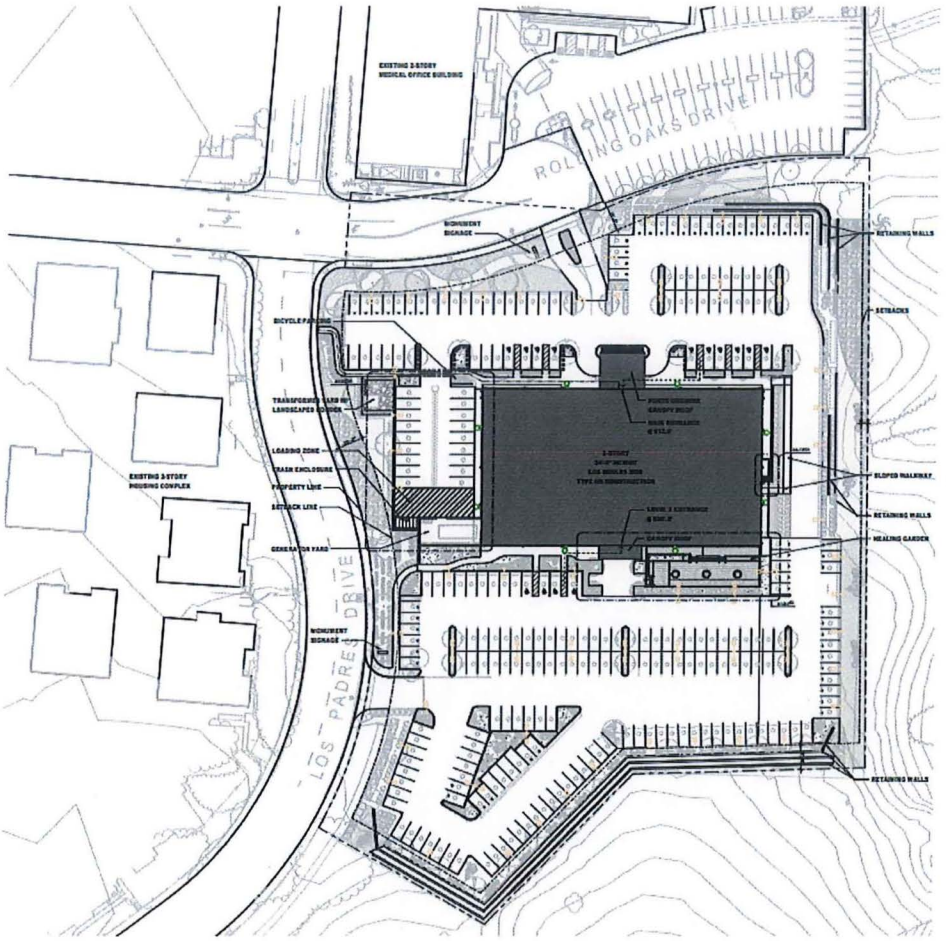
Appendix H-1

Los Robles Medical Center Traffic and Parking Study

LOS ROBLES MEDICAL CENTER
THOUSAND OAKS, CALIFORNIA

TRAFFIC AND PARKING STUDY



October 24, 2022 **ATE Project 22006**

Prepared for:

City of Thousand Oaks
2100 Thousand Oaks Boulevard
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Richard L. Pool, P.E.
Scott A. Schell

October 24, 2022

Ms. Kathy Naoum
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TRAFFIC AND PARKING STUDY FOR THE LOS ROBLES MEDICAL CENTER - CITY OF THOUSAND OAKS

Associated Transportation Engineers (ATE) is pleased to submit the following traffic and parking study for the Los Robles Medical Center. The study examines existing and future traffic conditions within the study-area and assesses the traffic, parking and Vehicle Miles Traveled (VMT) impacts associated with the Project. It our understanding that the results of the study will be used by the City of Thousand Oaks to process the Project's development application.

We appreciate the opportunity to assist the City of Thousand Oaks, with this Project.

Associated Transportation Engineers

Richard L Pool

By: Richard L. Pool, P.E.
President

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INTRODUCTION

The following traffic study contains an analysis of the potential traffic and parking impacts associated with the Project, located just south of the U.S. Highway 101/State Route 23 interchange in the City of Thousand Oaks. The guidelines set forth in the City of Thousand Oaks standards were utilized in formatting the various sections of the traffic study. The study provides information relative to Existing, Existing + Project, Cumulative (Existing + Approved/Pending Projects) and Cumulative + Project traffic conditions. Site access, parking and Vehicle Miles Traveled (VMT) are also addressed in the traffic study.

PROJECT DESCRIPTION

As shown on Figure 1, the Los Robles Medical Center is located at 400 East Rolling Oaks Drive in the City of Thousand Oaks. The Project is proposing to construct a 58,412 medical office building, with 264 on-site parking spaces. The Project will be compatible with the existing medical facilities adjacent to the Project site. Primary access to the Project site will be provided from driveway connections to Rolling Oaks and Los Padres Drive. The Project site plan is illustrated on Figure 2.

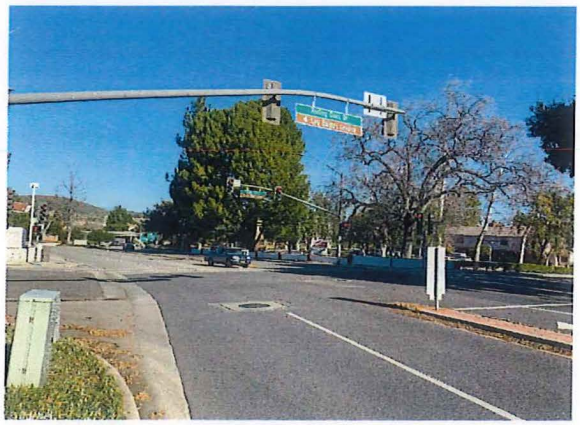
EXISTING CONDITIONS

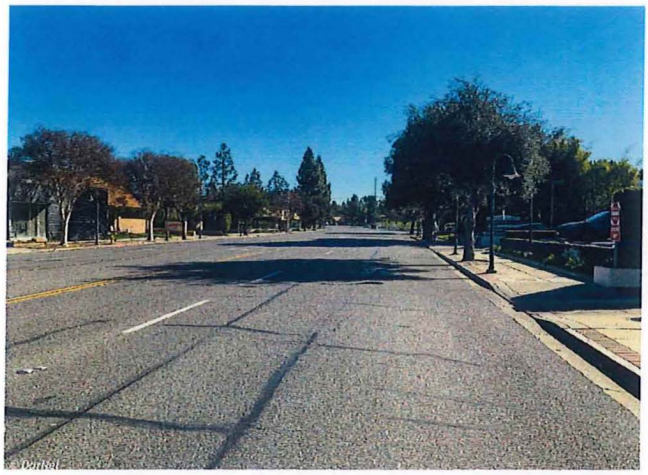
Existing Street Network

The Project site is served by a circulation system comprised of arterial and collector streets, which are illustrated on Figure 1 and discussed in the following text.

U.S. Highway 101, located north of the Project site, is a multi-lane interstate highway serving the Pacific Coast between the City of Los Angeles and the State of Washington. U.S. Highway 101 is the principal route between the City of Thousand Oaks and the adjacent cities of Oxnard and Ventura to the north and Westlake Village and Agoura Hills to the south. Regional access to the site is provided by the Moorpark Road and Rancho Road interchanges.

Moorpark Road, is a 4-lane collector roadway that extends north from urban boundary to Tierra Rejada in the City of Moorpark. The roadway serves residential, commercial and agricultural land uses. The U.S. Highway 101/Moorpark Road interchange, Moorpark Road/Thousand Oaks Boulevard and Moorpark Road/Rolling Oaks Drive intersections are signalized.

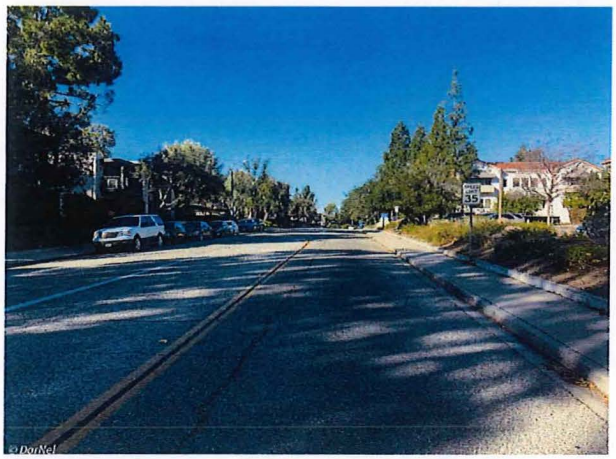


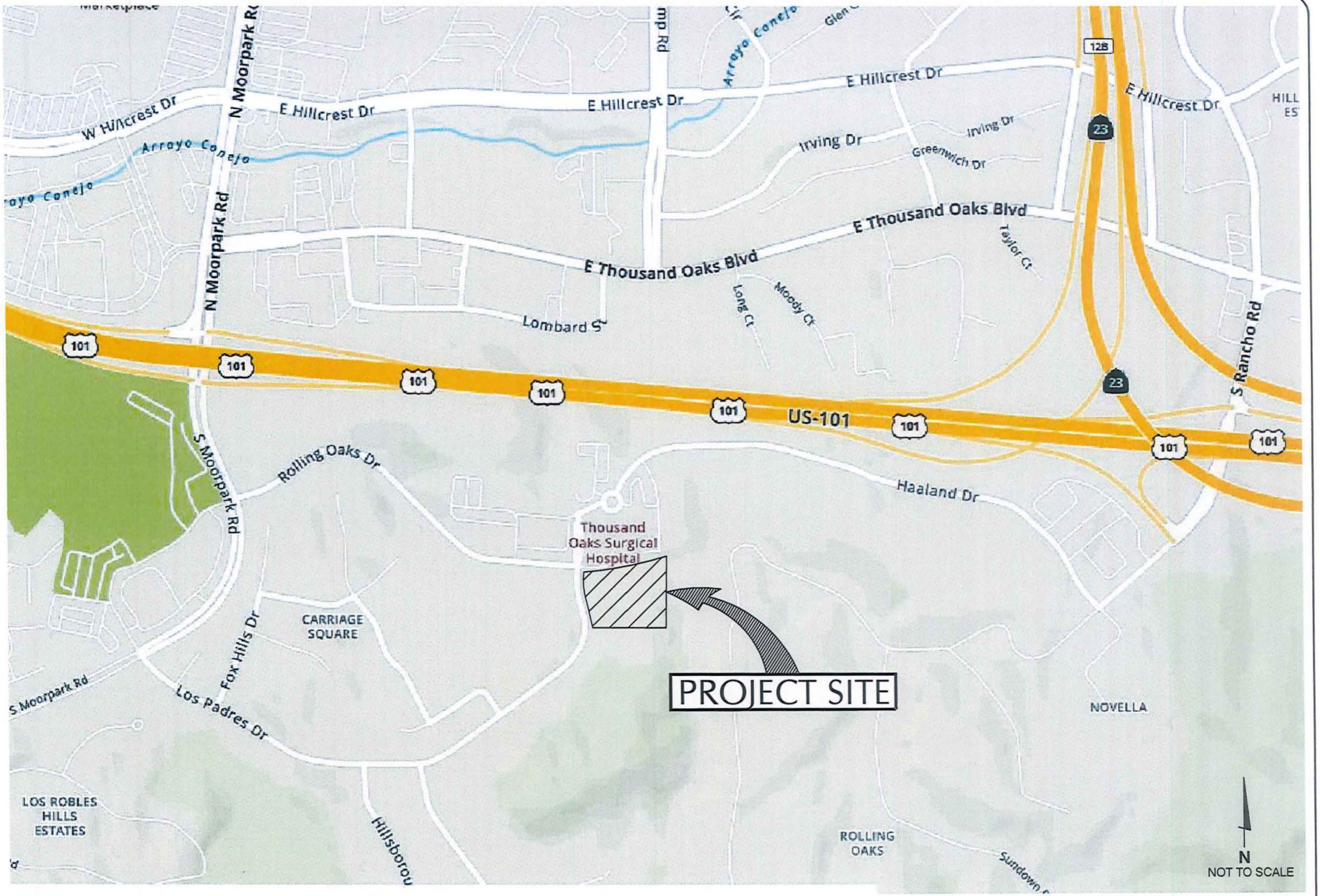


Thousand Oaks Boulevard, located north of the Project site is a 4- to 5- lane roadway with a 2-way left-turn median that extends east from Wilbur Road to Kanan Road in Agoura Hills. Thousand Oaks Boulevard primarily serves commercial land uses. The Moorpark Road/Thousand Oaks Boulevard intersection is controlled by a fully actuated traffic signal.

Rancho Road, is a 4-lane divided road extending south from Hillcrest Road to Haaland Drive where it transitions to Rimrock Road. Rancho Road connects the residential areas south of U.S. Highway 101 with the north side of Thousand Oaks. North of Hillcrest Drive it turns into Encino Vista Drive. The U.S. Highway 101/Rancho Road interchange is signalized.

Rolling Oaks Drive, is a 2-lane roadway extending easterly from Moorpark Road to Los Padres Drive and terminates at the Project site. Rolling Oaks Drive serves primarily residential and commercial land uses. Rolling Oaks Drive will provide direct access to the Los Robles Medical Center via an existing driveway connection.





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PROJECT SITE LOCATION

FIGURE 1

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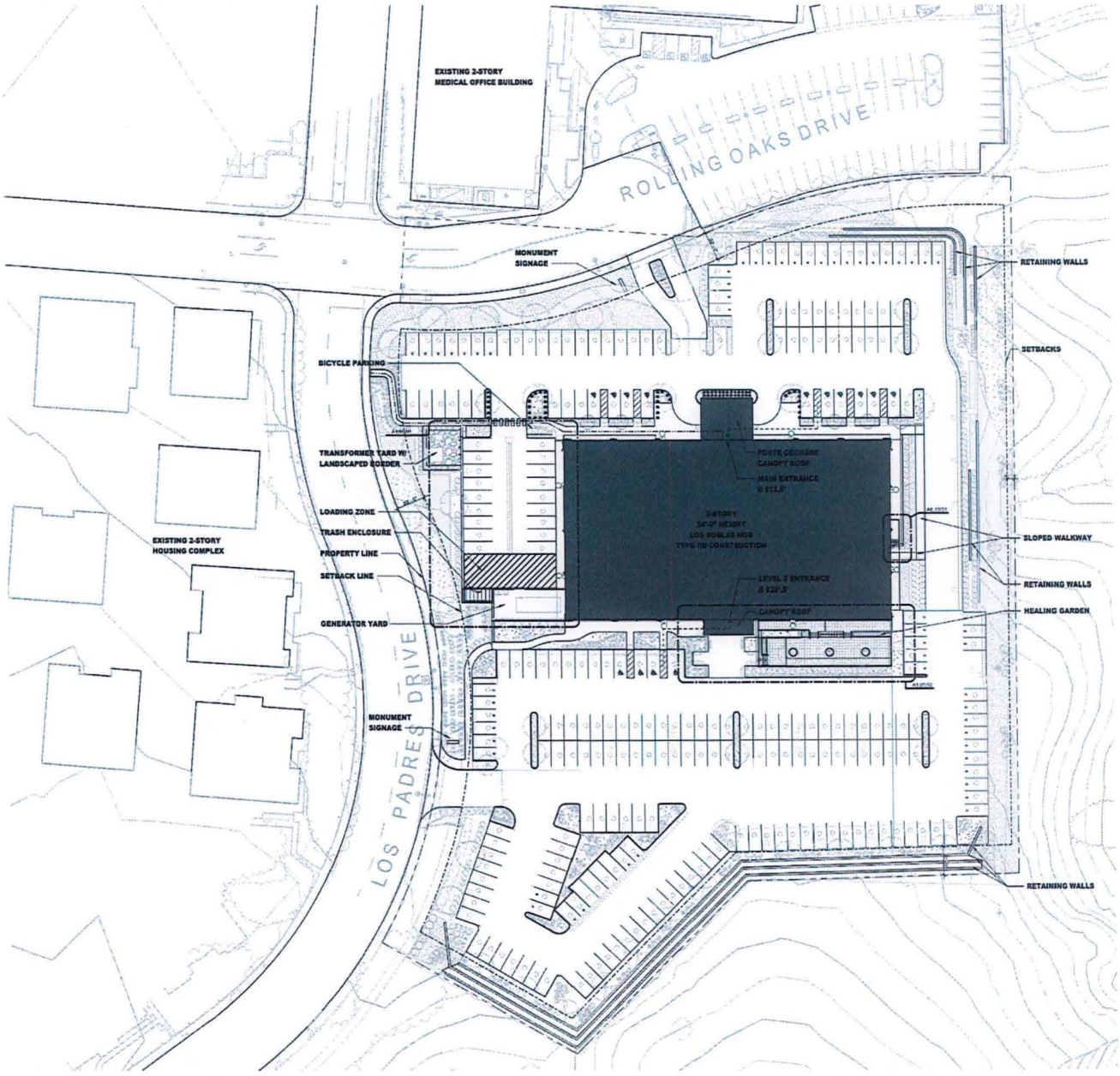

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ENGINEERS

PROJECT SITE PLAN

FIGURE 2

GM- ATE#22006

Los Padres Drive, a 2-lane roadway extending easterly from Moorpark Road to Rolling Oaks Drive. North of Rolling Oaks Drive, it becomes Haaland Drive and continues on to intersect with Rancho Road. Rancho Road serves primarily residential and commercial land uses. Los Padres Drive will provide direct access to the Los Robles Medical Center via a new driveway connection.

Existing Volumes and Levels of Service

Figure 3 illustrates the 7 study-area intersections, the existing traffic controls and the intersection geometries. ATE utilized existing peak hour traffic volumes at three study-area intersections provided by the City. ATE collected existing peak hour traffic volumes for the U.S. Highway 101/Moorpark Road interchange ramps and the Moorpark Road/Thousand Oaks Boulevard and Moorpark Road/Rolling Oaks Drive intersections. These traffic volume data were collected in June of 2022 for this study and are included in the Technical Appendix. The existing AM and PM peak hour traffic volumes at the study-area intersections are illustrated on Figure 4.

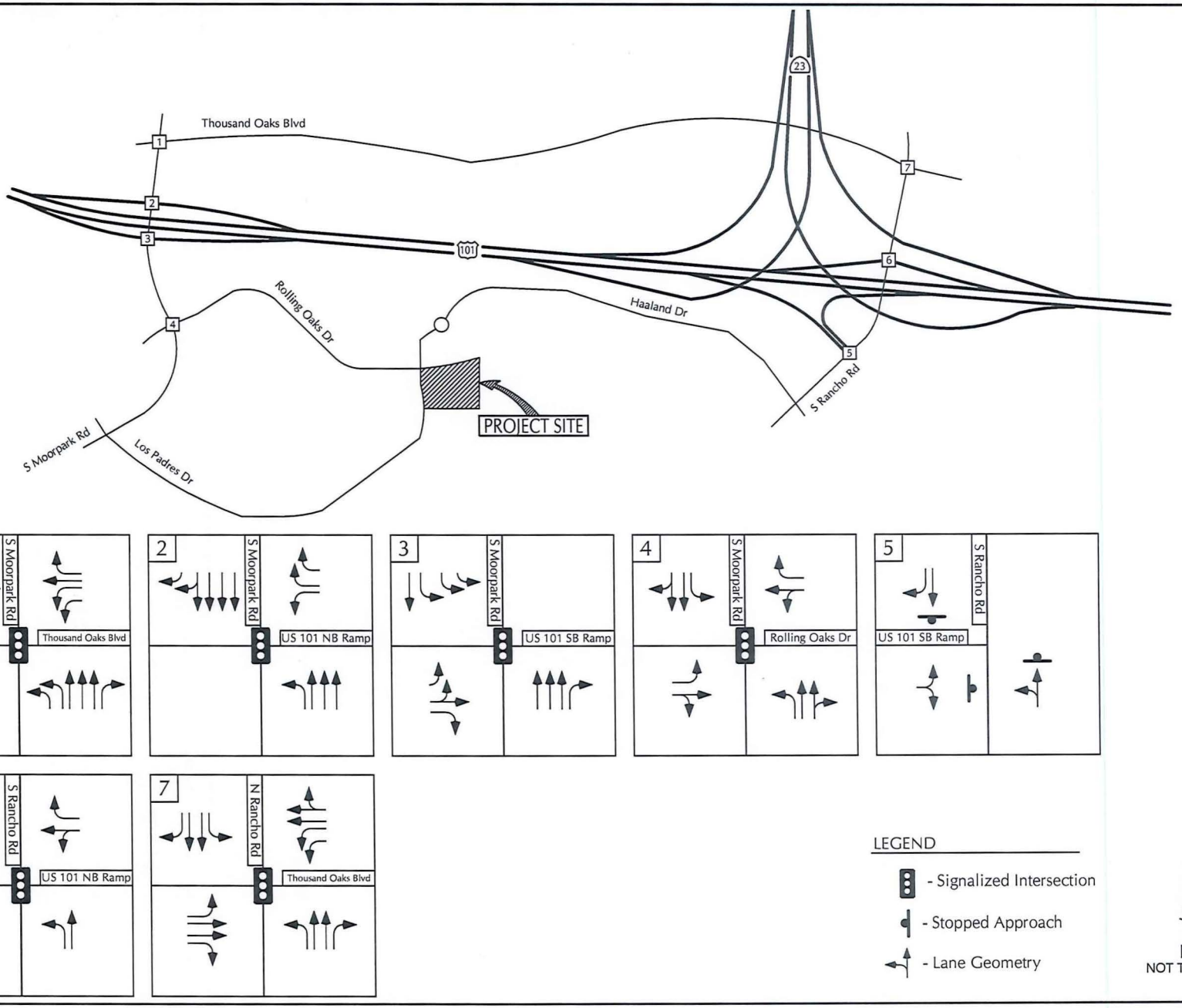
Traffic flow on urban arterials is most constrained at intersections. Therefore, a detailed analysis of traffic flows must examine the operating conditions of critical intersections during peak travel periods. In rating intersection operations, "Levels of Service" (LOS) A through F are used, with LOS A indicating free flow operations and LOS F indicating congested operations (more complete definitions of levels of service which reflects average intersection delay (in seconds) are included in the Technical Appendix). In the City of Thousand Oaks LOS "C" is generally the acceptable operating standard for traffic signal-controlled intersections. For the Moorpark Road/Thousand Oaks Boulevard and Rancho Road/Thousand Oaks Boulevard LOS "D" is the acceptable operating standard.

Existing levels of service for the study-area intersections were calculated using the Highway Capacity Manual signalized methodology as required by the City of Thousand Oaks. Worksheets illustrating the level of service calculations are contained in the Technical Appendix for reference. Table 1 lists the existing levels of service for the study-area intersections during the AM and PM peak hour periods.

Table 1
Existing Peak Hour Levels of Service (HCM Methodology)

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
U.S. Highway 101 NB Ramps/Moorpark Rd.	Signal	18.6 sec.	LOS B	16.5 sec.	LOS B
U.S. Highway 101 SB Ramps/Moorpark Rd.	Signal	23.4 sec.	LOS C	25.1 sec.	LOS C
U.S. Highway 101 NB Ramps/Rancho Rd.	Signal	6.1 sec.	LOS A	7.5 sec.	LOS A
U.S. Highway 101 SB Ramps Rancho Rd.	Signal	28.7 sec.	LOS C	27.8 sec.	LOS C
Moorpark Rd./Thousand Oaks Blvd[(a)]	Signal	15.2 sec.	LOS B	22.8 sec.	LOS B
Moorpark Rd./Rolling Oaks Dr.	Signal	22.7 sec.	LOS C	20.0 sec.	LOS C
Rancho Rd./Thousand Oaks Blvd[(a)]	Signal	27.7 sec.	LOS C	30.4 sec.	LOS C

(a) LOS "D" is acceptable operating standard for Thousand Oaks Boulevard. LOS "C" is acceptable operating standard for all other locations.



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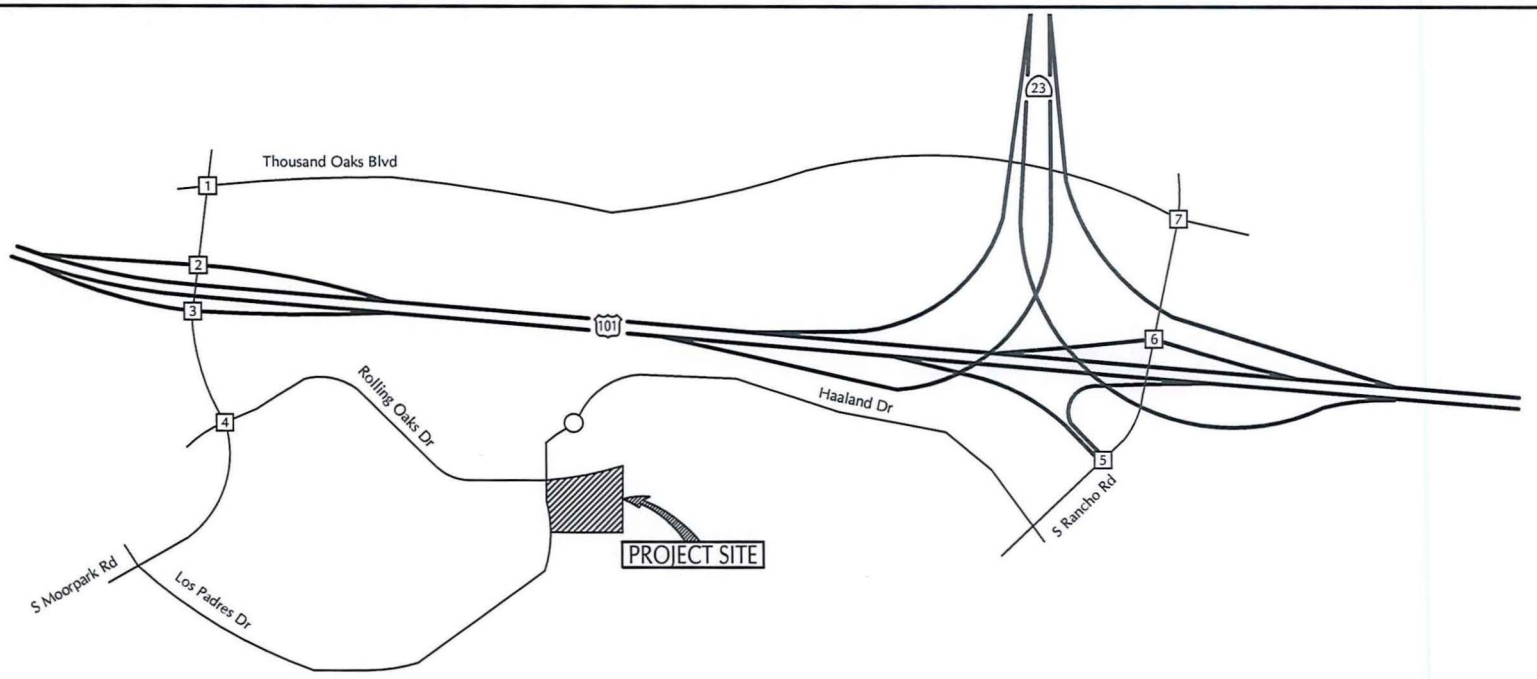
EXISTING STREET NETWORK

FIGURE 3

GM- ATE#22006



LEGEND

└(XX)XX - (AM)PM Peak Hour Volume

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EXISTING TRAFFIC VOLUMES

FIGURE 4

GM- ATE#22006

The data presented in Table 1 indicates that all of the study-area intersections currently operate at LOS "C" or better during the AM and PM peak hour periods, and within the City's respective LOS "C" and "D" standards.

CITY OF THOUSAND OAKS GENERAL PLAN CIRCULATION POLICY

"The City shall maintain a Level of Service "C" on all roads and at all intersections and LOS "D" along Thousand Oaks Boulevard. Lower levels of service may be tolerated to preserve or enhance landscaping and aesthetic integrity." A project would have an adverse effect when an intersection operating at LOS "C" or better is degraded by one of more service levels with the addition of project traffic.

PROJECT GENERATED TRAFFIC VOLUMES

Project Trip Generation

The trip generation estimates for the Project were developed using rates published in the Institute of Transportation Engineer (ITE), Trip Generation, 11th Edition. Table 2 summarizes the average daily trips (ADT), AM and PM peak hour trip generation estimates for the proposed Los Robles Medical Center in Thousand Oaks.

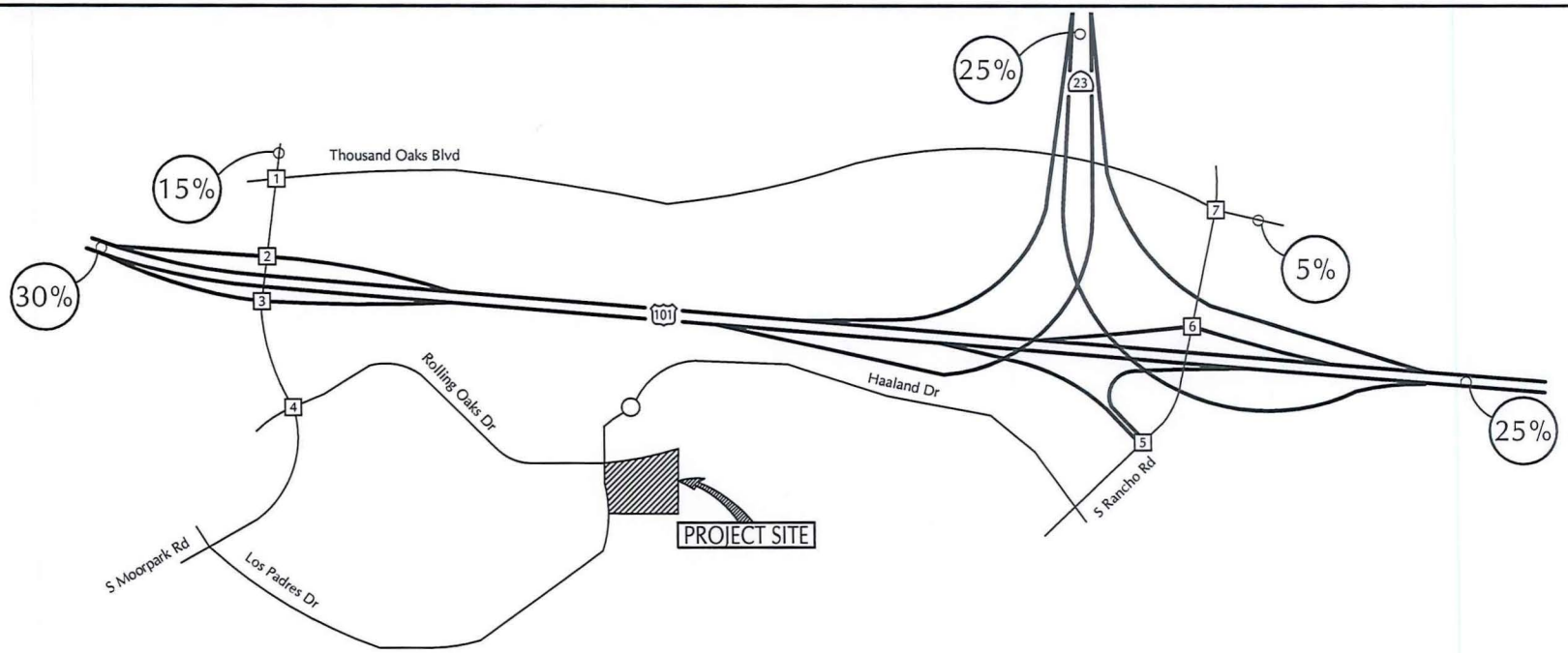
Table 2
Project Trip Generation

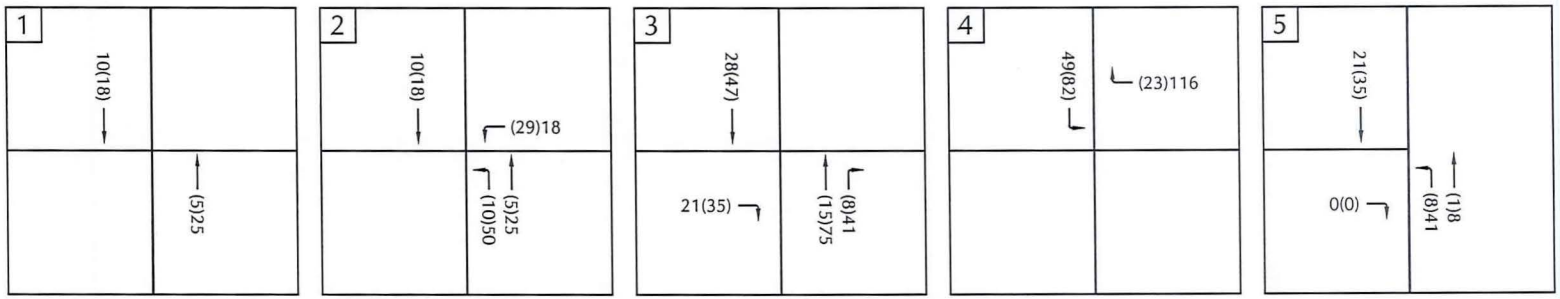
Land Use	Size	ADT		Peak Hour Trips			
				AM Peak Hour		PM Peak Hour	
		Rate	Trips	Rate	Trips (In/Out)	Rate	Trips (In/Out)
Medical Office	58,412 SF	36.00	2,103	3.10	181 (143/38)	4.02	235 (70/165)

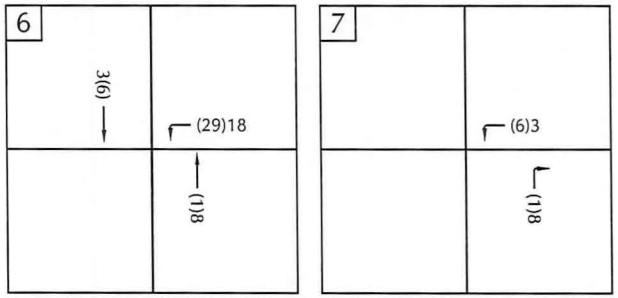
As shown in Table 2 the Project would generate 2,103 average daily trips, 181 AM peak hour trips and 235 PM peak hour trips based on the ITE trip rates.

Project Trip Distribution and Assignment

The project-generated AM and PM peak hour traffic volumes were distributed and assigned to the study-area intersections based on travel data derived from the existing traffic volumes as well as a general knowledge of the population, employment and commercial centers in the Thousand Oaks area. Figure 5 illustrates the trip distribution and assignment assumed for the Project's trips. Figure 6 illustrates the Existing + Project traffic volumes.







LEGEND

% - Distribution Percentage

(XX)XX - (AM)PM Peak Hour Volume

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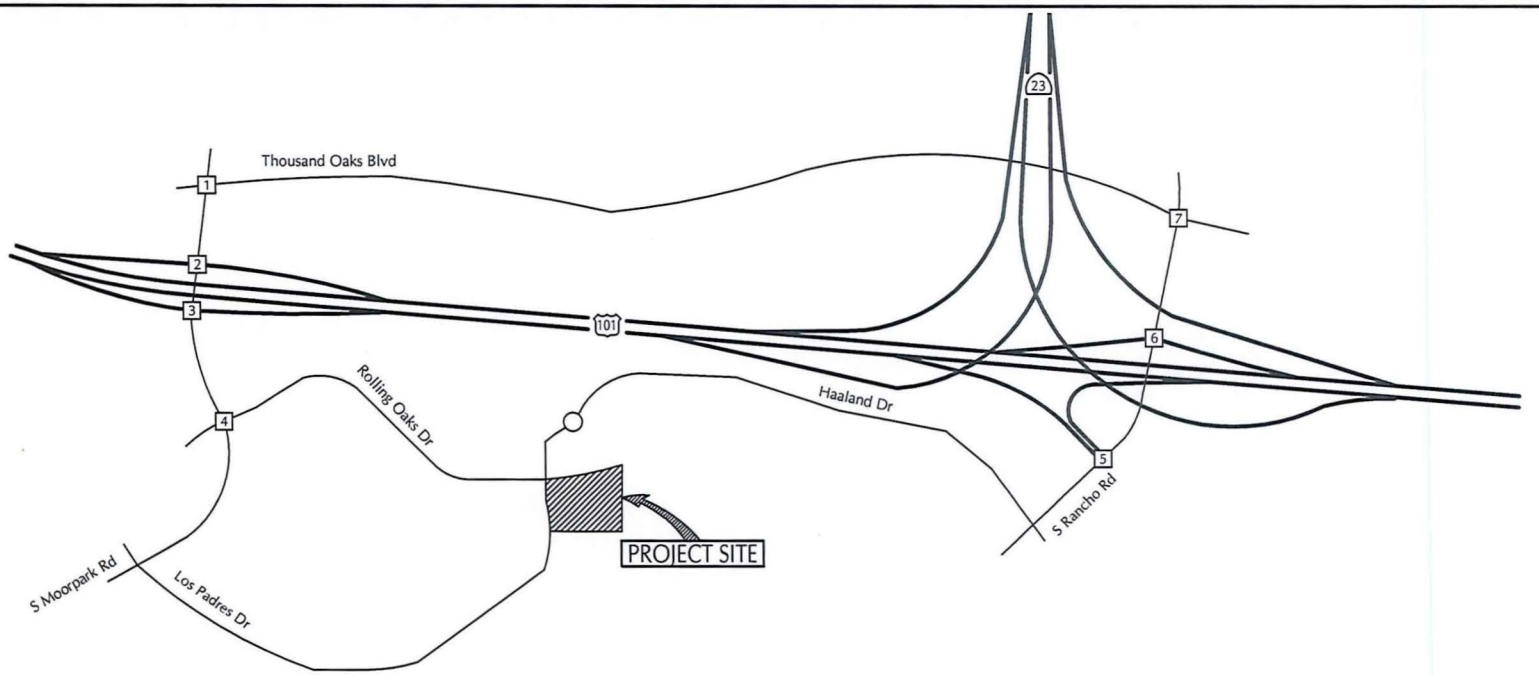
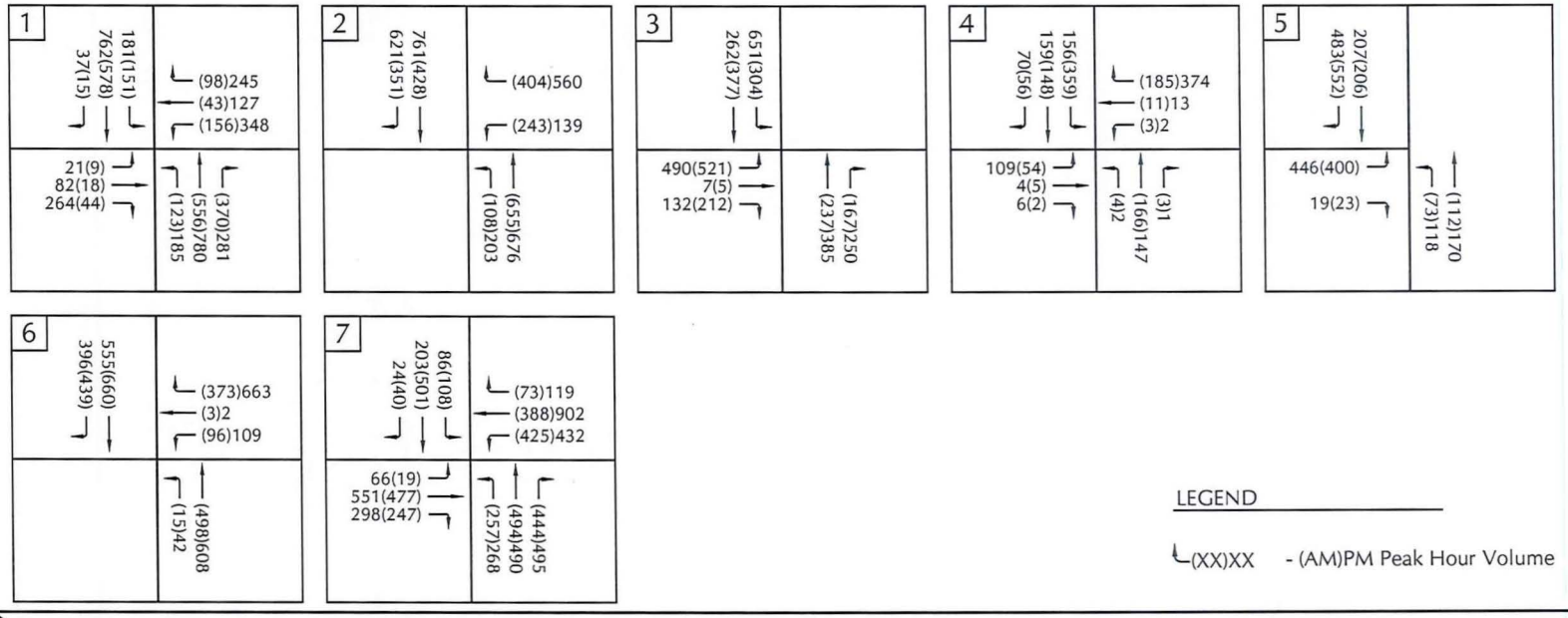
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

GM- ATE#22006





LEGEND

└(XX)XX - (AM)PM Peak Hour Volume

N
NOT TO SCALE

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EXISTING + PROJECT TRAFFIC VOLUMES

FIGURE 6

GM- ATE#22006

PROJECT-SPECIFIC ANALYSIS

Levels of service (HCM signalized intersection methodology) were calculated for the study-area intersections assuming the Existing + Project volumes. Tables 3 and 4 show the results of the calculations and identify the Project's effects based on the City of Thousand Oaks General Plan policy during the respective AM and PM peak hours.

Table 3
Existing + Project AM Peak Hour Levels of Service (HCM Methodology)

Intersection	Existing		Existing + Project	
	Delay	LOS	Delay	LOS
U.S. Highway 101 NB Ramps/Moorpark Rd.	18.6 sec.	LOS B	19.4 sec.	LOS B
U.S. Highway 101 SB Ramps/Moorpark Rd.	23.4 sec.	LOS C	23.4 sec.	LOS C
U.S. Highway 101 NB Ramps/Rancho Rd.	6.1 sec.	LOS A	6.1 sec.	LOS A
U.S. Highway 101 SB Ramps/Rancho Rd.	28.7 sec.	LOS C	29.7 sec.	LOS C
Moorpark Rd/Thousand Oaks Blvd[(a)]	15.2 sec.	LOS B	16.7 sec.	LOS B
Moorpark Rd/Rolling Oaks Dr.	22.7 sec.	LOS C	24.6 sec.	LOS C
Rancho Rd./Thousand Oaks Blvd.[(a)]	27.7 sec.	LOS C	27.7 sec.	LOS C

(a) **LOS "D" is acceptable operating standard for Thousand Oaks Boulevard. LOS "C" is acceptable operating standard for all other locations.**

Table 4
Existing + Project PM Peak Hour Levels of Service (HCM Methodology)

Intersection	Existing		Existing + Project	
	Delay	LOS	Delay	LOS
U.S. Highway 101 NB Ramps/Moorpark Rd.	16.5 sec.	LOS B	18.5 sec.	LOS B
U.S. Highway 101 SB Ramps/Moorpark Rd.	25.1 sec.	LOS C	26.4 sec.	LOS C
U.S. Highway 101 NB Ramps/Rancho Rd.	7.5 sec.	LOS A	8.1 sec.	LOS A
U.S. Highway 101 SB Ramps/Rancho Rd.	27.8 sec.	LOS C	27.8 sec.	LOS C
Moorpark Rd/Thousand Oaks Blvd[(a)]	22.8 sec.	LOS B	22.8 sec.	LOS B
Moorpark Rd/Rolling Oaks Dr.	20.0 sec.	LOS C	24.1 sec.	LOS C
Rancho Rd./Thousand Oaks Blvd[(a)]	30.4 sec.	LOS C	30.5 sec.	LOS C

(a) **LOS "D" is acceptable operating standard for Thousand Oaks Boulevard. LOS "C" is acceptable operating standard for all other locations.**

The data presented in Tables 3 and 4 indicate that the Project trips would not have an adverse effect on the study-area intersections based on the City of Thousand Oaks' General Plan policy of maintaining LOS "C" operation for roadways and intersections. The study-area intersections are expected to continue to operate at LOS "C" or better during the AM or the PM peak hour periods with the addition of Project trips.

CUMULATIVE CONDITIONS

Traffic Forecasts

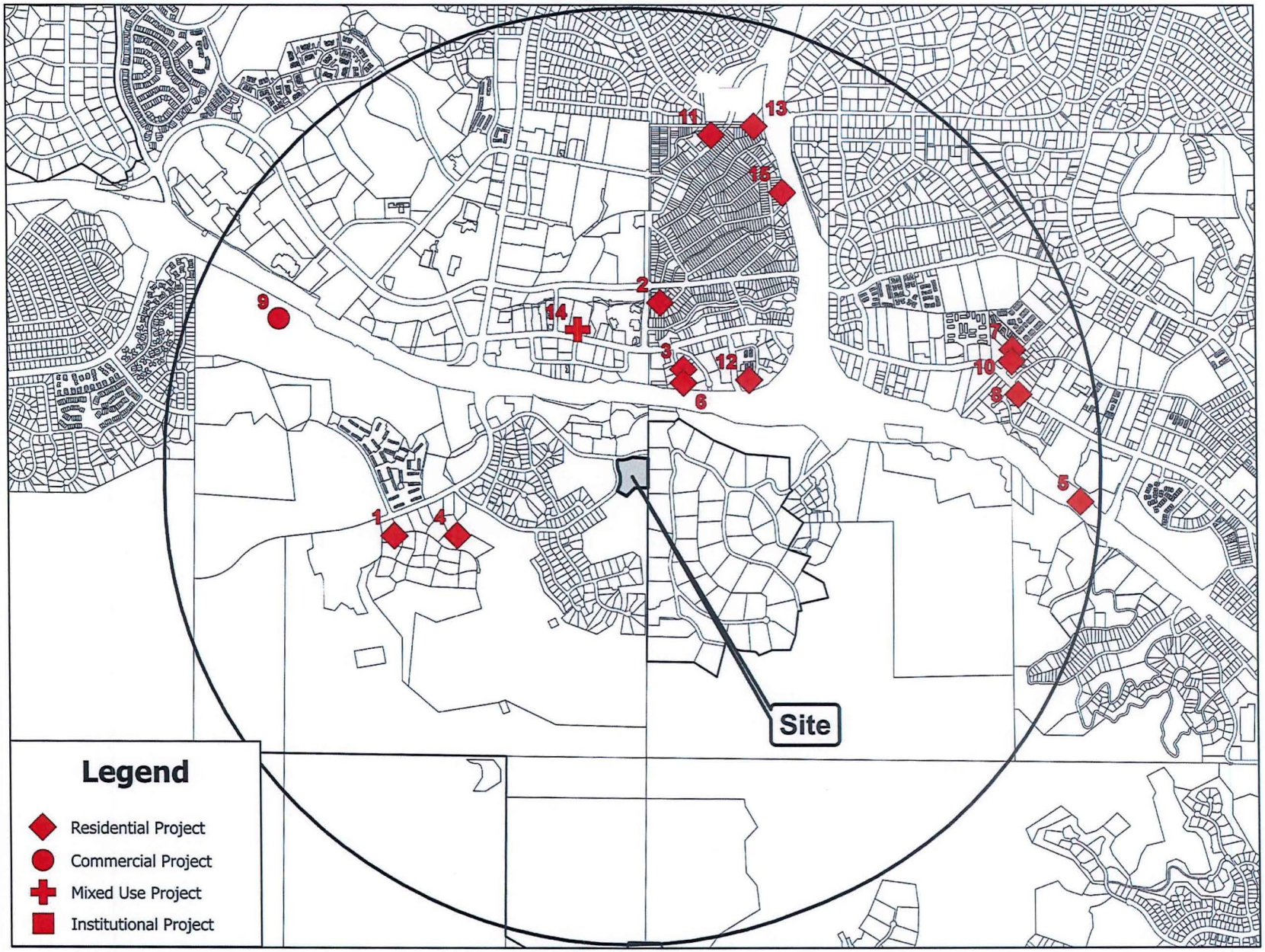
A cumulative traffic volume scenario was forecast for the study-area intersections assuming the development of the approved and pending projects located in the City of Thousand Oaks that would add traffic to the study-area intersections. The list of approved and pending projects was provided by City staff. Figure 7 illustrates the location of each cumulative development project. Trip generation estimates were developed for the cumulative projects using the rates published in the ITE, Trip Generation, 11th Edition[1]. Table 5 summarizes the average daily, AM and PM peak hour trip generation for the cumulative projects.

Table 5
Cumulative Development Projects Trip Generation

Project #	Land Use	Size	ADT	AM Peak Hour	PM Peak Hour
#1	Single Family Res.	1 Unit	9	1	1
#2	Single Family Res.	1 Unit	9	1	1
#3	Multi Family Res.	4 Units	27	2	2
#4	Single Family Res.	1 Unit	9	1	1
#5	Multi Family Res.	165 Units	1,112	66	84
#6	Multi Family Res.	73 Units	492	29	37
#7	Multi Family Res.	30 Units	202	12	15
#8	Multi Family Res.	24 Units	162	10	12
#9	Hotel Retail Commercial	216 Rooms 13,000 S.F.	1,726 708	99 31	127 86
#10	Multi Family Res.	16 Units	108	6	8
#11	Single Family Res.	1 Unit	9	1	1
#12	Multi Family Res.	5 Units	34	2	3
#13	Single Family Res.	1 Unit	9	1	1
#14	Mixed-Use	142 Units	300	31	24
#15	Single Family Res.	1 Unit	9	1	1
		Total Trips:	4,925	294	405

The data presented in Table 5 indicates that the cumulative projects would generate a total of 4,925 average daily trips, 294 AM peak hours trips and 405 PM peak hour trips. The cumulative project's peak hour traffic volumes were distributed and assigned to the study-area intersections based on the location of each project, recent traffic studies, existing traffic patterns observed in the study-area as well as a general knowledge of the population, employment and commercial centers in Thousand Oaks, Moorpark, Simi Valley, Camarillo, Westlake Village and Agoura Hills. Cumulative traffic volumes are illustrated on Figure 8 for the AM and PM peak hour periods.

[1] Trip Generation, Institute of Transportation Engineers, 11th Edition, 2020.



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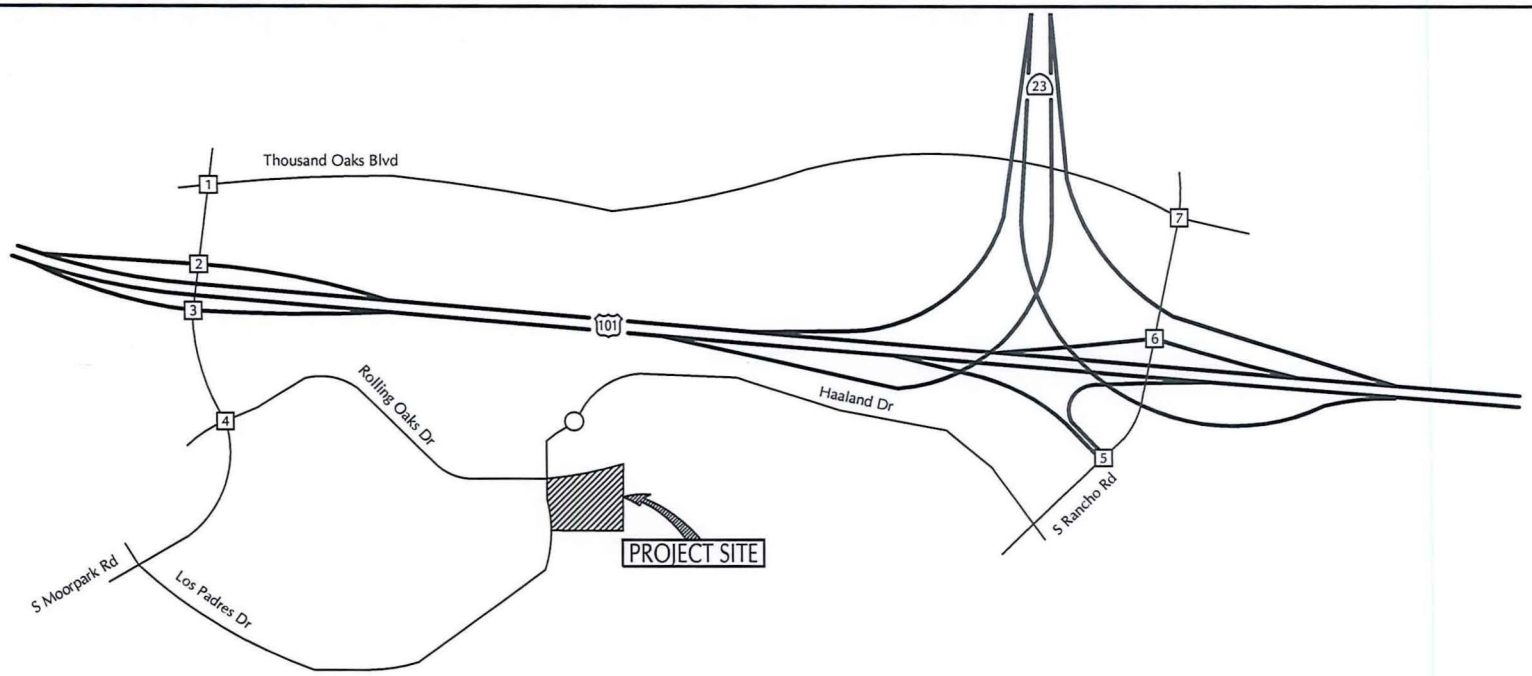
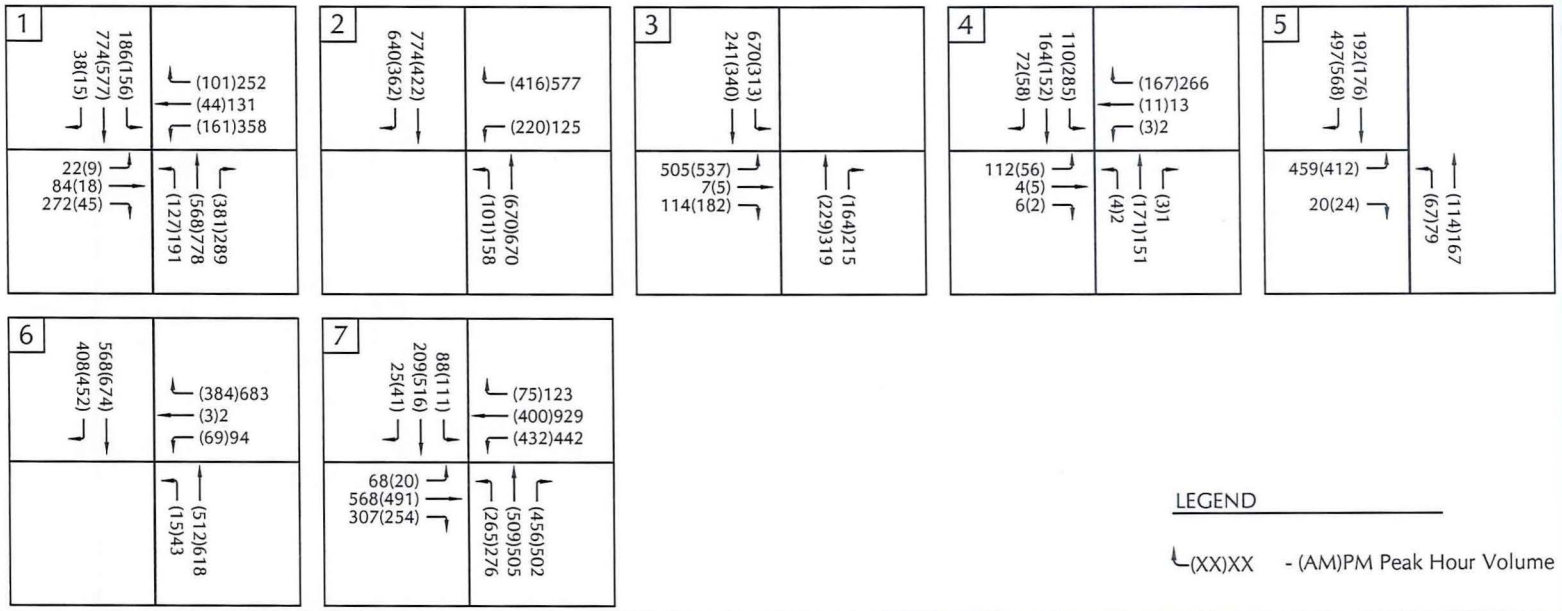
CUMULATIVE PROJECTS LOCATION MAP

FIGURE 7

GM- ATE#22006





LEGEND

└(XX)XX - (AM)PM Peak Hour Volume

N
NOT TO SCALE

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CUMULATIVE TRAFFIC VOLUMES

FIGURE 8

GM- ATE#22006

Cumulative Analysis

Levels of service (HCM signalized intersection methodology) were calculated for the study-area intersections assuming the Cumulative volumes illustrated on Figure 8. Table 6 lists the cumulative conditions levels of service for the study-area intersections during the AM and PM peak hour periods. Worksheets illustrating the level of service calculations are contained in the Technical Appendix for reference.

Table 6
Cumulative Peak Hour Levels of Service (HCM Methodology)

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
U.S. Highway 101 NB Ramps/Moorpark Rd.	Signal	19.6 sec.	LOS B	16.7 sec.	LOS B
U.S. Highway 101 SB Ramps/Moorpark Rd.	Signal	23.3 sec.	LOS C	27.4 sec.	LOS C
U.S. Highway 101 NB Ramps/Rancho Rd.	Signal	7.0 sec.	LOS A	5.5 sec.	LOS A
U.S. Highway 101 SB Ramps Rancho Rd.	Signal	21.3 sec.	LOS C	28.2 sec.	LOS C
Moorpark Rd./Thousand Oaks Blvd	Signal	16.9 sec.	LOS B	23.4 sec.	LOS C
Moorpark Rd./Rolling Oaks Dr.	Signal	22.8 sec.	LOS C	25.0 sec.	LOS C
Rancho Rd./Thousand Oaks Blvd.	Signal	29.8 sec.	LOS C	26.7 sec.	LOS C

(a) LOS "D" is acceptable operating standard for Thousand Oaks Boulevard. LOS "C" is acceptable operating standard for all other locations.

The data presented in Table 6 indicate that most of the study-area intersections would operate at LOS "C" or better during the AM peak hour and PM peak hour periods under Cumulative conditions, which meets the City's LOS "C" standard.

Cumulative + Project Analysis

Levels of service were calculated for the study-area intersections assuming the Cumulative + Project volumes illustrated on Figure 9. Tables 7 and 8 show the results of the calculations and identify the impacts of the project based on City of Thousand Oaks impact thresholds.

Table 7
Cumulative + Project AM Peak Hour Levels of Service (HCM Methodology)

Intersection	Cumulative		Cumulative + Project	
	Delay	LOS	Delay	LOS
U.S. Highway 101 NB Ramps/Moorpark Rd.	19.6 sec.	LOS B	20.0 sec.	LOS B
U.S. Highway 101 SB Ramps/Moorpark Rd.	23.3 sec.	LOS C	24.0 sec.	LOS C
U.S. Highway 101 NB Ramps/Rancho Rd.	7.0 sec.	LOS A	7.4 sec.	LOS A
U.S. Highway 101 SB Ramps/Rancho Rd.	21.3 sec.	LOS C	22.0 sec.	LOS C
Moorpark Rd/Thousand Oaks Blvd[(a)]	16.9 sec.	LOS B	17.2 sec.	LOS B
Moorpark Rd/Rolling Oaks Dr.	22.8 sec.	LOS C	25.2 sec.	LOS C
Rancho Rd./Thousand Oaks Blvd.[(a)]	29.8 sec.	LOS C	30.0 sec.	LOS C

(a) LOS "D" is acceptable operating standard for Thousand Oaks Boulevard. LOS "C" is acceptable operating standard for all other locations.

CUMULATIVE + PROJECT TRAFFIC VOLUMES
FIGURE 9
GM- ATE#22006
ASSOCIATED TRANSPORTATION ENGINEERS
N
NOT TO SCALE
LEGEND
(XX)XX - (AM)PM Peak Hour Volume
PROJECT SITE
Thousand Oaks Blvd
Rolling Oaks Dr
Haaland Dr
S Rancho Rd
Los Padres Dr
S Moorpark Rd
101
23
1
2
3
4
5
6
7
1
186(156)
784(595)
38(15)
(101)252
(44)131
(161)358
22(9)
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209(516)
25(41)
68(20)
568(491)
307(254)
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(400)929
(438)445
(457)510
(509)505
(265)276

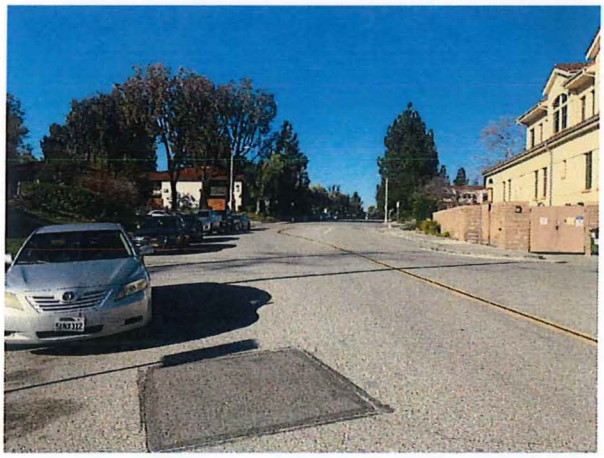
Table 8
Cumulative + Project PM Peak Hour Levels of Service (HCM Methodology)

Intersection	Cumulative		Cumulative + Project	
	Delay	LOS	Delay	LOS
U.S. Highway 101 NB Ramps/Moorpark Rd.	16.7 sec.	LOS B	19.7 sec.	LOS B
U.S. Highway 101 SB Ramps/Moorpark Rd.	27.4 sec.	LOS C	30.0 sec.	LOS C
U.S. Highway 101 NB Ramps/Rancho Rd.	5.5 sec.	LOS A	8.3 sec.	LOS A
U.S. Highway 101 SB Ramps/Rancho Rd.	28.2 sec.	LOS C	30.0 sec.	LOS C
Moorpark Rd/Thousand Oaks Blvd.[(a)]	23.4 sec.	LOS C	25.0 sec.	LOS C
Moorpark Rd/Rolling Oaks Dr.	25.0 sec.	LOS C	26.4 sec.	LOS C
Rancho Rd./Thousand Oaks Blvd.[(a)]	26.7 sec.	LOS C	32.4 sec.	LOS C

(a) **LOS "D" is acceptable operating standard for Thousand Oaks Boulevard. LOS "C" is acceptable operating standard for all other locations.**

The data presented in Tables 7 and 8 indicate that the Project would not have an adverse effect on the study-area intersections based on the City of Thousand Oaks' General Plan policy of maintaining LOS "C" operation for roadways and intersections. The study-area intersections continue to operate at LOS "C" or better during the AM or the PM peak hour periods with the addition of Project trips.

SITE ACCESS



Access to the Project site is proposed via driveway connections to Rolling Oaks Drive and Los Padres Drive. The Project will utilize an existing full access driveway on Rolling Oaks Drive. A new driveway on Los Padres Drive will be designed to City of Thousand Oaks design standards and allow full access. The segment of Rolling Oaks Drive adjacent to the site has vertical and horizontal curves, however adequate sight distance is provided at the existing driveway. The segment of Los Padres Drive adjacent to the site has vertical and horizontal curves, the site driveway should be designed to provide adequate sight distance.

Pedestrian and Bicycle Facilities

Currently there are pedestrian facilities (sidewalks, etc.) located along Rolling Hills Drive and Los Padres Drive in the study-area. The sidewalks connect the Project to the local transit service provided in the study-area on Rolling Oaks Drive and Las Padre Drive. The nearest pedestrian crosswalk across Rolling Oaks Drive is provided at the signalized Moorpark Road intersection. Striped pedestrian crosswalks, ADA ramps with detectable warning strips and pedestrian call buttons are provided on the northern and eastern legs of the signalized study-area intersection. The proposed Project would not have an adverse effect on the existing pedestrian facilities.

The Project site is served by the City of Thousand Oaks Bikeway system identified in the 2019 Active Transportation Plan. The existing bicycle facilities located in the study-area consist of Class II and Class III bike lanes along Rolling Oaks Drive, Moorpark Road and Thousand Oaks Boulevard. The bike lanes connect the Project to residential areas west and north of the Project and offers an alternative mode of travel to access the Project Site. The proposed Project would not have an adverse effect on the existing bicycle facilities.

Transit Facilities

Thousand Oaks Transit (TOT) is the local transit provider in the City of Thousand Oaks. The TOT Transportation Center is located at 265 South Rancho Road approximately ½ mile from the Project site. The Project site is served by the #41 Route (Midtown A). The #41 Route operates daily providing fixed route bus service on Rolling Oaks Drive and Los Padres Drive in the vicinity of the Project site. During the peak commute hours, the #41 Route operates with 60-minute headways. An existing bus stop is located approximately 300 feet from the Project site on east side of Los Padres Drive just north of the Rolling Oaks Drive/Los Padres Drive intersection. Full schedule is provided in the Technical Appendix. The proposed Project has the potential to increase transit ridership and the demand for bus service in the study-area.

PARKING

The purpose of the parking analysis is to determine the sufficiency of the proposed on-site parking supply and peak parking demands for the Los Robles Medical Center. The sufficiency of the parking supply for the Los Robles Medical Center is evaluated based on the City of Thousand Oaks Zoning Ordinance requirements and empirical parking demand data.

City of Thousand Oaks Zoning Ordinance Parking Requirements

The Los Robles Medical Center provides a total of 264 marked parking spaces (including 14 ADA and 27 Electric Vehicle charging spaces). The City's Zoning Ordinance parking requirement was calculated for the medical office is shown in Table 9.

- Medical, Dental, Surgical and Physical Therapy Offices - 1 space/200 SF of net floor area

Table 9
City Zoning Ordinance Parking Requirements

Land Use	Size	Zoning Ordinance Requirements	Required Parking
Medical Office	51,296 SF	1 space/200 SF of net floor area	256 spaces

As shown in Table 9, the Thousand Oaks Zoning Ordinance requires 256 spaces for the proposed Los Robles Medical Center. The proposed on-site parking supply of 264 parking

spaces satisfies the City Zoning Ordinance parking requirement and exceeds the City requirement by 8 parking spaces.

Empirical Peak Parking Demand

To determine adequacy on the on-site parking supply, peak parking demand estimates were developed for the Los Robles Medical Center based on the empirical demand rates published in the ITE, Parking Generation, 5th Edition. The following weekday and weekend parking demand rates were used for the demand analysis. The empirical peak parking demand calculated for the Project is based on the following weekday and Saturday parking demand rates as shown in Table 10.

- Medical Office (ITE Land Use Code 720) - 3.23 spaces/1,000 SF of gross floor area.
- Medical Office (ITE Land Use Code 720) - 0.56 spaces/1,000 SF of gross floor area.

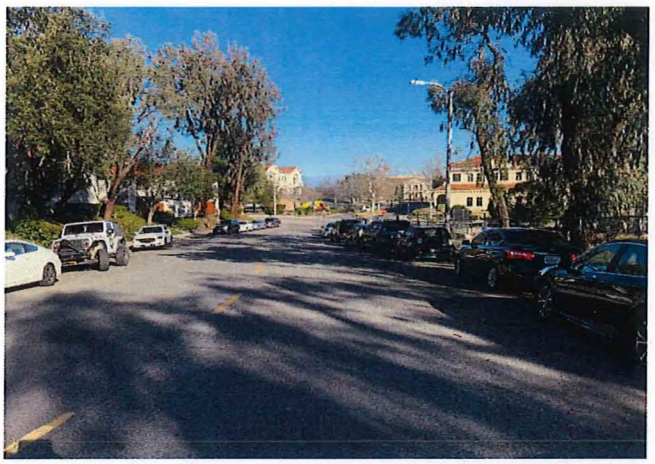
Table 10
ITE Empirical Peak Parking Demand

Land Use	Size	Parking Demand Rate	Peak Parking Demand
Medical Office	58,412 SF	Weekday Rate - 3.23 spaces/1,000 SF	189 Spaces
Medical Office	58,412 SF	Saturday Rate - 0.56 spaces/1,000 SF	33 Spaces

Note: Peak parking demand based on the ITE average parking demand rates.

As shown in Table 10, the ITE weekday peak parking demand is 189 parking spaces for the proposed Los Robles Medical Center. The ITE Saturday peak parking demand is 33 parking spaces. The proposed on-site parking supply would meet ITE weekday and Saturday peak parking demands.

Existing On-Street Parking Demand and Utilization



In the study-area, on-street parking is provided along the south side of Rolling Oaks Drive and both sides of Los Robles Drive. The on-street parking is primarily utilized by the residents of the adjacent apartments and condominiums. ATE conducted on-street parking surveys along Rolling Oaks Drive and Los Padres Drive on Thursday, June 2th, 2022, and Saturday, June 4th, 2022 (parking survey data attached for reference). The days are representative of the typical peak weekday and Saturday parking demand conditions. On-street parked vehicles were counted at 12:00 AM, 8:00 AM, 12:00 PM and 8:00 PM and recorded to determine the parking demand and

parking utilization. Tables 11 through 14 summarize the results of the on-street parking surveys.

Table 11
Weekday Parking Survey Summary - Rolling Oaks Drive

Time	On-Street Parking Demand	Reserve On-Street Parking	Existing On-Street Parking Supply
12:00 AM	18	11	29
8:00 AM	**23**	**6**	**29**
12:00 PM	**23**	**6**	**29**
4:00 PM	22	7	29
8:00 PM	**23**	**6**	**29**

The current peak weekday on-street parking demand on Rolling Oaks Drive occurred at 8:00, 12:00 PM and 8:00 PM when 23 parked vehicles were counted with an on-street reserve of 6 parking spaces as shown in Table 11. The peak on-street parking demand occurs during the hours the Los Robles Medical Center would be open.

Table 12
Weekday Parking Survey Summary - Los Padres Drive

Time	On- Street Parking Demand	Reserve On-Street Parking	Existing On-Street Parking Supply
12:00 AM	**55**	**21**	**76**
8:00 AM	37	39	76
12:00 PM	30	46	76
4:00 PM	40	36	76
8:00 PM	46	30	76

The current peak weekday on-street parking demand on Los Padres Drive occurred at 12:00 AM when 55 parked vehicles were counted with an on-street reserve of 21 parking spaces as shown in Table 12. The peak on-street parking demand occurs before the hours the Los Robles Medical Center would be open.

Table 13
Saturday Parking Survey Summary - Rolling Oaks Drive

Time	On-Street Parking Demand	Reserve On-Street Parking	Existing On-Street Parking Supply
12:00 AM	**25**	**4**	**29**
8:00 AM	23	6	29
12:00 PM	17	12	29
4:00 PM	18	11	29
8:00 PM	22	7	29

The current peak Saturday on-street parking demand on Rolling Oaks Drive occurred at 12:00 AM when 25 parked vehicles were counted with an on-street reserve of 24 parking

spaces as shown in Table 13. The peak on-street parking demand occurs before the hours the Los Robles Medical Center would be open.

Table 14
Saturday Parking Survey Summary - Los Padres Drive

Time	On-Street Parking Demand	Reserve On-Street Parking	Existing On-Street Parking Supply
12:00 AM	**57**	**19**	**76**
8:00 AM	52	24	76
12:00 PM	39	37	76
4:00 PM	41	35	76
8:00 PM	41	35	76

The current peak Saturday on-street parking demand on Los Padres Drive occurred at 12:00 AM when 57 parked vehicles were counted with an on-street reserve of 19 parking spaces as shown in Table 14. The peak on-street parking demand occurs before the hours the Los Robles Medical Center would be open.

The Project has the potential to have an adverse effect on the on-street parking. Some Los Robles Medical Center employees and clients may choose to utilize available on-street parking on Rolling Oaks Drive and Los Padre Drive. Since the Los Robles Medical Center is compatible with the adjacent medical facilities, thereby creating a "medical campus" clients that drive can park on-site then walk between multiple facilities without needing to drive and park multiple times.

The parking analysis has determined that the Los Robles Medical Center proposed on-site parking supply of 264 parking spaces satisfies the City of Thousand Oaks Zoning Ordinance parking requirement and exceeds the requirement by 8 parking spaces. The proposed on-site parking satisfies the ITE weekday and Saturday peak parking demands. The Los Robles Medical Center could implement a Parking Management Program to encourage employees and clients to park on-site and not on Rolling Oaks Drive and Los Padre Drive.

VEHICLE MILES TRAVELED ANALYSIS

The State of California, in compliance with Senate Bill 743, has developed a new set of CEQA guidelines and thresholds for transportation impacts that are based on a Vehicle Miles Traveled (VMT) metric rather than a Level of Service (LOS) metric. The State's Natural Resource Agency Updated Guidelines for the Implementation of the CEQA adopted in 2018, have designated VMT as the most appropriate measure of transportation impacts. "Vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. For land use projects, vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.

VMT Thresholds

Local agencies have discretion to develop and adopt their own thresholds of significance to

determine if project mitigation is warranted or rely on thresholds recommended by other agencies. The City of Thousand Oaks has adopted an administrative policy stating that thresholds of significance will be determined on a case-by-case basis. For the purposes of this Project, the threshold of significance is as follows:

> "A significant impact would occur if the VMT per capita or VMT per employee exceeds the citywide average VMT per capita of per employee of the baseline. "

VMT Analysis

The following summarizes the VMT analysis prepared for the Los Robles Medical Center by Iteris (Memorandum included in Technical Appendix). Iteris utilized the Ventura County Transportation Commission (VCTC) Transportation Model. The VCTC Transportation Model provides work based VMT per employee data for the City of Thousand Oaks as well as the various Traffic Analysis Zones (TAZs) within the City, including the TAZ that encompasses the Project site. The VCTC Transportation Model data was used to establish the home-based VMT per employee thresholds for the City of Thousand Oaks and to estimate the work-based VMT per employee for the Project. The City of Thousand Oaks has adopted an administrative policy stating that thresholds of significance will be determined on a case-by-case basis, For the purposes of the Los Robles Medical Center, the threshold of significance will be as follows:

- A significant impact would occur if the VMT per capita or VMT per employee exceeds the city-wide average VMT per capita or per employee of the baseline.

Table 15 shows the existing city-wide work-based VMT per employee for the City of Thousand Oaks, and the Project's work-based VMT per employee based on the VCTC Transportation Model data.

Table 15
Los Robles Per Employee VMT Summary

City of Thousand Oaks VMT[a]	Project VMT Estimate[b]	Impact?
22.63 per employee	21.27 per employee	**No**

(a) City of Thousand Oaks work-based VMT per employee based on VCTC traffic model.
(b) Project home-based VMT per employee estimate based on VCTC model traffic analysis zones.

As shown in Table 15, the existing city-wide work-based VMT per employee in the City of Thousand Oaks is 22.63 VMT per employee. The VCTC Transportation Model data shows that the employees within the Project TAZ generate 21.27 VMT per employee, which is 6 percent below the city-wide baseline 22.63 VMT per employee impact threshold. Thus, the Project would not have a potentially significant VMT impact.

PROJECT MITIGATION MEASURES

Based on the City of Thousand Oaks General Plan Circulation policy, it was determined that the Project would not have an adverse effect on any of the study-area intersections based on a Level of Service analysis. Thus, no mitigation measures were developed for the study-area intersections.

The Project TAZ generate 21.27 VMT per employee, which is 6 percent below the baseline 22.63 VMT per employee impact threshold. Thus, the Project would not have a potentially significant VMT impact or require VMT mitigation measures.

■ ■ ■

REFERENCES AND PERSONS CONTACTED

Associated Transportation Engineers

Richard L. Pool, P.E. Principal Engineer
Darryl F. Nelson, Senior Transportation Planner
Glenn Manaois, Traffic Engineer I

Persons Contacted

Kathy Naoum, Transportation Planner, City of Thousand Oaks

References

Highway Capacity Manual 6th Edition, Transportation Research Board, 2016.

Trip Generation, Institute of Transportation Engineers, 11th Edition, 2020.

Parking Generation, Institute of Transportation Engineers, 5th Edition, 2019.

2019 Traffic Impact Mitigation Fee Nexus Study, Kimley-Horn & Associates, February 2012.

TECHNICAL APPENDIX

CONTENTS

TRAFFIC COUNT DATA

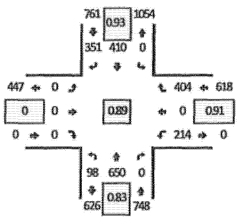
Type of peak hour being reported: Intersection Peak

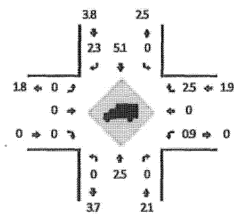
Method for determining peak hour: Total Entering Volume

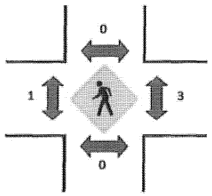
LOCATION: Moopark Rd -- US 101 NB Ramps
CITY/STATE: Thousand Oaks, CA

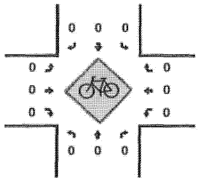
QC JOB #: 15827103
DATE: Thu, Jun 2 2022

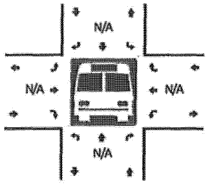
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

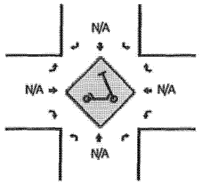












R* = RTOR

15-Min Count Period Beginning At	Moopark Rd (Northbound)					Moopark Rd (Southbound)					US 101 NB Ramps (Eastbound)					US 101 NB Ramps (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	10	63	0	0	0	0	47	57	0	3	0	0	0	0	0	23	0	9	0	39	251	
7:15 AM	13	82	0	0	0	0	82	71	0	3	0	0	0	0	0	34	0	2	0	38	325	
7:30 AM	30	122	0	0	0	0	78	73	0	2	0	0	0	0	0	40	0	9	0	68	422	
7:45 AM	22	146	0	0	0	0	116	80	0	5	0	0	0	0	0	46	0	33	0	52	500	1498
8:00 AM	22	165	0	0	0	0	80	78	0	6	0	0	0	0	0	49	0	24	0	71	495	1742
8:15 AM	15	146	0	0	0	0	112	88	0	1	0	0	0	0	0	56	0	38	0	72	528	1945
8:30 AM	27	149	0	0	0	0	117	70	0	5	0	0	0	0	0	45	0	9	0	85	507	2030
8:45 AM	32	190	0	2	0	0	101	103	0	0	0	0	0	0	0	64	0	38	0	67	597	2127

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	128	760	0	8	0	0	404	412	0	0	0	0	0	0	0	256	0	420	0	268	2656
Heavy Trucks	0	28	0			0	16	8			0	0	0			0	0	8			60
Buses																					
Pedestrians		0					0					0					4				4
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 6/10/2022 12:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

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CITY/STATE: Thousand Oaks, CA

QC JOB #: 15827104
DATE: Thu, Jun 2 2022

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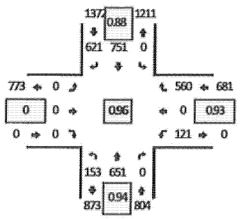
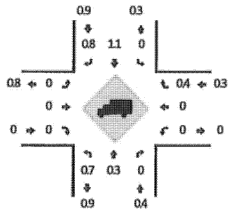
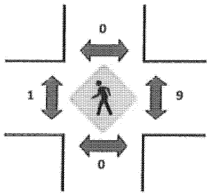
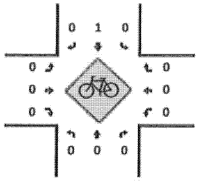
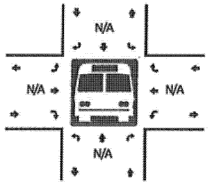
Peak 15-Min: 5:00 PM -- 5:15 PM

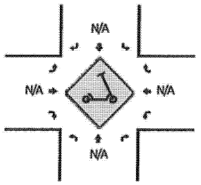












R* = RTOR

15-Min Count Period Beginning At	Moopark Rd (Northbound)					Moopark Rd (Southbound)					US 101 NB Ramps (Eastbound)					US 101 NB Ramps (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	44	153	0	0	0	0	187	146	0	5	0	0	0	0	0	38	0	10	0	126	709	
4:15 PM	37	144	0	0	0	0	185	130	0	7	0	0	0	0	0	37	0	62	0	93	695	
4:30 PM	41	164	0	0	0	0	166	139	0	13	0	0	0	0	0	24	0	42	0	105	694	
4:45 PM	39	174	0	1	0	0	193	121	0	14	0	0	0	0	0	36	0	38	0	110	726	2824
5:00 PM	34	149	0	0	0	0	208	173	0	8	0	0	0	0	0	26	0	41	0	102	741	2856
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5:45 PM	34	128	0	0	0	0	162	120	0	9	0	0	0	0	0	45	0	34	0	106	638	2692

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	136	596	0	0	0	0	832	724	0	32	0	0	0	0	0	104	0	572	0	408	3404
Heavy Trucks	0	4	0			0	4	4			0	0	0			0	0	0			12
Buses																					
Pedestrians		0					0					0					16				16
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

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Method for determining peak hour: Total Entering Volume

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CITY/STATE: Thousand Oaks, CA

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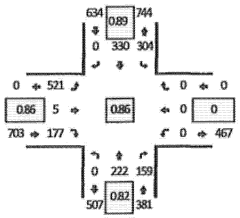
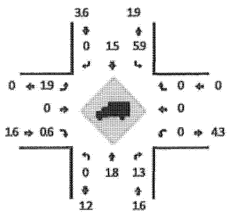
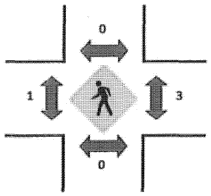
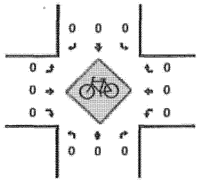
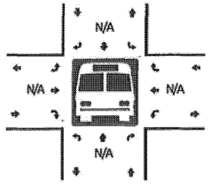
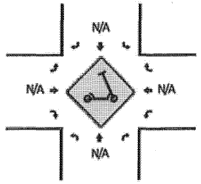












R* = RTOR

15-Min Count Period Beginning At	Moopark Rd (Northbound)					Moopark Rd (Southbound)					US 101 SB Ramps (Eastbound)					US 101 SB Ramps (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	0	25	7	0	17	37	33	0	0	0	50	1	22	0	3	0	0	0	0	0	195	
7:15 AM	0	31	10	0	13	59	56	0	0	0	67	1	26	0	3	0	0	0	0	0	266	
7:30 AM	0	45	9	0	16	64	60	0	0	0	102	0	31	0	2	0	0	0	0	0	329	
7:45 AM	0	64	18	0	31	86	71	0	0	0	119	1	48	0	5	0	0	0	0	0	443	1233
8:00 AM	0	60	14	0	28	55	74	0	1	0	113	0	41	0	1	0	0	0	0	0	387	1425
8:15 AM	0	45	10	0	29	84	90	0	0	0	133	1	52	0	3	0	0	0	0	0	447	1606
8:30 AM	0	47	13	0	19	82	70	0	0	0	116	2	33	0	3	0	0	0	0	0	385	1662
8:45 AM	0	70	14	0	32	82	96	0	0	0	159	2	42	0	2	0	0	0	0	0	499	1718

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	280	184	0	128	328	384	0	0	0	636	8	176	0	8	0	0	0	0	0	2132
Heavy Trucks	0	8	0			12	4	0			20	0	0			0	0	0			44
Buses																					
Pedestrians		0					0					0					4				4
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 6/10/2022 12:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

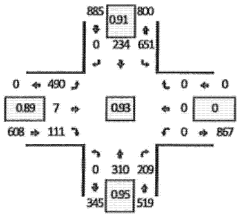
Type of peak hour being reported: Intersection Peak

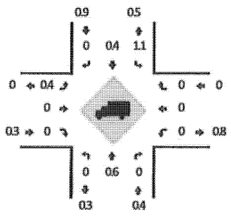
Method for determining peak hour: Total Entering Volume

LOCATION: Moopark Rd -- US 101 SB Ramps
CITY/STATE: Thousand Oaks, CA

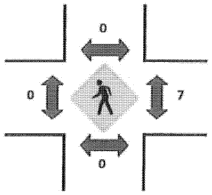
QC JOB #: 15827106
DATE: Thu, Jun 2 2022

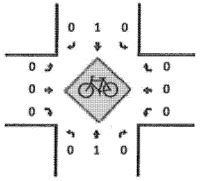
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

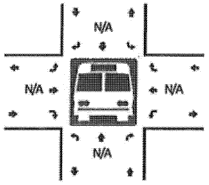


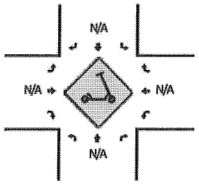


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Moopark Rd (Northbound)					Moopark Rd (Southbound)					US 101 SB Ramps (Eastbound)					US 101 SB Ramps (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	83	17	0	25	152	69	0	0	0	108	3	29	0	1	0	0	0	0	0	487	
4:15 PM	0	71	20	0	37	164	66	0	0	0	113	3	24	0	6	0	0	0	0	0	504	
4:30 PM	0	85	17	0	34	125	48	0	0	0	129	0	19	0	4	0	0	0	0	0	461	
4:45 PM	0	78	25	0	24	181	61	0	0	0	138	3	29	0	0	0	0	0	0	0	539	1991
5:00 PM	0	76	18	0	34	181	59	0	0	0	110	1	29	0	0	0	0	0	0	0	508	2012
5:15 PM	0	73	15	0	30	140	68	0	0	0	127	0	22	0	3	0	0	0	0	0	478	1986
5:30 PM	0	51	9	0	26	131	49	0	1	0	111	3	15	0	2	0	0	0	0	0	398	1923
5:45 PM	0	56	9	0	14	157	67	0	0	0	109	2	19	0	0	0	0	0	0	0	433	1817

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	312	196	0	96	724	244	0	0	0	552	12	116	0	0	0	0	0	0	0	2252
Heavy Trucks	0	4	0			12	0	0			0	0	0			0	0	0			16
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 6/10/2022 12:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

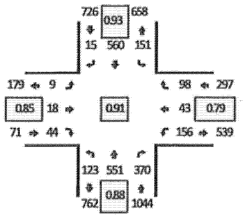
Type of peak hour being reported: Intersection Peak

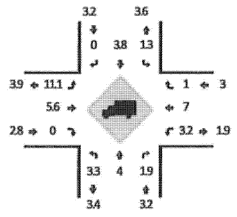
Method for determining peak hour: Total Entering Volume

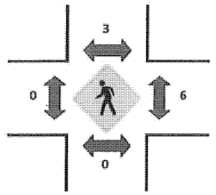
LOCATION: Moorpark Rd -- Thousand Oaks Blvd
CITY/STATE: Thousand Oaks, CA

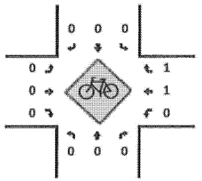
QC JOB #: 15827107
DATE: Thu, Jun 2 2022

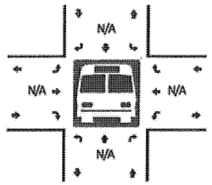
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

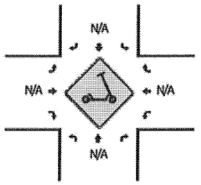












R* = RTOR

15-Min Count Period Beginning At	Moorpark Rd (Northbound)					Moorpark Rd (Southbound)					Thousand Oaks Blvd (Eastbound)					Thousand Oaks Blvd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	7	64	22	0	12	16	69	0	0	0	2	5	2	0	3	30	4	4	0	6	246	
7:15 AM	9	80	29	0	13	17	106	2	0	0	2	3	3	0	5	35	3	3	0	9	319	
7:30 AM	20	114	45	0	11	23	116	4	0	0	1	2	3	0	7	27	7	5	0	17	402	
7:45 AM	22	148	49	0	26	24	145	3	0	0	0	8	6	0	9	38	6	10	0	6	500	1467
8:00 AM	22	152	52	0	25	34	120	3	0	0	3	6	5	0	7	32	10	3	0	17	491	1712
8:15 AM	37	145	60	0	25	47	142	4	0	2	0	3	2	0	9	45	6	3	0	13	543	1936
8:30 AM	30	106	61	0	31	41	151	2	0	1	4	5	2	0	10	30	12	5	0	27	518	2052
8:45 AM	32	148	90	2	26	29	147	3	0	0	2	4	3	0	6	49	15	10	0	20	586	2138

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	128	592	464	8	104	116	588	12	0	0	8	16	36	0	24	196	60	120	0	80	2552
Heavy Trucks	0	32	4			0	16	0			0	0	0			8	8	4			72
Buses																					
Pedestrians		0					4					0					12				16
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 6/10/2022 12:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

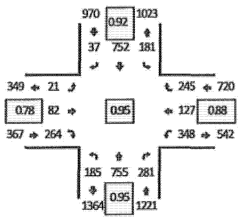
Type of peak hour being reported: Intersection Peak

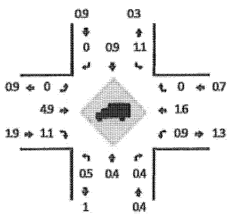
Method for determining peak hour: Total Entering Volume

LOCATION: Moorpark Rd -- Thousand Oaks Blvd
CITY/STATE: Thousand Oaks, CA

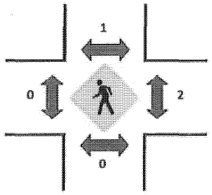
QC JOB #: 15827108
DATE: Thu, Jun 2 2022

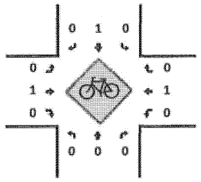
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

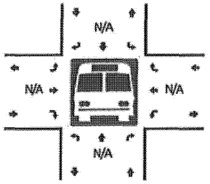


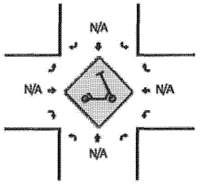


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Moorpark Rd (Northbound)					Moorpark Rd (Southbound)					Thousand Oaks Blvd (Eastbound)					Thousand Oaks Blvd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	52	167	60	0	15	44	202	7	0	1	7	22	32	1	17	88	30	21	0	47	813	
4:15 PM	56	185	40	0	19	42	198	7	0	1	8	17	33	0	28	74	36	17	0	34	795	
4:30 PM	46	185	63	0	13	42	171	9	1	3	7	21	27	0	33	73	28	12	0	35	769	
4:45 PM	48	204	56	0	15	46	191	7	0	0	5	21	28	0	28	81	34	13	0	53	830	3207
5:00 PM	46	187	44	0	14	46	213	6	0	0	6	17	52	0	42	85	36	20	0	46	860	3254
5:15 PM	45	179	62	0	14	45	177	11	1	1	3	23	31	0	23	109	29	20	0	46	819	3278
5:30 PM	43	146	54	0	12	42	163	4	0	1	5	8	19	0	35	71	34	28	0	46	711	3220
5:45 PM	52	186	44	0	12	34	156	5	0	0	10	12	24	0	28	80	31	19	0	41	734	3124

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	184	748	232	0	56	184	852	24	0	0	24	68	376	0	168	340	144	264	0	184	3848
Heavy Trucks	0	4	0			0	0	0			0	4	4			0	0	0			12
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 6/10/2022 12:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

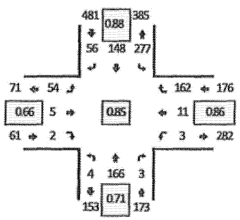
Type of peak hour being reported: Intersection Peak

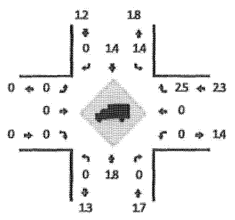
Method for determining peak hour: Total Entering Volume

LOCATION: Moopark Rd -- Rolling Oaks Dr
CITY/STATE: Thousand Oaks, CA

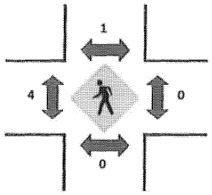
QC JOB #: 15827101
DATE: Thu, Jun 2 2022

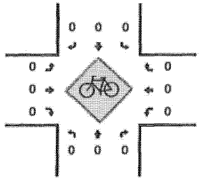
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

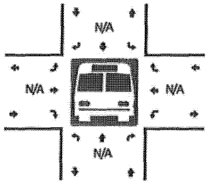


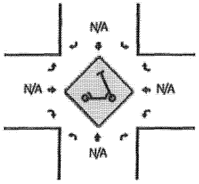


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Moopark Rd (Northbound)					Moopark Rd (Southbound)					Rolling Oaks Dr (Eastbound)					Rolling Oaks Dr (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	1	34	1	0	0	37	12	8	0	1	6	0	0	0	0	0	2	5	0	5	112	
7:15 AM	0	29	1	0	0	49	21	7	0	1	3	1	0	0	0	0	1	12	0	9	134	
7:30 AM	2	38	2	0	0	48	30	10	1	2	3	2	1	0	0	0	0	18	0	15	172	
7:45 AM	0	57	1	0	0	72	31	13	1	5	4	0	0	0	0	1	0	17	0	30	232	650
8:00 AM	0	61	0	0	0	59	39	13	0	2	11	1	0	0	0	1	4	17	0	15	223	761
8:15 AM	1	29	0	0	0	74	48	12	0	1	13	1	0	0	0	0	3	23	0	21	226	853
8:30 AM	2	28	1	0	0	56	26	6	1	7	11	1	0	0	0	1	4	20	0	16	180	861
8:45 AM	1	48	2	0	0	85	35	11	2	4	19	2	1	0	1	1	0	25	0	25	262	891

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	4	192	8	0	0	340	140	60	8	16	76	8	8	0	4	4	0	200	0	100	1168
Heavy Trucks	0	4	0			4	0	0			0	0	0			0	0	4			12
Buses																					
Pedestrians		0					0					8					0				8
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 6/10/2022 12:07 PM

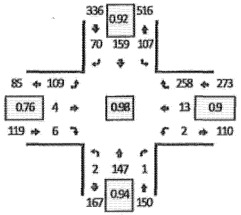
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

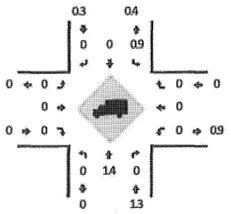
LOCATION: Moopark Rd -- Rolling Oaks Dr
CITY/STATE: Thousand Oaks, CA

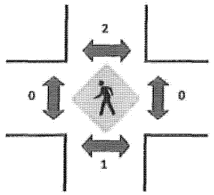
QC JOB #: 15827102
DATE: Thu, Jun 2 2022

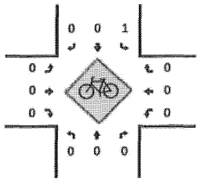


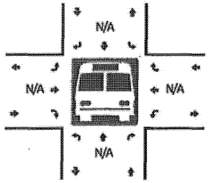
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

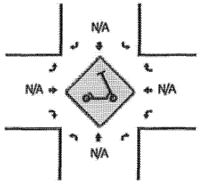
Quality Counts
DATA THAT DRIVES COMMUNITIES











R* = RTOR

15-Min Count Period Beginning At	Moopark Rd (Northbound)					Moopark Rd (Southbound)					Rolling Oaks Dr (Eastbound)					Rolling Oaks Dr (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	1	39	0	0	0	38	38	8	0	7	20	1	1	0	0	0	4	41	0	27	225	
4:15 PM	0	36	0	0	1	29	37	15	1	7	27	2	3	0	0	0	1	37	0	28	224	
4:30 PM	1	37	0	0	0	18	36	9	1	4	25	0	1	0	0	1	5	29	0	41	208	
4:45 PM	0	35	0	0	0	20	48	13	0	7	37	1	0	0	1	1	3	23	0	32	221	878
5:00 PM	2	37	0	0	0	14	51	9	1	5	28	1	0	0	0	1	2	26	0	45	222	875
5:15 PM	1	31	0	0	0	19	45	7	1	7	28	2	3	0	0	1	2	21	0	29	197	848
5:30 PM	1	40	0	0	0	18	26	4	0	5	24	2	0	0	0	0	3	8	0	20	151	791
5:45 PM	1	26	2	0	0	11	51	18	0	2	23	2	0	0	0	1	3	5	0	20	165	735

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	4	156	0	0	0	152	152	60	0	28	80	4	4	0	0	0	16	272	0	108	1036
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	0	0			0
Buses																					
Pedestrians		0					4					0					0				4
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

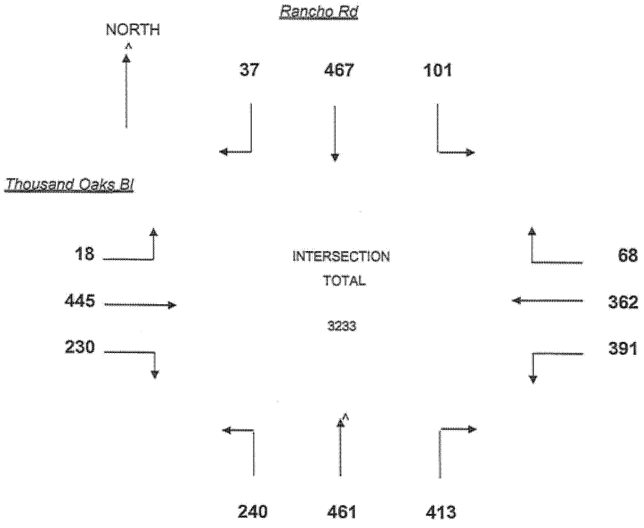
Comments:

Report generated on 6/10/2022 12:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

M Y

DATE:	**## 2015**	**N - S:**	**Rancho Rd**
LOCATION:	**Rancho Rd @ Thousand Oaks**	**E - W:**	**Thousand Oaks Bl**
TAKEN BY:	**Robert Sweeting**	**FILE:**	**Rancho.TOB.AM.15**
PEAK HOUR:	**7:15 - 8:15**	**COMMENTS:**	



	# OF LANES	CAPACITY	VOLUME	V/C	SPLIT PHASED	CRITICAL V/C
NORTHBOUND						
LEFT	1	1600	240	0.15	N	
THRU	2	3200	461	0.14		0.15
RIGHT	1	1600	413	0.14		
SOUTHBOUND						
LEFT	1	1600	101	0.06	N	
THRU	2	3200	467	0.15		0.15
RIGHT	1	1600	37	0.01		
EASTBOUND						
LEFT	1	1600	18	0.01	N	
THRU	2	3200	445	0.14		0.14
RIGHT	1	1600	230	0		
WESTBOUND						
LEFT	2	3200	391	0.12	N	
THRU	2	3200	362	0.13		0.12
RIGHT	0	0	68	0		

TOTAL ICU	**0.56**
LEVEL OF SERVICE	**A**

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Rancho Rd and Thousand Oaks Blvd , Thousand Oaks

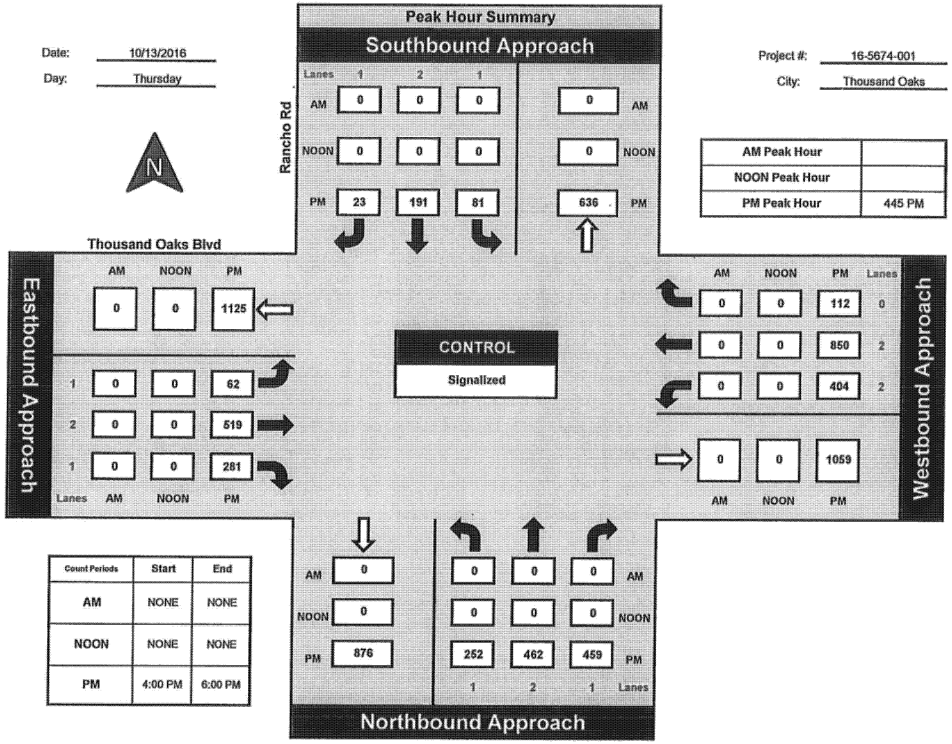
Date: 10/13/2016

Day: Thursday

Project #: 16-5674-001

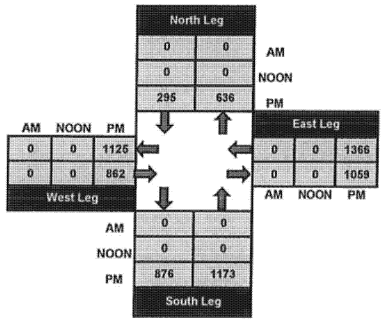
City: Thousand Oaks

AM Peak Hour	
NOON Peak Hour	
PM Peak Hour	445 PM

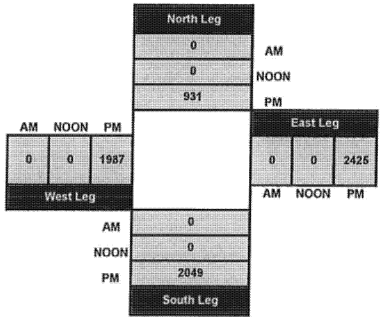


Count Periods	Start	End
AM	NONE	NONE
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg

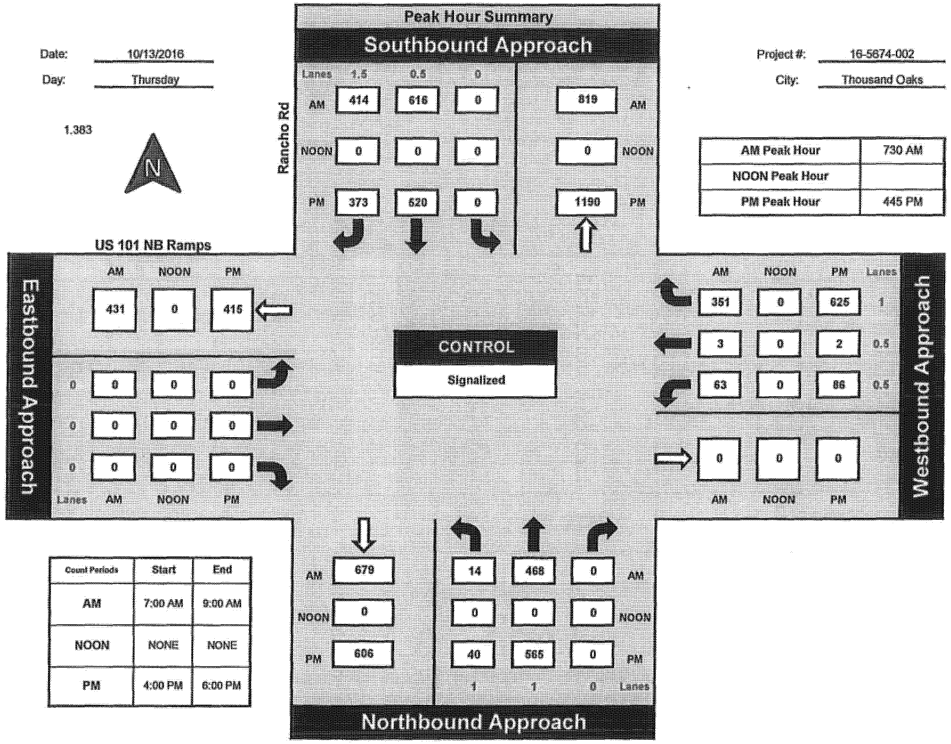


ITM Peak Hour Summary

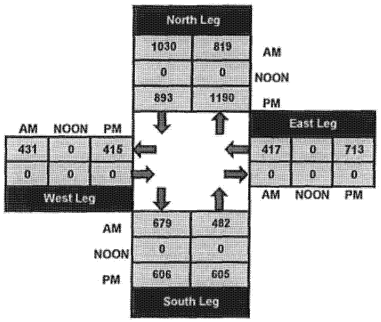
Prepared by:

National Data & Surveying Services

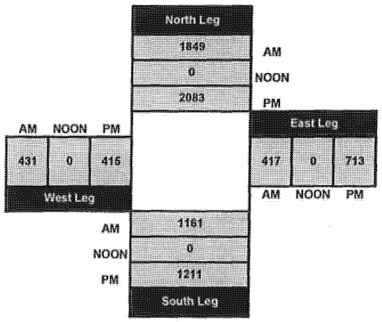
Rancho Rd and US 101 NB Ramps , Thousand Oaks



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Rancho Rd and US 101 SB Ramps , Thousand Oaks

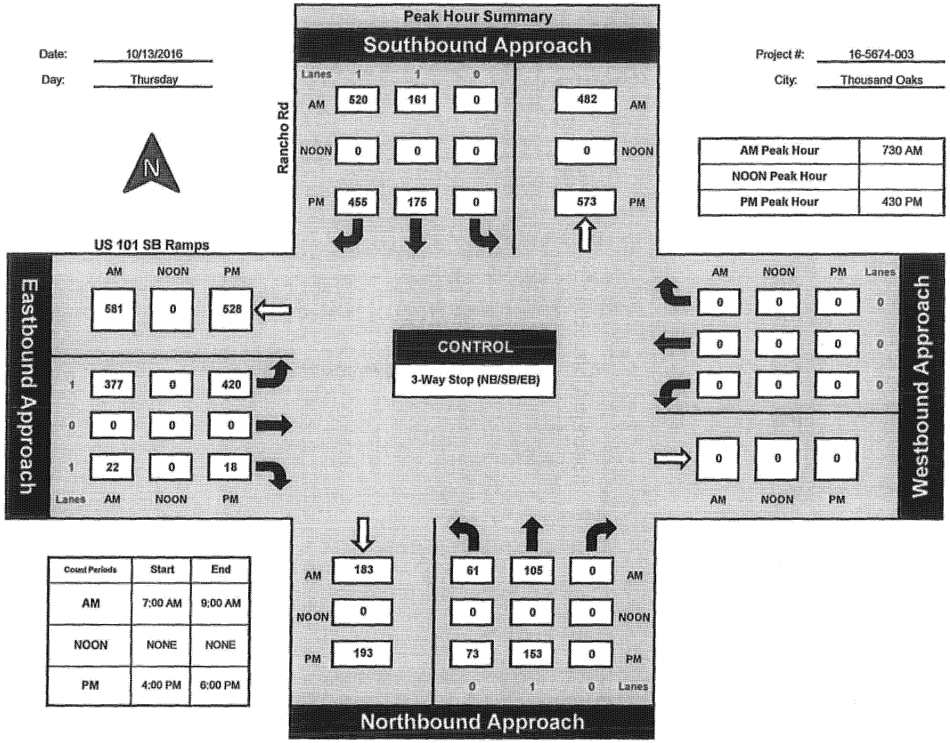
Date: 10/13/2016

Day: Thursday

Project #: 16-5674-003

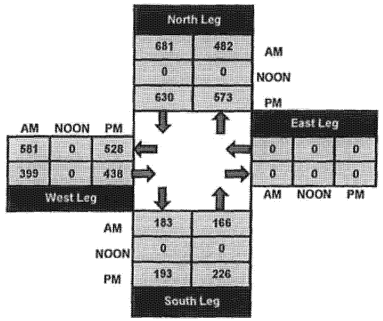
City: Thousand Oaks

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

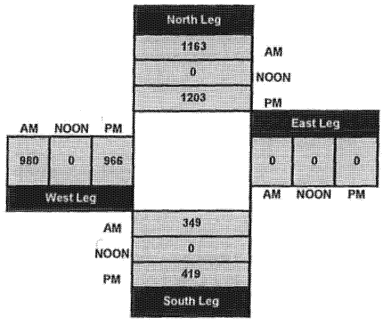


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



INTERSECTION LEVEL OF SERVICE CRITERIA/DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

"Levels of Service" (LOS) A through F are used to rate roadway and intersection operating conditions, with LOS A indicating very good operations and LOS F indicating poor operations. More complete level of service definitions are:

LOS	Definition
A	Low volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within traffic stream. Drivers can maintain their desired speeds with little or no delay.
B	Stable flow with potential for some restriction of operating speeds due to traffic conditions. Maneuvering is only slightly restricted. Stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	Stable operations, however the ability to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail but adverse signal coordination or longer queues cause delays.
D	Approaching unstable traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in their ability to maneuver and their selection of travel speeds. Comfort and convenience are low but tolerable.
E	Operations characterized by significant approach delays and average travel speeds of one-half to one-third of free flow speed. Flow is unstable and potential for stoppages of brief duration. High signal density, extensive queuing, or signal progression/timing are the typical causes of delays.
F	Forced flow operations with high approach delays at critical signalized intersections. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion.

Signalized Intersection Level of Service Definitions

LOS	Delay[a]	V/C Ratio	Definition
A	< 10.0	< 0.60	Progression is extremely favorable. Most vehicles arrive during the green phase. Many vehicles do not stop at all.
B	10.1 - 20.0	0.61 - 0.70	Good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20.1 - 35.0	0.71 - 0.80	Only fair progression, longer cycle lengths, or both, result in higher cycle lengths. Cycle lengths may fail to serve queued vehicles, and overflow occurs. Number of vehicles stopped is significant, though many still pass through intersection without stopping.
D	35.1 - 55.0	0.81 - 0.90	Congestion becomes more noticeable. Unfavorable progression, long cycle lengths and high v/c ratios result in longer delays. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1 - 80.0	0.91 - 1.00	High delay values indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent
F	> 80.0	> 1.00	Considered unacceptable for most drivers, this level occurs when arrival flow rates exceed the capacity of lane groups, resulting in many individual cycle failures. Poor progression and long cycle lengths may also contribute to high delay levels.

[a] Average control delay per vehicle in seconds.

Unsignalized Intersection Level of Service Definitions

The HCM[1] uses *control delay* to determine the level of service at unsignalized intersections. Control delay is the difference between the travel time actually experienced at the control device and the travel time that would occur in the absence of the traffic control device. Control delay includes deceleration from free flow speed, queue move-up time, stopped delay and acceleration back to free flow speed.

LOS	Control Delay Seconds per Vehicle
A	< 10.0
B	10.1 - 15.0
C	15.1 - 25.0
D	25.1 - 35.0
E	35.1 - 50.0
F	> 50.0

[1] Highway Capacity Manual, National Research Board, 2000

INTERSECTION LOS CALCULATION WORKSHEETS

Reference 1 - U.S. Highway 101 Northbound Ramps/Moorpark Road
Reference 2 - U.S. Highway 101 Southbound Ramps/Moorpark Road
Reference 3 - Moorpark Road/Thousand Oaks Boulevard
Reference 4 - Moorpark Road/Rolling Oaks Drive
Reference 5 - Rancho Road/Thousand Oaks Boulevard
Reference 6 - U.S. Highway 101 Northbound Ramps/Rancho Road
Reference 7 - U.S. Highway 101 Southbound Ramps/Rancho Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	214	0	404	98	650	0	0	410	351
Future Volume (vph)	0	0	0	214	0	404	98	650	0	0	410	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5764	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5764	1282
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)	0	0	0	233	0	439	107	707	0	0	446	382
RTOR Reduction (vph)	0	0	0	0	0	308	0	0	0	0	57	86
Lane Group Flow (vph)	0	0	0	233	0	131	107	707	0	0	580	105
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				17.5		17.5	9.4	63.5			49.6	49.6
Effective Green, g (s)				17.5		17.5	9.4	63.5			49.6	49.6
Actuated g/C Ratio				0.19		0.19	0.10	0.71			0.55	0.55
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				344		541	184	3587			3176	706
v/s Ratio Prot							c0.06	c0.14			0.10	0.08
v/s Ratio Perm				c0.13		0.05						
v/c Ratio				0.68		0.24	0.58	0.20			0.18	0.15
Uniform Delay, d1				33.6		30.6	38.4	4.5			10.1	9.9
Progression Factor				0.97		0.86	0.94	2.97			1.00	1.00
Incremental Delay, d2				5.1		0.2	4.4	0.1			0.1	0.4
Delay (s)				37.8		26.7	40.4	13.6			10.2	10.3
Level of Service				D		C	D	B			B	B
Approach Delay (s)		0.0			30.6			17.1			10.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	121	0	560	153	651	0	0	751	621
Future Volume (vph)	0	0	0	121	0	560	153	651	0	0	751	621
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5770	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5770	1282
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)	0	0	0	132	0	609	166	708	0	0	816	675
RTOR Reduction (vph)	0	0	0	0	0	387	0	0	0	0	60	151
Lane Group Flow (vph)	0	0	0	132	0	222	166	708	0	0	1094	186
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				13.2		13.2	13.6	67.8			49.7	49.7
Effective Green, g (s)				13.2		13.2	13.6	67.8			49.7	49.7
Actuated g/C Ratio				0.15		0.15	0.15	0.75			0.55	0.55
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				259		408	267	3830			3186	707
v/s Ratio Prot							c0.09	0.14			c0.19	0.15
v/s Ratio Perm				0.07		c0.08						
v/c Ratio				0.51		0.54	0.62	0.18			0.34	0.26
Uniform Delay, d1				35.4		35.6	35.8	3.2			11.1	10.6
Progression Factor				0.92		0.74	1.13	2.35			1.00	1.00
Incremental Delay, d2				1.5		1.4	4.2	0.1			0.3	0.9
Delay (s)				34.1		27.7	44.8	7.6			11.4	11.5
Level of Service				C		C	D	A			B	B
Approach Delay (s)		0.0			28.9			14.7			11.4	
Approach LOS		A			C			B			B	

Intersection Summary				
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.43			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5	
Intersection Capacity Utilization	84.8%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	243	0	404	108	655	0	0	428	351
Future Volume (vph)	0	0	0	243	0	404	108	655	0	0	428	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5772	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5772	1282
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)	0	0	0	264	0	439	117	712	0	0	465	382
RTOR Reduction (vph)	0	0	0	0	0	287	0	0	0	0	57	90
Lane Group Flow (vph)	0	0	0	264	0	152	117	712	0	0	599	101
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				19.2		19.2	9.9	61.8			47.4	47.4
Effective Green, g (s)				19.2		19.2	9.9	61.8			47.4	47.4
Actuated g/C Ratio				0.21		0.21	0.11	0.69			0.53	0.53
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				377		594	194	3491			3039	675
v/s Ratio Prot							c0.07	c0.14			0.10	0.08
v/s Ratio Perm				c0.15		0.05						
v/c Ratio				0.70		0.26	0.60	0.20			0.20	0.15
Uniform Delay, d1				32.7		29.5	38.2	5.1			11.3	10.9
Progression Factor				0.98		0.90	0.99	2.64			1.00	1.00
Incremental Delay, d2				5.7		0.2	5.0	0.1			0.1	0.5
Delay (s)				37.8		26.8	42.7	13.7			11.4	11.4
Level of Service				D		C	D	B			B	B
Approach Delay (s)		0.0			30.9			17.8			11.4	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	139	0	560	203	676	0	0	761	621
Future Volume (vph)	0	0	0	139	0	560	203	676	0	0	761	621
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5773	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5773	1282
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)	0	0	0	151	0	609	221	735	0	0	827	675
RTOR Reduction (vph)	0	0	0	0	0	372	0	0	0	0	62	164
Lane Group Flow (vph)	0	0	0	151	0	237	221	735	0	0	1103	173
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				13.9		13.9	16.4	67.1			46.2	46.2
Effective Green, g (s)				13.9		13.9	16.4	67.1			46.2	46.2
Actuated g/C Ratio				0.15		0.15	0.18	0.75			0.51	0.51
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				273		430	322	3791			2963	658
v/s Ratio Prot							c0.12	0.14			c0.19	0.13
v/s Ratio Perm				c0.09		0.09						
v/c Ratio				0.55		0.55	0.69	0.19			0.37	0.26
Uniform Delay, d1				35.2		35.2	34.4	3.4			13.2	12.3
Progression Factor				0.93		0.76	1.23	2.44			1.00	1.00
Incremental Delay, d2				2.3		1.5	5.7	0.1			0.4	1.0
Delay (s)				34.9		28.3	48.0	8.4			13.5	13.3
Level of Service				C		C	D	A			B	B
Approach Delay (s)		0.0			29.6			17.6			13.5	
Approach LOS		A			C			B			B	

Intersection Summary				
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.47			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5	
Intersection Capacity Utilization	87.3%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	220	0	416	101	670	0	0	422	362
Future Volume (vph)	0	0	0	220	0	416	101	670	0	0	422	362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.95	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5763	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5763	1282
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)	0	0	0	239	0	452	110	728	0	0	459	393
RTOR Reduction (vph)	0	0	0	0	0	291	0	0	0	0	59	89
Lane Group Flow (vph)	0	0	0	239	0	161	110	728	0	0	597	107
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				17.9		17.9	9.6	63.1			49.0	49.0
Effective Green, g (s)				17.9		17.9	9.6	63.1			49.0	49.0
Actuated g/C Ratio				0.20		0.20	0.11	0.70			0.54	0.54
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				352		554	188	3565			3137	697
v/s Ratio Prot							c0.06	c0.14			0.10	0.08
v/s Ratio Perm				c0.14		0.06						
v/c Ratio				0.68		0.29	0.59	0.20			0.19	0.15
Uniform Delay, d1				33.4		30.7	38.3	4.7			10.4	10.2
Progression Factor				1.00		1.00	0.94	2.89			1.00	1.00
Incremental Delay, d2				5.1		0.3	4.4	0.1			0.1	0.5
Delay (s)				38.5		30.9	40.6	13.7			10.6	10.7
Level of Service				D		C	D	B			B	B
Approach Delay (s)		0.0			33.6			17.2			10.6	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	125	0	577	158	670	0	0	774	640
Future Volume (vph)	0	0	0	125	0	577	158	670	0	0	774	640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5770	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5770	1282
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)	0	0	0	136	0	627	172	728	0	0	841	696
RTOR Reduction (vph)	0	0	0	0	0	219	0	0	0	0	56	178
Lane Group Flow (vph)	0	0	0	136	0	408	172	728	0	0	1133	170
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				18.7		18.7	13.9	62.3			43.9	43.9
Effective Green, g (s)				18.7		18.7	13.9	62.3			43.9	43.9
Actuated g/C Ratio				0.21		0.21	0.15	0.69			0.49	0.49
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				367		579	273	3519			2814	625
v/s Ratio Prot							c0.10	0.14			c0.20	0.13
v/s Ratio Perm				0.08		c0.15						
v/c Ratio				0.37		0.70	0.63	0.21			0.40	0.27
Uniform Delay, d1				30.6		33.1	35.6	5.0			14.7	13.6
Progression Factor				0.77		0.61	0.99	1.96			0.84	1.17
Incremental Delay, d2				0.6		3.7	4.4	0.1			0.4	1.0
Delay (s)				24.1		24.1	39.9	9.9			12.7	16.9
Level of Service				C		C	D	A			B	B
Approach Delay (s)		0.0			24.1			15.6			13.7	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	249	0	416	111	675	0	0	440	362
Future Volume (vph)	0	0	0	249	0	416	111	675	0	0	440	362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5771	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5771	1282
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)	0	0	0	271	0	452	121	734	0	0	478	393
RTOR Reduction (vph)	0	0	0	0	0	270	0	0	0	0	60	97
Lane Group Flow (vph)	0	0	0	271	0	182	121	734	0	0	615	99
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				19.7		19.7	11.4	61.3			45.4	45.4
Effective Green, g (s)				19.7		19.7	11.4	61.3			45.4	45.4
Actuated g/C Ratio				0.22		0.22	0.13	0.68			0.50	0.50
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				387		610	224	3463			2911	646
v/s Ratio Prot							c0.07	c0.14			0.11	0.08
v/s Ratio Perm				c0.15		0.07						
v/c Ratio				0.70		0.30	0.54	0.21			0.21	0.15
Uniform Delay, d1				32.4		29.4	36.8	5.3			12.4	12.0
Progression Factor				0.99		0.95	1.00	2.59			1.00	1.00
Incremental Delay, d2				5.6		0.3	2.5	0.1			0.2	0.5
Delay (s)				37.7		28.2	39.3	14.0			12.5	12.5
Level of Service				D		C	D	B			B	B
Approach Delay (s)		0.0			31.8			17.6			12.5	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	143	0	577	208	695	0	0	784	640
Future Volume (vph)	0	0	0	143	0	577	208	695	0	0	784	640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Lane Util. Factor				1.00		0.88	1.00	0.91			0.81	0.81
Frt				1.00		0.85	1.00	1.00			0.96	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		2787	1770	5085			5773	1282
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		2787	1770	5085			5773	1282
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)	0	0	0	155	0	627	226	755	0	0	852	696
RTOR Reduction (vph)	0	0	0	0	0	355	0	0	0	0	135	182
Lane Group Flow (vph)	0	0	0	155	0	272	226	755	0	0	1065	166
Turn Type				Perm		Perm	Prot	NA			NA	Prot
Protected Phases							5	2			6	6
Permitted Phases				8		8						
Actuated Green, G (s)				8.9		8.9	6.1	36.6			26.0	26.0
Effective Green, g (s)				8.9		8.9	6.1	36.6			26.0	26.0
Actuated g/C Ratio				0.16		0.16	0.11	0.67			0.48	0.48
Clearance Time (s)				4.5		4.5	4.5	4.5			4.5	4.5
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				289		455	198	3414			2754	611
v/s Ratio Prot							c0.13	0.15			c0.18	0.13
v/s Ratio Perm				0.09		c0.10						
v/c Ratio				0.54		0.60	1.14	0.22			0.39	0.27
Uniform Delay, d1				20.9		21.1	24.2	3.5			9.1	8.6
Progression Factor				1.00		1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				1.9		2.1	107.2	0.1			0.4	1.1
Delay (s)				22.8		23.3	131.4	3.6			9.5	9.7
Level of Service				C		C	F	A			A	A
Approach Delay (s)		0.0			23.2			33.0			9.6	
Approach LOS		A			C			C			A	

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)	54.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	521	5	177	0	0	0	0	222	159	304	330	0
Future Volume (veh/h)	521	5	177	0	0	0	0	222	159	304	330	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	570	0	192				0	241	173	330	359	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	728	0	324				0	2824	877	464	1301	0
Arrive On Green	0.20	0.00	0.20				0.00	0.55	0.55	0.18	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	570	0	192				0	241	173	330	359	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	13.6	0.0	9.9				0.0	2.0	4.9	5.5	0.0	0.0
Cycle Q Clear(g_c), s	13.6	0.0	9.9				0.0	2.0	4.9	5.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	728	0	324				0	2824	877	464	1301	0
V/C Ratio(X)	0.78	0.00	0.59				0.00	0.09	0.20	0.71	0.28	0.00
Avail Cap(c_a), veh/h	1405	0	625				0	2824	877	865	1301	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.96	0.96	0.96	0.96	0.00
Uniform Delay (d), s/veh	33.9	0.0	32.4				0.0	9.4	10.1	35.6	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	1.7				0.0	0.1	0.5	1.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	3.9				0.0	0.7	1.7	2.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	34.1				0.0	9.5	10.6	37.5	0.5	0.0
LnGrp LOS	D	A	C				A	A	B	D	A	A
Approach Vol, veh/h		762						414			689	
Approach Delay, s/veh		35.4						9.9			18.2	
Approach LOS		D						A			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.8	54.3		22.9		67.1
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	5.5	25.5		35.5		45.5
Max Q Clear Time (g_c+I1), s	7.5	6.9		15.6		2.0
Green Ext Time (p_c), s	0.8	2.0		2.8		2.4

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	7	111	0	0	0	0	310	209	651	234	0
Future Volume (veh/h)	490	7	111	0	0	0	0	310	209	651	234	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	539	0	121				0	337	227	708	254	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	679	0	302				0	2474	768	878	1327	0
Arrive On Green	0.19	0.00	0.19				0.00	0.48	0.48	0.29	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	539	0	121				0	337	227	708	254	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	13.0	0.0	6.0				0.0	3.3	7.8	11.7	0.0	0.0
Cycle Q Clear(g_c), s	13.0	0.0	6.0				0.0	3.3	7.8	11.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	679	0	302				0	2474	768	878	1327	0
V/C Ratio(X)	0.79	0.00	0.40				0.00	0.14	0.30	0.81	0.19	0.00
Avail Cap(c_a), veh/h	1168	0	520				0	2474	768	1256	1327	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.92	0.92	0.94	0.94	0.00
Uniform Delay (d), s/veh	34.7	0.0	31.9				0.0	12.8	14.0	30.5	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.9				0.0	0.1	0.9	2.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	2.3				0.0	1.2	2.8	4.3	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	32.8				0.0	12.9	14.9	32.9	0.3	0.0
LnGrp LOS	D	A	C				A	B	B	C	A	A
Approach Vol, veh/h		660						564			962	
Approach Delay, s/veh		36.1						13.7			24.3	
Approach LOS		D						B			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.2	48.1		21.7		68.3						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	22.5	24.5		29.5		51.5						
Max Q Clear Time (g_c+I1), s	11.3	9.8		15.0		2.0						
Green Ext Time (p_c), s	2.0	2.7		2.2		1.6						

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	521	5	212	0	0	0	0	237	167	304	377	0
Future Volume (veh/h)	521	5	212	0	0	0	0	237	167	304	377	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	570	0	230				0	258	182	330	410	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	733	0	326				0	2817	875	464	1298	0
Arrive On Green	0.21	0.00	0.21				0.00	0.55	0.55	0.18	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	570	0	230				0	258	182	330	410	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	13.6	0.0	12.1				0.0	2.1	5.2	5.5	0.0	0.0
Cycle Q Clear(g_c), s	13.6	0.0	12.1				0.0	2.1	5.2	5.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	733	0	326				0	2817	875	464	1298	0
V/C Ratio(X)	0.78	0.00	0.70				0.00	0.09	0.21	0.71	0.32	0.00
Avail Cap(c_a), veh/h	1405	0	625				0	2817	875	865	1298	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.95	0.95	0.95	0.95	0.00
Uniform Delay (d), s/veh	33.8	0.0	33.2				0.0	9.5	10.2	35.6	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	2.8				0.0	0.1	0.5	1.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	4.8				0.0	0.8	1.8	2.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	0.0	36.0				0.0	9.6	10.7	37.5	0.6	0.0
LnGrp LOS	D	A	D				A	A	B	D	A	A
Approach Vol, veh/h		800						440			740	
Approach Delay, s/veh		35.7						10.1			17.1	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.8	54.2		23.0		67.0
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	5.5	25.5		35.5		45.5
Max Q Clear Time (g_c+I1), s	7.6	7.2		15.6		2.0
Green Ext Time (p_c), s	0.8	2.2		2.9		2.8

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	7	132	0	0	0	0	385	250	651	262	0
Future Volume (veh/h)	490	7	132	0	0	0	0	385	250	651	262	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	539	0	143				0	418	272	708	285	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	682	0	303				0	2452	761	897	1325	0
Arrive On Green	0.19	0.00	0.19				0.00	0.48	0.48	0.18	0.71	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	539	0	143				0	418	272	708	285	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	13.0	0.0	7.2				0.0	4.2	9.7	12.1	4.7	0.0
Cycle Q Clear(g_c), s	13.0	0.0	7.2				0.0	4.2	9.7	12.1	4.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	682	0	303				0	2452	761	897	1325	0
V/C Ratio(X)	0.79	0.00	0.47				0.00	0.17	0.36	0.79	0.22	0.00
Avail Cap(c_a), veh/h	1168	0	520				0	2452	761	1256	1325	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.86	0.86	0.92	0.92	0.00
Uniform Delay (d), s/veh	34.7	0.0	32.3				0.0	13.2	14.7	35.4	4.5	0.0
Incr Delay (d2), s/veh	2.1	0.0	1.1				0.0	0.1	1.1	2.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	2.8				0.0	1.6	3.6	5.0	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	33.5				0.0	13.4	15.8	37.5	4.8	0.0
LnGrp LOS	D	A	C				A	B	B	D	A	A
Approach Vol, veh/h		682						690			993	
Approach Delay, s/veh		36.1						14.3			28.1	
Approach LOS		D						B			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	20.6	47.7	21.7	68.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	24.5	29.5	51.5
Max Q Clear Time (g_c+I1), s	11.4	11.7	15.0	6.7
Green Ext Time (p_c), s	1.9	3.1	2.2	1.9

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	537	5	182	0	0	0	0	229	164	313	340	0
Future Volume (veh/h)	537	5	182	0	0	0	0	229	164	313	340	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	588	0	198				0	249	178	340	370	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	748	0	333				0	2785	865	474	1290	0
Arrive On Green	0.21	0.00	0.21				0.00	0.55	0.55	0.19	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	588	0	198				0	249	178	340	370	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	14.1	0.0	10.1				0.0	2.1	5.2	5.7	0.0	0.0
Cycle Q Clear(g_c), s	14.1	0.0	10.1				0.0	2.1	5.2	5.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	748	0	333				0	2785	865	474	1290	0
V/C Ratio(X)	0.79	0.00	0.59				0.00	0.09	0.21	0.72	0.29	0.00
Avail Cap(c_a), veh/h	1405	0	625				0	2785	865	865	1290	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.96	0.96	0.95	0.95	0.00
Uniform Delay (d), s/veh	33.6	0.0	32.1				0.0	9.8	10.5	35.4	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	1.7				0.0	0.1	0.5	1.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	4.0				0.0	0.8	1.8	2.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	0.0	33.8				0.0	9.8	11.0	37.3	0.5	0.0
LnGrp LOS	D	A	C				A	A	B	D	A	A
Approach Vol, veh/h		786						427			710	
Approach Delay, s/veh		35.1						10.3			18.1	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.0	53.6		23.4		66.6						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	8.5	25.5		35.5		45.5						
Max Q Clear Time (g_c+I1), s	7.7	7.2		16.1		2.0						
Green Ext Time (p_c), s	0.8	2.1		2.9		2.5						

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	7	114	0	0	0	0	319	215	670	241	0
Future Volume (veh/h)	505	7	114	0	0	0	0	319	215	670	241	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	555	0	124				0	347	234	728	262	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	698	0	310				0	2422	752	903	1317	0
Arrive On Green	0.20	0.00	0.20				0.00	0.16	0.16	0.30	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	555	0	124				0	347	234	728	262	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	13.4	0.0	6.1				0.0	5.3	11.8	12.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	0.0	6.1				0.0	5.3	11.8	12.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	698	0	310				0	2422	752	903	1317	0
V/C Ratio(X)	0.80	0.00	0.40				0.00	0.14	0.31	0.81	0.20	0.00
Avail Cap(c_a), veh/h	1207	0	537				0	2422	752	1312	1317	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.89	0.89	0.93	0.93	0.00
Uniform Delay (d), s/veh	34.5	0.0	31.6				0.0	22.2	24.9	30.0	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.8				0.0	0.1	1.0	2.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	2.4				0.0	2.2	5.2	4.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.0	32.4				0.0	22.3	25.9	32.3	0.3	0.0
LnGrp LOS	D	A	C				A	C	C	C	A	A
Approach Vol, veh/h		679						581			990	
Approach Delay, s/veh		35.8						23.7			23.9	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	20.7	47.2	22.1	67.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	22.5	30.5	50.5
Max Q Clear Time (g_c+I1), s	14.0	13.8	15.4	2.0
Green Ext Time (p_c), s	2.1	2.1	2.3	1.7

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	537	5	217	0	0	0	0	244	172	313	387	0
Future Volume (veh/h)	537	5	217	0	0	0	0	244	172	313	387	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	588	0	236				0	265	187	340	421	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	753	0	335				0	2778	862	474	1288	0
Arrive On Green	0.21	0.00	0.21				0.00	0.54	0.54	0.19	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	5023	1870	0
Grp Volume(v), veh/h	588	0	236				0	265	187	340	421	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1674	1870	0
Q Serve(g_s), s	14.0	0.0	12.4				0.0	2.2	5.5	5.7	0.0	0.0
Cycle Q Clear(g_c), s	14.0	0.0	12.4				0.0	2.2	5.5	5.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	753	0	335				0	2778	862	474	1288	0
V/C Ratio(X)	0.78	0.00	0.70				0.00	0.10	0.22	0.72	0.33	0.00
Avail Cap(c_a), veh/h	1405	0	625				0	2778	862	865	1288	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.94	0.94	0.94	0.94	0.00
Uniform Delay (d), s/veh	33.5	0.0	32.9				0.0	9.9	10.6	35.4	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	2.7				0.0	0.1	0.5	1.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	4.9				0.0	0.8	1.9	2.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	0.0	35.6				0.0	9.9	11.1	37.3	0.6	0.0
LnGrp LOS	D	A	D				A	A	B	D	A	A
Approach Vol, veh/h		824						452			761	
Approach Delay, s/veh		35.4						10.4			17.0	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.0	53.5		23.5		66.5
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	8.5	25.5		35.5		45.5
Max Q Clear Time (g_c+I1), s	7.7	7.5		16.0		2.0
Green Ext Time (p_c), s	0.8	2.2		3.0		2.9

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	7	135	0	0	0	0	394	256	670	269	0
Future Volume (veh/h)	505	7	135	0	0	0	0	394	256	670	269	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	555	0	147				0	428	278	728	292	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	705	0	313				0	3586	1113	1652	1313	0
Arrive On Green	0.20	0.00	0.20				0.00	0.70	0.70	0.70	0.70	0.00
Sat Flow, veh/h	3563	0	1585				0	5274	1585	2092	1870	0
Grp Volume(v), veh/h	555	0	147				0	428	278	728	292	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	697	1870	0
Q Serve(g_s), s	13.3	0.0	7.4				0.0	2.5	5.7	15.6	5.0	0.0
Cycle Q Clear(g_c), s	13.3	0.0	7.4				0.0	2.5	5.7	18.1	5.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	705	0	313				0	3586	1113	1652	1313	0
V/C Ratio(X)	0.79	0.00	0.47				0.00	0.12	0.25	0.44	0.22	0.00
Avail Cap(c_a), veh/h	1326	0	590				0	3586	1113	1652	1313	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.85	0.85	0.81	0.81	0.00
Uniform Delay (d), s/veh	34.3	0.0	31.9				0.0	4.4	4.8	7.3	4.7	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.1				0.0	0.1	0.5	0.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	2.9				0.0	0.7	1.7	2.1	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	0.0	33.0				0.0	4.4	5.3	8.0	5.0	0.0
LnGrp LOS	D	A	C				A	A	A	A	A	A
Approach Vol, veh/h		702						706			1020	
Approach Delay, s/veh		35.6						4.8			7.1	
Approach LOS		D						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	67.7	22.3	67.7
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	47.5	33.5	47.5
Max Q Clear Time (g_c+I1), s	7.7	15.3	20.1
Green Ext Time (p_c), s	4.3	2.5	10.2

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	18	44	156	43	98	123	551	370	151	560	15
Future Volume (veh/h)	9	18	44	156	43	98	123	551	370	151	560	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	20	48	170	47	107	134	599	402	164	609	16
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	154	500	287	286	367	259	2308	848	272	2331	61
Arrive On Green	0.01	0.08	0.08	0.08	0.15	0.15	0.08	0.45	0.45	0.08	0.46	0.46
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	5116	134
Grp Volume(v), veh/h	10	20	48	170	47	107	134	599	402	164	405	220
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1846
Q Serve(g_s), s	0.3	0.6	0.8	2.8	1.3	3.3	2.2	4.3	9.4	2.7	4.4	4.4
Cycle Q Clear(g_c), s	0.3	0.6	0.8	2.8	1.3	3.3	2.2	4.3	9.4	2.7	4.4	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	23	154	500	287	286	367	259	2308	848	272	1551	841
V/C Ratio(X)	0.44	0.13	0.10	0.59	0.16	0.29	0.52	0.26	0.47	0.60	0.26	0.26
Avail Cap(c_a), veh/h	165	568	1201	1079	978	954	496	2308	848	612	1551	841
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	25.2	21.3	26.2	21.8	18.8	26.4	10.1	8.6	26.4	10.0	10.0
Incr Delay (d2), s/veh	12.7	0.4	0.1	1.9	0.3	0.4	1.6	0.3	1.9	2.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.2	0.6	1.2	0.9	1.4	3.0	1.1	1.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	25.6	21.4	28.2	22.1	19.2	28.0	10.4	10.5	28.5	10.4	10.7
LnGrp LOS	D	C	C	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		78			324			1135			789	
Approach Delay, s/veh		25.1			24.3			12.5			14.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	31.3	9.4	9.4	8.9	31.5	5.3	13.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	25.0	18.5	18.0	8.5	27.0	5.5	31.0
Max Q Clear Time (g_c+I1), s	4.7	11.4	4.8	2.8	4.2	6.4	2.3	5.3
Green Ext Time (p_c), s	0.2	4.8	0.4	0.2	0.1	4.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	82	264	348	127	245	185	755	281	181	752	37
Future Volume (veh/h)	21	82	264	348	127	245	185	755	281	181	752	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	89	287	378	138	266	201	821	305	197	817	40
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	249	422	507	475	403	302	1901	590	297	1850	90
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.09	0.37	0.37	0.09	0.37	0.37
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	4987	244
Grp Volume(v), veh/h	23	89	287	378	138	266	201	821	305	197	557	300
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1827
Q Serve(g_s), s	0.9	3.0	5.9	7.2	4.1	10.3	3.9	8.3	10.3	3.8	8.5	8.5
Cycle Q Clear(g_c), s	0.9	3.0	5.9	7.2	4.1	10.3	3.9	8.3	10.3	3.8	8.5	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	46	249	422	507	475	403	302	1901	590	297	1263	678
V/C Ratio(X)	0.50	0.36	0.68	0.75	0.29	0.66	0.67	0.43	0.52	0.66	0.44	0.44
Avail Cap(c_a), veh/h	143	503	853	880	830	703	528	1901	590	528	1263	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	27.1	28.4	28.1	20.7	23.0	30.4	16.1	16.8	30.4	16.3	16.3
Incr Delay (d2), s/veh	8.1	0.9	1.9	2.2	0.3	1.9	2.5	0.7	3.2	2.5	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	2.3	3.0	1.7	3.8	1.7	3.1	4.0	1.6	3.2	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	28.0	30.3	30.3	21.0	24.8	32.9	16.9	20.0	33.0	17.4	18.4
LnGrp LOS	D	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		399			782			1327			1054	
Approach Delay, s/veh		30.4			26.8			20.0			20.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	30.1	14.6	13.6	10.5	30.0	6.3	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	25.5	17.5	18.5	10.5	25.5	5.5	30.5
Max Q Clear Time (g_c+I1), s	5.8	12.3	9.2	7.9	5.9	10.5	2.9	12.3
Green Ext Time (p_c), s	0.3	5.7	0.9	1.2	0.3	5.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	18	44	156	43	98	123	556	370	151	578	15
Future Volume (veh/h)	9	18	44	156	43	98	123	556	370	151	578	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	20	48	170	47	107	134	604	402	164	628	16
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	137	233	268	258	219	236	2584	802	261	2628	67
Arrive On Green	0.01	0.07	0.07	0.08	0.14	0.14	0.07	0.51	0.51	0.08	0.51	0.51
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	5121	130
Grp Volume(v), veh/h	10	20	48	170	47	107	134	604	402	164	417	227
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1847
Q Serve(g_s), s	0.4	0.7	1.0	3.2	1.5	4.2	2.5	4.5	11.3	3.1	4.6	4.6
Cycle Q Clear(g_c), s	0.4	0.7	1.0	3.2	1.5	4.2	2.5	4.5	11.3	3.1	4.6	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	23	137	233	268	258	219	236	2584	802	261	1747	948
V/C Ratio(X)	0.44	0.15	0.21	0.63	0.18	0.49	0.57	0.23	0.50	0.63	0.24	0.24
Avail Cap(c_a), veh/h	146	515	872	540	654	554	437	2584	802	540	1747	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	29.2	29.3	30.1	25.6	26.8	30.4	9.3	11.0	30.2	9.1	9.1
Incr Delay (d2), s/veh	13.0	0.5	0.4	2.5	0.3	1.7	2.1	0.2	2.2	2.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.4	1.4	0.7	1.6	1.1	1.5	3.9	1.3	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	29.7	29.7	32.6	25.9	28.5	32.5	9.5	13.2	32.7	9.4	9.7
LnGrp LOS	D	C	C	C	C	C	C	A	B	C	A	A
Approach Vol, veh/h		78			324			1140			808	
Approach Delay, s/veh		31.8			30.3			13.5			14.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	38.5	9.7	9.4	9.1	39.0	5.4	13.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	32.5	10.5	18.5	8.5	34.5	5.5	23.5
Max Q Clear Time (g_c+I1), s	5.1	13.3	5.2	3.0	4.5	6.6	2.4	6.2
Green Ext Time (p_c), s	0.2	5.6	0.2	0.2	0.1	4.5	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	82	264	348	127	245	185	780	281	181	762	37
Future Volume (veh/h)	21	82	264	348	127	245	185	780	281	181	762	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	89	287	378	138	266	201	848	305	197	828	40
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	249	422	507	475	403	302	1901	590	297	1851	89
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.09	0.37	0.37	0.09	0.37	0.37
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	4991	240
Grp Volume(v), veh/h	23	89	287	378	138	266	201	848	305	197	564	304
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1827
Q Serve(g_s), s	0.9	3.0	5.9	7.2	4.1	10.3	3.9	8.6	10.3	3.8	8.6	8.6
Cycle Q Clear(g_c), s	0.9	3.0	5.9	7.2	4.1	10.3	3.9	8.6	10.3	3.8	8.6	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	46	249	422	507	475	403	302	1901	590	297	1263	678
V/C Ratio(X)	0.50	0.36	0.68	0.75	0.29	0.66	0.67	0.45	0.52	0.66	0.45	0.45
Avail Cap(c_a), veh/h	143	503	853	880	830	703	528	1901	590	528	1263	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	27.1	28.4	28.1	20.7	23.0	30.4	16.2	16.8	30.4	16.3	16.3
Incr Delay (d2), s/veh	8.1	0.9	1.9	2.2	0.3	1.9	2.5	0.8	3.2	2.5	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	2.3	3.0	1.7	3.8	1.7	3.2	4.0	1.6	3.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	28.0	30.3	30.3	21.0	24.8	32.9	17.0	20.0	33.0	17.4	18.5
LnGrp LOS	D	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		399			782			1354			1065	
Approach Delay, s/veh		30.4			26.8			20.0			20.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	30.1	14.6	13.6	10.5	30.0	6.3	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	25.5	17.5	18.5	10.5	25.5	5.5	30.5
Max Q Clear Time (g_c+I1), s	5.8	12.3	9.2	7.9	5.9	10.6	2.9	12.3
Green Ext Time (p_c), s	0.3	5.8	0.9	1.2	0.3	5.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	18	45	161	44	101	127	568	381	156	577	15
Future Volume (veh/h)	9	18	45	161	44	101	127	568	381	156	577	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	20	49	175	48	110	138	617	414	170	627	16
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	137	232	274	261	222	237	2569	797	268	2621	67
Arrive On Green	0.01	0.07	0.07	0.08	0.14	0.14	0.07	0.50	0.50	0.08	0.51	0.51
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	5121	130
Grp Volume(v), veh/h	10	20	49	175	48	110	138	617	414	170	416	227
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1847
Q Serve(g_s), s	0.4	0.7	1.0	3.3	1.5	4.3	2.6	4.6	11.8	3.2	4.6	4.6
Cycle Q Clear(g_c), s	0.4	0.7	1.0	3.3	1.5	4.3	2.6	4.6	11.8	3.2	4.6	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	23	137	232	274	261	222	237	2569	797	268	1742	945
V/C Ratio(X)	0.44	0.15	0.21	0.64	0.18	0.50	0.58	0.24	0.52	0.64	0.24	0.24
Avail Cap(c_a), veh/h	145	513	870	538	652	553	436	2569	797	538	1742	945
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	29.3	29.4	30.1	25.6	26.8	30.5	9.5	11.3	30.2	9.1	9.2
Incr Delay (d2), s/veh	13.0	0.5	0.4	2.5	0.3	1.7	2.3	0.2	2.4	2.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.4	1.4	0.7	1.7	1.1	1.5	4.1	1.4	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	29.7	29.8	32.6	25.9	28.5	32.7	9.7	13.7	32.7	9.5	9.8
LnGrp LOS	D	C	C	C	C	C	C	A	B	C	A	A
Approach Vol, veh/h		79			333			1169			813	
Approach Delay, s/veh		31.9			30.3			13.8			14.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	38.4	9.8	9.4	9.1	39.0	5.4	13.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	32.5	10.5	18.5	8.5	34.5	5.5	23.5
Max Q Clear Time (g_c+I1), s	5.2	13.8	5.3	3.0	4.6	6.6	2.4	6.3
Green Ext Time (p_c), s	0.2	5.7	0.2	0.2	0.1	4.5	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	84	272	358	131	252	191	778	289	186	774	38
Future Volume (veh/h)	22	84	272	358	131	252	191	778	289	186	774	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	91	296	389	142	274	208	846	314	202	841	41
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	233	395	489	451	382	281	2312	718	280	2257	110
Arrive On Green	0.03	0.12	0.12	0.05	0.08	0.08	0.16	0.91	0.91	0.08	0.45	0.45
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	4988	243
Grp Volume(v), veh/h	24	91	296	389	142	274	208	846	314	202	573	309
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1827
Q Serve(g_s), s	1.2	4.0	8.1	10.0	6.5	15.2	5.2	2.1	2.8	5.1	10.0	10.0
Cycle Q Clear(g_c), s	1.2	4.0	8.1	10.0	6.5	15.2	5.2	2.1	2.8	5.1	10.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	45	233	395	489	451	382	281	2312	718	280	1540	827
V/C Ratio(X)	0.54	0.39	0.75	0.80	0.31	0.72	0.74	0.37	0.44	0.72	0.37	0.37
Avail Cap(c_a), veh/h	109	384	652	672	634	537	403	2312	718	403	1540	827
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	36.2	38.0	41.6	34.4	38.4	36.8	2.4	2.5	40.4	16.2	16.2
Incr Delay (d2), s/veh	9.7	1.1	2.9	2.4	0.2	1.4	3.7	0.4	1.7	3.5	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.9	3.3	4.7	3.1	6.6	2.2	0.6	0.9	2.3	3.9	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	37.3	40.9	44.0	34.6	39.8	40.5	2.8	4.2	43.9	16.9	17.5
LnGrp LOS	D	D	D	D	C	D	D	A	A	D	B	B
Approach Vol, veh/h		411			805			1368			1084	
Approach Delay, s/veh		40.8			40.9			8.9			22.1	
Approach LOS		D			D			A			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	45.3	17.2	15.7	11.8	45.2	6.8	26.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	25.5	17.5	18.5	10.5	25.5	5.5	30.5
Max Q Clear Time (g_c+I1), s	7.1	4.8	12.0	10.1	7.2	12.0	3.2	17.2
Green Ext Time (p_c), s	0.2	7.3	0.7	1.1	0.2	4.9	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	18	45	161	44	101	127	573	381	156	595	15
Future Volume (veh/h)	9	18	45	161	44	101	127	573	381	156	595	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	20	49	175	48	110	138	623	414	170	647	16
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	154	261	293	289	245	261	2296	847	277	2328	57
Arrive On Green	0.01	0.08	0.08	0.08	0.15	0.15	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	5125	126
Grp Volume(v), veh/h	10	20	49	175	48	110	138	623	414	170	429	234
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1848
Q Serve(g_s), s	0.3	0.6	0.9	2.9	1.3	3.7	2.3	4.5	9.8	2.8	4.7	4.7
Cycle Q Clear(g_c), s	0.3	0.6	0.9	2.9	1.3	3.7	2.3	4.5	9.8	2.8	4.7	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	23	154	261	293	289	245	261	2296	847	277	1546	839
V/C Ratio(X)	0.44	0.13	0.19	0.60	0.17	0.45	0.53	0.27	0.49	0.61	0.28	0.28
Avail Cap(c_a), veh/h	165	566	960	1076	976	827	494	2296	847	611	1546	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	25.3	25.4	26.2	21.8	22.8	26.5	10.3	8.7	26.4	10.1	10.1
Incr Delay (d2), s/veh	12.7	0.4	0.3	1.9	0.3	1.3	1.7	0.3	2.0	2.2	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	1.2	0.6	1.4	0.9	1.5	3.1	1.2	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	25.7	25.8	28.1	22.1	24.1	28.1	10.5	10.7	28.7	10.6	11.0
LnGrp LOS	D	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		79			333			1175			833	
Approach Delay, s/veh		27.8			25.9			12.7			14.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	31.2	9.5	9.4	9.0	31.5	5.3	13.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	25.0	18.5	18.0	8.5	27.0	5.5	31.0
Max Q Clear Time (g_c+I1), s	4.8	11.8	4.9	2.9	4.3	6.7	2.3	5.7
Green Ext Time (p_c), s	0.2	4.9	0.4	0.2	0.1	4.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	84	272	358	131	252	191	803	289	186	784	38
Future Volume (veh/h)	22	84	272	358	131	252	191	803	289	186	784	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	91	296	389	142	274	208	873	314	202	852	41
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	240	690	519	470	538	309	1902	828	303	1850	89
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.09	0.37	0.37	0.09	0.37	0.37
Sat Flow, veh/h	1781	1870	3170	3456	1870	1585	3456	5106	1585	3456	4992	240
Grp Volume(v), veh/h	24	91	296	389	142	274	208	873	314	202	580	313
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1827
Q Serve(g_s), s	0.9	3.1	5.5	7.4	4.2	9.5	4.0	8.9	8.1	3.9	8.9	8.9
Cycle Q Clear(g_c), s	0.9	3.1	5.5	7.4	4.2	9.5	4.0	8.9	8.1	3.9	8.9	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	48	240	690	519	470	538	309	1902	828	303	1262	677
V/C Ratio(X)	0.50	0.38	0.43	0.75	0.30	0.51	0.67	0.46	0.38	0.67	0.46	0.46
Avail Cap(c_a), veh/h	142	503	1136	879	829	841	527	1902	828	527	1262	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	27.5	23.2	28.0	20.9	18.2	30.3	16.3	9.8	30.4	16.4	16.4
Incr Delay (d2), s/veh	8.0	1.0	0.4	2.2	0.4	0.7	2.5	0.8	1.3	2.5	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.4	2.0	3.1	1.8	3.3	1.7	3.3	2.7	1.7	3.4	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	28.5	23.6	30.2	21.2	18.9	32.9	17.1	11.1	33.0	17.6	18.7
LnGrp LOS	D	C	C	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		411			805			1395			1095	
Approach Delay, s/veh		25.7			24.8			18.1			20.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	30.1	14.8	13.3	10.7	30.0	6.3	21.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	25.5	17.5	18.5	10.5	25.5	5.5	30.5
Max Q Clear Time (g_c+I1), s	5.9	10.9	9.4	7.5	6.0	10.9	2.9	11.5
Green Ext Time (p_c), s	0.3	6.3	0.9	1.3	0.3	5.1	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	5	2	3	11	162	4	166	3	277	148	56
Future Volume (veh/h)	54	5	2	3	11	162	4	166	3	277	148	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	5	2	3	12	176	4	180	3	301	161	61
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	179	71	83	232	223	10	1690	28	358	1704	621
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.47	0.47	0.20	0.67	0.67
Sat Flow, veh/h	1195	1271	508	164	1653	1585	1781	3577	60	1781	2550	930
Grp Volume(v), veh/h	59	0	7	15	0	176	4	89	94	301	110	112
Grp Sat Flow(s),veh/h/ln	1195	0	1779	1817	0	1585	1781	1777	1860	1781	1777	1703
Q Serve(g_s), s	3.3	0.0	0.2	0.0	0.0	7.8	0.2	2.0	2.0	11.8	1.6	1.7
Cycle Q Clear(g_c), s	3.8	0.0	0.2	0.5	0.0	7.8	0.2	2.0	2.0	11.8	1.6	1.7
Prop In Lane	1.00		0.29	0.20		1.00	1.00		0.03	1.00		0.55
Lane Grp Cap(c), veh/h	259	0	250	315	0	223	10	839	879	358	1187	1138
V/C Ratio(X)	0.23	0.00	0.03	0.05	0.00	0.79	0.42	0.11	0.11	0.84	0.09	0.10
Avail Cap(c_a), veh/h	445	0	527	588	0	469	160	839	879	798	1187	1138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	26.9	27.0	0.0	30.2	36.0	10.6	10.6	27.9	4.3	4.3
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	6.2	26.9	0.3	0.2	5.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.1	0.2	0.0	3.2	0.1	0.8	0.8	5.3	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	0.0	27.0	27.1	0.0	36.3	62.9	10.9	10.9	33.2	4.4	4.4
LnGrp LOS	C	A	C	C	A	D	E	B	B	C	A	A
Approach Vol, veh/h		66			191			187			523	
Approach Delay, s/veh		28.9			35.6			12.0			21.0	
Approach LOS		C			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.1	38.8		14.7	4.9	53.0		14.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	22.5		21.5	6.5	48.5		21.5				
Max Q Clear Time (g_c+I1), s	13.8	4.0		5.8	2.2	3.7		9.8				
Green Ext Time (p_c), s	0.8	0.9		0.1	0.0	1.4		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	4	6	2	13	258	2	147	1	107	159	70
Future Volume (veh/h)	109	4	6	2	13	258	2	147	1	107	159	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	4	7	2	14	280	2	160	1	116	173	76
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	131	229	81	375	339	5	1784	11	153	1402	592
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.49	0.49	0.09	0.58	0.58
Sat Flow, veh/h	1085	610	1068	88	1753	1585	1781	3621	23	1781	2435	1027
Grp Volume(v), veh/h	118	0	11	16	0	280	2	78	83	116	124	125
Grp Sat Flow(s),veh/h/ln	1085	0	1678	1841	0	1585	1781	1777	1866	1781	1777	1685
Q Serve(g_s), s	6.3	0.0	0.3	0.0	0.0	11.0	0.1	1.5	1.5	4.1	2.1	2.2
Cycle Q Clear(g_c), s	6.7	0.0	0.3	0.4	0.0	11.0	0.1	1.5	1.5	4.1	2.1	2.2
Prop In Lane	1.00		0.64	0.12		1.00	1.00		0.01	1.00		0.61
Lane Grp Cap(c), veh/h	336	0	359	456	0	339	5	876	920	153	1023	971
V/C Ratio(X)	0.35	0.00	0.03	0.04	0.00	0.83	0.41	0.09	0.09	0.76	0.12	0.13
Avail Cap(c_a), veh/h	628	0	812	941	0	767	205	876	920	561	1023	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	20.2	20.3	0.0	24.4	32.4	8.8	8.8	29.1	6.3	6.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	5.1	47.5	0.2	0.2	7.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.1	0.2	0.0	4.3	0.1	0.6	0.6	2.0	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	20.3	20.3	0.0	29.5	79.9	9.0	9.0	36.6	6.5	6.6
LnGrp LOS	C	A	C	C	A	C	E	A	A	D	A	A
Approach Vol, veh/h		129			296			163			365	
Approach Delay, s/veh		23.3			29.0			9.8			16.1	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	36.6		18.4	4.7	42.0		18.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	20.5	24.5		31.5	7.5	37.5		31.5				
Max Q Clear Time (g_c+I1), s	6.1	3.5		8.7	2.1	4.2		13.0				
Green Ext Time (p_c), s	0.2	0.8		0.5	0.0	1.5		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	5	2	3	11	185	4	166	3	359	148	56
Future Volume (veh/h)	54	5	2	3	11	185	4	166	3	359	148	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	5	2	3	12	201	4	180	3	390	161	61
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	197	79	84	253	245	9	1492	25	447	1690	616
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.42	0.42	0.25	0.66	0.66
Sat Flow, veh/h	1168	1271	508	177	1636	1585	1781	3577	60	1781	2550	930
Grp Volume(v), veh/h	59	0	7	15	0	201	4	89	94	390	110	112
Grp Sat Flow(s),veh/h/ln	1168	0	1779	1812	0	1585	1781	1777	1860	1781	1777	1703
Q Serve(g_s), s	3.5	0.0	0.3	0.0	0.0	9.4	0.2	2.3	2.4	16.0	1.7	1.8
Cycle Q Clear(g_c), s	4.0	0.0	0.3	0.5	0.0	9.4	0.2	2.3	2.4	16.0	1.7	1.8
Prop In Lane	1.00		0.29	0.20		1.00	1.00		0.03	1.00		0.55
Lane Grp Cap(c), veh/h	267	0	275	337	0	245	9	741	776	447	1178	1129
V/C Ratio(X)	0.22	0.00	0.03	0.04	0.00	0.82	0.42	0.12	0.12	0.87	0.09	0.10
Avail Cap(c_a), veh/h	401	0	479	538	0	426	129	741	776	830	1178	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	0.0	27.3	27.4	0.0	31.2	37.8	13.6	13.6	27.4	4.6	4.6
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	6.6	27.1	0.3	0.3	5.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.1	0.2	0.0	3.9	0.1	1.0	1.0	7.1	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	27.4	27.5	0.0	37.8	64.8	14.0	14.0	32.8	4.8	4.8
LnGrp LOS	C	A	C	C	A	D	E	B	B	C	A	A
Approach Vol, veh/h		66			216			187			612	
Approach Delay, s/veh		29.3			37.1			15.0			22.6	
Approach LOS		C			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.6	36.3		16.3	4.9	55.0		16.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	20.5		20.5	5.5	50.5		20.5				
Max Q Clear Time (g_c+I1), s	8.0	4.4		6.0	2.2	3.8		11.4				
Green Ext Time (p_c), s	1.1	0.8		0.1	0.0	1.4		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			24.6									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	4	6	2	13	374	2	147	1	156	159	70
Future Volume (veh/h)	109	4	6	2	13	374	2	147	1	156	159	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	4	7	2	14	407	2	160	1	170	173	76
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	177	311	89	501	461	5	1452	9	216	1265	534
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.00	0.40	0.40	0.12	0.52	0.52
Sat Flow, veh/h	966	610	1068	112	1722	1585	1781	3621	23	1781	2435	1027
Grp Volume(v), veh/h	118	0	11	16	0	407	2	78	83	170	124	125
Grp Sat Flow(s),veh/h/ln	966	0	1678	1833	0	1585	1781	1777	1866	1781	1777	1685
Q Serve(g_s), s	7.2	0.0	0.3	0.0	0.0	17.7	0.1	2.0	2.0	6.7	2.6	2.8
Cycle Q Clear(g_c), s	7.6	0.0	0.3	0.4	0.0	17.7	0.1	2.0	2.0	6.7	2.6	2.8
Prop In Lane	1.00		0.64	0.12		1.00	1.00		0.01	1.00		0.61
Lane Grp Cap(c), veh/h	375	0	488	589	0	461	5	713	748	216	923	876
V/C Ratio(X)	0.31	0.00	0.02	0.03	0.00	0.88	0.41	0.11	0.11	0.79	0.13	0.14
Avail Cap(c_a), veh/h	529	0	756	875	0	714	160	713	748	531	923	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	18.3	18.3	0.0	24.4	35.9	13.5	13.5	30.8	9.0	9.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	8.3	47.7	0.3	0.3	6.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.1	0.2	0.0	7.3	0.1	0.8	0.9	3.1	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	0.0	18.3	18.3	0.0	32.7	83.6	13.9	13.8	37.1	9.3	9.3
LnGrp LOS	C	A	B	B	A	C	F	B	B	D	A	A
Approach Vol, veh/h		129			423			163			419	
Approach Delay, s/veh		21.2			32.2			14.7			20.6	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	33.5		25.5	4.7	42.0		25.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	22.5		32.5	6.5	37.5		32.5				
Max Q Clear Time (g_c+I1), s	9.7	4.0		9.6	2.1	4.8		19.7				
Green Ext Time (p_c), s	0.4	0.7		0.6	0.0	1.5		1.3				

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	5	2	3	11	167	4	171	3	285	152	58
Future Volume (veh/h)	56	5	2	3	11	167	4	171	3	285	152	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	5	2	3	12	182	4	186	3	310	165	63
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	183	73	83	238	229	10	1662	27	367	1692	622
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.46	0.46	0.21	0.67	0.67
Sat Flow, veh/h	1189	1271	508	167	1649	1585	1781	3579	58	1781	2543	935
Grp Volume(v), veh/h	61	0	7	15	0	182	4	92	97	310	113	115
Grp Sat Flow(s),veh/h/ln	1189	0	1779	1816	0	1585	1781	1777	1860	1781	1777	1702
Q Serve(g_s), s	3.4	0.0	0.2	0.0	0.0	8.1	0.2	2.1	2.1	12.2	1.7	1.8
Cycle Q Clear(g_c), s	3.9	0.0	0.2	0.5	0.0	8.1	0.2	2.1	2.1	12.2	1.7	1.8
Prop In Lane	1.00		0.29	0.20		1.00	1.00		0.03	1.00		0.55
Lane Grp Cap(c), veh/h	262	0	257	321	0	229	10	825	864	367	1182	1132
V/C Ratio(X)	0.23	0.00	0.03	0.05	0.00	0.80	0.42	0.11	0.11	0.84	0.10	0.10
Avail Cap(c_a), veh/h	441	0	525	586	0	467	159	825	864	794	1182	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	26.8	26.9	0.0	30.2	36.1	11.0	11.0	27.8	4.4	4.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	6.2	26.9	0.3	0.3	5.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.1	0.2	0.0	3.4	0.1	0.8	0.9	5.5	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	0.0	26.8	27.0	0.0	36.4	63.1	11.3	11.3	33.1	4.5	4.6
LnGrp LOS	C	A	C	C	A	D	E	B	B	C	A	A
Approach Vol, veh/h		68			197			193			538	
Approach Delay, s/veh		28.8			35.7			12.4			21.0	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.5	38.4		15.0	4.9	53.0		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	32.5	22.5		21.5	6.5	48.5		21.5				
Max Q Clear Time (g_c+I1), s	14.2	4.1		5.9	2.2	3.8		10.1				
Green Ext Time (p_c), s	0.9	0.9		0.1	0.0	1.4		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	4	6	2	13	266	2	151	1	110	164	72
Future Volume (veh/h)	112	4	6	2	13	266	2	151	1	110	164	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	4	7	2	14	289	2	164	1	120	178	78
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	297	127	223	67	361	331	5	2014	12	152	1556	655
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.56	0.56	0.14	1.00	1.00
Sat Flow, veh/h	1076	610	1068	105	1731	1585	1781	3621	22	1781	2437	1026
Grp Volume(v), veh/h	122	0	11	16	0	289	2	80	85	120	128	128
Grp Sat Flow(s),veh/h/ln	1076	0	1678	1835	0	1585	1781	1777	1866	1781	1777	1686
Q Serve(g_s), s	9.2	0.0	0.5	0.0	0.0	15.9	0.1	1.9	1.9	5.9	0.0	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.5	0.6	0.0	15.9	0.1	1.9	1.9	5.9	0.0	0.0
Prop In Lane	1.00		0.64	0.12		1.00	1.00		0.01	1.00		0.61
Lane Grp Cap(c), veh/h	297	0	350	428	0	331	5	988	1038	152	1135	1077
V/C Ratio(X)	0.41	0.00	0.03	0.04	0.00	0.87	0.41	0.08	0.08	0.79	0.11	0.12
Avail Cap(c_a), veh/h	449	0	587	682	0	555	148	988	1038	406	1135	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	32.3	0.0	28.4	28.4	0.0	34.5	44.8	9.3	9.3	37.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	8.2	48.2	0.2	0.2	8.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.2	0.3	0.0	6.7	0.1	0.7	0.8	2.8	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	0.0	28.4	28.5	0.0	42.7	93.0	9.4	9.4	46.5	0.2	0.2
LnGrp LOS	C	A	C	C	A	D	F	A	A	D	A	A
Approach Vol, veh/h		133			305			167			376	
Approach Delay, s/veh		32.8			41.9			10.4			15.0	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	54.5		23.3	4.7	62.0		23.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	24.5		31.5	7.5	37.5		31.5				
Max Q Clear Time (g_c+I1), s	7.9	3.9		11.8	2.1	2.0		17.9				
Green Ext Time (p_c), s	0.2	0.8		0.5	0.0	1.6		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	5	2	3	11	190	4	171	3	367	152	58
Future Volume (veh/h)	56	5	2	3	11	190	4	171	3	367	152	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	5	2	3	12	207	4	186	3	399	165	63
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	200	80	84	257	250	9	1479	24	455	1687	620
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.01	0.41	0.41	0.26	0.66	0.66
Sat Flow, veh/h	1162	1271	508	180	1631	1585	1781	3579	58	1781	2543	935
Grp Volume(v), veh/h	61	0	7	15	0	207	4	92	97	399	113	115
Grp Sat Flow(s),veh/h/ln	1162	0	1779	1811	0	1585	1781	1777	1860	1781	1777	1702
Q Serve(g_s), s	3.7	0.0	0.3	0.0	0.0	9.8	0.2	2.5	2.5	16.7	1.8	1.9
Cycle Q Clear(g_c), s	4.2	0.0	0.3	0.5	0.0	9.8	0.2	2.5	2.5	16.7	1.8	1.9
Prop In Lane	1.00		0.29	0.20		1.00	1.00		0.03	1.00		0.55
Lane Grp Cap(c), veh/h	268	0	280	341	0	250	9	734	768	455	1178	1129
V/C Ratio(X)	0.23	0.00	0.02	0.04	0.00	0.83	0.42	0.13	0.13	0.88	0.10	0.10
Avail Cap(c_a), veh/h	377	0	447	505	0	398	126	734	768	814	1178	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	27.7	27.8	0.0	31.7	38.5	14.1	14.1	27.7	4.7	4.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	7.8	27.1	0.4	0.3	5.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.1	0.2	0.0	4.2	0.1	1.0	1.1	7.5	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	27.7	27.8	0.0	39.5	65.6	14.5	14.4	33.3	4.9	4.9
LnGrp LOS	C	A	C	C	A	D	E	B	B	C	A	A
Approach Vol, veh/h		68			222			193			627	
Approach Delay, s/veh		29.7			38.7			15.5			22.9	
Approach LOS		C			D			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.3	36.6		16.7	4.9	56.0		16.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	35.5	21.5		19.5	5.5	51.5		19.5				
Max Q Clear Time (g_c+I1), s	11.8	4.5		6.2	2.2	3.9		11.8				
Green Ext Time (p_c), s	1.2	0.9		0.1	0.0	1.5		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	4	6	2	13	382	2	151	1	159	164	72
Future Volume (veh/h)	112	4	6	2	13	382	2	151	1	159	164	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	4	7	2	14	415	2	164	1	173	178	78
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	377	180	316	89	508	468	5	1433	9	219	1257	529
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.00	0.40	0.40	0.12	0.52	0.52
Sat Flow, veh/h	959	610	1068	113	1720	1585	1781	3621	22	1781	2437	1026
Grp Volume(v), veh/h	122	0	11	16	0	415	2	80	85	173	128	128
Grp Sat Flow(s),veh/h/ln	959	0	1678	1833	0	1585	1781	1777	1866	1781	1777	1686
Q Serve(g_s), s	7.5	0.0	0.3	0.0	0.0	18.2	0.1	2.1	2.1	6.9	2.7	2.9
Cycle Q Clear(g_c), s	8.0	0.0	0.3	0.4	0.0	18.2	0.1	2.1	2.1	6.9	2.7	2.9
Prop In Lane	1.00		0.64	0.12		1.00	1.00		0.01	1.00		0.61
Lane Grp Cap(c), veh/h	377	0	496	597	0	468	5	703	739	219	917	870
V/C Ratio(X)	0.32	0.00	0.02	0.03	0.00	0.89	0.41	0.11	0.11	0.79	0.14	0.15
Avail Cap(c_a), veh/h	522	0	751	870	0	709	159	703	739	527	917	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	18.2	18.2	0.0	24.4	36.2	13.9	13.9	31.0	9.2	9.2
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	8.9	47.7	0.3	0.3	6.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.1	0.2	0.0	7.5	0.1	0.8	0.9	3.2	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	0.0	18.2	18.2	0.0	33.3	83.9	14.2	14.2	37.2	9.5	9.6
LnGrp LOS	C	A	B	B	A	C	F	B	B	D	A	A
Approach Vol, veh/h		133			431			167			429	
Approach Delay, s/veh		21.2			32.8			15.0			20.7	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	33.3		26.0	4.7	42.0		26.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	21.5	22.5		32.5	6.5	37.5		32.5				
Max Q Clear Time (g_c+I1), s	8.9	4.1		10.0	2.1	4.9		20.2				
Green Ext Time (p_c), s	0.4	0.8		0.6	0.0	1.6		1.3				

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	477	247	419	388	73	257	494	443	108	501	40
Future Volume (veh/h)	19	477	247	419	388	73	257	494	443	108	501	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	518	268	455	422	79	279	537	482	117	545	43
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	693	309	534	978	182	418	1764	787	307	1764	787
Arrive On Green	0.02	0.20	0.20	0.15	0.33	0.33	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1781	3554	1585	3456	2991	556	828	3554	1585	553	3554	1585
Grp Volume(v), veh/h	21	518	268	455	249	252	279	537	482	117	545	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1770	828	1777	1585	553	1777	1585
Q Serve(g_s), s	1.0	12.1	14.4	11.3	9.6	9.8	26.5	7.9	19.3	14.0	8.0	1.2
Cycle Q Clear(g_c), s	1.0	12.1	14.4	11.3	9.6	9.8	34.6	7.9	19.3	21.8	8.0	1.2
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	41	693	309	534	581	579	418	1764	787	307	1764	787
V/C Ratio(X)	0.52	0.75	0.87	0.85	0.43	0.43	0.67	0.30	0.61	0.38	0.31	0.05
Avail Cap(c_a), veh/h	108	728	325	586	581	579	418	1764	787	307	1764	787
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	33.3	34.2	36.1	23.1	23.2	23.4	13.1	16.0	19.6	13.1	11.4
Incr Delay (d2), s/veh	9.8	4.0	20.4	10.8	0.5	0.5	8.2	0.4	3.5	3.6	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.5	7.2	5.4	4.0	4.1	5.8	3.1	7.3	2.0	3.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	37.3	54.7	46.9	23.6	23.7	31.6	13.6	19.5	23.1	13.6	11.6
LnGrp LOS	D	D	D	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		807			956			1298			705	
Approach Delay, s/veh		43.5			34.7			19.7			15.1	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.1	18.1	21.6		48.1	6.5	33.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		43.6	14.9	18.0		43.6	5.3	27.6				
Max Q Clear Time (g_c+I1), s		36.6	13.3	16.4		23.8	3.0	11.8				
Green Ext Time (p_c), s		4.0	0.3	0.8		5.1	0.0	2.7				

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	551	298	429	902	119	268	490	487	86	203	24
Future Volume (veh/h)	66	551	298	429	902	119	268	490	487	86	203	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	599	324	466	980	129	291	533	529	93	221	26
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	892	398	561	1140	150	525	1511	674	258	1511	674
Arrive On Green	0.05	0.25	0.25	0.16	0.36	0.36	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1781	3554	1585	3456	3157	415	1133	3554	1585	531	3554	1585
Grp Volume(v), veh/h	72	599	324	466	551	558	291	533	529	93	221	26
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1796	1133	1777	1585	531	1777	1585
Q Serve(g_s), s	3.3	12.7	16.1	10.9	24.0	24.0	17.7	8.5	24.1	12.0	3.2	0.8
Cycle Q Clear(g_c), s	3.3	12.7	16.1	10.9	24.0	24.0	20.9	8.5	24.1	20.5	3.2	0.8
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	892	398	561	642	649	525	1511	674	258	1511	674
V/C Ratio(X)	0.78	0.67	0.81	0.83	0.86	0.86	0.55	0.35	0.79	0.36	0.15	0.04
Avail Cap(c_a), veh/h	160	1043	465	683	713	720	525	1511	674	258	1511	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	28.2	29.4	33.9	24.7	24.7	21.1	16.2	20.7	23.2	14.7	14.0
Incr Delay (d2), s/veh	12.9	1.4	9.4	7.2	9.6	9.5	4.2	0.6	8.9	3.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.4	6.9	5.0	11.3	11.4	5.0	3.4	10.0	1.7	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	29.5	38.8	41.1	34.3	34.3	25.3	16.9	29.7	27.0	14.9	14.1
LnGrp LOS	D	C	D	D	C	C	C	B	C	C	B	B
Approach Vol, veh/h		995			1575			1353			340	
Approach Delay, s/veh		34.2			36.3			23.7			18.2	
Approach LOS		C			D			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		40.0	18.1	25.5		40.0	8.8	34.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	16.5	24.5		35.5	7.5	33.5				
Max Q Clear Time (g_c+I1), s		26.1	12.9	18.1		22.5	5.3	26.0				
Green Ext Time (p_c), s		4.8	0.6	2.8		2.0	0.0	4.1				

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	477	247	425	388	73	257	494	444	108	501	40
Future Volume (veh/h)	19	477	247	425	388	73	257	494	444	108	501	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	518	268	462	422	79	279	537	483	117	545	43
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	694	310	543	986	183	415	1753	782	305	1753	782
Arrive On Green	0.02	0.20	0.20	0.16	0.33	0.33	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1781	3554	1585	3456	2991	556	828	3554	1585	553	3554	1585
Grp Volume(v), veh/h	21	518	268	462	249	252	279	537	483	117	545	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1770	828	1777	1585	553	1777	1585
Q Serve(g_s), s	1.0	12.0	14.3	11.4	9.6	9.7	26.6	7.9	19.4	14.0	8.0	1.2
Cycle Q Clear(g_c), s	1.0	12.0	14.3	11.4	9.6	9.7	34.7	7.9	19.4	21.9	8.0	1.2
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	41	694	310	543	586	584	415	1753	782	305	1753	782
V/C Ratio(X)	0.52	0.75	0.87	0.85	0.43	0.43	0.67	0.31	0.62	0.38	0.31	0.05
Avail Cap(c_a), veh/h	108	730	326	604	586	584	415	1753	782	305	1753	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	33.2	34.1	35.9	22.9	22.9	23.7	13.2	16.2	19.8	13.3	11.6
Incr Delay (d2), s/veh	9.8	4.0	20.2	10.3	0.5	0.5	8.4	0.5	3.6	3.6	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.4	7.1	5.5	4.0	4.0	5.9	3.1	7.3	2.0	3.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	37.2	54.3	46.2	23.4	23.4	32.1	13.7	19.8	23.4	13.7	11.7
LnGrp LOS	D	D	D	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		807			963			1299			705	
Approach Delay, s/veh		43.3			34.4			19.9			15.2	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		47.7	18.3	21.6		47.7	6.5	33.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		43.2	15.3	18.0		43.2	5.3	28.0				
Max Q Clear Time (g_c+I1), s		36.7	13.4	16.3		23.9	3.0	11.7				
Green Ext Time (p_c), s		3.8	0.4	0.8		5.1	0.0	2.7				

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	551	298	432	902	119	268	490	495	86	203	24
Future Volume (veh/h)	66	551	298	432	902	119	268	490	495	86	203	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	599	324	470	980	129	291	533	538	93	221	26
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	889	396	564	1141	150	524	1510	674	257	1510	674
Arrive On Green	0.05	0.25	0.25	0.16	0.36	0.36	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1781	3554	1585	3456	3157	415	1133	3554	1585	527	3554	1585
Grp Volume(v), veh/h	72	599	324	470	551	558	291	533	538	93	221	26
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1796	1133	1777	1585	527	1777	1585
Q Serve(g_s), s	3.3	12.7	16.1	11.0	24.0	24.0	17.7	8.5	24.7	12.1	3.2	0.8
Cycle Q Clear(g_c), s	3.3	12.7	16.1	11.0	24.0	24.0	20.9	8.5	24.7	20.6	3.2	0.8
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	889	396	564	642	649	524	1510	674	257	1510	674
V/C Ratio(X)	0.78	0.67	0.82	0.83	0.86	0.86	0.55	0.35	0.80	0.36	0.15	0.04
Avail Cap(c_a), veh/h	160	1042	465	683	713	720	524	1510	674	257	1510	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	28.3	29.5	33.8	24.7	24.7	21.1	16.2	20.9	23.2	14.7	14.0
Incr Delay (d2), s/veh	12.9	1.4	9.6	7.4	9.6	9.5	4.2	0.6	9.6	3.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.4	7.0	5.1	11.2	11.4	5.1	3.4	10.3	1.7	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	29.6	39.1	41.2	34.3	34.2	25.3	16.9	30.5	27.1	14.9	14.1
LnGrp LOS	D	C	D	D	C	C	C	B	C	C	B	B
Approach Vol, veh/h		995			1579			1362			340	
Approach Delay, s/veh		34.3			36.3			24.1			18.2	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	40.0	18.1	25.4	40.0	8.9	34.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	16.5	24.5	35.5	7.5	33.5
Max Q Clear Time (g_c+I1), s	26.7	13.0	18.1	22.6	5.3	26.0
Green Ext Time (p_c), s	4.6	0.6	2.8	2.0	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	491	254	432	400	75	265	509	456	111	516	41
Future Volume (veh/h)	20	491	254	432	400	75	265	509	456	111	516	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	534	276	470	435	82	288	553	496	121	561	45
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	698	311	521	966	181	413	1785	796	301	1785	796
Arrive On Green	0.02	0.20	0.20	0.15	0.32	0.32	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1781	3554	1585	3456	2987	559	814	3554	1585	538	3554	1585
Grp Volume(v), veh/h	22	534	276	470	257	260	288	553	496	121	561	45
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1770	814	1777	1585	538	1777	1585
Q Serve(g_s), s	1.1	12.7	15.2	12.0	10.3	10.4	29.0	8.2	20.3	15.3	8.4	1.3
Cycle Q Clear(g_c), s	1.1	12.7	15.2	12.0	10.3	10.4	37.3	8.2	20.3	23.5	8.4	1.3
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	42	698	311	521	575	572	413	1785	796	301	1785	796
V/C Ratio(X)	0.52	0.77	0.89	0.90	0.45	0.45	0.70	0.31	0.62	0.40	0.31	0.06
Avail Cap(c_a), veh/h	107	714	318	521	575	572	413	1785	796	301	1785	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	34.0	35.0	37.4	24.0	24.0	24.2	13.1	16.1	20.1	13.2	11.4
Incr Delay (d2), s/veh	9.8	4.9	24.3	18.9	0.5	0.6	9.4	0.5	3.7	4.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.8	7.8	6.3	4.3	4.3	6.3	3.2	7.7	2.2	3.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	38.9	59.3	56.3	24.5	24.6	33.6	13.6	19.8	24.0	13.6	11.6
LnGrp LOS	D	D	E	E	C	C	C	B	B	C	B	B
Approach Vol, veh/h		832			987			1337			727	
Approach Delay, s/veh		46.1			39.7			20.2			15.2	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	49.5	18.0	22.1	49.5	6.6	33.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	45.0	13.5	18.0	45.0	5.4	26.1
Max Q Clear Time (g_c+I1), s	39.3	14.0	17.2	25.5	3.1	12.4
Green Ext Time (p_c), s	3.5	0.0	0.4	5.3	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	568	307	442	929	123	276	505	502	88	209	25
Future Volume (veh/h)	68	568	307	442	929	123	276	505	502	88	209	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	617	334	480	1010	134	300	549	546	96	227	27
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	890	397	563	1136	151	528	1552	692	276	1552	692
Arrive On Green	0.11	0.50	0.50	0.16	0.36	0.36	0.73	0.73	0.73	0.44	0.44	0.44
Sat Flow, veh/h	1781	3554	1585	3456	3154	418	1126	3554	1585	515	3554	1585
Grp Volume(v), veh/h	74	617	334	480	569	575	300	549	546	96	227	27
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1795	1126	1777	1585	515	1777	1585
Q Serve(g_s), s	3.6	12.0	16.4	12.2	27.1	27.2	14.5	5.1	19.7	12.8	3.5	0.9
Cycle Q Clear(g_c), s	3.6	12.0	16.4	12.2	27.1	27.2	17.9	5.1	19.7	17.8	3.5	0.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	890	397	563	640	646	528	1552	692	276	1552	692
V/C Ratio(X)	0.78	0.69	0.84	0.85	0.89	0.89	0.57	0.35	0.79	0.35	0.15	0.04
Avail Cap(c_a), veh/h	148	999	446	641	681	688	528	1552	692	276	1552	692
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	0.38	0.38	0.38	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	19.8	20.9	36.6	27.1	27.1	10.3	7.5	9.5	21.2	15.2	14.5
Incr Delay (d2), s/veh	11.7	1.6	11.2	9.8	13.2	13.2	1.7	0.2	3.6	3.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.9	5.3	5.8	13.3	13.5	2.3	1.6	4.2	1.8	1.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	21.4	32.1	46.4	40.3	40.3	12.0	7.8	13.1	24.7	15.4	14.6
LnGrp LOS	D	C	C	D	D	D	B	A	B	C	B	B
Approach Vol, veh/h		1025			1624			1395			350	
Approach Delay, s/veh		27.1			42.1			10.8			17.9	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	43.8	19.2	27.0	43.8	9.3	36.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	34.5	16.7	25.3	34.5	7.5	34.5
Max Q Clear Time (g_c+I1), s	21.7	14.2	18.4	19.8	5.6	29.2
Green Ext Time (p_c), s	5.9	0.5	3.0	2.3	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	491	254	438	400	75	265	509	457	111	516	41
Future Volume (veh/h)	20	491	254	438	400	75	265	509	457	111	516	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	534	276	476	435	82	288	553	497	121	561	45
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	699	312	547	990	185	405	1754	1033	296	1754	782
Arrive On Green	0.02	0.20	0.20	0.16	0.33	0.33	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1781	3554	1585	3456	2987	559	814	3554	1585	537	3554	1585
Grp Volume(v), veh/h	22	534	276	476	257	260	288	553	497	121	561	45
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1770	814	1777	1585	537	1777	1585
Q Serve(g_s), s	1.1	12.7	15.1	12.0	10.1	10.2	29.3	8.3	14.2	15.5	8.5	1.3
Cycle Q Clear(g_c), s	1.1	12.7	15.1	12.0	10.1	10.2	37.8	8.3	14.2	23.9	8.5	1.3
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	42	699	312	547	589	587	405	1754	1033	296	1754	782
V/C Ratio(X)	0.52	0.76	0.88	0.87	0.44	0.44	0.71	0.32	0.48	0.41	0.32	0.06
Avail Cap(c_a), veh/h	108	718	320	562	589	587	405	1754	1033	296	1754	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	33.8	34.8	36.6	23.3	23.3	24.9	13.5	7.9	20.7	13.6	11.8
Incr Delay (d2), s/veh	9.8	4.8	23.8	13.7	0.5	0.5	10.1	0.5	1.6	4.1	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.8	7.8	6.0	4.2	4.2	6.5	3.3	4.6	2.2	3.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	38.6	58.6	50.3	23.8	23.9	35.1	14.0	9.5	24.8	14.1	11.9
LnGrp LOS	D	D	E	D	C	C	D	B	A	C	B	B
Approach Vol, veh/h		832			993			1338			727	
Approach Delay, s/veh		45.6			36.5			16.9			15.7	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	48.5	18.6	22.0	48.5	6.6	34.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	44.0	14.5	18.0	44.0	5.4	27.1
Max Q Clear Time (g_c+I1), s	39.8	14.0	17.1	25.9	3.1	12.2
Green Ext Time (p_c), s	2.7	0.1	0.4	5.1	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	568	307	445	929	123	276	505	510	88	209	25
Future Volume (veh/h)	68	568	307	445	929	123	276	505	510	88	209	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	617	334	484	1010	134	300	549	554	96	227	27
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	848	614	573	1107	147	554	1151	776	291	831	370
Arrive On Green	0.05	0.24	0.24	0.17	0.35	0.35	0.15	0.32	0.32	0.06	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	3456	3154	418	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	74	617	334	484	569	575	300	549	554	96	227	27
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1795	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.5	13.5	13.8	11.5	25.8	25.8	10.1	10.4	23.1	3.4	4.4	1.1
Cycle Q Clear(g_c), s	3.5	13.5	13.8	11.5	25.8	25.8	10.1	10.4	23.1	3.4	4.4	1.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	848	614	573	624	630	554	1151	776	291	831	370
V/C Ratio(X)	0.78	0.73	0.54	0.85	0.91	0.91	0.54	0.48	0.71	0.33	0.27	0.07
Avail Cap(c_a), veh/h	112	848	614	656	643	650	638	1151	776	410	831	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	29.6	20.1	34.1	26.1	26.1	18.2	22.8	16.9	22.4	26.4	25.2
Incr Delay (d2), s/veh	25.0	3.2	1.0	9.0	17.1	17.1	0.8	1.4	5.5	0.7	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.0	5.0	5.4	13.3	13.4	4.1	4.4	8.9	1.4	1.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	32.7	21.1	43.1	43.2	43.2	19.1	24.2	22.4	23.1	27.3	25.6
LnGrp LOS	E	C	C	D	D	D	B	C	C	C	C	C
Approach Vol, veh/h		1025			1628			1403			350	
Approach Delay, s/veh		31.2			43.2			22.4			26.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	31.8	18.5	24.6	17.0	24.2	9.0	34.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	25.7	16.0	19.8	16.5	19.7	5.3	30.5
Max Q Clear Time (g_c+I1), s	5.4	25.1	13.5	15.8	12.1	6.4	5.5	27.8
Green Ext Time (p_c), s	0.1	0.4	0.5	2.0	0.4	1.2	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	67	3	373	15	497	0	0	654	439
Future Volume (veh/h)	0	0	0	67	3	373	15	497	0	0	654	439
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				73	3	0	16	540	0	0	711	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				98	4		33	1577	0	0	1449	
Arrive On Green				0.06	0.06	0.00	0.04	1.00	0.00	0.00	0.77	0.00
Sat Flow, veh/h				1714	70	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				76	0	0	16	540	0	0	711	0
Grp Sat Flow(s),veh/h/ln				1785	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				3.8	0.0	0.0	0.8	0.0	0.0	0.0	12.4	0.0
Cycle Q Clear(g_c), s				3.8	0.0	0.0	0.8	0.0	0.0	0.0	12.4	0.0
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				102	0		33	1577	0	0	1449	
V/C Ratio(X)				0.75	0.00		0.49	0.34	0.00	0.00	0.49	
Avail Cap(c_a), veh/h				407	0		101	1577	0	0	1449	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.47	0.47	0.00	0.00	0.82	0.00
Uniform Delay (d), s/veh				41.8	0.0	0.0	42.9	0.0	0.0	0.0	3.7	0.0
Incr Delay (d2), s/veh				10.4	0.0	0.0	5.3	0.3	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.9	0.0	0.0	0.4	0.1	0.0	0.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				52.2	0.0	0.0	48.2	0.3	0.0	0.0	4.7	0.0
LnGrp LOS				D	A		D	A	A	A	A	
Approach Vol, veh/h					76	A		556			711	A
Approach Delay, s/veh					52.2			1.7			4.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	80.4			6.1	74.2		9.6					
Change Period (Y+Rc), s	4.5			4.5	4.5		4.5					
Max Green Setting (Gmax), s	60.5			5.1	50.9		20.5					
Max Q Clear Time (g_c+I1), s	2.0			2.8	14.4		5.8					
Green Ext Time (p_c), s	4.1			0.0	5.9		0.2					

Intersection Summary												
HCM 6th Ctrl Delay			6.1									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	91	2	663	42	600	0	0	552	396
Future Volume (veh/h)	0	0	0	91	2	663	42	600	0	0	552	396
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				99	2	0	46	652	0	0	600	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				134	3		68	1540	0	0	1375	
Arrive On Green				0.08	0.08	0.00	0.08	1.00	0.00	0.00	0.74	0.00
Sat Flow, veh/h				1748	35	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				101	0	0	46	652	0	0	600	0
Grp Sat Flow(s),veh/h/ln				1783	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				5.0	0.0	0.0	2.3	0.0	0.0	0.0	11.3	0.0
Cycle Q Clear(g_c), s				5.0	0.0	0.0	2.3	0.0	0.0	0.0	11.3	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				137	0		68	1540	0	0	1375	
V/C Ratio(X)				0.74	0.00		0.68	0.42	0.00	0.00	0.44	
Avail Cap(c_a), veh/h				703	0		101	1540	0	0	1375	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.43	0.43	0.00	0.00	0.82	0.00
Uniform Delay (d), s/veh				40.7	0.0	0.0	41.1	0.0	0.0	0.0	4.6	0.0
Incr Delay (d2), s/veh				7.5	0.0	0.0	5.1	0.4	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	0.0	0.0	1.1	0.2	0.0	0.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				48.2	0.0	0.0	46.1	0.4	0.0	0.0	5.5	0.0
LnGrp LOS				D	A		D	A	A	A	A	
Approach Vol, veh/h					101	A		698			600	A
Approach Delay, s/veh					48.2			3.4			5.5	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	78.6			7.9	70.7		11.4					
Change Period (Y+Rc), s	4.5			4.5	4.5		4.5					
Max Green Setting (Gmax), s	45.5			5.1	35.9		35.5					
Max Q Clear Time (g_c+I1), s	2.0			4.3	13.3		7.0					
Green Ext Time (p_c), s	5.3			0.0	4.2		0.5					

Intersection Summary												
HCM 6th Ctrl Delay			7.5									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	96	3	373	15	498	0	0	660	439
Future Volume (veh/h)	0	0	0	96	3	373	15	498	0	0	660	439
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				104	3	0	16	541	0	0	717	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				139	4		600	1533	0	0	1533	
Arrive On Green				0.08	0.08	0.00	1.00	1.00	0.00	0.00	0.82	0.00
Sat Flow, veh/h				1734	50	1585	734	1870	0	0	1870	1585
Grp Volume(v), veh/h				107	0	0	16	541	0	0	717	0
Grp Sat Flow(s),veh/h/ln				1784	0	1585	734	1870	0	0	1870	1585
Q Serve(g_s), s				5.3	0.0	0.0	0.3	0.0	0.0	0.0	10.1	0.0
Cycle Q Clear(g_c), s				5.3	0.0	0.0	10.4	0.0	0.0	0.0	10.1	0.0
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				143	0		600	1533	0	0	1533	
V/C Ratio(X)				0.75	0.00		0.03	0.35	0.00	0.00	0.47	
Avail Cap(c_a), veh/h				511	0		600	1533	0	0	1533	
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.45	0.45	0.00	0.00	0.82	0.00
Uniform Delay (d), s/veh				40.5	0.0	0.0	0.7	0.0	0.0	0.0	2.4	0.0
Incr Delay (d2), s/veh				7.6	0.0	0.0	0.0	0.3	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.6	0.0	0.0	0.0	0.1	0.0	0.0	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				48.1	0.0	0.0	0.7	0.3	0.0	0.0	3.2	0.0
LnGrp LOS				D	A		A	A	A	A	A	
Approach Vol, veh/h					107	A		557			717	A
Approach Delay, s/veh					48.1			0.3			3.2	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	78.3			78.3		11.7						
Change Period (Y+Rc), s	4.5			4.5		4.5						
Max Green Setting (Gmax), s	55.2			55.2		25.8						
Max Q Clear Time (g_c+I1), s	12.4			12.1		7.3						
Green Ext Time (p_c), s	4.2			6.1		0.5						

Intersection Summary			
HCM 6th Ctrl Delay		5.5	
HCM 6th LOS		A	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	109	2	663	42	608	0	0	555	396
Future Volume (veh/h)	0	0	0	109	2	663	42	608	0	0	555	396
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				118	2	0	46	661	0	0	603	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				158	3		68	1514	0	0	1350	
Arrive On Green				0.09	0.09	0.00	0.08	1.00	0.00	0.00	0.72	0.00
Sat Flow, veh/h				1753	30	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				120	0	0	46	661	0	0	603	0
Grp Sat Flow(s),veh/h/ln				1783	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				5.9	0.0	0.0	2.3	0.0	0.0	0.0	11.9	0.0
Cycle Q Clear(g_c), s				5.9	0.0	0.0	2.3	0.0	0.0	0.0	11.9	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				161	0		68	1514	0	0	1350	
V/C Ratio(X)				0.75	0.00		0.68	0.44	0.00	0.00	0.45	
Avail Cap(c_a), veh/h				703	0		101	1514	0	0	1350	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.41	0.41	0.00	0.00	0.81	0.00
Uniform Delay (d), s/veh				39.9	0.0	0.0	41.1	0.0	0.0	0.0	5.1	0.0
Incr Delay (d2), s/veh				6.7	0.0	0.0	4.9	0.4	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.9	0.0	0.0	1.0	0.2	0.0	0.0	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				46.6	0.0	0.0	45.9	0.4	0.0	0.0	6.0	0.0
LnGrp LOS				D	A		D	A	A	A	A	
Approach Vol, veh/h					120	A		707			603	A
Approach Delay, s/veh					46.6			3.3			6.0	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	77.4			7.9	69.5		12.6					
Change Period (Y+Rc), s	4.5			4.5	4.5		4.5					
Max Green Setting (Gmax), s	45.5			5.1	35.9		35.5					
Max Q Clear Time (g_c+I1), s	2.0			4.3	13.9		7.9					
Green Ext Time (p_c), s	5.4			0.0	4.2		0.6					

Intersection Summary												
HCM 6th Ctrl Delay			8.1									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	3	384	15	512	0	0	674	452
Future Volume (veh/h)	0	0	0	69	3	384	15	512	0	0	674	452
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				75	3	0	16	557	0	0	733	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				100	4		32	1593	0	0	1475	
Arrive On Green				0.06	0.06	0.00	0.02	0.85	0.00	0.00	0.79	0.00
Sat Flow, veh/h				1716	69	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				78	0	0	16	557	0	0	733	0
Grp Sat Flow(s),veh/h/ln				1785	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				4.3	0.0	0.0	0.9	6.3	0.0	0.0	13.6	0.0
Cycle Q Clear(g_c), s				4.3	0.0	0.0	0.9	6.3	0.0	0.0	13.6	0.0
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				104	0		32	1593	0	0	1475	
V/C Ratio(X)				0.75	0.00		0.50	0.35	0.00	0.00	0.50	
Avail Cap(c_a), veh/h				455	0		89	1593	0	0	1475	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.45	0.45	0.00	0.00	0.79	0.00
Uniform Delay (d), s/veh				46.3	0.0	0.0	48.7	1.6	0.0	0.0	3.7	0.0
Incr Delay (d2), s/veh				10.1	0.0	0.0	5.4	0.3	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.2	0.0	0.0	0.4	1.1	0.0	0.0	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				56.4	0.0	0.0	54.0	1.8	0.0	0.0	4.6	0.0
LnGrp LOS				E	A		D	A	A	A	A	
Approach Vol, veh/h					78	A		573			733	A
Approach Delay, s/veh					56.4			3.3			4.6	
Approach LOS					E			A			A	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	89.6		6.3	83.4		10.4						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	55.5		5.0	55.5		25.5						
Max Q Clear Time (g_c+I1), s	8.3		2.9	15.6		6.3						
Green Ext Time (p_c), s	4.2		0.0	6.3		0.3						

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	94	2	683	43	618	0	0	568	408
Future Volume (veh/h)	0	0	0	94	2	683	43	618	0	0	568	408
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				102	2	0	47	672	0	0	617	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				138	3		68	1536	0	0	1370	
Arrive On Green				0.08	0.08	0.00	0.08	1.00	0.00	0.00	1.00	0.00
Sat Flow, veh/h				1749	34	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				104	0	0	47	672	0	0	617	0
Grp Sat Flow(s),veh/h/ln				1783	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				5.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				5.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				141	0		68	1536	0	0	1370	
V/C Ratio(X)				0.74	0.00		0.69	0.44	0.00	0.00	0.45	
Avail Cap(c_a), veh/h				719	0		101	1536	0	0	1370	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.41	0.41	0.00	0.00	0.81	0.00
Uniform Delay (d), s/veh				40.5	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				7.3	0.0	0.0	4.9	0.4	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	0.0	0.0	1.1	0.2	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.9	0.0	0.0	46.0	0.4	0.0	0.0	0.9	0.0
LnGrp LOS				D	A		D	A	A	A	A	
Approach Vol, veh/h					104	A		719			617	A
Approach Delay, s/veh					47.9			3.4			0.9	
Approach LOS					D			A			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		78.4			8.0	70.4		11.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		44.7			5.1	35.1		36.3				
Max Q Clear Time (g_c+I1), s		2.0			4.3	2.0		7.1				
Green Ext Time (p_c), s		5.5			0.0	4.7		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		5.5
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	98	3	384	15	513	0	0	680	452
Future Volume (veh/h)	0	0	0	98	3	384	15	513	0	0	680	452
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				107	3	0	16	558	0	0	739	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				140	4		33	1532	0	0	1404	
Arrive On Green				0.08	0.08	0.00	0.04	1.00	0.00	0.00	0.75	0.00
Sat Flow, veh/h				1735	49	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				110	0	0	16	558	0	0	739	0
Grp Sat Flow(s),veh/h/ln				1784	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				5.4	0.0	0.0	0.8	0.0	0.0	0.0	14.7	0.0
Cycle Q Clear(g_c), s				5.4	0.0	0.0	0.8	0.0	0.0	0.0	14.7	0.0
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				144	0		33	1532	0	0	1404	
V/C Ratio(X)				0.76	0.00		0.49	0.36	0.00	0.00	0.53	
Avail Cap(c_a), veh/h				363	0		101	1532	0	0	1404	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.47	0.47	0.00	0.00	0.79	0.00
Uniform Delay (d), s/veh				40.5	0.0	0.0	42.9	0.0	0.0	0.0	4.6	0.0
Incr Delay (d2), s/veh				8.0	0.0	0.0	5.3	0.3	0.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.7	0.0	0.0	0.4	0.1	0.0	0.0	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				48.5	0.0	0.0	48.2	0.3	0.0	0.0	5.7	0.0
LnGrp LOS				D	A		D	A	A	A	A	
Approach Vol, veh/h					110	A		574			739	A
Approach Delay, s/veh					48.5			1.7			5.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	78.2		6.1	72.1		11.8				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5				
Max Green Setting (Gmax), s	62.7		5.1	53.1		18.3				
Max Q Clear Time (g_c+I1), s	2.0		2.8	16.7		7.4				
Green Ext Time (p_c), s	4.3		0.0	6.3		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	112	2	683	43	626	0	0	571	408
Future Volume (veh/h)	0	0	0	112	2	683	43	626	0	0	571	408
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				122	2	0	47	680	0	0	621	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				158	3		68	1514	0	0	1349	
Arrive On Green				0.09	0.09	0.00	0.08	1.00	0.00	0.00	0.72	0.00
Sat Flow, veh/h				1754	29	1585	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				124	0	0	47	680	0	0	621	0
Grp Sat Flow(s),veh/h/ln				1783	0	1585	1781	1870	0	0	1870	1585
Q Serve(g_s), s				6.1	0.0	0.0	2.3	0.0	0.0	0.0	12.5	0.0
Cycle Q Clear(g_c), s				6.1	0.0	0.0	2.3	0.0	0.0	0.0	12.5	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				161	0		68	1514	0	0	1349	
V/C Ratio(X)				0.77	0.00		0.69	0.45	0.00	0.00	0.46	
Avail Cap(c_a), veh/h				366	0		133	1514	0	0	1349	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.42	0.42	0.00	0.00	0.80	0.00
Uniform Delay (d), s/veh				40.0	0.0	0.0	41.0	0.0	0.0	0.0	5.2	0.0
Incr Delay (d2), s/veh				7.5	0.0	0.0	5.1	0.4	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.0	0.0	0.0	1.1	0.2	0.0	0.0	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.6	0.0	0.0	46.1	0.4	0.0	0.0	6.1	0.0
LnGrp LOS				D	A		D	A	A	A	A	
Approach Vol, veh/h					124	A		727			621	A
Approach Delay, s/veh					47.6			3.4			6.1	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	77.4		8.0	69.4		12.6				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5				
Max Green Setting (Gmax), s	62.5		6.7	51.3		18.5				
Max Q Clear Time (g_c+I1), s	2.0		4.3	14.5		8.1				
Green Ext Time (p_c), s	5.7		0.0	4.8		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	400	23	65	111	171	552
Future Volume (veh/h)	400	23	65	111	171	552
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	435	25	71	121	186	600
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	483	429	0	1177	1177	997
Arrive On Green	0.27	0.27	0.00	0.63	0.21	0.21
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	435	25	0	121	186	600
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	21.2	1.1	0.0	2.3	7.3	30.8
Cycle Q Clear(g_c), s	21.2	1.1	0.0	2.3	7.3	30.8
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	483	429	0	1177	1177	997
V/C Ratio(X)	0.90	0.06	0.00	0.10	0.16	0.60
Avail Cap(c_a), veh/h	679	604	0	1177	1177	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.85	0.85	0.00	1.00	0.79	0.79
Uniform Delay (d), s/veh	31.7	24.3	0.0	6.6	16.1	25.4
Incr Delay (d2), s/veh	10.3	0.0	0.0	0.2	0.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	1.1	0.0	0.9	3.3	13.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.9	24.4	0.0	6.8	16.4	27.6
LnGrp LOS	D	C	A	A	B	C
Approach Vol, veh/h	460			121	786	
Approach Delay, s/veh	41.0			6.8	24.9	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		61.1		28.9	0.0	61.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		46.7		34.3	9.3	32.9
Max Q Clear Time (g_c+I1), s		4.3		23.2	0.0	32.8
Green Ext Time (p_c), s		0.7		1.2	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay	28.7	
HCM 6th LOS	C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	446	19	77	162	186	483
Future Volume (veh/h)	446	19	77	162	186	483
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	485	21	84	176	202	525
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	532	473	0	1125	1125	953
Arrive On Green	0.30	0.30	0.00	0.60	0.20	0.20
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	485	21	0	176	202	525
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	23.6	0.8	0.0	3.7	8.1	26.8
Cycle Q Clear(g_c), s	23.6	0.8	0.0	3.7	8.1	26.8
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	532	473	0	1125	1125	953
V/C Ratio(X)	0.91	0.04	0.00	0.16	0.18	0.55
Avail Cap(c_a), veh/h	703	625	0	1125	1125	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.75	0.75	0.00	1.00	0.47	0.47
Uniform Delay (d), s/veh	30.4	22.4	0.0	7.9	17.6	25.1
Incr Delay (d2), s/veh	10.6	0.0	0.0	0.3	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	0.9	0.0	1.5	3.7	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	22.5	0.0	8.2	17.8	26.2
LnGrp LOS	D	C	A	A	B	C
Approach Vol, veh/h	506			176	727	
Approach Delay, s/veh	40.3			8.2	23.9	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		58.6		31.4	0.0	58.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		45.5		35.5	9.5	31.5
Max Q Clear Time (g_c+I1), s		5.7		25.6	0.0	28.8
Green Ext Time (p_c), s		1.1		1.3	0.0	0.9

Intersection Summary			
HCM 6th Ctrl Delay		27.8	
HCM 6th LOS		C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	400	23	73	112	206	552
Future Volume (veh/h)	400	23	73	112	206	552
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	435	25	79	122	224	600
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	481	428	0	1178	1178	998
Arrive On Green	0.27	0.27	0.00	0.63	0.63	0.63
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	435	25	0	122	224	600
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	21.2	1.1	0.0	2.3	4.5	20.3
Cycle Q Clear(g_c), s	21.2	1.1	0.0	2.3	4.5	20.3
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	481	428	0	1178	1178	998
V/C Ratio(X)	0.90	0.06	0.00	0.10	0.19	0.60
Avail Cap(c_a), veh/h	643	572	0	1178	1178	998
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.00	1.00	0.79	0.79
Uniform Delay (d), s/veh	31.7	24.4	0.0	6.6	7.0	9.9
Incr Delay (d2), s/veh	11.6	0.0	0.0	0.2	0.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	1.1	0.0	0.9	1.7	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.4	24.4	0.0	6.8	7.3	12.0
LnGrp LOS	D	C	A	A	A	B
Approach Vol, veh/h	460			122	824	
Approach Delay, s/veh	42.3			6.8	10.7	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		61.2		28.8	0.0	61.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		48.5		32.5	8.5	35.5
Max Q Clear Time (g_c+I1), s		4.3		23.2	0.0	22.3
Green Ext Time (p_c), s		0.7		1.1	0.0	3.2
Intersection Summary						
HCM 6th Ctrl Delay			20.7			
HCM 6th LOS			C			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	446	19	118	170	207	483
Future Volume (veh/h)	446	19	118	170	207	483
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	485	21	128	185	225	525
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	531	473	0	1126	1126	954
Arrive On Green	0.30	0.30	0.00	0.60	0.20	0.20
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	485	21	0	185	225	525
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	23.6	0.8	0.0	3.9	9.0	26.8
Cycle Q Clear(g_c), s	23.6	0.8	0.0	3.9	9.0	26.8
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	531	473	0	1126	1126	954
V/C Ratio(X)	0.91	0.04	0.00	0.16	0.20	0.55
Avail Cap(c_a), veh/h	683	608	0	1126	1126	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.75	0.75	0.00	1.00	0.45	0.45
Uniform Delay (d), s/veh	30.5	22.5	0.0	7.9	18.0	25.1
Incr Delay (d2), s/veh	11.3	0.0	0.0	0.3	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	0.9	0.0	1.5	4.3	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.8	22.5	0.0	8.2	18.2	26.1
LnGrp LOS	D	C	A	A	B	C
Approach Vol, veh/h	506			185	750	
Approach Delay, s/veh	41.0			8.2	23.7	
Approach LOS	D			A	C	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	58.7		31.3	0.0	58.7
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	46.5		34.5	11.5	30.5
Max Q Clear Time (g_c+I1), s	5.9		25.6	0.0	28.8
Green Ext Time (p_c), s	1.1		1.2	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	412	24	67	114	176	568
Future Volume (veh/h)	412	24	67	114	176	568
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	448	26	73	124	191	617
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	495	440	0	1164	1164	986
Arrive On Green	0.28	0.28	0.00	0.62	0.62	0.62
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	448	26	0	124	191	617
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	21.8	1.1	0.0	2.4	3.9	21.7
Cycle Q Clear(g_c), s	21.8	1.1	0.0	2.4	3.9	21.7
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	495	440	0	1164	1164	986
V/C Ratio(X)	0.91	0.06	0.00	0.11	0.16	0.63
Avail Cap(c_a), veh/h	663	590	0	1164	1164	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	1.00	0.76	0.76
Uniform Delay (d), s/veh	31.4	23.9	0.0	6.9	7.1	10.5
Incr Delay (d2), s/veh	11.4	0.0	0.0	0.2	0.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	1.1	0.0	0.9	1.5	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.8	23.9	0.0	7.1	7.4	12.8
LnGrp LOS	D	C	A	A	A	B
Approach Vol, veh/h	474			124	808	
Approach Delay, s/veh	41.7			7.1	11.5	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		29.5	0.0	60.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		47.5		33.5	8.5	34.5
Max Q Clear Time (g_c+I1), s		4.4		23.8	0.0	23.7
Green Ext Time (p_c), s		0.7		1.1	0.0	2.8
Intersection Summary						
HCM 6th Ctrl Delay			21.3			
HCM 6th LOS			C			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	459	20	79	167	192	497
Future Volume (veh/h)	459	20	79	167	192	497
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	499	22	86	182	209	540
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	546	485	0	1111	1111	941
Arrive On Green	0.31	0.31	0.00	0.59	0.20	0.20
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	499	22	0	182	209	540
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	24.3	0.9	0.0	3.9	8.4	27.8
Cycle Q Clear(g_c), s	24.3	0.9	0.0	3.9	8.4	27.8
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	546	485	0	1111	1111	941
V/C Ratio(X)	0.91	0.05	0.00	0.16	0.19	0.57
Avail Cap(c_a), veh/h	703	625	0	1111	1111	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.75	0.75	0.00	1.00	0.37	0.37
Uniform Delay (d), s/veh	30.1	22.0	0.0	8.2	18.1	25.9
Incr Delay (d2), s/veh	11.2	0.0	0.0	0.3	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	0.9	0.0	1.6	3.9	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.3	22.0	0.0	8.5	18.2	26.8
LnGrp LOS	D	C	A	A	B	C
Approach Vol, veh/h	521			182	749	
Approach Delay, s/veh	40.5			8.5	24.4	
Approach LOS	D			A	C	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	57.9		32.1	0.0	57.9
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	45.5		35.5	8.5	32.5
Max Q Clear Time (g_c+I1), s	5.9		26.3	0.0	29.8
Green Ext Time (p_c), s	1.1		1.3	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	412	24	75	115	211	568
Future Volume (veh/h)	412	24	75	115	211	568
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	448	26	82	125	229	617
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	494	439	0	1165	1165	1427
Arrive On Green	0.28	0.28	0.00	0.62	0.21	0.21
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	448	26	0	125	229	617
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	21.9	1.1	0.0	2.4	9.1	8.5
Cycle Q Clear(g_c), s	21.9	1.1	0.0	2.4	9.1	8.5
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	494	439	0	1165	1165	1427
V/C Ratio(X)	0.91	0.06	0.00	0.11	0.20	0.43
Avail Cap(c_a), veh/h	643	572	0	1165	1165	1427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.85	0.85	0.00	1.00	0.80	0.80
Uniform Delay (d), s/veh	31.4	23.9	0.0	6.9	17.1	1.8
Incr Delay (d2), s/veh	12.3	0.0	0.0	0.2	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	1.1	0.0	0.9	4.4	13.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.7	24.0	0.0	7.0	17.4	2.6
LnGrp LOS	D	C	A	A	B	A
Approach Vol, veh/h	474			125	846	
Approach Delay, s/veh	42.6			7.0	6.6	
Approach LOS	D			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	60.6		29.4	0.0	60.6
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	48.5		32.5	8.5	35.5
Max Q Clear Time (g_c+I1), s	4.4		23.9	0.0	11.1
Green Ext Time (p_c), s	0.7		1.1	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved changes to right turn type.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	459	20	120	175	213	497
Future Volume (veh/h)	459	20	120	175	213	497
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	499	22	130	190	232	540
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	544	484	0	1112	1112	1427
Arrive On Green	0.31	0.31	0.00	0.59	0.20	0.20
Sat Flow, veh/h	1781	1585	0	1870	1870	1585
Grp Volume(v), veh/h	499	22	0	190	232	540
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1870	1870	1585
Q Serve(g_s), s	24.3	0.9	0.0	4.1	9.4	6.8
Cycle Q Clear(g_c), s	24.3	0.9	0.0	4.1	9.4	6.8
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	544	484	0	1112	1112	1427
V/C Ratio(X)	0.92	0.05	0.00	0.17	0.21	0.38
Avail Cap(c_a), veh/h	683	608	0	1112	1112	1427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.90	0.90	0.00	1.00	0.81	0.81
Uniform Delay (d), s/veh	30.1	22.0	0.0	8.2	18.4	1.6
Incr Delay (d2), s/veh	13.8	0.0	0.0	0.3	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	0.9	0.0	1.6	4.5	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.9	22.0	0.0	8.6	18.8	2.2
LnGrp LOS	D	C	A	A	B	A
Approach Vol, veh/h	521			190	772	
Approach Delay, s/veh	43.0			8.6	7.2	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		58.0		32.0	0.0	58.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		46.5		34.5	10.6	31.4
Max Q Clear Time (g_c+I1), s		6.1		26.3	0.0	11.4
Green Ext Time (p_c), s		1.2		1.2	0.0	3.4
Intersection Summary						
HCM 6th Ctrl Delay			19.9			
HCM 6th LOS			B			

ITERIS VMT TECHNICAL MEMORANDUM

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TECHNICAL MEMORANDUM

To: Darryl F. Nelson, PTP
Senior Transportation Planner
Associated Transportation Engineers
100 North Hope Avenue, Suite 4
Santa Barbara, California 93110-1686

From: Iteris, Inc.

Date: August 10, 2022

RE: Los Robles Medical Office – CEQA Transportation Analysis

INTRODUCTION

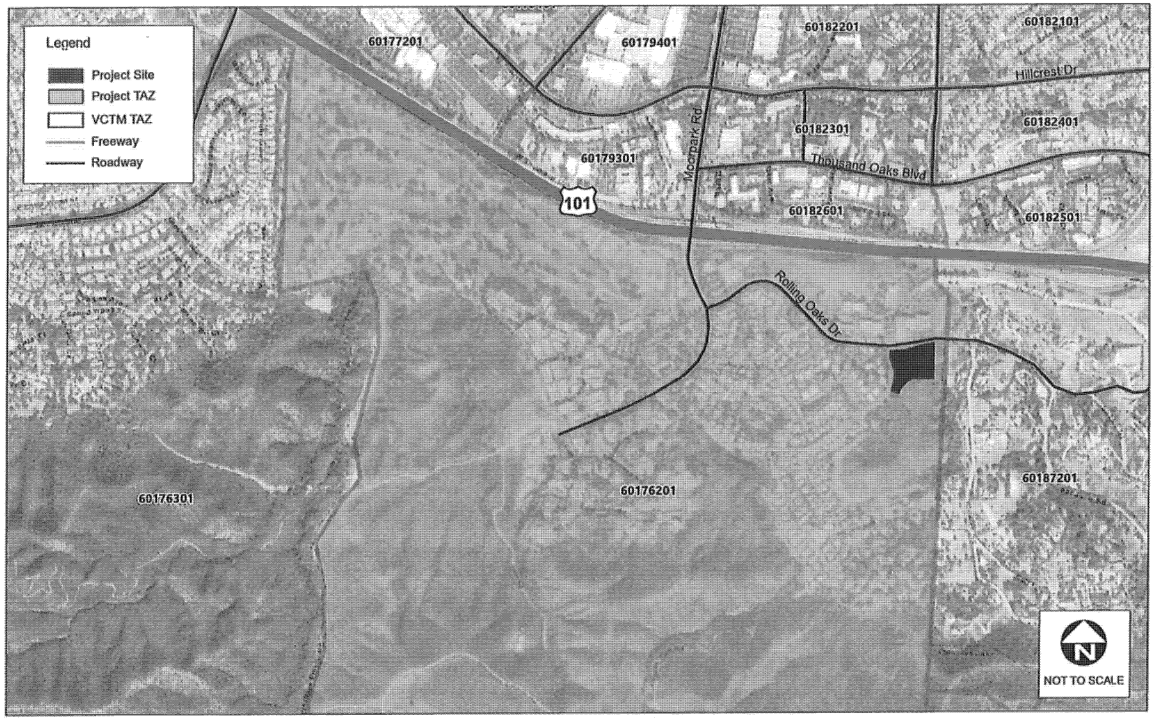
This memorandum presents Iteris' California Environmental Quality Act (CEQA) analysis of the Los Robles Medical Office development in the City of Thousand Oaks. The development consists of construction of a new 58,000 square foot, two-story outpatient medical treatment facility. The development site is located at the southwestern corner of the intersection of Los Padres Drive and Rolling Oaks Drive.

CEQA analysis for determining potential significant transportation impacts from vehicles transitioned in 2020 from an automobile delay or capacity measure to a Vehicle Miles Traveled (VMT) metric as required by Senate Bill (SB) 743. VMT is an area-wide performance measure which helps compare the overall performance of a development and is also used as a metric to ultimately assess the transportation environmental impacts. VMT is generally calculated using a travel demand model that captures the movement of all trips over a highway network. For this analysis, the time period was defined as a 24-hour period on a typical weekday.

METHODOLOGY

Iteris utilized the Ventura County Transportation Model (VCTM) to generate VMT statistics, following the City's administrative policy on CEQA transportation analysis. This land use based model, which is a subarea model of the Southern California Association of Government's (SCAG) travel demand model, is consistent with the 2016 SCAG RTP/SCS travel-demand model assumptions and inputs. The model consists of a 2016 base year scenario and 2040 future year scenario. For the purposes of this analysis, the 2016 base year scenario was utilized. It should be noted the 2016 base year is the regionwide standard for existing and baseline conditions analysis.

The VCTM consists of a detailed traffic analysis zone (TAZ) structure in the City of Thousand Oaks. The model consists of 110 TAZ's within the City. **Figure 1** illustrates the location of the proposed development's TAZ (60176201) in relation to the region.



iteris | Los Robles Medical Office
VMT Analysis
City of Thousand Oaks

Figure 1
Project Location and Transportation Analysis Zones (TAZ)

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VMT ANALYSIS

This section describes the potential screening, thresholds of significance, and VMT impact evaluation for the proposed development.

Screening Criteria

The City utilizes a screening criteria in order to provide CEQA relief to projects that support the State's GHG emission goals, and those projects are presumed as less than significant. The proposed project does not meet any of the screening criteria, thus is required to undergo a CEQA Transportation Assessment.

Thresholds of Significance

The City has adopted an administrative policy stating that thresholds of significance will be determined on a case-by-case basis. For the purposes of this project, the thresholds of significance will be as follows:

- A significant impact would occur if the VMT per capita or VMT per employee exceeds the citywide average VMT per capita or per employee of the baseline.

VMT Impact Evaluation

The proposed project consists of a commercial use only, thus the VMT will be reported as Work-Based VMT per Employee, calculated as such:

$$WorkBased\ VMT\ per\ Employee = \frac{Total\ WorkBased\ VMT}{Total\ Number\ of\ Employees}$$

To determine the project's potential level of impact, a new VCTM scenario including the proposed project land use within TAZ 60176201 was prepared, utilizing the existing year (2016) of the model. From this new model scenario output, the following two metrics will be used for significant impact determination:

- City-wide average daily VMT per employee; and
- TAZ-level daily VMT per employee.

The new VCTM scenario resulted in the following outputs:

- The City-wide average daily VMT per employee, for use within this analysis only, is **22.63**; and
- TAZ-level daily VMT per employee is **21.27**.

The project's TAZs' daily VMT per employee is 6% less than the City-wide average daily VMT per employee.

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Conclusion

The Los Robles project consists of construction of a new 58,000 square foot, two-story outpatient medical treatment facility.

The project does not meet any CEQA transportation screening criteria, thus a CEQA Transportation Assessment was required. Based on the described thresholds of significance, the proposed project would not result in a significant transportation impact under CEQA Checklist XVII. Transportation b):

> *"Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)—the criteria for analyzing transportation impacts for land use projects: vehicle miles traveled exceeding an applicable threshold of significance?"*