		PM	05/07/14	8.1	A	10.4	B	8.6	A	11.3	B	8.1	A	10.5	B	8.6	A	11.4	B	8.4	A	10.7	B	8.9	A	11.8	B
3	Airport St and Stanford Ave/Cornell Ave <i>(Unsignalized)</i>	AM	05/07/14	5.3	A	11.3	B	4.9	A	12.8	B	5.3	A	11.4	A	4.9	A	12.8	B	5.7	A	12.0	B	5.3	A	13.6	B
		PM	05/07/14	6.0	A	10.7	B	5.4	A	12.2	B	5.9	A	10.8	B	5.3	A	12.2	B	6.4	A	11.0	B	5.8	A	12.5	B
4	Airport St and La Granada Ave <i>(Unsignalized)</i>	AM	05/07/14	7.3	A	9.4	A	5.7	A	10.1	B	7.2	A	9.4	A	5.7	A	10.1	B	7.0	A	9.7	A	5.8	A	10.4	B
		PM	05/07/14	4.1	A	9.5	A	3.2	A	9.4	A	4.1	A	9.2	A	3.3	A	9.4	A	4.1	A	9.2	A	3.2	A	9.4	A
5	Airport St and Los Banos Ave <i>(Unsignalized)</i>	AM	05/07/14	2.3	A	9.1	A	1.4	A	9.6	A	2.2	A	9.1	A	1.4	A	9.6	A	1.9	A	9.3	A	1.3	A	9.8	A
		PM	05/07/14	1.6	A	9.2	A	1.2	A	9.6	A	1.6	A	9.2	A	1.2	A	9.6	A	1.6	A	9.2	A	1.2	A	9.6	A
6	SR 1 and Cypress Ave <i>(Unsignalized)</i>	AM	05/07/14	3.3	A	36.5	E	5.0	A	51.6	F	3.6	A	41.3	E	5.6	A	60.9	F	35.4	C	(1)	F	61.0	F	(1)	F
		PM	05/07/14	4.3	A	78.8	F	28.8	B	(1)	F	5.1	A	96.1	F	34.1	B	(1)	F	(1)	F	(1)	F	(1)	F	(1)	F
7	SR 1 and Capistrano Rd (N) <i>(Unsignalized)</i>	AM	05/07/14	0.2	A	17.8	C	0.2	A	17.8	C	0.2	A	18.5	C	0.2	A	18.5	C	0.2	B	34.4	D	0.2	A	34.4	D
		PM	05/07/14	0.6	A	24.3	C	0.6	A	24.3	C	0.6	A	25.8	D	0.6	A	25.8	D	0.8	A	46.7	E	0.8	A	46.7	E
8	SR 1 and Capistrano Road (S)	AM	05/07/14	14.9	B	--	--	16.1	B	--	--	15.1	B	--	--	16.3	B	--	--	19.9	B	--	--	21.7	C	--	--
		PM	05/07/14	14.8	B	--	--	15.0	B	--	--	15.3	B	--	--	15.4	B	--	--	20.2	C	--	--	20.4	C	--	--
9	SR 1 and Main St	AM	05/07/14	30.7	C	--	--	31.0	C	--	--	31.5	C	--	--	31.9	C	--	--	39.7	D	--	--	42.4	D	--	--
		PM	05/07/14	32.5	C	--	--	32.9	C	--	--	33.3	C	--	--	33.9	C	--	--	64.0	E	--	--	66.6	E	--	--
10	SR 1 and SR 92 *	AM	04/01/13	24.5	C	--	--	24.8	C	--	--	25.9	C	--	--	26.2	C	--	--	31.4	C	--	--	31.9	C	--	--
		PM	04/01/13	23.5	C	--	--	23.6	C	--	--	25.6	C	--	--	25.8	C	--	--	49.8	D	--	--	49.9	D	--	--
11	Main St and SR 92 *	AM	04/01/13	22.6	C	--	--	22.6	C	--	--	23.2	C	--	--	23.3	C	--	--	23.1	C	--	--	23.2	C	--	--
		PM	04/01/13	19.7	B	--	--	19.9	B	--	--	19.9	B	--	--	20.1	C	--	--	28.7	C	--	--	29.2	C	--	--

Notes:
 * Denotes CMP intersection
Bold indicates a substandard level of service.
Bold indicates a significant impact.
 (1) indicates the delay cannot be calculated, V/C >1.0

Table ES 3
Intersection Level of Service Summary - Weekend

Study Number	Intersection	Peak Hour	Count Date	Existing				Existing Plus Project			
				Average		Worst		Average		Worst	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
6	SR 1 and Cypress Ave <i>(Unsignalized)</i>	Midday	05/24/14	6.9	A	137.2	F	12.3	B	(1)	F
7	SR 1 and Capistrano Rd (N) <i>(Unsignalized)</i>	Midday	05/24/14	1.4	A	38.9	E	1.4	A	38.9	E
8	SR 1 and Capistrano Road (S)	Midday	05/24/14	18.6	B	--	--	18.8	B	--	--
9	SR 1 and Main St	Midday	05/24/14	32.8	C	--	--	33.2	C	--	--
10	SR 1 and SR 92 *	Midday	05/24/14	28.4	C	--	--	28.7	C	--	--
11	Main St and SR 92 *	Midday	05/24/14	22.6	C	--	--	22.8	C	--	--

Notes:
 * Denotes CMP intersection
Bold indicates a substandard level of service.
 (1) indicates the delay cannot be calculated, V/C >1.0



1. Introduction

This report presents the results of the traffic study for the proposed Big Wave Project that would be located on Airport Street, north of the Princeton/Pillar Point Harbor area in unincorporated San Mateo County, CA. The 19.53-acre project site is currently vacant. The proposed project includes a 70,500 square-foot Wellness Center and five commercial buildings totaling 161,263 square feet. The proposed project includes the following components:

Wellness Center

- Housing for developmentally disabled adults and their aides: including 57 bedrooms to provide affordable housing for a maximum of 50 developmentally disabled adults and 20 staff persons.
- Gym and basketball court
- 27,500 s.f. of storage space

Office Park

- The proposed office park includes 161,263 square feet (s.f.) in five buildings. For purposes of the traffic study, based on parking constraints, the office park was assumed to include 64,505 s.f. of office use, 40,316 s.f. of research and development (R&D) use, 32,253 s.f. of light manufacturing use, and 24,189 s.f. of storage space.

South Parcel

- The project also includes free public parking for beach access and a gated boat storage yard, in which boat owners can rent storage space. The boat storage yard is intended to raise additional revenue for operations of the Wellness Center.

The project would have three full-access driveways and one inbound only driveway on Airport Street. Parking for the project would be provided on site. Currently the site is vacant. The project site and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

Scope of Study

The purpose of the traffic analysis is to determine whether the proposed Big Wave project would have any transportation impacts as defined by the San Mateo County transportation study guidelines. Mitigation measures are identified for any significant impacts. The study includes 11 intersections (7 unsignalized intersections and 4 signalized intersections), plus the segment of Highway 1 along the Half Moon Bay airport. The study time periods are the AM (7:00 -9:00 AM) and PM (4:00 - 6:00 PM) weekday commute hours. Hexagon also conducted weekend traffic counts and analysis at the 6 study intersections that are on state highways. The Saturday trips for the office park are fairly low because most of the businesses typically would be closed. It is assumed that the trip generation for the Wellness Center would

be the same on weekends as on weekdays. Overall, the project trip generation estimates would be much lower for Saturday compared to the regular weekdays. Therefore, the project impacts on Saturday would be insignificant. Nevertheless, some Saturday level of service calculations are included in the study for illustrative purposes.

The study intersections are as follows:

Unsignalized Intersections

1. SR 1 and Cypress Avenue
2. SR 1 and Capistrano Road (North)
3. Airport Street and Los Banos Avenue
4. Airport Street and La Granada Lane
5. Airport Street and Stanford Avenue/Cornell Avenue
6. Broadway and Prospect Way
7. Prospect Way and Capistrano Road

Signalized Intersections

1. SR 1 and Capistrano Road (South)
2. SR 92 and SR 1
3. SR 92 and Main Street
4. SR 1 and Main Street

New turning-movement counts were collected during the weekday AM and PM peak periods at the 7 unsignalized study intersections and the two signalized intersections of SR 1 & Capistrano Road (South) and SR 1 and Main Street. Current weekday counts were available from other studies at the other two signalized study intersections. Hexagon also conducted manual turning-movement counts Saturday from 1:00 – 3:00 PM over the Memorial Day weekend at the 6 study intersections along the regional roadways. Hourly traffic counts for Highway 1 along the Half Moon Bay airport were obtained from Caltrans.

Traffic conditions were evaluated for the following scenarios:

- Scenario 1:** *Existing Conditions.* Existing intersection volumes were obtained from new manual turning-movement counts conducted in 2014. New traffic count data are contained in Appendix A.
- Scenario 3:** *Background Conditions.* Background conditions traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet constructed developments in the study area. Projected traffic volumes associated with the approved developments were estimated based on the project size (dwelling units or square footage) using ITE trip generation rates. The total approved trips were added to the existing peak hour volumes. Hexagon also applied a 2% per year growth factor for two years to the volumes on SR 1 and SR 92 to account for general traffic growth in the area.
- Scenario 2:** *Existing Plus Project Conditions.* Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the proposed project. Project impacts to the Highway 1 segment were evaluated based on volume-to-capacity ratios.
- Scenario 4:** *Background Plus Project Conditions.* Background plus project traffic volumes were estimated by adding to background traffic volumes the trips associated with the proposed project. Project impacts to the Highway 1 segment were evaluated based on volume-to-capacity ratios.



Scenario 5: *Cumulative No Project and Cumulative Plus Project Conditions.* Traffic volumes under cumulative plus project conditions were estimated using the San Mateo County Travel Demand Model long range forecast in the study area, which represents cumulative with project conditions. The increases on the model estimated link volumes between base year and future year were applied to the existing counts to get the cumulative condition volumes.



Traffic volumes under cumulative no project conditions were estimated by subtracting the project trips from the cumulative plus project volumes. The model land use includes the Big Wave project. Level of service calculations were conducted to estimate the operating levels of the study intersections during the peak hours under cumulative no project and cumulative plus project conditions.





LEGEND



-  = Site Location
-  = Study Intersection

Figure 1
Site Location and Study Intersections

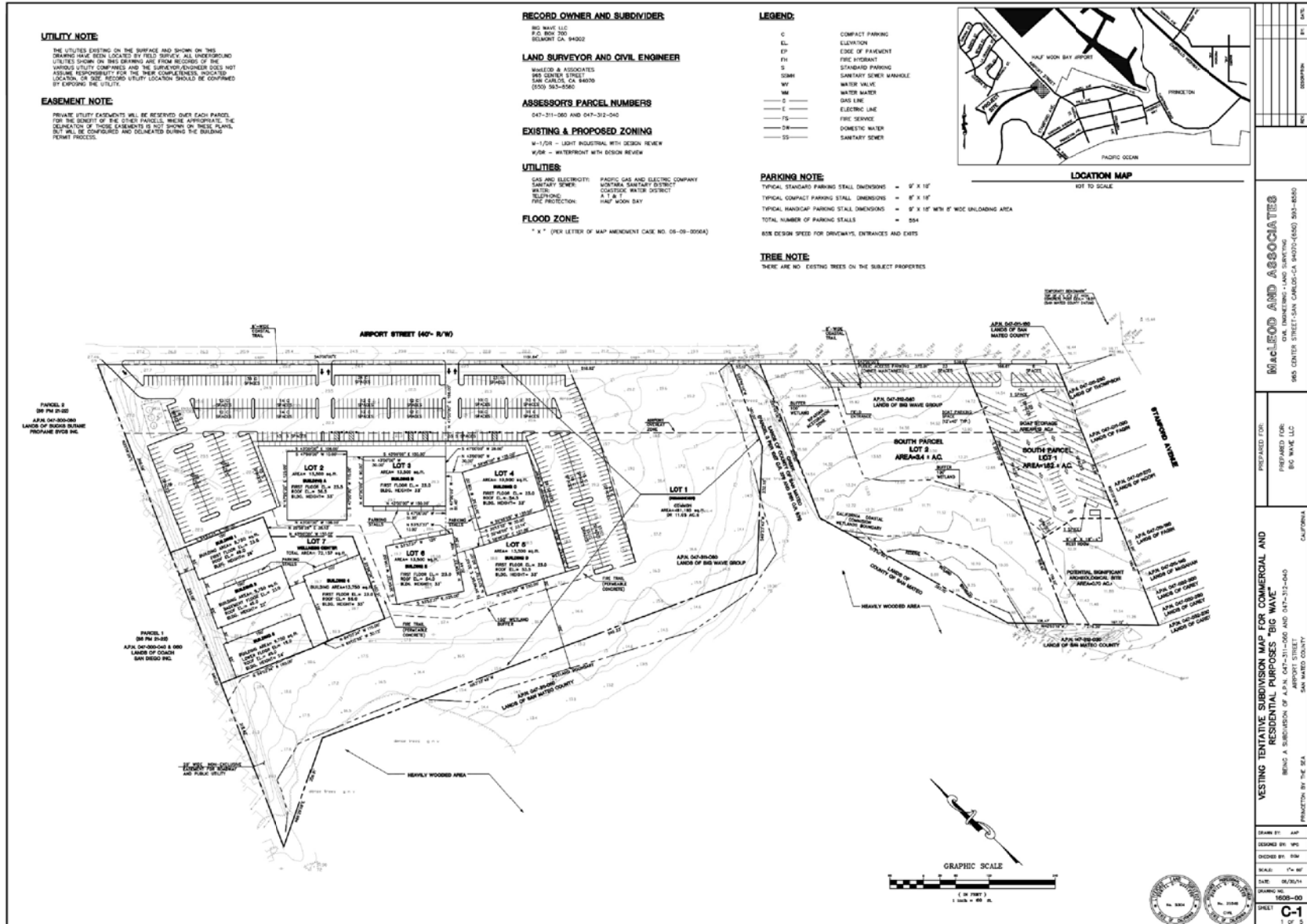


Figure 2 Site Plan



Methodology

This section describes the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.



Data Requirements

The data required for the analysis were obtained from field observations, new traffic counts, previous traffic studies, the County of San Mateo, and the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation, 9th Edition*. The following data were collected from these sources:

- existing intersection volumes
- existing lane geometries
- signal timing and phasing
- approved but not yet completed projects
- applicable trip generation rates



Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The various analysis methods are described below.



This study utilizes Synchro software to determine level of service. The Synchro methodology is based on the *2000 Highway Capacity Manual (HCM)* method for intersections, and evaluates intersection operations on the basis of average delay for all vehicles at the intersection. This average delay can then be correlated to a level of service as shown in Table 1 for signalized intersections. The level of service correlation for unsignalized intersections is shown in Table 2. For two-way stop controlled intersections, both the average and worst movement levels of service are reported.



In addition to the level of service evaluation an assessment was made of the need for signalization of unsignalized intersections. This assessment was made on the basis of the Peak-hour Volume Signal Warrant as described in the *Manual on Uniform Traffic Control Devices (MUTCD), 2010*. This method makes no evaluation of intersection level of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal.



The minimum acceptable design level of service (LOS) in San Mateo County is 'C'. At intersections, analyses should show an overall LOS of 'C' with no individual movement operating at less than 'D'. On occasion, level of service 'D' may be allowed for peak periods in dense urban conditions at the County's discretion.



The intersections of Highway 1/SR 92 and Main Street/SR 92 are San Mateo County Congestion Management Program (CMP) intersections. The San Mateo County of Governments (C/CAG) has developed LOS standards for roadways on the designated CMP network. The Highway 1 and SR 92 intersection has a CMP LOS standard of LOS E and the intersection of Main Street/SR 92 has a CMP LOS standard of LOS F.



Table 1
Signalized Intersection Level of Service Based on Average Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p10-16.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p17-2.

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis the relevant criteria for impacts at intersections are based on the County of San Mateo intersection Level of Service standards.

County of San Mateo Definitions of Significant Intersection LOS Impacts

According to the County of San Mateo Traffic Impact Study Requirements (9/1/2013), a development is said to create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour:

1. Intersection currently in compliance with LOS standard: A project will be considered to have a significant impact if the project will cause the intersection to operate at a level of service that violates the standard overall LOS of 'C' with no individual movement operating at worse than 'D'. On occasion, level of service 'D' may be allowed for peak periods in very dense urban conditions at the County's discretion.
2. Intersection currently NOT in compliance with LOS standard: A project will be considered to have a significant impact if the project will cause the intersection to operate at a level of service that violates the standard LOS mentioned above and the proposed project increases average control delay at the intersection by four (4) seconds or more.

CMP Intersections

The intersections of Highway 1/SR 92 and Main Street/SR 92 are San Mateo County Congestion Management Program (CMP) intersections. The San Mateo County of Governments (C/CAG) has developed LOS standards for roadways on the designated CMP network. The Highway 1 and SR 92 intersection has a CMP LOS standard of LOS E and the intersection of Main Street/SR 92 has a CMP LOS standard of LOS F. Significant traffic impacts at CMP intersections are defined to occur when the addition of new project traffic causes:

- Peak hour intersection operations to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or



- Exacerbation of unacceptable operations by increasing the average critical delay by four (4) seconds or more at an intersection operating at LOS F.

Report Organization

The remainder of this report is divided into six chapters. Chapter 2 describes existing conditions, including the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 presents the intersection operations under existing plus project conditions and describes the method used to estimate project traffic. Chapter 4 presents the intersection levels of service under background conditions. Chapter 5 presents the project impact on the transportation system and describes the recommended mitigation measures under background plus project conditions. Chapter 6 describes cumulative traffic conditions. Chapter 7 presents the conclusions of the traffic study.





2. Existing Conditions

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities.

Existing Roadway Network

Access to the project site is provided via State Route 1, Capistrano Road and Airport Street. These facilities are described below.

State Route 1 is a two- to four-lane highway that runs in a north-south direction. Route 1 extends from San Francisco to southern California along the Pacific Ocean coast.

Capistrano Road is a two-lane roadway that runs primarily in a north-south direction. This local roadway extends from Alhambra Avenue in the south (just west of State Route 1) to its terminus at State Route 1 in the north.

Airport Street is a two-lane north-south collector street that provides access to the project site. Airport Street extends from its intersection with Stanford Avenue/Cornell Avenue in the south where it operates as Vassar Street to its terminus at Cypress Avenue in the north.

Other local roadways in the project vicinity include: *Cypress Avenue, Prospect Way, Coral Reef Avenue, Los Banos Avenue, La Granada Avenue, Broadway Avenue, Stanford Avenue and Cornell Avenue*, which are two-lane residential roadways.

Cypress Avenue is unusual in that it has a segment that is only about 20 feet wide with no centerline. This segment is on a straight section of road with good visibility; therefore, it does not present any operational or safety problems. The roadway width, while not equal to typical standards, is enough for two cars or trucks to pass. The narrow segment has low volume, and the constrained width tends to slow down traffic. Bicycles on this segment need to take the lane because there is not enough room for a car to pass.

Existing Bicycle and Pedestrian Facilities

According to the San Mateo County Bicycle Map, there are the following designated bike routes within the vicinity of the project site:

- State Route 1 within the vicinity of the project site
- Airport Street within the vicinity of the project site
- Cypress Avenue between Airport Street and State Route 1

- Capistrano Road between State Route 1 and Prospect Way
- Prospect Way
- California Avenue
- Cornell Avenue

Bicycle facilities are shown on Figure 3.

There are generally no sidewalks in the project vicinity. The Princeton area of Half Moon Bay is somewhat rural. Airport Street has minimal fronting development, thus no existing need for sidewalks.

Existing Transit Service

Existing transit service to the study area is provided by the San Mateo County Transit District (SamTrans). The existing SamTrans service is described below and shown on Figure 4.

The 17 *line* provides service between the Seton Medical Center Coastside and the Miramontes Point Road area with 1- to 2-hour headways (according to SamTrans staff) and operates along Airport Street in the vicinity of the project. Route 17 bus stops in the project vicinity are as follows:

- Capistrano Road at Pillar Point Harbor
- Capistrano Road at Prospect Way
- Airport Street at La Granada*
- Airport Street at Los Banos Avenue

*closest to project site

Existing Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations and previous traffic impact analyses in the study area (see Figure 5). Existing traffic volumes were obtained from new manual peak-hour turning-movement counts (see Figure 6). New traffic counts are included in Appendix A.



LEGEND




-  = Site Location
-  = Study Intersection
-  = Existing Bike Route

Figure 3
Existing Bicycle Facilities



LEGEND





-  = Site Location
-  = Study Intersection
-  = Existing Bus Route
-  = Bus Stops in Project Vicinity

Figure 4
Existing Transit Facilities

Big Wave North Parcel Alternative

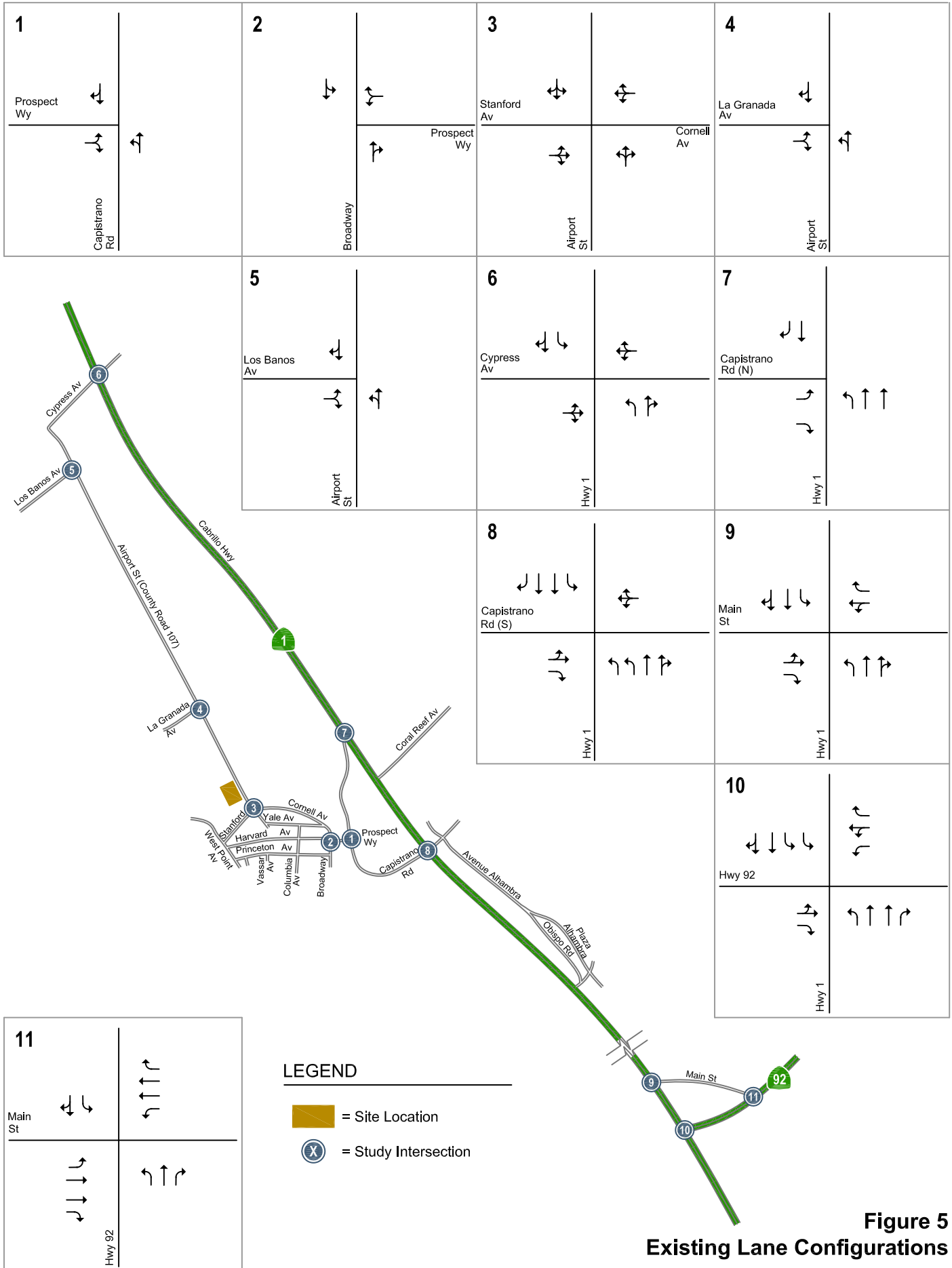


Figure 5
Existing Lane Configurations

Big Wave North Parcel Alternative

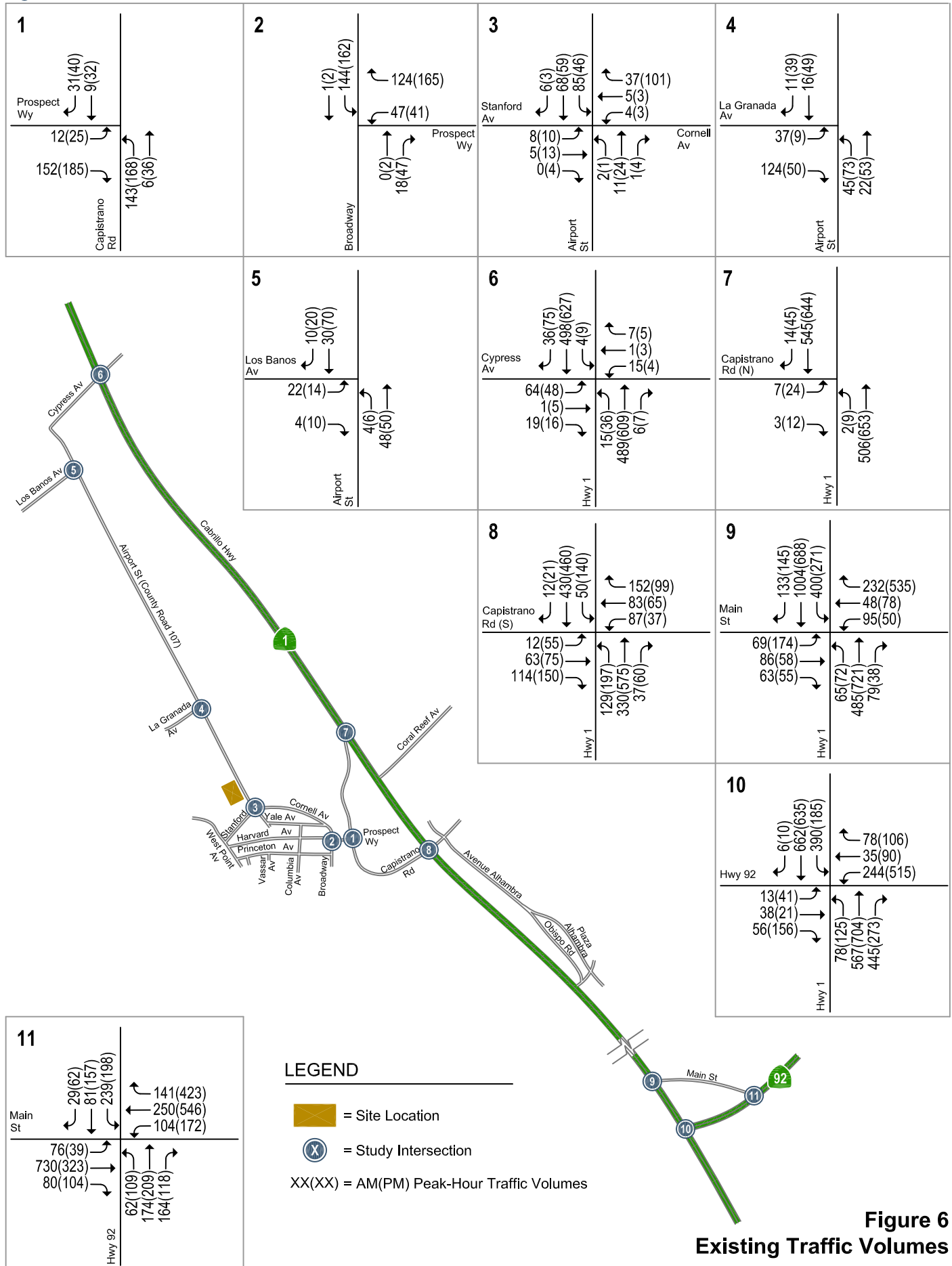


Figure 6
Existing Traffic Volumes

Existing Intersection Levels of Service

The results of the intersection level of service analysis under existing conditions show that all of the study intersections, except for the intersection of Highway 1 and Cypress Avenue, currently operate at acceptable levels of service during both the AM and PM peak hours of traffic on weekdays (see Table 3). The eastbound left-turn movement at the intersection of Highway 1 and Cypress Avenue is shown to operate at LOS E with a delay of 36.5 seconds during the AM peak hour and operate at LOS F with a delay of 78.8 seconds during the PM peak hour under existing conditions.

The results of the intersection level of service analysis for the midday peak hour on Saturday of Memorial Day weekend show that four of the intersections along state highways currently operate at acceptable levels of service (see Table 4). At the intersection of Highway 1 and Cypress Avenue the eastbound left-turn movement is shown to operate at LOS F with a delay of 137.2 seconds during the midday peak. The eastbound left-turn movement at the intersection of Highway 1 and Capistrano Road (N) is operating at LOS E with a delay of 38.9 seconds. The level of service calculation sheets are included in Appendix D.

Table 3
Existing Intersection Levels of Service - Weekday

Study Number	Intersection	Peak Hour	Count Date	Average		Worst	
				Delay (sec.)	LOS	Delay (sec.)	LOS
1	Prospect Way and Capistrano Rd	AM	05/07/14	7.5	A	9.4	A
		PM	05/07/14	7.2	A	10.4	B
2	Broadway and Prospect Way	AM	05/07/14	8.4	A	10.2	B
		PM	05/07/14	8.1	A	10.4	B
3	Airport St and Stanford Ave/Cornell Ave	AM	05/07/14	5.3	A	11.3	B
		PM	05/07/14	6.0	A	10.7	B
4	Airport St and La Granada Ave	AM	05/07/14	7.3	A	9.4	A
		PM	05/07/14	4.1	A	9.5	A
5	Airport St and Los Banos Ave	AM	05/07/14	2.3	A	9.1	A
		PM	05/07/14	1.6	A	9.2	A
6	SR 1 and Cypress Ave	AM	05/07/14	3.3	A	36.5	E
		PM	05/07/14	4.3	A	78.8	F
7	SR 1 and Capistrano Rd (N)	AM	05/07/14	0.2	A	17.8	C
		PM	05/07/14	0.6	A	24.3	C
8	SR 1 and Capistrano Road (S)	AM	05/07/14	14.9	B	--	--
		PM	05/07/14	14.8	B	--	--
9	SR 1 and Main St	AM	05/07/14	30.7	C	--	--
		PM	05/07/14	32.5	C	--	--
10	SR 1 and SR 92 *	AM	04/01/13	24.5	C	--	--
		PM	04/01/13	23.5	C	--	--
11	Main St and SR 92 *	AM	04/01/13	22.6	C	--	--
		PM	04/01/13	19.7	B	--	--

Notes:
 * Denotes CMP intersection
Bold indicates a substandard level of service.

Table 4
Existing Intersection Levels of Service - Saturday

Study Number	Intersection	Peak Hour	Count Date	Existing			
				Average		Worst	
				Delay (sec.)	LOS	Delay (sec.)	LOS
6	SR 1 and Cypress Ave (Unsignalized)	Midday	05/24/14	6.9	A	137.2	F
7	SR 1 and Capistrano Rd (N) (Unsignalized)	Midday	05/24/14	1.4	A	38.9	E
8	SR 1 and Capistrano Road (S)	Midday	05/24/14	18.6	B	--	--
9	SR 1 and Main St	Midday	05/24/14	32.8	C	--	--
10	SR 1 and SR 92 *	Midday	05/24/14	28.4	C	--	--
11	Main St and SR 92 *	Midday	05/24/14	22.6	C	--	--

Notes:
* Denotes CMP intersection
Bold indicates a substandard level of service.

Observed Existing Traffic Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service calculation does not accurately reflect level of service in the field.

Overall the study intersections operated adequately during both the AM and PM peak hours of traffic, and the level of service analysis appears to accurately reflect actual existing traffic conditions. During the AM peak hour, southbound traffic along Highway 1 backs up north of the intersection of Highway 1 and Main Street. During the PM peak hour, northbound through traffic queues up along Highway 1 and backs up for nearly a quarter mile north of the intersection of Highway 1 and Main Street due to the lane drop from two lanes to one lane. Close to the project site, there is no noticeable congestion along Highway 1.

The analysis of the 2013 hourly traffic counts from Caltrans supports the field observations. During the weekday AM peak hour, the Caltrans 2013 hourly counts show that there are 705 northbound vehicles and 1,439 southbound vehicles on Highway 1 just north of the intersection at Main Street. In the vicinity of the project site, the northbound AM peak hour traffic volume drops to 440 vehicles, and the southbound volume drops to 525 vehicles.

During the weekday PM peak hour, the 2013 hourly counts show that there are 1,427 northbound vehicles and 1,096 southbound vehicles on Highway 1 just north of the intersection at Main Street. In the vicinity of the project site, the PM peak hour northbound traffic volume drops to 688 vehicles, and the southbound volume drops to 632 vehicles.

The counts show that the highest traffic volume along Highway 1 in the vicinity of the project site happens during the midday hours on weekends and holidays. During the midday peak hours, the Caltrans 2013 hourly counts show that there are 1,327 northbound vehicles and 1,314 southbound vehicles on Highway 1 just north of the intersection at Main Street. In the vicinity of the project site,

the northbound AM peak hour traffic volume drops to 841 vehicles, and the southbound volume drops to 894 vehicles, which are much higher than the regular weekday peak hour volumes.





3.

Existing Plus Project Conditions

This chapter describes existing plus project traffic conditions, including the method by which project traffic is estimated. Existing plus project traffic conditions could potentially occur if the project were to be occupied prior to the other approved projects in the area. It is unlikely that this traffic condition would occur, since other approved projects expected to add traffic to the study area would likely be built and occupied during the time the project is going through the development review process.

Transportation Network Under Existing Plus Project Conditions

It is assumed in this analysis that the transportation network under existing plus project conditions would be the same as the existing transportation network.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets. These procedures are described further in the following sections.

Trip Generation

Through empirical research, data have been collected that correlate trip making to building size for various land use types. For many types of land use there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The standard trip generation rates are published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, 9th Edition. The project includes a Wellness Center and an Office Park with the following components:

Wellness Center

- Housing for developmentally disabled adults and their aides: including 57 bedrooms to provide affordable housing for a maximum of 50 developmentally disabled adults and 20 staff persons.
- Gym and basketball court
- 27,500 s.f. of storage space

Office Park

- The proposed office park includes 161,263 square feet in five buildings. For purposes of the traffic study, based on parking constraints, the office park was assumed to include 64,505 s.f. of office use, 40,316 s.f. of research and development (R&D) use, 32,253 s.f. of light manufacturing use, and 24,189 s.f. of storage space. The General Office (ITE category 710) rates were applied to the proposed office use; the Research and Development (ITE category 760) rates were applied to the proposed R&D use, the ITE Manufacturing (ITE land use code 140) rates were applied to the proposed Light Manufacturing portion, and the ITE Warehousing (ITE category 150) rates were applied to the Storage space because these rates best represent the project description..

The estimated peak-hour and daily trip generation totals for the project are shown in Table 5. The project is estimated to generate 1,479 daily trips, including 199 trips (163 inbound and 36 outbound) during the AM peak hour, and 192 trips (42 inbound and 150 outbound) during the PM peak hour.

Because of the high volume of recreational traffic on weekends, the project trip generation for the Saturday peak hour also was estimated. The standard trip generation rates for Saturday published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, 9th Edition were used to calculate the project trips. The Saturday trips for the office park are fairly low because most of the businesses typically would be closed. It is assumed that the trip generation for the Wellness Center would be the same on weekends versus weekdays. It was estimated that the proposed project would generate 64 trips during the midday peak hour on Saturdays (see Table 6).

**Table 5
Project Trip Generation Estimates - Weekday**

Land Use	ITE Code	Size	Daily Trip Rates	Daily Trips	AM Peak Hour			PM Peak Hour				
					Pk-Hr Rate	Trips		Pk-Hr Rate	Trips			
					In	Out	Total	In	Out	Total		
Office Park												
Office Building ¹	710	64,505 s.f.	11.03	711	1.56	89	12	101	1.49	16	80	96
Research & Development ²	760	40,316 s.f.	8.11	327	1.22	41	8	49	1.07	6	37	43
Storage ³	150	24,189 s.f.	3.56	86	0.30	6	1	7	0.32	2	6	8
Light Manufacturing ⁴	140	32,253 s.f.	3.82	123	0.73	18	6	24	0.73	8	16	24
Office Park Total		161,263		1,248		154	27	181		32	139	171
Wellness Center												
Storage ³	150	27,500 s.f.	3.56	98	0.30	7	1	8	0.32	2	7	9
Apartments ⁵	220	20 units	6.65	133	0.51	2	8	10	0.62	8	4	12
Wellness Center Total				231		9	9	18		10	11	21
Total Project Trips				1,479		163	36	199		42	150	192

Notes:

- ¹ Rate base on ITE Land Use Code 710 (General Office), average rates used.
 - ² Rate base on ITE Land Use Code 760 (Research & Development), average rates used.
 - ³ Rate base on ITE Land Use Code 150 (Warehousing), average rates used.
 - ⁴ Rate base on ITE Land Use Code 140 (Manufacturing), average rates used.
 - ⁵ Rates base on ITE Land Use Code 220 (Apartment), average rates used.
- Source: ITE Trip Generation, 9th Edition 2012.

**Table 6
Project Trip Generation Estimates - Saturday**

Land Use	ITE Code	Size	Daily Trip Rates	Daily Trips	Midday Peak Hour					
					Pk-Hr Rate	Splits		Trips		Total
						In	Out	In	Out	
Office Park										
Office Building ¹	710	64,505 s.f.	2.46	159	0.43	54%	46%	15	13	28
Research & Development ²	760	40,316 s.f.	1.90	77	0.24	50%	50%	5	5	10
Storage ³	150	24,189 s.f.	1.23	30	0.13	64%	36%	2	1	3
Light Manufacturing ⁴	140	32,253 s.f.	1.49	48	0.28	50%	50%	5	4	9
Office Park Total		161,263		313				27	23	50
Wellness Center										
Storage ³	150	27,500 s.f.	1.23	34	0.13	64%	36%	2	2	4
Apartments ⁵	220	20 units	6.39	128	0.52	50%	50%	5	5	10
Wellness Center Total				162				7	7	14
Total Project Trips				475				34	30	64
Notes:										
¹ Rate base on ITE Land Use Code 710 (General Office), average rates for Saturday used.										
² Rate base on ITE Land Use Code 760 (Research & Development), average rates for Saturday used. Directional split is not available for peak hour, used daily values.										
³ Rate base on ITE Land Use Code 150 (Warehousing), average rates for Saturday used.										
⁴ Rate base on ITE Land Use Code 140 (Manufacturing), average rates for Saturday used. Directional split is not available for peak hour, used daily values.										
⁵ Rates base on ITE Land Use Code 220 (Apartment), average rates for Saturday used. Directional split is not available for peak hour, used daily values.										
Source: ITE Trip Generation, 9th Edition.										

Project Trip Distribution and Assignment

The trip distribution pattern for the proposed project was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. Separate trip distribution patterns were developed for the Office Park (including office, R&D, light manufacturing, and storage) and apartment components of the proposed project. It was assumed that 20% of the project trips would be added to SR 92. However, the project would add jobs to a residential area and potentially might reduce the work trips on SR 92. During the AM peak, most of the project trips would travel westbound on SR 92 to the project site, which is the non-peak direction. During the PM peak, project trips would also travel the non-peak direction on SR 92. Therefore, the project impact on SR 92 might be less than the analysis presented in this report.

In determining the trip distribution patterns for vehicles traveling from the project site to northbound Highway 1, Hexagon conducted travel time runs from the proposed project site to northbound Highway 1 using two different routes: 1) the first route was northbound Airport Street to eastbound Cypress Avenue to northbound Highway 1; 2) the second route was southbound Airport Street to eastbound Cornell Avenue to eastbound Prospect Way to northbound Capistrano Road to northbound Highway 1. The travel time runs showed that the northbound Airport Street route took half the time of the southbound Airport Street route (three minutes as opposed to six minutes). As a result, Hexagon assumed that vehicular traffic traveling from the project site to northbound Highway 1 would proceed north on Airport Street to Cypress Avenue and turn left onto Highway 1.

The peak-hour trips generated by the project were assigned to the roadway system in accordance with the trip distribution pattern shown. The trip distribution patterns are shown graphically on Figures 7 and 8. Figure 9 shows the assignment of project trips at each study intersection.



Existing Plus Project Traffic Volumes

The project trips were added to existing traffic volumes to obtain existing plus project traffic volumes (see Figure 10). Traffic volumes for all components of traffic are tabulated in Appendix C.





Figure 7
Project Trip Distribution
Pattern for Office Park



Figure 8
Project Trip Distribution
Pattern for Apartments

Big Wave North Parcel Alternative

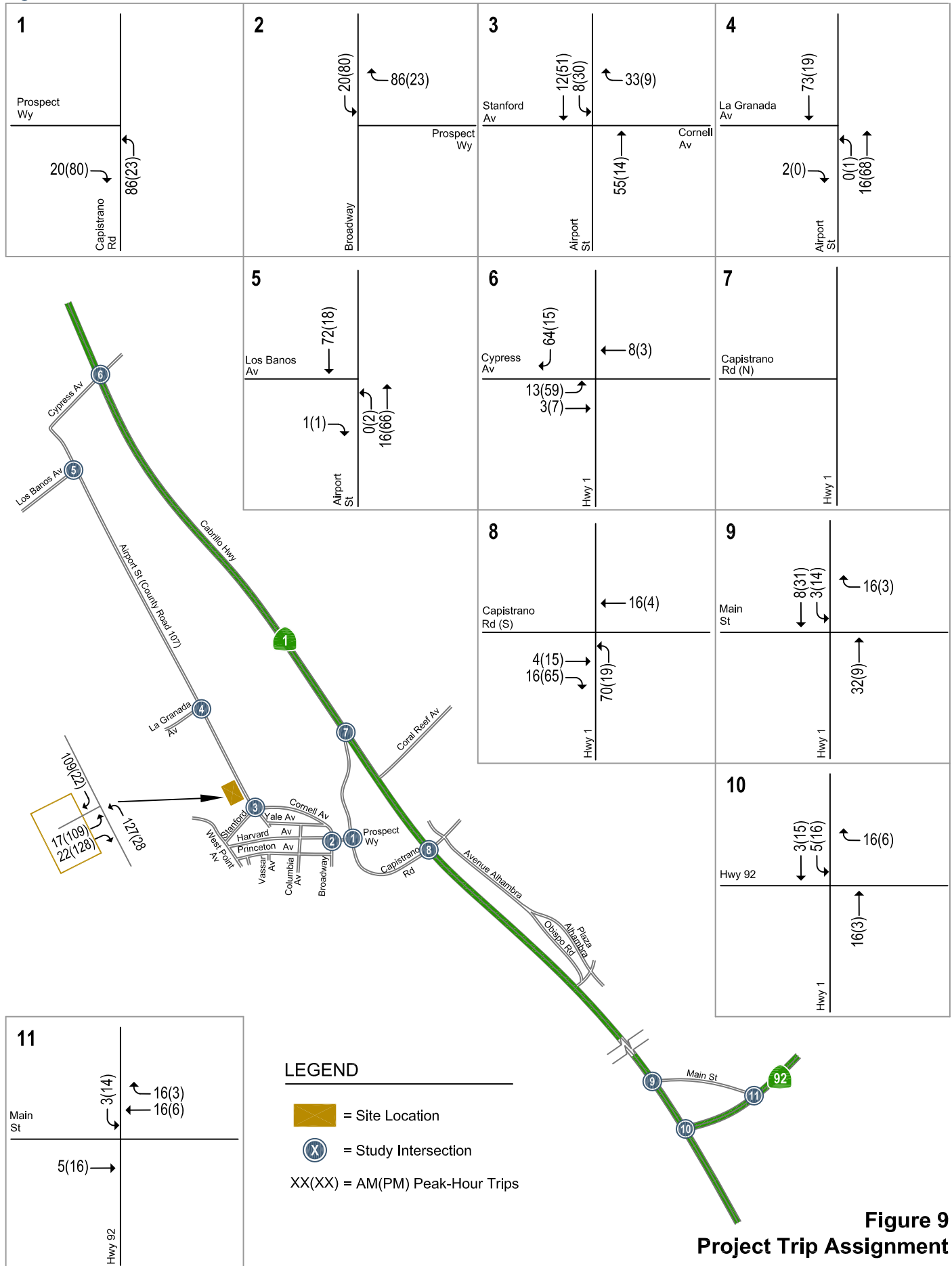


Figure 9
Project Trip Assignment

Big Wave North Parcel Alternative

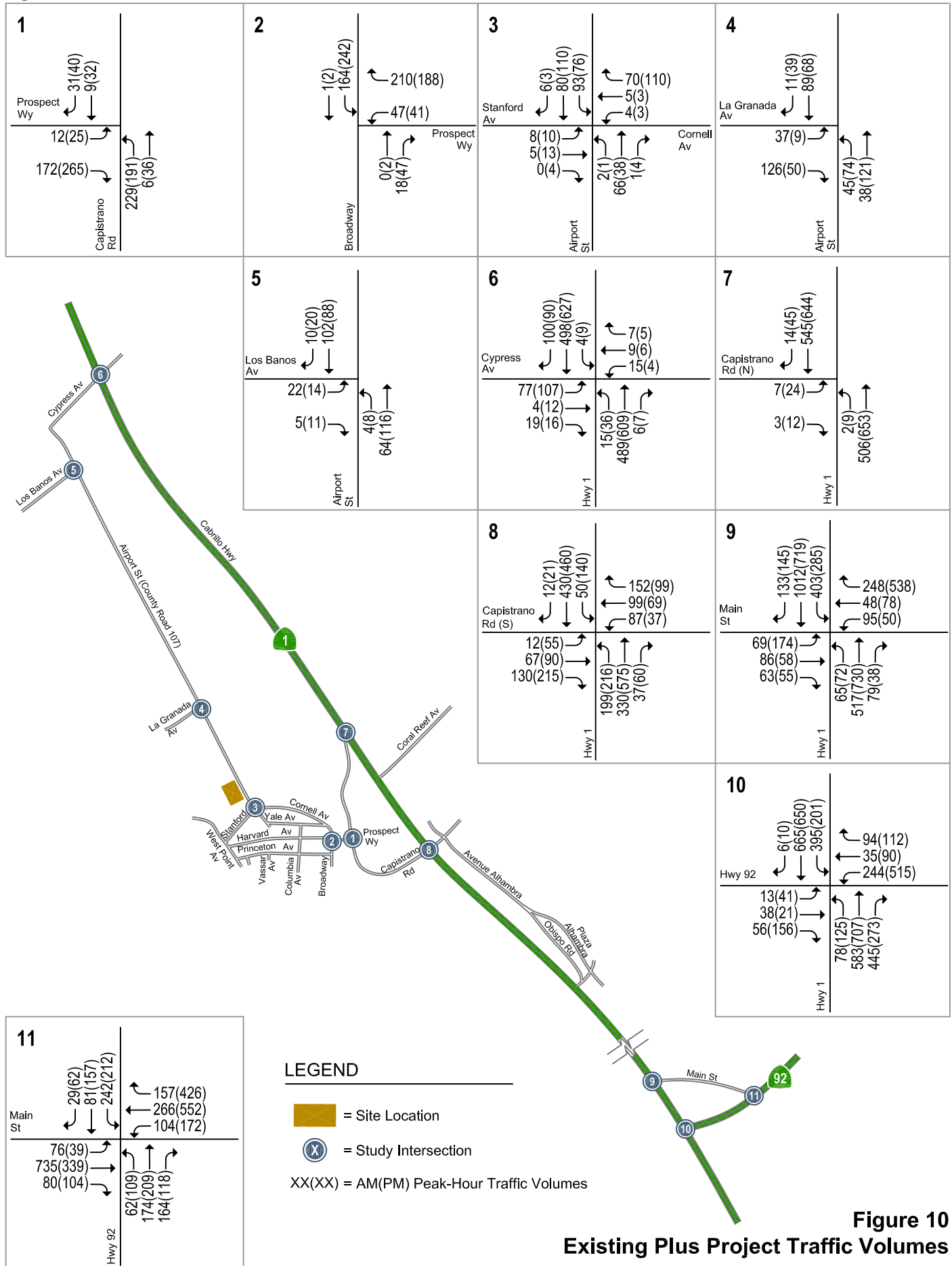


Figure 10
Existing Plus Project Traffic Volumes

Existing Plus Project Intersection Levels of Service

The results of the intersection level of service analysis under existing plus project conditions for weekdays are summarized in Table 7. The results show that all of the study intersections would operate at an acceptable LOS C or better, except for the intersection at Highway 1 and Cypress Avenue. The eastbound left-turn movement at the intersection of Highway 1 and Cypress Avenue is shown to operate at LOS F with a delay of 51.6 seconds during the AM peak hour. During the PM peak hour, the projected volume increases are so high that the LOS software cannot accurately calculate the delay, but the increase would be more than 4 seconds. Hexagon found that there are no improvements possible at this intersection to improve this LOS F other than signalization or installation of a roundabout. The level of service calculation sheets are included in Appendix D.

Table 7
Existing Plus Project Intersection Levels of Service - Weekday

Study Number	Intersection	Peak Hour	Existing		Existing + Project					
			Average Delay (sec.)	Worst Delay (sec.)	Average Delay (sec.)	Worst Delay (sec.)				
1	Prospect Way and Capistrano Rd (Unsignalized)	AM	7.5	A	9.4	A	7.8	A	9.7	A
		PM	7.2	A	10.4	B	8.0	A	11.0	B
2	Broadway and Prospect Way (Unsignalized)	AM	8.4	A	10.2	B	9.0	A	10.6	B
		PM	8.1	A	10.4	B	8.6	A	11.3	B
3	Airport St and Stanford Ave/Cornell Ave (Unsignalized)	AM	5.3	A	11.3	B	4.9	A	12.8	B
		PM	6.0	A	10.7	B	5.4	A	12.2	B
4	Airport St and La Granada Ave (Unsignalized)	AM	7.3	A	9.4	A	5.7	A	10.1	B
		PM	4.1	A	9.5	A	3.2	A	9.4	A
5	Airport St and Los Banos Ave (Unsignalized)	AM	2.3	A	9.1	A	1.4	A	9.6	A
		PM	1.6	A	9.2	A	1.2	A	9.6	A
6	SR 1 and Cypress Ave (Unsignalized)	AM	3.3	A	36.5	E	5.0	A	51.6	F
		PM	4.3	A	78.8	F	28.8	B	(1)	F
7	SR 1 and Capistrano Rd (N) (Unsignalized)	AM	0.2	A	17.8	C	0.2	A	17.8	C
		PM	0.6	A	24.3	C	0.6	A	24.3	C
8	SR 1 and Capistrano Road (S)	AM	14.9	B	--	--	16.1	B	--	--
		PM	14.8	B	--	--	15.0	B	--	--
9	SR 1 and Main St	AM	30.7	C	--	--	31.0	C	--	--
		PM	32.5	C	--	--	32.9	C	--	--
10	SR 1 and SR 92 *	AM	24.5	C	--	--	24.8	C	--	--
		PM	23.5	C	--	--	23.6	C	--	--
11	Main St and SR 92 *	AM	22.6	C	--	--	22.6	C	--	--
		PM	19.7	B	--	--	19.9	B	--	--

Notes:
 * Denotes CMP intersection
Bold indicates a substandard level of service.
Bold indicates a significant project impact.
 (1) indicates the delay cannot be calculated, V/C >1.0

During the midday peak hour on Saturday, the results of the level of service analysis show that all of the study intersections would operate at an acceptable LOS C or better, except for the intersection at Highway 1/Cypress Avenue and Highway 1/Capistrano Road (N). The eastbound left-turn movement at the intersection of Highway 1 and Cypress Avenue is shown to operate at LOS F. The eastbound left-turn movement at the intersection of Highway 1 and Capistrano Road (N) is shown to operate at LOS E.

Table 8
Existing Plus Project Intersection Levels of Service - Saturday

Study Number	Intersection	Peak Hour	Count Date	Existing				Existing Plus Project			
				Average		Worst		Average		Worst	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
6	SR 1 and Cypress Ave <i>(Unsignalized)</i>	Midday	05/24/14	6.9	A	137.2	F	12.3	B	(1)	F
7	SR 1 and Capistrano Rd (N) <i>(Unsignalized)</i>	Midday	05/24/14	1.4	A	38.9	E	1.4	A	38.9	E
8	SR 1 and Capistrano Road (S)	Midday	05/24/14	18.6	B	--	--	18.8	B	--	--
9	SR 1 and Main St	Midday	05/24/14	32.8	C	--	--	33.2	C	--	--
10	SR 1 and SR 92 *	Midday	05/24/14	28.4	C	--	--	28.7	C	--	--
11	Main St and SR 92 *	Midday	05/24/14	22.6	C	--	--	22.8	C	--	--

Notes:
 * Denotes CMP intersection
Bold indicates a substandard level of service.
 (1) indicates the delay cannot be calculated, V/C >1.0

Traffic on Highway 1

The project would add very little, if any, traffic to Highway 1 along the Airport segment. Traffic to and from the north would use Cypress Avenue to get to and from Highway 1. Traffic to and from the south would use Capistrano Road to get to and from Highway 1. The impact of the project to the highway operations is reflected in the intersection analyses.

The counts show that the highest traffic volume along Highway 1 in the vicinity of the project site happens on weekends and holidays. Because the office/industrial park component of the project would generate little traffic on weekends, its impact to Highway 1 on weekends would be minimal. The Wellness Center would also have little impact on traffic volumes on weekends and holidays simply because it generates so little traffic during any time period. The developmentally disabled residents of the proposed apartments would not drive and therefore would not generate traffic at any time. The proposed project provides space for staff of the Wellness Center to live on-site, so there is expected to be relatively little traffic generated by employees, either. Further, trips taken by employees on weekends and holidays are likely to have a different trip distribution pattern than recreational traffic, i.e., Wellness Center employees may head eastbound “over the hill” on Hwy 92 or north on Hwy 1 early in the day, whereas recreational traffic flows in the opposite direction in the mornings. The reverse patterns would occur at the end of the day. Thus, the proposed project’s impact on traffic volumes and intersection levels of service on weekends and holidays would be negligible.

CMP Policy

As the regional administrator of the San Mateo Countywide Congestion Management Program (CMP), the City/County Association of Governments (C/CAG) requires new development projects to limit their impact on regional roadway facilities. According to C/CAG CMP guidelines:

Local jurisdictions must ensure that the developer and/or tenants will reduce the demand for all new peak hour trips (including the first 100 trips) projected to be generated by the development. The local jurisdiction can select one or more of the options that follow or may

propose other methods for mitigating the trips. It is up to the local jurisdiction working together with the project sponsor to choose the method(s) that will be compatible with the intended purpose of the project and the community that it will serve.

This project would add more than 100 trips to Highway 1 which is a CMP facility. Therefore, this project will need to prepare and submit a trip reduction plan in accordance with the C/CAG guideline.

Site Access and Circulation

The site access and circulation review is based on the site plan dated 5/28/2014 by Macleod and Associates. The site access was evaluated in accordance with generally accepted traffic engineering standards. Access to the north parcel project site would be provided by two full access driveways and one inbound only driveway on Airport Street. Because of the relatively low traffic volume on Airport Street, vehicles would experience no delays or queuing going into or out of the site.

Access to the south parcel project site, where the boat storage is located, would be provided by one full access driveway on Airport Street. The south parcel also includes public beach parking in diagonal spaces separated from Airport Street by islands.

The onsite circulation was reviewed in accordance with generally accepted traffic engineering standards. The plan shows good on-site circulation.

Bicycle access to the site is adequate. Airport Street is a designated bike route. While it doesn't have bike lanes or shoulders, it has relatively low traffic volume, even with the project. Pedestrian access to the site is limited. There are no sidewalks on any of the streets south of the site. However, this is a largely industrial area with few walking destinations. There is a sidewalk on the west side of Airport Street north of the site. The project proposes a sidewalk along its frontage. This sidewalk should be made to connect to the existing sidewalk. That would create a continuous sidewalk to the nearby bus stop at La Granada Lane.





4. Background Conditions

This chapter describes background traffic conditions, which are defined as conditions with the addition of traffic from approved but not constructed projects in the area. Traffic volumes for background conditions comprise volumes from the existing traffic counts plus traffic generated by approved projects in the vicinity of the site. Hexagon also applied a 2% per year growth factor for two years to the volumes on SR 1 and SR 92 to account for general traffic growth in the area. This chapter describes the procedure used to determine approved traffic volumes and the resulting traffic conditions.

Background Transportation Network

It is assumed in this analysis that the transportation network under background conditions would be the same as the existing transportation network.

Approved Developments

Table 9 lists the approved but not-yet-completed developments in the project vicinity, which would add traffic to the roadway network under background conditions. The list was obtained from the County of San Mateo Planning Department. Projected traffic volumes associated with the approved developments were estimated based on the project size (dwelling units or square footage) using ITE trip generation rates, and project trips were assigned to the study roadway network.

These approved trips are tabulated in the Volume Summary Tables in Appendix C.

Background Traffic Volumes

Background peak-hour traffic volumes were calculated by adding to existing volumes the estimated traffic from approved but not yet constructed developments and by applying a 2% per year growth factor for two years to the volumes on SR 1 and SR 92 to account for general traffic growth in the area. Background traffic volumes are shown on Figure 11.

Background Intersection Levels of Service

The results of the intersection level of service analysis under existing and background conditions are summarized in Table 10. The results show that all of the study intersections would operate within the adopted level of service standard, except for the intersection at Highway 1 and Cypress Avenue. The eastbound left-turn movement at the intersection of Highway 1 and Cypress Avenue is

shown to operate at LOS E with a delay of 41.3 seconds during the AM peak hour and at LOS F with a delay of 96.1 seconds during the PM peak hour under Background Conditions. The level of service calculation sheets are included in Appendix D.

**Table 9
Approved Project List**

Address	Case	Status	Project Description
332 and 334 Princeton	BLD2011-00237	Under Construction	New 5,100 sf mixed-use building for office and residence
102 California	BLD2009-00009	Under Construction	new 2-story warehouse (1,981 sf) & office (400 sf)
105 California	BLD2013-00366	Under Construction	New 2,755 sf warehouse
134 Harvard	PLN2009-00339	Approved and not expired	New 5,820 sf warehouse/storage

**Table 10
Intersection Levels of Service Under Background Conditions**

Study Number	Intersection	Peak Hour	Existing				Background			
			Average		Worst		Average		Worst	
			Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	Prospect Way and Capistrano Rd (Unsignalized)	AM	7.5	A	9.4	A	7.5	A	9.4	A
		PM	7.2	A	10.4	B	7.3	A	10.4	B
2	Broadway and Prospect Way (Unsignalized)	AM	8.4	A	10.2	B	8.5	A	10.2	B
		PM	8.1	A	10.4	B	8.1	A	10.5	B
3	Airport St and Stanford Ave/Cornell Ave (Unsignalized)	AM	5.3	A	11.3	B	5.3	A	11.4	A
		PM	6.0	A	10.7	B	5.9	A	10.8	B
4	Airport St and La Granada Ave (Unsignalized)	AM	7.3	A	9.4	A	7.2	A	9.4	A
		PM	4.1	A	9.5	A	4.1	A	9.2	A
5	Airport St and Los Banos Ave (Unsignalized)	AM	2.3	A	9.1	A	2.2	A	9.1	A
		PM	1.6	A	9.2	A	1.6	A	9.2	A
6	SR 1 and Cypress Ave (Unsignalized)	AM	3.3	A	36.5	E	3.6	A	41.3	E
		PM	4.3	A	78.8	F	5.1	A	96.1	F
7	SR 1 and Capistrano Rd (N) (Unsignalized)	AM	0.2	A	17.8	C	0.2	A	18.5	C
		PM	0.6	A	24.3	C	0.6	A	25.8	D
8	SR 1 and Capistrano Road (S)	AM	14.9	B	--	--	15.1	B	--	--
		PM	14.8	B	--	--	15.3	B	--	--
9	SR 1 and Main St	AM	30.7	C	--	--	31.5	C	--	--
		PM	32.5	C	--	--	33.3	C	--	--
10	SR 1 and SR 92 *	AM	24.5	C	--	--	25.9	C	--	--
		PM	23.5	C	--	--	25.6	C	--	--
11	Main St and SR 92 *	AM	22.6	C	--	--	23.2	C	--	--
		PM	19.7	B	--	--	19.9	B	--	--

Notes:
 * Denotes CMP intersection
Bold indicates a substandard level of service.

Big Wave North Parcel Alternative

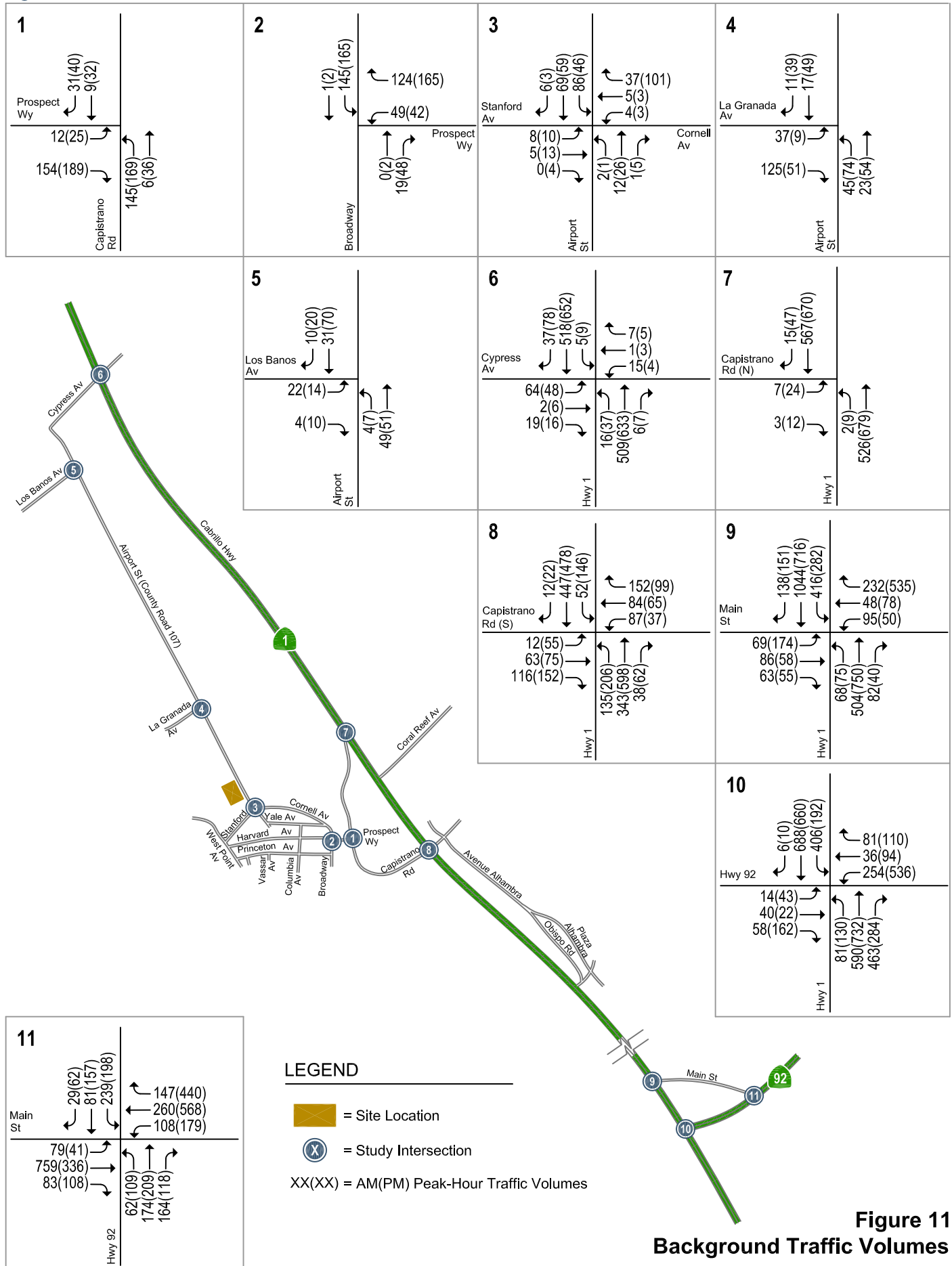


Figure 11
Background Traffic Volumes



5. Background Plus Project Conditions

This chapter describes near-term traffic conditions that most likely would occur when the project is complete. It includes a description of the significance criteria used to establish what constitutes a project impact, the method by which project traffic is estimated, and any impacts caused by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts. This traffic scenario represents a more congested traffic condition than the existing plus project scenario, since it includes traffic generated by approved but not yet built projects in the area.

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on study intersections are based on County of San Mateo Traffic Impact Study Requirements (9/1/2013).

Intersection Currently in Compliance with LOS Standard

A project will be considered to have a significant impact if the project will cause the intersection to operate at a level of service that violates the standard overall LOS of 'C' with no individual movement operating at worse than 'D'. On occasion, level of service 'D' may be allowed for peak periods in very dense urban conditions at the County's discretion.

Intersection Currently Not in Compliance with LOS Standard

A project will be considered to have a significant impact if the project will cause the intersection to operate at a level of service that violates the standard LOS mentioned above and the proposed project increases average control delay at the intersection by four (4) seconds or more.

CMP Intersection

The intersections of Highway 1/SR 92 and Main Street/SR 92 are San Mateo County Congestion Management Program (CMP) intersections. The San Mateo County of Governments (C/CAG) has developed LOS standards for roadways on the designated CMP network. The Highway 1 and SR 92 intersection has a CMP LOS standard of LOS E and the intersection of Main Street/SR 92 has a CMP LOS standard of LOS F. Significant traffic impacts at CMP intersections are defined to occur when the addition of new project traffic causes:

- Peak hour intersection operations to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or

- Exacerbation of unacceptable operations by increasing the average critical delay by four (4) seconds or more at an intersection operating at LOS F.

Background Plus Project Conditions Transportation Network

It is assumed in this analysis that the transportation network under background plus project conditions, including roadways and intersection lane configurations, would be the same as that described under existing conditions.

Project Trip Estimates

As previously described in Chapter 3 (see Table 5), the project is estimated to generate 1,479 daily trips, including 199 trips (163 inbound and 36 outbound) during the AM peak hour, and 192 trips (42 inbound and 150 outbound) during the PM peak hour.

Background Plus Project Traffic Volumes

The peak hour trips generated by the project were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 12). The project trips were assigned to the roadway system in accordance with the trip distribution pattern discussed in Chapter 3. Traffic volumes for all components of traffic are tabulated in Appendix C.



Big Wave North Parcel Alternative

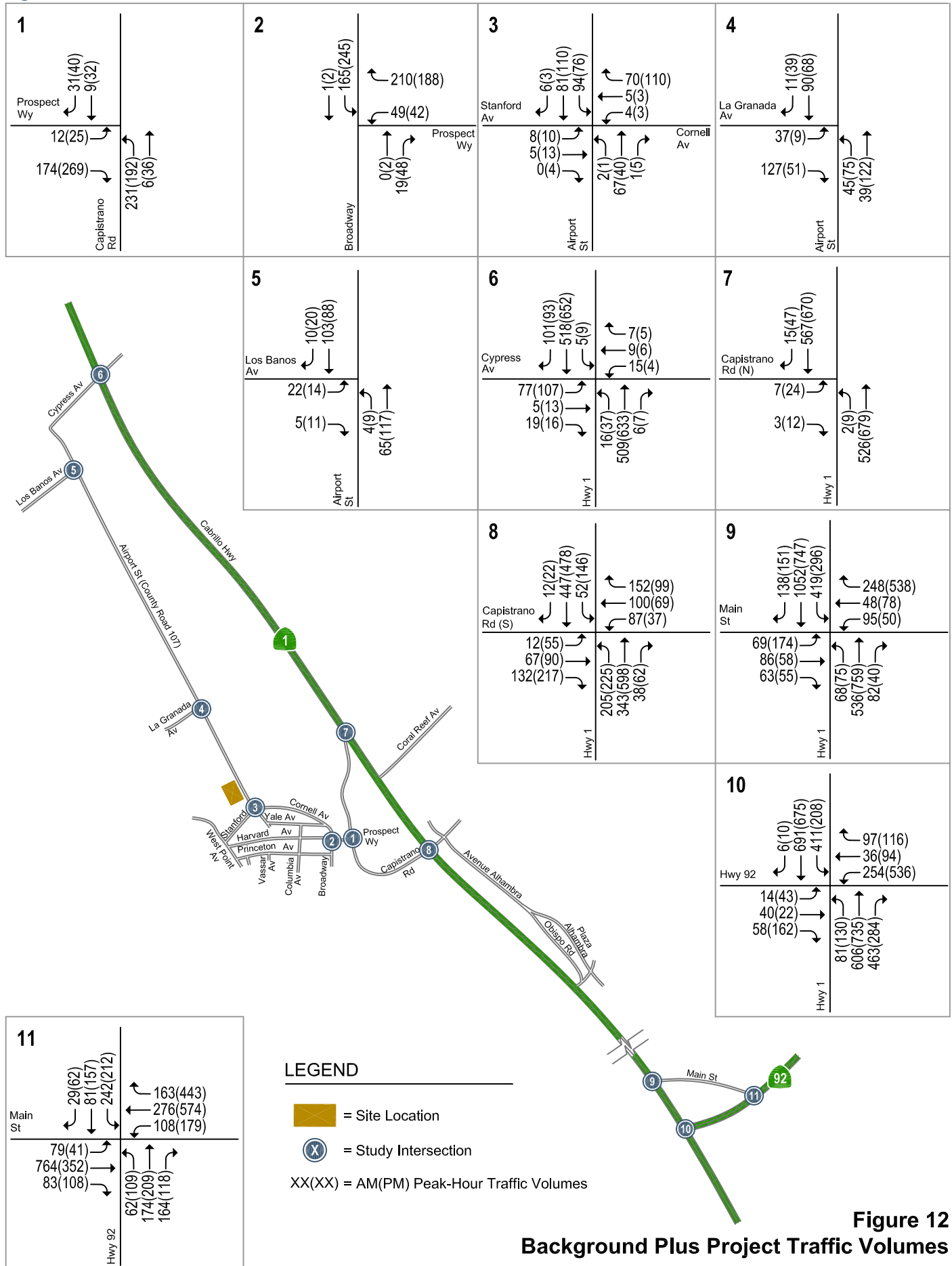


Figure 12
Background Plus Project Traffic Volumes

Background Plus Project Intersection Level of Service Analysis

The results of the intersection level of service analysis under background plus project conditions are summarized in Table 11. The results of the level of service calculations show that under background plus project conditions, all of the study intersections would continue to operate at acceptable levels of service, except for the intersection at Highway 1 and Cypress Avenue. Under background conditions, there would be a 41.3 second delay during the AM peak hour and a 96.1 second delay during the PM peak hour for the worst movement (eastbound left) of the Cypress Avenue at Highway 1 intersection. This delay would increase with the addition of the project. The delay for this movement would be 19.6 seconds more than without the project during the AM peak hour. During the PM peak hour, the projected volume increases are so high that the LOS software cannot accurately calculate the delay, but the increase would be more than 4 seconds. This constitutes a significant project impact according to the County LOS standards.

Table 11
Background plus Project Intersection Levels of Service

Study Number	Intersection	Peak Hour	Background				Background + Project			
			Average		Worst		Average		Worst	
			Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	Prospect Way and Capistrano Rd (Unsignalized)	AM	7.5	A	9.4	A	7.8	A	9.8	A
		PM	7.3	A	10.4	B	8.0	A	11.0	B
2	Broadway and Prospect Way (Unsignalized)	AM	8.5	A	10.2	B	9.0	A	10.7	B
		PM	8.1	A	10.5	B	8.6	A	11.4	B
3	Airport St and Stanford Ave/Cornell Ave (Unsignalized)	AM	5.3	A	11.4	A	4.9	A	12.8	B
		PM	5.9	A	10.8	B	5.3	A	12.2	B
4	Airport St and La Granada Ave (Unsignalized)	AM	7.2	A	9.4	A	5.7	A	10.1	B
		PM	4.1	A	9.2	A	3.3	A	9.4	A
5	Airport St and Los Banos Ave (Unsignalized)	AM	2.2	A	9.1	A	1.4	A	9.6	A
		PM	1.6	A	9.2	A	1.2	A	9.6	A
6	SR 1 and Cypress Ave (Unsignalized)	AM	3.6	A	41.3	E	5.6	A	60.9	F
		PM	5.1	A	96.1	F	34.1	B	(1)	F
7	SR 1 and Capistrano Rd (N) (Unsignalized)	AM	0.2	A	18.5	C	0.2	A	18.5	C
		PM	0.6	A	25.8	D	0.6	A	25.8	D
8	SR 1 and Capistrano Road (S)	AM	15.1	B	--	--	16.3	B	--	--
		PM	15.3	B	--	--	15.4	B	--	--
9	SR 1 and Main St	AM	31.5	C	--	--	31.9	C	--	--
		PM	33.3	C	--	--	33.9	C	--	--
10	SR 1 and SR 92 *	AM	25.9	C	--	--	26.2	C	--	--
		PM	25.6	C	--	--	25.8	C	--	--
11	Main St and SR 92 *	AM	23.2	C	--	--	23.3	C	--	--
		PM	19.9	B	--	--	20.1	C	--	--

Notes:

* Denotes CMP intersection

Bold indicates a substandard level of service.

Bold indicates a significant project impact.

(1) indicates the delay cannot be calculated, V/C >1.0



Mitigation

The significant impact could be mitigated with the installation of a traffic signal or roundabout, as described below. The proposed significant impact and mitigations at the intersection of Highway 1 and Cypress Avenue fall within Caltrans' right of way. Therefore, approval of the proposed mitigation measures would be required from Caltrans. The approved mitigation measures should be constructed by the applicant as part of the project before occupancy.



Signal Warrant Analysis

With the project, the peak hour signal warrant would be met at the intersection of Highway 1 at Cypress Avenue. With signalization, this intersection would operate at LOS C under both the AM and the PM peak hours. Under signalized conditions, the existing roadway geometry would be adequate to handle the anticipated traffic demand. It is not advisable to install a traffic signal prior to a warrant being met, and the warrant is not met under existing conditions. The signal warrant analysis sheets are included in Appendix D.



Roundabout

Caltrans now considers roundabouts whenever evaluating potential intersection improvements. The roundabout analysis at the intersection of Highway 1 and Cypress Avenue shows that a one-lane roundabout would operate with acceptable delay and LOS during the AM and PM peak hour under all project conditions on weekdays. During the midday peak hour on Saturday, there would be a need for a by-pass lane for the southbound right-turn traffic in order for the intersection to operate at an acceptable level of service C under existing plus project conditions. The roundabout analysis calculation sheets are included in Appendix D. Hexagon has not evaluated whether the intersection is large enough to accommodate a roundabout or whether additional right-of-way would be required.



The roundabout analysis calculation sheets are included in Appendix D.





6. Cumulative Conditions

This chapter presents a summary of the traffic conditions that would occur under cumulative plus project conditions with a 20 year horizon. It is assumed in this analysis that the transportation network under cumulative conditions would be the same as described under existing conditions.

Cumulative Condition Traffic Volumes

Traffic volumes under cumulative plus project conditions were estimated using the San Mateo County Travel Demand Model long range forecast in the study area, which represents cumulative with project conditions. The increases on the model estimated link volumes between base year and future year were applied to the existing counts to get the cumulative condition volumes. For those intersections where the model forecasted volume increase are less than the added trips by the proposed project, project trips were added to the come up the cumulative condition volumes.

Traffic volumes under cumulative no project conditions were estimated by subtracting the project trips from the cumulative plus project volumes. The peak hour cumulative no project traffic volumes are shown on Figure 13 and the cumulative with project traffic volumes are shown on Figure 14.

Traffic volumes for all components of traffic are tabulated in Appendix C.

Cumulative Plus Project Conditions Intersection Levels of Service

The intersection levels of service under Cumulative No Project and Cumulative Plus Project Conditions are summarized in Table 12. The level of service calculation sheets are included in Appendix C. The results of the level of service calculations show that under cumulative plus project conditions, eight of the eleven study intersections would continue to operate at levels of service C or better. At the intersection of Highway 1 and Cypress Avenue, the LOS software cannot accurately calculate the delay due to the high volumes in the future during both AM and PM peak hours. The increase in delay would be more than 4 seconds. This constitutes a significant project impact according to the County LOS standards. The same mitigation measures as proposed under Background Plus Project conditions would be required under Cumulative Plus Project conditions. Any improvements at this intersection would need approval from Caltrans. The approved mitigation measures should be constructed by the applicant as part of the project before occupancy.

At the intersection of Highway 1 and Capistrano (North), the worst movement (eastbound left-turn) delay would increase to 46.7 seconds with LOS E during the PM peak hour under both no project and with project conditions, which is due to the traffic growth in the overall area. As shown in the trip distribution pattern, the project would not add any traffic to this movement.

The intersection at Highway 1 and Main Street would operate at LOS E during the PM peak hour under cumulative no project and cumulative plus project conditions. The deficiency would be caused mostly by overall traffic growth with a small contribution from the project. The project would cause an increase in average delay by two seconds during the PM peak hour, which would not be a significant impact based on the impact criteria. If any improvements are planned for this intersection, it would be appropriate for the project to make a fair share contribution toward the cost of improvements.

Table 12
Cumulative with Project Intersection Level of Service

Study Number	Intersection	Peak Hour	Cumulative No Project				Cumulative + Project			
			Average		Worst		Average		Worst	
			Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	Prospect Way and Capistrano Rd (Unsignalized)	AM	5.9	A	9.4	A	6.6	A	9.7	B
		PM	7.3	A	10.7	B	8.1	A	11.3	B
2	Broadway and Prospect Way (Unsignalized)	AM	8.7	A	10.5	A	9.3	A	11.0	B
		PM	8.4	A	10.7	B	8.9	A	11.8	B
3	Airport St and Stanford Ave/Cornell Ave (Unsignalized)	AM	5.7	A	12.0	B	5.3	A	13.6	B
		PM	6.4	A	11.0	B	5.8	A	12.5	B
4	Airport St and La Granada Ave (Unsignalized)	AM	7.0	A	9.7	A	5.8	A	10.4	B
		PM	4.1	A	9.2	A	3.2	A	9.4	A
5	Airport St and Los Banos Ave (Unsignalized)	AM	1.9	A	9.3	A	1.3	A	9.8	A
		PM	1.6	A	9.2	A	1.2	A	9.6	A
6	SR 1 and Cypress Ave (Unsignalized)	AM	35.4	C	(1)	F	61.0	F	(1)	F
		PM	(1)	F	(1)	F	(1)	F	(1)	F
7	SR 1 and Capistrano Rd (N) (Unsignalized)	AM	0.2	B	34.4	D	0.2	A	34.4	D
		PM	0.8	A	46.7	E	0.8	A	46.7	E
8	SR 1 and Capistrano Road (S)	AM	19.9	B	--	--	21.7	C	--	--
		PM	20.2	C	--	--	20.4	C	--	--
9	SR 1 and Main St	AM	39.7	D	--	--	42.4	D	--	--
		PM	64.0	E	--	--	66.6	E	--	--
10	SR 1 and SR 92 *	AM	31.4	C	--	--	31.9	C	--	--
		PM	49.8	D	--	--	49.9	D	--	--
11	Main St and SR 92 *	AM	23.1	C	--	--	23.2	C	--	--
		PM	28.7	C	--	--	29.2	C	--	--

Notes:

* Denotes CMP intersection

Bold indicates a substandard level of service.

Bold indicates a significant impact.

(1) indicates the delay cannot be calculated, V/C >1.0

Cumulative Signal Warrant Analysis

The peak-hour signal warrant (*MUTCD 2010*, Rural Warrant) was checked for the intersection at Highway 1 and Cypress Avenue to determine whether signalization would be justified on the basis of cumulative peak-hour volumes. The analysis showed that the study intersection of Highway 1 at Cypress Avenue would meet the peak hour signal warrant under cumulative conditions. With signalization, this intersection would operate at LOS D under the AM and PM peak hours. The signal warrant analysis sheets are included in Appendix D.

Cumulative Roundabout Analysis

The roundabout analysis at the intersection of Highway 1 and Cypress Avenue shows that a one-lane roundabout would not work well to bring an acceptable delay and LOS at this intersection during either AM or PM peak hour under cumulative plus project conditions. A detailed study about a feasible roundabout design would be recommended to accommodate future volumes. The roundabout analysis sheets are included in Appendix D.



Big Wave North Parcel Alternative

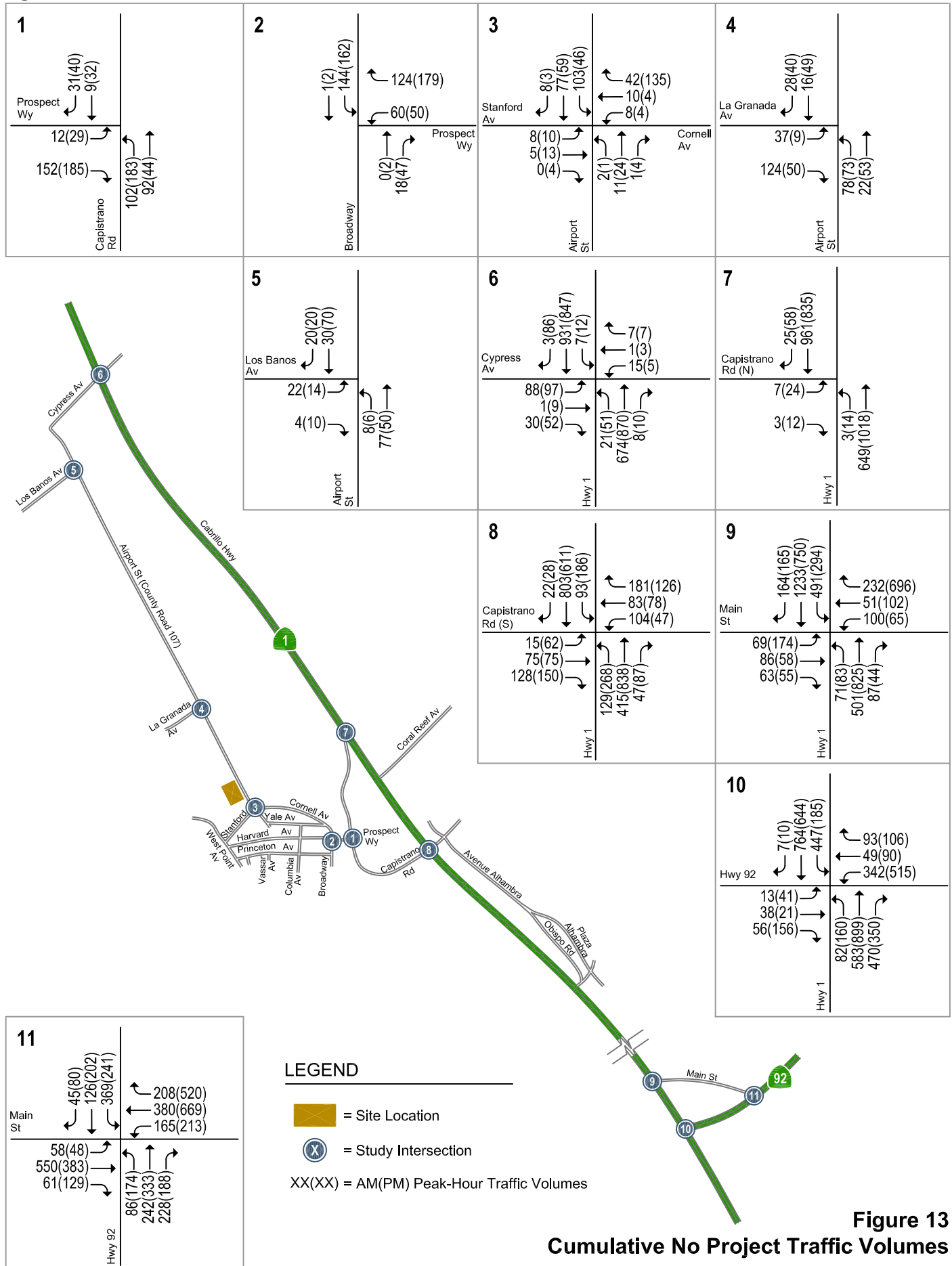


Figure 13
Cumulative No Project Traffic Volumes

Big Wave North Parcel Alternative

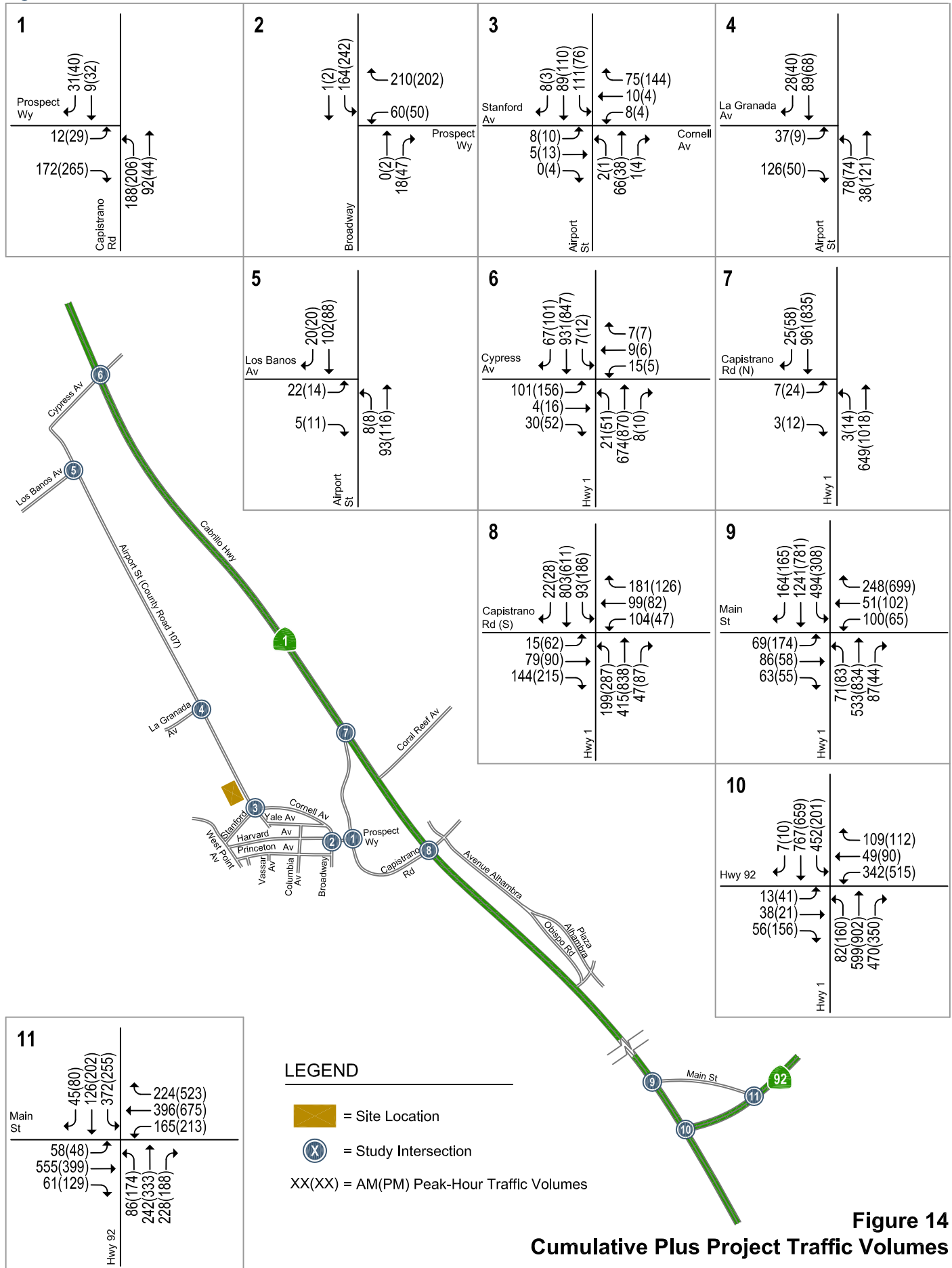


Figure 14
Cumulative Plus Project Traffic Volumes



7. Conclusions

This report presents the results of the traffic impact analysis conducted for the Big Wave Office Park and Wellness Center. The project site is located on Airport Street, north of the Princeton/Pillar Point Harbor area in unincorporated San Mateo County. The project includes a Wellness Center and an Office Park with the following components:

- Housing for developmentally disabled adults and their aides: including 57 bedrooms to provide affordable housing for a maximum of 50 developmentally disabled adults and 20 staff persons.
- Gym and basketball court
- 27,500 s.f. of storage space

In addition to the Wellness Center, the proposed project would include an Office Park, which includes 161,263 s.f. for office, research and development, light manufacturing, and storage uses. The project would have two full-access driveways and one inbound-only driveway on Airport Street. Parking for the project would be provided on site. Currently the site is vacant.

The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo. The study included an analysis of AM and PM peak-hour traffic conditions at four signalized intersections and seven unsignalized intersections.

Project Trip Generation

Application of ITE standard trip generation rates to the proposed development shows that the project is estimated to generate 1,479 daily trips, including 199 trips (163 inbound and 36 outbound) during the AM peak hour, and 192 trips (42 inbound and 150 outbound) during the PM peak hour.

Project Impacts

The results of the level of service calculations show that under all project conditions, the LOS for the worst movement at the intersection at Highway 1 and Cypress Avenue would be F and the delay increase would be more than 4 seconds. This constitutes a significant project impact according to the County LOS standards.



Mitigation

Hexagon found that the significant impact could be mitigated with the installation of a traffic signal or roundabouts described below.

Signalization of Intersection at Highway 1 and Cypress Avenue

Under project conditions, the peak hour signal warrant would be met at the intersection of Highway 1 at Cypress Avenue. With a traffic signal, the Highway 1/Cypress Avenue intersection would operate at LOS C during both the AM and PM peak hours under existing plus project, background, and background plus project conditions and would operate at LOS D under cumulative plus project conditions. Under signalized conditions, the existing roadway geometry would be adequate to handle the anticipated traffic demand. It is not advisable to install a traffic signal prior to a warrant being met, and the warrant is not met under existing conditions.



Roundabout at the Intersection of Highway 1 and Cypress Avenue

Caltrans now considers roundabouts whenever evaluating potential intersection improvements. The roundabout analysis at the intersection of Highway 1 and Cypress Avenue shows that a one-lane roundabout would operate with acceptable delay and LOS during the AM and PM peak hour under background plus project conditions on weekdays. Under cumulative plus project conditions, the one-lane roundabout would not work well to bring acceptable delay and LOS at this intersection during either AM or PM peak hour. A detailed study about a feasible roundabout design would be recommended to accommodate future volume growth at this intersection. During the midday peak hour on Saturday, there would be a need for a by-pass lane for the southbound right-turn traffic in order for the intersection to operate at an acceptable level of service C under existing plus project conditions. The roundabout analysis calculation sheets are included in Appendix D. Hexagon has not evaluated whether the intersection is large enough to accommodate a roundabout or whether additional right-of-way would be required.



The proposed mitigations at the intersection of Highway 1 and Cypress Avenue fall within Caltrans' right of way. Therefore, approval of the proposed mitigation measures would be required from Caltrans. The approved mitigation measures should be constructed by the applicant as part of the project before occupancy.



Site Access and Circulation

The site access and circulation review is based on the site plan dated 5/28/2014 by Macleod and Associates. The site access was evaluated in accordance with generally accepted traffic engineering standards. Access to the north parcel project site would be provided by two full access driveways and one inbound only driveway on Airport Street. Because of the relatively low traffic volume on Airport Street, vehicles would experience no delays or queuing going into or out of the site.



Access to the south parcel project site, where the boat storage is located, would be provided by one full access driveway on Airport Street. The south parcel also includes public beach parking in diagonal spaces separated from Airport Street by islands.



The onsite circulation was reviewed in accordance with generally accepted traffic engineering standards. The plan shows good on-site circulation.



Bicycle access to the site is adequate. Airport Street is a designated bike route. While it doesn't have bike lanes or shoulders, it has relatively low traffic volume, even with the project. Pedestrian access to the site is limited. There are no sidewalks on any of the streets south of the site. However, this is a largely industrial area with few walking destinations. There is a sidewalk on the west side of Airport Street north of the site. The project proposes a sidewalk along its frontage. This sidewalk should be made to connect to the existing sidewalk. That would create a continuous sidewalk to the nearby bus stop at La Granada Lane.



Big Wave North Parcel Alternative Technical Appendices

August 28, 2014

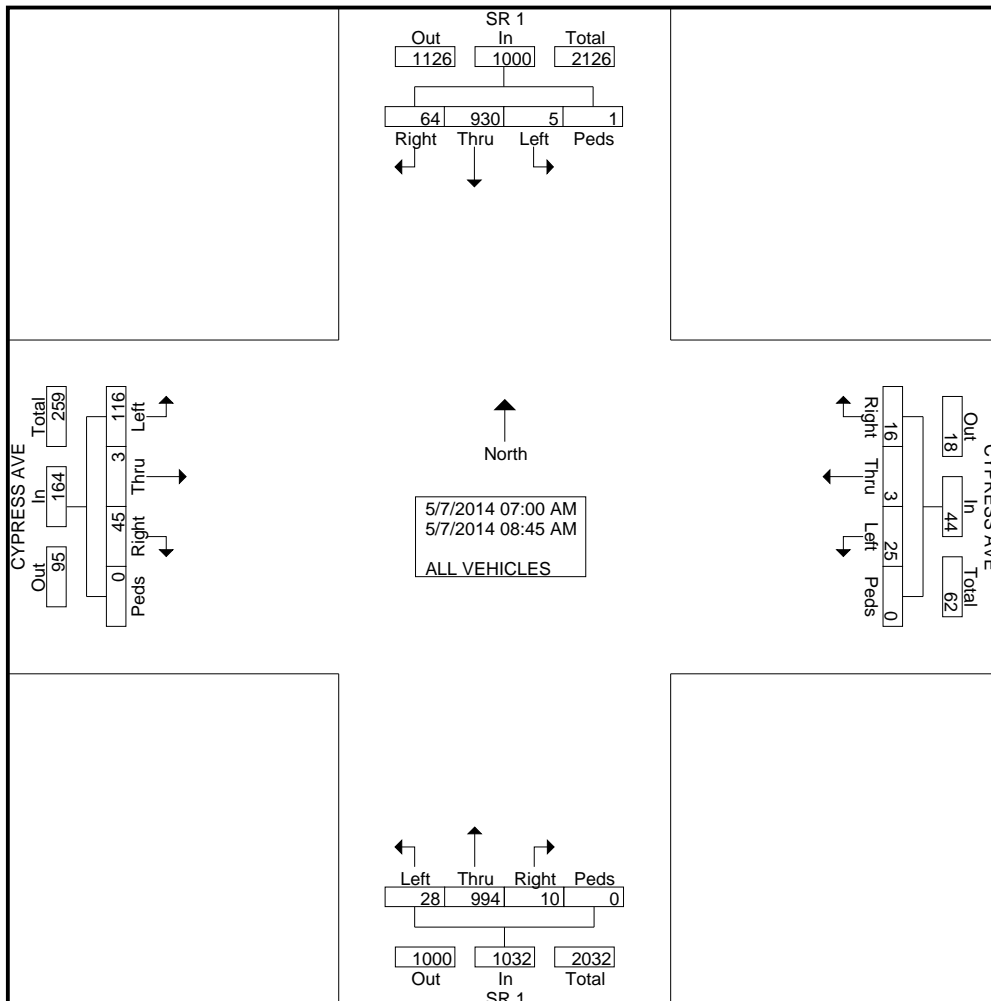
Appendix A
Intersection Traffic Counts

All Traffic Data Services
 2187 Kingsbury Cir
 Santa Clara, CA, 95054
 www.Alltrafficdata.net

File Name : #1 SR1&CYPRESSAM
 Site Code : 1
 Start Date : 5/7/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CYPRESS AVE Westbound				SR 1 Northbound				CYPRESS AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	3	110	0	0	2	0	4	0	0	134	5	0	4	1	15	0	278
07:15 AM	8	96	0	0	4	0	1	0	0	138	0	0	7	0	13	0	267
07:30 AM	8	100	0	0	1	0	1	0	1	125	2	0	12	0	13	0	263
07:45 AM	9	119	1	1	4	0	6	0	3	130	4	0	6	0	12	0	295
Total	28	425	1	1	11	0	12	0	4	527	11	0	29	1	53	0	1103
08:00 AM	4	117	2	0	0	0	4	0	1	123	2	0	2	0	13	0	268
08:15 AM	10	124	1	0	1	0	2	0	1	138	3	0	3	1	22	0	306
08:30 AM	13	138	0	0	2	1	3	0	1	98	6	0	8	0	17	0	287
08:45 AM	9	126	1	0	2	2	4	0	3	108	6	0	3	1	11	0	276
Total	36	505	4	0	5	3	13	0	6	467	17	0	16	2	63	0	1137
Grand Total	64	930	5	1	16	3	25	0	10	994	28	0	45	3	116	0	2240
Apprch %	6.4	93	0.5	0.1	36.4	6.8	56.8	0	1	96.3	2.7	0	27.4	1.8	70.7	0	
Total %	2.9	41.5	0.2	0	0.7	0.1	1.1	0	0.4	44.4	1.2	0	2	0.1	5.2	0	

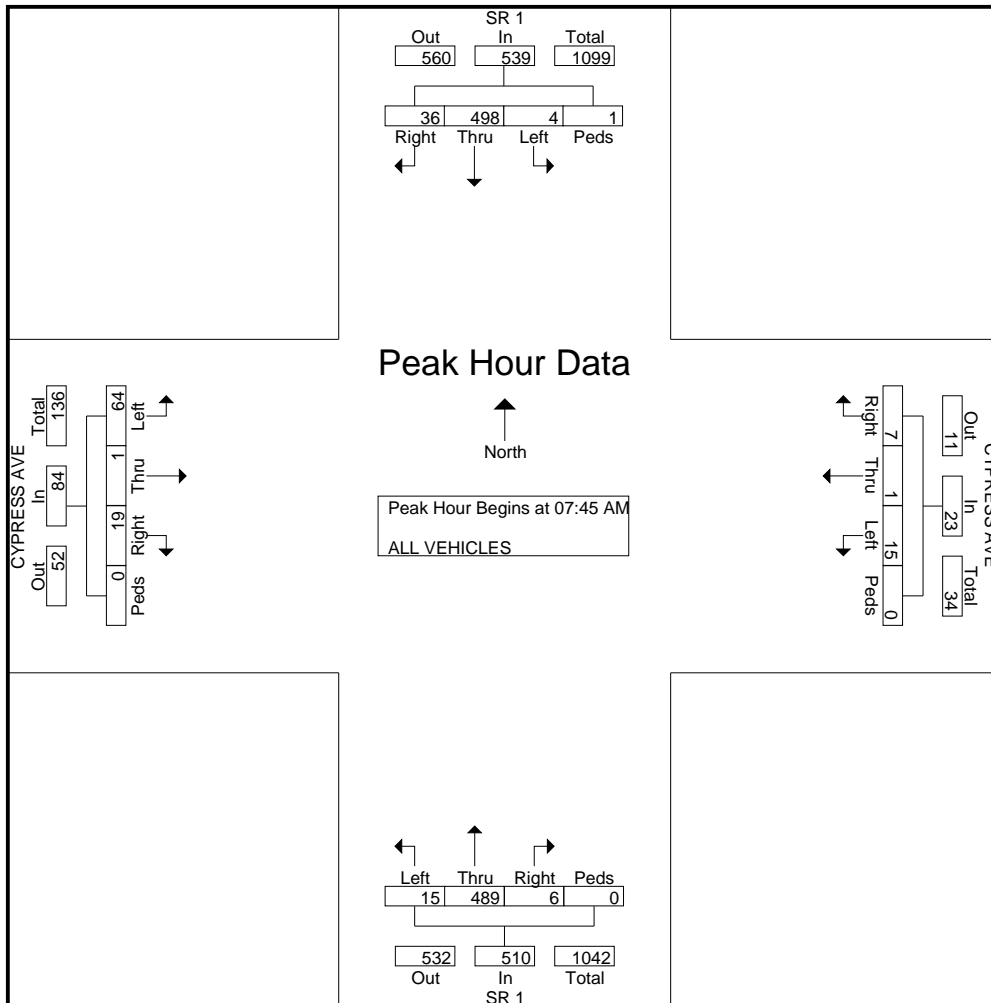


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
 www.Alltrafficdata.net

File Name : #1 SR1&CYPRESSAM
 Site Code : 1
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					CYPRESS AVE Westbound					SR 1 Northbound					CYPRESS AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	9	119	1	1	130	4	0	6	0	10	3	130	4	0	137	6	0	12	0	18	295
08:00 AM	4	117	2	0	123	0	0	4	0	4	1	123	2	0	126	2	0	13	0	15	268
08:15 AM	10	124	1	0	135	1	0	2	0	3	1	138	3	0	142	3	1	22	0	26	306
08:30 AM	13	138	0	0	151	2	1	3	0	6	1	98	6	0	105	8	0	17	0	25	287
Total Volume	36	498	4	1	539	7	1	15	0	23	6	489	15	0	510	19	1	64	0	84	1156
% App. Total	6.7	92.4	0.7	0.2		30.4	4.3	65.2	0		1.2	95.9	2.9	0		22.6	1.2	76.2	0		
PHF	.692	.902	.500	.250	.892	.438	.250	.625	.000	.575	.500	.886	.625	.000	.898	.594	.250	.727	.000	.808	.944

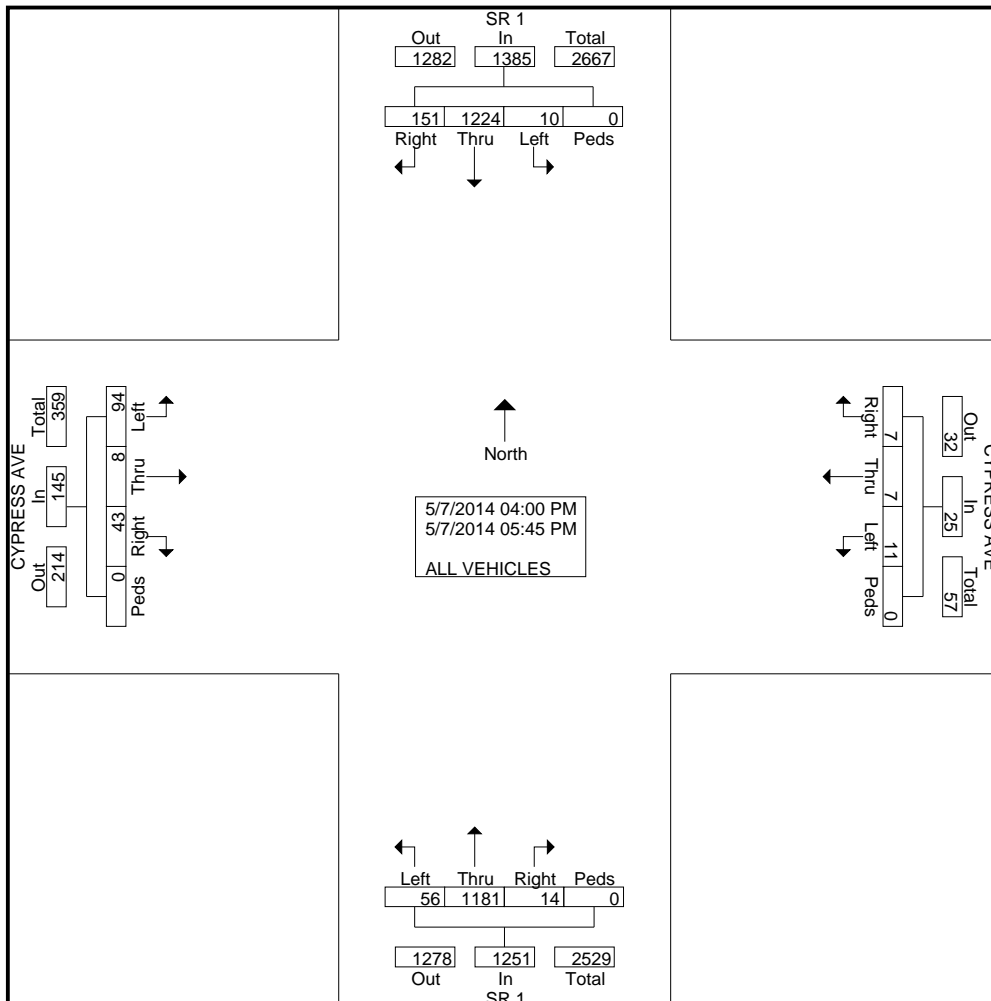


All Traffic Data Services
 2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #1 SR1&CYPRESSPM
 Site Code : 1
 Start Date : 5/7/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CYPRESS AVE Westbound				SR 1 Northbound				CYPRESS AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	17	149	0	0	1	0	0	0	2	131	4	0	5	1	14	0	324
04:15 PM	16	162	0	0	0	1	1	0	2	139	5	0	9	0	8	0	343
04:30 PM	20	131	0	0	0	3	4	0	0	152	3	0	9	1	13	0	336
04:45 PM	23	158	3	0	1	2	1	0	3	154	10	0	1	1	7	0	364
Total	76	600	3	0	2	6	6	0	7	576	22	0	24	3	42	0	1367
05:00 PM	21	170	0	0	1	0	2	0	1	154	7	0	8	1	11	0	376
05:15 PM	12	162	2	0	0	1	1	0	1	158	8	0	4	2	16	0	367
05:30 PM	19	137	4	0	3	0	0	0	2	143	11	0	3	1	14	0	337
05:45 PM	23	155	1	0	1	0	2	0	3	150	8	0	4	1	11	0	359
Total	75	624	7	0	5	1	5	0	7	605	34	0	19	5	52	0	1439
Grand Total	151	1224	10	0	7	7	11	0	14	1181	56	0	43	8	94	0	2806
Apprch %	10.9	88.4	0.7	0	28	28	44	0	1.1	94.4	4.5	0	29.7	5.5	64.8	0	
Total %	5.4	43.6	0.4	0	0.2	0.2	0.4	0	0.5	42.1	2	0	1.5	0.3	3.3	0	

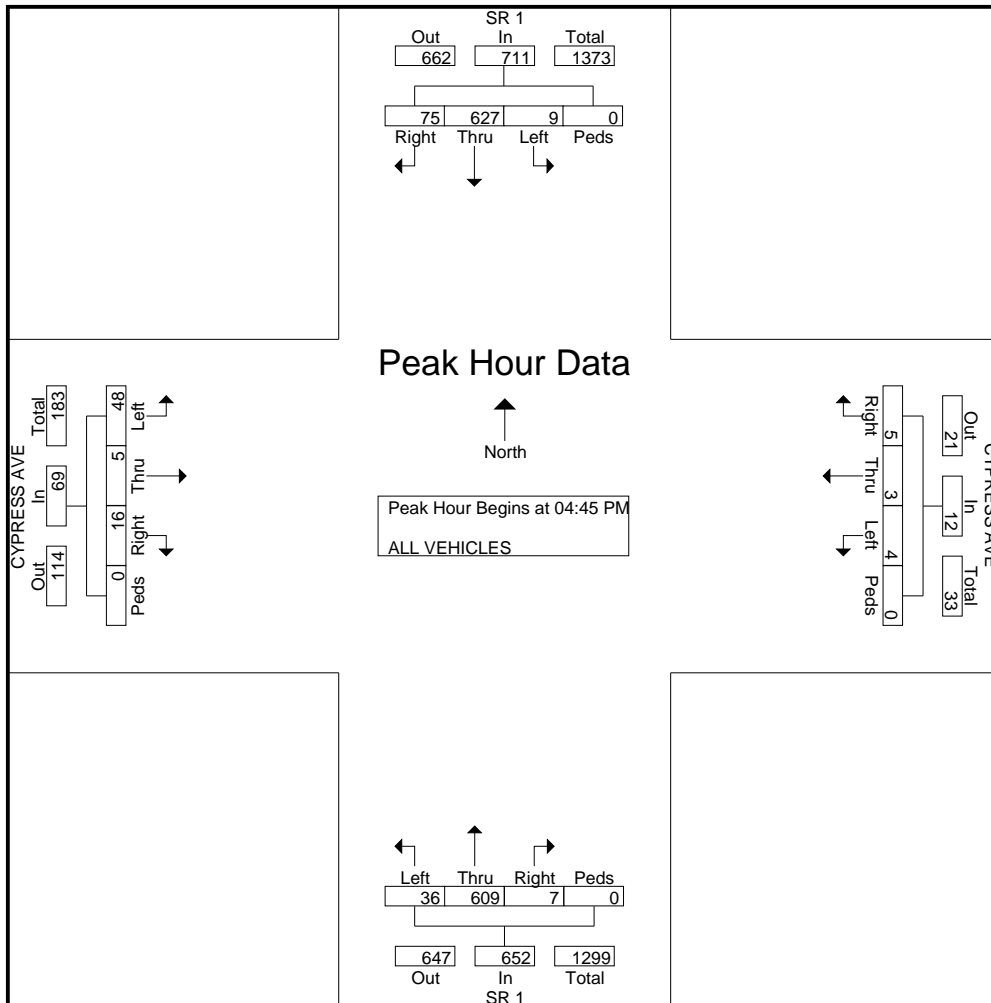


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #1 SR1&CYPRESSPM
 Site Code : 1
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					CYPRESS AVE Westbound					SR 1 Northbound					CYPRESS AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	23	158	3	0	184	1	2	1	0	4	3	154	10	0	167	1	1	7	0	9	364
05:00 PM	21	170	0	0	191	1	0	2	0	3	1	154	7	0	162	8	1	11	0	20	376
05:15 PM	12	162	2	0	176	0	1	1	0	2	1	158	8	0	167	4	2	16	0	22	367
05:30 PM	19	137	4	0	160	3	0	0	0	3	2	143	11	0	156	3	1	14	0	18	337
Total Volume	75	627	9	0	711	5	3	4	0	12	7	609	36	0	652	16	5	48	0	69	1444
% App. Total	10.5	88.2	1.3	0		41.7	25	33.3	0		1.1	93.4	5.5	0		23.2	7.2	69.6	0		
PHF	.815	.922	.563	.000	.931	.417	.375	.500	.000	.750	.583	.964	.818	.000	.976	.500	.625	.750	.000	.784	.960



All Traffic Data Services

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File Name : #2 SR1&CAPISTRANONORTHAM

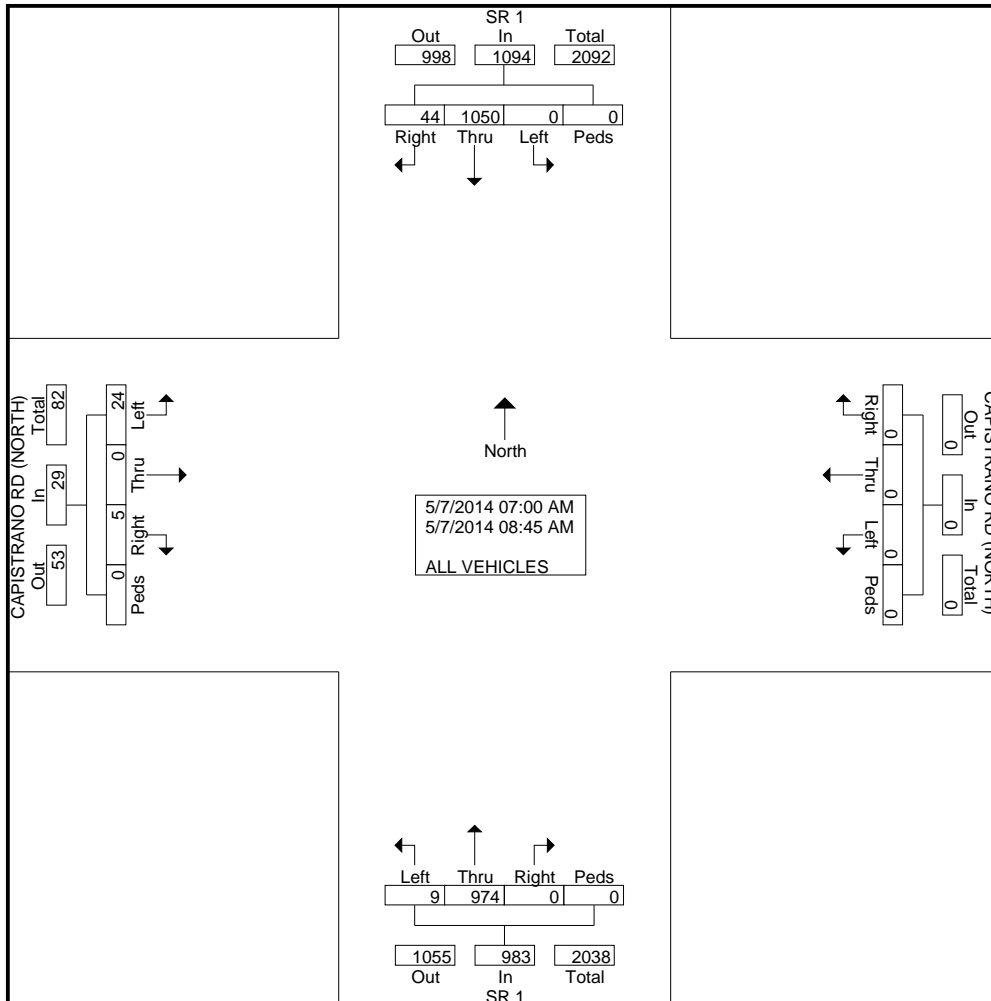
Site Code : 2

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CAPISTRANO RD (NORTH) Westbound				SR 1 Northbound				CAPISTRANO RD (NORTH) Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	3	165	0	0	0	0	0	0	0	124	0	0	1	0	2	0	295
07:15 AM	0	124	0	0	0	0	0	0	0	131	0	0	1	0	3	0	259
07:30 AM	4	107	0	0	0	0	0	0	0	117	1	0	0	0	0	0	229
07:45 AM	7	149	0	0	0	0	0	0	0	134	1	0	1	0	2	0	294
Total	14	545	0	0	0	0	0	0	0	506	2	0	3	0	7	0	1077
08:00 AM	4	125	0	0	0	0	0	0	0	115	4	0	0	0	3	0	251
08:15 AM	4	129	0	0	0	0	0	0	0	134	0	0	1	0	5	0	273
08:30 AM	8	119	0	0	0	0	0	0	0	108	2	0	0	0	4	0	241
08:45 AM	14	132	0	0	0	0	0	0	0	111	1	0	1	0	5	0	264
Total	30	505	0	0	0	0	0	0	0	468	7	0	2	0	17	0	1029
Grand Total	44	1050	0	0	0	0	0	0	0	974	9	0	5	0	24	0	2106
Apprch %	4	96	0	0	0	0	0	0	0	99.1	0.9	0	17.2	0	82.8	0	
Total %	2.1	49.9	0	0	0	0	0	0	0	46.2	0.4	0	0.2	0	1.1	0	

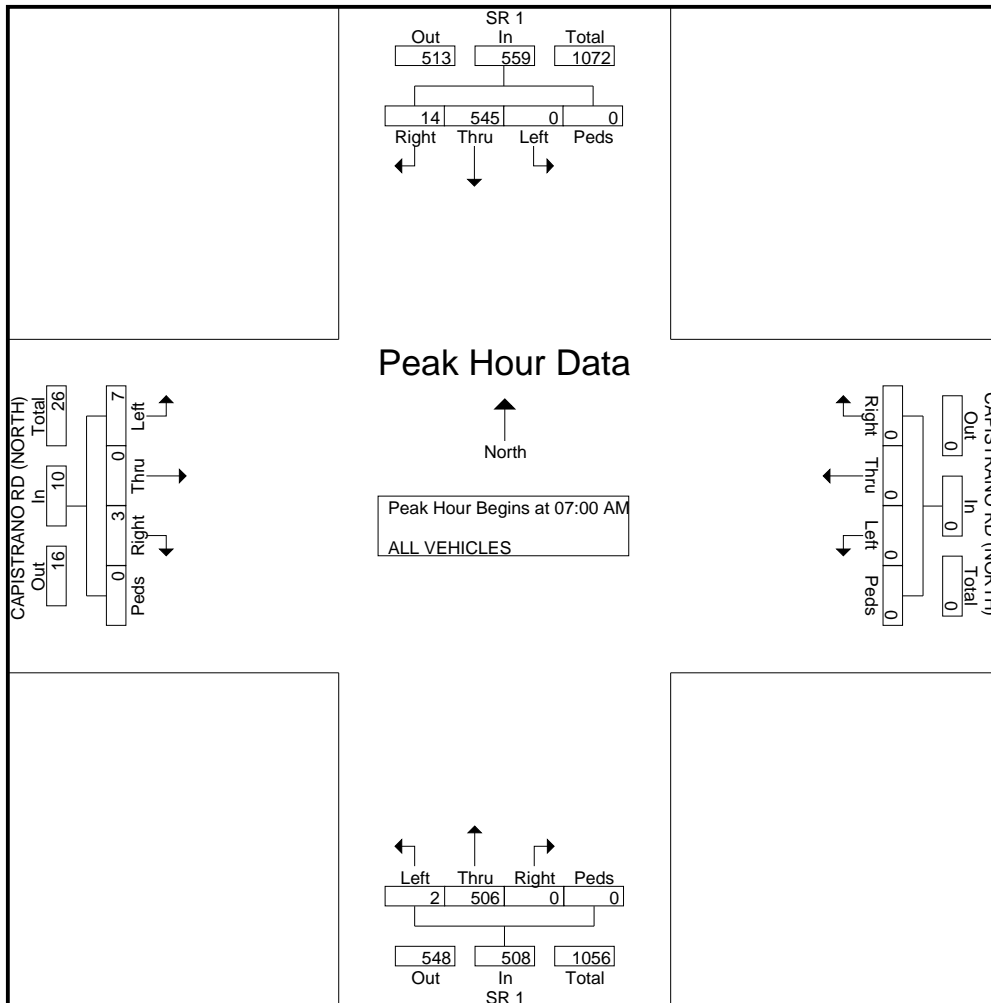


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #2 SR1&CAPISTRANONORTHAM
 Site Code : 2
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					CAPISTRANO RD (NORTH) Westbound					SR 1 Northbound					CAPISTRANO RD (NORTH) Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	3	165	0	0	168	0	0	0	0	0	0	124	0	0	124	1	0	2	0	3	295
07:15 AM	0	124	0	0	124	0	0	0	0	0	0	131	0	0	131	1	0	3	0	4	259
07:30 AM	4	107	0	0	111	0	0	0	0	0	0	117	1	0	118	0	0	0	0	0	229
07:45 AM	7	149	0	0	156	0	0	0	0	0	0	134	1	0	135	1	0	2	0	3	294
Total Volume	14	545	0	0	559	0	0	0	0	0	0	506	2	0	508	3	0	7	0	10	1077
% App. Total	2.5	97.5	0	0		0	0	0	0		0	99.6	0.4	0		30	0	70	0		
PHF	.500	.826	.000	.000	.832	.000	.000	.000	.000	.000	.000	.944	.500	.000	.941	.750	.000	.583	.000	.625	.913



All Traffic Data Services

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File Name : #2 SR1&CAPISTRANONORTHPM

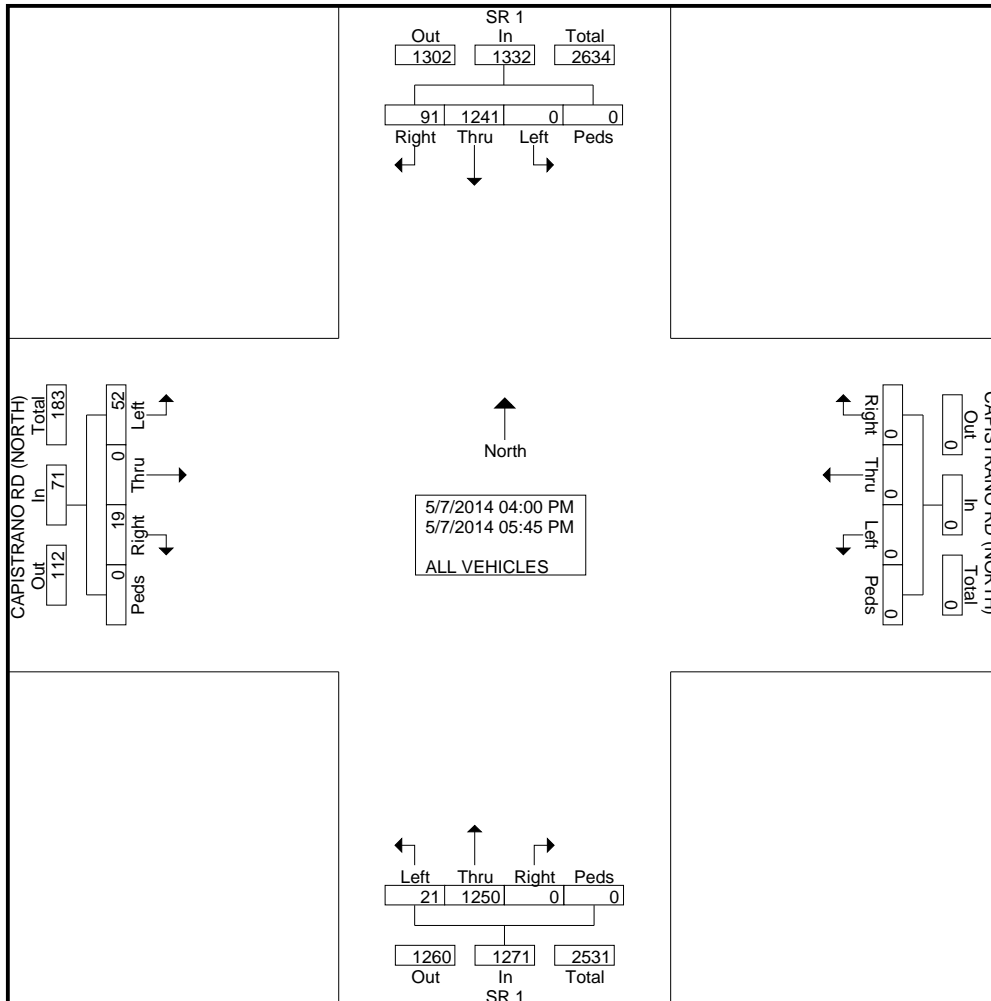
Site Code : 2

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CAPISTRANO RD (NORTH) Westbound				SR 1 Northbound				CAPISTRANO RD (NORTH) Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	13	147	0	0	0	0	0	0	0	142	4	0	1	0	5	0	312
04:15 PM	9	181	0	0	0	0	0	0	0	137	1	0	2	0	7	0	337
04:30 PM	11	128	0	0	0	0	0	0	0	167	4	0	2	0	7	0	319
04:45 PM	13	141	0	0	0	0	0	0	0	151	3	0	2	0	9	0	319
Total	46	597	0	0	0	0	0	0	0	597	12	0	7	0	28	0	1287
05:00 PM	18	173	0	0	0	0	0	0	0	172	3	0	3	0	5	0	374
05:15 PM	12	170	0	0	0	0	0	0	0	164	1	0	4	0	8	0	359
05:30 PM	3	146	0	0	0	0	0	0	0	153	2	0	2	0	6	0	312
05:45 PM	12	155	0	0	0	0	0	0	0	164	3	0	3	0	5	0	342
Total	45	644	0	0	0	0	0	0	0	653	9	0	12	0	24	0	1387
Grand Total	91	1241	0	0	0	0	0	0	0	1250	21	0	19	0	52	0	2674
Apprch %	6.8	93.2	0	0	0	0	0	0	0	98.3	1.7	0	26.8	0	73.2	0	
Total %	3.4	46.4	0	0	0	0	0	0	0	46.7	0.8	0	0.7	0	1.9	0	

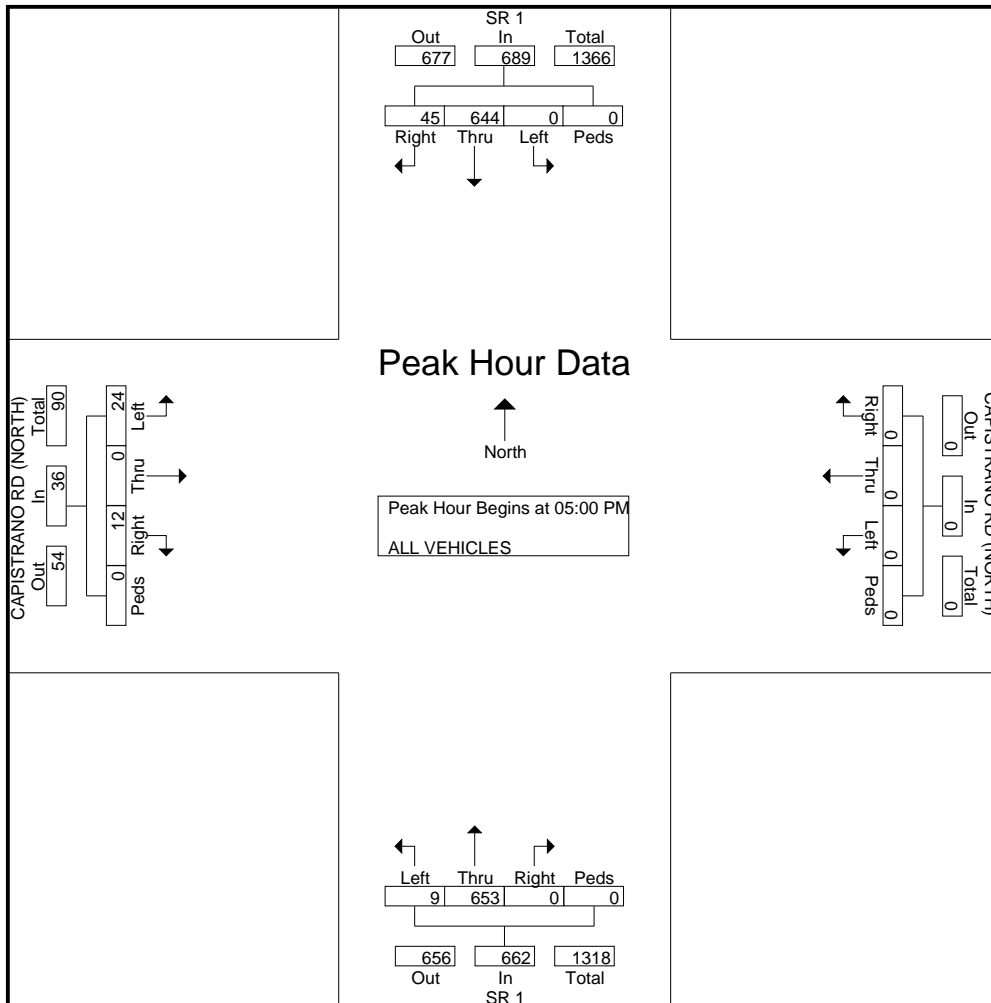


All Traffic Data Services

2187 Kingsbury Cir
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File Name : #2 SR1&CAPISTRANONORTH
 Site Code : 2
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					CAPISTRANO RD (NORTH) Westbound					SR 1 Northbound					CAPISTRANO RD (NORTH) Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	18	173	0	0	191	0	0	0	0	0	0	172	3	0	175	3	0	5	0	8	374
05:15 PM	12	170	0	0	182	0	0	0	0	0	0	164	1	0	165	4	0	8	0	12	359
05:30 PM	3	146	0	0	149	0	0	0	0	0	0	153	2	0	155	2	0	6	0	8	312
05:45 PM	12	155	0	0	167	0	0	0	0	0	0	164	3	0	167	3	0	5	0	8	342
Total Volume	45	644	0	0	689	0	0	0	0	0	0	653	9	0	662	12	0	24	0	36	1387
% App. Total	6.5	93.5	0	0		0	0	0	0		0	98.6	1.4	0		33.3	0	66.7	0		
PHF	.625	.931	.000	.000	.902	.000	.000	.000	.000	.000	.000	.949	.750	.000	.946	.750	.000	.750	.000	.750	.927



All Traffic Data Services

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File Name : #3 AIRPORT&LOSBANOSAM

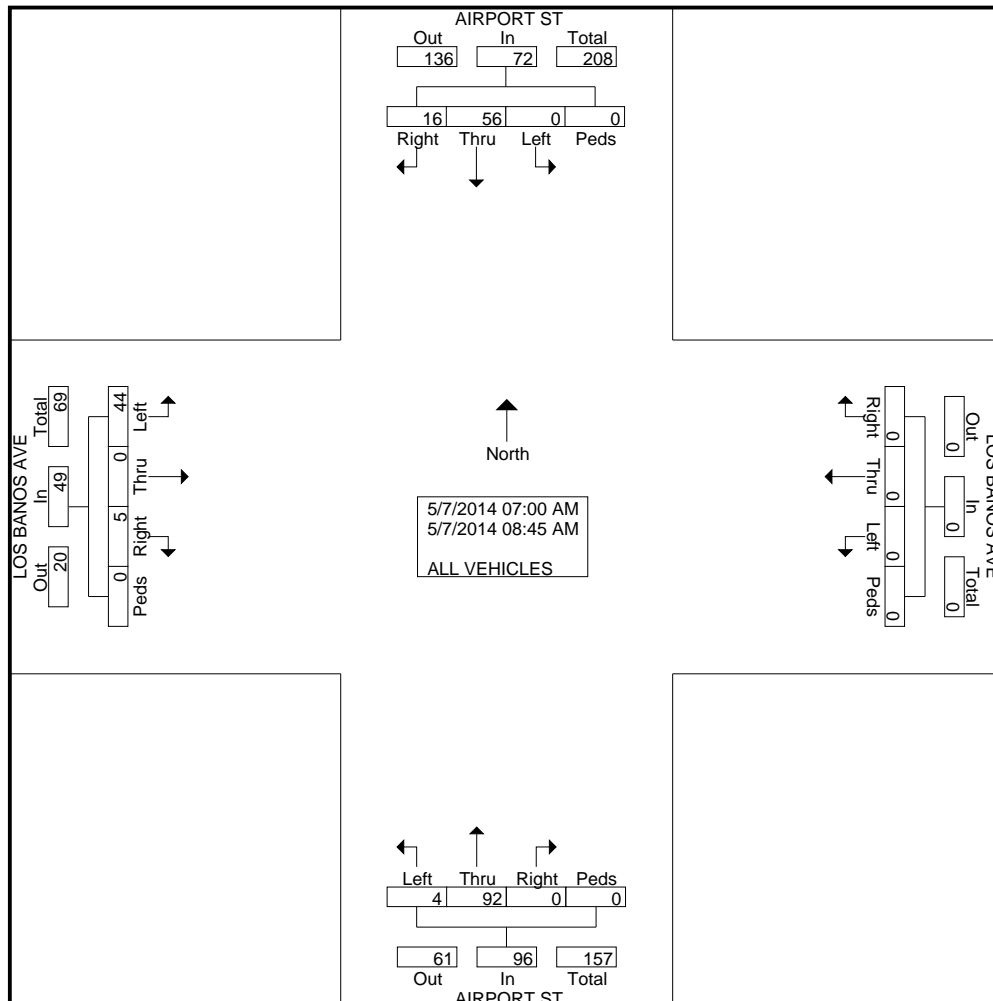
Site Code : 3

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	AIRPORT ST Southbound				LOS BANOS AVE Westbound				AIRPORT ST Northbound				LOS BANOS AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	1	3	0	0	0	0	0	0	0	11	0	0	0	0	3	0	18
07:15 AM	0	6	0	0	0	0	0	0	0	10	0	0	0	0	6	0	22
07:30 AM	3	4	0	0	0	0	0	0	0	14	0	0	0	0	6	0	27
07:45 AM	4	9	0	0	0	0	0	0	0	10	1	0	3	0	5	0	32
Total	8	22	0	0	0	0	0	0	0	45	1	0	3	0	20	0	99
08:00 AM	1	6	0	0	0	0	0	0	0	11	1	0	1	0	4	0	24
08:15 AM	2	5	0	0	0	0	0	0	0	12	0	0	0	0	8	0	27
08:30 AM	3	10	0	0	0	0	0	0	0	15	2	0	0	0	5	0	35
08:45 AM	2	13	0	0	0	0	0	0	0	9	0	0	1	0	7	0	32
Total	8	34	0	0	0	0	0	0	0	47	3	0	2	0	24	0	118
Grand Total	16	56	0	0	0	0	0	0	0	92	4	0	5	0	44	0	217
Apprch %	22.2	77.8	0	0	0	0	0	0	0	95.8	4.2	0	10.2	0	89.8	0	
Total %	7.4	25.8	0	0	0	0	0	0	0	42.4	1.8	0	2.3	0	20.3	0	

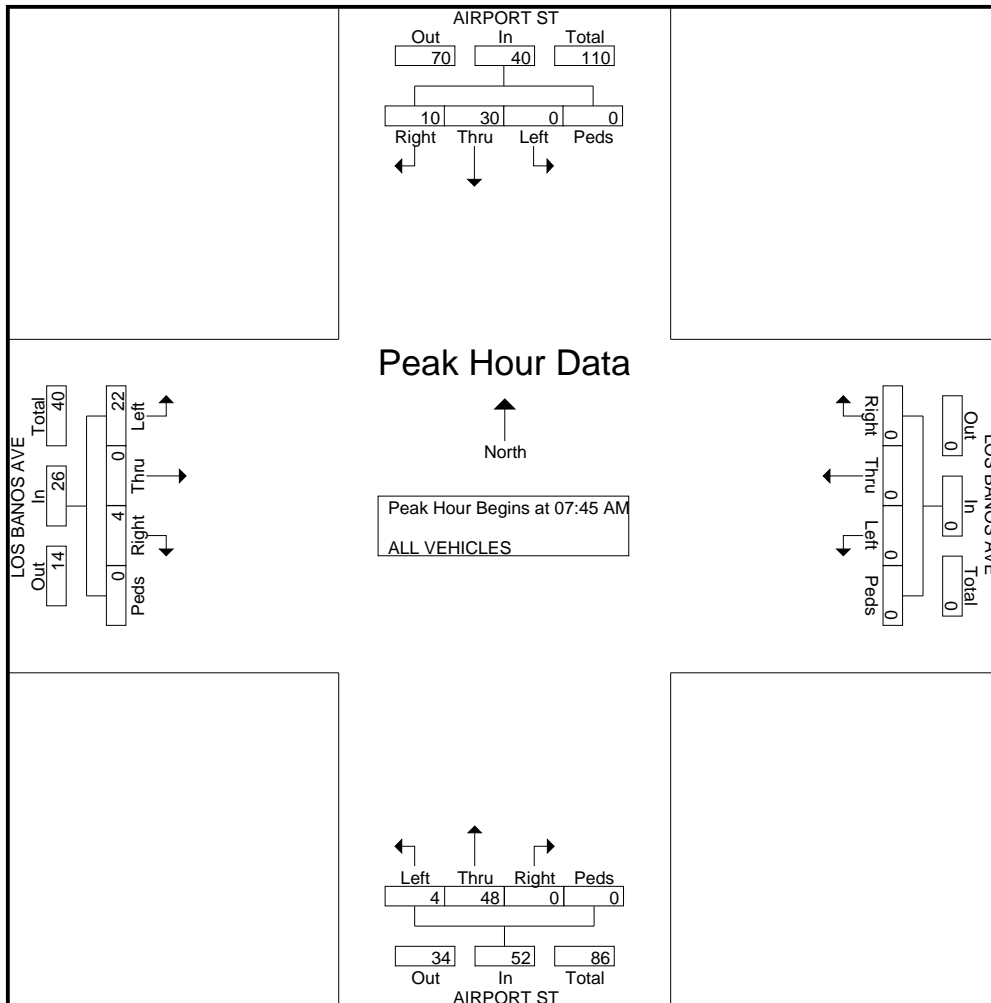


All Traffic Data Services

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File Name : #3 AIRPORT&LOSBANOSAM
 Site Code : 3
 Start Date : 5/7/2014
 Page No : 2

Start Time	AIRPORT ST Southbound					LOS BANOS AVE Westbound					AIRPORT ST Northbound					LOS BANOS AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	4	9	0	0	13	0	0	0	0	0	0	10	1	0	11	3	0	5	0	8	32
08:00 AM	1	6	0	0	7	0	0	0	0	0	0	11	1	0	12	1	0	4	0	5	24
08:15 AM	2	5	0	0	7	0	0	0	0	0	0	12	0	0	12	0	0	8	0	8	27
08:30 AM	3	10	0	0	13	0	0	0	0	0	0	15	2	0	17	0	0	5	0	5	35
Total Volume	10	30	0	0	40	0	0	0	0	0	0	48	4	0	52	4	0	22	0	26	118
% App. Total	25	75	0	0		0	0	0	0		0	92.3	7.7	0		15.4	0	84.6	0		
PHF	.625	.750	.000	.000	.769	.000	.000	.000	.000	.000	.000	.800	.500	.000	.765	.333	.000	.688	.000	.813	.843



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File Name : #3 AIRPORT&LOSBANOSPM

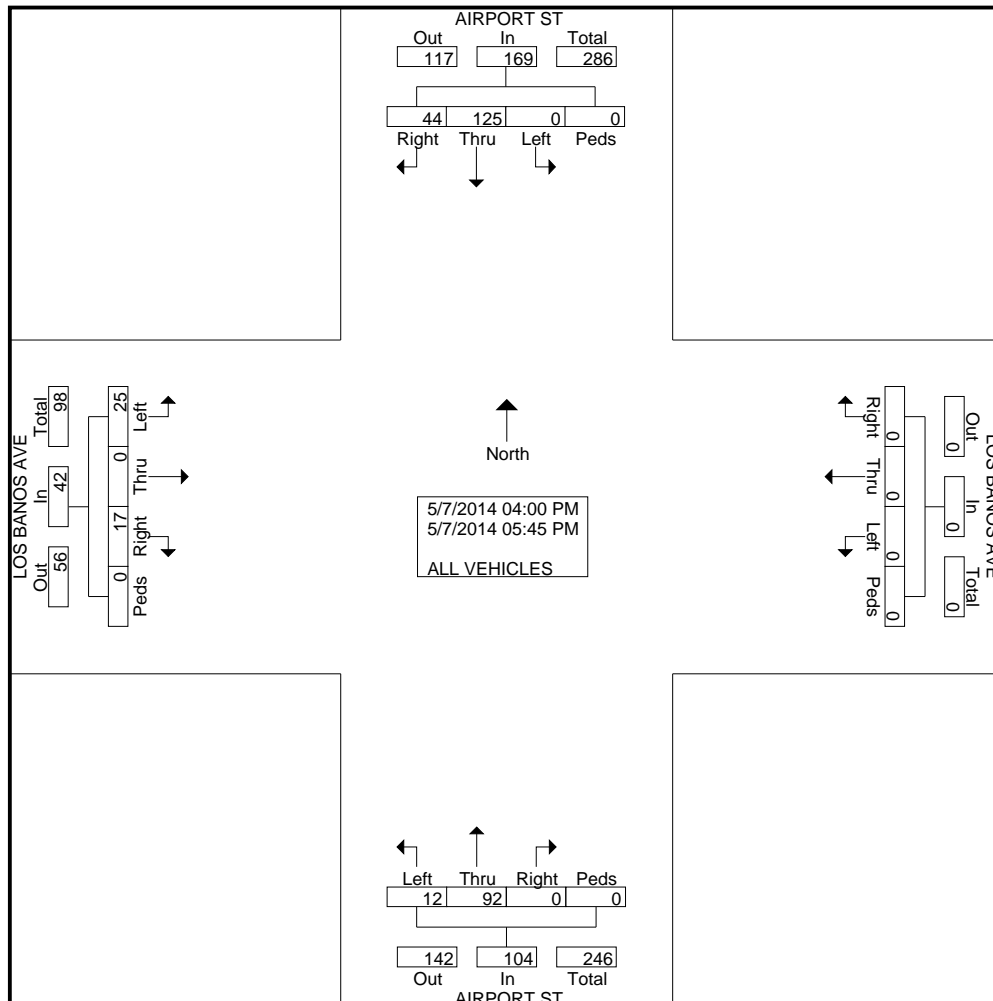
Site Code : 3

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	AIRPORT ST Southbound				LOS BANOS AVE Westbound				AIRPORT ST Northbound				LOS BANOS AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	5	13	0	0	0	0	0	0	0	13	4	0	2	0	2	0	39
04:15 PM	7	9	0	0	0	0	0	0	0	8	0	0	1	0	5	0	30
04:30 PM	4	19	0	0	0	0	0	0	0	14	0	0	3	0	3	0	43
04:45 PM	6	20	0	0	0	0	0	0	0	8	3	0	2	0	0	0	39
Total	22	61	0	0	0	0	0	0	0	43	7	0	8	0	10	0	151
05:00 PM	6	19	0	0	0	0	0	0	0	13	0	0	5	0	6	0	49
05:15 PM	4	12	0	0	0	0	0	0	0	15	3	0	0	0	5	0	39
05:30 PM	8	18	0	0	0	0	0	0	0	13	1	0	1	0	1	0	42
05:45 PM	4	15	0	0	0	0	0	0	0	8	1	0	3	0	3	0	34
Total	22	64	0	0	0	0	0	0	0	49	5	0	9	0	15	0	164
Grand Total	44	125	0	0	0	0	0	0	0	92	12	0	17	0	25	0	315
Apprch %	26	74	0	0	0	0	0	0	0	88.5	11.5	0	40.5	0	59.5	0	
Total %	14	39.7	0	0	0	0	0	0	0	29.2	3.8	0	5.4	0	7.9	0	

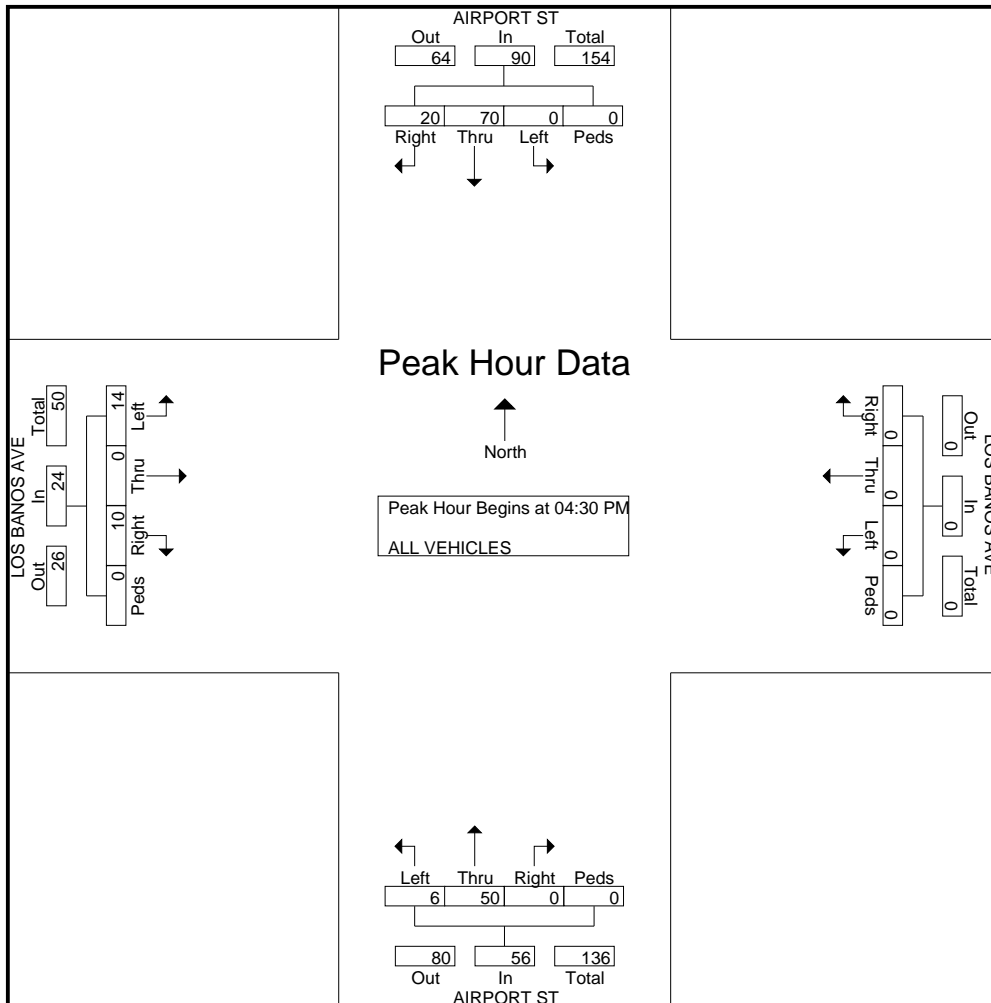


All Traffic Data Services

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File Name : #3 AIRPORT&LOSBANOSPM
 Site Code : 3
 Start Date : 5/7/2014
 Page No : 2

Start Time	AIRPORT ST Southbound					LOS BANOS AVE Westbound					AIRPORT ST Northbound					LOS BANOS AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	19	0	0	23	0	0	0	0	0	0	14	0	0	14	3	0	3	0	6	43
04:45 PM	6	20	0	0	26	0	0	0	0	0	0	8	3	0	11	2	0	0	0	2	39
05:00 PM	6	19	0	0	25	0	0	0	0	0	0	13	0	0	13	5	0	6	0	11	49
05:15 PM	4	12	0	0	16	0	0	0	0	0	0	15	3	0	18	0	0	5	0	5	39
Total Volume	20	70	0	0	90	0	0	0	0	0	0	50	6	0	56	10	0	14	0	24	170
% App. Total	22.2	77.8	0	0		0	0	0	0		0	89.3	10.7	0		41.7	0	58.3	0		
PHF	.833	.875	.000	.000	.865	.000	.000	.000	.000	.000	.000	.833	.500	.000	.778	.500	.000	.583	.000	.545	.867



All Traffic Data Services

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 Santa Clara, CA, 95054
 www.Alltrafficdata.net

File Name : #4 AIRPORT&LAGRANADAAM

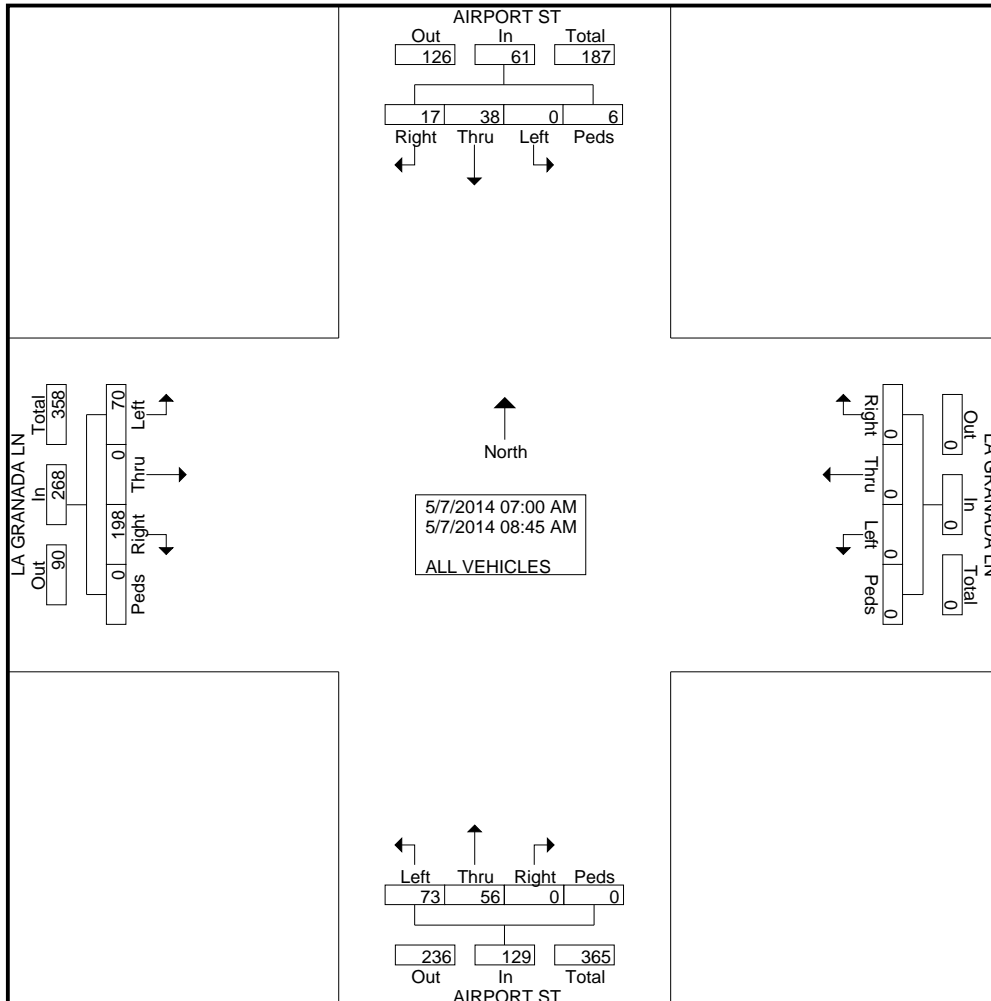
Site Code : 4

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	AIRPORT ST Southbound				LA GRANADA LN Westbound				AIRPORT ST Northbound				LA GRANADA LN Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	3	0	0	0	0	0	0	0	3	5	0	37	0	9	0	57
07:15 AM	2	3	0	1	0	0	0	0	0	3	6	0	22	0	11	0	48
07:30 AM	3	3	0	2	0	0	0	0	0	5	8	0	30	0	9	0	60
07:45 AM	2	5	0	0	0	0	0	0	0	10	12	0	49	0	5	0	83
Total	7	14	0	3	0	0	0	0	0	21	31	0	138	0	34	0	248
08:00 AM	4	5	0	0	0	0	0	0	0	4	19	0	23	0	12	0	67
08:15 AM	3	2	0	1	0	0	0	0	0	10	7	0	11	0	8	0	42
08:30 AM	3	10	0	2	0	0	0	0	0	9	4	0	7	0	10	0	45
08:45 AM	0	7	0	0	0	0	0	0	0	12	12	0	19	0	6	0	56
Total	10	24	0	3	0	0	0	0	0	35	42	0	60	0	36	0	210
Grand Total	17	38	0	6	0	0	0	0	0	56	73	0	198	0	70	0	458
Apprch %	27.9	62.3	0	9.8	0	0	0	0	0	43.4	56.6	0	73.9	0	26.1	0	
Total %	3.7	8.3	0	1.3	0	0	0	0	0	12.2	15.9	0	43.2	0	15.3	0	

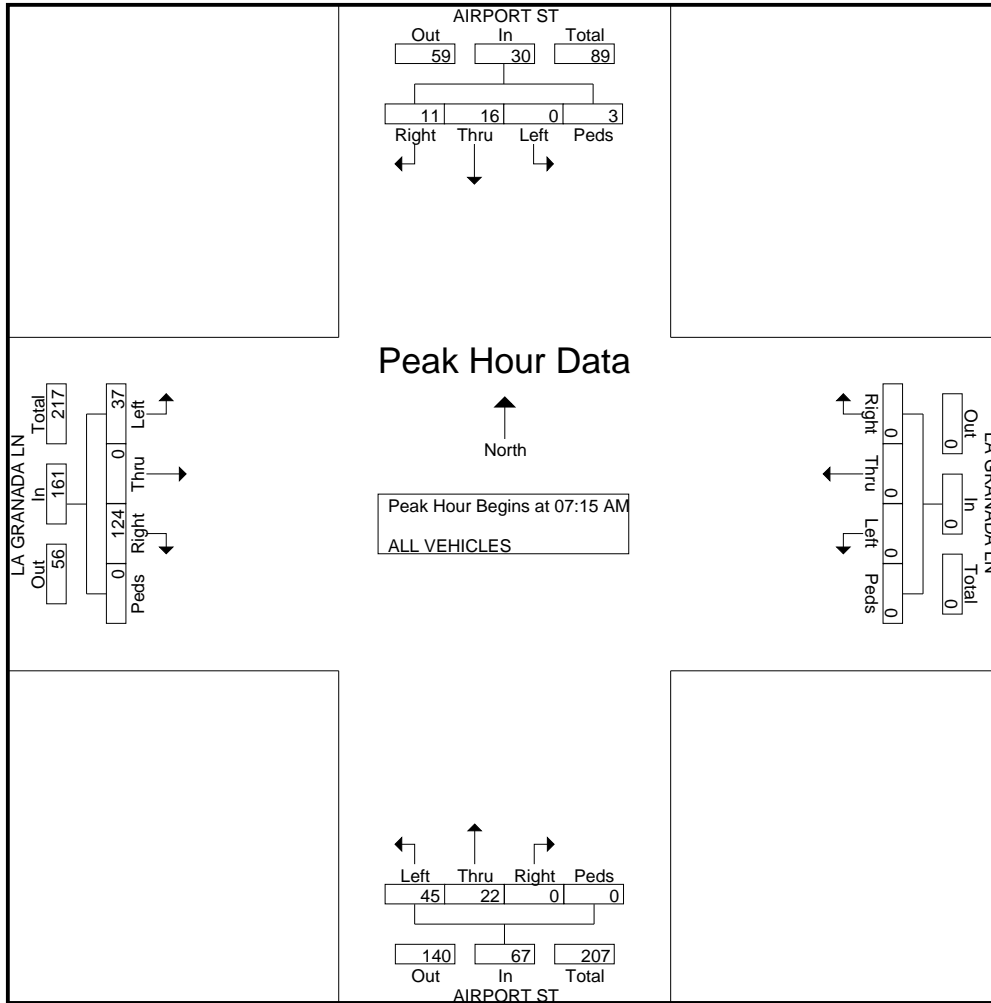


All Traffic Data Services

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File Name : #4 AIRPORT&LAGRANADAAM
 Site Code : 4
 Start Date : 5/7/2014
 Page No : 2

Start Time	AIRPORT ST Southbound					LA GRANADA LN Westbound					AIRPORT ST Northbound					LA GRANADA LN Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	2	3	0	1	6	0	0	0	0	0	0	3	6	0	9	22	0	11	0	33	48
07:30 AM	3	3	0	2	8	0	0	0	0	0	0	5	8	0	13	30	0	9	0	39	60
07:45 AM	2	5	0	0	7	0	0	0	0	0	0	10	12	0	22	49	0	5	0	54	83
08:00 AM	4	5	0	0	9	0	0	0	0	0	0	4	19	0	23	23	0	12	0	35	67
Total Volume	11	16	0	3	30	0	0	0	0	0	0	22	45	0	67	124	0	37	0	161	258
% App. Total	36.7	53.3	0	10		0	0	0	0		0	32.8	67.2	0		77	0	23	0		
PHF	.688	.800	.000	.375	.833	.000	.000	.000	.000	.000	.000	.550	.592	.000	.728	.633	.000	.771	.000	.745	.777



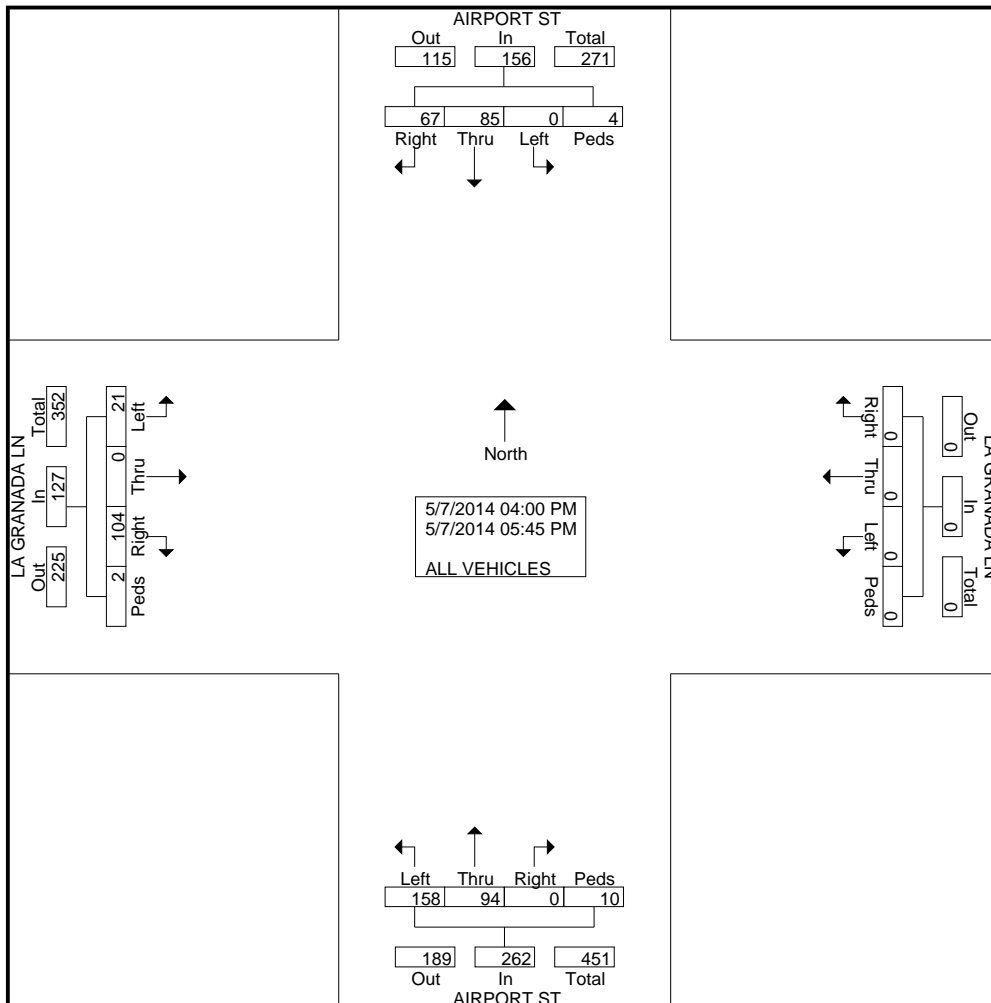
All Traffic Data Services

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File Name : #4 AIRPORT&LAGRANADAPM
 Site Code : 4
 Start Date : 5/7/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	AIRPORT ST Southbound				LA GRANADA LN Westbound				AIRPORT ST Northbound				LA GRANADA LN Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	8	9	0	0	0	0	0	0	0	11	15	0	7	0	3	0	53
04:15 PM	5	9	0	0	0	0	0	0	0	10	26	0	11	0	4	0	65
04:30 PM	6	14	0	2	0	0	0	0	0	10	19	9	16	0	3	0	79
04:45 PM	19	13	0	0	0	0	0	0	0	13	20	0	14	0	0	0	79
Total	38	45	0	2	0	0	0	0	0	44	80	9	48	0	10	0	276
05:00 PM	6	11	0	0	0	0	0	0	0	14	20	0	9	0	1	1	62
05:15 PM	8	11	0	0	0	0	0	0	0	16	14	0	11	0	5	1	66
05:30 PM	9	11	0	2	0	0	0	0	0	12	19	0	21	0	4	0	78
05:45 PM	6	7	0	0	0	0	0	0	0	8	25	1	15	0	1	0	63
Total	29	40	0	2	0	0	0	0	0	50	78	1	56	0	11	2	269
Grand Total	67	85	0	4	0	0	0	0	0	94	158	10	104	0	21	2	545
Apprch %	42.9	54.5	0	2.6	0	0	0	0	0	35.9	60.3	3.8	81.9	0	16.5	1.6	
Total %	12.3	15.6	0	0.7	0	0	0	0	0	17.2	29	1.8	19.1	0	3.9	0.4	

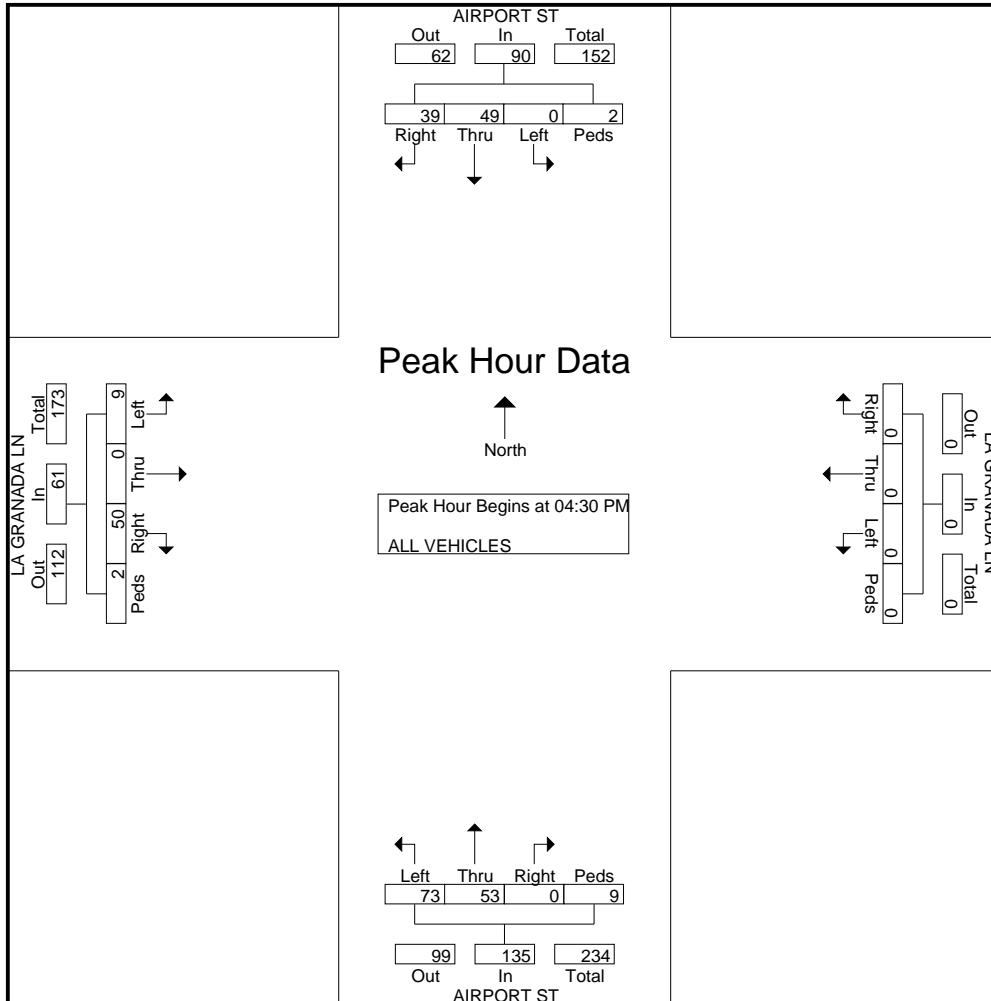


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File Name : #4 AIRPORT&LAGRANADAPM
 Site Code : 4
 Start Date : 5/7/2014
 Page No : 2

Start Time	AIRPORT ST Southbound					LA GRANADA LN Westbound					AIRPORT ST Northbound					LA GRANADA LN Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	6	14	0	2	22	0	0	0	0	0	0	10	19	9	38	16	0	3	0	19	79
04:45 PM	19	13	0	0	32	0	0	0	0	0	0	13	20	0	33	14	0	0	0	14	79
05:00 PM	6	11	0	0	17	0	0	0	0	0	0	14	20	0	34	9	0	1	1	11	62
05:15 PM	8	11	0	0	19	0	0	0	0	0	0	16	14	0	30	11	0	5	1	17	66
Total Volume	39	49	0	2	90	0	0	0	0	0	0	53	73	9	135	50	0	9	2	61	286
% App. Total	43.3	54.4	0	2.2		0	0	0	0		0	39.3	54.1	6.7		82	0	14.8	3.3		
PHF	.513	.875	.000	.250	.703	.000	.000	.000	.000	.000	.000	.828	.913	.250	.888	.781	.000	.450	.500	.803	.905



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File Name : #5 AIRPORT&STANFORDAM

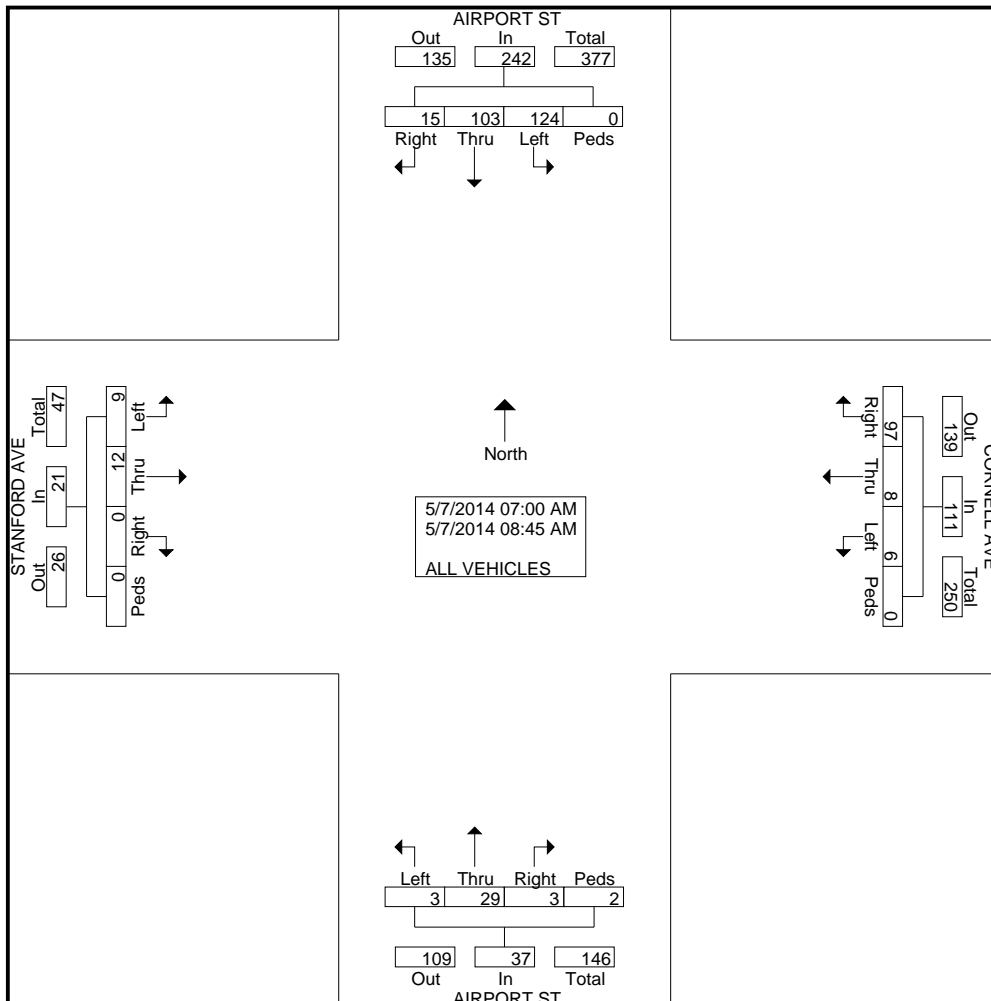
Site Code : 5

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	AIRPORT ST Southbound				CORNELL AVE Westbound				AIRPORT ST Northbound				STANFORD AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	2	19	23	0	8	0	4	0	0	5	0	0	0	2	0	0	63
07:15 AM	1	12	11	0	3	1	0	0	0	2	0	0	0	1	1	0	32
07:30 AM	0	15	21	0	10	2	0	0	0	2	1	0	0	2	2	0	55
07:45 AM	3	22	30	0	16	2	0	0	1	2	1	0	0	0	5	0	82
Total	6	68	85	0	37	5	4	0	1	11	2	0	0	5	8	0	232
08:00 AM	0	14	11	0	20	0	0	0	1	3	0	0	0	0	0	0	49
08:15 AM	1	9	5	0	13	0	1	0	0	5	0	1	0	0	0	0	35
08:30 AM	2	7	7	0	4	1	1	0	1	9	1	0	0	4	0	0	37
08:45 AM	6	5	16	0	23	2	0	0	0	1	0	1	0	3	1	0	58
Total	9	35	39	0	60	3	2	0	2	18	1	2	0	7	1	0	179
Grand Total	15	103	124	0	97	8	6	0	3	29	3	2	0	12	9	0	411
Apprch %	6.2	42.6	51.2	0	87.4	7.2	5.4	0	8.1	78.4	8.1	5.4	0	57.1	42.9	0	
Total %	3.6	25.1	30.2	0	23.6	1.9	1.5	0	0.7	7.1	0.7	0.5	0	2.9	2.2	0	

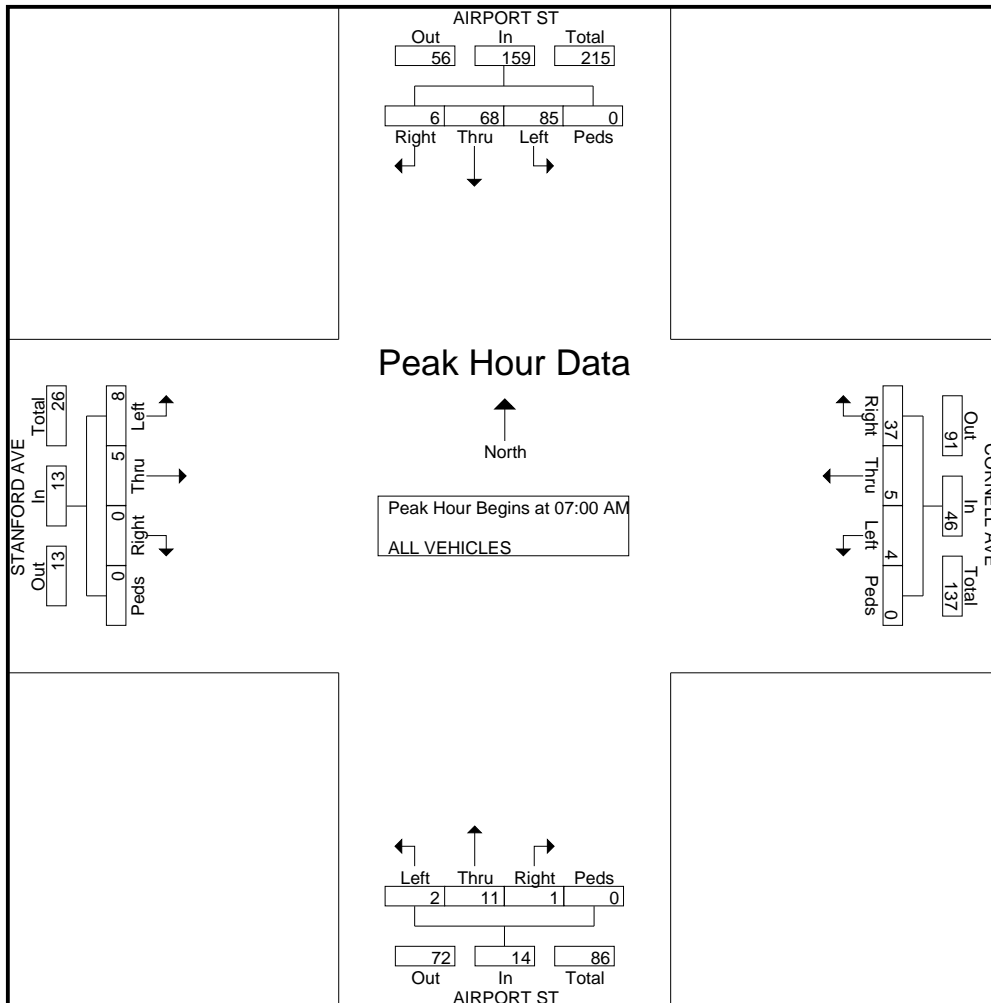


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File Name : #5 AIRPORT&STANFORDAM
 Site Code : 5
 Start Date : 5/7/2014
 Page No : 2

Start Time	AIRPORT ST Southbound					CORNELL AVE Westbound					AIRPORT ST Northbound					STANFORD AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	2	19	23	0	44	8	0	4	0	12	0	5	0	0	5	0	2	0	0	2	63
07:15 AM	1	12	11	0	24	3	1	0	0	4	0	2	0	0	2	0	1	1	0	2	32
07:30 AM	0	15	21	0	36	10	2	0	0	12	0	2	1	0	3	0	2	2	0	4	55
07:45 AM	3	22	30	0	55	16	2	0	0	18	1	2	1	0	4	0	0	5	0	5	82
Total Volume	6	68	85	0	159	37	5	4	0	46	1	11	2	0	14	0	5	8	0	13	232
% App. Total	3.8	42.8	53.5	0		80.4	10.9	8.7	0		7.1	78.6	14.3	0		0	38.5	61.5	0		
PHF	.500	.773	.708	.000	.723	.578	.625	.250	.000	.639	.250	.550	.500	.000	.700	.000	.625	.400	.000	.650	.707



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File Name : #5 AIRPORT&STANFORDPM

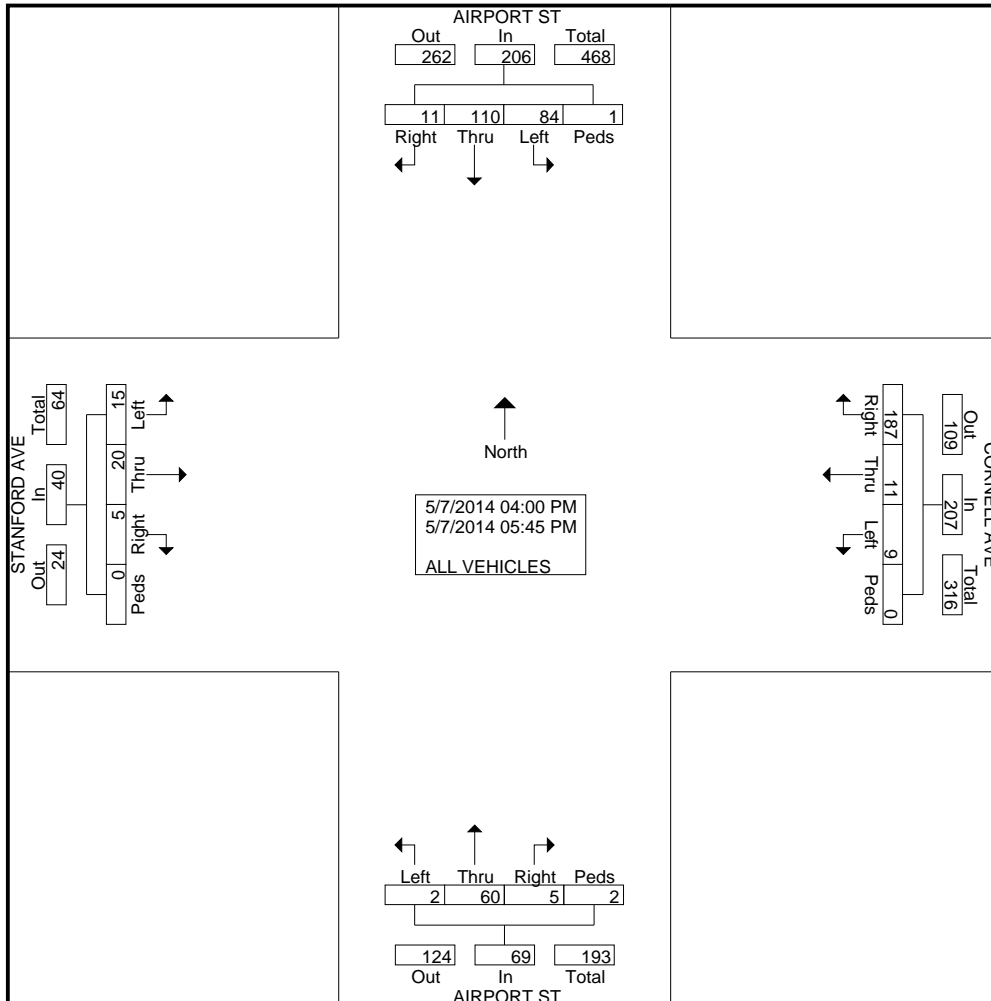
Site Code : 5

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	AIRPORT ST Southbound				CORNELL AVE Westbound				AIRPORT ST Northbound				STANFORD AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	2	11	5	0	19	3	1	0	0	8	0	0	1	2	1	0	53
04:15 PM	2	13	5	1	24	2	1	0	0	12	0	0	0	1	1	0	62
04:30 PM	2	14	15	0	22	3	2	0	1	7	1	0	0	3	2	0	72
04:45 PM	2	13	13	0	21	0	2	0	0	9	0	1	0	1	1	0	63
Total	8	51	38	1	86	8	6	0	1	36	1	1	1	7	5	0	250
05:00 PM	0	13	11	0	26	1	1	0	0	5	0	1	0	3	4	0	65
05:15 PM	0	13	13	0	19	1	1	0	1	9	1	0	2	4	4	0	68
05:30 PM	2	21	13	0	24	0	1	0	1	6	0	0	1	4	1	0	74
05:45 PM	1	12	9	0	32	1	0	0	2	4	0	0	1	2	1	0	65
Total	3	59	46	0	101	3	3	0	4	24	1	1	4	13	10	0	272
Grand Total	11	110	84	1	187	11	9	0	5	60	2	2	5	20	15	0	522
Apprch %	5.3	53.4	40.8	0.5	90.3	5.3	4.3	0	7.2	87	2.9	2.9	12.5	50	37.5	0	
Total %	2.1	21.1	16.1	0.2	35.8	2.1	1.7	0	1	11.5	0.4	0.4	1	3.8	2.9	0	

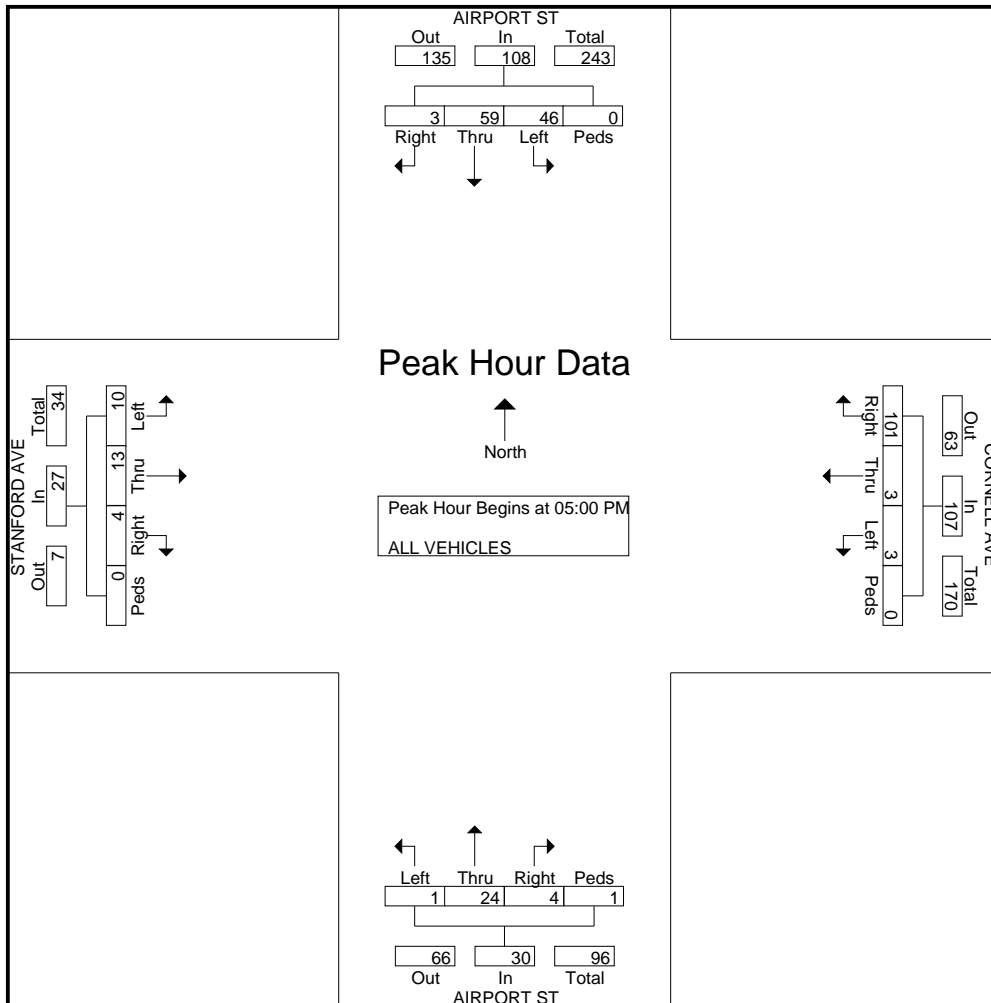


All Traffic Data Services

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File Name : #5 AIRPORT&STANFORDPM
 Site Code : 5
 Start Date : 5/7/2014
 Page No : 2

Start Time	AIRPORT ST Southbound					CORNELL AVE Westbound					AIRPORT ST Northbound					STANFORD AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	13	11	0	24	26	1	1	0	28	0	5	0	1	6	0	3	4	0	7	65
05:15 PM	0	13	13	0	26	19	1	1	0	21	1	9	1	0	11	2	4	4	0	10	68
05:30 PM	2	21	13	0	36	24	0	1	0	25	1	6	0	0	7	1	4	1	0	6	74
05:45 PM	1	12	9	0	22	32	1	0	0	33	2	4	0	0	6	1	2	1	0	4	65
Total Volume	3	59	46	0	108	101	3	3	0	107	4	24	1	1	30	4	13	10	0	27	272
% App. Total	2.8	54.6	42.6	0		94.4	2.8	2.8	0		13.3	80	3.3	3.3		14.8	48.1	37	0		
PHF	.375	.702	.885	.000	.750	.789	.750	.750	.000	.811	.500	.667	.250	.250	.682	.500	.813	.625	.000	.675	.919



All Traffic Data Services

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File Name : #6 BROADWAY&PROSPECTAM

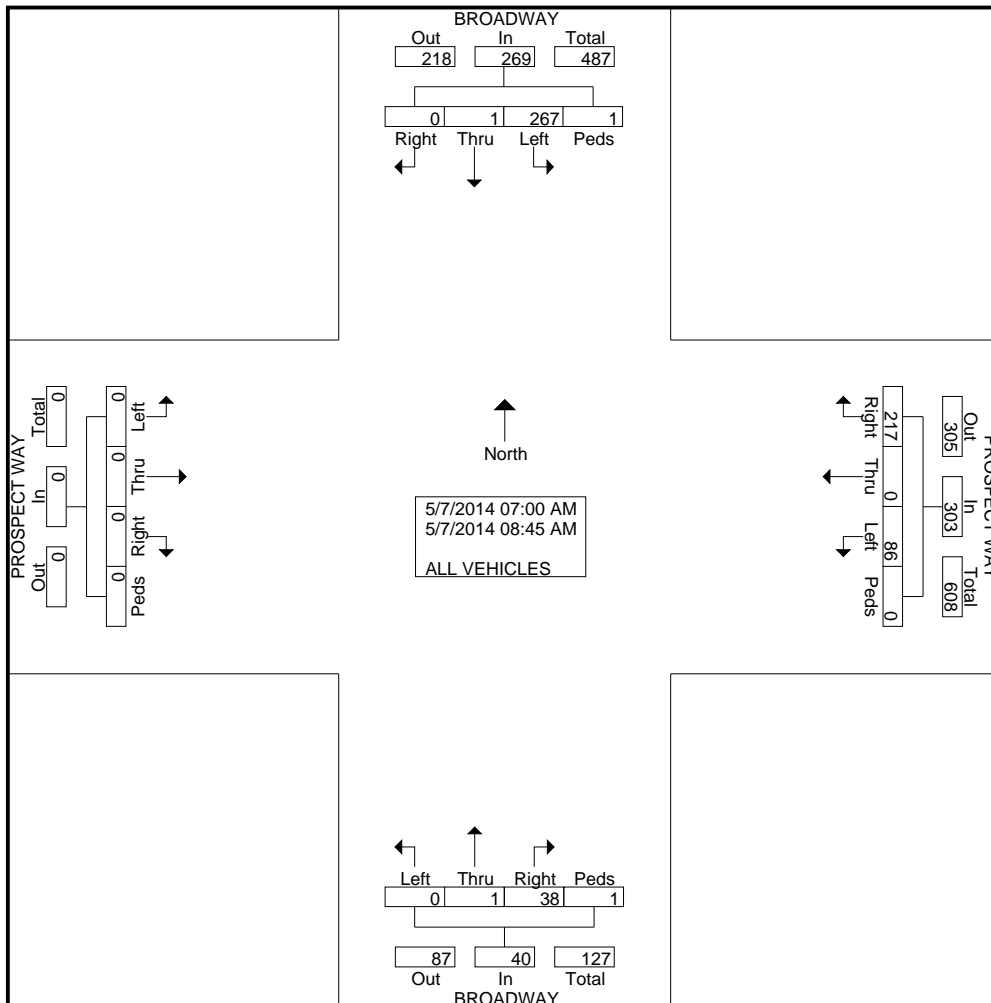
Site Code : 6

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	BROADWAY Southbound				PROSPECT WAY Westbound				BROADWAY Northbound				PROSPECT WAY Eastbound				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
07:00 AM	0	0	49	0	19	0	4	0	4	0	0	0	0	0	0	0	0	76
07:15 AM	0	0	26	0	15	0	3	0	2	0	0	0	0	0	0	0	0	46
07:30 AM	0	1	37	0	18	0	8	0	4	0	0	0	0	0	0	0	0	68
07:45 AM	0	0	59	0	38	0	14	0	6	0	0	0	0	0	0	0	0	117
Total	0	1	171	0	90	0	29	0	16	0	0	0	0	0	0	0	0	307
08:00 AM	0	0	32	0	39	0	14	0	3	0	0	1	0	0	0	0	0	89
08:15 AM	0	0	16	1	29	0	11	0	5	0	0	0	0	0	0	0	0	62
08:30 AM	0	0	23	0	21	0	17	0	6	0	0	0	0	0	0	0	0	67
08:45 AM	0	0	25	0	38	0	15	0	8	1	0	0	0	0	0	0	0	87
Total	0	0	96	1	127	0	57	0	22	1	0	1	0	0	0	0	0	305
Grand Total	0	1	267	1	217	0	86	0	38	1	0	1	0	0	0	0	0	612
Apprch %	0	0.4	99.3	0.4	71.6	0	28.4	0	95	2.5	0	2.5	0	0	0	0	0	
Total %	0	0.2	43.6	0.2	35.5	0	14.1	0	6.2	0.2	0	0.2	0	0	0	0	0	

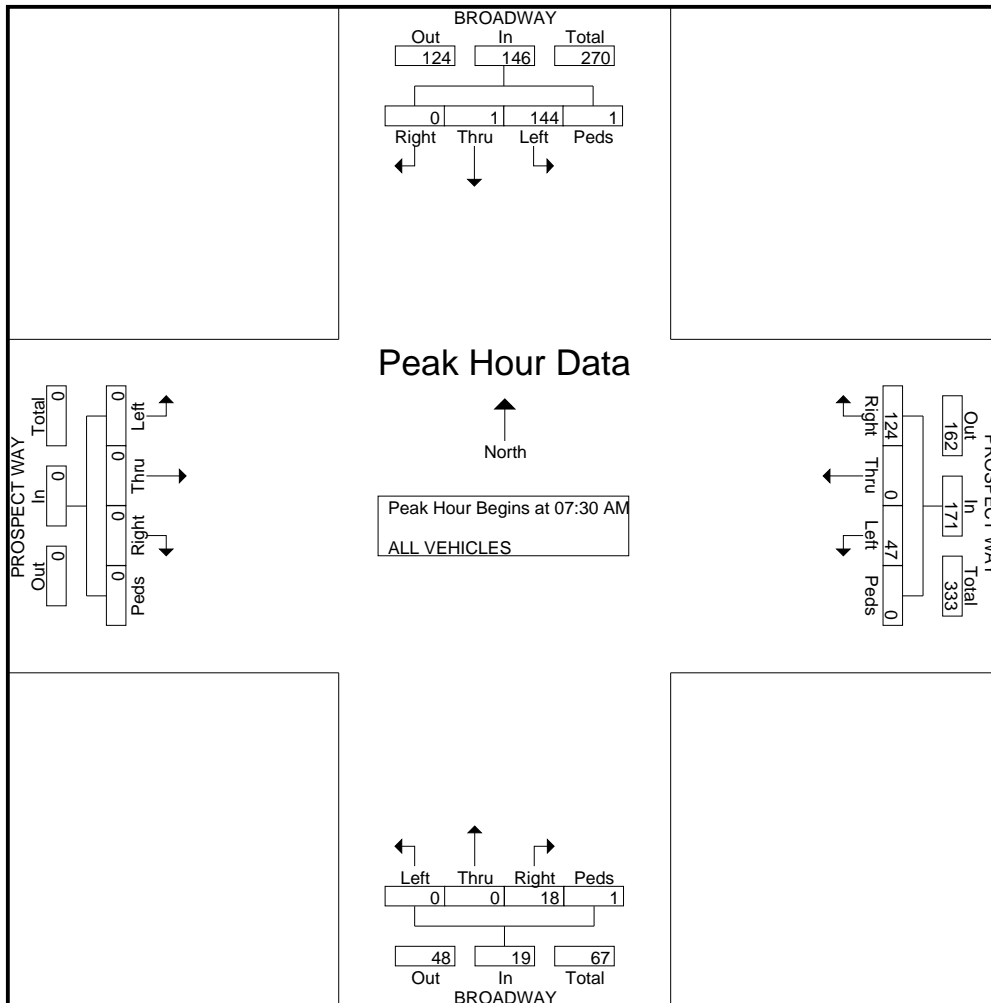


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File Name : #6 BROADWAY&PROSPECTAM
 Site Code : 6
 Start Date : 5/7/2014
 Page No : 2

Start Time	BROADWAY Southbound					PROSPECT WAY Westbound					BROADWAY Northbound					PROSPECT WAY Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	37	0	38	18	0	8	0	26	4	0	0	0	4	0	0	0	0	0	68
07:45 AM	0	0	59	0	59	38	0	14	0	52	6	0	0	0	6	0	0	0	0	0	117
08:00 AM	0	0	32	0	32	39	0	14	0	53	3	0	0	1	4	0	0	0	0	0	89
08:15 AM	0	0	16	1	17	29	0	11	0	40	5	0	0	0	5	0	0	0	0	0	62
Total Volume	0	1	144	1	146	124	0	47	0	171	18	0	0	1	19	0	0	0	0	0	336
% App. Total	0	0.7	98.6	0.7		72.5	0	27.5	0		94.7	0	0	5.3		0	0	0	0		
PHF	.000	.250	.610	.250	.619	.795	.000	.839	.000	.807	.750	.000	.000	.250	.792	.000	.000	.000	.000	.000	.718



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File Name : #6 BROADWAY&PROSPECTPM

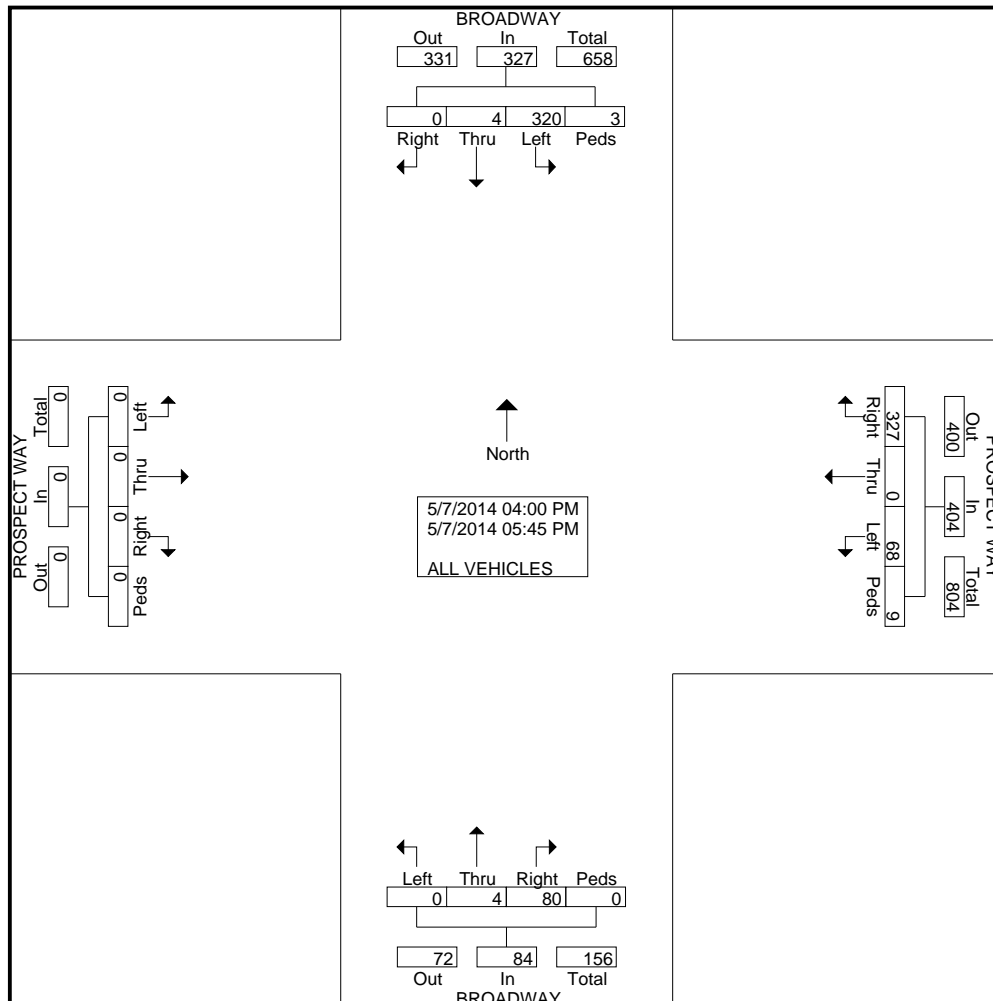
Site Code : 6

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	BROADWAY Southbound				PROSPECT WAY Westbound				BROADWAY Northbound				PROSPECT WAY Eastbound				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
04:00 PM	0	0	27	0	36	0	8	2	7	1	0	0	0	0	0	0	0	81
04:15 PM	0	0	35	0	52	0	6	0	12	0	0	0	0	0	0	0	0	105
04:30 PM	0	0	52	1	39	0	7	0	14	0	0	0	0	0	0	0	0	113
04:45 PM	0	0	33	0	41	0	13	6	7	0	0	0	0	0	0	0	0	100
Total	0	0	147	1	168	0	34	8	40	1	0	0	0	0	0	0	0	399
05:00 PM	0	1	27	0	44	0	7	0	16	2	0	0	0	0	0	0	0	97
05:15 PM	0	1	50	0	41	0	14	1	10	0	0	0	0	0	0	0	0	117
05:30 PM	0	0	55	2	33	0	5	0	9	0	0	0	0	0	0	0	0	104
05:45 PM	0	2	41	0	41	0	8	0	5	1	0	0	0	0	0	0	0	98
Total	0	4	173	2	159	0	34	1	40	3	0	0	0	0	0	0	0	416
Grand Total	0	4	320	3	327	0	68	9	80	4	0	0	0	0	0	0	0	815
Apprch %	0	1.2	97.9	0.9	80.9	0	16.8	2.2	95.2	4.8	0	0	0	0	0	0	0	
Total %	0	0.5	39.3	0.4	40.1	0	8.3	1.1	9.8	0.5	0	0	0	0	0	0	0	

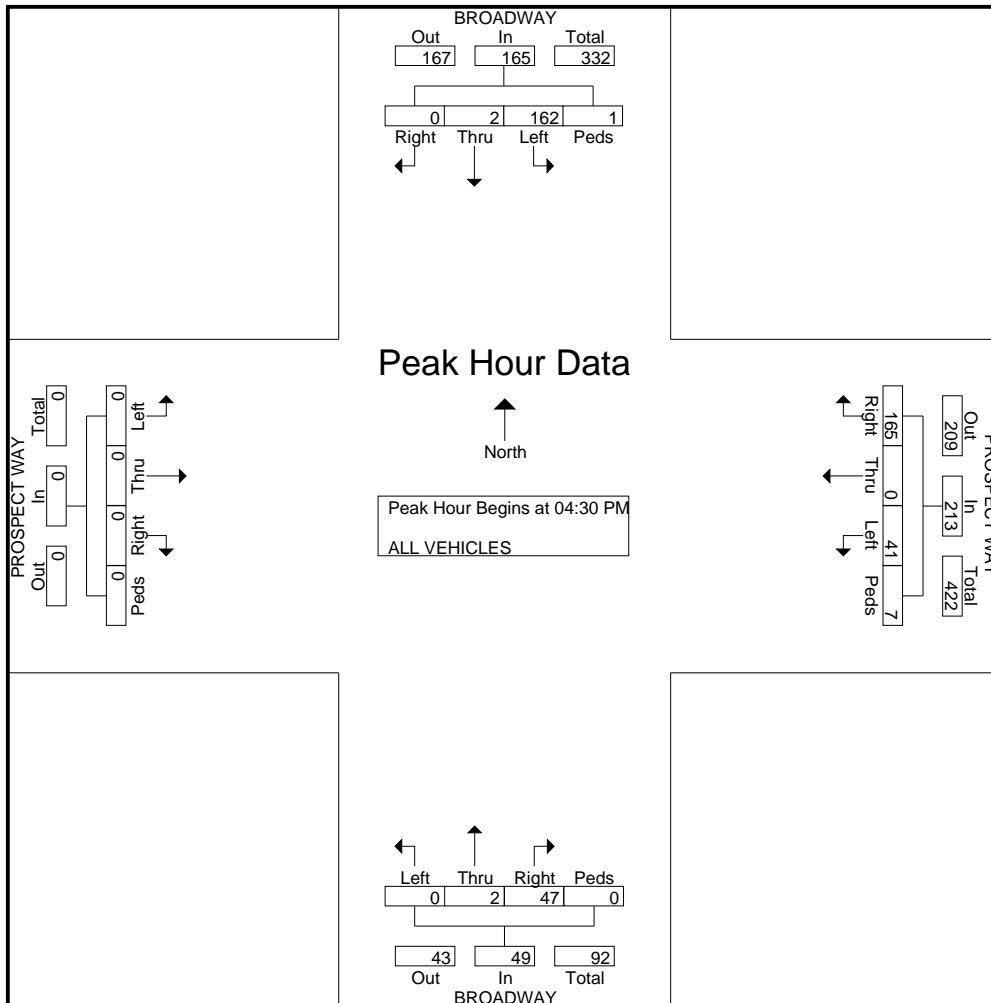


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File Name : #6 BROADWAY&PROSPECTPM
 Site Code : 6
 Start Date : 5/7/2014
 Page No : 2

Start Time	BROADWAY Southbound					PROSPECT WAY Westbound					BROADWAY Northbound					PROSPECT WAY Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	52	1	53	39	0	7	0	46	14	0	0	0	14	0	0	0	0	0	113
04:45 PM	0	0	33	0	33	41	0	13	6	60	7	0	0	0	7	0	0	0	0	0	100
05:00 PM	0	1	27	0	28	44	0	7	0	51	16	2	0	0	18	0	0	0	0	0	97
05:15 PM	0	1	50	0	51	41	0	14	1	56	10	0	0	0	10	0	0	0	0	0	117
Total Volume	0	2	162	1	165	165	0	41	7	213	47	2	0	0	49	0	0	0	0	0	427
% App. Total	0	1.2	98.2	0.6		77.5	0	19.2	3.3		95.9	4.1	0	0		0	0	0	0		
PHF	.000	.500	.779	.250	.778	.938	.000	.732	.292	.888	.734	.250	.000	.000	.681	.000	.000	.000	.000	.000	.912



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File Name : #7 CAPISTRANO&PROSPECTAM

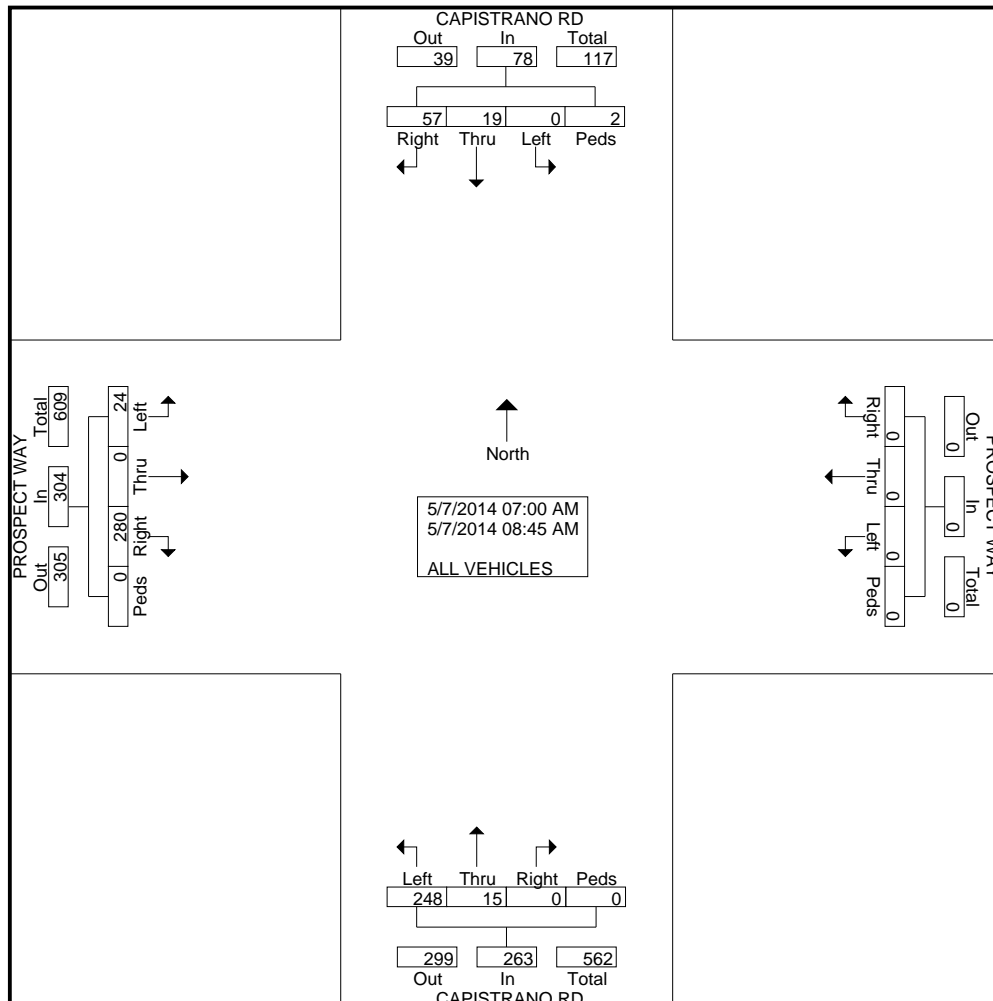
Site Code : 7

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	CAPISTRANO RD Southbound				PROSPECT WAY Westbound				CAPISTRANO RD Northbound				PROSPECT WAY Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	5	0	0	0	0	0	0	0	0	0	19	0	47	0	6	0	77
07:15 AM	3	1	0	1	0	0	0	0	0	1	18	0	28	0	0	0	52
07:30 AM	4	5	0	0	0	0	0	0	0	3	26	0	39	0	3	0	80
07:45 AM	12	1	0	0	0	0	0	0	0	3	36	0	61	0	5	0	118
Total	24	7	0	1	0	0	0	0	0	7	99	0	175	0	14	0	327
08:00 AM	8	2	0	0	0	0	0	0	0	0	43	0	30	0	3	0	86
08:15 AM	7	1	0	1	0	0	0	0	0	0	38	0	22	0	1	0	70
08:30 AM	9	5	0	0	0	0	0	0	0	4	25	0	25	0	3	0	71
08:45 AM	9	4	0	0	0	0	0	0	0	4	43	0	28	0	3	0	91
Total	33	12	0	1	0	0	0	0	0	8	149	0	105	0	10	0	318
Grand Total	57	19	0	2	0	0	0	0	0	15	248	0	280	0	24	0	645
Apprch %	73.1	24.4	0	2.6	0	0	0	0	0	5.7	94.3	0	92.1	0	7.9	0	
Total %	8.8	2.9	0	0.3	0	0	0	0	0	2.3	38.4	0	43.4	0	3.7	0	

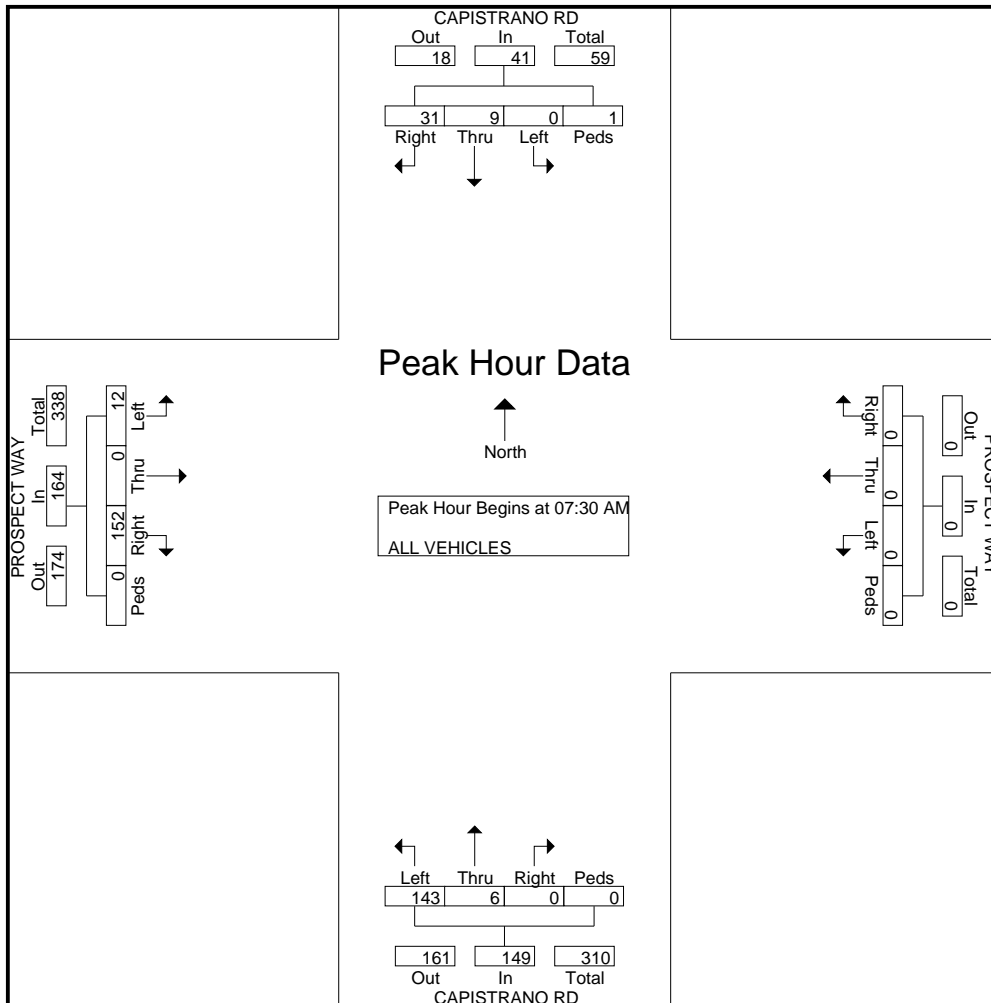


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File Name : #7 CAPISTRANO&PROSPECTAM
 Site Code : 7
 Start Date : 5/7/2014
 Page No : 2

Start Time	CAPISTRANO RD Southbound					PROSPECT WAY Westbound					CAPISTRANO RD Northbound					PROSPECT WAY Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	4	5	0	0	9	0	0	0	0	0	0	3	26	0	29	39	0	3	0	42	80
07:45 AM	12	1	0	0	13	0	0	0	0	0	0	3	36	0	39	61	0	5	0	66	118
08:00 AM	8	2	0	0	10	0	0	0	0	0	0	0	43	0	43	30	0	3	0	33	86
08:15 AM	7	1	0	1	9	0	0	0	0	0	0	0	38	0	38	22	0	1	0	23	70
Total Volume	31	9	0	1	41	0	0	0	0	0	0	6	143	0	149	152	0	12	0	164	354
% App. Total	75.6	22	0	2.4		0	0	0	0		0	4	96	0		92.7	0	7.3	0		
PHF	.646	.450	.000	.250	.788	.000	.000	.000	.000	.000	.000	.500	.831	.000	.866	.623	.000	.600	.000	.621	.750



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File Name : #7 CAPISTRANO&PROSPECTPM

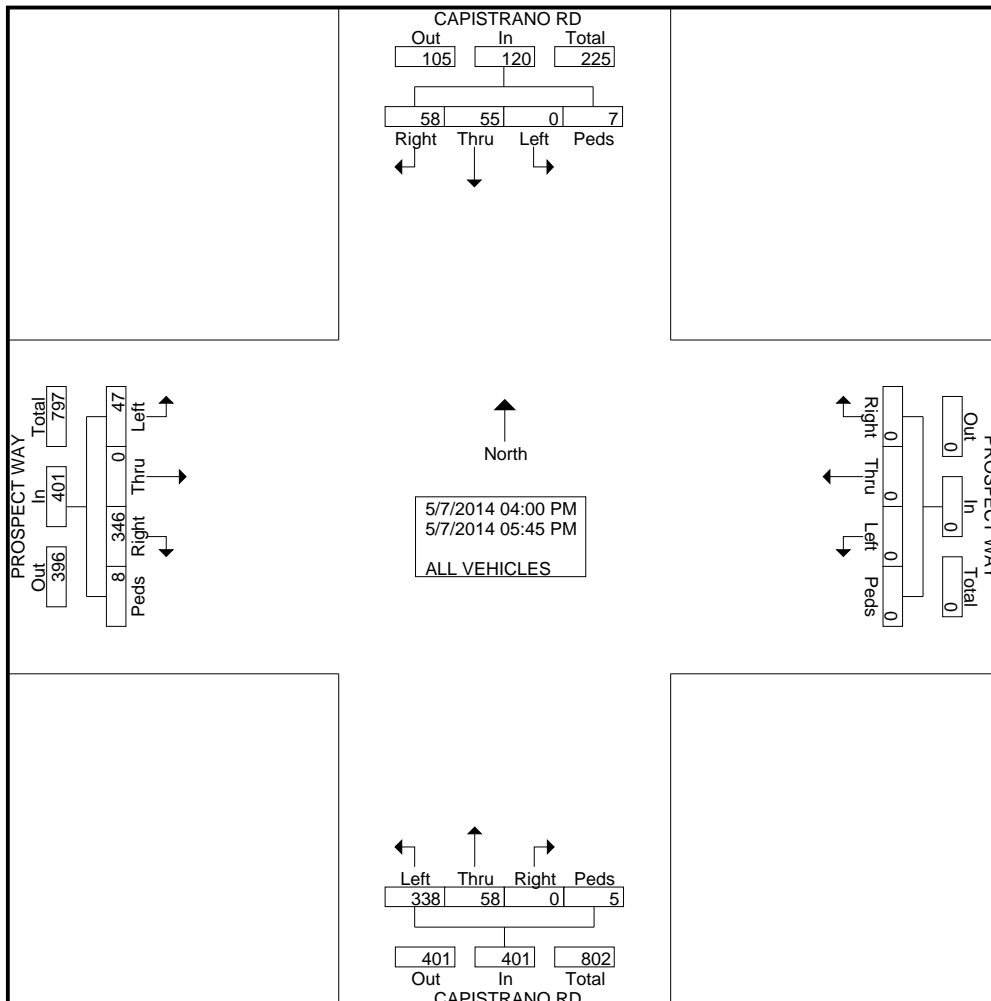
Site Code : 7

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	CAPISTRANO RD Southbound				PROSPECT WAY Westbound				CAPISTRANO RD Northbound				PROSPECT WAY Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	5	11	0	2	0	0	0	0	0	6	36	0	31	0	2	0	93
04:15 PM	5	2	0	1	0	0	0	0	0	3	54	0	35	0	9	2	111
04:30 PM	5	9	0	2	0	0	0	0	0	6	38	2	57	0	8	0	127
04:45 PM	11	11	0	0	0	0	0	0	0	8	51	1	37	0	4	0	123
Total	26	33	0	5	0	0	0	0	0	23	179	3	160	0	23	2	454
05:00 PM	14	7	0	2	0	0	0	0	0	12	35	2	38	0	5	2	117
05:15 PM	10	5	0	0	0	0	0	0	0	10	44	0	53	0	8	0	130
05:30 PM	2	3	0	0	0	0	0	0	0	2	36	0	51	0	9	2	105
05:45 PM	6	7	0	0	0	0	0	0	0	11	44	0	44	0	2	2	116
Total	32	22	0	2	0	0	0	0	0	35	159	2	186	0	24	6	468
Grand Total	58	55	0	7	0	0	0	0	0	58	338	5	346	0	47	8	922
Apprch %	48.3	45.8	0	5.8	0	0	0	0	0	14.5	84.3	1.2	86.3	0	11.7	2	
Total %	6.3	6	0	0.8	0	0	0	0	0	6.3	36.7	0.5	37.5	0	5.1	0.9	

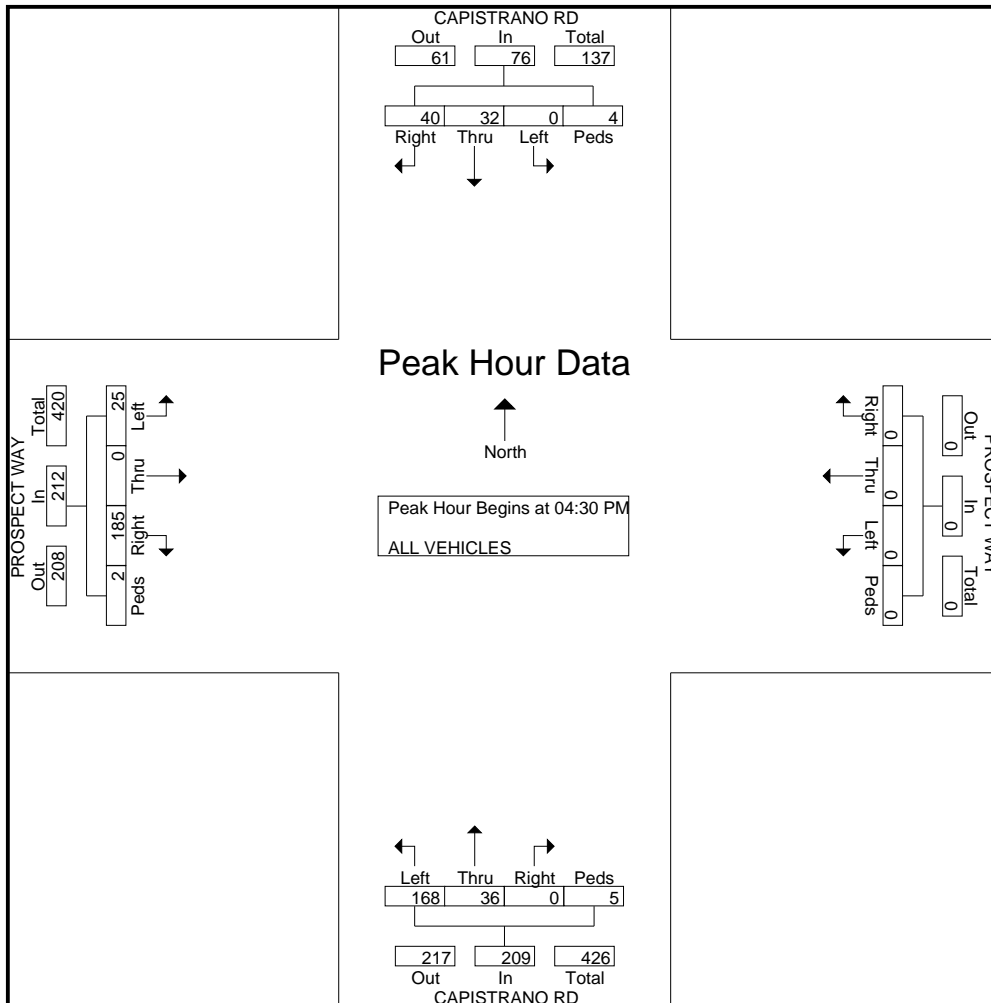


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File Name : #7 CAPISTRANO&PROSPECTPM
 Site Code : 7
 Start Date : 5/7/2014
 Page No : 2

Start Time	CAPISTRANO RD Southbound					PROSPECT WAY Westbound					CAPISTRANO RD Northbound					PROSPECT WAY Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	5	9	0	2	16	0	0	0	0	0	0	6	38	2	46	57	0	8	0	65	127
04:45 PM	11	11	0	0	22	0	0	0	0	0	0	8	51	1	60	37	0	4	0	41	123
05:00 PM	14	7	0	2	23	0	0	0	0	0	0	12	35	2	49	38	0	5	2	45	117
05:15 PM	10	5	0	0	15	0	0	0	0	0	0	10	44	0	54	53	0	8	0	61	130
Total Volume	40	32	0	4	76	0	0	0	0	0	0	36	168	5	209	185	0	25	2	212	497
% App. Total	52.6	42.1	0	5.3		0	0	0	0		0	17.2	80.4	2.4		87.3	0	11.8	0.9		
PHF	.714	.727	.000	.500	.826	.000	.000	.000	.000	.000	.000	.750	.824	.625	.871	.811	.000	.781	.250	.815	.956



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File Name : #8 SR1&CAPISTRANOSOUTHAM

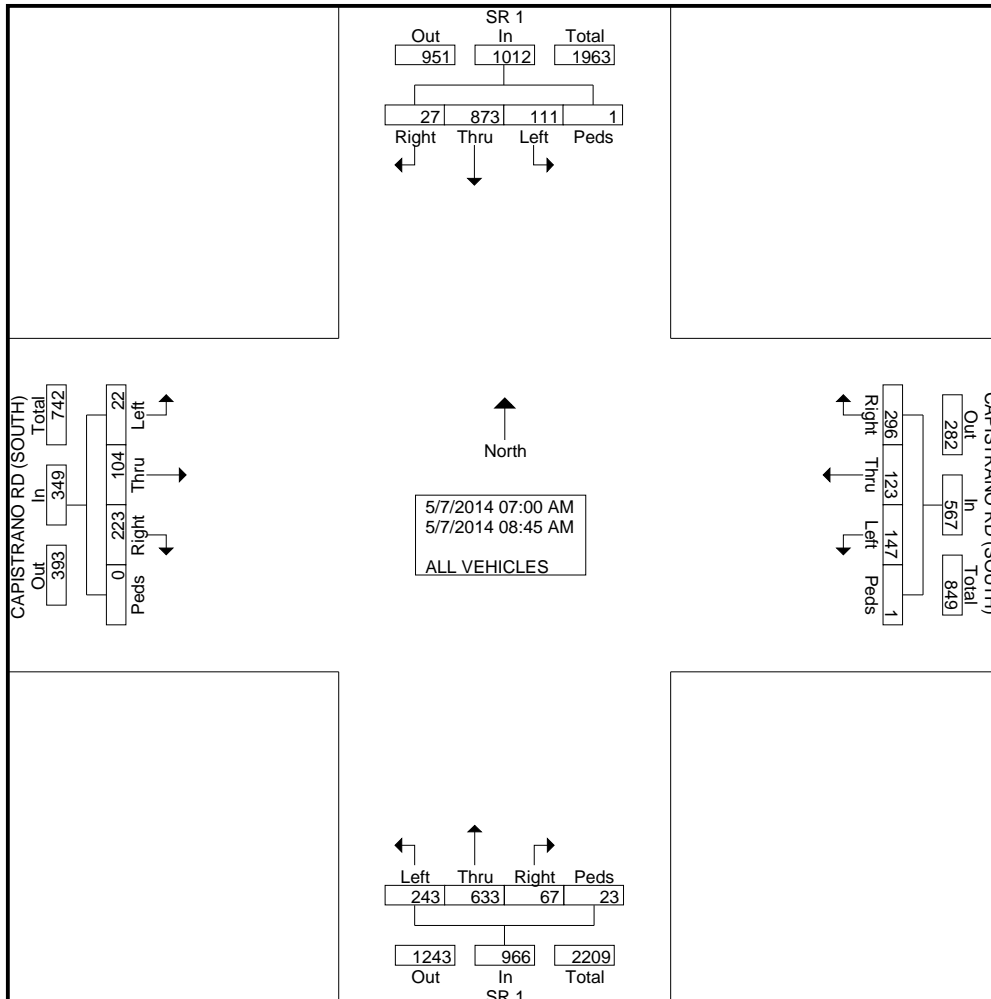
Site Code : 8

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CAPISTRANO RD (SOUTH) Westbound				SR 1 Northbound				CAPISTRANO RD (SOUTH) Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	1	136	21	0	43	9	18	0	6	78	31	3	43	13	2	0	404
07:15 AM	2	102	16	1	41	6	18	0	4	84	18	4	23	8	2	0	329
07:30 AM	3	86	15	0	44	9	19	1	9	71	32	3	37	14	0	0	343
07:45 AM	2	135	8	0	38	25	25	0	6	89	34	4	34	31	4	0	435
Total	8	459	60	1	166	49	80	1	25	322	115	14	137	66	8	0	1511
08:00 AM	3	103	12	0	33	31	31	0	15	73	27	1	24	12	6	0	371
08:15 AM	4	106	15	0	37	18	12	0	7	97	36	4	19	6	2	0	363
08:30 AM	5	94	13	0	33	9	11	0	11	69	23	2	20	10	2	0	302
08:45 AM	7	111	11	0	27	16	13	0	9	72	42	2	23	10	4	0	347
Total	19	414	51	0	130	74	67	0	42	311	128	9	86	38	14	0	1383
Grand Total	27	873	111	1	296	123	147	1	67	633	243	23	223	104	22	0	2894
Apprch %	2.7	86.3	11	0.1	52.2	21.7	25.9	0.2	6.9	65.5	25.2	2.4	63.9	29.8	6.3	0	0
Total %	0.9	30.2	3.8	0	10.2	4.3	5.1	0	2.3	21.9	8.4	0.8	7.7	3.6	0.8	0	0

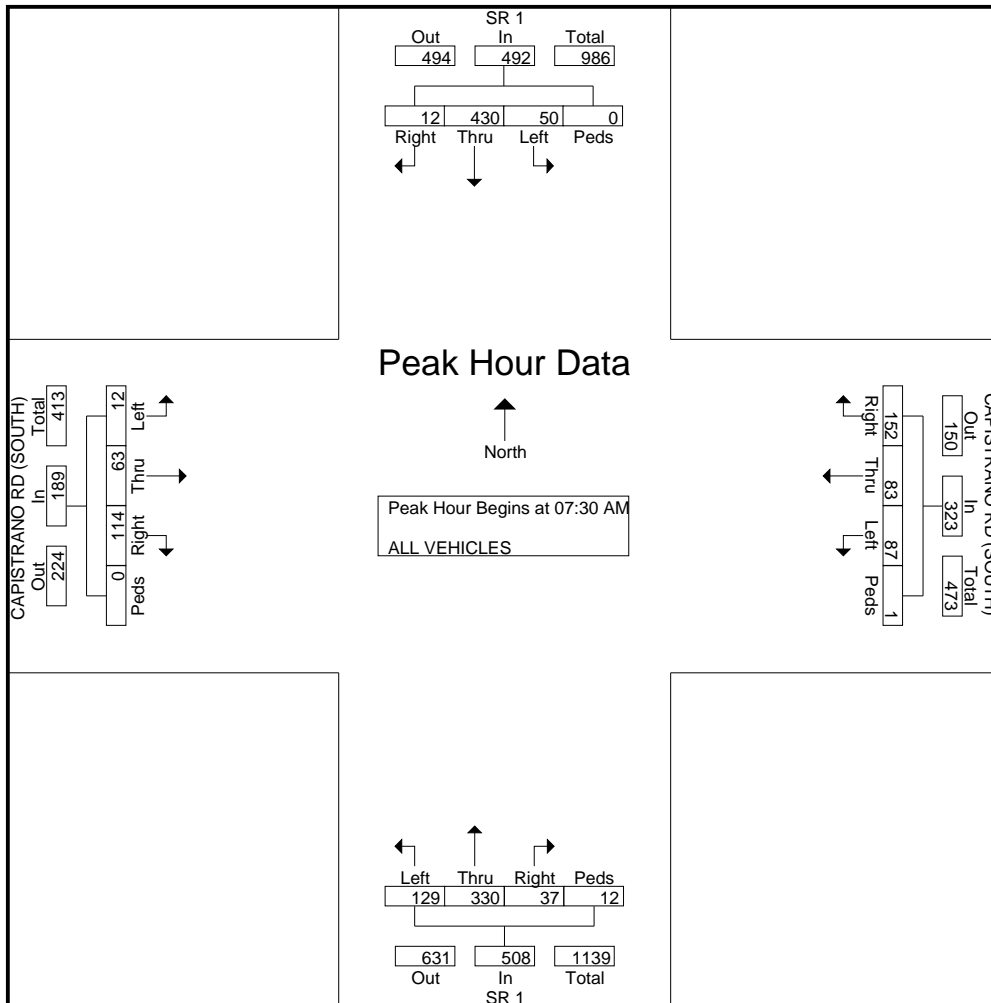


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File Name : #8 SR1&CAPISTRANOSOUTHAM
 Site Code : 8
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					CAPISTRANO RD (SOUTH) Westbound					SR 1 Northbound					CAPISTRANO RD (SOUTH) Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	3	86	15	0	104	44	9	19	1	73	9	71	32	3	115	37	14	0	0	51	343
07:45 AM	2	135	8	0	145	38	25	25	0	88	6	89	34	4	133	34	31	4	0	69	435
08:00 AM	3	103	12	0	118	33	31	31	0	95	15	73	27	1	116	24	12	6	0	42	371
08:15 AM	4	106	15	0	125	37	18	12	0	67	7	97	36	4	144	19	6	2	0	27	363
Total Volume	12	430	50	0	492	152	83	87	1	323	37	330	129	12	508	114	63	12	0	189	1512
% App. Total	2.4	87.4	10.2	0		47.1	25.7	26.9	0.3		7.3	65	25.4	2.4		60.3	33.3	6.3	0		
PHF	.750	.796	.833	.000	.848	.864	.669	.702	.250	.850	.617	.851	.896	.750	.882	.770	.508	.500	.000	.685	.869



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File Name : #8 SR1&CAPISTRANOSOUTHMPM

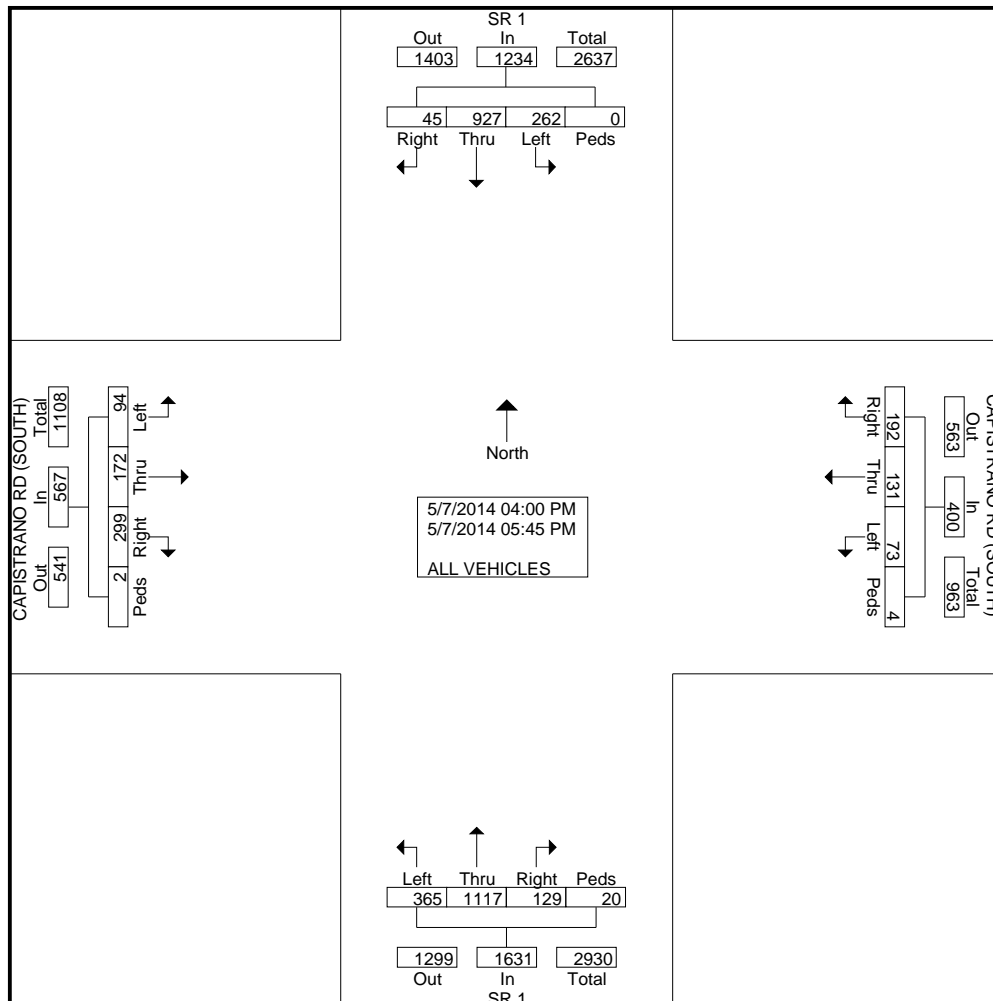
Site Code : 8

Start Date : 5/7/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CAPISTRANO RD (SOUTH) Westbound				SR 1 Northbound				CAPISTRANO RD (SOUTH) Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	6	152	23	0	29	12	7	1	18	155	43	1	17	24	7	0	495
04:15 PM	5	120	31	0	22	13	11	0	20	149	52	2	32	19	15	0	491
04:30 PM	5	117	37	0	23	21	10	0	12	137	46	0	38	15	13	0	474
04:45 PM	7	109	37	0	21	15	6	0	15	127	53	3	29	17	11	0	450
Total	23	498	128	0	95	61	34	1	65	568	194	6	116	75	46	0	1910
05:00 PM	4	114	35	0	33	16	10	2	13	162	46	6	51	24	16	2	534
05:15 PM	8	105	34	0	18	15	5	0	21	141	54	1	47	27	10	0	486
05:30 PM	6	109	33	0	14	16	11	1	17	118	40	2	44	20	10	0	441
05:45 PM	4	101	32	0	32	23	13	0	13	128	31	5	41	26	12	0	461
Total	22	429	134	0	97	70	39	3	64	549	171	14	183	97	48	2	1922
Grand Total	45	927	262	0	192	131	73	4	129	1117	365	20	299	172	94	2	3832
Apprch %	3.6	75.1	21.2	0	48	32.8	18.2	1	7.9	68.5	22.4	1.2	52.7	30.3	16.6	0.4	
Total %	1.2	24.2	6.8	0	5	3.4	1.9	0.1	3.4	29.1	9.5	0.5	7.8	4.5	2.5	0.1	



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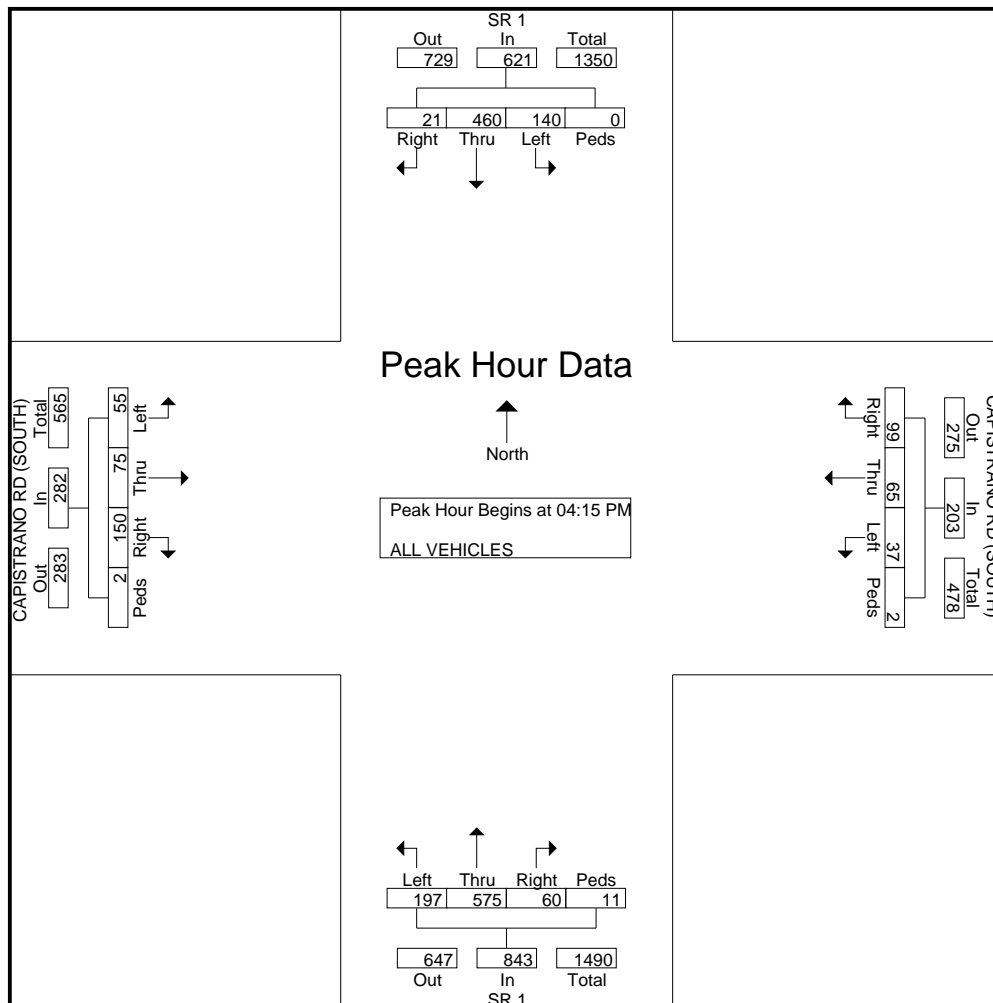
File Name : #8 SR1&CAPISTRANOSOUTH

Site Code : 8

Start Date : 5/7/2014

Page No : 2

Start Time	SR 1 Southbound					CAPISTRANO RD (SOUTH) Westbound					SR 1 Northbound					CAPISTRANO RD (SOUTH) Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	5	120	31	0	156	22	13	11	0	46	20	149	52	2	223	32	19	15	0	66	491
04:30 PM	5	117	37	0	159	23	21	10	0	54	12	137	46	0	195	38	15	13	0	66	474
04:45 PM	7	109	37	0	153	21	15	6	0	42	15	127	53	3	198	29	17	11	0	57	450
05:00 PM	4	114	35	0	153	33	16	10	2	61	13	162	46	6	227	51	24	16	2	93	534
Total Volume	21	460	140	0	621	99	65	37	2	203	60	575	197	11	843	150	75	55	2	282	1949
% App. Total	3.4	74.1	22.5	0		48.8	32	18.2	1		7.1	68.2	23.4	1.3		53.2	26.6	19.5	0.7		
PHF	.750	.958	.946	.000	.976	.750	.774	.841	.250	.832	.750	.887	.929	.458	.928	.735	.781	.859	.250	.758	.912

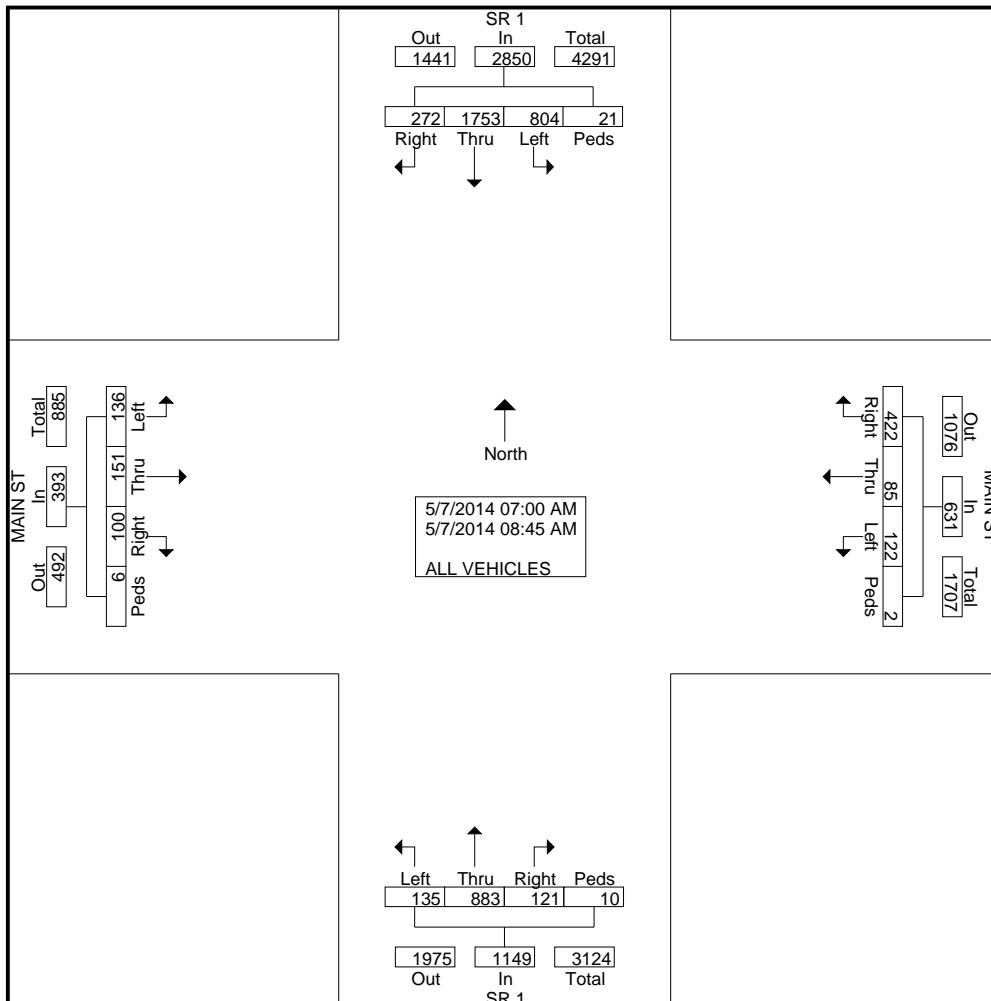


All Traffic Data Services
 2187 Kingsbury Cir
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File Name : #9 SR1&MAINAM
 Site Code : 9
 Start Date : 5/7/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				MAIN ST Westbound				SR 1 Northbound				MAIN ST Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	40	202	129	4	49	6	8	0	15	77	10	1	13	20	12	0	586
07:15 AM	47	211	118	7	53	16	31	0	26	94	16	0	13	44	16	0	692
07:30 AM	21	313	81	5	60	14	35	0	33	133	16	2	13	20	20	0	766
07:45 AM	27	238	109	1	69	11	26	0	11	130	19	3	13	13	15	3	688
Total	135	964	437	17	231	47	100	0	85	434	61	6	52	97	63	3	2732
08:00 AM	38	242	92	1	50	7	3	0	9	128	14	3	24	9	18	0	638
08:15 AM	39	215	76	1	54	8	8	2	10	139	25	0	8	13	20	1	619
08:30 AM	34	158	93	1	40	10	4	0	10	100	21	1	11	17	23	1	524
08:45 AM	26	174	106	1	47	13	7	0	7	82	14	0	5	15	12	1	510
Total	137	789	367	4	191	38	22	2	36	449	74	4	48	54	73	3	2291
Grand Total	272	1753	804	21	422	85	122	2	121	883	135	10	100	151	136	6	5023
Apprch %	9.5	61.5	28.2	0.7	66.9	13.5	19.3	0.3	10.5	76.8	11.7	0.9	25.4	38.4	34.6	1.5	
Total %	5.4	34.9	16	0.4	8.4	1.7	2.4	0	2.4	17.6	2.7	0.2	2	3	2.7	0.1	

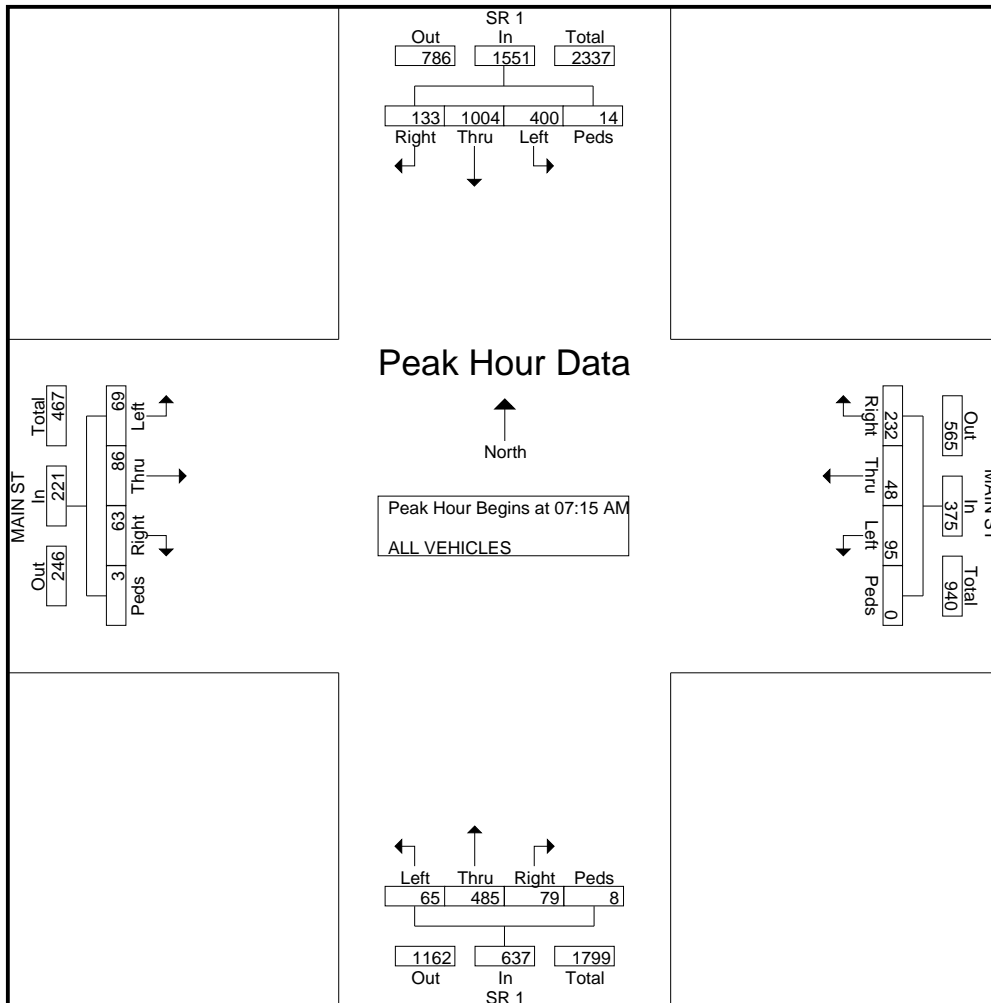


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File Name : #9 SR1&MAINAM
 Site Code : 9
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					MAIN ST Westbound					SR 1 Northbound					MAIN ST Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	47	211	118	7	383	53	16	31	0	100	26	94	16	0	136	13	44	16	0	73	692
07:30 AM	21	313	81	5	420	60	14	35	0	109	33	133	16	2	184	13	20	20	0	53	766
07:45 AM	27	238	109	1	375	69	11	26	0	106	11	130	19	3	163	13	13	15	3	44	688
08:00 AM	38	242	92	1	373	50	7	3	0	60	9	128	14	3	154	24	9	18	0	51	638
Total Volume	133	1004	400	14	1551	232	48	95	0	375	79	485	65	8	637	63	86	69	3	221	2784
% App. Total	8.6	64.7	25.8	0.9		61.9	12.8	25.3	0		12.4	76.1	10.2	1.3		28.5	38.9	31.2	1.4		
PHF	.707	.802	.847	.500	.923	.841	.750	.679	.000	.860	.598	.912	.855	.667	.865	.656	.489	.863	.250	.757	.909

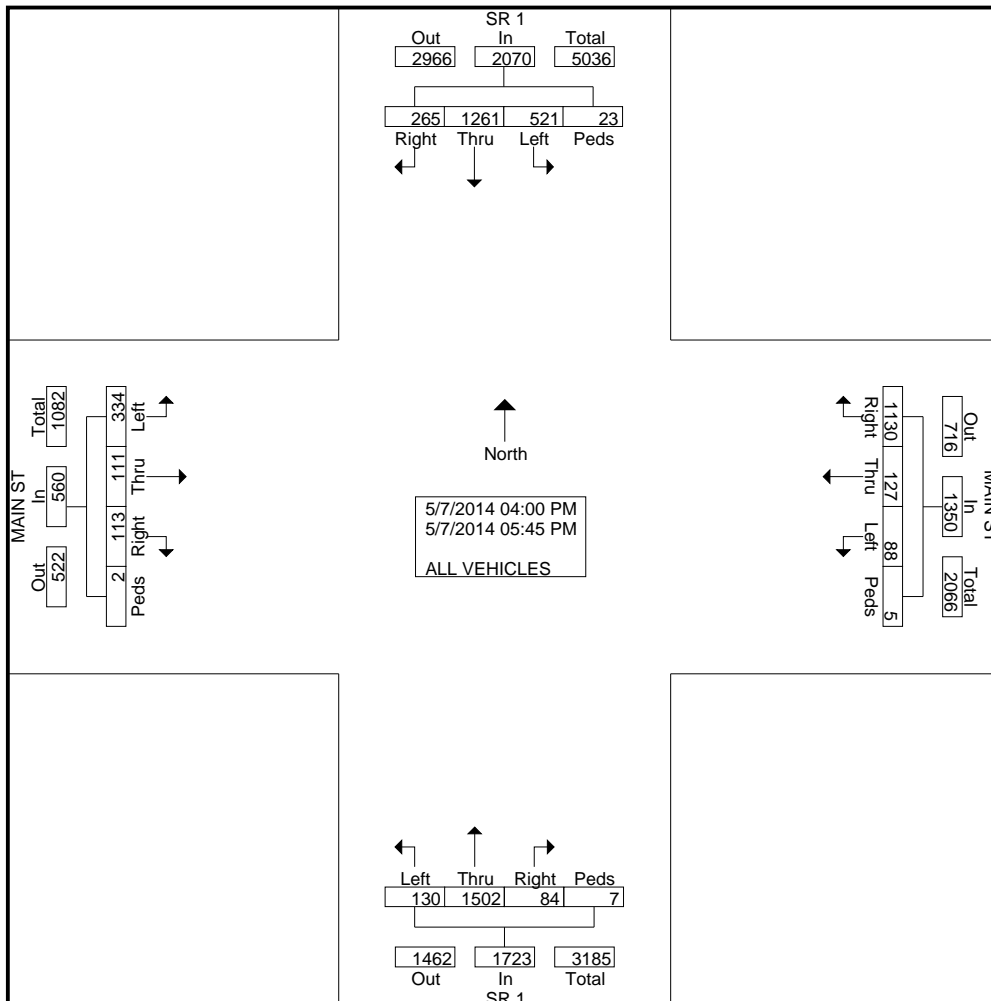


All Traffic Data Services
 2187 Kingsbury Cir
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File Name : #9 SR1&MAINPM
 Site Code : 9
 Start Date : 5/7/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				MAIN ST Westbound				SR 1 Northbound				MAIN ST Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	37	188	67	2	124	17	13	0	8	158	23	0	13	12	39	0	701
04:15 PM	47	187	71	5	118	20	12	0	8	176	18	0	15	16	42	0	735
04:30 PM	37	149	61	5	150	28	12	0	9	161	14	2	16	17	53	1	715
04:45 PM	24	164	72	2	143	13	13	1	13	226	17	3	11	13	40	0	755
Total	145	688	271	14	535	78	50	1	38	721	72	5	55	58	174	1	2906
05:00 PM	23	141	54	2	164	15	11	0	15	186	12	0	14	14	46	0	697
05:15 PM	44	172	63	4	147	12	6	1	12	191	20	0	15	9	38	0	734
05:30 PM	25	135	73	0	134	14	11	0	6	187	12	2	11	13	38	1	662
05:45 PM	28	125	60	3	150	8	10	3	13	217	14	0	18	17	38	0	704
Total	120	573	250	9	595	49	38	4	46	781	58	2	58	53	160	1	2797
Grand Total	265	1261	521	23	1130	127	88	5	84	1502	130	7	113	111	334	2	5703
Apprch %	12.8	60.9	25.2	1.1	83.7	9.4	6.5	0.4	4.9	87.2	7.5	0.4	20.2	19.8	59.6	0.4	
Total %	4.6	22.1	9.1	0.4	19.8	2.2	1.5	0.1	1.5	26.3	2.3	0.1	2	1.9	5.9	0	

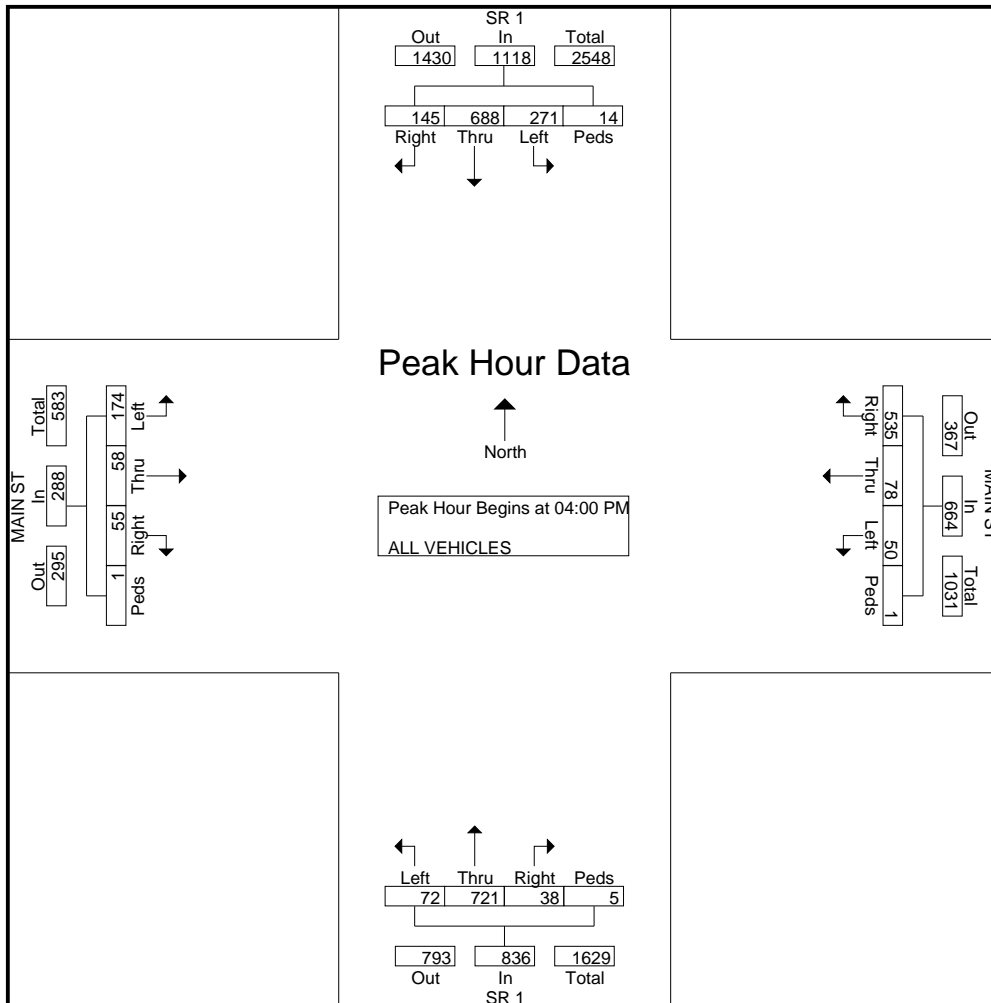


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #9 SR1&MAINPM
 Site Code : 9
 Start Date : 5/7/2014
 Page No : 2

Start Time	SR 1 Southbound					MAIN ST Westbound					SR 1 Northbound					MAIN ST Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	37	188	67	2	294	124	17	13	0	154	8	158	23	0	189	13	12	39	0	64	701
04:15 PM	47	187	71	5	310	118	20	12	0	150	8	176	18	0	202	15	16	42	0	73	735
04:30 PM	37	149	61	5	252	150	28	12	0	190	9	161	14	2	186	16	17	53	1	87	715
04:45 PM	24	164	72	2	262	143	13	13	1	170	13	226	17	3	259	11	13	40	0	64	755
Total Volume	145	688	271	14	1118	535	78	50	1	664	38	721	72	5	836	55	58	174	1	288	2906
% App. Total	13	61.5	24.2	1.3		80.6	11.7	7.5	0.2		4.5	86.2	8.6	0.6		19.1	20.1	60.4	0.3		
PHF	.771	.915	.941	.700	.902	.892	.696	.962	.250	.874	.731	.798	.783	.417	.807	.859	.853	.821	.250	.828	.962

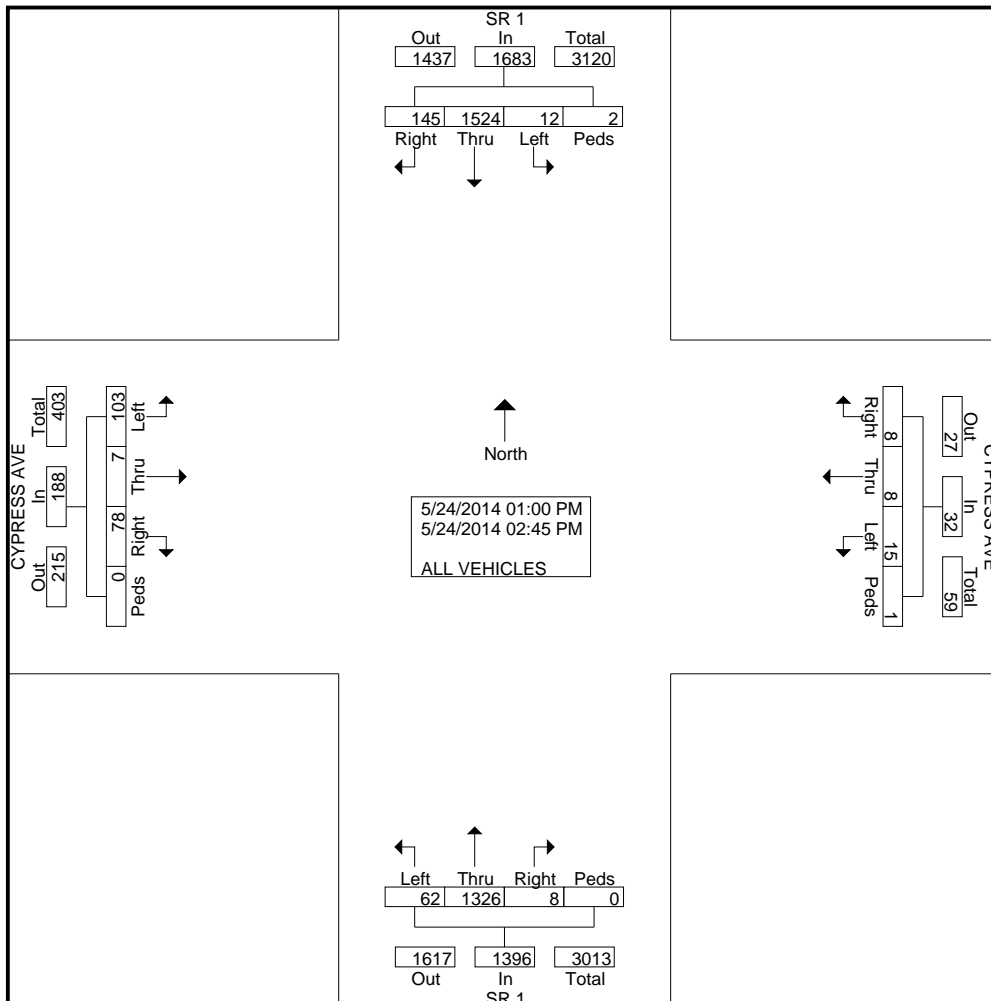


All Traffic Data Services
 2187 Kingsbury Cir
 Santa Clara, CA, 95054
 www.Alltrafficdata.net

File Name : #1 SR1&CYPRESSWE
 Site Code : 1
 Start Date : 5/24/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CYPRESS AVE Westbound				SR 1 Northbound				CYPRESS AVE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
01:00 PM	21	228	0	0	2	1	3	0	2	197	9	0	9	1	7	0	480
01:15 PM	12	206	2	2	1	3	3	1	1	158	12	0	9	0	7	0	417
01:30 PM	14	219	1	0	1	1	1	0	0	178	12	0	7	3	12	0	449
01:45 PM	14	186	0	0	0	0	3	0	1	161	3	0	9	0	9	0	386
Total	61	839	3	2	4	5	10	1	4	694	36	0	34	4	35	0	1732
02:00 PM	24	166	2	0	1	0	1	0	0	159	10	0	11	1	22	0	397
02:15 PM	23	172	2	0	2	1	2	0	2	171	5	0	13	1	23	0	417
02:30 PM	16	164	3	0	0	1	1	0	0	167	9	0	14	0	11	0	386
02:45 PM	21	183	2	0	1	1	1	0	2	135	2	0	6	1	12	0	367
Total	84	685	9	0	4	3	5	0	4	632	26	0	44	3	68	0	1567
Grand Total	145	1524	12	2	8	8	15	1	8	1326	62	0	78	7	103	0	3299
Apprch %	8.6	90.6	0.7	0.1	25	25	46.9	3.1	0.6	95	4.4	0	41.5	3.7	54.8	0	
Total %	4.4	46.2	0.4	0.1	0.2	0.2	0.5	0	0.2	40.2	1.9	0	2.4	0.2	3.1	0	

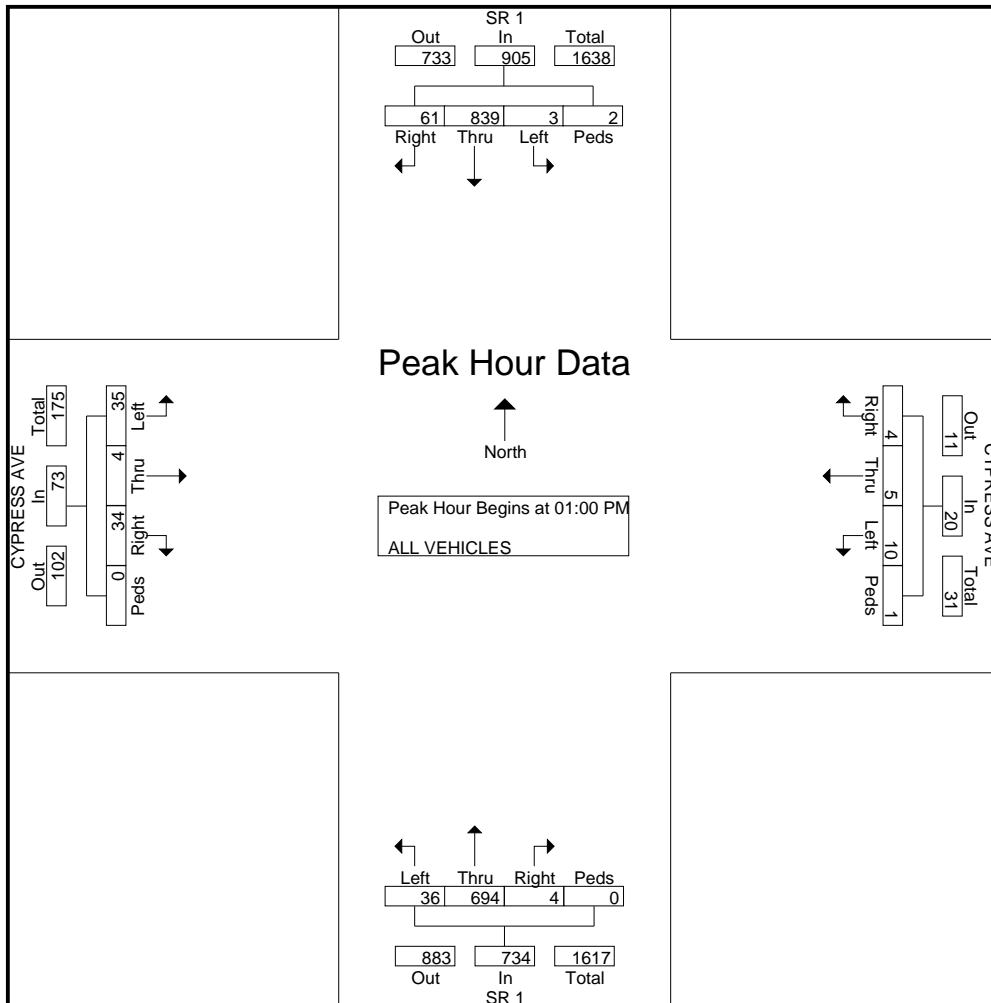


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
 www.Alltrafficdata.net

File Name : #1 SR1&CYPRESSWE
 Site Code : 1
 Start Date : 5/24/2014
 Page No : 2

Start Time	SR 1 Southbound					CYPRESS AVE Westbound					SR 1 Northbound					CYPRESS AVE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	21	228	0	0	249	2	1	3	0	6	2	197	9	0	208	9	1	7	0	17	480
01:15 PM	12	206	2	2	222	1	3	3	1	8	1	158	12	0	171	9	0	7	0	16	417
01:30 PM	14	219	1	0	234	1	1	1	0	3	0	178	12	0	190	7	3	12	0	22	449
01:45 PM	14	186	0	0	200	0	0	3	0	3	1	161	3	0	165	9	0	9	0	18	386
Total Volume	61	839	3	2	905	4	5	10	1	20	4	694	36	0	734	34	4	35	0	73	1732
% App. Total	6.7	92.7	0.3	0.2		20	25	50	5		0.5	94.6	4.9	0		46.6	5.5	47.9	0		
PHF	.726	.920	.375	.250	.909	.500	.417	.833	.250	.625	.500	.881	.750	.000	.882	.944	.333	.729	.000	.830	.902



All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #2 SR1&CAPISTRANONORTHWE

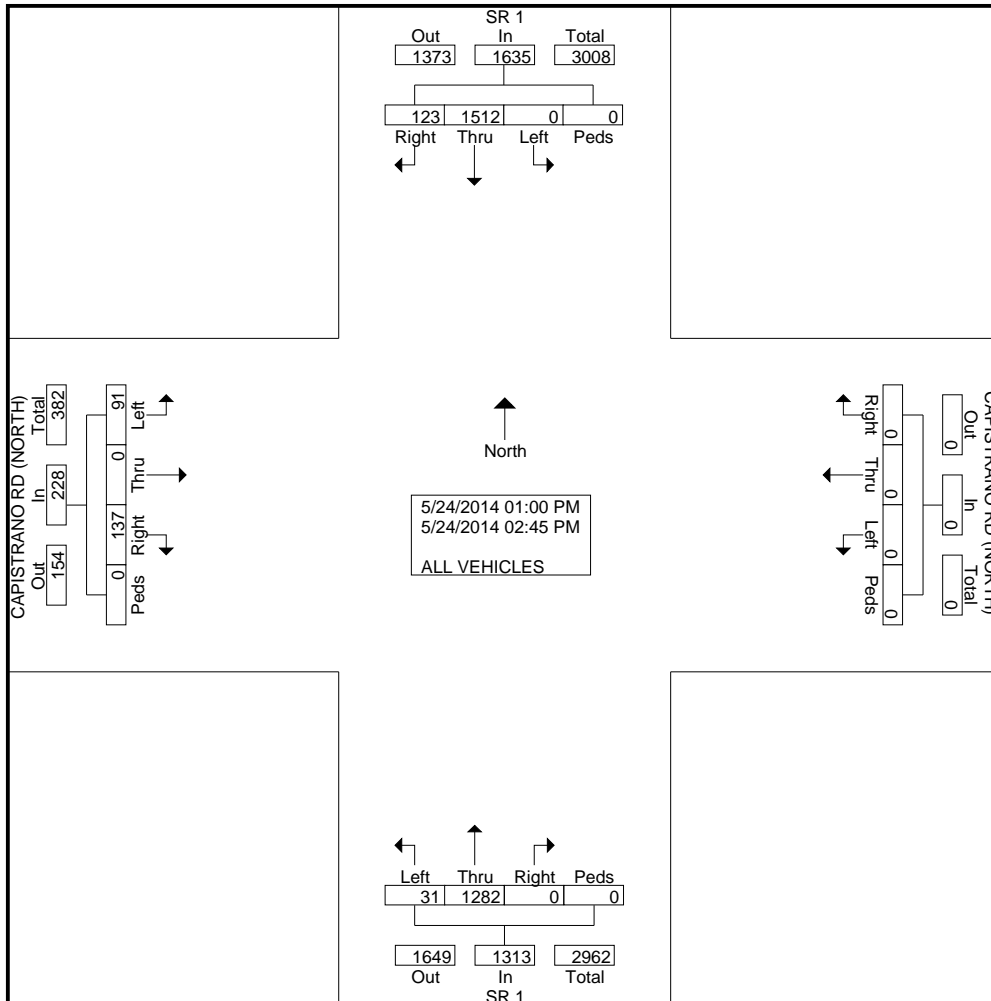
Site Code : 2

Start Date : 5/24/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CAPISTRANO RD (NORTH) Westbound				SR 1 Northbound				CAPISTRANO RD (NORTH) Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
01:00 PM	19	236	0	0	0	0	0	0	0	194	7	0	5	0	8	0	469
01:15 PM	12	189	0	0	0	0	0	0	0	167	2	0	10	0	4	0	384
01:30 PM	14	215	0	0	0	0	0	0	0	177	4	0	10	0	11	0	431
01:45 PM	12	205	0	0	0	0	0	0	0	147	3	0	16	0	12	0	395
Total	57	845	0	0	0	0	0	0	0	685	16	0	41	0	35	0	1679
02:00 PM	16	167	0	0	0	0	0	0	0	137	8	0	49	0	29	0	406
02:15 PM	12	178	0	0	0	0	0	0	0	169	3	0	24	0	10	0	396
02:30 PM	16	159	0	0	0	0	0	0	0	158	4	0	14	0	10	0	361
02:45 PM	22	163	0	0	0	0	0	0	0	133	0	0	9	0	7	0	334
Total	66	667	0	0	0	0	0	0	0	597	15	0	96	0	56	0	1497
Grand Total	123	1512	0	0	0	0	0	0	0	1282	31	0	137	0	91	0	3176
Apprch %	7.5	92.5	0	0	0	0	0	0	0	97.6	2.4	0	60.1	0	39.9	0	
Total %	3.9	47.6	0	0	0	0	0	0	0	40.4	1	0	4.3	0	2.9	0	

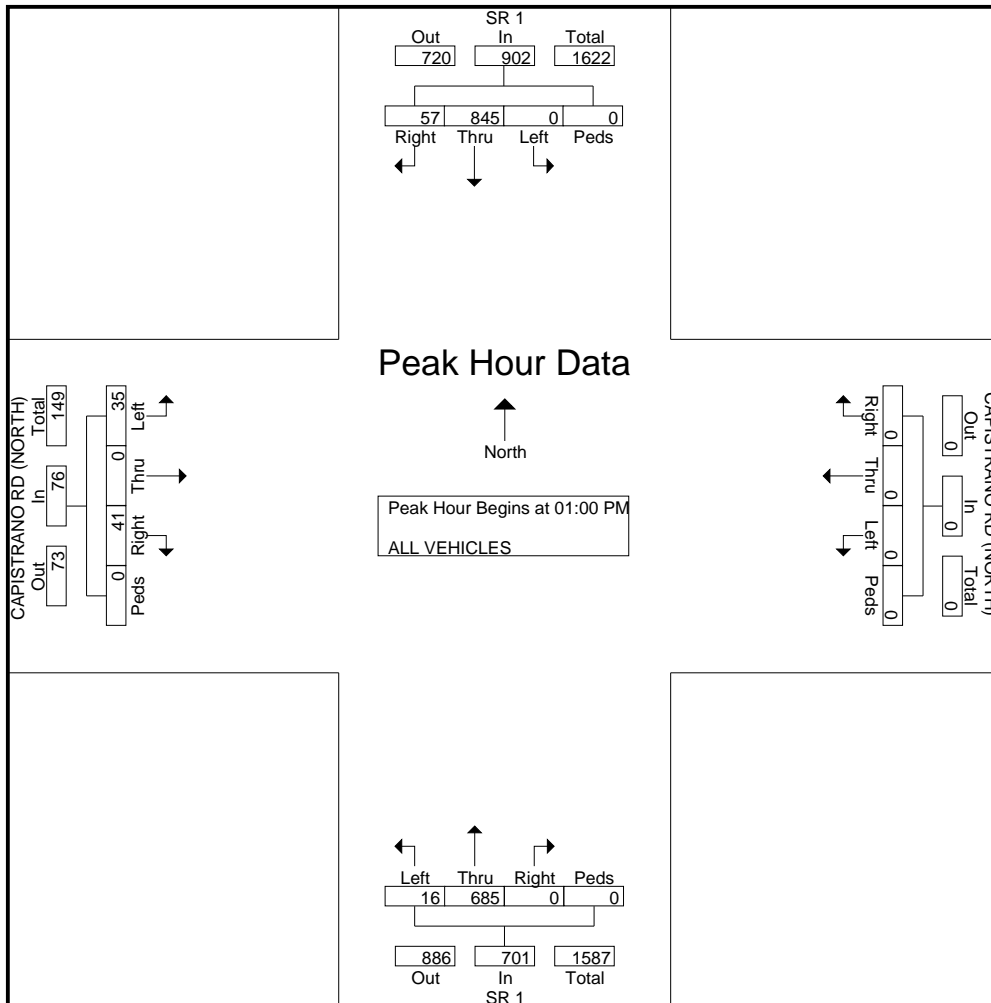


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #2 SR1&CAPISTRANONORTHWE
 Site Code : 2
 Start Date : 5/24/2014
 Page No : 2

Start Time	SR 1 Southbound					CAPISTRANO RD (NORTH) Westbound					SR 1 Northbound					CAPISTRANO RD (NORTH) Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	19	236	0	0	255	0	0	0	0	0	0	194	7	0	201	5	0	8	0	13	469
01:15 PM	12	189	0	0	201	0	0	0	0	0	0	167	2	0	169	10	0	4	0	14	384
01:30 PM	14	215	0	0	229	0	0	0	0	0	0	177	4	0	181	10	0	11	0	21	431
01:45 PM	12	205	0	0	217	0	0	0	0	0	0	147	3	0	150	16	0	12	0	28	395
Total Volume	57	845	0	0	902	0	0	0	0	0	0	685	16	0	701	41	0	35	0	76	1679
% App. Total	6.3	93.7	0	0		0	0	0	0		0	97.7	2.3	0		53.9	0	46.1	0		
PHF	.750	.895	.000	.000	.884	.000	.000	.000	.000	.000	.000	.883	.571	.000	.872	.641	.000	.729	.000	.679	.895

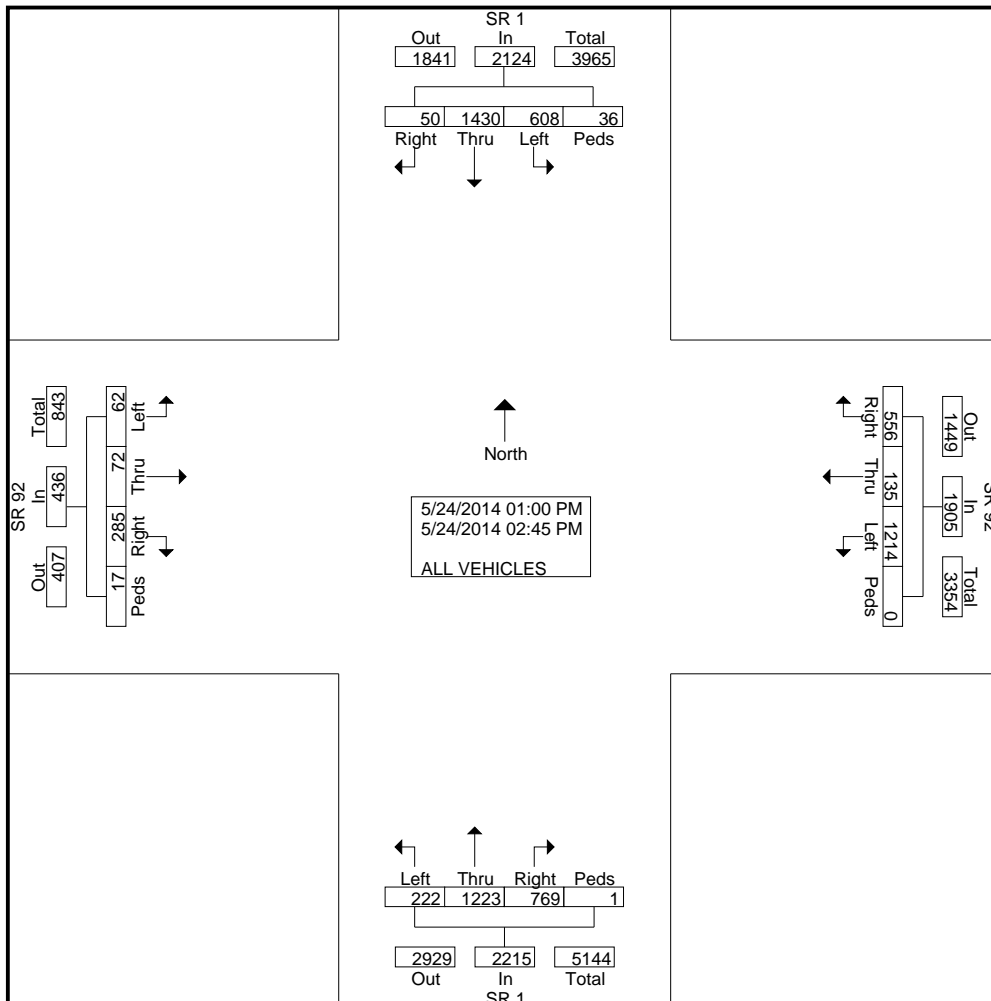


All Traffic Data Services
 2187 Kingsbury Cir
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File Name : #3 SR1&SR92WE
 Site Code : 3
 Start Date : 5/24/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				SR 92 Westbound				SR 1 Northbound				SR 92 Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
01:00 PM	6	148	86	6	66	13	150	0	102	154	29	0	29	5	13	3	810
01:15 PM	6	201	64	7	61	17	115	0	77	178	21	0	28	8	5	7	795
01:30 PM	6	167	72	0	79	21	158	0	90	152	28	0	36	12	5	0	826
01:45 PM	7	174	82	4	81	26	164	0	85	150	29	1	38	7	8	6	862
Total	25	690	304	17	287	77	587	0	354	634	107	1	131	32	31	16	3293
02:00 PM	6	200	73	4	80	17	150	0	97	154	29	0	47	9	13	0	879
02:15 PM	7	185	56	3	78	15	158	0	111	161	22	0	36	10	11	0	853
02:30 PM	8	189	94	5	58	16	152	0	111	144	27	0	28	10	2	1	845
02:45 PM	4	166	81	7	53	10	167	0	96	130	37	0	43	11	5	0	810
Total	25	740	304	19	269	58	627	0	415	589	115	0	154	40	31	1	3387
Grand Total	50	1430	608	36	556	135	1214	0	769	1223	222	1	285	72	62	17	6680
Apprch %	2.4	67.3	28.6	1.7	29.2	7.1	63.7	0	34.7	55.2	10	0	65.4	16.5	14.2	3.9	
Total %	0.7	21.4	9.1	0.5	8.3	2	18.2	0	11.5	18.3	3.3	0	4.3	1.1	0.9	0.3	

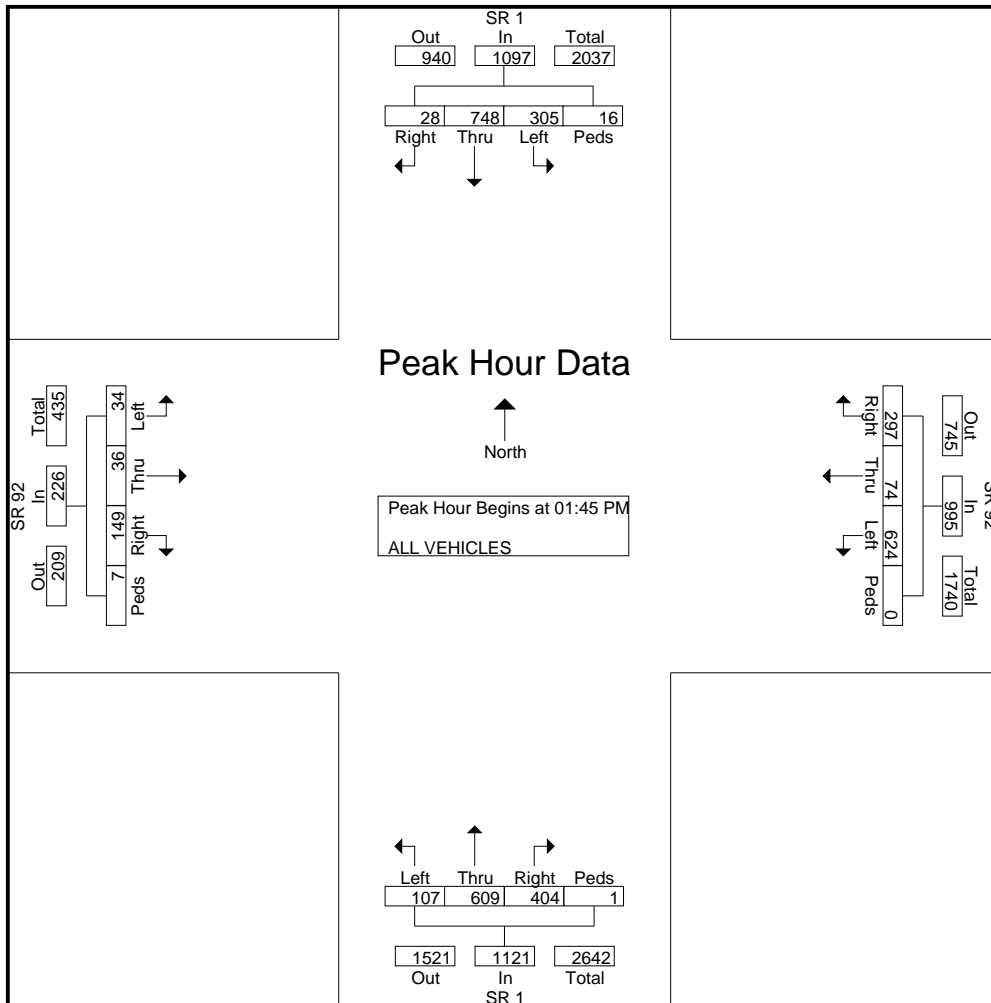


All Traffic Data Services

2187 Kingsbury Cir
 Santa Clara, CA, 95054
 www.Alltrafficdata.net

File Name : #3 SR1&SR92WE
 Site Code : 3
 Start Date : 5/24/2014
 Page No : 2

Start Time	SR 1 Southbound					SR 92 Westbound					SR 1 Northbound					SR 92 Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:45 PM																					
01:45 PM	7	174	82	4	267	81	26	164	0	271	85	150	29	1	265	38	7	8	6	59	862
02:00 PM	6	200	73	4	283	80	17	150	0	247	97	154	29	0	280	47	9	13	0	69	879
02:15 PM	7	185	56	3	251	78	15	158	0	251	111	161	22	0	294	36	10	11	0	57	853
02:30 PM	8	189	94	5	296	58	16	152	0	226	111	144	27	0	282	28	10	2	1	41	845
Total Volume	28	748	305	16	1097	297	74	624	0	995	404	609	107	1	1121	149	36	34	7	226	3439
% App. Total	2.6	68.2	27.8	1.5		29.8	7.4	62.7	0		36	54.3	9.5	0.1		65.9	15.9	15	3.1		
PHF	.875	.935	.811	.800	.927	.917	.712	.951	.000	.918	.910	.946	.922	.250	.953	.793	.900	.654	.292	.819	.978



All Traffic Data Services

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File Name : #4 MAIN&SR92WE

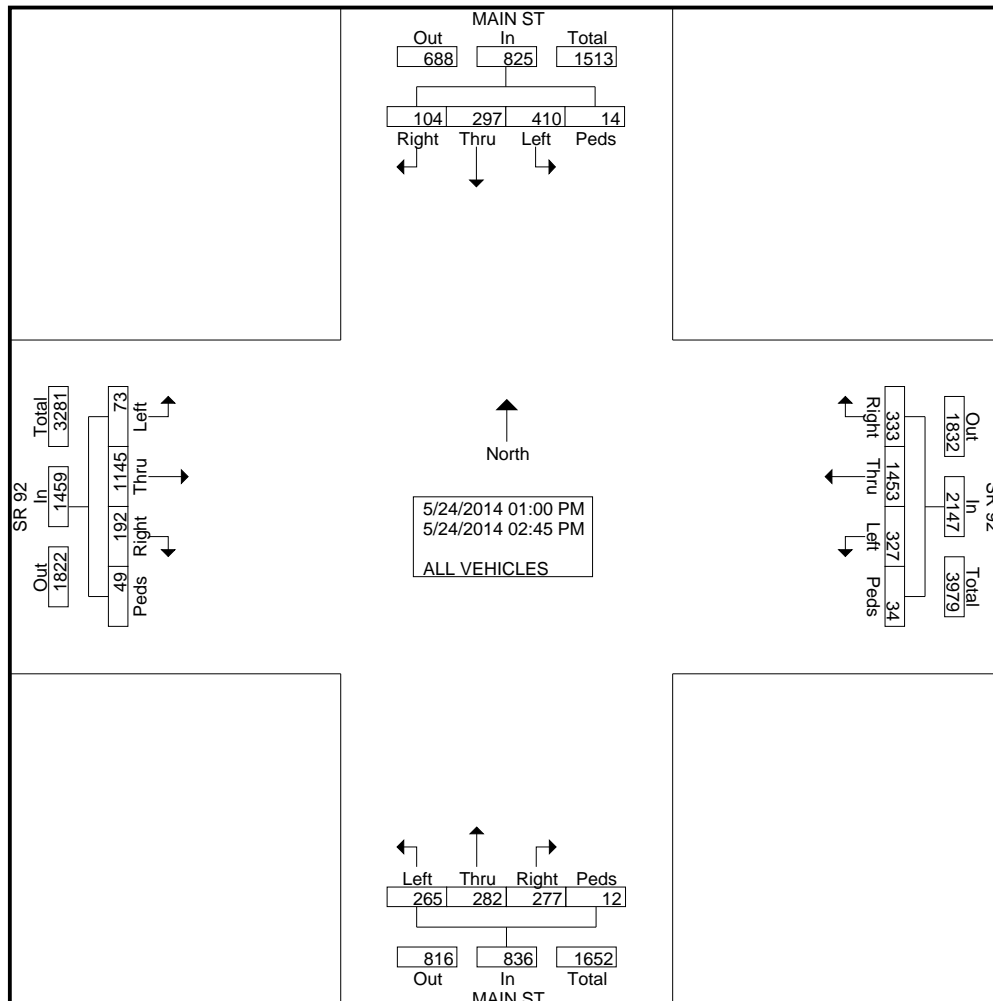
Site Code : 4

Start Date : 5/24/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	MAIN ST Southbound				SR 92 Westbound				MAIN ST Northbound				SR 92 Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
01:00 PM	11	46	57	3	44	177	37	5	38	43	32	0	23	141	13	6	676
01:15 PM	8	29	47	2	43	156	59	3	25	39	32	1	26	112	10	8	600
01:30 PM	27	39	47	3	41	209	37	9	36	32	32	5	19	146	8	11	701
01:45 PM	11	39	55	3	29	196	35	8	31	35	40	6	20	133	11	5	657
Total	57	153	206	11	157	738	168	25	130	149	136	12	88	532	42	30	2634
02:00 PM	5	37	39	1	29	186	45	0	42	34	32	0	15	141	7	8	621
02:15 PM	14	39	54	0	48	181	30	7	29	34	37	0	31	141	6	3	654
02:30 PM	15	41	51	0	41	188	41	1	38	33	32	0	30	173	7	2	693
02:45 PM	13	27	60	2	58	160	43	1	38	32	28	0	28	158	11	6	665
Total	47	144	204	3	176	715	159	9	147	133	129	0	104	613	31	19	2633
Grand Total	104	297	410	14	333	1453	327	34	277	282	265	12	192	1145	73	49	5267
Apprch %	12.6	36	49.7	1.7	15.5	67.7	15.2	1.6	33.1	33.7	31.7	1.4	13.2	78.5	5	3.4	
Total %	2	5.6	7.8	0.3	6.3	27.6	6.2	0.6	5.3	5.4	5	0.2	3.6	21.7	1.4	0.9	

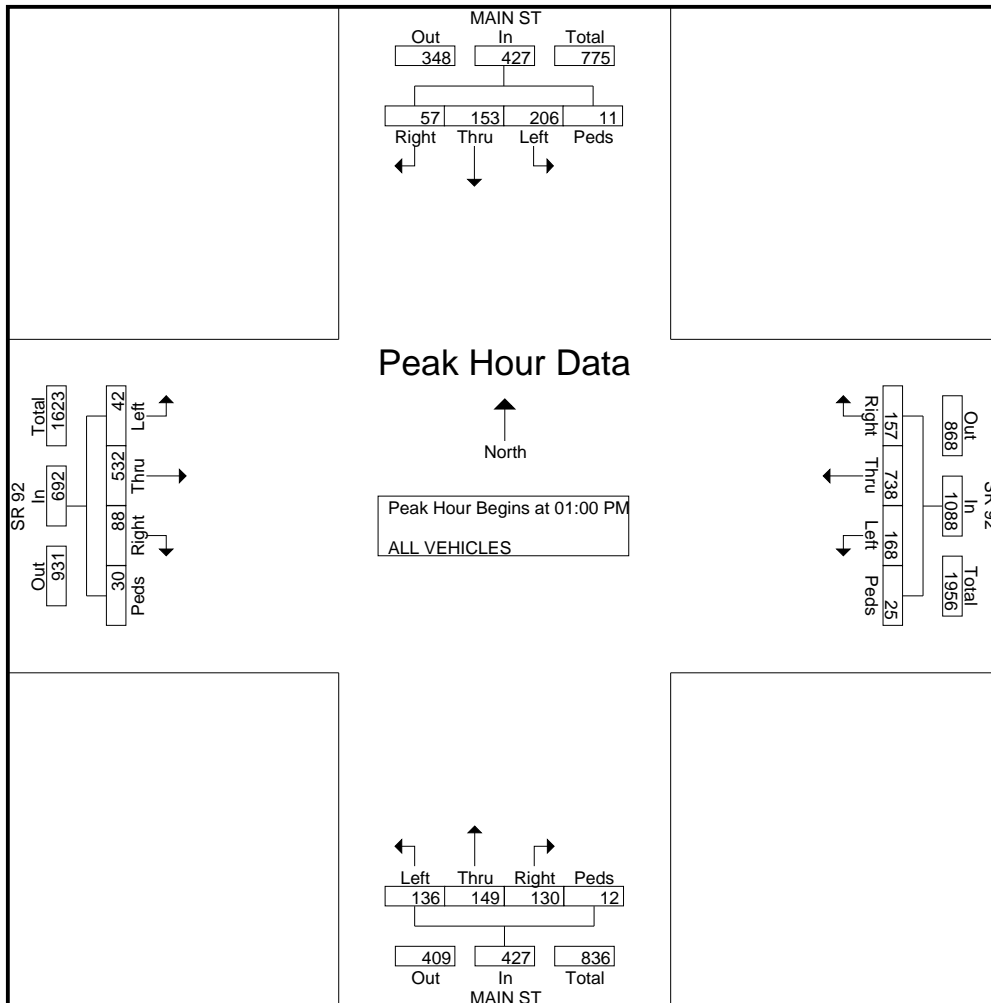


All Traffic Data Services

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File Name : #4 MAIN&SR92WE
Site Code : 4
Start Date : 5/24/2014
Page No : 2

Start Time	MAIN ST Southbound					SR 92 Westbound					MAIN ST Northbound					SR 92 Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	11	46	57	3	117	44	177	37	5	263	38	43	32	0	113	23	141	13	6	183	676
01:15 PM	8	29	47	2	86	43	156	59	3	261	25	39	32	1	97	26	112	10	8	156	600
01:30 PM	27	39	47	3	116	41	209	37	9	296	36	32	32	5	105	19	146	8	11	184	701
01:45 PM	11	39	55	3	108	29	196	35	8	268	31	35	40	6	112	20	133	11	5	169	657
Total Volume	57	153	206	11	427	157	738	168	25	1088	130	149	136	12	427	88	532	42	30	692	2634
% App. Total	13.3	35.8	48.2	2.6		14.4	67.8	15.4	2.3		30.4	34.9	31.9	2.8		12.7	76.9	6.1	4.3		
PHF	.528	.832	.904	.917	.912	.892	.883	.712	.694	.919	.855	.866	.850	.500	.945	.846	.911	.808	.682	.940	.939



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File Name : #5 SR1&CAPISTRANOSOUTHWE

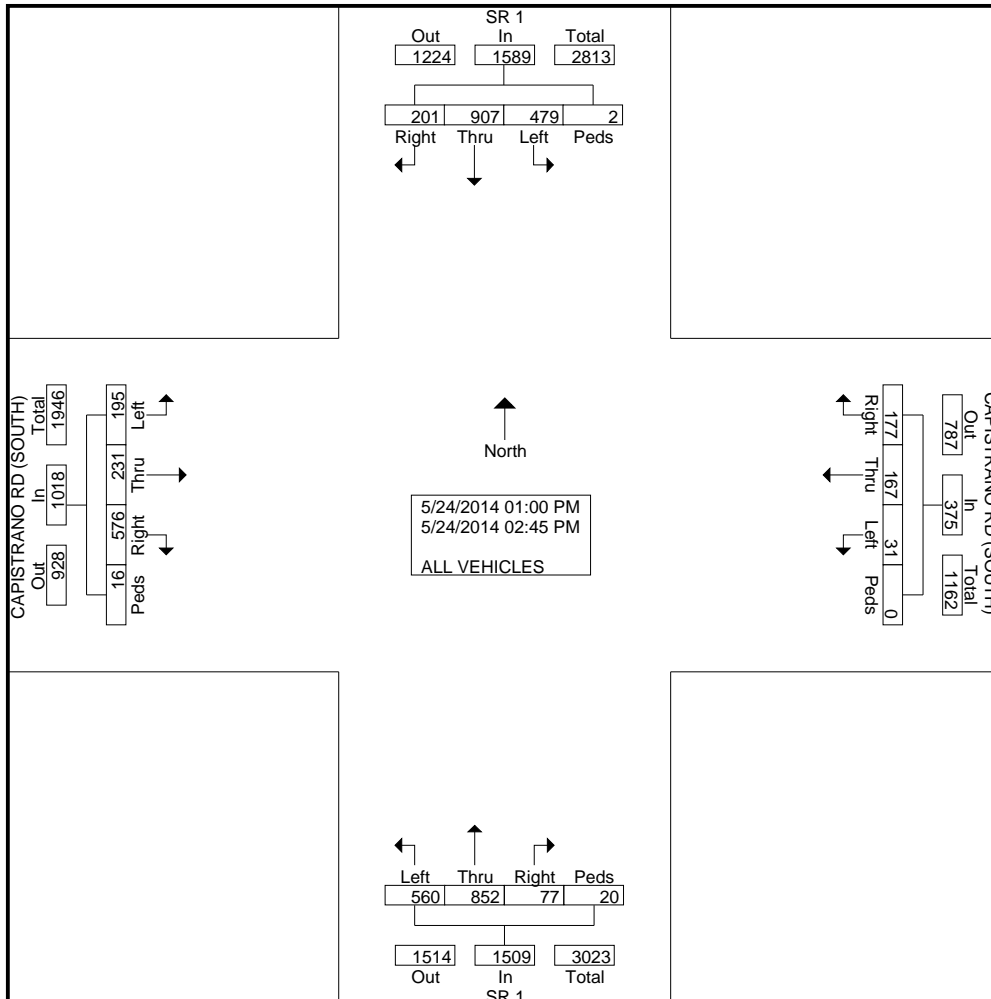
Site Code : 5

Start Date : 5/24/2014

Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				CAPISTRANO RD (SOUTH) Westbound				SR 1 Northbound				CAPISTRANO RD (SOUTH) Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
01:00 PM	40	143	55	0	14	28	3	0	9	133	59	0	60	41	35	12	632
01:15 PM	27	115	50	2	23	26	0	0	9	106	83	0	64	42	26	4	577
01:30 PM	33	108	69	0	21	24	3	0	10	108	67	0	74	29	23	0	569
01:45 PM	26	115	71	0	25	16	3	0	7	100	67	0	93	23	24	0	570
Total	126	481	245	2	83	94	9	0	35	447	276	0	291	135	108	16	2348
02:00 PM	19	97	69	0	24	15	7	0	10	96	66	5	92	14	18	0	532
02:15 PM	23	105	95	0	26	15	6	0	7	106	64	3	73	49	34	0	606
02:30 PM	14	95	46	0	26	23	4	0	12	107	90	5	56	16	19	0	513
02:45 PM	19	129	24	0	18	20	5	0	13	96	64	7	64	17	16	0	492
Total	75	426	234	0	94	73	22	0	42	405	284	20	285	96	87	0	2143
Grand Total	201	907	479	2	177	167	31	0	77	852	560	20	576	231	195	16	4491
Apprch %	12.6	57.1	30.1	0.1	47.2	44.5	8.3	0	5.1	56.5	37.1	1.3	56.6	22.7	19.2	1.6	
Total %	4.5	20.2	10.7	0	3.9	3.7	0.7	0	1.7	19	12.5	0.4	12.8	5.1	4.3	0.4	

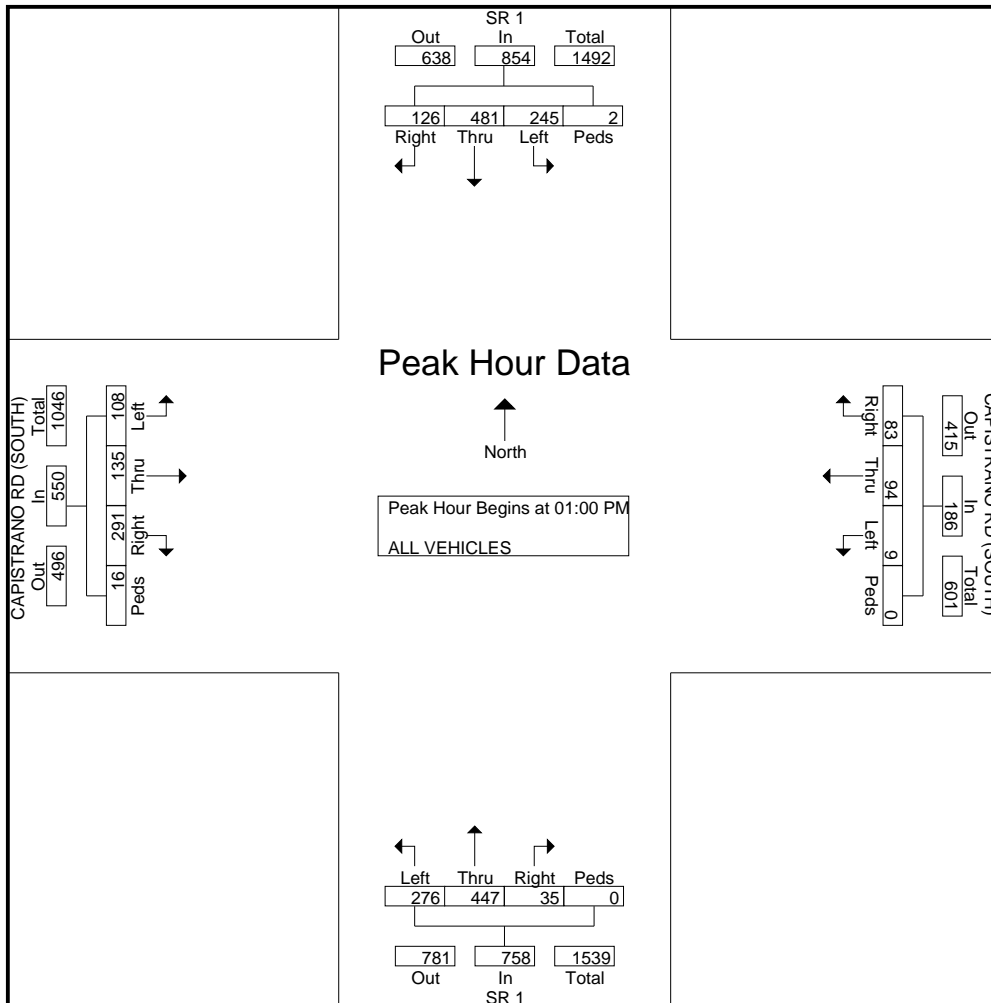


All Traffic Data Services

2187 Kingsbury Cir
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File Name : #5 SR1&CAPISTRANOSOUTHWE
 Site Code : 5
 Start Date : 5/24/2014
 Page No : 2

Start Time	SR 1 Southbound					CAPISTRANO RD (SOUTH) Westbound					SR 1 Northbound					CAPISTRANO RD (SOUTH) Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	40	143	55	0	238	14	28	3	0	45	9	133	59	0	201	60	41	35	12	148	632
01:15 PM	27	115	50	2	194	23	26	0	0	49	9	106	83	0	198	64	42	26	4	136	577
01:30 PM	33	108	69	0	210	21	24	3	0	48	10	108	67	0	185	74	29	23	0	126	569
01:45 PM	26	115	71	0	212	25	16	3	0	44	7	100	67	0	174	93	23	24	0	140	570
Total Volume	126	481	245	2	854	83	94	9	0	186	35	447	276	0	758	291	135	108	16	550	2348
% App. Total	14.8	56.3	28.7	0.2		44.6	50.5	4.8	0		4.6	59	36.4	0		52.9	24.5	19.6	2.9		
PHF	.788	.841	.863	.250	.897	.830	.839	.750	.000	.949	.875	.840	.831	.000	.943	.782	.804	.771	.333	.929	.929

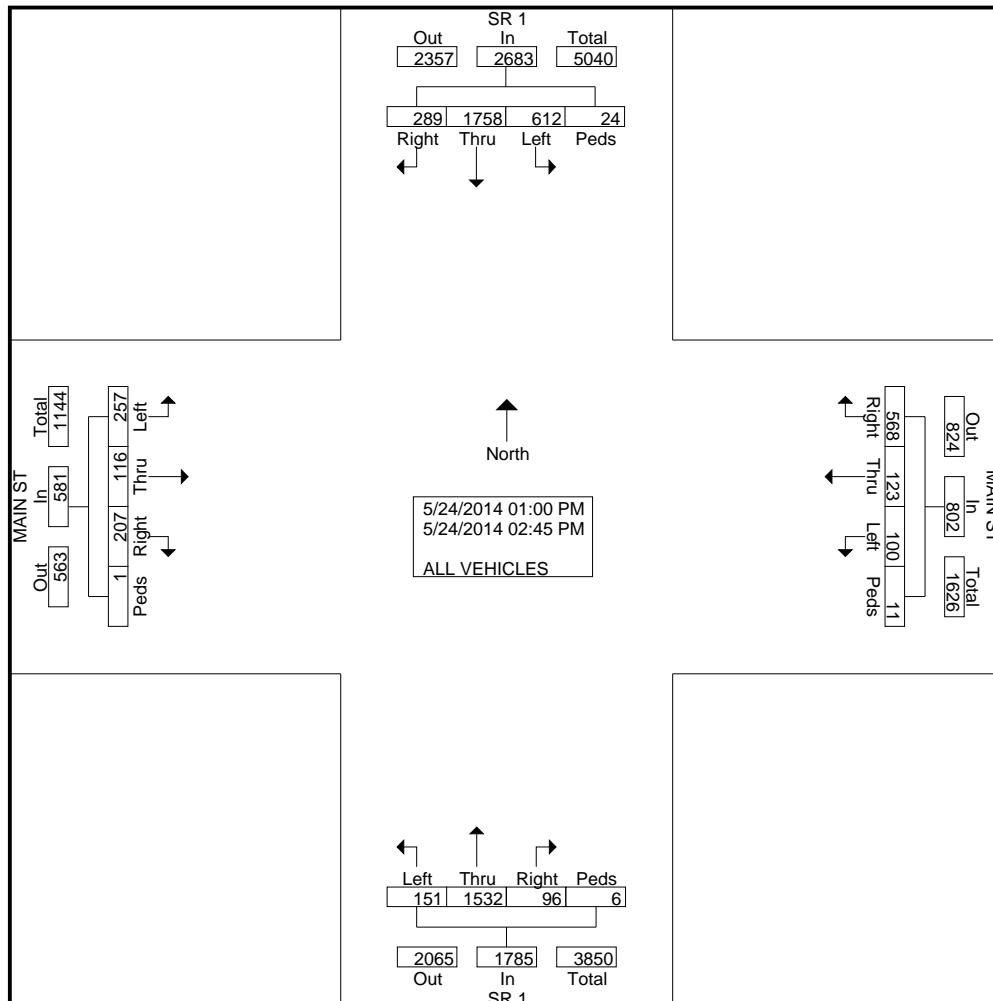


All Traffic Data Services
 2187 Kingsbury Cir
 Santa Clara, CA, 95054
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File Name : #6 SR1&MAINWE
 Site Code : 6
 Start Date : 5/24/2014
 Page No : 1

Groups Printed- ALL VEHICLES

Start Time	SR 1 Southbound				MAIN ST Westbound				SR 1 Northbound				MAIN ST Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
01:00 PM	30	190	87	2	76	13	15	0	8	196	15	3	20	15	39	1	710
01:15 PM	37	220	73	3	80	14	10	4	8	186	17	1	29	11	26	0	719
01:30 PM	43	206	85	3	63	20	10	4	15	203	26	2	29	11	29	0	749
01:45 PM	48	220	74	4	62	14	12	0	12	186	16	0	28	18	43	0	737
Total	158	836	319	12	281	61	47	8	43	771	74	6	106	55	137	1	2915
02:00 PM	24	255	76	3	67	17	14	3	18	206	20	0	20	4	26	0	753
02:15 PM	37	228	68	4	68	12	15	0	9	222	17	0	27	25	35	0	767
02:30 PM	31	229	77	1	85	14	13	0	16	160	22	0	27	11	29	0	715
02:45 PM	39	210	72	4	67	19	11	0	10	173	18	0	27	21	30	0	701
Total	131	922	293	12	287	62	53	3	53	761	77	0	101	61	120	0	2936
Grand Total	289	1758	612	24	568	123	100	11	96	1532	151	6	207	116	257	1	5851
Apprch %	10.8	65.5	22.8	0.9	70.8	15.3	12.5	1.4	5.4	85.8	8.5	0.3	35.6	20	44.2	0.2	
Total %	4.9	30	10.5	0.4	9.7	2.1	1.7	0.2	1.6	26.2	2.6	0.1	3.5	2	4.4	0	

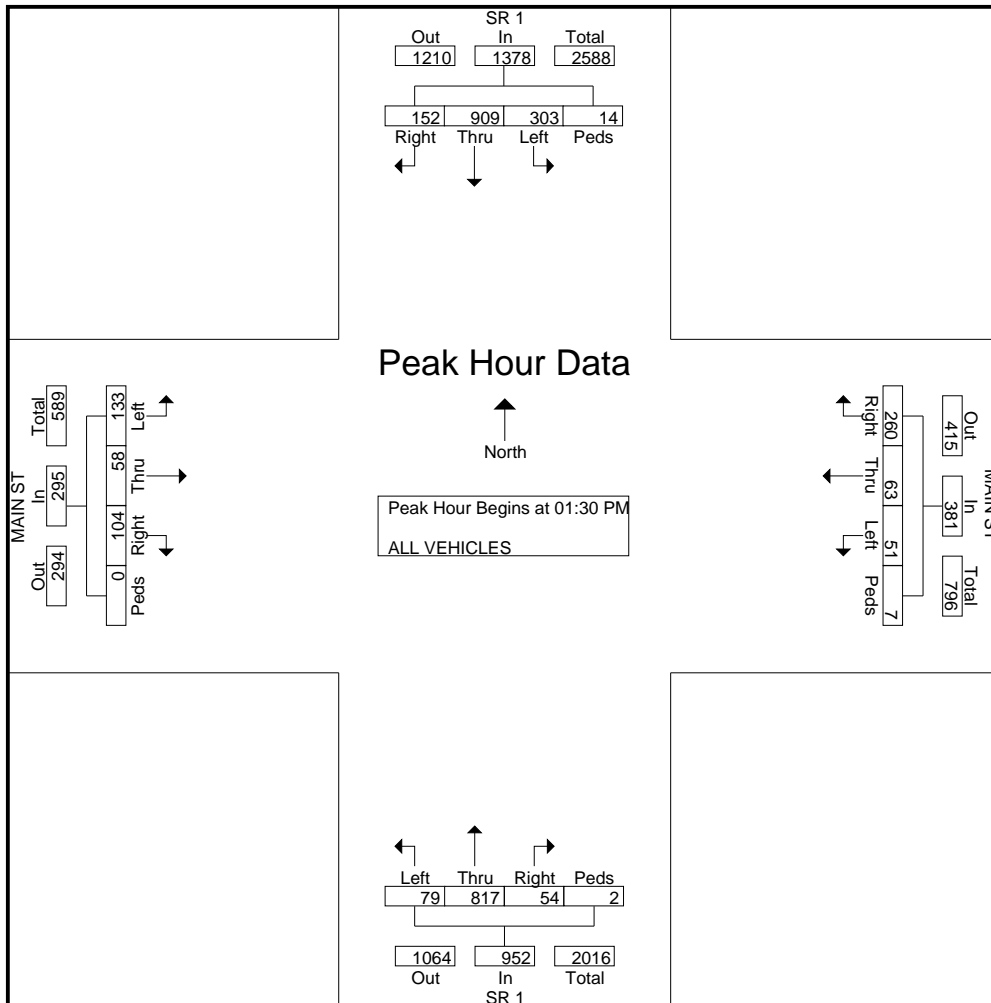


All Traffic Data Services

2187 Kingsbury Cir
Santa Clara, CA, 95054
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File Name : #6 SR1&MAINWE
Site Code : 6
Start Date : 5/24/2014
Page No : 2

Start Time	SR 1 Southbound					MAIN ST Westbound					SR 1 Northbound					MAIN ST Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	43	206	85	3	337	63	20	10	4	97	15	203	26	2	246	29	11	29	0	69	749
01:45 PM	48	220	74	4	346	62	14	12	0	88	12	186	16	0	214	28	18	43	0	89	737
02:00 PM	24	255	76	3	358	67	17	14	3	101	18	206	20	0	244	20	4	26	0	50	753
02:15 PM	37	228	68	4	337	68	12	15	0	95	9	222	17	0	248	27	25	35	0	87	767
Total Volume	152	909	303	14	1378	260	63	51	7	381	54	817	79	2	952	104	58	133	0	295	3006
% App. Total	11	66	22	1		68.2	16.5	13.4	1.8		5.7	85.8	8.3	0.2		35.3	19.7	45.1	0		
PHF	.792	.891	.891	.875	.962	.956	.788	.850	.438	.943	.750	.920	.760	.250	.960	.897	.580	.773	.000	.829	.980



Appendix B
Hourly Counts along Highway 1

Appendix C

Volume Summary Table

Big Wave North Parcel Alternative TIA

Intersection Number:	1												
Traffic Node Number:	1												
Intersection Name:	Capistrano Rd & Prospect Wy												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo County Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	31	9	0	0	0	0	0	6	143	152	0	12	353
Approved Project Trips													
ATI	0	0	0	0	0	0	0	0	2	2	0	0	4
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	2	2	0	0	4
Background Conditions	31	9	0	0	0	0	0	6	145	154	0	12	357
check	31	9	0	0	0	0	0	6	145	154	0	12	
Project Trips													
Project Trips	0	0	0	0	0	0	0	0	86	20	0	0	106
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	0	0	0	0	86	20	0	0	106
Existing + Project	31	9	0	0	0	0	0	6	229	172	0	12	459
Existing + Project Check	31	9	0	0	0	0	0	6	229	172	0	12	
Background + Project	31	9	0	0	0	0	0	6	231	174	0	12	463
Bkgrd+Proj check	31	9	0	0	0	0	0	6	231	174	0	12	
Link Volume Growth													
Growth	0	0	0	0	0	0	0	86	45	20	0	0	151
Cumulative Plus Proj Conditions	31	9	0	0	0	0	0	92	188	172	0	12	504
Cumulative Plus Proj Check	31	9	0	0	0	0	0	92	188	172	0	12	504
Cumulative No Proj Conditions	31	9	0	0	0	0	0	92	102	152	0	12	398

Intersection Number:	2												
Traffic Node Number:	2												
Intersection Name:	Cornell Ave & Prospect Wy												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo County Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	1	144	124	0	47	18	0	0	0	0	0	334
Approved Project Trips													
ATI	0	0	1	0	0	2	1	0	0	0	0	0	4
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	1	0	0	2	1	0	0	0	0	0	4
Background Conditions	0	1	145	124	0	49	19	0	0	0	0	0	338
check	0	1	145	124	0	49	19	0	0	0	0	0	
Project Trips													
Project Trips	0	0	20	86	0	0	0	0	0	0	0	0	106
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	20	86	0	0	0	0	0	0	0	0	106
Existing + Project	0	1	164	210	0	47	18	0	0	0	0	0	440
Existing + Project Check	0	1	164	210	0	47	18	0	0	0	0	0	
Background + Project	0	1	165	210	0	49	19	0	0	0	0	0	444
Bkgrd+Proj check	0	1	165	210	0	49	19	0	0	0	0	0	
Link Volume Growth													
Growth	0	0	20	86	0	13	0	0	0	0	0	0	119
Cumulative Plus Proj Conditions	0	1	164	210	0	60	18	0	0	0	0	0	453
Cumulative Plus Proj Check	0	1	164	210	0	60	18	0	0	0	0	0	453
Cumulative No Proj Conditions	0	1	144	124	0	60	18	0	0	0	0	0	347

Big Wave North Parcel Alternative TIA

Intersection Number:	3												
Traffic Node Number:	3												
Intersection Name:	Airport St & Stanford/Cornell Ave												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	6	68	85	37	5	4	1	11	2	0	5	8	232
Approved Project Trips													
	ATI	0	1	1	0	0	0	1	0	0	0	0	3
	Growth	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	1	1	0	0	0	1	0	0	0	0	3
Background Conditions	6	69	86	37	5	4	1	12	2	0	5	8	235
	check	6	69	86	37	5	4	1	12	2	0	5	8
Project Trips													
	Project Trips	0	12	8	33	0	0	0	55	0	0	0	108
	Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0
	Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0
	Net Project Trips	0	12	8	33	0	0	0	55	0	0	0	108
Existing + Project	6	80	93	70	5	4	1	66	2	0	5	8	340
	Existing + Project Check	6	80	93	70	5	4	1	66	2	0	5	8
Background + Project	6	81	94	70	5	4	1	67	2	0	5	8	343
	Bkgrd+Proj check	6	81	94	70	5	4	1	67	2	0	5	8
Link Volume Growth	49			47			0			0			
	Growth	2	21	26	38	5	4	0	55	0	0	0	151
Cumulative Plus Proj Conditions	8	89	111	75	10	8	1	66	2	0	5	8	383
	Cumulative Plus Proj Check	8	89	111	75	10	8	1	66	2	0	5	8
Cumulative No Proj Conditions	8	77	103	42	10	8	1	11	2	0	5	8	275

Intersection Number:	4												
Traffic Node Number:	4												
Intersection Name:	Airport St & La Granada Ave												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	11	16	0	0	0	0	0	22	45	124	0	37	255
Approved Project Trips													
	ATI	0	1	0	0	0	0	1	0	1	0	0	3
	Growth	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	1	0	0	0	0	1	0	1	0	0	3
Background Conditions	11	17	0	0	0	0	0	23	45	125	0	37	258
	check	11	17	0	0	0	0	23	45	125	0	37	
Project Trips													
	Project Trips	0	73	0	0	0	0	16	0	2	0	0	91
	Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0
	Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0
	Net Project Trips	0	73	0	0	0	0	16	0	2	0	0	91
Existing + Project	11	89	0	0	0	0	0	38	45	126	0	37	346
	Existing + Project Check	11	89	0	0	0	0	38	45	126	0	37	
Background + Project	11	90	0	0	0	0	0	39	45	127	0	37	349
	Bkgrd+Proj check	11	90	0	0	0	0	39	45	127	0	37	
Link Volume Growth	41			0			49			0			
	Growth	17	73	0	0	0	0	16	33	2	0	0	141
Cumulative Plus Proj Conditions	28	89	0	0	0	0	0	38	78	126	0	37	396
	Cumulative Plus Proj Check	28	89	0	0	0	0	38	78	126	0	37	
Cumulative No Proj Conditions	28	16	0	0	0	0	0	22	78	124	0	37	305

Big Wave North Parcel Alternative TIA

Intersection Number:	5												
Traffic Node Number:	5												
Intersection Name:	Airport St & Los Banos Ave												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	10	30	0	0	0	0	0	48	4	4	0	22	118
Approved Project Trips													
ATI	0	1	0	0	0	0	0	1	0	0	0	0	2
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	1	0	0	0	0	0	1	0	0	0	0	2
Background Conditions	10	31	0	0	0	0	0	49	4	4	0	22	120
check	10	31	0	0	0	0	0	49	4	4	0	22	
Project Trips													
Project Trips	0	72	0	0	0	0	0	16	0	1	0	0	89
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	72	0	0	0	0	0	16	0	1	0	0	89
Existing + Project	10	102	0	0	0	0	0	64	4	5	0	22	207
Existing + Project Check	10	102	0	0	0	0	0	64	4	5	0	22	
Background + Project	10	103	0	0	0	0	0	65	4	5	0	22	209
Bkgrd+Proj check	10	103	0	0	0	0	0	65	4	5	0	22	
Link Volume Growth													
Growth	10	72	0	0	0	0	0	45	4	1	0	0	132
Cumulative Plus Proj Conditions	20	102	0	0	0	0	0	93	8	5	0	22	250
Cumulative Plus Proj Check	20	102	0	0	0	0	0	93	8	5	0	22	250
Cumulative No Proj Conditions	20	30	0	0	0	0	0	77	8	4	0	22	161

Intersection Number:	6												
Traffic Node Number:	6												
Intersection Name:	Hwy 1 & Cypress Ave												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	36	498	4	7	1	15	6	489	15	19	1	64	1155
Approved Project Trips													
ATI	0	0	1	0	0	0	0	0	0	0	1	0	2
Growth	1	20	0	0	0	0	0	20	1	0	0	0	42
Total Approved Trips	1	20	1	0	0	0	0	20	1	0	1	0	44
Background Conditions	37	518	5	7	1	15	6	509	16	19	2	64	1199
check	37	518	5	7	1	15	6	509	16	19	2	64	
Project Trips													
Project Trips	64	0	0	0	8	0	0	0	0	0	3	13	88
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	64	0	0	0	8	0	0	0	0	0	3	13	88
Existing + Project	100	498	4	7	9	15	6	489	15	19	4	77	1243
Existing + Project Check	100	498	4	7	9	15	6	489	15	19	4	77	
Background + Project	101	518	5	7	9	15	6	509	16	19	5	77	1287
Bkgrd+Proj check	101	518	5	7	9	15	6	509	16	19	5	77	
Link Volume Growth													
Growth	31	433	3	0	8	0	2	185	6	11	3	37	720
Cumulative Plus Proj Conditions	67	931	7	7	9	15	8	674	21	30	4	101	1875
Cumulative Plus Proj Check	67	931	7	7	9	15	8	674	21	30	4	101	1875
Cumulative No Proj Conditions	3	931	7	7	1	15	8	674	21	30	1	88	1787

Big Wave North Parcel Alternative TIA

Intersection Number:	7												
Traffic Node Number:	7												
Intersection Name:	Hwy 1 & Capistrano Rd (N)												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	14	545	0	0	0	0	0	506	2	3	0	7	1077
Approved Project Trips													
ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1	22	0	0	0	0	0	20	0	0	0	0	43
Total Approved Trips	1	22	0	0	0	0	0	20	0	0	0	0	43
Background Conditions	15	567	0	0	0	0	0	526	2	3	0	7	1120
check	15	567	0	0	0	0	0	526	2	3	0	7	
Project Trips													
Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing + Project	14	545	0	0	0	0	0	506	2	3	0	7	1077
Existing + Project Check	14	545	0	0	0	0	0	506	2	3	0	7	
Background + Project	15	567	0	0	0	0	0	526	2	3	0	7	1120
Bkgrd+Proj check	15	567	0	0	0	0	0	526	2	3	0	7	
Link Volume Growth													
Growth	11	416	0	0	0	0	0	143	1	0	0	0	571
Cumulative Plus Proj Conditions	25	961	0	0	0	0	0	649	3	3	0	7	1648
Cumulative Plus Proj Check	25	961	0	0	0	0	0	649	3	3	0	7	1648
Cumulative No Proj Conditions	25	961	0	0	0	0	0	649	3	3	0	7	1648

Intersection Number:	8												
Traffic Node Number:	8												
Intersection Name:	Hwy 1 & Capistrano Rd (S)												
Peak Hour:	AM											Date of Analysis: 05/02/14	
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	12	430	50	152	83	87	37	330	129	114	63	12	1499
Approved Project Trips													
ATI	0	0	0	0	1	0	0	0	1	2	0	0	4
Growth	0	17	2	0	0	0	1	13	5	0	0	0	40
Total Approved Trips	0	17	2	0	1	0	1	13	6	2	0	0	44
Background Conditions	12	447	52	152	84	87	38	343	135	116	63	12	1543
check	12	447	52	152	84	87	38	343	135	116	63	12	
Project Trips													
Project Trips	0	0	0	0	16	0	0	0	70	16	4	0	106
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	16	0	0	0	70	16	4	0	106
Existing + Project	12	430	50	152	99	87	37	330	199	130	67	12	1605
Existing + Project Check	12	430	50	152	99	87	37	330	199	130	67	12	
Background + Project	12	447	52	152	100	87	38	343	205	132	67	12	1649
Bkgrd+Proj check	12	447	52	152	100	87	38	343	205	132	67	12	
Link Volume Growth													
Growth	10	373	43	29	16	17	10	85	70	30	16	3	703
Cumulative Plus Proj Conditions	22	803	93	181	99	104	47	415	199	144	79	15	2202
Cumulative Plus Proj Check	22	803	93	181	99	104	47	415	199	144	79	15	2202
Cumulative No Proj Conditions	22	803	93	181	83	104	47	415	129	128	75	15	2096

Big Wave North Parcel Alternative TIA

Intersection Number:	9												
Traffic Node Number:	9												
Intersection Name:	SR 1 & Main St												
Peak Hour:	AM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo County Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	133	1004	400	232	48	95	79	485	65	63	86	69	2759
Approved Project Trips													
	ATI	0	0	0	0	0	0	0	0	0	0	0	0
	Growth	5	40	16	0	0	3	19	3	0	0	0	87
	Total Approved Trips	5	40	16	0	0	3	19	3	0	0	0	87
Background Conditions	138	1044	416	232	48	95	82	504	68	63	86	69	2846
	check	138	1044	416	232	48	82	504	68	63	86	69	
Project Trips													
	Project Trips	0	8	3	16	0	0	32	0	0	0	0	59
	Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0
	Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0
	Net Project Trips	0	8	3	16	0	0	32	0	0	0	0	59
Existing + Project	133	1012	403	248	48	95	79	517	65	63	86	69	2818
	Existing + Project Check	133	1012	403	248	48	79	517	65	63	86	69	
Background + Project	138	1052	419	248	48	95	82	536	68	63	86	69	2905
	Bkgrd+Proj check	138	1052	419	248	48	82	536	68	63	86	69	
Link Volume Growth													
	Growth	31	237	94	16	3	5	8	48	6	0	0	449
Cumulative Plus Proj Conditions	164	1241	494	248	51	100	87	533	71	63	86	69	3208
	Cumulative Plus Proj Check	164	1241	494	248	51	87	533	71	63	86	69	3208
Cumulative No Proj Conditions	164	1233	491	232	51	100	87	501	71	63	86	69	3149

Intersection Number:	10												
Traffic Node Number:	10												
Intersection Name:	SR 1 & SR 92												
Peak Hour:	AM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo County Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	6	662	390	78	35	244	445	567	78	56	38	13	2612
Approved Project Trips													
	ATI	0	0	0	0	0	0	0	0	0	0	0	0
	Growth	0	26	16	3	1	10	18	23	3	2	2	104
	Total Approved Trips	0	26	16	3	1	10	18	23	3	2	2	104
Background Conditions	6	688	406	81	36	254	463	590	81	58	40	14	2716
	check	6	688	406	81	36	463	590	81	58	40	14	
Project Trips													
	Project Trips	0	3	5	16	0	0	16	0	0	0	0	40
	Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0
	Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0
	Net Project Trips	0	3	5	16	0	0	16	0	0	0	0	40
Existing + Project	6	665	395	94	35	244	445	583	78	56	38	13	2652
	Existing + Project Check	6	665	395	94	35	445	583	78	56	38	13	
Background + Project	6	691	411	97	36	254	463	606	81	58	40	14	2756
	Bkgrd+Proj check	6	691	411	97	36	463	606	81	58	40	14	
Link Volume Growth													
	Growth	1	105	62	31	14	98	25	32	4	0	0	374
Cumulative Plus Proj Conditions	7	767	452	109	49	342	470	599	82	56	38	13	2986
	Cumulative Plus Proj Check	7	767	452	109	49	470	599	82	56	38	13	2986
Cumulative No Proj Conditions	7	764	447	93	49	342	470	583	82	56	38	13	2946

Big Wave North Parcel Alternative TIA

Intersection Number:	11												
Traffic Node Number:	11												
Intersection Name:	SR 92 & Main St												
Peak Hour:	AM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo County Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	29	81	239	141	250	104	164	174	62	80	730	76	2130
Approved Project Trips													
ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	0	0	0	6	10	4	0	0	0	3	29	3	55
Total Approved Trips	0	0	0	6	10	4	0	0	0	3	29	3	55
Background Conditions	29	81	239	147	260	108	164	174	62	83	759	79	2185
check	29	81	239	147	260	108	164	174	62	83	759	79	
Project Trips													
Project Trips	0	0	3	16	16	0	0	0	0	0	5	0	40
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	3	16	16	0	0	0	0	0	5	0	40
Existing + Project	29	81	242	157	266	104	164	174	62	80	735	76	2170
Existing + Project Check	29	81	242	157	266	104	164	174	62	80	735	76	
Background + Project	29	81	242	163	276	108	164	174	62	83	764	79	2225
Bkgrd+Proj check	29	81	242	163	276	108	164	174	62	83	764	79	
Link Volume Growth													
Growth	16	45	133	83	146	61	64	68	24	-19	-175	-18	428
Cumulative Plus Proj Conditions	45	126	372	224	396	165	228	242	86	61	555	58	2558
Cumulative Plus Proj Check	45	126	372	224	396	165	228	242	86	61	555	58	2558
Cumulative No Proj Conditions	45	126	369	208	380	165	228	242	86	61	550	58	2518

Big Wave North Parcel Alternative TIA

Scenario:													
Movements													
North Approach			East Approach			South Approach			West Approach			Total	
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Intersection Number: 1													
Traffix Node Number: 1													
Intersection Name: Capistrano Rd & Prospect Wy													
Peak Hour: PM Date of Analysis: 05/02/14													
Count Date: 01/00/00													
Scenario: 161,263 sf office building & 70,500 Wellness Center													
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
Existing Conditions													
40	32	0	0	0	0	0	36	168	185	0	25	486	
Approved Project Trips													
CSJ ATI		0	0	0	0	0	0	1	4	0	0	5	
Growth		0	0	0	0	0	0	0	0	0	0	0	
Total Approved Trips		0	0	0	0	0	0	1	4	0	0	5	
Background Conditions													
40	32	0	0	0	0	0	36	169	189	0	25	491	
check		40	32	0	0	0	0	36	169	189	0	25	
Project Trips													
Project Trips		0	0	0	0	0	0	23	80	0	0	103	
Project Trips-2		0	0	0	0	0	0	0	0	0	0	0	
Project Trips-3		0	0	0	0	0	0	0	0	0	0	0	
Net Project Trips		0	0	0	0	0	0	23	80	0	0	103	
Existing + Project													
40	32	0	0	0	0	0	36	191	265	0	25	589	
Existing + Project Check		40	32	0	0	0	0	36	191	265	0	25	
Background + Project													
40	32	0	0	0	0	0	36	192	269	0	25	594	
Bkgrd+Proj check		40	32	0	0	0	0	36	192	269	0	25	
Link Volume Growth													
Growth		0	0	0	0	0	0	8	38	80	0	130	
Cumulative Plus Proj Conditions													
40	32	0	0	0	0	0	44	206	265	0	29	616	
Cumulative Plus Proj Check		40	32	0	0	0	0	44	206	265	0	29	
Cumulative No Proj Conditions													
40	32	0	0	0	0	0	44	183	185	0	29	513	

Scenario:													
Movements													
North Approach			East Approach			South Approach			West Approach			Total	
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Intersection Number: 2													
Traffix Node Number: 2													
Intersection Name: Cornell Ave & Prospect Wy													
Peak Hour: PM Date of Analysis: 05/02/14													
Count Date: 01/00/00													
Scenario: 161,263 sf office building & 70,500 Wellness Center													
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
Existing Conditions													
0	2	162	165	0	41	47	2	0	0	0	0	419	
Approved Project Trips													
CSJ ATI		0	0	3	0	1	1	0	0	0	0	5	
Growth		0	0	0	0	0	0	0	0	0	0	0	
Total Approved Trips		0	0	3	0	1	1	0	0	0	0	5	
Background Conditions													
0	2	165	165	0	42	48	2	0	0	0	0	424	
check		0	2	165	165	0	42	48	2	0	0	0	
Project Trips													
Project Trips		0	0	80	23	0	0	0	0	0	0	103	
Project Trips-2		0	0	0	0	0	0	0	0	0	0	0	
Project Trips-3		0	0	0	0	0	0	0	0	0	0	0	
Net Project Trips		0	0	80	23	0	0	0	0	0	0	103	
Existing + Project													
0	2	242	188	0	41	47	2	0	0	0	0	522	
Existing + Project Check		0	2	242	188	0	41	47	2	0	0	0	
Background + Project													
0	2	245	188	0	42	48	2	0	0	0	0	527	
Bkgrd+Proj check		0	2	245	188	0	42	48	2	0	0	0	
Link Volume Growth													
Growth		0	0	80	37	0	9	0	0	0	0	126	
Cumulative Plus Proj Conditions													
0	2	242	202	0	50	47	2	0	0	0	0	545	
Cumulative Plus Proj Check		0	2	242	202	0	50	47	2	0	0	0	
Cumulative No Proj Conditions													
0	2	162	179	0	50	47	2	0	0	0	0	442	

Big Wave North Parcel Alternative TIA

Intersection Number:	3												
Traffic Node Number:	3												
Intersection Name:	Airport St & Stanford/Cornell Ave												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	3	59	46	101	3	3	4	24	1	4	13	10	271
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	1	2	0	0	0	0	3
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	1	2	0	0	0	0	3
Background Conditions	3	59	46	101	3	3	5	26	1	4	13	10	274
	check	3	59	46	101	3	3	5	26	1	4	13	10
Project Trips													
Project Trips	0	51	30	9	0	0	0	14	0	0	0	0	104
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	51	30	9	0	0	0	14	0	0	0	0	104
Existing + Project	3	110	76	110	3	3	4	38	1	4	13	10	375
	Existing + Project Check	3	110	76	110	3	3	4	38	1	4	13	10
Background + Project	3	110	76	110	3	3	5	40	1	4	13	10	378
	Bkgrd+Proj check	3	110	76	110	3	3	5	40	1	4	13	10
Link Volume Growth	2			46			0			0			
Growth	0	51	30	43	1	1	0	14	0	0	0	0	141
Cumulative Plus Proj Conditions	3	110	76	144	4	4	4	38	1	4	13	10	412
	Cumulative Plus Proj Check	3	110	76	144	4	4	4	38	1	4	13	10
Cumulative No Proj Conditions	3	59	46	135	4	4	4	24	1	4	13	10	308

Intersection Number:	4												
Traffic Node Number:	4												
Intersection Name:	Airport St & La Granada Ave												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	39	49	0	0	0	0	0	53	73	50	0	9	273
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	1	1	1	0	0	3
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	1	1	1	0	0	3
Background Conditions	39	49	0	0	0	0	0	54	74	51	0	9	276
	check	39	49	0	0	0	0	54	74	51	0	9	
Project Trips													
Project Trips	0	19	0	0	0	0	0	68	1	0	0	0	88
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	19	0	0	0	0	0	68	1	0	0	0	88
Existing + Project	39	68	0	0	0	0	0	121	74	50	0	9	361
	Existing + Project Check	39	68	0	0	0	0	121	74	50	0	9	
Background + Project	39	68	0	0	0	0	0	122	75	51	0	9	364
	Bkgrd+Proj check	39	68	0	0	0	0	122	75	51	0	9	
Link Volume Growth	2			0			0			0			
Growth	1	19	0	0	0	0	0	68	1	0	0	0	89
Cumulative Plus Proj Conditions	40	68	0	0	0	0	0	121	74	50	0	9	362
	Cumulative Plus Proj Check	40	68	0	0	0	0	121	74	50	0	9	362
Cumulative No Proj Conditions	40	49	0	0	0	0	0	53	73	50	0	9	274

Big Wave North Parcel Alternative TIA

Intersection Number:	5												
Traffic Node Number:	5												
Intersection Name:	Airport St & Los Banos Ave												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	20	70	0	0	0	0	0	50	6	10	0	14	170
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	1	1	0	0	0	2
Growth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	1	1	0	0	0	2
Background Conditions	20	70	0	0	0	0	0	51	7	10	0	14	172
check	20	70	0	0	0	0	0	51	7	10	0	14	
Project Trips													
Project Trips	0	18	0	0	0	0	0	66	2	1	0	0	87
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	18	0	0	0	0	0	66	2	1	0	0	87
Existing + Project	20	88	0	0	0	0	0	116	8	11	0	14	257
Existing + Project Check	20	88	0	0	0	0	0	116	8	11	0	14	
Background + Project	20	88	0	0	0	0	0	117	9	11	0	14	259
Bkgrd+Proj check	20	88	0	0	0	0	0	117	9	11	0	14	
Link Volume Growth	2			0			0			0			
Growth	0	18	0	0	0	0	0	66	2	1	0	0	87
Cumulative Plus Proj Conditions	20	88	0	0	0	0	0	116	8	11	0	14	257
Cumulative Plus Proj Check	20	88	0	0	0	0	0	116	8	11	0	14	257
Cumulative No Proj Conditions	20	70	0	0	0	0	0	50	6	10	0	14	170

Intersection Number:	6												
Traffic Node Number:	6												
Intersection Name:	Hwy 1 & Cypress Ave												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	75	627	9	5	3	4	7	609	36	16	5	48	1444
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	0	0	0	1	0	1
Growth	3	25	0	0	0	0	0	24	1	0	0	0	55
Total Approved Trips	3	25	0	0	0	0	0	24	1	0	1	0	56
Background Conditions	78	652	9	5	3	4	7	633	37	16	6	48	1500
check	78	652	9	5	3	4	7	633	37	16	6	48	
Project Trips													
Project Trips	15	0	0	0	3	0	0	0	0	0	7	59	84
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	15	0	0	0	3	0	0	0	0	0	7	59	84
Existing + Project	90	627	9	5	6	4	7	609	36	16	12	107	1528
Existing + Project Check	90	627	9	5	6	4	7	609	36	16	12	107	
Background + Project	93	652	9	5	6	4	7	633	37	16	13	107	1584
Bkgrd+Proj check	93	652	9	5	6	4	7	633	37	16	13	107	
Link Volume Growth	250			4			279			155			
Growth	26	220	3	2	3	1	3	261	15	36	11	108	690
Cumulative Plus Proj Conditions	101	847	12	7	6	5	10	870	51	52	16	156	2134
Cumulative Plus Proj Check	101	847	12	7	6	5	10	870	51	52	16	156	2134
Cumulative No Proj Conditions	86	847	12	7	3	5	10	870	51	52	9	97	2050

Big Wave North Parcel Alternative TIA

Intersection Number:	7												
Traffic Node Number:	7												
Intersection Name:	Hwy 1 & Capistrano Rd (N)												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	45	644	0	0	0	0	0	653	9	12	0	24	1387
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	2	26	0	0	0	0	0	26	0	0	0	0	54
Total Approved Trips	2	26	0	0	0	0	0	26	0	0	0	0	54
Background Conditions	47	670	0	0	0	0	0	679	9	12	0	24	1441
check	47	670	0	0	0	0	0	679	9	12	0	24	
Project Trips													
Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing + Project	45	644	0	0	0	0	0	653	9	12	0	24	1387
Existing + Project Check	45	644	0	0	0	0	0	653	9	12	0	24	
Background + Project	47	670	0	0	0	0	0	679	9	12	0	24	1441
Bkgrd+Proj check	47	670	0	0	0	0	0	679	9	12	0	24	
Link Volume Growth	204			0			370			0			
Growth	13	191	0	0	0	0	0	365	5	0	0	0	574
Cumulative Plus Proj Conditions	58	835	0	0	0	0	0	1018	14	12	0	24	1961
Cumulative Plus Proj Check	58	835	0	0	0	0	0	1018	14	12	0	24	1961
Cumulative No Proj Conditions	58	835	0	0	0	0	0	1018	14	12	0	24	1961

Intersection Number:	8												
Traffic Node Number:	8												
Intersection Name:	Hwy 1 & Capistrano Rd (S)												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	21	460	140	99	65	37	60	575	197	150	75	55	1934
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	0	1	2	0	0	3
Growth	1	18	6	0	0	0	2	23	8	0	0	0	58
Total Approved Trips	1	18	6	0	0	0	2	23	9	2	0	0	61
Background Conditions	22	478	146	99	65	37	62	598	206	152	75	55	1995
check	22	478	146	99	65	37	62	598	206	152	75	55	
Project Trips													
Project Trips	0	0	0	0	4	0	0	0	19	65	15	0	103
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	4	0	0	0	19	65	15	0	103
Existing + Project	21	460	140	99	69	37	60	575	216	215	90	55	2037
Existing + Project Check	21	460	140	99	69	37	60	575	216	215	90	55	
Background + Project	22	478	146	99	69	37	62	598	225	217	90	55	2098
Bkgrd+Proj check	22	478	146	99	69	37	62	598	225	217	90	55	
Link Volume Growth	204			54			381			36			
Growth	7	151	46	27	17	10	27	263	90	65	15	7	726
Cumulative Plus Proj Conditions	28	611	186	126	82	47	87	838	287	215	90	62	2660
Cumulative Plus Proj Check	28	611	186	126	82	47	87	838	287	215	90	62	2660
Cumulative No Proj Conditions	28	611	186	126	78	47	87	838	268	150	75	62	2557

Big Wave North Parcel Alternative TIA

Intersection Number:	9												
Traffic Node Number:	9												
Intersection Name:	SR 1 & Main St												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	145	688	271	535	78	50	38	721	72	55	58	174	2885
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	6	28	11	0	0	0	2	29	3	0	0	0	77
Total Approved Trips	6	28	11	0	0	0	2	29	3	0	0	0	77
Background Conditions	151	716	282	535	78	50	40	750	75	55	58	174	2962
check	151	716	282	535	78	50	40	750	75	55	58	174	
Project Trips													
Project Trips	0	31	14	3	0	0	0	9	0	0	0	0	57
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	31	14	3	0	0	0	9	0	0	0	0	57
Existing + Project	145	719	285	538	78	50	38	730	72	55	58	174	2942
Existing + Project Check	145	719	285	538	78	50	38	730	72	55	58	174	
Background + Project	151	747	296	538	78	50	40	759	75	55	58	174	3019
Bkgrd+Proj check	151	747	296	538	78	50	40	759	75	55	58	174	
Link Volume Growth	150			203			130			0			
Growth	20	93	37	164	24	15	6	113	11	0	0	0	483
Cumulative Plus Proj Conditions	165	781	308	699	102	65	44	834	83	55	58	174	3368
Cumulative Plus Proj Check	165	781	308	699	102	65	44	834	83	55	58	174	3368
Cumulative No Proj Conditions	165	750	294	696	102	65	44	825	83	55	58	174	3311

Intersection Number:	10												
Traffic Node Number:	10												
Intersection Name:	SR 1 & SR 92												
Peak Hour:	PM												
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2%													
Cumulative Traffic Volumes were estimated by San Mateo Country Travel Demand Model long range forecast.													
	Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	10	635	185	106	90	515	273	704	125	156	21	41	2861
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	0	25	7	4	4	21	11	28	5	6	1	2	114
Total Approved Trips	0	25	7	4	4	21	11	28	5	6	1	2	114
Background Conditions	10	660	192	110	94	536	284	732	130	162	22	43	2975
check	10	660	192	110	94	536	284	732	130	162	22	43	
Project Trips													
Project Trips	0	15	16	6	0	0	0	3	0	0	0	0	40
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	15	16	6	0	0	0	3	0	0	0	0	40
Existing + Project	10	650	201	112	90	515	273	707	125	156	21	41	2901
Existing + Project Check	10	650	201	112	90	515	273	707	125	156	21	41	
Background + Project	10	675	208	116	94	536	284	735	130	162	22	43	3015
Bkgrd+Proj check	10	675	208	116	94	536	284	735	130	162	22	43	
Link Volume Growth	31			-54			310			0			
Growth	0	24	16	6	0	0	77	198	35	0	0	0	356
Cumulative Plus Proj Conditions	10	659	201	112	90	515	350	902	160	156	21	41	3217
Cumulative Plus Proj Check	10	659	201	112	90	515	350	902	160	156	21	41	3217
Cumulative No Proj Conditions	10	644	185	106	90	515	350	899	160	156	21	41	3177

Big Wave North Parcel Alternative TIA

Intersection Number:	11												
Traffic Node Number:	11												
Intersection Name:	SR 92 & Main St												
Peak Hour:	PM									Date of Analysis: 05/02/14			
Count Date:	01/00/00												
Scenario:	161,263 sf office building & 70,500 Wellness Center												
Future Growth % Per Year for Background along SR 1 and SR 92: 2% Cumulative Traffic Volumes were estimated by San Mateo County Travel Demand Model long range forecast.													
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	62	157	198	423	546	172	118	209	109	104	323	39	2460
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	0	0	0	17	22	7	0	0	0	4	13	2	64
Total Approved Trips	0	0	0	17	22	7	0	0	0	4	13	2	64
Background Conditions	62	157	198	440	568	179	118	209	109	108	336	41	2524
check	62	157	198	440	568	179	118	209	109	108	336	41	
Project Trips													
Project Trips	0	0	14	3	6	0	0	0	0	0	16	0	39
Project Trips-2	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	14	3	6	0	0	0	0	0	16	0	39
Existing + Project	62	157	212	426	552	172	118	209	109	104	339	39	2499
Existing + Project Check	62	157	212	426	552	172	118	209	109	104	339	39	
Background + Project	62	157	212	443	574	179	118	209	109	108	352	41	2563
Bkgrd+Proj check	62	157	212	443	574	179	118	209	109	108	352	41	
Link Volume Growth	120			269			259			110			
Growth	18	45	57	100	129	41	70	124	65	25	76	9	758
Cumulative Plus Proj Conditions	80	202	255	523	675	213	188	333	174	129	399	48	3218
Cumulative Plus Proj Check	80	202	255	523	675	213	188	333	174	129	399	48	3218
Cumulative No Proj Conditions	80	202	241	520	669	213	188	333	174	129	383	48	3179

Appendix D

Level of Service Calculations and Traffic Signal Warrants

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	152	143	6	9	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	165	155	7	10	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	344	27	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	344	27	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	84	90			
cM capacity (veh/h)	588	1049	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	178	162	43			
Volume Left	13	155	0			
Volume Right	165	0	34			
cSH	992	1565	1700			
Volume to Capacity	0.18	0.10	0.03			
Queue Length 95th (ft)	16	8	0			
Control Delay (s)	9.4	7.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	7.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.5			
Intersection Capacity Utilization		31.6%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

5/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	47	124	0	18	144	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	135	0	20	157	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	324	10			20	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	324	10			20	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	87			90	
cM capacity (veh/h)	604	1072			1597	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	186	20	158
Volume Left	51	0	157
Volume Right	135	20	0
cSH	884	1700	1597
Volume to Capacity	0.21	0.01	0.10
Queue Length 95th (ft)	20	0	8
Control Delay (s)	10.2	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.2	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		8.4	
Intersection Capacity Utilization		31.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	5	0	4	5	37	2	11	1	85	68	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	0	4	5	40	2	12	1	92	74	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	322	279	77	282	282	12	80			13		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	322	279	77	282	282	12	80			13		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	99	96	100			94		
cM capacity (veh/h)	576	592	984	636	590	1068	1517			1605		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	14	50	15	173
Volume Left	9	4	2	92
Volume Right	0	40	1	7
cSH	582	931	1517	1605
Volume to Capacity	0.02	0.05	0.00	0.06
Queue Length 95th (ft)	2	4	0	5
Control Delay (s)	11.3	9.1	1.1	4.2
Lane LOS	B	A	A	A
Approach Delay (s)	11.3	9.1	1.1	4.2
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	25.3%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	37	124	45	22	16	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	135	49	24	17	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	145	23	29			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	145	23	29			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	87	97			
cM capacity (veh/h)	821	1053	1584			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	175	73	29			
Volume Left	40	49	0			
Volume Right	135	0	12			
cSH	989	1584	1700			
Volume to Capacity	0.18	0.03	0.02			
Queue Length 95th (ft)	16	2	0			
Control Delay (s)	9.4	5.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	5.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.3			
Intersection Capacity Utilization			26.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	22	4	4	48	30	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	4	4	52	33	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	99	38	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	99	38	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	100			
cM capacity (veh/h)	897	1034	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	28	57	43			
Volume Left	24	4	0			
Volume Right	4	0	11			
cSH	916	1565	1700			
Volume to Capacity	0.03	0.00	0.03			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	9.1	0.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.1	0.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			15.8%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	64	1	19	15	1	7	15	489	6	4	498	36
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	1	21	16	1	8	16	532	7	4	541	39
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1142	1140	561	1139	1157	535	580			538		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1142	1140	561	1139	1157	535	580			538		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	59	99	96	90	99	99	98			100		
cM capacity (veh/h)	172	197	527	168	192	545	994			1030		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	91	25	16	538	4	580
Volume Left	70	16	16	0	4	0
Volume Right	21	8	0	7	0	39
cSH	203	214	994	1700	1030	1700
Volume to Capacity	0.45	0.12	0.02	0.32	0.00	0.34
Queue Length 95th (ft)	53	10	1	0	0	0
Control Delay (s)	36.5	24.0	8.7	0.0	8.5	0.0
Lane LOS	E	C	A		A	
Approach Delay (s)	36.5	24.0	0.3		0.1	
Approach LOS	E	C				

Intersection Summary		
Average Delay		3.3
Intersection Capacity Utilization	41.0%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	3	2	506	545	14
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	3	2	550	592	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	872	592	592			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	872	592	592			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	100			
cM capacity (veh/h)	289	449	979			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	3	2	275	275	592	15
Volume Left	8	0	2	0	0	0	0
Volume Right	0	3	0	0	0	0	15
cSH	289	449	979	1700	1700	1700	1700
Volume to Capacity	0.03	0.01	0.00	0.16	0.16	0.35	0.01
Queue Length 95th (ft)	2	1	0	0	0	0	0
Control Delay (s)	17.8	13.1	8.7	0.0	0.0	0.0	0.0
Lane LOS	C	B	A				
Approach Delay (s)	16.4		0.0	0.0			
Approach LOS	C						

Intersection Summary			
Average Delay			0.2
Intersection Capacity Utilization	38.7%		ICU Level of Service
Analysis Period (min)	15		A

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕		↖	↕	↗
Volume (vph)	12	63	114	87	83	152	129	330	37	50	430	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.94		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1848	1583		1721		3433	3486		1770	3539	1583
Flt Permitted		0.93	1.00		0.89		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1735	1583		1558		3433	3486		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	68	124	95	90	165	140	359	40	54	467	13
RTOR Reduction (vph)	0	0	66	0	34	0	0	8	0	0	0	9
Lane Group Flow (vph)	0	81	58	0	316	0	140	391	0	54	467	4
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		16.2	24.3		16.2		8.1	19.2		4.5	15.6	15.6
Effective Green, g (s)		16.2	24.3		16.2		8.1	19.2		4.5	15.6	15.6
Actuated g/C Ratio		0.31	0.47		0.31		0.16	0.37		0.09	0.30	0.30
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		541	863		486		535	1289		153	1063	475
v/s Ratio Prot			0.01				0.04	c0.11		c0.03	c0.13	
v/s Ratio Perm		0.05	0.03		c0.20							0.00
v/c Ratio		0.15	0.07		0.65		0.26	0.30		0.35	0.44	0.01
Uniform Delay, d1		12.9	7.6		15.4		19.3	11.6		22.3	14.6	12.7
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.1	0.0		3.1		0.3	0.1		1.4	0.3	0.0
Delay (s)		13.0	7.6		18.5		19.5	11.7		23.7	14.9	12.7
Level of Service		B	A		B		B	B		C	B	B
Approach Delay (s)		9.7			18.5			13.8			15.8	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	51.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	69	86	63	95	48	232	65	485	79	400	1004	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1822	1583		1803	1583	1770	3465		1770	3477	
Flt Permitted		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1822	1583		1803	1583	1770	3465		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	93	68	103	52	252	71	527	86	435	1091	145
RTOR Reduction (vph)	0	0	54	0	0	146	0	13	0	0	10	0
Lane Group Flow (vph)	0	168	14	0	155	106	71	600	0	435	1226	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.0	19.1		12.6	37.9	6.1	23.1		25.3	42.3	
Effective Green, g (s)		13.0	19.1		12.6	37.9	6.1	23.1		25.3	42.3	
Actuated g/C Ratio		0.14	0.21		0.14	0.42	0.07	0.26		0.28	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		263	335		252	736	119	889		497	1634	
v/s Ratio Prot		c0.09	0.00		c0.09	0.04	0.04	0.17		c0.25	c0.35	
v/s Ratio Perm			0.01			0.03						
v/c Ratio		0.64	0.04		0.62	0.14	0.60	0.67		0.88	0.75	
Uniform Delay, d1		36.3	28.2		36.4	16.1	40.8	30.1		30.8	19.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		4.4	0.1	7.8	4.1		15.7	3.2	
Delay (s)		41.3	28.2		40.8	16.1	48.6	34.2		46.6	22.7	
Level of Service		D	C		D	B	D	C		D	C	
Approach Delay (s)		37.5			25.5			35.6			28.9	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	30.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	↖
Volume (vph)	13	38	56	244	35	78	78	567	445	390	662	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1839	1583	1681	1706	1583	1770	3539	1583	3433	3534	
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3534	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	41	61	265	38	85	85	616	484	424	720	7
RTOR Reduction (vph)	0	0	47	0	0	52	0	0	371	0	1	0
Lane Group Flow (vph)	0	55	14	151	152	33	85	616	113	424	726	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0	
Effective Green, g (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0	
Actuated g/C Ratio		0.23	0.23	0.39	0.39	0.39	0.41	0.23	0.23	0.18	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	461	543	620	431	825	369	600	824	
v/s Ratio Prot				c0.03	0.03		0.03	0.17		c0.12	c0.21	
v/s Ratio Perm		0.03	0.01	c0.10	0.08	0.02	0.05		0.07			
v/c Ratio		0.14	0.04	0.33	0.28	0.05	0.20	0.75	0.31	0.71	0.88	
Uniform Delay, d1		18.2	17.8	13.0	12.5	11.3	11.0	21.4	19.0	23.3	22.2	
Progression Factor		1.00	1.00	0.63	0.60	0.82	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.7	0.2	0.4	0.3	0.2	0.2	3.7	0.5	6.9	13.0	
Delay (s)		18.9	18.0	8.6	7.8	9.4	11.3	25.1	19.5	30.2	35.2	
Level of Service		B	B	A	A	A	B	C	B	C	D	
Approach Delay (s)		18.4			8.5			21.8			33.4	
Approach LOS		B			A			C			C	

Intersection Summary

HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	730	80	104	250	141	62	174	164	239	81	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1788	
Flt Permitted	0.41	1.00	1.00	0.29	1.00	1.00	0.46	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	768	3539	1583	548	3539	1583	858	1863	1583	1189	1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	793	87	113	272	153	67	189	178	260	88	32
RTOR Reduction (vph)	0	0	63	0	0	110	0	0	131	0	20	0
Lane Group Flow (vph)	83	793	24	113	272	43	67	189	47	260	100	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Effective Green, g (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Actuated g/C Ratio	0.27	0.27	0.27	0.28	0.28	0.28	0.27	0.27	0.27	0.35	0.35	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	256	967	432	218	990	443	283	496	422	493	619	
v/s Ratio Prot	0.02	c0.22		c0.03	0.08		0.01	c0.10		c0.07	0.06	
v/s Ratio Perm	0.07		0.02	0.12		0.03	0.05		0.03	c0.11		
v/c Ratio	0.32	0.82	0.06	0.52	0.27	0.10	0.24	0.38	0.11	0.53	0.16	
Uniform Delay, d1	16.8	20.4	16.1	20.9	16.8	16.0	16.9	18.0	16.6	16.4	13.6	
Progression Factor	1.21	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.5	6.0	0.2	2.1	0.2	0.1	0.4	2.2	0.5	1.0	0.1	
Delay (s)	22.8	31.6	16.3	22.9	17.0	16.1	17.3	20.2	17.2	17.4	13.7	
Level of Service	C	C	B	C	B	B	B	C	B	B	B	
Approach Delay (s)		29.4			18.0			18.5			16.2	
Approach LOS		C			B			B			B	

Intersection Summary

HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	25	185	168	36	32	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	201	183	39	35	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	461	57	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	461	57	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	80	88			
cM capacity (veh/h)	492	1010	1520			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	228	222	78			
Volume Left	27	183	0			
Volume Right	201	0	43			
cSH	897	1520	1700			
Volume to Capacity	0.25	0.12	0.05			
Queue Length 95th (ft)	25	10	0			
Control Delay (s)	10.4	6.5	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.4	6.5	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			7.2			
Intersection Capacity Utilization			37.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

5/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	41	165	2	47	162	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	179	2	51	176	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	382	28			53	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	382	28			53	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	83			89	
cM capacity (veh/h)	550	1048			1552	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	224	53	178
Volume Left	45	0	176
Volume Right	179	51	0
cSH	888	1700	1552
Volume to Capacity	0.25	0.03	0.11
Queue Length 95th (ft)	25	0	10
Control Delay (s)	10.4	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.4	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		8.1	
Intersection Capacity Utilization		34.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	10	13	4	3	3	101	1	24	4	46	59	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	14	4	3	3	110	1	26	4	50	64	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	308	198	66	208	198	28	67			30		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	308	198	66	208	198	28	67			30		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	100	100	100	90	100			97		
cM capacity (veh/h)	561	675	998	717	675	1047	1534			1582		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	116	32	117
Volume Left	11	3	1	50
Volume Right	4	110	4	3
cSH	657	1018	1534	1582
Volume to Capacity	0.04	0.11	0.00	0.03
Queue Length 95th (ft)	4	10	0	2
Control Delay (s)	10.7	9.0	0.3	3.3
Lane LOS	B	A	A	A
Approach Delay (s)	10.7	9.0	0.3	3.3
Approach LOS	B	A		

Intersection Summary			
Average Delay		6.0	
Intersection Capacity Utilization	25.8%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	50	73	53	49	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	54	79	58	53	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	291	74	96			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	291	74	96			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	94	95			
cM capacity (veh/h)	663	987	1498			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	64	137	96			
Volume Left	10	79	0			
Volume Right	54	0	42			
cSH	919	1498	1700			
Volume to Capacity	0.07	0.05	0.06			
Queue Length 95th (ft)	6	4	0			
Control Delay (s)	9.2	4.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	4.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utilization		23.7%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	10	6	50	70	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	11	7	54	76	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	154	87	98			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	154	87	98			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	834	972	1495			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	26	61	98			
Volume Left	15	7	0			
Volume Right	11	0	22			
cSH	886	1495	1700			
Volume to Capacity	0.03	0.00	0.06			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	9.2	0.8	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	0.8	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization		17.7%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (veh/h)	48	5	16	4	3	5	36	609	7	9	627	75
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	5	17	4	3	5	39	662	8	10	682	82
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1489	1490	722	1465	1527	666	763			670		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1489	1490	722	1465	1527	666	763			670		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	45	95	96	95	97	99	95			99		
cM capacity (veh/h)	94	117	427	94	111	460	850			921		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	75	13	39	670	10	763
Volume Left	52	4	39	0	10	0
Volume Right	17	5	0	8	0	82
cSH	117	149	850	1700	921	1700
Volume to Capacity	0.64	0.09	0.05	0.39	0.01	0.45
Queue Length 95th (ft)	82	7	4	0	1	0
Control Delay (s)	78.8	31.4	9.4	0.0	9.0	0.0
Lane LOS	F	D	A		A	
Approach Delay (s)	78.8	31.4	0.5		0.1	
Approach LOS	F	D				

Intersection Summary		
Average Delay		4.3
Intersection Capacity Utilization	51.7%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	24	12	9	653	644	75
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	13	10	710	700	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1074	700	700			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1074	700	700			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	97	99			
cM capacity (veh/h)	212	382	893			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	13	10	355	355	700	82
Volume Left	26	0	10	0	0	0	0
Volume Right	0	13	0	0	0	0	82
cSH	212	382	893	1700	1700	1700	1700
Volume to Capacity	0.12	0.03	0.01	0.21	0.21	0.41	0.05
Queue Length 95th (ft)	10	3	1	0	0	0	0
Control Delay (s)	24.3	14.8	9.1	0.0	0.0	0.0	0.0
Lane LOS	C	B	A				
Approach Delay (s)	21.1		0.1			0.0	
Approach LOS	C						

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	43.9%		ICU Level of Service A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	55	75	150	37	65	99	197	575	60	140	460	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.98	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1824	1583		1723		3433	3489		1770	3539	1583
Flt Permitted		0.79	1.00		0.92		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1476	1583		1603		3433	3489		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	82	163	40	71	108	214	625	65	152	500	23
RTOR Reduction (vph)	0	0	83	0	41	0	0	7	0	0	0	15
Lane Group Flow (vph)	0	142	80	0	178	0	214	683	0	152	500	8
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		12.0	21.5		12.0		9.5	20.2		8.7	19.4	19.4
Effective Green, g (s)		12.0	21.5		12.0		9.5	20.2		8.7	19.4	19.4
Actuated g/C Ratio		0.23	0.41		0.23		0.18	0.38		0.16	0.37	0.37
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		334	763		363		616	1332		291	1297	580
v/s Ratio Prot			0.02				0.06	c0.20		c0.09	0.14	
v/s Ratio Perm		0.10	0.03		c0.11							0.01
v/c Ratio		0.43	0.11		0.49		0.35	0.51		0.52	0.39	0.01
Uniform Delay, d1		17.5	9.7		17.8		19.0	12.6		20.2	12.4	10.7
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.9	0.1		1.0		0.3	0.3		1.7	0.2	0.0
Delay (s)		18.4	9.8		18.8		19.3	12.9		21.9	12.5	10.7
Level of Service		B	A		B		B	B		C	B	B
Approach Delay (s)		13.8			18.8		14.4			14.6		
Approach LOS		B			B		B			B		

Intersection Summary

HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	52.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	174	58	55	50	78	535	72	721	38	271	688	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1827	1583	1770	3513		1770	3447	
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1583		1827	1583	1770	3513		1770	3447	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	63	60	54	85	582	78	784	41	295	748	158
RTOR Reduction (vph)	0	0	46	0	0	85	0	4	0	0	18	0
Lane Group Flow (vph)	0	252	14	0	139	497	78	821	0	295	888	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.2	21.6		12.0	32.6	6.4	26.2		20.6	40.4	
Effective Green, g (s)		15.2	21.6		12.0	32.6	6.4	26.2		20.6	40.4	
Actuated g/C Ratio		0.17	0.24		0.13	0.36	0.07	0.29		0.23	0.45	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		303	379		243	643	125	1022		405	1547	
v/s Ratio Prot		c0.14	0.00		0.08	c0.18	0.04	c0.23		0.17	0.26	
v/s Ratio Perm			0.01			0.14						
v/c Ratio		0.83	0.04		0.57	0.77	0.62	0.80		0.73	0.57	
Uniform Delay, d1		36.2	26.2		36.6	25.4	40.6	29.5		32.1	18.4	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4	0.0		3.2	5.7	9.3	6.7		6.4	1.6	
Delay (s)		53.5	26.3		39.8	31.1	50.0	36.2		38.5	20.0	
Level of Service		D	C		D	C	D	D		D	B	
Approach Delay (s)		48.3			32.8			37.4			24.5	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	
Volume (vph)	41	21	156	515	90	106	125	704	273	185	635	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Fl _t Protected		0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1803	1583	1681	1709	1583	1770	3539	1583	3433	3531	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	23	170	560	98	115	136	765	297	201	690	11
RTOR Reduction (vph)	0	0	130	0	0	67	0	0	228	0	1	0
Lane Group Flow (vph)	0	68	40	325	333	48	136	765	69	201	700	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Effective Green, g (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Actuated g/C Ratio		0.23	0.23	0.42	0.42	0.42	0.23	0.23	0.23	0.15	0.35	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	509	592	664	163	825	369	503	1224	
v/s Ratio Prot				c0.08	0.07		0.03	c0.22		0.06	c0.20	
v/s Ratio Perm		0.04	0.03	c0.19	0.17	0.03	0.17		0.04			
v/c Ratio		0.17	0.11	0.64	0.56	0.07	0.83	0.93	0.19	0.40	0.57	
Uniform Delay, d ₁		18.4	18.1	14.8	13.2	10.4	22.4	22.5	18.4	23.2	16.0	
Progression Factor		1.00	1.00	0.67	0.62	1.47	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		0.9	0.6	2.2	1.0	0.2	29.1	16.2	0.2	2.4	1.9	
Delay (s)		19.3	18.7	12.0	9.2	15.5	51.6	38.7	18.7	25.6	17.9	
Level of Service		B	B	B	A	B	D	D	B	C	B	
Approach Delay (s)		18.8			11.3			35.2			19.6	
Approach LOS		B			B			D			B	

Intersection Summary

HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖	↗↗	↖	↖	↗	↖	↖	↗	↗
Volume (vph)	39	323	104	172	546	423	109	209	118	198	157	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1784	
Flt Permitted	0.33	1.00	1.00	0.54	1.00	1.00	0.36	1.00	1.00	0.62	1.00	
Satd. Flow (perm)	621	3539	1583	1009	3539	1583	665	1863	1583	1149	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	351	113	187	593	460	118	227	128	215	171	67
RTOR Reduction (vph)	0	0	84	0	0	337	0	0	94	0	23	0
Lane Group Flow (vph)	42	351	29	187	593	123	118	227	34	215	215	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Effective Green, g (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	896	401	319	943	422	265	496	422	474	594	
v/s Ratio Prot	0.01	c0.10		0.04	c0.17		0.04	c0.12		c0.07	0.12	
v/s Ratio Perm	0.04		0.02	0.12		0.08	0.08		0.02	0.08		
v/c Ratio	0.19	0.39	0.07	0.59	0.63	0.29	0.45	0.46	0.08	0.45	0.36	
Uniform Delay, d1	17.7	18.6	17.0	19.8	19.4	17.5	17.6	18.4	16.5	16.4	15.2	
Progression Factor	1.15	1.18	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.8	1.2	0.3	2.7	1.3	0.4	1.2	3.0	0.4	0.7	1.7	
Delay (s)	22.1	23.1	17.3	22.5	20.7	17.9	18.8	21.4	16.9	17.1	16.9	
Level of Service	C	C	B	C	C	B	B	C	B	B	B	
Approach Delay (s)		21.8			19.9			19.5			17.0	
Approach LOS		C			B			B			B	

Intersection Summary

HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (veh/h)	35	4	34	10	5	4	36	694	4	3	839	61
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	4	37	11	5	4	39	754	4	3	912	66
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1791	1789	945	1792	1820	757	978			759		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1791	1789	945	1792	1820	757	978			759		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	32	94	88	78	93	99	94			100		
cM capacity (veh/h)	56	76	318	51	73	408	705			853		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	79	21	39	759	3	978
Volume Left	38	11	39	0	3	0
Volume Right	37	4	0	4	0	66
cSH	93	69	705	1700	853	1700
Volume to Capacity	0.85	0.30	0.06	0.45	0.00	0.58
Queue Length 95th (ft)	117	27	4	0	0	0
Control Delay (s)	137.2	78.4	10.4	0.0	9.2	0.0
Lane LOS	F	F	B		A	
Approach Delay (s)	137.2	78.4	0.5		0.0	
Approach LOS	F	F				

Intersection Summary		
Average Delay		6.9
Intersection Capacity Utilization	59.6%	ICU Level of Service
Analysis Period (min)		15
		B

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	35	41	16	685	845	57
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	45	17	745	918	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1326	918	918			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1326	918	918			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	84	98			
cM capacity (veh/h)	144	274	739			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	38	45	17	372	372	918	62
Volume Left	38	0	17	0	0	0	0
Volume Right	0	45	0	0	0	0	62
cSH	144	274	739	1700	1700	1700	1700
Volume to Capacity	0.26	0.16	0.02	0.22	0.22	0.54	0.04
Queue Length 95th (ft)	25	14	2	0	0	0	0
Control Delay (s)	38.9	20.7	10.0	0.0	0.0	0.0	0.0
Lane LOS	E	C	A				
Approach Delay (s)	29.1		0.2			0.0	
Approach LOS	D						

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	108	135	291	9	94	83	276	447	35	245	481	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.98	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1822	1583		1746		3433	3501		1770	3539	1583
Flt Permitted		0.76	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1419	1583		1719		3433	3501		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	147	316	10	102	90	300	486	38	266	523	137
RTOR Reduction (vph)	0	0	64	0	31	0	0	6	0	0	0	94
Lane Group Flow (vph)	0	264	252	0	171	0	300	518	0	266	523	43
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		18.4	30.4		18.4		12.0	16.3		15.3	19.6	19.6
Effective Green, g (s)		18.4	30.4		18.4		12.0	16.3		15.3	19.6	19.6
Actuated g/C Ratio		0.30	0.49		0.30		0.19	0.26		0.25	0.32	0.32
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		421	878		510		664	920		436	1118	500
v/s Ratio Prot			0.06				0.09	c0.15		c0.15	c0.15	
v/s Ratio Perm		c0.19	0.10		0.10							0.03
v/c Ratio		0.63	0.29		0.34		0.45	0.56		0.61	0.47	0.09
Uniform Delay, d1		18.8	9.4		17.0		22.1	19.8		20.7	17.0	14.9
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		2.9	0.2		0.4		0.5	0.8		2.5	0.3	0.1
Delay (s)		21.7	9.6		17.4		22.6	20.6		23.2	17.3	15.0
Level of Service		C	A		B		C	C		C	B	B
Approach Delay (s)		15.1			17.4		21.3				18.7	
Approach LOS		B			B		C				B	

Intersection Summary

HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	133	58	104	51	63	260	79	817	54	303	909	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1800	1583		1822	1583	1770	3506		1770	3463	
Flt Permitted		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1800	1583		1822	1583	1770	3506		1770	3463	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	145	63	113	55	68	283	86	888	59	329	988	165
RTOR Reduction (vph)	0	0	85	0	0	118	0	5	0	0	14	0
Lane Group Flow (vph)	0	208	28	0	123	165	86	942	0	329	1139	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		14.2	22.5		11.3	32.5	8.3	27.3		21.2	40.2	
Effective Green, g (s)		14.2	22.5		11.3	32.5	8.3	27.3		21.2	40.2	
Actuated g/C Ratio		0.16	0.25		0.13	0.36	0.09	0.30		0.24	0.45	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		284	395		228	641	163	1063		416	1546	
v/s Ratio Prot		c0.12	0.01		c0.07	0.06	0.05	c0.27		c0.19	0.33	
v/s Ratio Perm			0.01			0.04						
v/c Ratio		0.73	0.07		0.54	0.26	0.53	0.89		0.79	0.74	
Uniform Delay, d1		36.1	25.8		36.9	20.2	39.0	29.9		32.3	20.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		9.4	0.1		2.4	0.2	3.1	10.9		9.9	3.2	
Delay (s)		45.5	25.9		39.4	20.5	42.0	40.8		42.2	23.7	
Level of Service		D	C		D	C	D	D		D	C	
Approach Delay (s)		38.6			26.2			40.9			27.8	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	↖
Volume (vph)	34	36	149	624	74	297	107	609	404	305	748	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Fl _t Protected		0.98	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1818	1583	1681	1702	1583	1770	3539	1583	3433	3520	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	39	162	678	80	323	116	662	439	332	813	30
RTOR Reduction (vph)	0	0	124	0	0	88	0	0	337	0	5	0
Lane Group Flow (vph)	0	76	38	373	385	235	116	662	102	332	838	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	26.3	26.3	26.3	21.7	14.0	14.0	7.7	14.0	
Effective Green, g (s)		14.0	14.0	26.3	26.3	26.3	21.7	14.0	14.0	7.7	14.0	
Actuated g/C Ratio		0.23	0.23	0.44	0.44	0.44	0.36	0.23	0.23	0.13	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	540	623	693	348	825	369	440	821	
v/s Ratio Prot				c0.10	0.09		0.04	0.19		c0.10	c0.24	
v/s Ratio Perm		0.04	0.02	c0.21	0.19	0.15	0.08		0.06			
v/c Ratio		0.19	0.10	0.69	0.62	0.34	0.33	0.80	0.28	0.75	1.02	
Uniform Delay, d ₁		18.4	18.1	14.7	13.0	11.1	13.1	21.7	18.9	25.2	23.0	
Progression Factor		1.00	1.00	0.65	0.59	0.50	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		1.0	0.6	2.6	1.2	0.9	0.6	5.7	0.4	11.4	36.9	
Delay (s)		19.5	18.6	12.1	9.0	6.4	13.6	27.4	19.3	36.6	59.9	
Level of Service		B	B	B	A	A	B	C	B	D	E	
Approach Delay (s)		18.9			9.3			23.1			53.3	
Approach LOS		B			A			C			D	

Intersection Summary

HCM 2000 Control Delay	28.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	532	88	168	738	157	136	149	130	206	153	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1787	
Flt Permitted	0.33	1.00	1.00	0.43	1.00	1.00	0.36	1.00	1.00	0.65	1.00	
Satd. Flow (perm)	621	3539	1583	809	3539	1583	665	1863	1583	1219	1787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	578	96	183	802	171	148	162	141	224	166	62
RTOR Reduction (vph)	0	0	69	0	0	125	0	0	103	0	22	0
Lane Group Flow (vph)	46	578	27	183	802	46	148	162	38	224	206	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.8	16.8	16.8	16.0	16.0	16.0	16.0	16.0	16.0	18.4	18.4	
Effective Green, g (s)	16.8	16.8	16.8	16.0	16.0	16.0	16.0	16.0	16.0	18.4	18.4	
Actuated g/C Ratio	0.28	0.28	0.28	0.27	0.27	0.27	0.27	0.27	0.27	0.31	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	265	990	443	279	943	422	265	496	422	439	548	
v/s Ratio Prot	0.01	c0.16		0.04	c0.23		c0.04	0.09		c0.06	0.12	
v/s Ratio Perm	0.03		0.02	0.13		0.03	c0.10		0.02	0.10		
v/c Ratio	0.17	0.58	0.06	0.66	0.85	0.11	0.56	0.33	0.09	0.51	0.38	
Uniform Delay, d1	16.5	18.6	15.8	20.6	20.9	16.6	17.9	17.7	16.5	17.7	16.3	
Progression Factor	1.11	1.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	1.9	0.2	5.5	7.4	0.1	2.5	1.8	0.4	1.0	0.4	
Delay (s)	19.4	23.6	16.0	26.1	28.3	16.7	20.5	19.4	16.9	18.7	16.7	
Level of Service	B	C	B	C	C	B	C	B	B	B	B	
Approach Delay (s)		22.3			26.2			19.0			17.7	
Approach LOS		C			C			B			B	

Intersection Summary

HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	172	229	6	9	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	187	249	7	10	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	531	27	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	531	27	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	82	84			
cM capacity (veh/h)	428	1049	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	200	255	43			
Volume Left	13	249	0			
Volume Right	187	0	34			
cSH	958	1565	1700			
Volume to Capacity	0.21	0.16	0.03			
Queue Length 95th (ft)	20	14	0			
Control Delay (s)	9.7	7.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	7.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.8			
Intersection Capacity Utilization			37.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

6/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	47	210	0	18	164	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	228	0	20	178	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	367	10			20	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	367	10			20	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	79			89	
cM capacity (veh/h)	562	1072			1597	

















Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	279	20	179
Volume Left	51	0	178
Volume Right	228	20	0
cSH	919	1700	1597
Volume to Capacity	0.30	0.01	0.11
Queue Length 95th (ft)	32	0	9
Control Delay (s)	10.6	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.6	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		9.0	
Intersection Capacity Utilization		38.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

6/30/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	5	0	4	5	70	2	66	1	93	80	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	0	4	5	76	2	72	1	101	87	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	448	370	90	372	372	72	93			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	448	370	90	372	372	72	93			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	99	92	100			93		
cM capacity (veh/h)	453	522	968	550	520	990	1501			1527		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	86	75	195								
Volume Left	9	4	2	101								
Volume Right	0	76	1	7								
cSH	477	902	1501	1527								
Volume to Capacity	0.03	0.10	0.00	0.07								
Queue Length 95th (ft)	2	8	0	5								
Control Delay (s)	12.8	9.4	0.2	4.2								
Lane LOS	B	A	A	A								
Approach Delay (s)	12.8	9.4	0.2	4.2								
Approach LOS	B	A										
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			27.8%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	37	126	45	38	89	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	137	49	41	97	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	242	103	109			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	242	103	109			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	86	97			
cM capacity (veh/h)	722	952	1482			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	177	90	109			
Volume Left	40	49	0			
Volume Right	137	0	12			
cSH	888	1482	1700			
Volume to Capacity	0.20	0.03	0.06			
Queue Length 95th (ft)	19	3	0			
Control Delay (s)	10.1	4.2	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.1	4.2	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilization			27.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	22	5	4	64	102	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	5	4	70	111	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	195	116	122			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	195	116	122			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	100			
cM capacity (veh/h)	792	936	1466			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	29	74	122			
Volume Left	24	4	0			
Volume Right	5	0	11			
cSH	815	1466	1700			
Volume to Capacity	0.04	0.00	0.07			
Queue Length 95th (ft)	3	0	0			
Control Delay (s)	9.6	0.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			16.6%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (veh/h)	77	4	19	15	9	7	15	489	6	4	498	100
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	84	4	21	16	10	8	16	532	7	4	541	109
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1181	1175	596	1140	1226	535	650			538		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1181	1175	596	1140	1226	535	650			538		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	46	98	96	90	94	99	98			100		
cM capacity (veh/h)	155	187	504	165	175	545	936			1030		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	109	34	16	538	4	650
Volume Left	84	16	16	0	4	0
Volume Right	21	8	0	7	0	109
cSH	180	200	936	1700	1030	1700
Volume to Capacity	0.60	0.17	0.02	0.32	0.00	0.38
Queue Length 95th (ft)	83	15	1	0	0	0
Control Delay (s)	51.6	26.7	8.9	0.0	8.5	0.0
Lane LOS	F	D	A		A	
Approach Delay (s)	51.6	26.7	0.3		0.1	
Approach LOS	F	D				

Intersection Summary

Average Delay	5.0
Intersection Capacity Utilization	47.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	3	2	506	545	14
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	3	2	550	592	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	872	592	592			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	872	592	592			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	100			
cM capacity (veh/h)	289	449	979			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	3	2	275	275	592	15
Volume Left	8	0	2	0	0	0	0
Volume Right	0	3	0	0	0	0	15
cSH	289	449	979	1700	1700	1700	1700
Volume to Capacity	0.03	0.01	0.00	0.16	0.16	0.35	0.01
Queue Length 95th (ft)	2	1	0	0	0	0	0
Control Delay (s)	17.8	13.1	8.7	0.0	0.0	0.0	0.0
Lane LOS	C	B	A				
Approach Delay (s)	16.4		0.0			0.0	
Approach LOS	C						

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	12	67	130	87	99	152	199	330	37	50	430	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.94		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1849	1583		1728		3433	3486		1770	3539	1583
Flt Permitted		0.93	1.00		0.90		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1740	1583		1570		3433	3486		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	73	141	95	108	165	216	359	40	54	467	13
RTOR Reduction (vph)	0	0	72	0	30	0	0	7	0	0	0	9
Lane Group Flow (vph)	0	86	69	0	338	0	216	392	0	54	467	4
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		17.7	27.2		17.7		9.5	21.2		4.5	16.2	16.2
Effective Green, g (s)		17.7	27.2		17.7		9.5	21.2		4.5	16.2	16.2
Actuated g/C Ratio		0.32	0.49		0.32		0.17	0.38		0.08	0.29	0.29
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		555	891		501		588	1333		143	1034	462
v/s Ratio Prot			0.01				c0.06	0.11		0.03	c0.13	
v/s Ratio Perm		0.05	0.03		c0.22							0.00
v/c Ratio		0.15	0.08		0.67		0.37	0.29		0.38	0.45	0.01
Uniform Delay, d1		13.5	7.5		16.4		20.3	11.9		24.1	16.0	13.9
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.1	0.0		3.6		0.4	0.1		1.7	0.3	0.0
Delay (s)		13.6	7.5		19.9		20.7	12.0		25.8	16.3	13.9
Level of Service		B	A		B		C	B		C	B	B
Approach Delay (s)		9.8			19.9			15.1			17.2	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	55.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↕↔		↔	↕↔	
Volume (vph)	69	86	63	95	48	248	65	517	79	403	1012	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1822	1583		1803	1583	1770	3469		1770	3477	
Flt Permitted		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1822	1583		1803	1583	1770	3469		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	93	68	103	52	270	71	562	86	438	1100	145
RTOR Reduction (vph)	0	0	54	0	0	156	0	13	0	0	10	0
Lane Group Flow (vph)	0	168	14	0	155	114	71	635	0	438	1235	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.0	19.1		12.6	38.0	6.1	23.0		25.4	42.3	
Effective Green, g (s)		13.0	19.1		12.6	38.0	6.1	23.0		25.4	42.3	
Actuated g/C Ratio		0.14	0.21		0.14	0.42	0.07	0.26		0.28	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		263	335		252	738	119	886		499	1634	
v/s Ratio Prot		c0.09	0.00		c0.09	0.04	0.04	0.18		c0.25	c0.36	
v/s Ratio Perm			0.01			0.03						
v/c Ratio		0.64	0.04		0.62	0.15	0.60	0.72		0.88	0.76	
Uniform Delay, d1		36.3	28.2		36.4	16.1	40.8	30.5		30.8	19.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		4.4	0.1	7.8	5.0		15.9	3.3	
Delay (s)		41.3	28.2		40.8	16.2	48.6	35.5		46.7	22.9	
Level of Service		D	C		D	B	D	D		D	C	
Approach Delay (s)		37.5			25.2			36.8			29.1	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖↗	↕	↖↗
Volume (vph)	13	38	56	244	35	94	78	583	445	395	665	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Fl _t Protected		0.99	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1839	1583	1681	1706	1583	1770	3539	1583	3433	3534	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3534	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	41	61	265	38	102	85	634	484	429	723	7
RTOR Reduction (vph)	0	0	47	0	0	62	0	0	371	0	1	0
Lane Group Flow (vph)	0	55	14	151	152	40	85	634	113	429	729	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0	
Effective Green, g (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0	
Actuated g/C Ratio		0.23	0.23	0.39	0.39	0.39	0.41	0.23	0.23	0.18	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	461	543	620	431	825	369	600	824	
v/s Ratio Prot				c0.03	0.03		0.03	0.18		c0.12	c0.21	
v/s Ratio Perm		0.03	0.01	c0.10	0.08	0.03	0.05		0.07			
v/c Ratio		0.14	0.04	0.33	0.28	0.06	0.20	0.77	0.31	0.71	0.88	
Uniform Delay, d ₁		18.2	17.8	13.0	12.5	11.4	11.0	21.5	19.0	23.3	22.2	
Progression Factor		1.00	1.00	0.62	0.59	0.83	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		0.7	0.2	0.4	0.3	0.2	0.2	4.3	0.5	7.1	13.4	
Delay (s)		18.9	18.0	8.5	7.6	9.6	11.3	25.8	19.5	30.5	35.6	
Level of Service		B	B	A	A	A	B	C	B	C	D	
Approach Delay (s)		18.4			8.5			22.2			33.7	
Approach LOS		B			A			C			C	



























Intersection Summary

HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

6/30/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Volume (vph)	76	735	80	104	266	157	62	174	164	242	81	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1788	
Flt Permitted	0.41	1.00	1.00	0.29	1.00	1.00	0.46	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	756	3539	1583	548	3539	1583	858	1863	1583	1189	1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	799	87	113	289	171	67	189	178	263	88	32
RTOR Reduction (vph)	0	0	63	0	0	123	0	0	131	0	20	0
Lane Group Flow (vph)	83	799	24	113	289	48	67	189	47	263	100	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Effective Green, g (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Actuated g/C Ratio	0.27	0.27	0.27	0.28	0.28	0.28	0.27	0.27	0.27	0.35	0.35	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	253	967	432	218	990	443	283	496	422	493	619	
v/s Ratio Prot	0.02	c0.23		c0.03	0.08		0.01	c0.10		c0.07	0.06	
v/s Ratio Perm	0.07		0.02	0.12		0.03	0.05		0.03	c0.11		
v/c Ratio	0.33	0.83	0.06	0.52	0.29	0.11	0.24	0.38	0.11	0.53	0.16	
Uniform Delay, d1	16.8	20.5	16.1	20.9	16.9	16.0	16.9	18.0	16.6	16.4	13.6	
Progression Factor	1.21	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	6.2	0.2	2.1	0.2	0.1	0.4	2.2	0.5	1.1	0.1	
Delay (s)	23.0	31.8	16.3	23.0	17.1	16.1	17.3	20.2	17.2	17.6	13.7	
Level of Service	C	C	B	C	B	B	B	C	B	B	B	
Approach Delay (s)		29.7			18.0			18.5			16.3	
Approach LOS		C			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			22.6			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			60.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			62.0%			ICU Level of Service			B			
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	25	265	191	36	32	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	288	208	39	35	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	511	57	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	511	57	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	71	86			
cM capacity (veh/h)	451	1010	1520			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	315	247	78			
Volume Left	27	208	0			
Volume Right	288	0	43			
cSH	913	1520	1700			
Volume to Capacity	0.35	0.14	0.05			
Queue Length 95th (ft)	39	12	0			
Control Delay (s)	11.0	6.7	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.0	6.7	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			8.0			
Intersection Capacity Utilization		43.6%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

6/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	41	188	2	47	242	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	204	2	51	263	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	556	28			53	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	556	28			53	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	80			83	
cM capacity (veh/h)	409	1048			1552	

















Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	249	53	265
Volume Left	45	0	263
Volume Right	204	51	0
cSH	818	1700	1552
Volume to Capacity	0.30	0.03	0.17
Queue Length 95th (ft)	32	0	15
Control Delay (s)	11.3	0.0	7.7
Lane LOS	B		A
Approach Delay (s)	11.3	0.0	7.7
Approach LOS	B		

Intersection Summary			
Average Delay		8.6	
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

6/30/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	13	4	3	3	110	1	38	4	76	110	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	14	4	3	3	120	1	41	4	83	120	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	453	334	121	343	334	43	123			46		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	453	334	121	343	334	43	123			46		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	97	100	99	99	88	100			95		
cM capacity (veh/h)	436	555	930	572	555	1027	1464			1562		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	29	126	47	205								
Volume Left	11	3	1	83								
Volume Right	4	120	4	3								
cSH	533	985	1464	1562								
Volume to Capacity	0.06	0.13	0.00	0.05								
Queue Length 95th (ft)	4	11	0	4								
Control Delay (s)	12.2	9.2	0.2	3.2								
Lane LOS	B	A	A	A								
Approach Delay (s)	12.2	9.2	0.2	3.2								
Approach LOS	B	A										
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			30.7%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	50	74	121	68	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	54	80	132	74	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	388	95	116			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	388	95	116			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	94	95			
cM capacity (veh/h)	582	962	1472			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	64	212	116			
Volume Left	10	80	0			
Volume Right	54	0	42			
cSH	875	1472	1700			
Volume to Capacity	0.07	0.05	0.07			
Queue Length 95th (ft)	6	4	0			
Control Delay (s)	9.4	3.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	3.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			27.4%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	11	8	116	88	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	12	9	126	96	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	250	107	117			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	250	107	117			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	734	948	1471			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	27	135	117			
Volume Left	15	9	0			
Volume Right	12	0	22			
cSH	815	1471	1700			
Volume to Capacity	0.03	0.01	0.07			
Queue Length 95th (ft)	3	0	0			
Control Delay (s)	9.6	0.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization		22.7%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (veh/h)	107	12	16	4	6	5	36	609	7	9	627	90
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	116	13	17	4	7	5	39	662	8	10	682	98
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1499	1498	730	1469	1543	666	779			670		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1499	1498	730	1469	1543	666	779			670		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	89	96	95	94	99	95			99		
cM capacity (veh/h)	91	115	422	88	108	460	838			921		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	147	16	39	670	10	779
Volume Left	116	4	39	0	10	0
Volume Right	17	5	0	8	0	98
cSH	102	135	838	1700	921	1700
Volume to Capacity	1.44	0.12	0.05	0.39	0.01	0.46
Queue Length 95th (ft)	268	10	4	0	1	0
Control Delay (s)	318.4	35.4	9.5	0.0	9.0	0.0
Lane LOS	F	E	A		A	
Approach Delay (s)	318.4	35.4	0.5		0.1	
Approach LOS	F	E				

Intersection Summary		
Average Delay		28.8
Intersection Capacity Utilization	59.3%	ICU Level of Service
Analysis Period (min)		15
		B

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	24	12	9	653	644	45
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	13	10	710	700	49
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1074	700	700			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1074	700	700			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	97	99			
cM capacity (veh/h)	212	382	893			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	13	10	355	355	700	49
Volume Left	26	0	10	0	0	0	0
Volume Right	0	13	0	0	0	0	49
cSH	212	382	893	1700	1700	1700	1700
Volume to Capacity	0.12	0.03	0.01	0.21	0.21	0.41	0.03
Queue Length 95th (ft)	10	3	1	0	0	0	0
Control Delay (s)	24.3	14.8	9.1	0.0	0.0	0.0	0.0
Lane LOS	C	B	A				
Approach Delay (s)	21.1		0.1			0.0	
Approach LOS	C						

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	43.9%		ICU Level of Service A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↔		↖	↕		↘	↕	↗
Volume (vph)	55	90	215	37	69	99	216	575	60	140	460	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.98	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1828	1583		1725		3433	3489		1770	3539	1583
Flt Permitted		0.81	1.00		0.92		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1510	1583		1603		3433	3489		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	98	234	40	75	108	235	625	65	152	500	23
RTOR Reduction (vph)	0	0	81	0	39	0	0	7	0	0	0	15
Lane Group Flow (vph)	0	158	153	0	184	0	235	683	0	152	500	8
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		12.4	22.3		12.4		9.9	20.3		8.7	19.1	19.1
Effective Green, g (s)		12.4	22.3		12.4		9.9	20.3		8.7	19.1	19.1
Actuated g/C Ratio		0.23	0.42		0.23		0.19	0.38		0.16	0.36	0.36
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		350	779		372		636	1326		288	1265	566
v/s Ratio Prot			0.04				0.07	c0.20		c0.09	0.14	
v/s Ratio Perm		0.10	0.06		c0.11							0.01
v/c Ratio		0.45	0.20		0.49		0.37	0.51		0.53	0.40	0.01
Uniform Delay, d1		17.6	9.9		17.8		19.0	12.8		20.5	12.8	11.1
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.9	0.1		1.0		0.4	0.3		1.7	0.2	0.0
Delay (s)		18.5	10.0		18.8		19.4	13.1		22.2	13.0	11.1
Level of Service		B	A		B		B	B		C	B	B
Approach Delay (s)		13.4			18.8		14.7			15.0		
Approach LOS		B			B		B			B		

Intersection Summary

HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	53.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	174	58	55	50	78	538	72	730	38	285	719	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1827	1583	1770	3513		1770	3450	
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1583		1827	1583	1770	3513		1770	3450	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	63	60	54	85	585	78	793	41	310	782	158
RTOR Reduction (vph)	0	0	46	0	0	85	0	4	0	0	17	0
Lane Group Flow (vph)	0	252	14	0	139	500	78	830	0	310	923	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.2	21.6		12.0	32.9	6.4	25.9		20.9	40.4	
Effective Green, g (s)		15.2	21.6		12.0	32.9	6.4	25.9		20.9	40.4	
Actuated g/C Ratio		0.17	0.24		0.13	0.37	0.07	0.29		0.23	0.45	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		303	379		243	649	125	1010		411	1548	
v/s Ratio Prot		c0.14	0.00		0.08	c0.18	0.04	c0.24		0.18	0.27	
v/s Ratio Perm			0.01			0.14						
v/c Ratio		0.83	0.04		0.57	0.77	0.62	0.82		0.75	0.60	
Uniform Delay, d1		36.2	26.2		36.6	25.2	40.6	29.9		32.2	18.7	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4	0.0		3.2	5.6	9.3	7.5		7.7	1.7	
Delay (s)		53.5	26.3		39.8	30.8	50.0	37.4		39.8	20.4	
Level of Service		D	C		D	C	D	D		D	C	
Approach Delay (s)		48.3			32.6			38.5			25.2	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	↖
Volume (vph)	41	21	156	515	90	112	125	707	273	201	650	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Fl _t Protected		0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1803	1583	1681	1709	1583	1770	3539	1583	3433	3531	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	23	170	560	98	122	136	768	297	218	707	11
RTOR Reduction (vph)	0	0	130	0	0	71	0	0	228	0	1	0
Lane Group Flow (vph)	0	68	40	325	333	51	136	768	69	218	717	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Effective Green, g (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Actuated g/C Ratio		0.23	0.23	0.42	0.42	0.42	0.23	0.23	0.23	0.15	0.35	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	509	592	664	163	825	369	503	1224	
v/s Ratio Prot				c0.08	0.07		0.03	c0.22		0.06	c0.20	
v/s Ratio Perm		0.04	0.03	c0.19	0.17	0.03	0.17		0.04			
v/c Ratio		0.17	0.11	0.64	0.56	0.08	0.83	0.93	0.19	0.43	0.59	
Uniform Delay, d ₁		18.4	18.1	14.8	13.2	10.4	22.4	22.5	18.4	23.3	16.1	
Progression Factor		1.00	1.00	0.66	0.61	1.28	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		0.9	0.6	2.2	1.0	0.2	29.1	16.9	0.2	2.7	2.1	
Delay (s)		19.3	18.7	12.0	9.1	13.5	51.6	39.4	18.7	26.0	18.1	
Level of Service		B	B	B	A	B	D	D	B	C	B	
Approach Delay (s)		18.8			11.0			35.7			20.0	
Approach LOS		B			B			D			B	

Intersection Summary

HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	339	104	172	552	426	109	209	118	212	157	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1784	
Flt Permitted	0.33	1.00	1.00	0.53	1.00	1.00	0.36	1.00	1.00	0.62	1.00	
Satd. Flow (perm)	621	3539	1583	992	3539	1583	665	1863	1583	1149	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	368	113	187	600	463	118	227	128	230	171	67
RTOR Reduction (vph)	0	0	84	0	0	340	0	0	94	0	23	0
Lane Group Flow (vph)	42	368	29	187	600	123	118	227	34	230	215	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Effective Green, g (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	896	401	316	943	422	265	496	422	474	594	
v/s Ratio Prot	0.01	c0.10		0.04	c0.17		0.04	c0.12		c0.07	0.12	
v/s Ratio Perm	0.04		0.02	0.12		0.08	0.08		0.02	0.09		
v/c Ratio	0.19	0.41	0.07	0.59	0.64	0.29	0.45	0.46	0.08	0.49	0.36	
Uniform Delay, d1	17.7	18.7	17.0	19.9	19.4	17.5	17.6	18.4	16.5	16.7	15.2	
Progression Factor	1.16	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.8	1.3	0.3	3.0	1.4	0.4	1.2	3.0	0.4	0.8	1.7	
Delay (s)	22.2	23.6	17.3	22.8	20.8	17.9	18.8	21.4	16.9	17.5	16.9	
Level of Service	C	C	B	C	C	B	B	C	B	B	B	
Approach Delay (s)		22.1			20.0			19.5			17.2	
Approach LOS		C			C			B			B	

Intersection Summary

HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

7/1/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (veh/h)	47	5	34	10	6	4	36	694	4	3	839	74
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	5	37	11	7	4	39	754	4	3	912	80
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1799	1796	952	1793	1834	757	992			759		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1799	1796	952	1793	1834	757	992			759		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	6	93	88	78	91	99	94			100		
cM capacity (veh/h)	54	76	315	50	72	408	697			853		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	93	22	39	759	3	992
Volume Left	51	11	39	0	3	0
Volume Right	37	4	0	4	0	80
cSH	83	68	697	1700	853	1700
Volume to Capacity	1.13	0.32	0.06	0.45	0.00	0.58
Queue Length 95th (ft)	165	29	4	0	0	0
Control Delay (s)	228.4	81.2	10.5	0.0	9.2	0.0
Lane LOS	F	F	B		A	
Approach Delay (s)	228.4	81.2	0.5		0.0	
Approach LOS	F	F				

Intersection Summary		
Average Delay		12.3
Intersection Capacity Utilization	61.7%	ICU Level of Service
Analysis Period (min)		15
		B

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

7/1/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	35	41	16	685	845	57
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	45	17	745	918	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1326	918	918			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1326	918	918			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	84	98			
cM capacity (veh/h)	144	274	739			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	38	45	17	372	372	918	62
Volume Left	38	0	17	0	0	0	0
Volume Right	0	45	0	0	0	0	62
cSH	144	274	739	1700	1700	1700	1700
Volume to Capacity	0.26	0.16	0.02	0.22	0.22	0.54	0.04
Queue Length 95th (ft)	25	14	2	0	0	0	0
Control Delay (s)	38.9	20.7	10.0	0.0	0.0	0.0	0.0
Lane LOS	E	C	A				
Approach Delay (s)	29.1		0.2			0.0	
Approach LOS	D						

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization	54.5%		ICU Level of Service
Analysis Period (min)	15		A

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

7/1/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	108	139	304	9	97	83	292	447	35	245	481	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Fr _t		1.00	0.85		0.94		1.00	0.99		1.00	1.00	0.85
Fl _t Protected		0.98	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1823	1583		1748		3433	3501		1770	3539	1583
Fl _t Permitted		0.76	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1421	1583		1721		3433	3501		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	151	330	10	105	90	317	486	38	266	523	137
RTOR Reduction (vph)	0	0	63	0	30	0	0	6	0	0	0	95
Lane Group Flow (vph)	0	268	267	0	175	0	317	518	0	266	523	42
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		18.7	31.1		18.7		12.4	16.4		15.3	19.3	19.3
Effective Green, g (s)		18.7	31.1		18.7		12.4	16.4		15.3	19.3	19.3
Actuated g/C Ratio		0.30	0.50		0.30		0.20	0.26		0.25	0.31	0.31
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		425	890		515		682	920		433	1094	489
v/s Ratio Prot			0.06				0.09	c0.15		c0.15	c0.15	
v/s Ratio Perm		c0.19	0.11		0.10							0.03
v/c Ratio		0.63	0.30		0.34		0.46	0.56		0.61	0.48	0.09
Uniform Delay, d ₁		18.9	9.2		17.0		22.1	19.9		20.9	17.5	15.3
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d ₂		3.0	0.2		0.4		0.5	0.8		2.6	0.3	0.1
Delay (s)		21.9	9.4		17.4		22.6	20.7		23.5	17.8	15.4
Level of Service		C	A		B		C	C		C	B	B
Approach Delay (s)		15.0			17.4		21.4			19.1		
Approach LOS		B			B		C			B		























Intersection Summary

HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	62.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

7/1/2014

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	133	58	104	51	63	263	79	825	54	305	916	152	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0		
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95		
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.98		
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)		1800	1583		1822	1583	1770	3506		1770	3464		
Flt Permitted		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)		1800	1583		1822	1583	1770	3506		1770	3464		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	145	63	113	55	68	286	86	897	59	332	996	165	
RTOR Reduction (vph)	0	0	85	0	0	117	0	5	0	0	14	0	
Lane Group Flow (vph)	0	208	28	0	123	169	86	951	0	332	1147	0	
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA		
Protected Phases	4	4	5	8	8	1	5	2		1	6		
Permitted Phases			4			8							
Actuated Green, G (s)		14.2	22.5		11.3	32.6	8.3	27.2		21.3	40.2		
Effective Green, g (s)		14.2	22.5		11.3	32.6	8.3	27.2		21.3	40.2		
Actuated g/C Ratio		0.16	0.25		0.13	0.36	0.09	0.30		0.24	0.45		
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)		284	395		228	643	163	1059		418	1547		
v/s Ratio Prot		c0.12	0.01		c0.07	0.06	0.05	c0.27		c0.19	0.33		
v/s Ratio Perm			0.01			0.04							
v/c Ratio		0.73	0.07		0.54	0.26	0.53	0.90		0.79	0.74		
Uniform Delay, d1		36.1	25.8		36.9	20.2	39.0	30.1		32.3	20.6		
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2		9.4	0.1		2.4	0.2	3.1	11.9		10.0	3.2		
Delay (s)		45.5	25.9		39.4	20.4	42.0	42.0		42.3	23.8		
Level of Service		D	C		D	C	D	D		D	C		
Approach Delay (s)		38.6			26.1			42.0			27.9		
Approach LOS		D			C			D			C		
Intersection Summary													
HCM 2000 Control Delay			33.2									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.78										
Actuated Cycle Length (s)			90.0									Sum of lost time (s)	16.0
Intersection Capacity Utilization			68.5%									ICU Level of Service	C
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

7/1/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	↖
Volume (vph)	34	36	149	624	74	301	107	613	404	309	751	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Fl _t Protected		0.98	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1818	1583	1681	1702	1583	1770	3539	1583	3433	3520	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	39	162	678	80	327	116	666	439	336	816	30
RTOR Reduction (vph)	0	0	124	0	0	88	0	0	337	0	5	0
Lane Group Flow (vph)	0	76	38	373	385	239	116	666	102	336	841	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	26.3	26.3	26.3	21.7	14.0	14.0	7.7	14.0	
Effective Green, g (s)		14.0	14.0	26.3	26.3	26.3	21.7	14.0	14.0	7.7	14.0	
Actuated g/C Ratio		0.23	0.23	0.44	0.44	0.44	0.36	0.23	0.23	0.13	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	540	623	693	348	825	369	440	821	
v/s Ratio Prot				c0.10	0.09		0.04	0.19		c0.10	c0.24	
v/s Ratio Perm		0.04	0.02	c0.21	0.19	0.15	0.08		0.06			
v/c Ratio		0.19	0.10	0.69	0.62	0.35	0.33	0.81	0.28	0.76	1.02	
Uniform Delay, d ₁		18.4	18.1	14.7	13.0	11.2	13.1	21.7	18.9	25.3	23.0	
Progression Factor		1.00	1.00	0.65	0.59	0.50	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		1.0	0.6	2.6	1.2	0.9	0.6	5.8	0.4	11.9	37.9	
Delay (s)		19.5	18.6	12.0	8.9	6.4	13.6	27.5	19.3	37.2	60.9	
Level of Service		B	B	B	A	A	B	C	B	D	E	
Approach Delay (s)		18.9			9.2			23.3			54.1	
Approach LOS		B			A			C			D	

Intersection Summary

HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

7/1/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	536	88	168	742	160	136	149	130	208	153	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1787	
Flt Permitted	0.33	1.00	1.00	0.43	1.00	1.00	0.36	1.00	1.00	0.65	1.00	
Satd. Flow (perm)	621	3539	1583	805	3539	1583	665	1863	1583	1219	1787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	583	96	183	807	174	148	162	141	226	166	62
RTOR Reduction (vph)	0	0	69	0	0	128	0	0	103	0	22	0
Lane Group Flow (vph)	46	583	27	183	807	46	148	162	38	226	206	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.8	16.8	16.8	16.0	16.0	16.0	16.0	16.0	16.0	18.4	18.4	
Effective Green, g (s)	16.8	16.8	16.8	16.0	16.0	16.0	16.0	16.0	16.0	18.4	18.4	
Actuated g/C Ratio	0.28	0.28	0.28	0.27	0.27	0.27	0.27	0.27	0.27	0.31	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	265	990	443	279	943	422	265	496	422	439	548	
v/s Ratio Prot	0.01	c0.16		0.04	c0.23		c0.04	0.09		c0.06	0.12	
v/s Ratio Perm	0.03		0.02	0.13		0.03	c0.10		0.02	0.10		
v/c Ratio	0.17	0.59	0.06	0.66	0.86	0.11	0.56	0.33	0.09	0.51	0.38	
Uniform Delay, d1	16.5	18.6	15.8	20.6	20.9	16.6	17.9	17.7	16.5	17.7	16.3	
Progression Factor	1.11	1.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	1.9	0.2	5.5	7.7	0.1	2.5	1.8	0.4	1.0	0.4	
Delay (s)	19.4	23.7	16.0	26.1	28.6	16.7	20.5	19.4	16.9	18.7	16.7	
Level of Service	B	C	B	C	C	B	C	B	B	B	B	
Approach Delay (s)		22.4			26.4			19.0			17.7	
Approach LOS		C			C			B			B	

Intersection Summary

HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	154	145	6	9	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	167	158	7	10	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	348	27	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	27	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	84	90			
cM capacity (veh/h)	583	1049	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	180	164	43			
Volume Left	13	158	0			
Volume Right	167	0	34			
cSH	992	1565	1700			
Volume to Capacity	0.18	0.10	0.03			
Queue Length 95th (ft)	17	8	0			
Control Delay (s)	9.4	7.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	7.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.5			
Intersection Capacity Utilization			31.9%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

5/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	49	124	0	19	145	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	135	0	21	158	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	327	10			21	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	327	10			21	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	87			90	
cM capacity (veh/h)	602	1071			1595	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	188	21	159
Volume Left	53	0	158
Volume Right	135	21	0
cSH	877	1700	1595
Volume to Capacity	0.21	0.01	0.10
Queue Length 95th (ft)	20	0	8
Control Delay (s)	10.2	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.2	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		8.5	
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	5	0	4	5	37	2	12	1	86	69	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	0	4	5	40	2	13	1	93	75	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	326	284	78	286	286	14	82			14		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	326	284	78	286	286	14	82			14		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	99	96	100			94		
cM capacity (veh/h)	572	588	982	632	586	1066	1516			1604		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	14	50	16	175
Volume Left	9	4	2	93
Volume Right	0	40	1	7
cSH	578	928	1516	1604
Volume to Capacity	0.02	0.05	0.00	0.06
Queue Length 95th (ft)	2	4	0	5
Control Delay (s)	11.4	9.1	1.0	4.2
Lane LOS	B	A	A	A
Approach Delay (s)	11.4	9.1	1.0	4.2
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	25.4%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	37	125	45	23	17	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	136	49	25	18	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	147	24	30			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	147	24	30			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	87	97			
cM capacity (veh/h)	819	1052	1582			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	176	74	30			
Volume Left	40	49	0			
Volume Right	136	0	12			
cSH	988	1582	1700			
Volume to Capacity	0.18	0.03	0.02			
Queue Length 95th (ft)	16	2	0			
Control Delay (s)	9.4	4.9	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	4.9	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.2			
Intersection Capacity Utilization	26.8%		ICU Level of Service	A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	22	4	4	49	31	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	4	4	53	34	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	101	39	45			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	101	39	45			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	100			
cM capacity (veh/h)	895	1032	1564			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	28	58	45			
Volume Left	24	4	0			
Volume Right	4	0	11			
cSH	914	1564	1700			
Volume to Capacity	0.03	0.00	0.03			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	9.1	0.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.1	0.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization		15.9%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (veh/h)	64	2	19	15	1	7	16	509	6	5	518	37
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	2	21	16	1	8	17	553	7	5	563	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1190	1189	583	1187	1205	557	603			560		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1190	1189	583	1187	1205	557	603			560		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	56	99	96	89	99	99	98			99		
cM capacity (veh/h)	158	184	512	154	179	530	974			1011		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	92	25	17	560	5	603
Volume Left	70	16	17	0	5	0
Volume Right	21	8	0	7	0	40
cSH	188	198	974	1700	1011	1700
Volume to Capacity	0.49	0.13	0.02	0.33	0.01	0.35
Queue Length 95th (ft)	60	11	1	0	0	0
Control Delay (s)	41.3	25.7	8.8	0.0	8.6	0.0
Lane LOS	E	D	A		A	
Approach Delay (s)	41.3	25.7	0.3		0.1	
Approach LOS	E	D				

Intersection Summary		
Average Delay		3.6
Intersection Capacity Utilization	42.1%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	3	2	526	567	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	3	2	572	616	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	907	616	616			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	907	616	616			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	100			
cM capacity (veh/h)	275	433	960			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	3	2	286	286	616	16
Volume Left	8	0	2	0	0	0	0
Volume Right	0	3	0	0	0	0	16
cSH	275	433	960	1700	1700	1700	1700
Volume to Capacity	0.03	0.01	0.00	0.17	0.17	0.36	0.01
Queue Length 95th (ft)	2	1	0	0	0	0	0
Control Delay (s)	18.5	13.4	8.8	0.0	0.0	0.0	0.0
Lane LOS	C	B	A				
Approach Delay (s)	16.9		0.0	0.0			
Approach LOS	C						

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕		↖	↕	↗
Volume (vph)	12	63	116	87	84	152	135	343	38	52	447	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1848	1583		1721		3433	3487		1770	3539	1583
Flt Permitted		0.93	1.00		0.89		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1735	1583		1558		3433	3487		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	68	126	95	91	165	147	373	41	57	486	13
RTOR Reduction (vph)	0	0	67	0	33	0	0	8	0	0	0	9
Lane Group Flow (vph)	0	81	59	0	318	0	147	406	0	57	486	4
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		16.4	24.6		16.4		8.2	19.7		4.5	16.0	16.0
Effective Green, g (s)		16.4	24.6		16.4		8.2	19.7		4.5	16.0	16.0
Actuated g/C Ratio		0.31	0.47		0.31		0.16	0.37		0.09	0.30	0.30
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		540	860		485		535	1305		151	1076	481
v/s Ratio Prot			0.01				0.04	c0.12		c0.03	c0.14	
v/s Ratio Perm		0.05	0.03		c0.20							0.00
v/c Ratio		0.15	0.07		0.66		0.27	0.31		0.38	0.45	0.01
Uniform Delay, d1		13.1	7.7		15.7		19.6	11.6		22.7	14.8	12.8
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.1	0.0		3.2		0.3	0.1		1.6	0.3	0.0
Delay (s)		13.2	7.7		18.8		19.9	11.8		24.3	15.1	12.8
Level of Service		B	A		B		B	B		C	B	B
Approach Delay (s)		9.9			18.8			13.9			16.0	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	52.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↕		↖	↕	
Volume (vph)	69	86	63	95	48	232	68	504	82	416	1044	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1822	1583		1803	1583	1770	3465		1770	3477	
Flt Permitted		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1822	1583		1803	1583	1770	3465		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	93	68	103	52	252	74	548	89	452	1135	150
RTOR Reduction (vph)	0	0	53	0	0	143	0	14	0	0	10	0
Lane Group Flow (vph)	0	168	15	0	155	109	74	623	0	452	1275	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.0	19.2		12.6	38.9	6.2	22.1		26.3	42.2	
Effective Green, g (s)		13.0	19.2		12.6	38.9	6.2	22.1		26.3	42.2	
Actuated g/C Ratio		0.14	0.21		0.14	0.43	0.07	0.25		0.29	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		263	337		252	754	121	850		517	1630	
v/s Ratio Prot		c0.09	0.00		c0.09	0.04	0.04	0.18		c0.26	c0.37	
v/s Ratio Perm			0.01			0.03						
v/c Ratio		0.64	0.04		0.62	0.14	0.61	0.73		0.87	0.78	
Uniform Delay, d1		36.3	28.1		36.4	15.5	40.7	31.2		30.3	20.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		4.4	0.1	8.8	5.6		15.1	3.8	
Delay (s)		41.3	28.2		40.8	15.6	49.6	36.8		45.4	23.9	
Level of Service		D	C		D	B	D	D		D	C	
Approach Delay (s)		37.5			25.2			38.1			29.5	
Approach LOS		D			C			D			C	
























Intersection Summary

HCM 2000 Control Delay	31.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

5/30/2014

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	14	40	58	254	36	81	81	590	463	406	688	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95		
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		
Flt Protected		0.99	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		
Satd. Flow (prot)		1839	1583	1681	1705	1583	1770	3539	1583	3433	3534		
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00		
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3534		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	15	43	63	276	39	88	88	641	503	441	748	7	
RTOR Reduction (vph)	0	0	48	0	0	54	0	0	386	0	1	0	
Lane Group Flow (vph)	0	58	15	157	158	34	88	641	117	441	754	0	
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		
Protected Phases		4		3	8		5	2		1	6		
Permitted Phases	4		4	8		8	2		2				
Actuated Green, G (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0		
Effective Green, g (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0		
Actuated g/C Ratio		0.23	0.23	0.39	0.39	0.39	0.41	0.23	0.23	0.18	0.23		
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)		404	369	461	543	620	431	825	369	600	824		
v/s Ratio Prot				c0.03	0.03		0.04	0.18		c0.13	c0.21		
v/s Ratio Perm		0.03	0.01	c0.10	0.09	0.02	0.05		0.07				
v/c Ratio		0.14	0.04	0.34	0.29	0.06	0.20	0.78	0.32	0.73	0.92		
Uniform Delay, d1		18.2	17.8	13.1	12.5	11.3	11.1	21.5	19.0	23.4	22.4		
Progression Factor		1.00	1.00	0.63	0.60	0.78	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2		0.7	0.2	0.4	0.3	0.2	0.2	4.6	0.5	7.8	16.5		
Delay (s)		19.0	18.0	8.7	7.9	9.0	11.3	26.2	19.5	31.2	38.9		
Level of Service		B	B	A	A	A	B	C	B	C	D		
Approach Delay (s)		18.5			8.4			22.4			36.1		
Approach LOS		B			A			C			D		
Intersection Summary													
HCM 2000 Control Delay			25.9		HCM 2000 Level of Service					C			
HCM 2000 Volume to Capacity ratio			0.64										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)					16.0			
Intersection Capacity Utilization			53.6%		ICU Level of Service					A			
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	759	83	108	260	147	62	174	164	239	81	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1788	
Flt Permitted	0.41	1.00	1.00	0.29	1.00	1.00	0.46	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	760	3539	1583	548	3539	1583	858	1863	1583	1189	1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	825	90	117	283	160	67	189	178	260	88	32
RTOR Reduction (vph)	0	0	65	0	0	115	0	0	131	0	20	0
Lane Group Flow (vph)	86	825	25	117	283	45	67	189	47	260	100	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Effective Green, g (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Actuated g/C Ratio	0.27	0.27	0.27	0.28	0.28	0.28	0.27	0.27	0.27	0.35	0.35	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	254	967	432	218	990	443	283	496	422	493	619	
v/s Ratio Prot	0.02	c0.23		c0.03	0.08		0.01	c0.10		c0.07	0.06	
v/s Ratio Perm	0.08		0.02	0.12		0.03	0.05		0.03	c0.11		
v/c Ratio	0.34	0.85	0.06	0.54	0.29	0.10	0.24	0.38	0.11	0.53	0.16	
Uniform Delay, d1	16.8	20.7	16.1	21.4	16.9	16.0	16.9	18.0	16.6	16.4	13.6	
Progression Factor	1.21	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.7	7.2	0.2	2.5	0.2	0.1	0.4	2.2	0.5	1.0	0.1	
Delay (s)	23.0	33.0	16.3	23.9	17.1	16.1	17.3	20.2	17.2	17.4	13.7	
Level of Service	C	C	B	C	B	B	B	C	B	B	B	
Approach Delay (s)		30.7			18.2			18.5			16.2	
Approach LOS		C			B			B			B	

Intersection Summary

HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	25	189	169	36	32	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	205	184	39	35	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	463	57	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	463	57	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	80	88			
cM capacity (veh/h)	490	1010	1520			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	233	223	78			
Volume Left	27	184	0			
Volume Right	205	0	43			
cSH	898	1520	1700			
Volume to Capacity	0.26	0.12	0.05			
Queue Length 95th (ft)	26	10	0			
Control Delay (s)	10.4	6.5	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.4	6.5	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			7.3			
Intersection Capacity Utilization			37.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

5/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	42	165	2	48	165	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	179	2	52	179	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	389	28			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	389	28			54	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	83			88	
cM capacity (veh/h)	544	1047			1551	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	225	54	182
Volume Left	46	0	179
Volume Right	179	52	0
cSH	881	1700	1551
Volume to Capacity	0.26	0.03	0.12
Queue Length 95th (ft)	25	0	10
Control Delay (s)	10.5	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.5	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		8.1	
Intersection Capacity Utilization		35.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	10	13	4	3	3	101	1	26	5	46	59	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	14	4	3	3	110	1	28	5	50	64	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	310	202	66	210	201	31	67			34		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	310	202	66	210	201	31	67			34		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	100	100	100	89	100			97		
cM capacity (veh/h)	558	672	998	714	673	1043	1534			1578		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	116	35	117
Volume Left	11	3	1	50
Volume Right	4	110	5	3
cSH	654	1014	1534	1578
Volume to Capacity	0.04	0.11	0.00	0.03
Queue Length 95th (ft)	4	10	0	2
Control Delay (s)	10.8	9.0	0.2	3.3
Lane LOS	B	A	A	A
Approach Delay (s)	10.8	9.0	0.2	3.3
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.9	
Intersection Capacity Utilization	25.8%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	51	74	54	49	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	55	80	59	53	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	294	74	96			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	294	74	96			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	94	95			
cM capacity (veh/h)	660	987	1498			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	65	139	96			
Volume Left	10	80	0			
Volume Right	55	0	42			
cSH	919	1498	1700			
Volume to Capacity	0.07	0.05	0.06			
Queue Length 95th (ft)	6	4	0			
Control Delay (s)	9.2	4.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	4.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utilization	23.9%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	10	7	51	70	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	11	8	55	76	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	158	87	98			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	158	87	98			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	829	972	1495			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	26	63	98			
Volume Left	15	8	0			
Volume Right	11	0	22			
cSH	883	1495	1700			
Volume to Capacity	0.03	0.01	0.06			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	9.2	0.9	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	0.9	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			18.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Volume (veh/h)	48	6	16	4	3	5	37	633	7	9	652	78
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	7	17	4	3	5	40	688	8	10	709	85
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1546	1547	751	1521	1585	692	793			696		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1546	1547	751	1521	1585	692	793			696		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	39	94	96	95	97	99	95			99		
cM capacity (veh/h)	86	108	411	85	102	444	828			900		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	76	13	40	696	10	793
Volume Left	52	4	40	0	10	0
Volume Right	17	5	0	8	0	85
cSH	107	136	828	1700	900	1700
Volume to Capacity	0.71	0.10	0.05	0.41	0.01	0.47
Queue Length 95th (ft)	94	8	4	0	1	0
Control Delay (s)	96.1	34.2	9.6	0.0	9.0	0.0
Lane LOS	F	D	A		A	
Approach Delay (s)	96.1	34.2	0.5		0.1	
Approach LOS	F	D				

Intersection Summary

Average Delay		5.1				
Intersection Capacity Utilization		53.3%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

5/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	24	12	9	679	670	47
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	13	10	738	728	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1117	728	728			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1117	728	728			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	96	99			
cM capacity (veh/h)	199	366	871			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	13	10	369	369	728	51
Volume Left	26	0	10	0	0	0	0
Volume Right	0	13	0	0	0	0	51
cSH	199	366	871	1700	1700	1700	1700
Volume to Capacity	0.13	0.04	0.01	0.22	0.22	0.43	0.03
Queue Length 95th (ft)	11	3	1	0	0	0	0
Control Delay (s)	25.8	15.2	9.2	0.0	0.0	0.0	0.0
Lane LOS	D	C	A				
Approach Delay (s)	22.3		0.1			0.0	
Approach LOS	C						

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↗
Volume (vph)	55	75	152	37	65	99	206	598	62	146	478	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.98	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1824	1583		1723		3433	3490		1770	3539	1583
Flt Permitted		0.79	1.00		0.92		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1463	1583		1603		3433	3490		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	82	165	40	71	108	224	650	67	159	520	24
RTOR Reduction (vph)	0	0	76	0	41	0	0	7	0	0	0	15
Lane Group Flow (vph)	0	142	89	0	178	0	224	710	0	159	520	9
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		12.3	22.1		12.3		9.8	21.5		9.0	20.7	20.7
Effective Green, g (s)		12.3	22.1		12.3		9.8	21.5		9.0	20.7	20.7
Actuated g/C Ratio		0.22	0.40		0.22		0.18	0.39		0.16	0.38	0.38
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		328	753		359		613	1369		290	1336	597
v/s Ratio Prot			0.02				0.07	c0.20		c0.09	0.15	
v/s Ratio Perm		0.10	0.03		c0.11							0.01
v/c Ratio		0.43	0.12		0.50		0.37	0.52		0.55	0.39	0.02
Uniform Delay, d1		18.3	10.2		18.5		19.8	12.7		21.0	12.4	10.7
Progression Factor		1.00	1.02		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.9	0.1		1.1		0.4	0.3		2.1	0.2	0.0
Delay (s)		19.2	10.5		19.6		20.1	13.0		23.2	12.6	10.7
Level of Service		B	B		B		C	B		C	B	B
Approach Delay (s)		14.5			19.6		14.7			14.9		
Approach LOS		B			B		B			B		

Intersection Summary

HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	54.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	174	58	55	50	78	535	75	750	40	282	716	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1827	1583	1770	3513		1770	3447	
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1583		1827	1583	1770	3513		1770	3447	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	63	60	54	85	582	82	815	43	307	778	164
RTOR Reduction (vph)	0	0	46	0	0	85	0	4	0	0	18	0
Lane Group Flow (vph)	0	252	14	0	139	497	82	854	0	307	924	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.2	21.7		12.0	32.8	6.5	26.0		20.8	40.3	
Effective Green, g (s)		15.2	21.7		12.0	32.8	6.5	26.0		20.8	40.3	
Actuated g/C Ratio		0.17	0.24		0.13	0.36	0.07	0.29		0.23	0.45	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		303	381		243	647	127	1014		409	1543	
v/s Ratio Prot		c0.14	0.00		0.08	c0.18	0.05	c0.24		0.17	0.27	
v/s Ratio Perm			0.01			0.14						
v/c Ratio		0.83	0.04		0.57	0.77	0.65	0.84		0.75	0.60	
Uniform Delay, d1		36.2	26.2		36.6	25.2	40.6	30.1		32.2	18.7	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4	0.0		3.2	5.5	10.7	8.5		7.6	1.7	
Delay (s)		53.5	26.2		39.8	30.7	51.4	38.6		39.8	20.5	
Level of Service		D	C		D	C	D	D		D	C	
Approach Delay (s)		48.3			32.5			39.7			25.2	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	↖
Volume (vph)	43	22	162	536	94	110	130	732	284	192	660	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Fl _t Protected		0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1803	1583	1681	1709	1583	1770	3539	1583	3433	3531	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	24	176	583	102	120	141	796	309	209	717	11
RTOR Reduction (vph)	0	0	135	0	0	69	0	0	237	0	1	0
Lane Group Flow (vph)	0	71	41	338	347	51	141	796	72	209	727	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	25.4	25.4	25.4	14.0	14.0	14.0	8.6	20.6	
Effective Green, g (s)		14.0	14.0	25.4	25.4	25.4	14.0	14.0	14.0	8.6	20.6	
Actuated g/C Ratio		0.23	0.23	0.42	0.42	0.42	0.23	0.23	0.23	0.14	0.34	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	515	598	670	163	825	369	492	1212	
v/s Ratio Prot				c0.08	0.07		0.03	c0.22		0.06	c0.21	
v/s Ratio Perm		0.04	0.03	c0.20	0.17	0.03	0.17		0.05			
v/c Ratio		0.18	0.11	0.66	0.58	0.08	0.87	0.96	0.20	0.42	0.60	
Uniform Delay, d ₁		18.4	18.1	14.9	13.2	10.3	22.5	22.8	18.5	23.4	16.3	
Progression Factor		1.00	1.00	0.67	0.62	1.33	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		0.9	0.6	2.4	1.2	0.2	34.9	22.9	0.3	2.7	2.2	
Delay (s)		19.3	18.7	12.4	9.3	13.8	57.4	45.7	18.7	26.1	18.5	
Level of Service		B	B	B	A	B	E	D	B	C	B	
Approach Delay (s)		18.9			11.3			40.3			20.2	
Approach LOS		B			B			D			C	

Intersection Summary

HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

5/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	336	108	179	568	440	109	209	118	198	157	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1784	
Flt Permitted	0.33	1.00	1.00	0.53	1.00	1.00	0.36	1.00	1.00	0.62	1.00	
Satd. Flow (perm)	621	3539	1583	995	3539	1583	665	1863	1583	1149	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	365	117	195	617	478	118	227	128	215	171	67
RTOR Reduction (vph)	0	0	87	0	0	351	0	0	94	0	23	0
Lane Group Flow (vph)	45	365	30	195	617	127	118	227	34	215	215	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Effective Green, g (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	896	401	317	943	422	265	496	422	474	594	
v/s Ratio Prot	0.01	c0.10		0.04	c0.17		0.04	c0.12		c0.07	0.12	
v/s Ratio Perm	0.04		0.02	0.12		0.08	0.08		0.02	0.08		
v/c Ratio	0.21	0.41	0.07	0.62	0.65	0.30	0.45	0.46	0.08	0.45	0.36	
Uniform Delay, d1	17.7	18.7	17.0	20.1	19.5	17.5	17.6	18.4	16.5	16.4	15.2	
Progression Factor	1.14	1.18	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.9	1.2	0.3	3.5	1.6	0.4	1.2	3.0	0.4	0.7	1.7	
Delay (s)	22.1	23.2	17.4	23.6	21.2	18.0	18.8	21.4	16.9	17.1	16.9	
Level of Service	C	C	B	C	C	B	B	C	B	B	B	
Approach Delay (s)		21.8			20.4			19.5			17.0	
Approach LOS		C			C			B			B	

Intersection Summary

HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	174	231	6	9	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	189	251	7	10	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	535	27	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	535	27	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	82	84			
cM capacity (veh/h)	425	1049	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	202	258	43			
Volume Left	13	251	0			
Volume Right	189	0	34			
cSH	958	1565	1700			
Volume to Capacity	0.21	0.16	0.03			
Queue Length 95th (ft)	20	14	0			
Control Delay (s)	9.8	7.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.8	7.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.8			
Intersection Capacity Utilization		37.9%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

6/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	49	210	0	19	165	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	228	0	21	179	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	370	10			21	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	370	10			21	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	79			89	
cM capacity (veh/h)	559	1071			1595	

















Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	282	21	180
Volume Left	53	0	179
Volume Right	228	21	0
cSH	913	1700	1595
Volume to Capacity	0.31	0.01	0.11
Queue Length 95th (ft)	33	0	9
Control Delay (s)	10.7	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.7	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		9.0	
Intersection Capacity Utilization		38.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

6/30/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	5	0	4	5	70	2	67	1	94	81	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	0	4	5	76	2	73	1	102	88	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	452	374	91	376	377	73	95			74		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	452	374	91	376	377	73	95			74		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	99	92	100			93		
cM capacity (veh/h)	449	519	966	547	517	988	1499			1526		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	86	76	197								
Volume Left	9	4	2	102								
Volume Right	0	76	1	7								
cSH	474	900	1499	1526								
Volume to Capacity	0.03	0.10	0.00	0.07								
Queue Length 95th (ft)	2	8	0	5								
Control Delay (s)	12.8	9.4	0.2	4.2								
Lane LOS	B	A	A	A								
Approach Delay (s)	12.8	9.4	0.2	4.2								
Approach LOS	B	A										
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			27.9%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	37	127	45	39	90	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	138	49	42	98	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	244	104	110			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	244	104	110			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	85	97			
cM capacity (veh/h)	720	951	1480			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	178	91	110			
Volume Left	40	49	0			
Volume Right	138	0	12			
cSH	887	1480	1700			
Volume to Capacity	0.20	0.03	0.06			
Queue Length 95th (ft)	19	3	0			
Control Delay (s)	10.1	4.1	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.1	4.1	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilization			27.8%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	22	5	4	65	103	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	5	4	71	112	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	197	117	123			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	197	117	123			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	100			
cM capacity (veh/h)	790	935	1464			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	29	75	123			
Volume Left	24	4	0			
Volume Right	5	0	11			
cSH	813	1464	1700			
Volume to Capacity	0.04	0.00	0.07			
Queue Length 95th (ft)	3	0	0			
Control Delay (s)	9.6	0.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization		16.7%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (veh/h)	77	5	19	15	9	7	16	509	6	5	518	101
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	84	5	21	16	10	8	17	553	7	5	563	110
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1229	1223	618	1189	1275	557	673			560		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1229	1223	618	1189	1275	557	673			560		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	41	97	96	89	94	99	98			99		
cM capacity (veh/h)	143	175	489	151	163	530	918			1011		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	110	34	17	560	5	673
Volume Left	84	16	17	0	5	0
Volume Right	21	8	0	7	0	110
cSH	166	185	918	1700	1011	1700
Volume to Capacity	0.66	0.18	0.02	0.33	0.01	0.40
Queue Length 95th (ft)	95	16	1	0	0	0
Control Delay (s)	60.9	28.7	9.0	0.0	8.6	0.0
Lane LOS	F	D	A		A	
Approach Delay (s)	60.9	28.7	0.3		0.1	
Approach LOS	F	D				

Intersection Summary		
Average Delay		5.6
Intersection Capacity Utilization	48.9%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	3	2	526	567	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	3	2	572	616	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	907	616	616			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	907	616	616			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	100			
cM capacity (veh/h)	275	433	960			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	3	2	286	286	616	16
Volume Left	8	0	2	0	0	0	0
Volume Right	0	3	0	0	0	0	16
cSH	275	433	960	1700	1700	1700	1700
Volume to Capacity	0.03	0.01	0.00	0.17	0.17	0.36	0.01
Queue Length 95th (ft)	2	1	0	0	0	0	0
Control Delay (s)	18.5	13.4	8.8	0.0	0.0	0.0	0.0
Lane LOS	C	B	A				
Approach Delay (s)	16.9		0.0	0.0			
Approach LOS	C						

Intersection Summary			
Average Delay			0.2
Intersection Capacity Utilization	39.8%		ICU Level of Service
Analysis Period (min)	15		A

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	12	67	132	87	100	152	205	343	38	52	447	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Fr _t		1.00	0.85		0.94		1.00	0.99		1.00	1.00	0.85
Fl _t Protected		0.99	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1849	1583		1728		3433	3487		1770	3539	1583
Fl _t Permitted		0.93	1.00		0.90		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1740	1583		1570		3433	3487		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	73	143	95	109	165	223	373	41	57	486	13
RTOR Reduction (vph)	0	0	73	0	30	0	0	7	0	0	0	9
Lane Group Flow (vph)	0	86	70	0	339	0	223	407	0	57	486	4
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		17.9	27.6		17.9		9.7	21.7		4.6	16.6	16.6
Effective Green, g (s)		17.9	27.6		17.9		9.7	21.7		4.6	16.6	16.6
Actuated g/C Ratio		0.32	0.49		0.32		0.17	0.39		0.08	0.30	0.30
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		554	890		500		592	1346		144	1045	467
v/s Ratio Prot			0.01				c0.06	0.12		0.03	c0.14	
v/s Ratio Perm		0.05	0.03		c0.22							0.00
v/c Ratio		0.16	0.08		0.68		0.38	0.30		0.40	0.47	0.01
Uniform Delay, d ₁		13.7	7.6		16.6		20.6	12.0		24.5	16.2	14.0
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d ₂		0.1	0.0		3.6		0.4	0.1		1.8	0.3	0.0
Delay (s)		13.9	7.6		20.3		21.0	12.1		26.3	16.5	14.0
Level of Service		B	A		C		C	B		C	B	B
Approach Delay (s)		10.0			20.3			15.2			17.4	
Approach LOS		A			C			B			B	

Intersection Summary

HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	69	86	63	95	48	248	68	536	82	419	1052	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1822	1583		1803	1583	1770	3469		1770	3478	
Flt Permitted		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1822	1583		1803	1583	1770	3469		1770	3478	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	93	68	103	52	270	74	583	89	455	1143	150
RTOR Reduction (vph)	0	0	53	0	0	153	0	13	0	0	10	0
Lane Group Flow (vph)	0	168	15	0	155	117	74	659	0	455	1283	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.0	19.2		12.6	39.1	6.2	21.9		26.5	42.2	
Effective Green, g (s)		13.0	19.2		12.6	39.1	6.2	21.9		26.5	42.2	
Actuated g/C Ratio		0.14	0.21		0.14	0.43	0.07	0.24		0.29	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		263	337		252	758	121	844		521	1630	
v/s Ratio Prot		c0.09	0.00		c0.09	0.05	0.04	0.19		c0.26	c0.37	
v/s Ratio Perm			0.01			0.03						
v/c Ratio		0.64	0.04		0.62	0.15	0.61	0.78		0.87	0.79	
Uniform Delay, d1		36.3	28.1		36.4	15.4	40.7	31.8		30.2	20.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		4.4	0.1	8.8	7.1		14.9	3.9	
Delay (s)		41.3	28.2		40.8	15.5	49.6	38.9		45.1	24.0	
Level of Service		D	C		D	B	D	D		D	C	
Approach Delay (s)		37.5			24.8			40.0			29.5	
Approach LOS		D			C			D			C	

Intersection Summary

HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↕	↗	↖↖	↕↖	
Volume (vph)	14	40	58	254	36	97	81	606	463	411	691	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1839	1583	1681	1705	1583	1770	3539	1583	3433	3534	
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3534	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	43	63	276	39	105	88	659	503	447	751	7
RTOR Reduction (vph)	0	0	48	0	0	64	0	0	386	0	1	0
Lane Group Flow (vph)	0	58	15	157	158	41	88	659	117	447	757	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0	
Effective Green, g (s)		14.0	14.0	23.5	23.5	23.5	24.5	14.0	14.0	10.5	14.0	
Actuated g/C Ratio		0.23	0.23	0.39	0.39	0.39	0.41	0.23	0.23	0.18	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	461	543	620	431	825	369	600	824	
v/s Ratio Prot				c0.03	0.03		0.04	0.19		c0.13	c0.21	
v/s Ratio Perm		0.03	0.01	c0.10	0.09	0.03	0.05		0.07			
v/c Ratio		0.14	0.04	0.34	0.29	0.07	0.20	0.80	0.32	0.74	0.92	
Uniform Delay, d1		18.2	17.8	13.1	12.5	11.4	11.1	21.7	19.0	23.5	22.4	
Progression Factor		1.00	1.00	0.62	0.59	0.82	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.7	0.2	0.4	0.3	0.2	0.2	5.4	0.5	8.2	16.9	
Delay (s)		19.0	18.0	8.6	7.7	9.6	11.3	27.1	19.5	31.7	39.4	
Level of Service		B	B	A	A	A	B	C	B	C	D	
Approach Delay (s)		18.5			8.5			23.0			36.5	
Approach LOS		B			A			C			D	

Intersection Summary

HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	764	83	108	276	163	62	174	164	242	81	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1788	
Flt Permitted	0.40	1.00	1.00	0.29	1.00	1.00	0.46	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	736	3539	1583	548	3539	1583	858	1863	1583	1189	1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	830	90	117	300	177	67	189	178	263	88	32
RTOR Reduction (vph)	0	0	65	0	0	127	0	0	131	0	20	0
Lane Group Flow (vph)	86	830	25	117	300	50	67	189	47	263	100	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Effective Green, g (s)	16.4	16.4	16.4	16.8	16.8	16.8	16.0	16.0	16.0	20.8	20.8	
Actuated g/C Ratio	0.27	0.27	0.27	0.28	0.28	0.28	0.27	0.27	0.27	0.35	0.35	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	249	967	432	218	990	443	283	496	422	493	619	
v/s Ratio Prot	0.02	c0.23		c0.03	0.08		0.01	c0.10		c0.07	0.06	
v/s Ratio Perm	0.08		0.02	0.12		0.03	0.05		0.03	c0.11		
v/c Ratio	0.35	0.86	0.06	0.54	0.30	0.11	0.24	0.38	0.11	0.53	0.16	
Uniform Delay, d1	16.8	20.7	16.1	21.4	17.0	16.1	16.9	18.0	16.6	16.4	13.6	
Progression Factor	1.21	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.8	7.4	0.2	2.5	0.2	0.1	0.4	2.2	0.5	1.1	0.1	
Delay (s)	23.2	33.3	16.3	24.0	17.2	16.2	17.3	20.2	17.2	17.6	13.7	
Level of Service	C	C	B	C	B	B	B	C	B	B	B	
Approach Delay (s)		30.9			18.2			18.5			16.3	
Approach LOS		C			B			B			B	

Intersection Summary

HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	25	269	192	36	32	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	292	209	39	35	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	513	57	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	513	57	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	71	86			
cM capacity (veh/h)	450	1010	1520			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	320	248	78			
Volume Left	27	209	0			
Volume Right	292	0	43			
cSH	913	1520	1700			
Volume to Capacity	0.35	0.14	0.05			
Queue Length 95th (ft)	40	12	0			
Control Delay (s)	11.0	6.7	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.0	6.7	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			8.0			
Intersection Capacity Utilization			43.9%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

6/30/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	42	188	2	48	245	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	204	2	52	266	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	563	28			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	563	28			54	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	80			83	
cM capacity (veh/h)	404	1047			1551	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	250	54	268
Volume Left	46	0	266
Volume Right	204	52	0
cSH	811	1700	1551
Volume to Capacity	0.31	0.03	0.17
Queue Length 95th (ft)	33	0	15
Control Delay (s)	11.4	0.0	7.7
Lane LOS	B		A
Approach Delay (s)	11.4	0.0	7.7
Approach LOS	B		

Intersection Summary			
Average Delay		8.6	
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	10	13	4	3	3	110	1	40	5	76	110	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	14	4	3	3	120	1	43	5	83	120	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	456	338	121	346	336	46	123			49		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	456	338	121	346	336	46	123			49		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	97	100	99	99	88	100			95		
cM capacity (veh/h)	434	552	930	569	553	1023	1464			1558		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	126	50	205
Volume Left	11	3	1	83
Volume Right	4	120	5	3
cSH	531	981	1464	1558
Volume to Capacity	0.06	0.13	0.00	0.05
Queue Length 95th (ft)	4	11	0	4
Control Delay (s)	12.2	9.2	0.2	3.2
Lane LOS	B	A	A	A
Approach Delay (s)	12.2	9.2	0.2	3.2
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	30.7%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	51	75	122	68	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	55	82	133	74	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	391	95	116			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	391	95	116			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	94	94			
cM capacity (veh/h)	579	962	1472			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	65	214	116			
Volume Left	10	82	0			
Volume Right	55	0	42			
cSH	875	1472	1700			
Volume to Capacity	0.07	0.06	0.07			
Queue Length 95th (ft)	6	4	0			
Control Delay (s)	9.4	3.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	3.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utilization			27.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	11	9	117	88	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	12	10	127	96	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	253	107	117			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	253	107	117			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	730	948	1471			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	27	137	117			
Volume Left	15	10	0			
Volume Right	12	0	22			
cSH	812	1471	1700			
Volume to Capacity	0.03	0.01	0.07			
Queue Length 95th (ft)	3	1	0			
Control Delay (s)	9.6	0.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization		23.3%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (veh/h)	107	13	16	4	6	5	37	633	7	9	652	93
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	116	14	17	4	7	5	40	688	8	10	709	101
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1556	1555	759	1525	1602	692	810			696		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1556	1555	759	1525	1602	692	810			696		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	87	96	95	93	99	95			99		
cM capacity (veh/h)	82	106	406	79	99	444	816			900		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	148	16	40	696	10	810
Volume Left	116	4	40	0	10	0
Volume Right	17	5	0	8	0	101
cSH	93	123	816	1700	900	1700
Volume to Capacity	1.59	0.13	0.05	0.41	0.01	0.48
Queue Length 95th (ft)	291	11	4	0	1	0
Control Delay (s)	389.6	38.7	9.6	0.0	9.0	0.0
Lane LOS	F	E	A		A	
Approach Delay (s)	389.6	38.7	0.5		0.1	
Approach LOS	F	E				

Intersection Summary

Average Delay	34.1
Intersection Capacity Utilization	60.9%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

6/30/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	24	12	9	679	670	47
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	13	10	738	728	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1117	728	728			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1117	728	728			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	96	99			
cM capacity (veh/h)	199	366	871			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	13	10	369	369	728	51
Volume Left	26	0	10	0	0	0	0
Volume Right	0	13	0	0	0	0	51
cSH	199	366	871	1700	1700	1700	1700
Volume to Capacity	0.13	0.04	0.01	0.22	0.22	0.43	0.03
Queue Length 95th (ft)	11	3	1	0	0	0	0
Control Delay (s)	25.8	15.2	9.2	0.0	0.0	0.0	0.0
Lane LOS	D	C	A				
Approach Delay (s)	22.3		0.1			0.0	
Approach LOS	C						

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	55	90	217	37	69	99	225	598	62	146	478	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.98	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1828	1583		1725		3433	3490		1770	3539	1583
Flt Permitted		0.80	1.00		0.92		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1491	1583		1602		3433	3490		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	98	236	40	75	108	245	650	67	159	520	24
RTOR Reduction (vph)	0	0	75	0	39	0	0	7	0	0	0	15
Lane Group Flow (vph)	0	158	161	0	184	0	245	710	0	159	520	9
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		12.5	22.8		12.5		10.3	21.6		9.0	20.3	20.3
Effective Green, g (s)		12.5	22.8		12.5		10.3	21.6		9.0	20.3	20.3
Actuated g/C Ratio		0.23	0.41		0.23		0.19	0.39		0.16	0.37	0.37
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		338	769		363		641	1368		289	1303	583
v/s Ratio Prot			0.04				0.07	c0.20		c0.09	0.15	
v/s Ratio Perm		0.11	0.06		c0.11							0.01
v/c Ratio		0.47	0.21		0.51		0.38	0.52		0.55	0.40	0.02
Uniform Delay, d1		18.4	10.4		18.6		19.6	12.8		21.2	12.9	11.1
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		1.0	0.1		1.1		0.4	0.3		2.3	0.2	0.0
Delay (s)		19.4	10.5		19.7		20.0	13.1		23.4	13.1	11.1
Level of Service		B	B		B		B	B		C	B	B
Approach Delay (s)		14.1			19.7			14.9			15.4	
Approach LOS		B			B			B			B	

Intersection Summary

HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	174	58	55	50	78	538	75	759	40	296	747	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1827	1583	1770	3513		1770	3450	
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1583		1827	1583	1770	3513		1770	3450	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	63	60	54	85	585	82	825	43	322	812	164
RTOR Reduction (vph)	0	0	46	0	0	84	0	4	0	0	17	0
Lane Group Flow (vph)	0	252	14	0	139	501	82	864	0	322	959	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.2	21.7		12.0	33.3	6.5	25.5		21.3	40.3	
Effective Green, g (s)		15.2	21.7		12.0	33.3	6.5	25.5		21.3	40.3	
Actuated g/C Ratio		0.17	0.24		0.13	0.37	0.07	0.28		0.24	0.45	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		303	381		243	656	127	995		418	1544	
v/s Ratio Prot		c0.14	0.00		0.08	c0.18	0.05	c0.25		c0.18	0.28	
v/s Ratio Perm			0.01			0.14						
v/c Ratio		0.83	0.04		0.57	0.76	0.65	0.87		0.77	0.62	
Uniform Delay, d1		36.2	26.2		36.6	24.9	40.6	30.7		32.1	19.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4	0.0		3.2	5.3	10.7	10.2		8.5	1.9	
Delay (s)		53.5	26.2		39.8	30.1	51.4	40.9		40.6	20.9	
Level of Service		D	C		D	C	D	D		D	C	
Approach Delay (s)		48.3			32.0			41.8			25.8	
Approach LOS		D			C			D			C	
























Intersection Summary

HCM 2000 Control Delay	33.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

6/30/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	22	162	536	94	116	130	735	284	208	675	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1803	1583	1681	1709	1583	1770	3539	1583	3433	3531	
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	24	176	583	102	126	141	799	309	226	734	11
RTOR Reduction (vph)	0	0	135	0	0	73	0	0	237	0	1	0
Lane Group Flow (vph)	0	71	41	338	347	53	141	799	72	226	744	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	25.4	25.4	25.4	14.0	14.0	14.0	8.6	20.6	
Effective Green, g (s)		14.0	14.0	25.4	25.4	25.4	14.0	14.0	14.0	8.6	20.6	
Actuated g/C Ratio		0.23	0.23	0.42	0.42	0.42	0.23	0.23	0.23	0.14	0.34	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	515	598	670	163	825	369	492	1212	
v/s Ratio Prot				c0.08	0.07		0.03	c0.23		0.07	c0.21	
v/s Ratio Perm		0.04	0.03	c0.20	0.17	0.03	0.17		0.05			
v/c Ratio		0.18	0.11	0.66	0.58	0.08	0.87	0.97	0.20	0.46	0.61	
Uniform Delay, d1		18.4	18.1	14.9	13.2	10.3	22.5	22.8	18.5	23.6	16.4	
Progression Factor		1.00	1.00	0.67	0.62	1.14	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.9	0.6	2.4	1.2	0.2	34.9	23.6	0.3	3.1	2.3	
Delay (s)		19.3	18.7	12.3	9.3	12.0	57.4	46.4	18.7	26.6	18.7	
Level of Service		B	B	B	A	B	E	D	B	C	B	
Approach Delay (s)		18.9			11.0			40.8			20.6	
Approach LOS		B			B			D			C	
Intersection Summary												
HCM 2000 Control Delay			25.8		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			60.0		Sum of lost time (s)					16.0		
Intersection Capacity Utilization			60.2%		ICU Level of Service					B		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

6/30/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	352	108	179	574	443	109	209	118	212	157	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1784	
Flt Permitted	0.33	1.00	1.00	0.52	1.00	1.00	0.36	1.00	1.00	0.62	1.00	
Satd. Flow (perm)	621	3539	1583	978	3539	1583	665	1863	1583	1149	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	383	117	195	624	482	118	227	128	230	171	67
RTOR Reduction (vph)	0	0	87	0	0	353	0	0	94	0	23	0
Lane Group Flow (vph)	45	383	30	195	624	129	118	227	34	230	215	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Effective Green, g (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	896	401	313	943	422	265	496	422	474	594	
v/s Ratio Prot	0.01	c0.11		0.04	c0.18		0.04	c0.12		c0.07	0.12	
v/s Ratio Perm	0.04		0.02	0.12		0.08	0.08		0.02	0.09		
v/c Ratio	0.21	0.43	0.07	0.62	0.66	0.30	0.45	0.46	0.08	0.49	0.36	
Uniform Delay, d1	17.7	18.8	17.0	20.2	19.6	17.6	17.6	18.4	16.5	16.7	15.2	
Progression Factor	1.15	1.19	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.9	1.3	0.3	3.8	1.8	0.4	1.2	3.0	0.4	0.8	1.7	
Delay (s)	22.3	23.6	17.4	24.0	21.3	18.0	18.8	21.4	16.9	17.5	16.9	
Level of Service	C	C	B	C	C	B	B	C	B	B	B	
Approach Delay (s)		22.2			20.5			19.5			17.2	
Approach LOS		C			C			B			B	

Intersection Summary

HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	152	102	92	9	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	165	111	100	10	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	348	27	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	27	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	84	93			
cM capacity (veh/h)	603	1049	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	178	211	43			
Volume Left	13	111	0			
Volume Right	165	0	34			
cSH	995	1565	1700			
Volume to Capacity	0.18	0.07	0.03			
Queue Length 95th (ft)	16	6	0			
Control Delay (s)	9.4	4.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	4.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			5.9			
Intersection Capacity Utilization			33.9%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

8/5/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	60	124	0	18	144	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	135	0	20	157	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	324	10			20	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	324	10			20	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	87			90	
cM capacity (veh/h)	604	1072			1597	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	200	20	158
Volume Left	65	0	157
Volume Right	135	20	0
cSH	856	1700	1597
Volume to Capacity	0.23	0.01	0.10
Queue Length 95th (ft)	23	0	8
Control Delay (s)	10.5	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.5	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		8.7	
Intersection Capacity Utilization		32.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	5	0	8	10	42	2	11	1	103	77	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	0	9	11	46	2	12	1	112	84	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	380	329	88	332	333	12	92			13		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	380	329	88	332	333	12	92			13		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	98	96	100			93		
cM capacity (veh/h)	515	548	970	584	545	1068	1502			1605		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	14	65	15	204
Volume Left	9	9	2	112
Volume Right	0	46	1	9
cSH	527	841	1502	1605
Volume to Capacity	0.03	0.08	0.00	0.07
Queue Length 95th (ft)	2	6	0	6
Control Delay (s)	12.0	9.6	1.1	4.3
Lane LOS	B	A	A	A
Approach Delay (s)	12.0	9.6	1.1	4.3
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.7	
Intersection Capacity Utilization	27.1%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

8/5/2014

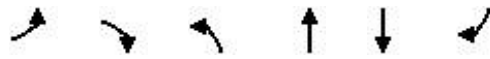


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	37	124	78	22	16	28
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	135	85	24	17	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	226	33	48			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	226	33	48			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	87	95			
cM capacity (veh/h)	721	1041	1559			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	175	109	48			
Volume Left	40	85	0			
Volume Right	135	0	30			
cSH	945	1559	1700			
Volume to Capacity	0.19	0.05	0.03			
Queue Length 95th (ft)	17	4	0			
Control Delay (s)	9.7	5.9	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	5.9	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.0			
Intersection Capacity Utilization			28.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	22	4	8	77	30	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	4	9	84	33	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	145	43	54			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	145	43	54			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	100	99			
cM capacity (veh/h)	843	1027	1551			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	28	92	54			
Volume Left	24	9	0			
Volume Right	4	0	22			
cSH	867	1551	1700			
Volume to Capacity	0.03	0.01	0.03			
Queue Length 95th (ft)	3	0	0			
Control Delay (s)	9.3	0.7	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.3	0.7	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			20.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	88	1	30	15	1	7	21	674	8	7	931	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	96	1	33	16	1	8	23	733	9	8	1012	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1815	1816	1014	1843	1813	737	1015			741		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1815	1816	1014	1843	1813	737	1015			741		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	99	89	67	99	98	97			99		
cM capacity (veh/h)	57	75	290	49	75	418	683			866		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	129	25	23	741	8	1015
Volume Left	96	16	23	0	8	0
Volume Right	33	8	0	9	0	3
cSH	71	68	683	1700	866	1700
Volume to Capacity	1.81	0.37	0.03	0.44	0.01	0.60
Queue Length 95th (ft)	287	34	3	0	1	0
Control Delay (s)	512.0	85.3	10.5	0.0	9.2	0.0
Lane LOS	F	F	B		A	
Approach Delay (s)	512.0	85.3	0.3		0.1	
Approach LOS	F	F				

Intersection Summary		
Average Delay		35.4
Intersection Capacity Utilization	64.1%	ICU Level of Service C
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	3	3	649	961	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	3	3	705	1045	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1404	1045	1045			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1404	1045	1045			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	99	100			
cM capacity (veh/h)	130	226	662			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	3	3	353	353	1045	27
Volume Left	8	0	3	0	0	0	0
Volume Right	0	3	0	0	0	0	27
cSH	130	226	662	1700	1700	1700	1700
Volume to Capacity	0.06	0.01	0.00	0.21	0.21	0.61	0.02
Queue Length 95th (ft)	5	1	0	0	0	0	0
Control Delay (s)	34.4	21.2	10.5	0.0	0.0	0.0	0.0
Lane LOS	D	C	B				
Approach Delay (s)	30.5	0.0		0.0			
Approach LOS	D						

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕		↖	↕	↗
Volume (vph)	15	75	128	104	83	181	129	415	47	93	803	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.93		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1848	1583		1715		3433	3485		1770	3539	1583
Flt Permitted		0.93	1.00		0.88		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1736	1583		1529		3433	3485		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	82	139	113	90	197	140	451	51	101	873	24
RTOR Reduction (vph)	0	0	15	0	36	0	0	8	0	0	0	15
Lane Group Flow (vph)	0	98	124	0	364	0	140	494	0	101	873	9
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		22.1	30.8		22.1		8.7	27.0		8.0	26.3	26.3
Effective Green, g (s)		22.1	30.8		22.1		8.7	27.0		8.0	26.3	26.3
Actuated g/C Ratio		0.32	0.45		0.32		0.13	0.39		0.12	0.38	0.38
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		555	797		489		432	1361		204	1346	602
v/s Ratio Prot			0.02				0.04	0.14		c0.06	c0.25	
v/s Ratio Perm		0.06	0.06		c0.24							0.01
v/c Ratio		0.18	0.16		0.74		0.32	0.36		0.50	0.65	0.02
Uniform Delay, d1		16.9	11.4		21.0		27.5	14.9		28.7	17.6	13.3
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.2	0.1		6.1		0.4	0.2		1.9	1.1	0.0
Delay (s)		17.1	11.5		27.0		28.0	15.1		30.5	18.7	13.3
Level of Service		B	B		C		C	B		C	B	B
Approach Delay (s)		13.8			27.0			17.9			19.8	
Approach LOS		B			C			B			B	

Intersection Summary		
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.66	B
Actuated Cycle Length (s)	69.1	Sum of lost time (s)
Intersection Capacity Utilization	63.8%	12.0
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		B

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗		↖	↗	
Volume (vph)	69	86	63	100	51	232	71	501	87	491	1233	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1822	1583		1803	1583	1770	3460		1770	3477	
Flt Permitted		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1822	1583		1803	1583	1770	3460		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	93	68	109	55	252	77	545	95	534	1340	178
RTOR Reduction (vph)	0	0	53	0	0	129	0	15	0	0	10	0
Lane Group Flow (vph)	0	168	15	0	164	123	77	625	0	534	1508	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.0	19.2		12.9	44.0	6.2	17.0		31.1	41.9	
Effective Green, g (s)		13.0	19.2		12.9	44.0	6.2	17.0		31.1	41.9	
Actuated g/C Ratio		0.14	0.21		0.14	0.49	0.07	0.19		0.35	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		263	337		258	844	121	653		611	1618	
v/s Ratio Prot		c0.09	0.00		c0.09	0.05	0.04	0.18		c0.30	c0.43	
v/s Ratio Perm			0.01			0.03						
v/c Ratio		0.64	0.04		0.64	0.15	0.64	0.96		0.87	0.93	
Uniform Delay, d1		36.3	28.1		36.3	12.7	40.8	36.1		27.6	22.7	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		5.1	0.1	10.5	26.0		13.1	11.2	
Delay (s)		41.3	28.2		41.4	12.7	51.3	62.2		40.8	33.9	
Level of Service		D	C		D	B	D	E		D	C	
Approach Delay (s)		37.5			24.0			61.0			35.7	
Approach LOS		D			C			E			D	

Intersection Summary

HCM 2000 Control Delay	39.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↑↑	↗	↖↗	↖↗	
Volume (vph)	13	38	56	342	49	93	82	583	470	447	764	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Fr _t		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Fl _t Protected		0.99	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1839	1583	1681	1706	1583	1770	3539	1583	3433	3534	
Fl _t Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3534	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	41	61	372	53	101	89	634	511	486	830	8
RTOR Reduction (vph)	0	0	47	0	0	61	0	0	392	0	1	0
Lane Group Flow (vph)	0	55	14	212	213	40	89	634	119	486	837	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	23.6	23.6	23.6	24.4	14.0	14.0	10.4	14.0	
Effective Green, g (s)		14.0	14.0	23.6	23.6	23.6	24.4	14.0	14.0	10.4	14.0	
Actuated g/C Ratio		0.23	0.23	0.39	0.39	0.39	0.41	0.23	0.23	0.17	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	464	546	622	428	825	369	595	824	
v/s Ratio Prot				c0.04	0.04		0.04	0.18		c0.14	c0.24	
v/s Ratio Perm		0.03	0.01	c0.14	0.12	0.03	0.05		0.08			
v/c Ratio		0.14	0.04	0.46	0.39	0.06	0.21	0.77	0.32	0.82	1.02	
Uniform Delay, d ₁		18.2	17.8	13.9	13.0	11.3	11.1	21.5	19.1	23.9	23.0	
Progression Factor		1.00	1.00	0.64	0.61	0.68	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂		0.7	0.2	0.7	0.4	0.2	0.2	4.3	0.5	11.8	35.4	
Delay (s)		18.9	18.0	9.6	8.3	7.9	11.4	25.8	19.6	35.7	58.4	
Level of Service		B	B	A	A	A	B	C	B	D	E	
Approach Delay (s)		18.4			8.8			22.2			50.1	
Approach LOS		B			A			C			D	

Intersection Summary

HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	550	61	165	380	208	86	242	228	369	126	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1789	
Flt Permitted	0.33	1.00	1.00	0.43	1.00	1.00	0.38	1.00	1.00	0.60	1.00	
Satd. Flow (perm)	621	3539	1583	793	3539	1583	702	1863	1583	1112	1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	598	66	179	413	226	93	263	248	401	137	49
RTOR Reduction (vph)	0	0	49	0	0	166	0	0	182	0	21	0
Lane Group Flow (vph)	63	598	17	179	413	60	93	263	66	401	165	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Effective Green, g (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	896	401	276	943	422	272	496	422	467	596	
v/s Ratio Prot	0.02	c0.17		c0.04	0.12		0.03	c0.14		c0.13	0.09	
v/s Ratio Perm	0.06		0.01	0.13		0.04	0.06		0.04	c0.16		
v/c Ratio	0.29	0.67	0.04	0.65	0.44	0.14	0.34	0.53	0.16	0.86	0.28	
Uniform Delay, d1	17.7	20.1	16.9	20.6	18.3	16.8	17.2	18.8	16.8	18.2	14.7	
Progression Factor	1.22	1.23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3	2.7	0.1	5.2	0.3	0.2	0.8	4.0	0.8	14.5	0.3	
Delay (s)	23.7	27.5	17.0	25.8	18.6	16.9	18.0	22.8	17.6	32.6	14.9	
Level of Service	C	C	B	C	B	B	B	C	B	C	B	
Approach Delay (s)		26.2			19.7			19.9			27.0	
Approach LOS		C			B			B			C	

Intersection Summary

HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	29	185	183	44	32	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	201	199	48	35	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	502	57	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	502	57	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	80	87			
cM capacity (veh/h)	460	1010	1520			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	233	247	78			
Volume Left	32	199	0			
Volume Right	201	0	43			
cSH	869	1520	1700			
Volume to Capacity	0.27	0.13	0.05			
Queue Length 95th (ft)	27	11	0			
Control Delay (s)	10.7	6.4	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.7	6.4	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			7.3			
Intersection Capacity Utilization			38.8%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

8/5/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	179	2	47	162	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	195	2	51	176	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	382	28			53	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	382	28			53	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	81			89	
cM capacity (veh/h)	550	1048			1552	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	249	53	178
Volume Left	54	0	176
Volume Right	195	51	0
cSH	875	1700	1552
Volume to Capacity	0.28	0.03	0.11
Queue Length 95th (ft)	29	0	10
Control Delay (s)	10.7	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	10.7	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		8.4	
Intersection Capacity Utilization		36.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	10	13	4	4	4	135	1	24	4	46	59	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	14	4	4	4	147	1	26	4	50	64	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	345	198	66	208	198	28	67			30		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	345	198	66	208	198	28	67			30		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	100	99	99	86	100			97		
cM capacity (veh/h)	508	675	998	717	675	1047	1534			1582		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	155	32	117
Volume Left	11	4	1	50
Volume Right	4	147	4	3
cSH	629	1018	1534	1582
Volume to Capacity	0.05	0.15	0.00	0.03
Queue Length 95th (ft)	4	13	0	2
Control Delay (s)	11.0	9.2	0.3	3.3
Lane LOS	B	A	A	A
Approach Delay (s)	11.0	9.2	0.3	3.3
Approach LOS	B	A		

Intersection Summary			
Average Delay		6.4	
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	50	73	53	49	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	54	79	58	53	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	291	75	97			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	291	75	97			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	94	95			
cM capacity (veh/h)	662	986	1497			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	64	137	97			
Volume Left	10	79	0			
Volume Right	54	0	43			
cSH	918	1497	1700			
Volume to Capacity	0.07	0.05	0.06			
Queue Length 95th (ft)	6	4	0			
Control Delay (s)	9.2	4.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	4.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utilization			23.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	10	6	50	70	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	11	7	54	76	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	154	87	98			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	154	87	98			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	834	972	1495			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	26	61	98			
Volume Left	15	7	0			
Volume Right	11	0	22			
cSH	886	1495	1700			
Volume to Capacity	0.03	0.00	0.06			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	9.2	0.8	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	0.8	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			17.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	97	9	52	5	3	7	51	870	10	12	847	86
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	105	10	57	5	3	8	55	946	11	13	921	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2059	2061	967	2070	2102	951	1014			957		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2059	2061	967	2070	2102	951	1014			957		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	80	82	79	93	98	92			98		
cM capacity (veh/h)	35	49	308	26	47	315	684			719		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	172	16	55	957	13	1014
Volume Left	105	5	55	0	13	0
Volume Right	57	8	0	11	0	93
cSH	50	53	684	1700	719	1700
Volume to Capacity	3.43	0.31	0.08	0.56	0.02	0.60
Queue Length 95th (ft)	Err	27	7	0	1	0
Control Delay (s)	Err	100.3	10.7	0.0	10.1	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	Err	100.3	0.6		0.1	
Approach LOS	F	F				

Intersection Summary		
Average Delay		772.1
Intersection Capacity Utilization	72.2%	ICU Level of Service C
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	24	12	14	1018	835	58
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	13	15	1107	908	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1491	908	908			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1491	908	908			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	95	98			
cM capacity (veh/h)	112	278	746			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	13	15	553	553	908	63
Volume Left	26	0	15	0	0	0	0
Volume Right	0	13	0	0	0	0	63
cSH	112	278	746	1700	1700	1700	1700
Volume to Capacity	0.23	0.05	0.02	0.33	0.33	0.53	0.04
Queue Length 95th (ft)	21	4	2	0	0	0	0
Control Delay (s)	46.7	18.6	9.9	0.0	0.0	0.0	0.0
Lane LOS	E	C	A				
Approach Delay (s)	37.3		0.1			0.0	
Approach LOS	E						

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Volume (vph)	62	75	150	47	78	126	268	838	87	186	611	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Flt Protected		0.98	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1822	1583		1720		3433	3489		1770	3539	1583
Flt Permitted		0.67	1.00		0.92		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1245	1583		1590		3433	3489		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	82	163	51	85	137	291	911	95	202	664	30
RTOR Reduction (vph)	0	0	41	0	42	0	0	7	0	0	0	17
Lane Group Flow (vph)	0	149	122	0	231	0	291	999	0	202	664	13
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		15.8	27.6		15.8		11.8	27.7		13.8	29.7	29.7
Effective Green, g (s)		15.8	27.6		15.8		11.8	27.7		13.8	29.7	29.7
Actuated g/C Ratio		0.23	0.40		0.23		0.17	0.40		0.20	0.43	0.43
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		283	721		362		584	1394		352	1516	678
v/s Ratio Prot			0.03				0.08	c0.29		c0.11	0.19	
v/s Ratio Perm		0.12	0.05		c0.15							0.01
v/c Ratio		0.53	0.17		0.64		0.50	0.72		0.57	0.44	0.02
Uniform Delay, d1		23.5	13.5		24.2		26.1	17.5		25.1	13.9	11.4
Progression Factor		1.01	1.02		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		1.8	0.1		3.7		0.7	1.8		2.3	0.2	0.0
Delay (s)		25.5	13.8		27.8		26.7	19.3		27.4	14.1	11.4
Level of Service		C	B		C		C	B		C	B	B
Approach Delay (s)		19.4			27.8			21.0			17.0	
Approach LOS		B			C			C			B	

Intersection Summary		
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.65	
Actuated Cycle Length (s)	69.3	Sum of lost time (s) 12.0
Intersection Capacity Utilization	67.3%	ICU Level of Service C
Analysis Period (min)	15	
c Critical Lane Group		

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	174	58	55	65	102	696	83	825	44	294	750	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1827	1583	1770	3512		1770	3444	
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1583		1827	1583	1770	3512		1770	3444	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	63	60	71	111	757	90	897	48	320	815	179
RTOR Reduction (vph)	0	0	45	0	0	75	0	4	0	0	20	0
Lane Group Flow (vph)	0	252	15	0	182	682	90	941	0	320	974	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.2	22.4		13.4	39.2	7.2	19.6		25.8	38.2	
Effective Green, g (s)		15.2	22.4		13.4	39.2	7.2	19.6		25.8	38.2	
Actuated g/C Ratio		0.17	0.25		0.15	0.44	0.08	0.22		0.29	0.42	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		303	393		272	759	141	764		507	1461	
v/s Ratio Prot		c0.14	0.00		0.10	c0.26	0.05	c0.27		0.18	0.28	
v/s Ratio Perm			0.01			0.17						
v/c Ratio		0.83	0.04		0.67	0.90	0.64	1.23		0.63	0.67	
Uniform Delay, d1		36.2	25.6		36.2	23.6	40.1	35.2		28.0	20.8	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4	0.0		6.1	13.4	9.1	115.6		2.6	2.4	
Delay (s)		53.5	25.7		42.3	36.9	49.3	150.8		30.5	23.2	
Level of Service		D	C		D	D	D	F		C	C	
Approach Delay (s)		48.2			38.0			142.0			25.0	
Approach LOS		D			D			F			C	

Intersection Summary

HCM 2000 Control Delay	64.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↑↑	↗	↖↗	↖↗	
Volume (vph)	41	21	156	515	90	106	160	899	350	185	644	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1803	1583	1681	1709	1583	1770	3539	1583	3433	3531	
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	23	170	560	98	115	174	977	380	201	700	11
RTOR Reduction (vph)	0	0	130	0	0	67	0	0	291	0	1	0
Lane Group Flow (vph)	0	68	40	325	333	48	174	977	89	201	710	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Effective Green, g (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Actuated g/C Ratio		0.23	0.23	0.42	0.42	0.42	0.23	0.23	0.23	0.15	0.35	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	509	592	664	163	825	369	503	1224	
v/s Ratio Prot				c0.08	0.07		0.04	c0.28		0.06	c0.20	
v/s Ratio Perm		0.04	0.03	c0.19	0.17	0.03	0.21		0.06			
v/c Ratio		0.17	0.11	0.64	0.56	0.07	1.07	1.18	0.24	0.40	0.58	
Uniform Delay, d1		18.4	18.1	14.8	13.2	10.4	22.7	23.0	18.7	23.2	16.0	
Progression Factor		1.00	1.00	0.61	0.56	0.94	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.9	0.6	1.8	0.8	0.1	89.6	95.1	0.3	2.4	2.0	
Delay (s)		19.3	18.7	10.7	8.2	9.9	112.2	118.1	19.0	25.6	18.0	
Level of Service		B	B	B	A	A	F	F	B	C	B	
Approach Delay (s)		18.8			9.5			92.9			19.7	
Approach LOS		B			A			F			B	

Intersection Summary

HCM 2000 Control Delay	49.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	383	129	213	669	520	174	333	188	241	202	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1784	
Flt Permitted	0.33	1.00	1.00	0.51	1.00	1.00	0.40	1.00	1.00	0.55	1.00	
Satd. Flow (perm)	621	3539	1583	947	3539	1583	745	1863	1583	1016	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	416	140	232	727	565	189	362	204	262	220	87
RTOR Reduction (vph)	0	0	103	0	0	414	0	0	150	0	24	0
Lane Group Flow (vph)	52	416	37	232	727	151	189	362	54	262	283	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	18.0	18.0	
Effective Green, g (s)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	18.0	18.0	
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.30	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	242	943	422	307	943	422	301	496	422	405	535	
v/s Ratio Prot	0.01	c0.12		0.05	c0.21		0.06	c0.19		c0.09	0.16	
v/s Ratio Perm	0.04		0.02	0.15		0.10	0.10		0.03	0.11		
v/c Ratio	0.21	0.44	0.09	0.76	0.77	0.36	0.63	0.73	0.13	0.65	0.53	
Uniform Delay, d1	17.2	18.3	16.5	20.7	20.3	17.8	18.4	20.0	16.7	18.5	17.5	
Progression Factor	1.12	1.15	9.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.8	1.3	0.4	10.1	3.9	0.5	4.1	9.1	0.6	3.5	3.7	
Delay (s)	21.0	22.4	165.0	30.8	24.3	18.4	22.5	29.2	17.3	22.1	21.2	
Level of Service	C	C	F	C	C	B	C	C	B	C	C	
Approach Delay (s)		55.1			23.1			24.3			21.6	
Approach LOS		E			C			C			C	

Intersection Summary

HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	12	172	188	92	9	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	187	204	100	10	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	535	27	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	535	27	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	82	87			
cM capacity (veh/h)	440	1049	1565			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	200	304	43			
Volume Left	13	204	0			
Volume Right	187	0	34			
cSH	962	1565	1700			
Volume to Capacity	0.21	0.13	0.03			
Queue Length 95th (ft)	20	11	0			
Control Delay (s)	9.7	5.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	5.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			6.6			
Intersection Capacity Utilization			39.9%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

8/5/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	60	210	0	18	164	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	228	0	20	178	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	367	10			20	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	367	10			20	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	79			89	
cM capacity (veh/h)	562	1072			1597	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	293	20	179
Volume Left	65	0	178
Volume Right	228	20	0
cSH	892	1700	1597
Volume to Capacity	0.33	0.01	0.11
Queue Length 95th (ft)	36	0	9
Control Delay (s)	11.0	0.0	7.5
Lane LOS	B		A
Approach Delay (s)	11.0	0.0	7.5
Approach LOS	B		

Intersection Summary			
Average Delay		9.3	
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	5	0	8	10	75	2	66	1	111	89	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	5	0	9	11	82	2	72	1	121	97	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	506	420	101	422	423	72	105			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	506	420	101	422	423	72	105			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	98	98	92	100			92		
cM capacity (veh/h)	404	483	954	505	480	990	1486			1527		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	14	101	75	226
Volume Left	9	9	2	121
Volume Right	0	82	1	9
cSH	431	827	1486	1527
Volume to Capacity	0.03	0.12	0.00	0.08
Queue Length 95th (ft)	3	10	0	6
Control Delay (s)	13.6	10.0	0.2	4.3
Lane LOS	B	A	A	A
Approach Delay (s)	13.6	10.0	0.2	4.3
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	37	126	78	38	89	28
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	137	85	41	97	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	323	112	127			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	323	112	127			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	85	94			
cM capacity (veh/h)	632	941	1459			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	177	126	127			
Volume Left	40	85	0			
Volume Right	137	0	30			
cSH	847	1459	1700			
Volume to Capacity	0.21	0.06	0.07			
Queue Length 95th (ft)	20	5	0			
Control Delay (s)	10.4	5.3	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.4	5.3	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			5.8			
Intersection Capacity Utilization			29.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	22	5	8	93	102	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	5	9	101	111	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	240	122	133			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	240	122	133			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	99			
cM capacity (veh/h)	744	929	1452			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	29	110	133			
Volume Left	24	9	0			
Volume Right	5	0	22			
cSH	772	1452	1700			
Volume to Capacity	0.04	0.01	0.08			
Queue Length 95th (ft)	3	0	0			
Control Delay (s)	9.8	0.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.8	0.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization		21.5%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Volume (veh/h)	101	4	30	15	9	7	21	674	8	7	931	67
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	110	4	33	16	10	8	23	733	9	8	1012	73
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1854	1851	1048	1845	1883	737	1085			741		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1854	1851	1048	1845	1883	737	1085			741		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	94	88	65	86	98	96			99		
cM capacity (veh/h)	48	71	277	47	68	418	643			866		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	147	34	23	741	8	1085
Volume Left	110	16	23	0	8	0
Volume Right	33	8	0	9	0	73
cSH	59	66	643	1700	866	1700
Volume to Capacity	2.48	0.51	0.04	0.44	0.01	0.64
Queue Length 95th (ft)	367	52	3	0	1	0
Control Delay (s)	819.6	106.7	10.8	0.0	9.2	0.0
Lane LOS	F	F	B		A	
Approach Delay (s)	819.6	106.7	0.3		0.1	
Approach LOS	F	F				

Intersection Summary		
Average Delay		61.0
Intersection Capacity Utilization	71.5%	ICU Level of Service C
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	3	3	649	961	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	3	3	705	1045	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1404	1045	1045			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1404	1045	1045			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	99	100			
cM capacity (veh/h)	130	226	662			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	3	3	353	353	1045	27
Volume Left	8	0	3	0	0	0	0
Volume Right	0	3	0	0	0	0	27
cSH	130	226	662	1700	1700	1700	1700
Volume to Capacity	0.06	0.01	0.00	0.21	0.21	0.61	0.02
Queue Length 95th (ft)	5	1	0	0	0	0	0
Control Delay (s)	34.4	21.2	10.5	0.0	0.0	0.0	0.0
Lane LOS	D	C	B				
Approach Delay (s)	30.5		0.0		0.0		
Approach LOS	D						

Intersection Summary			
Average Delay			0.2
Intersection Capacity Utilization	60.6%		ICU Level of Service B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↗
Volume (vph)	15	79	144	104	99	181	199	415	47	93	803	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt		1.00	0.85		0.94		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1848	1583		1721		3433	3485		1770	3539	1583
Flt Permitted		0.93	1.00		0.88		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1737	1583		1539		3433	3485		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	86	157	113	108	197	216	451	51	101	873	24
RTOR Reduction (vph)	0	0	14	0	33	0	0	8	0	0	0	15
Lane Group Flow (vph)	0	102	143	0	385	0	216	494	0	101	873	9
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		24.0	34.5		24.0		10.5	29.3		8.2	27.0	27.0
Effective Green, g (s)		24.0	34.5		24.0		10.5	29.3		8.2	27.0	27.0
Actuated g/C Ratio		0.33	0.47		0.33		0.14	0.40		0.11	0.37	0.37
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		567	829		502		490	1389		197	1300	581
v/s Ratio Prot			0.02				c0.06	0.14		0.06	c0.25	
v/s Ratio Perm		0.06	0.07		c0.25							0.01
v/c Ratio		0.18	0.17		0.77		0.44	0.36		0.51	0.67	0.02
Uniform Delay, d1		17.7	11.3		22.2		28.8	15.5		30.8	19.5	14.8
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.2	0.1		6.9		0.6	0.2		2.2	1.4	0.0
Delay (s)		17.9	11.4		29.1		29.5	15.6		33.0	20.9	14.8
Level of Service		B	B		C		C	B		C	C	B
Approach Delay (s)		13.9			29.1			19.8			22.0	
Approach LOS		B			C			B			C	

Intersection Summary		
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.66	
Actuated Cycle Length (s)	73.5	Sum of lost time (s) 12.0
Intersection Capacity Utilization	66.6%	ICU Level of Service C
Analysis Period (min)	15	
c Critical Lane Group		

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↗	↕↗		↗	↕↗	
Volume (vph)	69	86	63	100	51	248	71	533	87	494	1241	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1822	1583		1803	1583	1770	3464		1770	3477	
Flt Permitted		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1822	1583		1803	1583	1770	3464		1770	3477	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	93	68	109	55	270	77	579	95	537	1349	178
RTOR Reduction (vph)	0	0	53	0	0	138	0	15	0	0	10	0
Lane Group Flow (vph)	0	168	15	0	164	132	77	659	0	537	1517	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		13.0	19.2		12.9	44.0	6.2	17.0		31.1	41.9	
Effective Green, g (s)		13.0	19.2		12.9	44.0	6.2	17.0		31.1	41.9	
Actuated g/C Ratio		0.14	0.21		0.14	0.49	0.07	0.19		0.35	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		263	337		258	844	121	654		611	1618	
v/s Ratio Prot		c0.09	0.00		c0.09	0.05	0.04	0.19		c0.30	c0.44	
v/s Ratio Perm			0.01			0.03						
v/c Ratio		0.64	0.04		0.64	0.16	0.64	1.01		0.88	0.94	
Uniform Delay, d1		36.3	28.1		36.3	12.7	40.8	36.5		27.7	22.8	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		5.1	0.1	10.5	37.2		13.6	11.8	
Delay (s)		41.3	28.2		41.4	12.8	51.3	73.7		41.2	34.6	
Level of Service		D	C		D	B	D	E		D	C	
Approach Delay (s)		37.5			23.6			71.4			36.3	
Approach LOS		D			C			E			D	

Intersection Summary

HCM 2000 Control Delay	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↑↑	↗	↖↗	↕↗	
Volume (vph)	13	38	56	342	49	109	82	599	470	452	767	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1839	1583	1681	1706	1583	1770	3539	1583	3433	3534	
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3534	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	41	61	372	53	118	89	651	511	491	834	8
RTOR Reduction (vph)	0	0	47	0	0	72	0	0	392	0	1	0
Lane Group Flow (vph)	0	55	14	212	213	46	89	651	119	491	841	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	23.6	23.6	23.6	24.4	14.0	14.0	10.4	14.0	
Effective Green, g (s)		14.0	14.0	23.6	23.6	23.6	24.4	14.0	14.0	10.4	14.0	
Actuated g/C Ratio		0.23	0.23	0.39	0.39	0.39	0.41	0.23	0.23	0.17	0.23	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	464	546	622	428	825	369	595	824	
v/s Ratio Prot				c0.04	0.04		0.04	0.18		c0.14	c0.24	
v/s Ratio Perm		0.03	0.01	c0.14	0.12	0.03	0.05		0.08			
v/c Ratio		0.14	0.04	0.46	0.39	0.07	0.21	0.79	0.32	0.83	1.02	
Uniform Delay, d1		18.2	17.8	13.9	13.0	11.4	11.1	21.6	19.1	23.9	23.0	
Progression Factor		1.00	1.00	0.64	0.60	0.74	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.7	0.2	0.7	0.4	0.2	0.2	5.1	0.5	12.3	36.7	
Delay (s)		18.9	18.0	9.5	8.2	8.7	11.4	26.7	19.6	36.3	59.7	
Level of Service		B	B	A	A	A	B	C	B	D	E	
Approach Delay (s)		18.4			8.8			22.7			51.1	
Approach LOS		B			A			C			D	

Intersection Summary

HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	555	61	165	396	224	86	242	228	372	126	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1789	
Flt Permitted	0.33	1.00	1.00	0.42	1.00	1.00	0.38	1.00	1.00	0.60	1.00	
Satd. Flow (perm)	621	3539	1583	790	3539	1583	702	1863	1583	1112	1789	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	603	66	179	430	243	93	263	248	404	137	49
RTOR Reduction (vph)	0	0	49	0	0	178	0	0	181	0	21	0
Lane Group Flow (vph)	63	603	17	179	430	65	93	263	67	404	165	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Effective Green, g (s)	15.2	15.2	15.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	896	401	276	943	422	272	496	422	467	596	
v/s Ratio Prot	0.02	c0.17		c0.04	0.12		0.03	c0.14		c0.13	0.09	
v/s Ratio Perm	0.06		0.01	0.13		0.04	0.06		0.04	c0.16		
v/c Ratio	0.29	0.67	0.04	0.65	0.46	0.15	0.34	0.53	0.16	0.87	0.28	
Uniform Delay, d1	17.7	20.2	16.9	20.6	18.4	16.8	17.2	18.8	16.8	18.2	14.7	
Progression Factor	1.22	1.23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	2.7	0.1	5.2	0.4	0.2	0.8	4.0	0.8	15.3	0.3	
Delay (s)	23.8	27.6	17.0	25.8	18.7	17.0	18.0	22.8	17.6	33.5	14.9	
Level of Service	C	C	B	C	B	B	B	C	B	C	B	
Approach Delay (s)		26.3			19.7			19.9			27.7	
Approach LOS		C			B			B			C	

Intersection Summary

HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: Prospect & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	29	265	206	44	32	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	288	224	48	35	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	552	57	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	552	57	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	71	85			
cM capacity (veh/h)	422	1010	1520			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	320	272	78			
Volume Left	32	224	0			
Volume Right	288	0	43			
cSH	888	1520	1700			
Volume to Capacity	0.36	0.15	0.05			
Queue Length 95th (ft)	41	13	0			
Control Delay (s)	11.3	6.6	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.3	6.6	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			8.1			
Intersection Capacity Utilization		45.0%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: Prospect & Broadway

8/5/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	202	2	47	242	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	220	2	51	263	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	556	28			53	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	556	28			53	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	79			83	
cM capacity (veh/h)	409	1048			1552	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	274	53	265			
Volume Left	54	0	263			
Volume Right	220	51	0			
cSH	800	1700	1552			
Volume to Capacity	0.34	0.03	0.17			
Queue Length 95th (ft)	38	0	15			
Control Delay (s)	11.8	0.0	7.7			
Lane LOS	B		A			
Approach Delay (s)	11.8	0.0	7.7			
Approach LOS	B					
Intersection Summary						
Average Delay			8.9			
Intersection Capacity Utilization		42.1%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Airport & Stannford/Cornell

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	10	13	4	4	4	144	1	38	4	76	110	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	14	4	4	4	157	1	41	4	83	120	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	491	334	121	343	334	43	123			46		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	491	334	121	343	334	43	123			46		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	97	100	99	99	85	100			95		
cM capacity (veh/h)	394	555	930	572	555	1027	1464			1562		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	165	47	205
Volume Left	11	4	1	83
Volume Right	4	157	4	3
cSH	508	984	1464	1562
Volume to Capacity	0.06	0.17	0.00	0.05
Queue Length 95th (ft)	5	15	0	4
Control Delay (s)	12.5	9.4	0.2	3.2
Lane LOS	B	A	A	A
Approach Delay (s)	12.5	9.4	0.2	3.2
Approach LOS	B	A		

Intersection Summary			
Average Delay		5.8	
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

4: Airport & La Granada

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	50	74	121	68	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	54	80	132	74	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	388	96	117			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	388	96	117			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	94	95			
cM capacity (veh/h)	582	961	1471			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	64	212	117			
Volume Left	10	80	0			
Volume Right	54	0	43			
cSH	874	1471	1700			
Volume to Capacity	0.07	0.05	0.07			
Queue Length 95th (ft)	6	4	0			
Control Delay (s)	9.4	3.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	3.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization		27.4%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Airport & Los Banos

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	14	11	8	116	88	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	12	9	126	96	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	250	107	117			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	250	107	117			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	734	948	1471			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	27	135	117			
Volume Left	15	9	0			
Volume Right	12	0	22			
cSH	815	1471	1700			
Volume to Capacity	0.03	0.01	0.07			
Queue Length 95th (ft)	3	0	0			
Control Delay (s)	9.6	0.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			22.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

6: Highway 1 & Cypress

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	156	16	52	5	6	7	51	870	10	12	847	101
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	170	17	57	5	7	8	55	946	11	13	921	110
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2069	2069	976	2074	2118	951	1030			957		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2069	2069	976	2074	2118	951	1030			957		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	64	81	75	86	98	92			98		
cM capacity (veh/h)	32	49	305	22	45	315	674			719		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	243	20	55	957	13	1030
Volume Left	170	5	55	0	13	0
Volume Right	57	8	0	11	0	110
cSH	42	47	674	1700	719	1700
Volume to Capacity	5.83	0.42	0.08	0.56	0.02	0.61
Queue Length 95th (ft)	Err	37	7	0	1	0
Control Delay (s)	Err	129.2	10.8	0.0	10.1	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	Err	129.2	0.6		0.1	
Approach LOS	F	F				

Intersection Summary		
Average Delay		1051.5
Intersection Capacity Utilization	76.7%	ICU Level of Service
Analysis Period (min)		15
		D

HCM Unsignalized Intersection Capacity Analysis

7: Highway 1 & Capistrano (N)

8/5/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	24	12	14	1018	835	58
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	13	15	1107	908	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1491	908	908			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1491	908	908			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	95	98			
cM capacity (veh/h)	112	278	746			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	13	15	553	553	908	63
Volume Left	26	0	15	0	0	0	0
Volume Right	0	13	0	0	0	0	63
cSH	112	278	746	1700	1700	1700	1700
Volume to Capacity	0.23	0.05	0.02	0.33	0.33	0.53	0.04
Queue Length 95th (ft)	21	4	2	0	0	0	0
Control Delay (s)	46.7	18.6	9.9	0.0	0.0	0.0	0.0
Lane LOS	E	C	A				
Approach Delay (s)	37.3		0.1			0.0	
Approach LOS	E						

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis

8: Capistrano (S) & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↗
Volume (vph)	62	90	215	47	82	126	287	838	87	186	611	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Fr _t		1.00	0.85		0.93		1.00	0.99		1.00	1.00	0.85
Fl _t Protected		0.98	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1826	1583		1723		3433	3489		1770	3539	1583
Fl _t Permitted		0.69	1.00		0.91		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1281	1583		1588		3433	3489		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	98	234	51	89	137	312	911	95	202	664	30
RTOR Reduction (vph)	0	0	40	0	41	0	0	7	0	0	0	17
Lane Group Flow (vph)	0	165	194	0	236	0	312	999	0	202	664	13
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)		16.1	28.5		16.1		12.4	27.8		13.8	29.2	29.2
Effective Green, g (s)		16.1	28.5		16.1		12.4	27.8		13.8	29.2	29.2
Actuated g/C Ratio		0.23	0.41		0.23		0.18	0.40		0.20	0.42	0.42
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		295	738		366		610	1391		350	1482	663
v/s Ratio Prot			0.05				0.09	c0.29		c0.11	0.19	
v/s Ratio Perm		0.13	0.08		c0.15							0.01
v/c Ratio		0.56	0.26		0.65		0.51	0.72		0.58	0.45	0.02
Uniform Delay, d ₁		23.7	13.6		24.2		25.9	17.6		25.3	14.5	11.9
Progression Factor		1.01	1.01		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d ₂		2.3	0.2		3.9		0.7	1.8		2.3	0.2	0.0
Delay (s)		26.1	14.0		28.1		26.6	19.4		27.6	14.7	11.9
Level of Service		C	B		C		C	B		C	B	B
Approach Delay (s)		19.0			28.1			21.2			17.5	
Approach LOS		B			C			C			B	

Intersection Summary

HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

9: Highway 1 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↕		↖	↕	
Volume (vph)	174	58	55	65	102	699	83	834	44	308	781	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1827	1583	1770	3513		1770	3447	
Flt Permitted		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795	1583		1827	1583	1770	3513		1770	3447	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	63	60	71	111	760	90	907	48	335	849	179
RTOR Reduction (vph)	0	0	45	0	0	75	0	4	0	0	19	0
Lane Group Flow (vph)	0	252	15	0	182	685	90	951	0	335	1009	0
Turn Type	Split	NA	pm+ov	Split	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4	4	5	8	8	1	5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.2	22.4		13.4	39.4	7.2	19.4		26.0	38.2	
Effective Green, g (s)		15.2	22.4		13.4	39.4	7.2	19.4		26.0	38.2	
Actuated g/C Ratio		0.17	0.25		0.15	0.44	0.08	0.22		0.29	0.42	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		303	393		272	763	141	757		511	1463	
v/s Ratio Prot		c0.14	0.00		0.10	c0.26	0.05	c0.27		0.19	0.29	
v/s Ratio Perm			0.01			0.17						
v/c Ratio		0.83	0.04		0.67	0.90	0.64	1.26		0.66	0.69	
Uniform Delay, d1		36.2	25.6		36.2	23.4	40.1	35.3		28.1	21.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4	0.0		6.1	13.3	9.1	126.0		3.0	2.7	
Delay (s)		53.5	25.7		42.3	36.7	49.3	161.3		31.1	23.8	
Level of Service		D	C		D	D	D	F		C	C	
Approach Delay (s)		48.2			37.8			151.7			25.6	
Approach LOS		D			D			F			C	

Intersection Summary

HCM 2000 Control Delay	66.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Highway 92 & Highway 1

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕	↗	↖	↕	↖
Volume (vph)	41	21	156	515	90	112	160	902	350	201	659	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1803	1583	1681	1709	1583	1770	3539	1583	3433	3531	
Flt Permitted		0.93	1.00	0.58	0.73	1.00	0.28	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1732	1583	1026	1292	1583	522	3539	1583	3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	23	170	560	98	122	174	980	380	218	716	11
RTOR Reduction (vph)	0	0	130	0	0	71	0	0	291	0	1	0
Lane Group Flow (vph)	0	68	40	325	333	51	174	980	89	218	726	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Effective Green, g (s)		14.0	14.0	25.2	25.2	25.2	14.0	14.0	14.0	8.8	20.8	
Actuated g/C Ratio		0.23	0.23	0.42	0.42	0.42	0.23	0.23	0.23	0.15	0.35	
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	369	509	592	664	163	825	369	503	1224	
v/s Ratio Prot				c0.08	0.07		0.04	c0.28		0.06	c0.21	
v/s Ratio Perm		0.04	0.03	c0.19	0.17	0.03	0.21		0.06			
v/c Ratio		0.17	0.11	0.64	0.56	0.08	1.07	1.19	0.24	0.43	0.59	
Uniform Delay, d1		18.4	18.1	14.8	13.2	10.4	22.7	23.0	18.7	23.3	16.1	
Progression Factor		1.00	1.00	0.60	0.56	0.82	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.9	0.6	1.8	0.8	0.2	89.6	96.6	0.3	2.7	2.1	
Delay (s)		19.3	18.7	10.7	8.2	8.8	112.2	119.6	19.0	26.0	18.2	
Level of Service		B	B	B	A	A	F	F	B	C	B	
Approach Delay (s)		18.8			9.3			93.9			20.0	
Approach LOS		B			A			F			C	

Intersection Summary

HCM 2000 Control Delay	49.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Highway 92 & Main Street

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	399	129	213	675	523	174	333	188	255	202	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1784	
Flt Permitted	0.33	1.00	1.00	0.50	1.00	1.00	0.40	1.00	1.00	0.55	1.00	
Satd. Flow (perm)	621	3539	1583	931	3539	1583	745	1863	1583	1016	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	434	140	232	734	568	189	362	204	277	220	87
RTOR Reduction (vph)	0	0	103	0	0	416	0	0	150	0	24	0
Lane Group Flow (vph)	52	434	37	232	734	152	189	362	54	277	283	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	18.0	18.0	
Effective Green, g (s)	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	18.0	18.0	
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.30	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	242	943	422	304	943	422	301	496	422	405	535	
v/s Ratio Prot	0.01	c0.12		0.05	c0.21		0.06	c0.19		c0.09	0.16	
v/s Ratio Perm	0.04		0.02	0.15		0.10	0.10		0.03	0.11		
v/c Ratio	0.21	0.46	0.09	0.76	0.78	0.36	0.63	0.73	0.13	0.68	0.53	
Uniform Delay, d1	17.2	18.4	16.5	20.7	20.4	17.9	18.4	20.0	16.7	18.6	17.5	
Progression Factor	1.13	1.17	10.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.8	1.4	0.4	10.8	4.1	0.5	4.1	9.1	0.6	4.7	3.7	
Delay (s)	21.2	22.9	173.5	31.5	24.5	18.4	22.5	29.2	17.3	23.4	21.2	
Level of Service	C	C	F	C	C	B	C	C	B	C	C	
Approach Delay (s)		56.4			23.3			24.3			22.2	
Approach LOS		E			C			C			C	

Intersection Summary

HCM 2000 Control Delay	29.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Roundabout
6: Highway 1 & Cypress

7/1/2014

Intersection						
Intersection Delay, s/veh	8.9					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	1	1		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	109	34	555	654		
Demand Flow Rate, veh/h	111	34	566	667		
Vehicles Circulating, veh/h	572	645	94	42		
Vehicles Exiting, veh/h	26	8	589	637		
Follow-Up Headway, s	3.186	3.186	3.186	3.186		
Ped Vol Crossing Leg, #/h	0	0	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	7.8	6.8	10.3	7.9		
Approach LOS	A	A	B	A		
Lane	Left	Left	Left	Bypass	Left	Bypass
Designated Moves	LTR	LTR	LT	R	LT	R
Assumed Moves	LTR	LTR	LT	R	LT	R
RT Channelized				Free		Free
Lane Util	1.000	1.000	1.000		1.000	
Critical Headway, s	5.193	5.193	5.193		5.193	
Entry Flow, veh/h	111	34	559	7	556	111
Cap Entry Lane, veh/h	638	593	1029	1938	1083	1938
Entry HV Adj Factor	0.981	0.994	0.981	0.980	0.981	0.980
Flow Entry, veh/h	109	34	548	7	545	109
Cap Entry, veh/h	626	589	1009	1900	1062	1900
V/C Ratio	0.174	0.057	0.543	0.004	0.513	0.057
Control Delay, s/veh	7.8	6.8	10.4	0.0	9.5	0.0
LOS	A	A	B	A	A	A
95th %tile Queue, veh	1	0	3	0	3	0

HCM 2010 Roundabout
6: Highway 1 & Cypress

7/1/2014

Intersection				
Intersection Delay, s/veh	16.2			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	146	16	709	790
Demand Flow Rate, veh/h	148	16	723	806
Vehicles Circulating, veh/h	710	833	141	51
Vehicles Exiting, veh/h	147	31	717	798
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.3	7.8	17.1	16.7
Approach LOS	B	A	C	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	148	16	723	806
Cap Entry Lane, veh/h	556	491	981	1074
Entry HV Adj Factor	0.985	0.991	0.980	0.981
Flow Entry, veh/h	146	16	709	790
Cap Entry, veh/h	547	487	962	1053
V/C Ratio	0.266	0.033	0.737	0.751
Control Delay, s/veh	10.3	7.8	17.1	16.7
LOS	B	A	C	C
95th %tile Queue, veh	1	0	7	7

HCM 2010 Roundabout
6: Highway 1 & Cypress

6/4/2014

Intersection					
Intersection Delay, s/veh	20.5				
Intersection LOS	C				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	1	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	93	22	797	995	
Demand Flow Rate, veh/h	95	22	813	1015	
Vehicles Circulating, veh/h	944	861	60	58	
Vehicles Exiting, veh/h	47	12	979	825	
Follow-Up Headway, s	3.186	3.186	3.186	3.186	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	11.7	8.2	17.5	23.9	
Approach LOS	B	A	C	C	
Lane	Left	Left	Left	Left	Bypass
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					Free
Lane Util	1.000	1.000	1.000	1.000	
Critical Headway, s	5.193	5.193	5.193	5.193	
Entry Flow, veh/h	95	22	813	933	82
Cap Entry Lane, veh/h	440	478	1064	1066	1938
Entry HV Adj Factor	0.978	0.994	0.980	0.980	0.980
Flow Entry, veh/h	93	22	797	915	80
Cap Entry, veh/h	430	475	1043	1045	1900
V/C Ratio	0.216	0.046	0.764	0.875	0.042
Control Delay, s/veh	11.7	8.2	17.5	26.0	0.0
LOS	B	A	C	D	A
95th %tile Queue, veh	1	0	8	12	0

HCM 2010 Roundabout
6: Highway 1 & Cypress

7/1/2014

Intersection				
Intersection Delay, s/veh	11.4			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	110	34	577	678
Demand Flow Rate, veh/h	112	34	588	691
Vehicles Circulating, veh/h	595	667	96	43
Vehicles Exiting, veh/h	139	17	611	658
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.1	6.9	11.1	12.4
Approach LOS	A	A	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	112	34	588	691
Cap Entry Lane, veh/h	623	580	1027	1082
Entry HV Adj Factor	0.981	0.994	0.981	0.981
Flow Entry, veh/h	110	34	577	678
Cap Entry, veh/h	612	577	1007	1062
V/C Ratio	0.180	0.059	0.573	0.638
Control Delay, s/veh	8.1	6.9	11.1	12.4
LOS	A	A	B	B
95th %tile Queue, veh	1	0	4	5

HCM 2010 Roundabout
6: Highway 1 & Cypress

7/1/2014

Intersection				
Intersection Delay, s/veh	17.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	147	16	736	820
Demand Flow Rate, veh/h	149	16	751	836
Vehicles Circulating, veh/h	737	861	142	52
Vehicles Exiting, veh/h	151	32	744	825
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	8.0	18.7	18.2
Approach LOS	B	A	C	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	149	16	751	836
Cap Entry Lane, veh/h	541	478	980	1073
Entry HV Adj Factor	0.985	0.991	0.980	0.981
Flow Entry, veh/h	147	16	736	820
Cap Entry, veh/h	532	474	961	1052
V/C Ratio	0.276	0.033	0.766	0.779
Control Delay, s/veh	10.7	8.0	18.7	18.2
LOS	B	A	C	C
95th %tile Queue, veh	1	0	8	8

HCM 2010 Roundabout
6: Highway 1 & Cypress

8/5/2014

Intersection				
Intersection Delay, s/veh	39.2			
Intersection LOS	E			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	147	34	765	1093
Demand Flow Rate, veh/h	150	34	780	1114
Vehicles Circulating, veh/h	1056	883	124	49
Vehicles Exiting, veh/h	107	21	1082	868
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	16.9	8.7	19.3	57.0
Approach LOS	C	A	C	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	150	34	780	1114
Cap Entry Lane, veh/h	393	467	998	1076
Entry HV Adj Factor	0.979	0.994	0.981	0.981
Flow Entry, veh/h	147	34	765	1093
Cap Entry, veh/h	385	465	979	1055
V/C Ratio	0.382	0.073	0.781	1.035
Control Delay, s/veh	16.9	8.7	19.3	57.0
LOS	C	A	C	F
95th %tile Queue, veh	2	0	8	23

HCM 2010 Roundabout
6: Highway 1 & Cypress

8/5/2014

Intersection				
Intersection Delay, s/veh	63.3			
Intersection LOS	F			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	244	20	1012	1044
Demand Flow Rate, veh/h	248	20	1032	1064
Vehicles Circulating, veh/h	957	1194	203	68
Vehicles Exiting, veh/h	175	41	1002	1146
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	22.0	11.5	87.9	50.0
Approach LOS	C	B	F	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	248	20	1032	1064
Cap Entry Lane, veh/h	434	342	922	1056
Entry HV Adj Factor	0.983	0.993	0.981	0.981
Flow Entry, veh/h	244	20	1012	1044
Cap Entry, veh/h	426	340	905	1035
V/C Ratio	0.571	0.058	1.119	1.008
Control Delay, s/veh	22.0	11.5	87.9	50.0
LOS	C	B	F	F
95th %tile Queue, veh	3	0	27	20

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

7/2/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	77	4	19	15	9	7	15	489	6	4	498	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.97		1.00	1.00		1.00	0.97	
Flt Protected		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1747			1762		1770	1859		1770	1816	
Flt Permitted		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1747			1762		1770	1859		1770	1816	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	4	21	16	10	8	16	532	7	4	541	109
RTOR Reduction (vph)	0	11	0	0	7	0	0	1	0	0	8	0
Lane Group Flow (vph)	0	98	0	0	27	0	16	538	0	4	642	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		8.8			6.5		4.0	28.1		4.0	28.1	
Effective Green, g (s)		8.8			6.5		4.0	28.1		4.0	28.1	
Actuated g/C Ratio		0.14			0.10		0.06	0.44		0.06	0.44	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		242			180		111	823		111	804	
v/s Ratio Prot		c0.06			c0.02		c0.01	0.29		0.00	c0.35	
v/s Ratio Perm												
v/c Ratio		0.40			0.15		0.14	0.65		0.04	0.80	
Uniform Delay, d1		24.9			25.9		28.1	13.8		27.9	15.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1			0.4		0.6	1.9		0.1	5.6	
Delay (s)		26.0			26.3		28.7	15.7		28.0	20.8	
Level of Service		C			C		C	B		C	C	
Approach Delay (s)		26.0			26.3			16.1			20.8	
Approach LOS		C			C			B			C	

Intersection Summary

HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	63.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

7/2/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Volume (vph)	107	12	16	4	6	5	36	609	7	9	627	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.98			0.96		1.00	1.00		1.00	0.98	
Flt Protected		0.96			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1763			1762		1770	1859		1770	1828	
Flt Permitted		0.96			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1763			1762		1770	1859		1770	1828	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	13	17	4	7	5	39	662	8	10	682	98
RTOR Reduction (vph)	0	5	0	0	5	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	141	0	0	11	0	39	670	0	10	775	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		11.2			6.1		4.0	38.1		4.0	38.1	
Effective Green, g (s)		11.2			6.1		4.0	38.1		4.0	38.1	
Actuated g/C Ratio		0.15			0.08		0.05	0.51		0.05	0.51	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		261			142		93	939		93	923	
v/s Ratio Prot		c0.08			c0.01		c0.02	0.36		0.01	c0.42	
v/s Ratio Perm												
v/c Ratio		0.54			0.08		0.42	0.71		0.11	0.84	
Uniform Delay, d1		29.7			32.1		34.6	14.4		34.0	16.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.1			0.2		3.0	2.6		0.5	6.8	
Delay (s)		31.9			32.3		37.6	17.0		34.5	22.8	
Level of Service		C			C		D	B		C	C	
Approach Delay (s)		31.9			32.3			18.1			23.0	
Approach LOS		C			C			B			C	

Intersection Summary

HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	75.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

6/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (vph)	47	5	34	10	6	4	36	694	4	3	839	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.98		1.00	1.00		1.00	0.99	
Flt Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1716			1773		1770	1861		1770	1840	
Flt Permitted		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1716			1773		1770	1861		1770	1840	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	5	37	11	7	4	39	754	4	3	912	80
RTOR Reduction (vph)	0	23	0	0	4	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	70	0	0	18	0	39	758	0	3	990	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		9.2			6.6		4.0	58.1		4.0	58.1	
Effective Green, g (s)		9.2			6.6		4.0	58.1		4.0	58.1	
Actuated g/C Ratio		0.10			0.07		0.04	0.62		0.04	0.62	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		168			124		75	1151		75	1138	
v/s Ratio Prot		c0.04			c0.01		0.02	c0.41		0.00	c0.54	
v/s Ratio Perm												
v/c Ratio		0.42			0.15		0.52	0.66		0.04	0.87	
Uniform Delay, d1		39.8			41.0		44.0	11.5		43.1	14.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.7			0.6		6.4	1.4		0.2	7.3	
Delay (s)		41.5			41.6		50.4	12.9		43.3	22.1	
Level of Service		D			D		D	B		D	C	
Approach Delay (s)		41.5			41.6		14.7				22.1	
Approach LOS		D			D		B				C	

Intersection Summary

HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	93.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

7/2/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	77	5	19	15	9	7	16	509	6	5	518	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.97		1.00	1.00		1.00	0.98	
Flt Protected		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1748			1762		1770	1859		1770	1817	
Flt Permitted		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1748			1762		1770	1859		1770	1817	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	5	21	16	10	8	17	553	7	5	563	110
RTOR Reduction (vph)	0	9	0	0	7	0	0	1	0	0	8	0
Lane Group Flow (vph)	0	101	0	0	27	0	17	559	0	5	665	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		9.4			6.8		4.1	30.2		4.1	30.2	
Effective Green, g (s)		9.4			6.8		4.1	30.2		4.1	30.2	
Actuated g/C Ratio		0.14			0.10		0.06	0.45		0.06	0.45	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		247			180		109	844		109	825	
v/s Ratio Prot		c0.06			c0.02		c0.01	0.30		0.00	c0.37	
v/s Ratio Perm												
v/c Ratio		0.41			0.15		0.16	0.66		0.05	0.81	
Uniform Delay, d1		26.0			27.2		29.6	14.2		29.4	15.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1			0.4		0.7	2.0		0.2	5.8	
Delay (s)		27.1			27.6		30.2	16.1		29.5	21.4	
Level of Service		C			C		C	B		C	C	
Approach Delay (s)		27.1			27.6			16.6			21.5	
Approach LOS		C			C			B			C	

Intersection Summary

HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	66.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

7/2/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (vph)	107	13	16	4	6	5	37	633	7	9	652	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.98			0.96		1.00	1.00		1.00	0.98	
Flt Protected		0.96			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1764			1762		1770	1860		1770	1828	
Flt Permitted		0.96			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1764			1762		1770	1860		1770	1828	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	14	17	4	7	5	40	688	8	10	709	101
RTOR Reduction (vph)	0	5	0	0	5	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	142	0	0	11	0	40	696	0	10	805	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		11.3			6.1		4.0	38.1		4.0	38.1	
Effective Green, g (s)		11.3			6.1		4.0	38.1		4.0	38.1	
Actuated g/C Ratio		0.15			0.08		0.05	0.50		0.05	0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		264			142		93	938		93	922	
v/s Ratio Prot		c0.08			c0.01		c0.02	0.37		0.01	c0.44	
v/s Ratio Perm												
v/c Ratio		0.54			0.08		0.43	0.74		0.11	0.87	
Uniform Delay, d1		29.7			32.1		34.6	14.8		34.0	16.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.1			0.2		3.2	3.2		0.5	9.2	
Delay (s)		31.8			32.3		37.8	18.0		34.6	25.7	
Level of Service		C			C		D	B		C	C	
Approach Delay (s)		31.8			32.3			19.1			25.8	
Approach LOS		C			C			B			C	

Intersection Summary

HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	101	4	30	15	9	7	21	674	8	7	931	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.97		1.00	1.00		1.00	0.99	
Flt Protected		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1741			1762		1770	1859		1770	1844	
Flt Permitted		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1741			1762		1770	1859		1770	1844	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	4	33	16	10	8	23	733	9	8	1012	73
RTOR Reduction (vph)	0	10	0	0	7	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	137	0	0	27	0	23	742	0	8	1083	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		12.1			7.0		4.0	53.1		4.0	53.1	
Effective Green, g (s)		12.1			7.0		4.0	53.1		4.0	53.1	
Actuated g/C Ratio		0.13			0.08		0.04	0.58		0.04	0.58	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		228			133		76	1070		76	1062	
v/s Ratio Prot		c0.08			c0.02		c0.01	0.40		0.00	c0.59	
v/s Ratio Perm												
v/c Ratio		0.60			0.20		0.30	0.69		0.11	1.02	
Uniform Delay, d1		37.8			40.0		42.7	13.8		42.4	19.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.2			0.7		2.2	2.0		0.6	32.7	
Delay (s)		42.0			40.7		45.0	15.8		43.0	52.2	
Level of Service		D			D		D	B		D	D	
Approach Delay (s)		42.0			40.7			16.6			52.1	
Approach LOS		D			D			B			D	

Intersection Summary

HCM 2000 Control Delay	37.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	92.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Highway 1 & Cypress

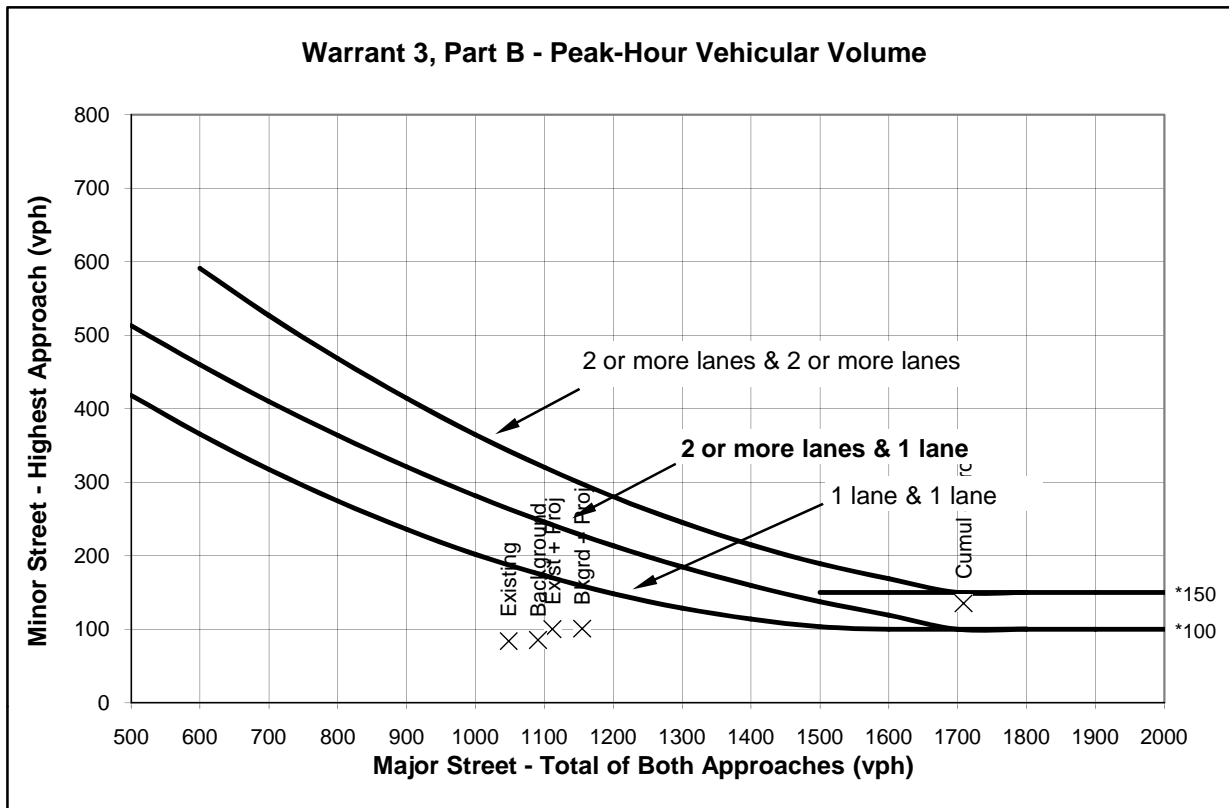
8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	156	16	52	5	6	7	51	870	10	12	847	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.95		1.00	1.00		1.00	0.98	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1743			1740		1770	1860		1770	1833	
Flt Permitted		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1743			1740		1770	1860		1770	1833	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	17	57	5	7	8	55	946	11	13	921	110
RTOR Reduction (vph)	0	10	0	0	7	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	234	0	0	13	0	55	957	0	13	1028	0
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		15.9			6.4		4.0	58.0		4.0	58.0	
Effective Green, g (s)		15.9			6.4		4.0	58.0		4.0	58.0	
Actuated g/C Ratio		0.16			0.06		0.04	0.58		0.04	0.58	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		276			111		70	1075		70	1059	
v/s Ratio Prot		c0.13			c0.01		c0.03	0.51		0.01	c0.56	
v/s Ratio Perm												
v/c Ratio		0.85			0.11		0.79	0.89		0.19	0.97	
Uniform Delay, d1		41.0			44.3		47.7	18.4		46.6	20.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		20.7			0.5		42.6	9.2		1.3	20.7	
Delay (s)		61.7			44.7		90.4	27.6		47.9	41.1	
Level of Service		E			D		F	C		D	D	
Approach Delay (s)		61.7			44.7			31.0			41.1	
Approach LOS		E			D			C			D	

Intersection Summary

HCM 2000 Control Delay	38.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

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

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		AM PEAK PERIOD							
		2 or One	More	Existing	Exist + Proj	Background	Bkgrd + Proj	Cumul + Proj			
Major Street - Both Approaches	Highway 1	X		1048	1112	1091	1155	1709			
Minor Street - Highest Approach	Cypress Ave	X		84	100	85	101	135			
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	No	No	No	Yes			

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Note 1: Right turn volumes were not removed from minor approaches.

Big Wave North Parcel Alternative

TRAFFIC SIGNAL WARRANTS WORKSHEET

Analyst: LJ date: 6/5/14

Major Street: Highway 1
 Minor Street: Cypress Ave

Critical Approach Speed* (mph) 50
 Critical Approach Speed* (mph) 25
 *Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h)..... }
 In built up area of isolated community of < 10,000 population..... } **Rural (R)**
 Urban (U)

AM PEAK PERIOD

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

AM PEAK PERIOD

	Existing	Exist + Proj	Background	Bkgrd + Proj	Cumul + Proj			
Minor Street Approach Direction w/ Highest Delay	EB	EB	EB	EB	EB			
Highest Minor Street Average Delay (sec/veh)	36.5	51.6	41.3	60.9	819.6			
Corresponding Minor Street Approach Volume (veh/hr)	84	100	85	101	135			
Minor Street Total Delay (veh-hrs)	0.9	1.4	1.0	1.7	30.8			
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No	Yes			
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	Yes	No	Yes	Yes			
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	Yes	Yes	Yes	Yes	Yes			
Signal Warranted based on Part A?	No	No	No	No	Yes			

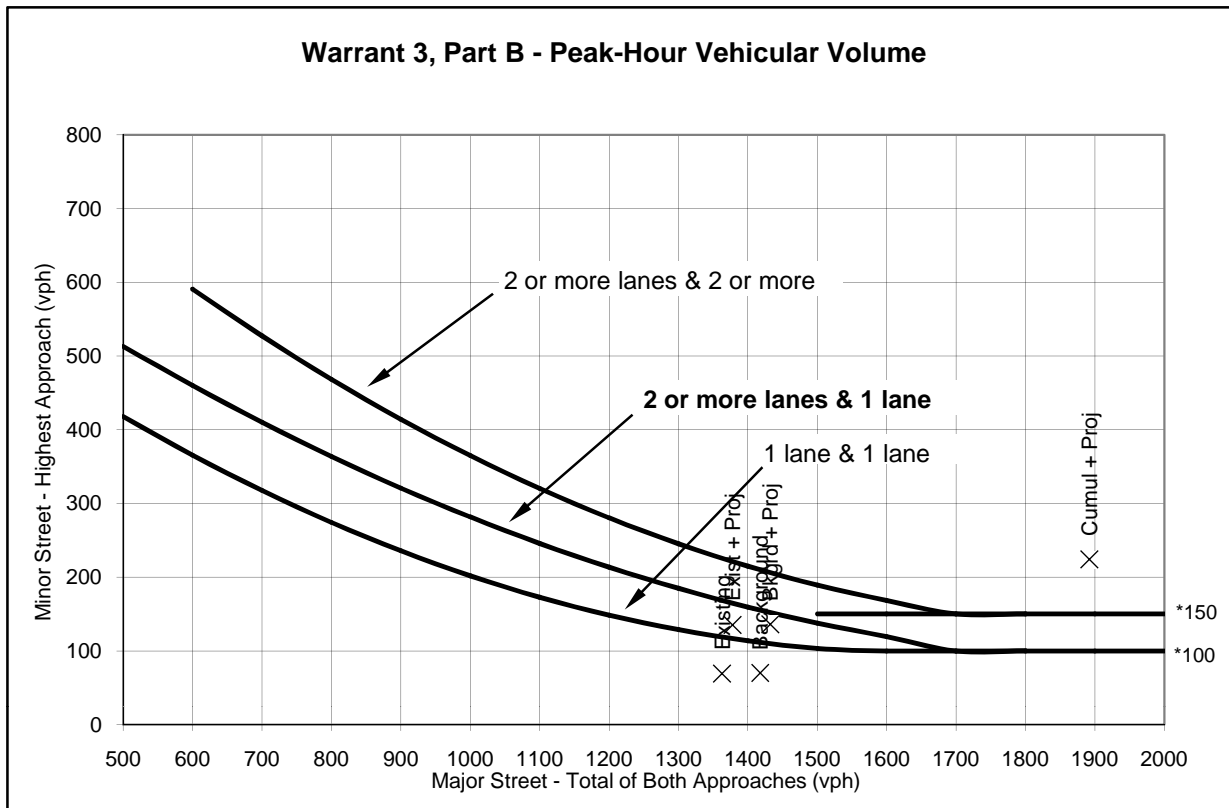
PART B

AM PEAK PERIOD

	Approach Lanes	2 or		Existing	Exist + Proj	Background	Bkgrd + Proj	Cumul + Proj			
		One	More								
Major Street - Both Approaches	Highway 1	X		1048	1112	1091	1155	1709			
Minor Street - Highest Approach	Cypress Ave	X		84	100	85	101	135			
Signal Warranted based on Part B?				No	No	No	No	Yes			

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California).



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

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

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		PM PEAK HOUR							
		One	2 or More	Existing	Exist + Proj	Background	Bkgrd + Proj	Cumul + Proj			
Major Street - Both Approaches	Highway 1	X		1363	1378	1418	1433	1892			
Minor Street - Highest Approach	Cypress Ave	X		69	135	70	136	224			
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	Yes	No	Yes	Yes			

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Note 1: Right turn volumes were not removed from minor approaches.

Big Wave North Parcel Alternative

TRAFFIC SIGNAL WARRANTS WORKSHEET

Major Street: Highway 1
 Minor Street: Cypress Ave

Analyst: LJ date: 6/5/14
 Critical Approach Speed* (mph) 50
 Critical Approach Speed* (mph) 25
 *Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h)..... }
 In built up area of isolated community of < 10,000 population..... or } **Rural (R)**
 Urban (U)

PM PEAK HOUR

Warrant 3 - Peak Hour

PART A

(All parts 1, 2, and 3 below must be satisfied)

	PM PEAK HOUR							
	Existing	Exist + Proj	Background	Bkgrd + Proj	Cumul + Proj			
Minor Street Approach Direction w/ Highest Delay	EB	EB	EB	EB	EB			
Highest Minor Street Average Delay (sec/veh)	78.8	318.4	96.1	389.6	1000.0			
Corresponding Minor Street Approach Volume (veh/hr)	69	135	70	136	224			
Minor Street Total Delay (veh-hrs)	1.5	11.9	1.9	14.7	62.2			
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	Yes	No	Yes	Yes			
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	Yes	No	Yes	Yes			
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	Yes	Yes	Yes	Yes	Yes			
Signal Warranted based on Part A?	No	Yes	No	Yes	Yes			

PART B

				PM PEAK HOUR							
		Approach Lanes		Existing	Exist + Proj	Background	Bkgrd + Proj	Cumul + Proj			
		One	2 or More								
Major Street - Both Approaches	Highway 1	X		1363	1378	1418	1433	1892			
Minor Street - Highest Approach	Cypress Ave	X		69	135	70	136	224			
Signal Warranted based on Part B?				No	Yes	No	Yes	Yes			

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California).
 Notes: