APPENDIX H

Crows Landing Corridor Study

Transportation Analysis - Draft Report

Crows Landing Corridor Study

County of Stanislaus, California

March 2, 2018

TJKM

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INTRODUCTION

This report presents the results of the transportation analysis prepared for the Crows Landing Corridor Study. The study corridor is located in the southern portion of the City of Modesto and Stanislaus County. The study limits of Crows Landing Road extend between Hatch Road in the north to Whitmore Avenue in the south. Within the study limits, Crows Landing Road is a four lane north-south roadway and development along the study corridor is primarily commercial. Automobile-related services are more common and other commercial uses along Crows Landing Road encompasses of grocery and convenience stores, restaurants and industrial businesses such as a delivery service, truck and heavy equipment rentals, and farm machinery sales.

TJKM conducted a traffic operations and engineering analysis of the improvements and compared the improvements with the existing and future with no project conditions. The evaluation looked at the feasibility of the street improvements within the context of sound engineering, local jurisdictional policy and practicality of next steps. Additionally, TJKM reviewed the operations at the Crows Landing Intersections of Butte Avenue and Winmoore Way and provided recommendations on signal timing as well as the potential removal of one of these signalized intersections. Also, due to the addition of median islands along the project corridor strategic access points or median breaks for left turning movements will be evaluated in order to minimize impact of new median on operations for all modes of transportation. Finally, pedestrian crossings opportunities were reviewed.

This study report establishes a plan for a safe, efficient, and vibrant multimodal transportation facility serving the southern portion of Modesto and unincorporated Stanislaus County. This report also includes the results of the existing and future conditions analyses, and outlines the technical methodologies and analysis parameters utilized to quantify existing and future transportation conditions using level of service (LOS). Existing conditions represented in this report reflect approximately year 2017 conditions. Future conditions represented in this memorandum approximate a year 2040 forecast horizon.

This study report documents the corridor study process, identifies existing deficiencies and corresponding improvements along the study corridor. The purpose of this study is to analyze transportation options for the corridor in order to assess potential future development impact and to identify transportation strategies.

Study Intersections and Scenarios

TJKM evaluated traffic conditions at 11 intersections along the study corridor during a.m. and p.m. peak hours for a typical weekday. The peak periods were observed between 7:00 a.m. – 9:00 a.m. and 4:00 p.m. – 6:00 p.m. The study intersections and associated traffic controls are as follows:

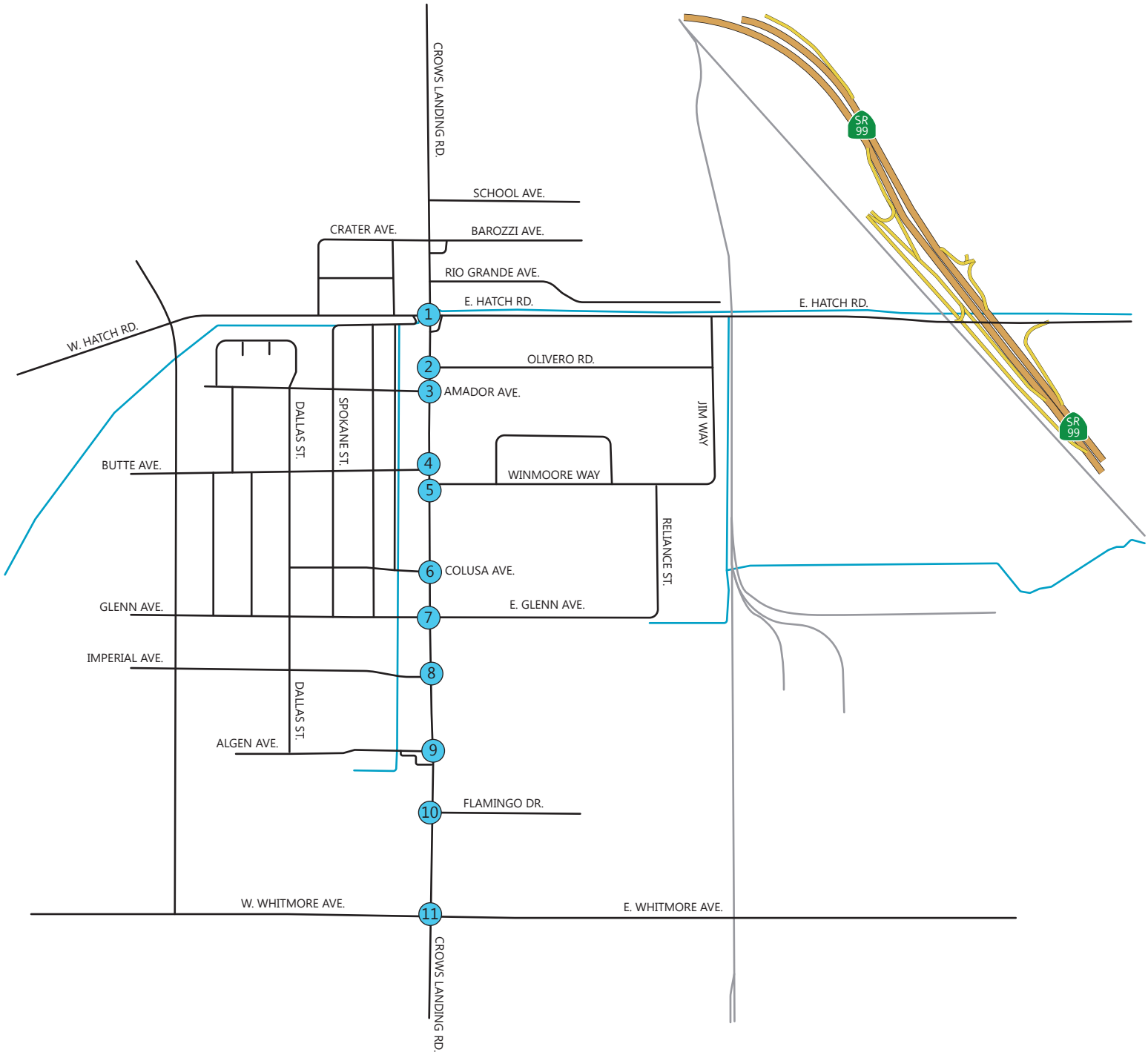
1. Crows Landing Road/Hatch Road (Signalized)
2. Crows Landing Road/Olivero Road (One-way Stop Control)
3. Crows Landing Road/Amador Avenue (One-way Stop Control)
4. Crows Landing Road/Butte Avenue (Signalized)
5. Crows Landing Road/Winmoore Way (Signalized)

6. Crows Landing Road/Colusa Avenue (One-way Stop Control)
7. Crows Landing Road/Glenn Avenue (Two-way Stop Control)
8. Crows Landing Road/Imperial Avenue (One-way Stop Control)
9. Crows Landing Road/Algen Avenue (One-way Stop Control)
10. Crows Landing Road/Flamingo Drive (One-way Stop Control)
11. Crows Landing Road/Whitmore Avenue (Signalized)

Figure 1 illustrates the study intersections and the vicinity map. This study addresses the following four traffic scenarios:

- **Existing Conditions** – This scenario evaluates the study intersections based on existing traffic volumes, lane geometries and traffic controls.
- **Existing plus Planned Roadway Improvements Conditions** – This scenario evaluates the study intersections with existing traffic volumes based on proposed roadway improvements. Rerouting of existing traffic volumes have been considered under this scenario based on the proposed roadway geometry changes.
- **Cumulative (Year 2040) Conditions** – This scenario is similar to Existing Conditions but with the projected rate of 1.15% per year for 23 years, which was applied to Existing Conditions Traffic Volumes.
- **Cumulative (Year 2040) plus Planned Roadway Improvements Conditions** – This is similar to Cumulative Conditions but with the of planned roadway improvements. Rerouting of cumulative traffic volumes have been considered under this scenario based on the proposed roadway geometry changes.

Vicinity Map



LEGEND

(X) Study Intersection

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TJKM

STUDY METHODOLOGY

Level of Service Methodology

LOS is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow) and F the worst (severely congested flow with high delays). Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets.

Signalized Intersections

The study intersections under traffic signal control were analyzed using the 2000 Highway Capacity Manual (HCM) Operations Methodology for signalized intersections described in Chapter 16 (HCM 2000). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections was calculated using Synchro 9 analysis software and was correlated to a LOS designation as shown in **Appendix A**. The LOS methodology is described for signalized intersections in detail in **Appendix A**.

Unsignalized Intersections

The study intersections under stop control (Unsignalized) were analyzed using the 2000 HCM Operations Methodology for unsignalized intersections. LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At the side street, all-way controlled intersections or two-way stop sign intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The weighted average delay for the entire intersections is presented for all-way stop controlled intersection. The average control delay for unsignalized intersections was calculated using Synchro 9 analysis software and was correlated to a LOS designation as shown in **Appendix A**. The LOS methodology is described for unsignalized intersections in detail in **Appendix A**.

As noted, the LOS is reported for the minor approach on unsignalized intersections. Depending on the availability of gaps, the minor approach might be operating at LOS D, E, or F while the overall intersection operates at LOS C or better. A minor approach that operates at LOS D, E, or F does not automatically translate into a need for a traffic signal. A signal warrant would still need to be met. There are many instances where only a few vehicles are experiencing LOS D, E, or F on the minor approach while the whole intersection operates at an acceptable LOS. A signal is usually not warranted under such conditions.

The justification for the installation of a traffic signal at an intersection is based on the warrants stated in the California Manual on Uniform Traffic Control Devices (MUTCD) published by Caltrans and the Federal Highway Administration (FHWA). The decision to install a signal should not be based solely upon the

warrants, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated

Other improvement criteria considered include traffic conditions where a left-turn pocket might be required to safely accommodate projected volumes due to safety reason. For example, for safety reasons, due to higher speeds on major streets it is safer to provide left-turn pockets to channelize heavy left-turning traffic so that the flow of through traffic will not be impeded. This will also provide for safer and better traffic operations on the roadway. For this study, a left-turn pocket will be recommended when the projected left-turn volumes at a major intersection are more than 150 vehicles during the peak hour.

Significant Impact Criteria/Level of Service Standards

Stanislaus County Standards

For study intersections within Stanislaus County and not within the sphere of influence of the City of Modesto, the project's impact would be considered significant if the addition of project traffic cause any of the following to occur:

- Deterioration of an intersection or a roadway segment from LOS C or better to LOS D, LOS E or LOS F in rural areas;
- Deterioration of an intersection or a roadway segment from LOS D or better to LOS E or LOS F in urban areas

City of Modesto

For study intersections within the sphere of influence of the City of Modesto, the Project's impact would be considered significant if the addition of Project traffic cause any of the following to occur:

- Deterioration of a signalized intersection from LOS D or better to LOS E or LOS F;
- An increase in the service volume of any approach by five percent or more for a signalized intersection operating at LOS E or LOS F under baseline conditions;
- An increase in average delay of five or more seconds for a signalized intersection operation at LOS E or LOS F under baseline conditions;
- Deterioration of a controlled movement at an unsignalized intersection to LOS F and the volumes meeting at least one traffic signal warrant;
- An increase in the maximum queue by more than 2 vehicles (50 feet) when the available storage capacity is exceeded.
- Deterioration of a roadway segment from LOS D or better to LOS E or F, or worsening of LOS E or F conditions.

TRANSPORTATION SETTING

This chapter documents the existing transportation network, traffic volumes, and traffic operation analysis undertaken to assess existing conditions of the study corridor and to forecast future mobility issues. The purpose of these analyses is to provide a better understanding of current accessibility, mobility, and safety conditions in the Crows Landing Road study corridor.

Existing Transportation Network

Figure 1 shows the existing local street circulation in the project area and the study intersections. Important roadways in the project vicinity are described below:

Crows Landing Road

Crows Landing Road is a four-lane, north-south arterial connecting the City of Modesto in the north to areas in the southern part of Stanislaus County. It is classified by the County as a major roadway north of Service Road and as a Class C Expressway south of Service Road and by the City as an arterial. Crows Landing Road provides access to SR 99 from the study area. The segment of Crows Landing Road extending north from the Service Road through the Modesto area is designated on the Modesto Urban Area General Plan as a four-lane arterial. The posted speed limit in 35 miles per hour (mph).

Hatch Road

Hatch Road extends westward from Geer Road to just west of Carpenter Road. West of SR 99, it currently has two to four travel lanes. The Modesto Urban Area General Plan designates Hatch Road as a four-lane, Class C expressway. The posted speed limit is 45 mph.

Butte Avenue

Butte Avenue is a two-lane, east-west undivided roadway in the City of Modesto extending between Crows Landing Road in the east to its terminus Las Vegas Street in the west. The posted speed limit is 25 mph.

Winmoore Way

Winmoore Way is a two-lane, east-west undivided roadway in the City of Modesto extending between Jim Way in the east to Crows Landing Road in the west. The posted speed limit is 25 mph.

Whitmore Avenue

Whitmore Avenue is a two-lane east-west arterial that runs from unincorporated Stanislaus County east to Montpellier Road through downtown Ceres. It is classified as an arterial in the General Plan from the eastern edge of the Urban Growth Area to Carpenter Road and as a Major roadway by the County and provides access to SR 99. Through the Specific Plan area, Whitmore Avenue is designated as a four-lane arterial street on the Modesto Urban Area General Plan. Residential developments can be found along Whitmore Avenue and at its intersection with Crows Landing Road a mix of retail and service commercial land uses are located. The posted speed limit is 40 mph.

Existing Pedestrian Facilities

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes wide sidewalks, a mix of land uses such as residential, employment, and shopping opportunities, a limited number of conflict points with vehicle traffic, and easy access to transit facilities and services.

Pedestrian facilities consist of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities.

In the project study area, most of the study intersections are signalized and equipped with countdown pedestrian signal heads and cross walks. There is an existing pedestrian crossing with a pedestrian-activated rectangular rapid flashing beacons (RRFB) located at the intersection of Crows Landing Road/Amador Avenue. There are continuous sidewalks present on Crows Landing Road along the both sides within the project study area. All the existing sidewalks are approximately 6 to 12 feet wide varying along the project area.

Existing Bicycle Facilities

Bicycle facilities include the following:

- Bike Paths (Class I) – Paved trails that are separated from roadways
- Bike Lanes (Class II) – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs
- Bike Routes (Class III) – Designated roadways for bicycle use by signs or other markings which may or may not include additional pavement width for cyclists

Currently, no bike facilities are present along Crows Landing Road in the study area.

Existing Transit Facilities

Modesto Area Express (MAX)

Modesto Area Express operates bus route 42 that serve Crows Landing Road. Route 42 provides service between the Downtown Transportation Center and Community Service Agency/County Safety Center south of Whitmore Avenue at Hackett Road, and service east and west of Crows Landing Road. Route 42 provides 30-minute service from between 6:00 a.m. and 8:00 p.m. Monday through Saturday and hourly service on Sunday between about 8:30 a.m. and 6:30 p.m.

Stanislaus Regional Transit (StaRT)

Stanislaus Regional Transit operates Route 40 which is a fixed-route bus service that runs between the cities of Modesto and Patterson. In the Project vicinity, it runs along Crows Landing Road. It operates on weekdays between 5:25 am and 8:22 pm and four round trips on Saturday between 6:40 am and 7:22 pm.

Existing Traffic Volumes

The existing operations of the study intersections were evaluated for the highest one-hour volumes during weekday morning and evening peak periods. Turning movement counts for vehicles, bicycles, and pedestrians at all the study intersections were conducted during typical weekday day a.m. and p.m. peak periods (7:00-9:00a.m. and 4:00-6:00 p.m., respectively) in November 2017.

TJKM also collected 24-hour bidirectional traffic volumes for a one-day during the month of November along the following five roadway locations:

1. Crows Landing Road north of Olivero Road
2. Crows Landing Road north of Colusa Avenue
3. Crows Landing Road north of Imperial Avenue
4. Crows Landing Road north of Algen Avenue
5. Crows Landing Road north of Whitmore Avenue

Field verification of existing intersection lane configurations and traffic controls was also conducted and provided the basis for the LOS analysis for existing conditions. **Appendix B** includes all the data sheets for the collected vehicular Traffic, bicycle, and pedestrian counts. **Figure 2** illustrates the existing conditions lane geometry and traffic control at the study intersections.

Intersection Level of Service Analysis – Existing Conditions

The existing operations of the study intersections were evaluated for the highest one-hour volume during the weekday morning and evening peak periods. TJKM collected existing intersection turning movement volumes at the study intersections during the weekday a.m. peak period (7:00-9:00 a.m.), and weekday p.m. peak period (4:00-6:00 p.m.) in November 2017.

For the intersection analysis, the Peak Hour Factors (PHF) based on the collected counts were used. The calculation of the PHF is described below.

Peak Hour Factor Calculation

The PHF is the hourly volume during the maximum-volume hour of the day divided by the peak 15-minute flow rate within the peak hour, a measure of traffic demand fluctuations within the peak hour. PHF values were calculated for the a.m., p.m., and weekend peak for all the approaches at each study intersection using the following formula:

$$PHF = \frac{V}{[4 \times V15]}$$

Where,

V = peak hour volume (vph)

V15 = volume during the peak 15 minutes of flow (vehicles/15 minutes)

The results of the Existing Conditions LOS Analysis using Synchro Software for the Existing Conditions are shown in **Table 1**. HCM 2000 Methodology was followed to analyze the study intersections. Currently all intersections operate at acceptable LOS C or better under existing conditions except for the intersections

of Crows Landing Road/Hatch Road at LOS D during both the a.m. and the p.m. peak hours and the intersection of Crows Landing Road/Whitmore Avenue at LOS D during p.m. peak hour. Detailed calculations are contained in **Appendix C**.

Table 1: Intersection Level of Service - Existing Conditions

ID	Intersection	Intersection Control	A.M Peak Hour		P.M. Peak Hour	
			Average Delay[1]	LOS[2]	Average Delay[1]	LOS[2]
1	Crows Landing Road/Hatch Road	Signalized	**38.3**	**D**	**41.0**	**D**
2	Crows landing Road/Olivero Road	One-way Stop Control	17.3	C	12.3	B
3	Crows Landing Road/Amador Avenue	One-way Stop Control	13.0	B	20.8	C
4	Crows Landing Road/Butte Avenue	Signalized	11.2	B	10.1	B
5	Crows Landing Road/Winmoore Way	Signalized	10.0	B	11.4	B
6	Crows Landing Road/Colusa Avenue	One-way Stop Control	12.2	B	14.0	B
7	Crows Landing Road/Glenn Avenue	Two-way Stop Control	16.8	C	19.8	C
8	Crows Landing Road/Imperial Avenue	One-way Stop Control	14.5	B	21.6	C
9	Crows Landing Road/Algen Avenue	One-way Stop Control	17.4	C	16.5	C
10	Crows Landing Road/Flamingo Drive	One-way Stop Control	23.5	C	18.6	C
11	Crows Landing Road/Whitmore Avenue	Signalized	32.9	C	**44.1**	**D**

Notes:

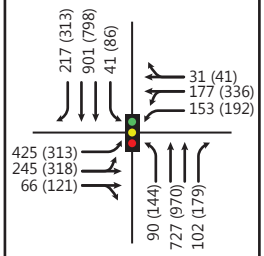
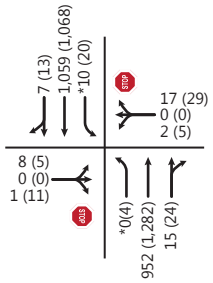
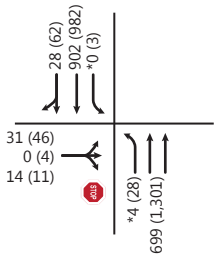
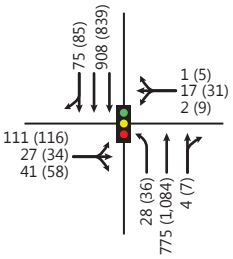
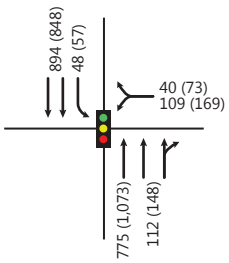
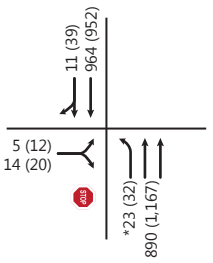
[1]Average intersection delay expressed in seconds per vehicle for signalized intersections. Control delay for the worst movement is presented for side-street stop controlled intersections

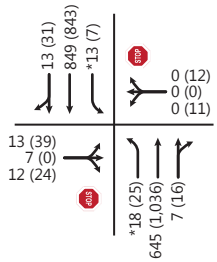
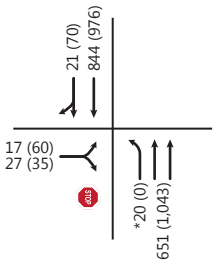
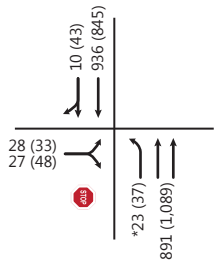
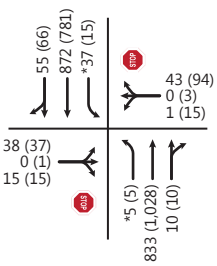
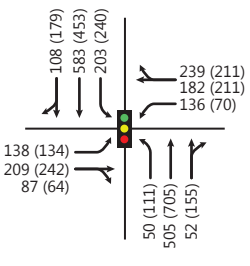
[2]LOS = Level of Service

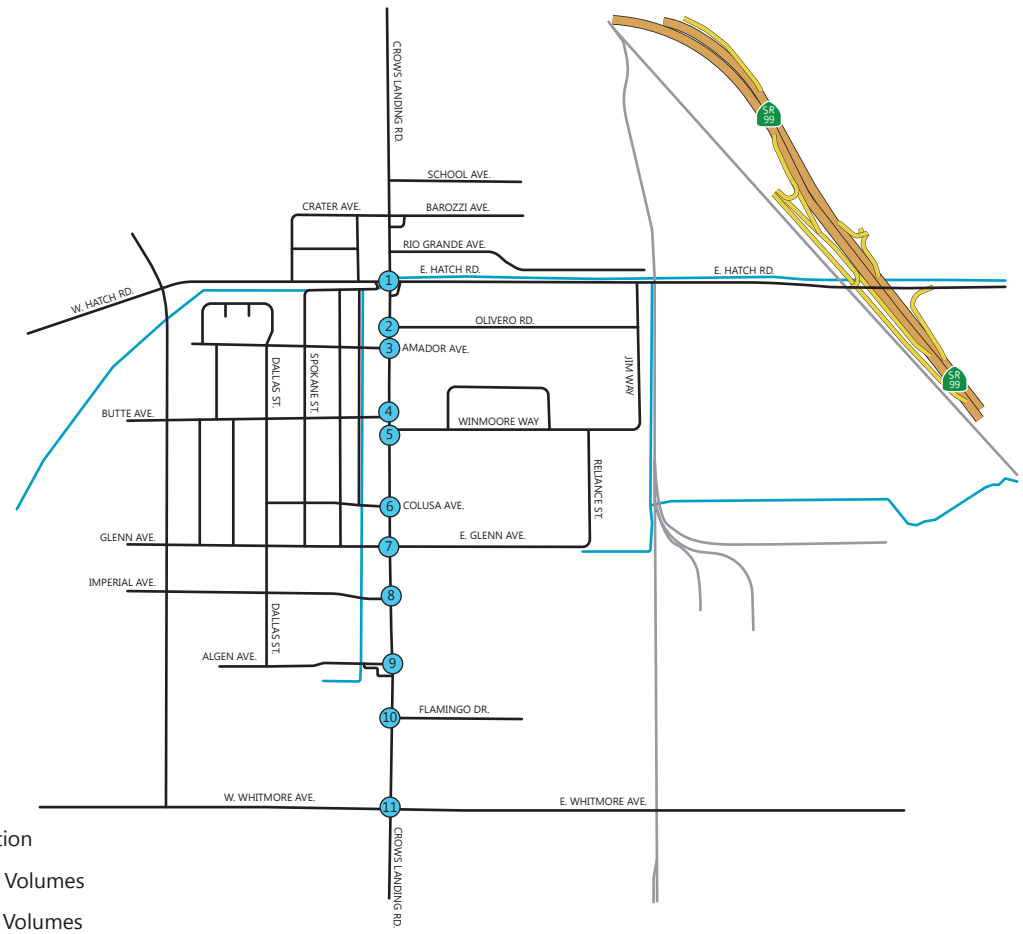
Bold indicates intersections that operate at a deficient Level of Service.

The Existing Conditions LOS analysis for the purpose of this study is based on an isolated intersection analysis of traffic volumes, rather than analysis of the corridor as a whole. The standalone LOS results sometimes can be misleading if a corridor operates under forced flow, or congested, traffic conditions. Forced flow traffic operations can reduce overall vehicle throughput per hour at intersections, leading to LOS analysis results that suggest there is less corridor congestion than is actually occurring under existing field conditions. Where there is known congestion, additional analysis of field conditions becomes necessary in order to review and evaluate the extent of forced flow operations. TJKM conducted a field review of existing traffic conditions at the study intersections during the prevailing a.m. and p.m. peak periods based on collected traffic counts (7:00-9:00 a.m. and 4:00-6:00 p.m.). The purpose was to identify existing operational conditions at the study intersection that might not be reflected in the preceding existing conditions intersection LOS results. The existing operational conditions at the study intersection reflects the preceding existing conditions intersection LOS results.

Existing Lane Geometry, Traffic Control and Turning Movement Volumes

Intersection #1 Crows Landing Rd. / Hatch Rd.	**Intersection #2** Crows Landing Rd. / Olivero Rd.	**Intersection #3** Crows Landing Rd. / Amador Ave.	**Intersection #4** Crows Landing Rd. / Butte Ave.	**Intersection #5** Crows Landing Rd. / Winmoore Way	**Intersection #6** Crows Landing Rd. / Colusa Ave.
					

Intersection #7 Crows Landing Rd. / Glenn Ave.	**Intersection #8** Crows Landing Rd. / Imperial Ave.	**Intersection #9** Crows Landing Rd. / Algen Ave.	**Intersection #10** Crows Landing Rd. / Flamingo Ave.	**Intersection #11** Crows Landing Rd. / Whitmore Ave.
				



LEGEND

- Study Intersection
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes
- Signalized Intersections
- Unsignalized Intersections
- * Indicates Traffic Volume from Two-way Left Turn Lane

EXISTING PLUS PLANNED ROADWAY IMPROVEMENTS – BUILD ALTERNATIVE

This analysis scenario presents the impacts of the proposed planned improvements at the study intersection and surrounding roadway system. This scenario is similar to Existing Conditions, but with the rerouting of traffic due to the planned improvements along Crows Landing Road.

Future Improvement Concepts

Stanislaus County and the City of Modesto plan to improve the Crows Landing Road corridor between Hatch Road and Whitmore Avenue. The goal of this project is to provide a vibrant multimodal corridor through streetscape treatments including raised medians, street lighting, roadway resurfacing, bicycle facilities and improved pedestrian crossings.

Prior to this analysis, TJKM performed a field review of Crows Landing and collected intersection turning movement volumes, average daily traffic amongst five segments of the corridor, speed and vehicle classification along the one-mile project corridor. **Figure 3** illustrates planned improvements along the study corridor include the following:

- Raised medians throughout the corridor
- Class II Bicycle Lane throughout the corridor with green bike skips at the intersections
- Roadway resurfacing
- Crosswalks at each intersection
- Intersection improvements

Based on field review and collected data, TJKM recommended median island opening locations and turn pocket lengths. The following locations are detailed in **Table 2.**

Impacts due to the addition of median islands along the project corridor strategic access points or median breaks for left turning movements are evaluated under this scenario in order to minimize impact of new median on operations for all modes of transportation.

Also under this scenario, traffic operations were reviewed to provide recommendations on signal timing as well as the potential removal of one of the signalized intersections of Crows Landing Road/Butte Avenue and Crows Landing Road/Winmoore Way. Based on the initial assessment and close proximity of these two intersections TJKM recommends eliminating the intersection of Crows Landing Road/Butte Avenue for better corridor operations. The recommendation is reflected in **Figure 3**. Additionally, TJKM reviewed the potential for the installation of a rectangular rapid flashing beacon (RRFB).

Table 2: Median Island Opening Locations

Opening Location	Movement	Reason
Arco Gas Station/ Jack in the Box driveway, north of Whitmore Avenue	Full access: left turn in and out	Heavy vehicle usage at this driveway
North of Flamingo Drive	Northbound left turn	Access to *Extra Space Storage* driveway for trailer access
Algen Drive	Crows Landing Road/Amador Avenue	One-way Stop Control
Imperial Avenue	Southbound left turn lane into the Crows Landing Road Plaza; Northbound left turn lane to Imperial Avenue	Heavy vehicle usage into the shopping center
Glenn Avenue	Northbound left turn	Movement carried forth per the *City of Modesto Feasibility Study. 2015*
North of Colusa Avenue at FedEx Freight Center	Sought bound left turn access into driveway at FedEx	Large distribution center with heavy truck activity
North of Butte Avenue at Southgate Center	Southbound left turn	Heavy vehicle usage into the shopping center
Amador Avenue	Northbound left turn	One-way Stop Control
9	Crows Landing Road/Algen Avenue	One-way Stop Control
10	Crows Landing Road/Flamingo Drive	One-way Stop Control
11	Crows Landing Road/Whitmore Avenue	Signalized

Intersection Level of Service – Existing plus Planned Roadway Improvements

The intersection LOS analysis results for Existing plus Planned Roadway Improvement Conditions are summarized in **Table 3**. Detailed calculation sheets for Existing plus Planned Roadway Improvement Conditions are contained in **Appendix D**.

Under this scenario, all intersections are expected to continue operating within applicable jurisdictional standards of LOS C (Stanislaus County) and LOS D (City of Modesto) except for the following intersections:

- Crows Landing Road/Hatch Avenue (LOS D during a.m. peak hour and p.m. peak hours)
- Crows Landing Road/Amador Avenue (LOS F during p.m. peak hour)
- Crows Landing Road/Whitmore Avenue (LOS D during a.m. peak hour and at LOS D during p.m. peak hour)

Figure 4 shows planned lane geometries traffic controls and projected turning movement volumes at all the study intersections for Existing plus Planned Roadway Conditions Scenario.

The results for Existing Conditions are included for comparison purposes.

Table 3: Intersection Level of Service Analysis – Existing plus Planned Roadway Improvements Conditions

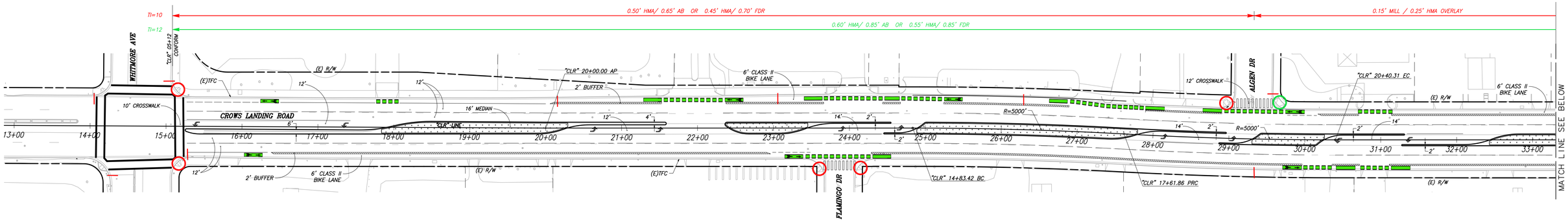
ID	Intersection	Peak Hour	Existing Conditions		Existing plus Planned Roadway Improvements	
			Average Delay[1]	LOS[2]	Average Delay[1]	LOS[2]
1	Crows Landing Road/Hatch Road	AM	**38.3**	**D**	**38.3**	**D**
		PM	**41.0**	**D**	**41.2**	**D**
2	Crows Landing Road/Olivero Road	AM	17.3	C	12.2	B
		PM	12.3	B	11.3	B
3	Crows Landing Road/Amador Avenue	AM	13.0	B	28.5	D
		PM	20.8	C	**69.4**	**F**
4	Crows Landing Road/Butte Avenue	AM	11.2	B	-	-
		PM	10.1	B	-	-
5	Crows Landing Road/Winmoore Way	AM	10.0	B	13.3	B
		PM	11.4	B	15.9	B
6	Crows Landing Road/Colusa Avenue	AM	12.2	B	12.0	B
		PM	14.0	B	13.8	B
7	Crows Landing Road/Glenn Avenue	AM	16.8	C	11.5	A
		PM	19.8	C	13.6	B
8	Crows Landing Road/Imperial Avenue	AM	14.5	B	12.3	B
		PM	21.6	C	15.1	C
9	Crows Landing Road/Algen Avenue	AM	17.4	C	13.2	B
		PM	16.5	C	13.0	B
10	Crows Landing Road/Flamingo Drive	AM	23.5	C	12.8	B
		PM	18.6	C	12.0	B
11	Crows Landing Road/Whitmore Avenue	AM	32.9	C	32.9	C
		PM	**44.1**	**D**	**44.1**	**D**

Notes:

[1]Average intersection delay expressed in seconds per vehicle for signalized intersections. Control delay for the worst movement is presented for side-street stop controlled intersections

[2]LOS = Level of Service

Bold indicates intersections that operate at a deficient Level of Service.

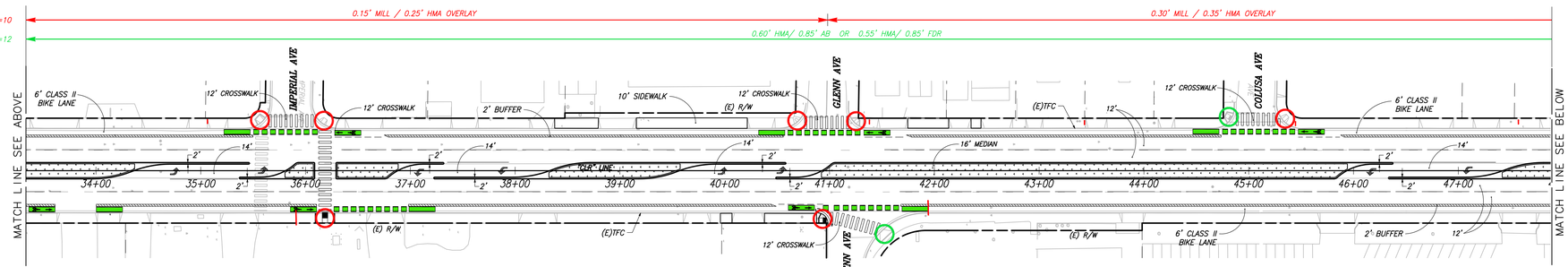


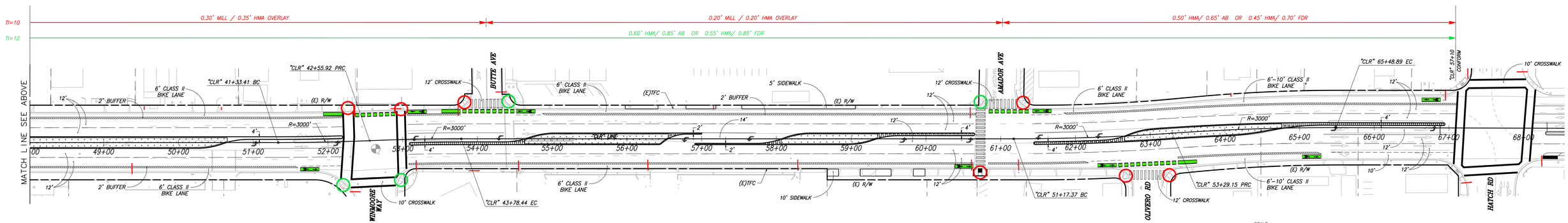
LEGEND

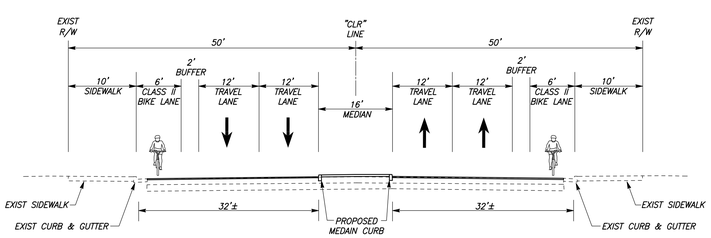
- ANGLE POINT
- BC/EC/PRC
- EXISTING STREET LIGHT
- MODIFY EXISTING SIGNALIZED INTERSECTION
- EXISTING RIGHT OF WAY
- CURB RAMP MODIFICATION
- CURB RAMP FULL REPLACEMENT
- MEDIAN LANDSCAPING

ABBREVIATIONS

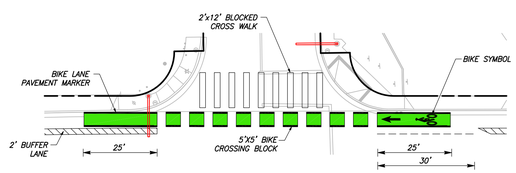
AB	– ASPHALT BASE
BC	– BEGIN CURVE
C&G	– CURB AND GUTTER
EC	– END CURVE
EP	– EDGE OF PAVEMENT
ETW	– EDGE OF TRAVEL WAY
(E)	– EXISTING
E	– EAST
FDR	– FULL DEPTH RECLAMATION
HMA	– HOT MIX ASPHALT
LT	– LEFT
N	– NORTH
PRC	– POINT OF REVERSE IN CURVE
(P)	– PROPOSED
R	– CURVE RADIUS
RT	– RIGHT
R/W	– RIGHT OF WAY
SHLD	– SHOULDER
STD	– STANDARD
TFC	– TOP FACE OF CURB
TI	– TRAFFIC INDEX



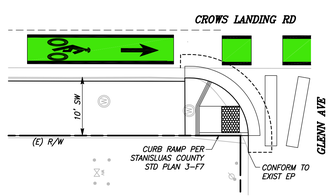




CROWS LANDING ROAD



PAVEMENT DELINEATION DETAIL



GLENN AVE CURB RAMP DETAIL

SCALE
1" = 50'
50 0 25 50 100 200

STANISLAUS COUNTY
DEPARTMENT OF PUBLIC WORKS

CROWS LANDING ROAD
CORRIDOR PROJECT

GEOMETRIC APPROVAL DRAWING

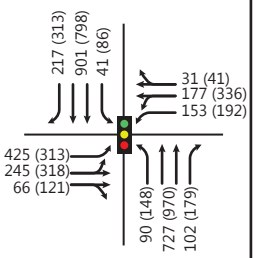
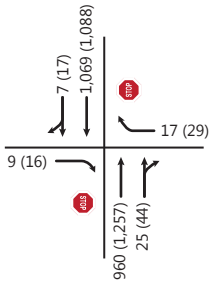
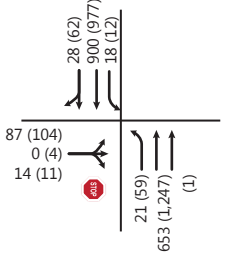
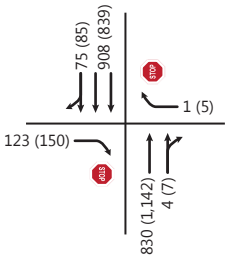
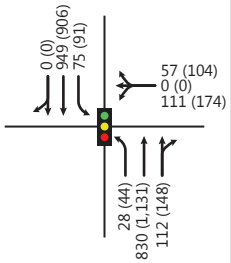
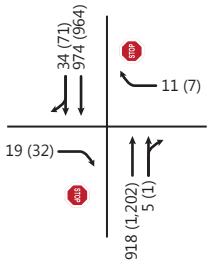
MARK THOMAS
7571 North Remington Ave, Suite 102
Fresno, California 93711

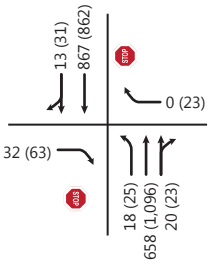
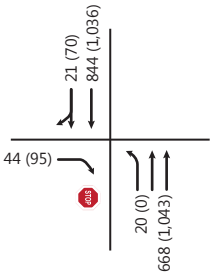
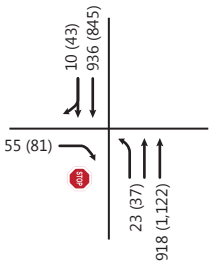
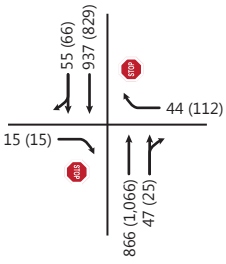
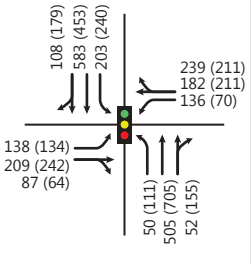
DRAWN BY: KG
CKD BY: JL
DATE: 2/23/2018
SCALE: 1"=50'

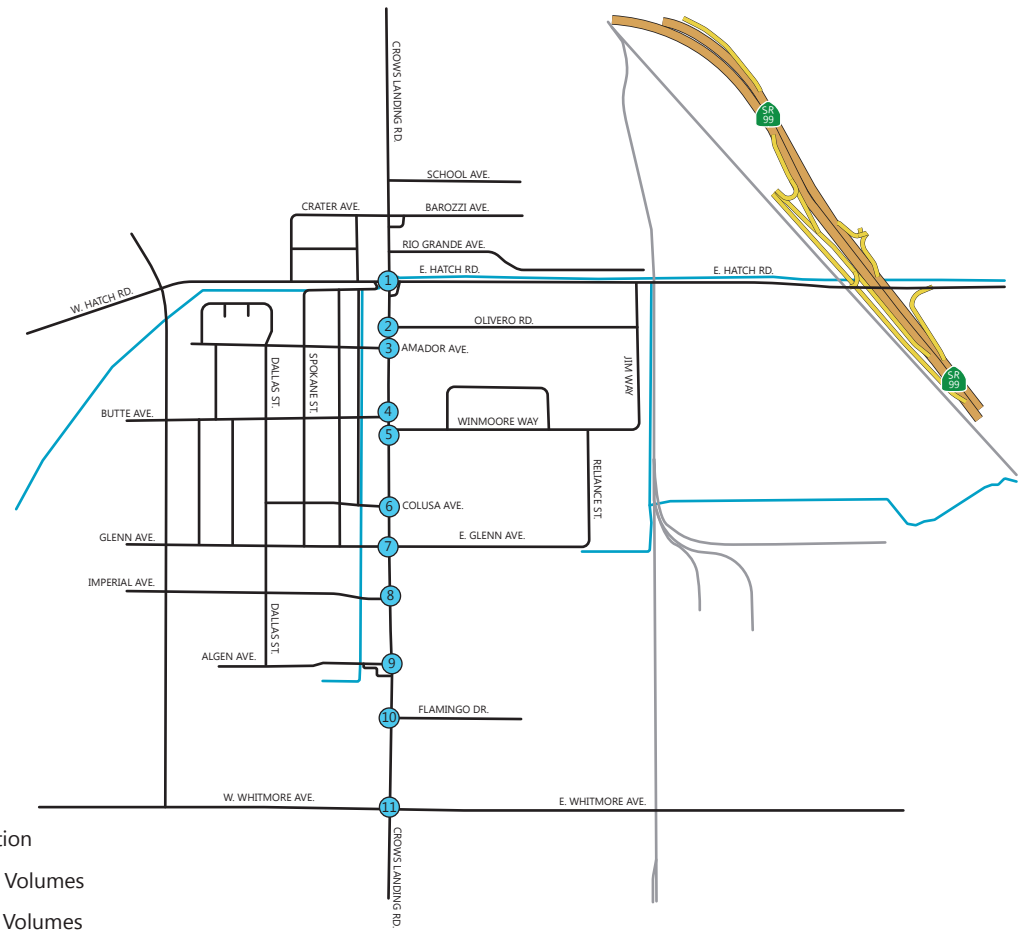
JOB NO.
FN-17111

FILE NAME
2018-01-04_GAD.dwg

Existing Plus Planned Roadway Improvements Lane Geometry, Traffic Control and Turning Movement Volumes

Intersection #1 Crows Landing / Hatch Rd.	**Intersection #2** Crows Landing Rd. / Olivero Rd.	**Intersection #3** Crows Landing / Amador Ave.	**Intersection #4** Crows Landing Rd. / Butte Ave.	**Intersection #5** Crows Landing / Winmoore Way	**Intersection #6** Crows Landing Rd. / Colusa Ave.
					

Intersection #7 Crows Landing / Glenn Ave.	**Intersection #8** Crows Landing Rd. / Imperial Ave.	**Intersection #9** Crows Landing / Algen Ave.	**Intersection #10** Crows Landing Rd. / Flamingo Ave.	**Intersection #11** Crows Landing / Whitmore Ave.
				



LEGEND

- Study Intersection
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes
- Signalized Intersections
- Unsignalized Intersections

Existing plus Planned Improvements Conditions – Mitigations

Unsignalized Intersection Analysis

Under Existing plus Planned Roadway Improvements Conditions, the following unsignalized intersections operates at deficient LOS due to the major approach volume along Crows Landing Road:

- Crows Landing Road/Amador Avenue (LOS F during p.m. peak hour)

Crows Landing Road/Amador Avenue

At the intersection of Crows Landing Road/Amador Avenue, the cause of the deficiency is the left turn movement from Amador Avenue onto northbound Crows Landing Road. The eastbound approach from Amador Avenue during the p.m. peak hour is approximately 119 vehicles, of those 104 left turns.

Signal Warrant Analysis

An assessment was made of the need for signalization at the intersections of Crows Landing Road/Amador Avenue and Crows Landing Road/Glenn Avenue. This assessment was made based on the Peak-Hour Volume Signal Warrant (Section 4C.04) described in the California Manual on Uniform Traffic Control Devices (MUTCD). This method makes no evaluation of intersection levels of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other types of traffic control devices, signage, or geometric changes may be preferable based on existing field conditions. Based on the analysis, a traffic signal meets the criteria at both of these study intersections under Existing plus Planned Roadway Improvements Conditions.

The intersection LOS analysis results for mitigated intersections under Existing plus Planned Roadway Improvement Conditions are summarized in **Table 4**. Detailed calculation sheets for the mitigations are contained in **Appendix E**.

Table 4: Existing plus Planned Roadway Improvements Conditions – Mitigations

ID	Intersection	Peak Hour	Existing plus Planned Roadway Improvements			
			No Build Scenario		Build Scenario	
			Average Delay[1]	LOS[2]	Average Delay[1]	LOS[2]
3	Crows Landing Road/Amador Avenue	PM	**69.4**	**F**	10.9	B

Notes:

[1]Average intersection delay expressed in seconds per vehicle for signalized intersections. Control delay for the worst movement is presented for side-street stop controlled intersections

[2]LOS = Level of Service

Bold indicates intersections that operate at a deficient Level of Service.

CUMULATIVE (YEAR 2040) CONDITIONS – NO BUILD SCENARIO

This section details expected traffic conditions at the study intersections under Cumulative (No Build) Conditions. This analysis scenario is defined as baseline conditions without the proposed improvements in year 2040. This scenario is similar to the Existing Conditions, but with a projected growth rate of 1.15 percent per year applied over 23 years to project traffic demands for the Horizon Year 2040.

The Cumulative Conditions traffic volumes were based on the Stanislaus County Forecast Summary Report published on July 7, 2016. Based on the report, existing traffic volumes are forecasted at a growth rate of 1.15 percent annually for 23 years.

Intersection Level of Service Analysis – Cumulative Conditions

The intersection LOS analysis results for Cumulative Conditions are summarized in **Table 5**. Detailed calculation sheets for Cumulative Conditions are contained in **Appendix F**.

Under this scenario, all intersections are expected to continue operating within applicable jurisdictional standards of LOS C (Stanislaus County) and LOS D (City of Modesto) except for the following intersections:

- Crows Landing Road/Hatch Avenue (LOS E during a.m. peak hour and at LOS F during p.m. peak hour)
- Crows Landing Road/Amador Avenue (LOS E during p.m. peak hour)
- Crows Landing/Imperial Avenue (LOS E during p.m. peak hour)
- Crows Landing/Flamingo Road (LOS E during a.m. peak hour)
- Crows Landing Road/Whitmore Avenue (LOS E during a.m. peak hour and at LOS F during p.m. peak hour)

Figure 5 shows projected turning movement volumes at all of the study intersections for Cumulative Conditions.

Table 5: Intersection Level of Service Analysis - Cumulative (Year 2040) Conditions

ID	Intersection	Intersection Control	A.M Peak Hour		P.M. Peak Hour	
			Average Delay[1]	LOS[2]	Average Delay[1]	LOS[2]
1	Crows Landing Road/Hatch Road	Signalized	**75.1**	**E**	**81.6**	**F**
2	Crows Landing Road/Olivero Road	One-way Stop Control	25.8	D	15.1	C
3	Crows Landing Road/Amador Avenue	One-way Stop Control	16.7	C	**37.8**	**E**
4	Crows Landing Road/Butte Avenue	Signalized	12.5	B	12.1	B
5	Crows Landing Road/Winmoore Way	Signalized	12.0	B	14.7	B
6	Crows Landing Road/Colusa Avenue	One-way Stop Control	13.2	B	16.6	C
7	Crows Landing Road/Glenn Avenue	Two-way Stop Control	20.5	C	30.1	D
8	Crows Landing Road/Imperial Avenue	One-way Stop Control	18.9	C	**42.2**	**E**
9	Crows Landing Road/Algen Avenue	One-way Stop Control	25.2	D	23.9	C
10	Crows Landing Road/Flamingo Drive	One-way Stop Control	**44.7**	**E**	28.0	D
11	Crows Landing Road/Whitmore Avenue	Signalized	**66.5**	**E**	**93.7**	**F**

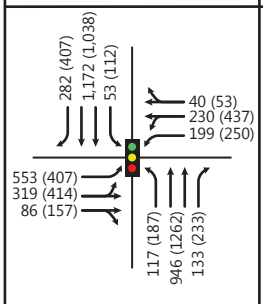
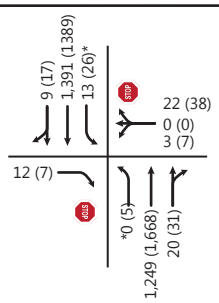
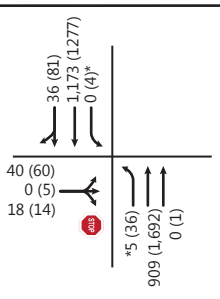
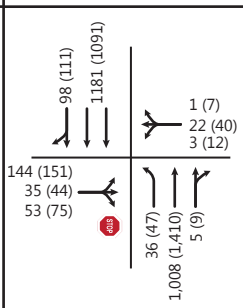
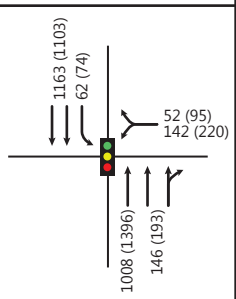
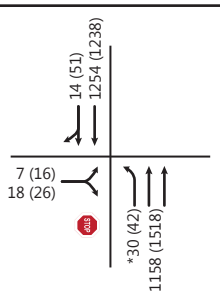
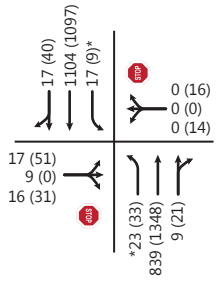
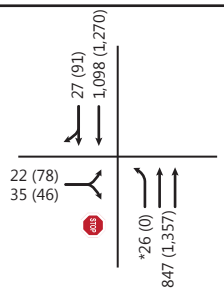
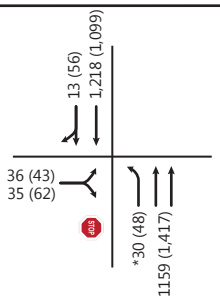
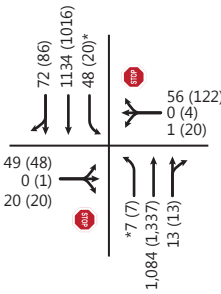
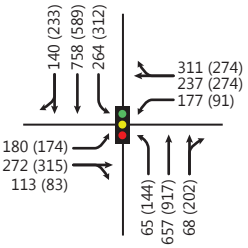
Notes:

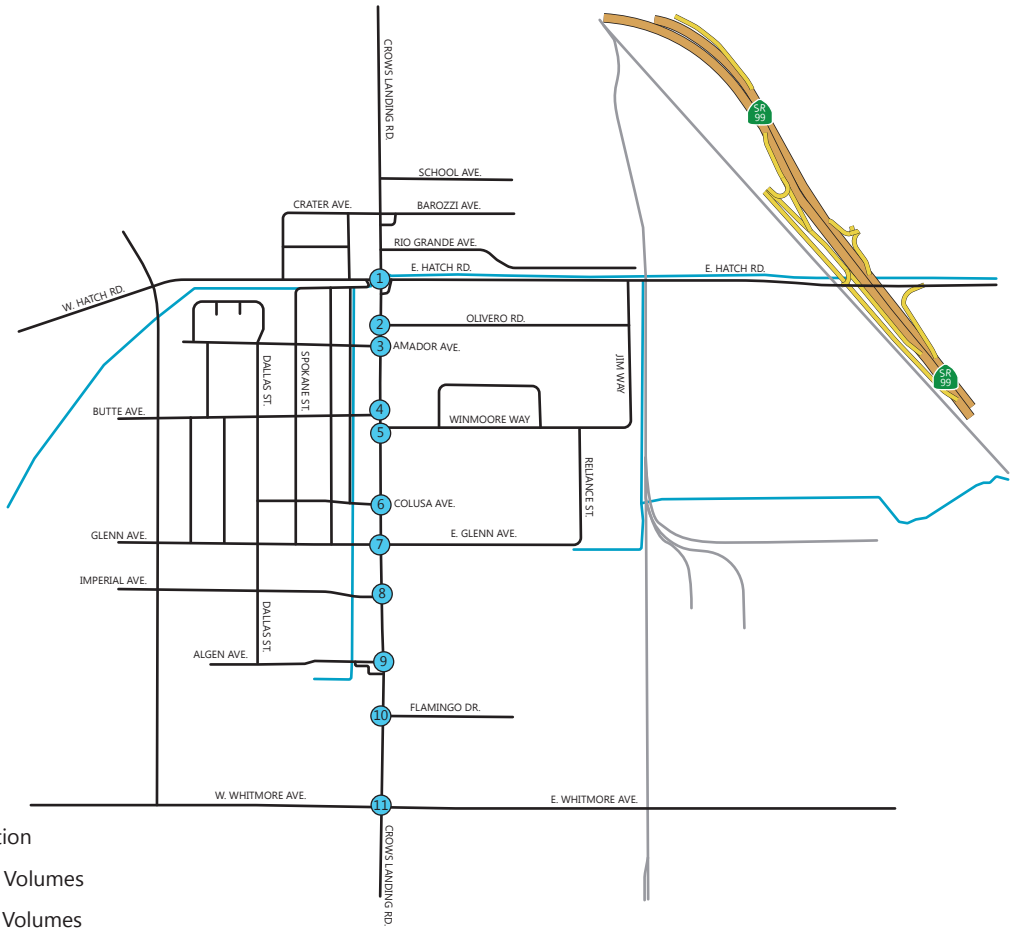
[1]Average intersection delay expressed in seconds per vehicle for signalized intersections. Control delay for the worst movement is presented for side-street stop controlled intersections

[2]LOS = Level of Service

Bold indicates intersections that operate at a deficient Level of Service.

Cumulative Lane Geometry, Traffic Control and Turning Movement Volumes

Intersection #1 Crows Landing Rd. / Hatch Rd.	**Intersection #2** Crows Landing Rd. / Olivero Rd.	**Intersection #3** Crows Landing Rd. / Amador Ave.	**Intersection #4** Crows Landing Rd. / Butte Ave.	**Intersection #5** Crows Landing Rd. / Winmoore Way	**Intersection #6** Crows Landing Rd. / Colusa Ave.
					
Intersection #7 Crows Landing Rd. / Glenn Ave.	**Intersection #8** Crows Landing Rd. / Imperial Ave.	**Intersection #9** Crows Landing Rd. / Algen Ave.	**Intersection #10** Crows Landing Rd. / Flamingo Ave.	**Intersection #11** Crows Landing Rd. / Whitmore Ave.	
					



LEGEND

- Study Intersection
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes
- Signalized Intersections
- Unsignalized Intersections
- * Indicates Traffic Volume from Two-way Left Turn Lane

CUMULATIVE PLUS PLANNED ROADWAY IMPROVEMENTS – BUILD ALTERNATIVE

This scenario is similar to the Cumulative Conditions, with the addition of planned roadway improvements. Lane geometries and traffic controls are identical to that assumed under Existing plus Project Conditions.

Figure 4 shows planned lane geometries traffic controls and projected turning movement volumes at all the study intersections for Cumulative plus Planned Roadway Conditions Scenario.

Intersection Level of Service Analysis – Cumulative plus Planned Roadway Improvements Conditions

The intersection LOS analysis results for Cumulative plus Planned Roadway Improvements Conditions are summarized in **Table 6**. Detailed calculation sheets for Cumulative plus Planned Roadway Improvements Conditions are contained in **Appendix G.**

Under this scenario, all intersections are expected to continue operating within applicable jurisdictional standards of LOS C (Stanislaus County) and LOS D (City of Modesto) except for the following intersections:

- Crows Landing Road/Hatch Avenue (LOS E during a.m. peak hour and LOS F during p.m. peak hours)
- Crows Landing Road/Amador Avenue (LOS F during p.m. peak hour)
- Crows Landing Road/Whitmore Avenue (LOS E during a.m. peak hour and at LOS F during p.m. peak hour)

Figure 6 shows planned lane geometries traffic controls and projected turning movement volumes at all the study intersections for Cumulative plus Planned Roadway Improvements Conditions Scenario.

The results for Cumulative Conditions are included for comparison purposes.

Table 6: Intersection Level of Service Analysis – Cumulative plus Planned Roadway Improvements Conditions

ID	Intersection	Peak Hour	Cumulative Conditions		Cumulative plus Planned Roadway Improvements	
			Average Delay[1]	LOS[2]	Average Delay[1]	LOS[2]
1	Crows Landing Road/Hatch Road	AM	**75.1**	**E**	**75.1**	**E**
		PM	**81.6**	**F**	**81.6**	**F**
2	Crows Landing Road/Olivero Road	AM	25.8	D	11.4	B
		PM	15.1	C	10.7	B
3	Crows Landing Road/Amador Avenue	AM	16.7	C	26.7	D
		PM	37.8	E	**159.6**	**F**
4	Crows Landing Road/Butte Avenue	AM	12.5	B	-	-
		PM	12.1	B	-	-
5	Crows Landing Road/Winmoore Way	AM	12.0	B	17.5	B
		PM	14.7	B	25.7	C
6	Crows Landing Road/Colusa Avenue	AM	13.2	B	13.8	B
		PM	16.6	C	16.9	C
7	Crows Landing Road/Glenn Avenue	AM	20.5	C	11.1	B
		PM	30.1	D	16.8	C
8	Crows Landing Road/Imperial Avenue	AM	18.9	C	14.6	B
		PM	**42.2**	**E**	21.3	C
9	Crows Landing Road/Algen Avenue	AM	25.2	D	16.3	C
		PM	23.9	C	16.1	C
10	Crows Landing Road/Flamingo Drive	AM	**44.7**	**E**	15.3	C
		PM	28.0	D	13.8	B
11	Crows Landing Road/Whitmore Avenue	AM	**66.5**	**E**	**66.5**	**E**
		PM	**93.7**	**F**	**93.7**	**F**

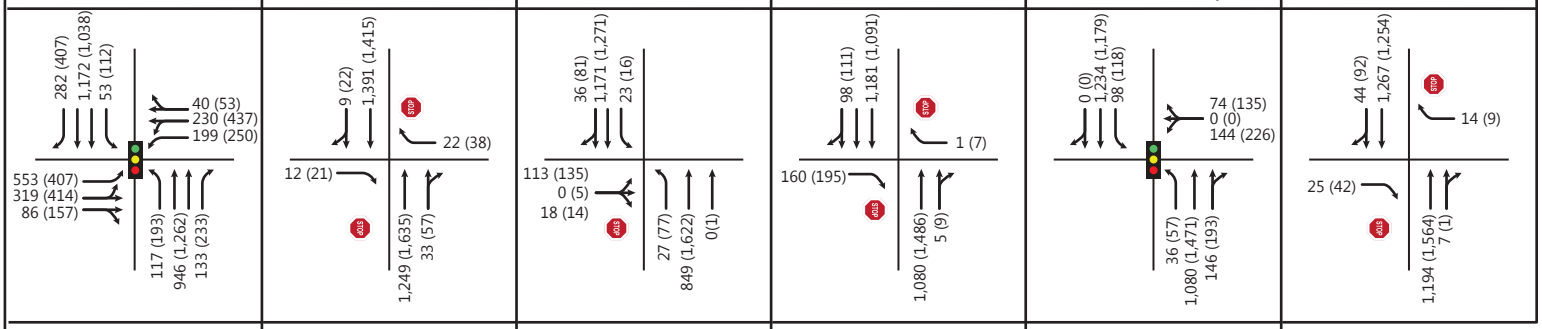
Notes:

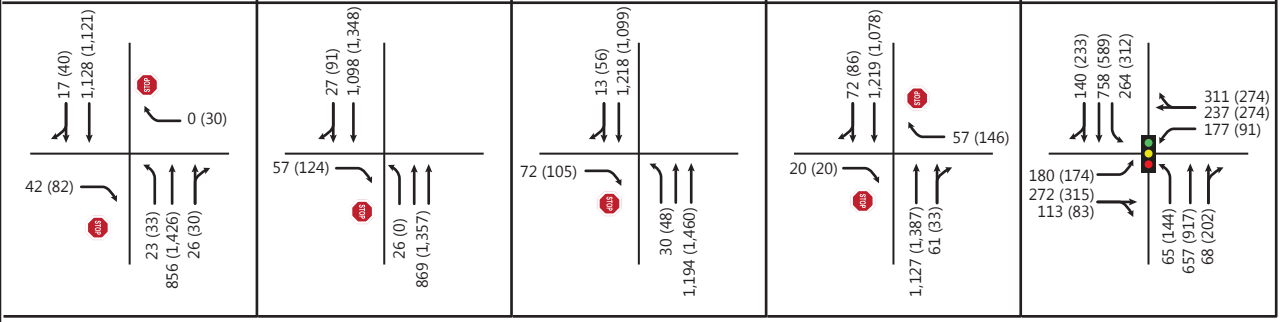
[1]Average intersection delay expressed in seconds per vehicle for signalized intersections. Control delay for the worst movement is presented for side-street stop controlled intersections

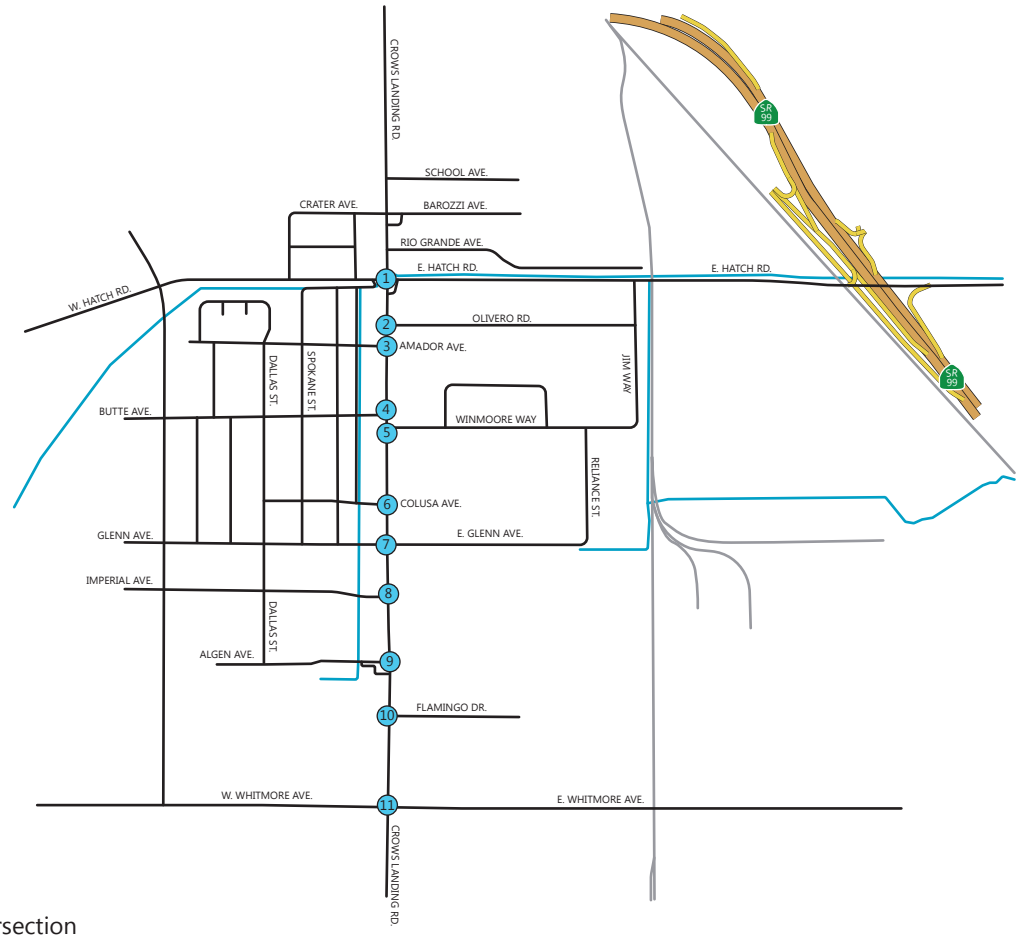
[2]LOS = Level of Service

Bold indicates intersections that operate at a deficient Level of Service.

Cumulative Plus Planned Roadway Improvements Lane Geometry, Traffic Control and Turning Movement Volumes







LEGEND

- Study Intersection
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes

Cumulative plus Planned Improvements Conditions - Mitigations

Unsignalized Intersection Analysis

Under Cumulative plus Planned Roadway Improvements Conditions, the following unsignalized intersections operates at deficient LOS due to the major approach volume along Crows Landing Road:

- Crows Landing Road/Amador Avenue (LOS F during p.m. peak hour)

Crows Landing Road/Amador Avenue

At the intersection of Crows Landing Road/Amador Avenue, the cause of the deficiency is the left turn movement from Amador Avenue onto northbound Crows Landing Road. The eastbound approach from Amador Avenue during the p.m. peak hour is approximately 154 vehicles, of those 135 left turns.

Signal Warrant Analysis

An assessment was made of the need for signalization at the intersections of Crows Landing Road/Amador Avenue Crows Landing Road/Colusa Avenue and Crows Landing Road/Glenn Avenue. This assessment was made based on the Peak-Hour Volume Signal Warrant (Section 4C.04) described in the California Manual on Uniform Traffic Control Devices (MUTCD). This method makes no evaluation of intersection levels of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other types of traffic control devices, signage, or geometric changes may be preferable based on existing field conditions. Based on the analysis, a traffic signal meets the criteria at these three study intersections under Cumulative plus Planned Roadway Improvements Conditions.

The intersection LOS analysis results for mitigated intersections under Cumulative plus Planned Roadway Improvement Conditions are summarized in **Table 7**. Detailed Calculation sheets for the mitigations are contained in **Appendix H**.

Table 7: Cumulative plus Planned Roadway Improvements Conditions – Mitigations

ID	Intersection	Peak Hour	Cumulative plus Planned Roadway Improvements			
			No Build Scenario		Build Scenario	
			Average Delay[1]	LOS[2]	Average Delay[1]	LOS[2]
3	Crows Landing Road/Amador Avenue	PM	**159.6**	**F**	15.1	B

Notes:

[1]Average intersection delay expressed in seconds per vehicle for signalized intersections. Control delay for the worst movement is presented for side-street stop controlled intersections

[2]LOS = Level of Service

Bold indicates intersections that operate at a deficient Level of Service.

IMPACTS TO BICYCLE AND PEDESTRIAN FACILITIES

Based on the review of existing and cumulative conditions, plus the planned roadway improvements along with the conceptual design of the Crows Landing Road project, the addition of bicycle and pedestrian facilities will improve access to the local businesses, schools, and centers along the corridor. There is no significant impact to the existing facilities with the proposed improvements.

TJKM reviewed additional locations for opportunities for pedestrian crossings. There is an existing pedestrian crossing with a pedestrian-activated rectangular rapid flashing beacons (RRFB) at the intersection of Crows Landing Road/Amador Avenue.

RRFB Warrant Analysis at the intersection of Crows Landing Road and Imperial Avenue

TJKM performed a warrant for a pedestrian crossing with RRFB at the intersection of Imperial Avenue and Crows Landing Road. The California Manual on Uniform Traffic Control Device (CA MUTCD) provides warrant criteria for flashing beacons at crosswalks in Section 4L.101(CA). The RRFB applications at the intersection of Crows Landing Road and Imperial Avenue is evaluated using CA MUTCD. The criteria required are presented in **Table 8**. All warrant criteria are required to be met to provide recommendation for implementation.

Table 8: Flashing Beacons at Crosswalks Warrant Criteria

Criteria	Description
A	The uncontrolled school crossing is on the "Suggested Route to School"
B	At least 40 school pedestrians use the crossing during each of any two hours (not necessarily consecutive) of a normal school day.
C	The crossing is at least 600 feet from the nearest alternate crossing controlled by traffic signals, stop signs or crossing guards.
D	The vehicular volume through the crossing exceeds 200 vehicles per hour in urban areas or 140 vehicles per hour in rural areas during the same hour the students are going to and from school during normal school hours.
E	The critical approach speeds exceeds 35 mph or the approach visibility is less than the stopping sight distance.

Source: CA MUTCD Section 4L.101(CA)

A. There is a Bret Harte Elementary School in the vicinity. However, suggested route to school is not present at this intersection.
B. The maximum two-hour counts of pedestrians entering the intersection of Crows Landing Road and Imperial Avenue was Five during a.m. peak hour and eight during p.m. peak hour on a school day. This number represents the summation of pedestrians crossing for all approaches.
C. Existing crosswalks are available on the south leg and west leg at the intersection of Crows Landing Road/Imperial Avenue.

D. During the hours the students are travelling to and from school, the hourly vehicle volume on Crows Landing Road north of Imperial Avenue is approximately 1600 and 1900 vehicles per hour.
E. Speed survey data indicates that critical approach speeds (85th percentile speeds) were 42.1 mph and 40.8 mph for northbound and southbound traffic, respectively; thus 41.5 mph in average. These speeds were significantly higher than the posted limit of 35 mph. Based on field observation, most vehicles did not slow down or stop when approaching the intersections.

A RRFB is not warranted based upon evaluation criteria provided by CA MUTCD Section 4L.101(CA). This is due to Criteria A and Criteria B (pedestrian volume) not fulfilled. **Table 9** summarizes the RRFB warrant analysis by criteria.

Table 9: RRFB Warrant Analysis Summary

Intersection	Crossings	Criteria A	Criteria B	Criteria C	Criteria D	Criteria E	Warrant Met?
Crows Landing Road and Imperial Avenue	South Leg	No	No	Yes	Yes	Yes	No

Source: TJKM, 2018

A RRFB is not warranted for the crosswalk using CA MUTCD 4L.101(CA). TJKM finds the need to perform further analysis based on engineering judgement in that the evaluation results for Criteria D and Criteria E exceeded the thresholds significantly, and would have potential impact on pedestrian safety. Also based on the field observation conducted, an additional pedestrian activated RRFB crosswalk may also be considered north of the project area at the intersection of Crows Landing Road/School Avenue.

TRAFFIC INDEX ANALYSIS

Traffic Index (TI) is a measure of the number of Equivalent Single Axle Loads (ESAL) expected on a traffic lane over the pavement design life of the facility. TI is determined by projecting the ESALs to estimate total accumulated traffic loading during the pavement design life. A method of judging the effect of increased truck traffic on pavement conditions is to compare TI values for Existing Conditions versus Cumulative Conditions.

TJKM collected 24-hour bi-directional vehicle classification traffic volumes for a one-day during the month of November along the following five roadway locations:

1. Crows Landing Road north of Olivero Road
2. Crows Landing Road north of Colusa Avenue
3. Crows Landing Road north of Imperial Avenue
4. Crows Landing Road north of Algen Avenue
5. Crows Landing Road north of Whitmore Avenue

Table 613.3A and Table 613.3C from Chapter 610 in Highway Design Manual was referenced to calculate TI. For purposes of this analysis, the daily volumes were projected by a growth rate of 1.15 percent per year for a Cumulative Year 2040.

Table 9 below summarizes the results of TI analysis for Crows Landing Road study corridor. Detailed TI analysis and calculations are provided in **Appendix I**.

Table 10: Traffic Index Analysis

ID	Roadway Segment	Direction	Existing Conditions		Cumulative Conditions	
			ESAL	TI Calculated	ESAL	TI Calculated
1	Crows Landing Road north of Olivero Road	Northbound	9,588,400	12.0	12,472,731	12.0
		Southbound	7,476,480	11.5	9,725,514	12.0
2	Crows Landing Road north of Colusa Avenue	Northbound	5,731,180	11.0	7,455,203	11.5
		Southbound	7,804,680	11.5	10,152,442	12.0
3	Crows Landing Road north of Imperial Avenue	Northbound	8,323,000	11.5	10,826,680	12.0
		Southbound	6,924,820	11.5	9,007,907	11.5
4	Crows Landing Road north of Algen Avenue	Northbound	7,700,520	11.5	10,016,949	12.0
		Southbound	7,690,300	11.5	10,003,655	12.0
5	Crows Landing Road north of Whitmore Avenue	Northbound	7,268,680	11.5	9,455,205	11.5
		Southbound	8,188,880	11.5	10,652,215	12.0

Notes:

ESAL = Equivalent Single Axle Load;

TI = Traffic Index

CONCLUSIONS

To summarize the Crows Landing Corridor Study analysis, the proposed improvements provides a street environment for all modes of travel.

Existing Conditions

Under Existing conditions, the intersections of Crows Landing Road/Hatch Road operate at an unacceptable LOS D in both the a.m. and p.m. peak hours. The intersection of Crows Landing Road/Whitmore Avenue operates at LOS D in the p.m. peak hour.

Existing plus Planned Roadway Improvements Conditions

Under Existing plus Planned Roadway Improvements Conditions, the following unsignalized intersections operates at deficient LOS due to the major approach volume along Crows Landing Road:

- Crows Landing Road/Amador Avenue (LOS F during p.m. peak hour)

To mitigate, a signal warrant analysis was completed and found to improve the LOS from F to A.

Cumulative Conditions

Under Cumulative Conditions, the following intersections operate at deficient LOS:

- Crows Landing Road/Hatch Avenue (LOS E during a.m. peak hour and at LOS F during p.m. peak hour)
- Crows Landing Road/Amador Avenue (LOS E during p.m. peak hour)
- Crows Landing/Imperial Avenue (LOS E during p.m. peak hour)
- Crows Landing/Flamingo Road (LOS E during a.m. peak hour)
- Crows Landing Road/Whitmore Avenue (LOS E during a.m. peak hour and at LOS F during p.m. peak hour)

Cumulative plus Planned Roadway Improvements Conditions

Under Cumulative plus Planned Roadway Improvements Conditions, the following unsignalized intersections operates at deficient LOS due to the major approach volume along Crows Landing Road:

- Crows Landing Road/Amador Avenue (LOS F during p.m. peak hour)

To mitigate, a signal warrant analysis was completed and found to improve to acceptable LOS standards.

Bicycle and Pedestrian Facilities

The project improves the multimodal access to the corridor. There are no significant impacts to the bicycle and pedestrian facilities as a result of the project. The existing midblock crossing with a pedestrian-activated rectangular rapid flashing beacons at the intersection of Crows Landing Road/Amador Avenue provides adequate crossing along the corridor.

TJKM also conducted a RRFB warrant analysis for south leg crosswalk at the intersection of Crows Landing Road/Imperial Avenue. Based on the analysis a RRFB is not warranted for the crosswalk using CA MUTCD

4L.101(CA). TJKM finds the need to perform further analysis based on engineering judgement in that the evaluation results for Criteria D and Criteria E exceeded the thresholds significantly, and would have potential impact on pedestrian safety. Also based on the field observation conducted, an additional pedestrian activated RRFB crosswalk may also be considered north of the project area at the intersection of Crows Landing Road/School Avenue.

Appendix A – Level of Service Methodology

LEVEL OF SERVICE METHODOLOGY

LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, *Highway Capacity Manual 2000*. *Highway Capacity Manual 2000* represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-I.

Table A-I

Level of Service Description

Facility Type	**Uninterrupted Flow**	**Interrupted Flow**
	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
LOS		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

Source: *Highway Capacity Manual 2000*

Urban Streets

The term “urban streets” refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

Table A-II

Functional and Design Categories for Urban Streets

Criterion	Functional Category	
	Principal Arterial	**Minor Arterial**
Mobility function	Very important	Important
Access function	Very minor	Substantial
Points connected	Freeways, important activity centers, major traffic generators	Principal arterials
Predominant trips served	Relatively long trips between major points and through trips entering, leaving, and passing through city	Trips of moderate length within relatively small geographical areas

Criterion	Design Category			
	High-Speed	**Suburban**	**Intermediate**	**Urban**
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

Source: *Highway Capacity Manual 2000*

Table A-III

Urban Street Class based on Function and Design Categories

Design Category	Functional Category	
	Principal Arterial	**Minor Arterial**
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: *Highway Capacity Manual 2000*

Table A-IV

Urban Street Levels of Service by Class

Urban Street Class	I	II	III	IV
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
Level of Service	**Average Travel Speed (mph)**			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: *Highway Capacity Manual 2000*

Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A

description of levels of service for signalized intersections can be found in Table A-V.

Table A-V

Description of Level of Service for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase doe not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: *Highway Capacity Manual 2000*

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

Table A-VI

Description of Level of Service for Two-Way Stop Controlled Intersections

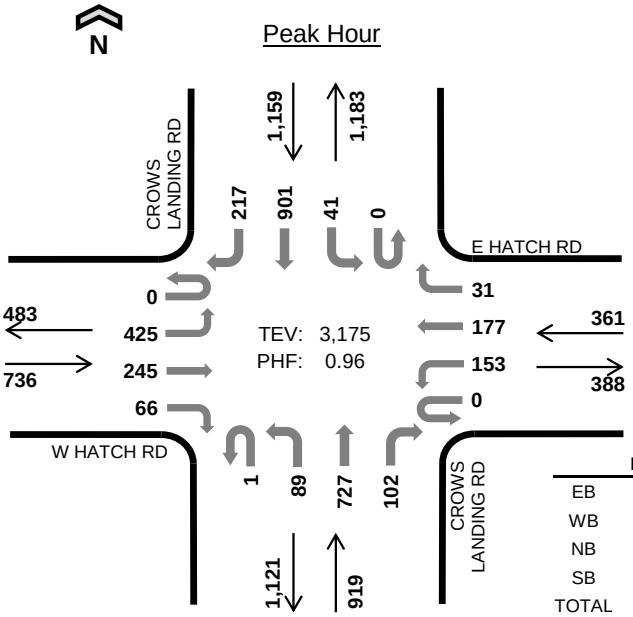
Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: *Highway Capacity Manual 2000*

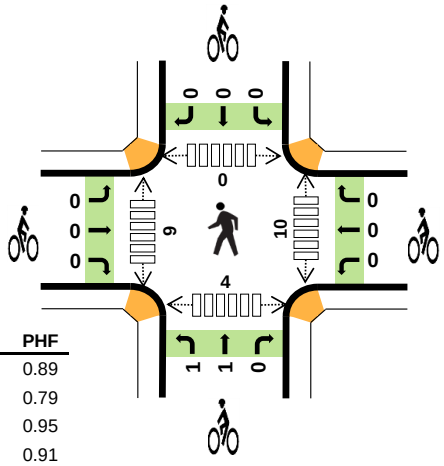
Appendix B – Existing Turning Movement Counts, Average Daily Traffic

CROWS LANDING RD
W HATCH RD

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	3.4%	0.89
WB	5.0%	0.79
NB	7.8%	0.95
SB	4.6%	0.91
TOTAL	5.3%	0.96



Two-Hour Count Summaries

Interval Start	W HATCH RD Eastbound				E HATCH RD Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	64	33	7	0	22	33	7	1	2	120	24	0	6	157	23	499	0
7:15 AM	0	118	62	19	0	22	28	4	0	6	147	24	0	7	174	26	637	0
7:30 AM	**0**	**123**	**74**	**10**	**0**	**37**	**39**	**8**	**0**	**13**	**186**	**22**	**0**	**8**	**199**	**35**	**754**	0
7:45 AM	**0**	**114**	**67**	**18**	**0**	**28**	**28**	**4**	**0**	**22**	**182**	**23**	**0**	**7**	**242**	**47**	**782**	2,672
8:00 AM	**0**	**110**	**54**	**11**	**0**	**48**	**60**	**6**	**1**	**24**	**179**	**37**	**0**	**11**	**217**	**73**	**831**	3,004
8:15 AM	**0**	**78**	**50**	**27**	**0**	**40**	**50**	**13**	**0**	**30**	**180**	**20**	**0**	**15**	**243**	**62**	**808**	**3,175**
8:30 AM	0	67	58	23	0	38	58	15	0	40	159	30	0	11	163	60	722	3,143
8:45 AM	0	75	65	19	0	33	39	14	0	20	156	44	0	17	188	53	723	3,084
Count Total	0	749	463	134	0	268	335	71	2	157	1,309	224	0	82	1,583	379	5,756	0
Peak Hour All	**0**	**425**	**245**	**66**	**0**	**153**	**177**	**31**	**1**	**89**	**727**	**102**	**0**	**41**	**901**	**217**	**3,175**	**0**
Peak Hour HV	**0**	**9**	**14**	**2**	**0**	**8**	**4**	**6**	**0**	**7**	**55**	**10**	**0**	**3**	**44**	**6**	**168**	**0**
Peak Hour HV%	**-**	**2%**	**6%**	**3%**	**-**	**5%**	**2%**	**19%**	**0%**	**8%**	**8%**	**10%**	**-**	**7%**	**5%**	**3%**	**5%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	2	8	30	16	*56*	0	0	0	0	*0*	0	2	1	1	*4*
7:15 AM	1	4	22	22	*49*	0	0	0	0	*0*	2	1	0	4	*7*
7:30 AM	**5**	**2**	**21**	**11**	***39***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**2**	*6*
7:45 AM	**7**	**5**	**18**	**12**	***42***	**0**	**0**	**1**	**0**	***1***	**2**	**3**	**0**	**1**	*6*
8:00 AM	**6**	**5**	**16**	**16**	***43***	**0**	**0**	**0**	**0**	***0***	**4**	**2**	**0**	**0**	*6*
8:15 AM	**7**	**6**	**17**	**14**	***44***	**0**	**0**	**1**	**0**	***1***	**4**	**0**	**0**	**1**	***5***
8:30 AM	4	8	13	17	*42*	0	0	0	0	*0*	1	1	0	1	*3*
8:45 AM	8	6	12	14	*40*	0	0	0	0	*0*	0	1	0	1	*2*
Count Total	40	44	149	122	*355*	0	0	2	0	*2*	13	14	1	11	*39*
Peak Hour	**25**	**18**	**72**	**53**	***168***	**0**	**0**	**2**	**0**	***2***	**10**	**9**	**0**	**4**	***23***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	W HATCH RD				E HATCH RD				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	1	0	0	5	2	1	0	0	27	3	0	0	15	1	56	0
7:15 AM	0	0	1	0	0	3	1	0	0	2	18	2	0	1	18	3	49	0
7:30 AM	**0**	**4**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**2**	**18**	**1**	**0**	**0**	**10**	**1**	**39**	0
7:45 AM	**0**	**2**	**5**	**0**	**0**	**3**	**2**	**0**	**0**	**1**	**11**	**6**	**0**	**1**	**8**	**3**	**42**	186
8:00 AM	**0**	**2**	**3**	**1**	**0**	**1**	**1**	**3**	**0**	**1**	**14**	**1**	**0**	**1**	**14**	**1**	**43**	173
8:15 AM	**0**	**1**	**5**	**1**	**0**	**3**	**1**	**2**	**0**	**3**	**12**	**2**	**0**	**1**	**12**	**1**	**44**	**168**
8:30 AM	0	3	0	1	0	3	4	1	0	2	10	1	0	3	10	4	42	171
8:45 AM	0	4	4	0	0	5	0	1	0	1	6	5	0	1	13	0	40	169
Count Total	0	17	20	3	0	24	11	9	0	12	116	21	0	8	100	14	355	0
Peak Hour	**0**	**9**	**14**	**2**	**0**	**8**	**4**	**6**	**0**	**7**	**55**	**10**	**0**	**3**	**44**	**6**	**168**	**0**

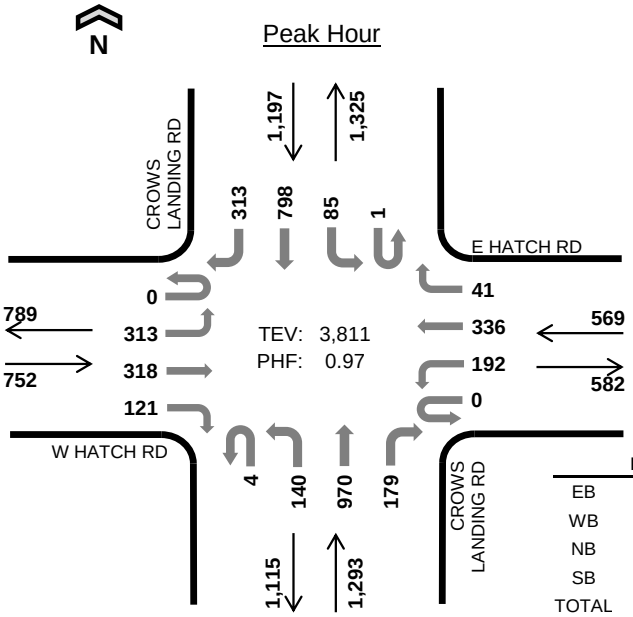
Two-Hour Count Summaries - Bikes

Interval Start	W HATCH RD			E HATCH RD			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**2**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	1	1	0	0	0	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**2**	**0**

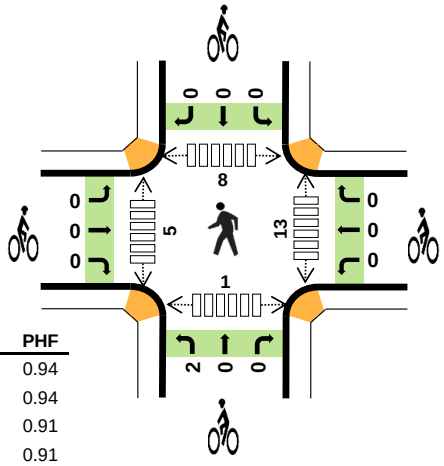
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
W HATCH RD

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	1.7%	0.94
WB	1.2%	0.94
NB	3.2%	0.91
SB	3.6%	0.91
TOTAL	2.8%	0.97



Two-Hour Count Summaries

Interval Start	W HATCH RD Eastbound				E HATCH RD Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	67	73	37	0	56	97	11	0	40	225	41	1	18	176	69	911	0
4:15 PM	**0**	**77**	**84**	**19**	**0**	**37**	**84**	**9**	**1**	**35**	**232**	**43**	**0**	**29**	**226**	**74**	**950**	0
4:30 PM	**0**	**86**	**80**	**35**	**0**	**52**	**70**	**15**	**2**	**27**	**224**	**32**	**1**	**25**	**192**	**77**	**918**	0
4:45 PM	**0**	**68**	**73**	**33**	**0**	**50**	**90**	**10**	**1**	**36**	**280**	**40**	**0**	**18**	**208**	**71**	**978**	3,757
5:00 PM	**0**	**82**	**81**	**34**	**0**	**53**	**92**	**7**	**0**	**42**	**234**	**64**	**0**	**13**	**172**	**91**	**965**	**3,811**
5:15 PM	0	81	87	27	0	47	88	13	1	36	219	54	2	18	166	67	906	3,767
5:30 PM	0	63	90	27	0	29	80	9	0	36	230	49	0	17	243	63	936	3,785
5:45 PM	0	60	86	27	0	48	96	9	0	46	198	51	0	20	166	71	878	3,685
Count Total	0	584	654	239	0	372	697	83	5	298	1,842	374	4	158	1,549	583	7,442	0
Peak Hour All	**0**	**313**	**318**	**121**	**0**	**192**	**336**	**41**	**4**	**140**	**970**	**179**	**1**	**85**	**798**	**313**	**3,811**	**0**
Peak Hour HV	**0**	**5**	**6**	**2**	**0**	**4**	**3**	**0**	**0**	**4**	**26**	**12**	**0**	**3**	**34**	**6**	**105**	**0**
Peak Hour HV%	**-**	**2%**	**2%**	**2%**	**-**	**2%**	**1%**	**0%**	**0%**	**3%**	**3%**	**7%**	**0%**	**4%**	**4%**	**2%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	9	10	17	*40*	1	0	0	0	*1*	1	2	2	0	*5*
4:15 PM	**4**	**5**	**9**	**11**	***29***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**3**	**0**	*8*
4:30 PM	**5**	**1**	**12**	**14**	***32***	**0**	**0**	**0**	**0**	***0***	**7**	**1**	**4**	**0**	*12*
4:45 PM	**1**	**1**	**12**	**10**	***24***	**0**	**0**	**0**	**0**	***0***	**3**	**1**	**1**	**1**	*6*
5:00 PM	**3**	**0**	**9**	**8**	***20***	**0**	**0**	**2**	**0**	***2***	**0**	**1**	**0**	**0**	***1***
5:15 PM	5	1	7	6	*19*	0	0	0	0	*0*	1	0	1	0	*2*
5:30 PM	1	2	8	13	*24*	0	0	0	0	*0*	3	4	0	0	*7*
5:45 PM	1	3	6	7	*17*	1	0	0	0	*1*	1	3	0	1	*5*
Count Total	24	22	73	86	*205*	2	0	2	0	*4*	19	14	11	2	*46*
Peak Hour	**13**	**7**	**42**	**43**	***105***	**0**	**0**	**2**	**0**	***2***	**13**	**5**	**8**	**1**	***27***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	W HATCH RD				E HATCH RD				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	2	0	0	4	5	0	0	0	6	4	0	4	11	2	40	0
4:15 PM	**0**	**1**	**2**	**1**	**0**	**3**	**2**	**0**	**0**	**1**	**7**	**1**	**0**	**1**	**8**	**2**	**29**	0
4:30 PM	**0**	**2**	**2**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**12**	**0**	**0**	**2**	**9**	**3**	**32**	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**6**	**4**	**0**	**0**	**9**	**1**	**24**	125
5:00 PM	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**7**	**0**	**0**	**8**	**0**	**20**	**105**
5:15 PM	0	1	3	1	0	0	1	0	0	0	6	1	0	0	5	1	19	95
5:30 PM	0	0	1	0	0	1	1	0	0	0	8	0	0	0	12	1	24	87
5:45 PM	0	0	1	0	0	0	3	0	0	0	5	1	0	1	5	1	17	80
Count Total	0	8	13	3	0	9	13	0	0	4	51	18	0	8	67	11	205	0
Peak Hour	**0**	**5**	**6**	**2**	**0**	**4**	**3**	**0**	**0**	**4**	**26**	**12**	**0**	**3**	**34**	**6**	**105**	**0**

Two-Hour Count Summaries - Bikes

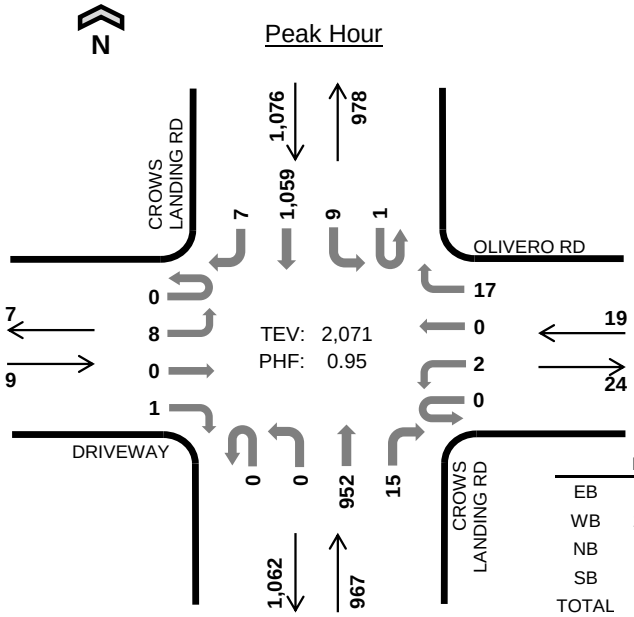
Interval Start	W HATCH RD			E HATCH RD			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	3
Count Total	0	0	2	0	0	0	2	0	0	0	0	0	4	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

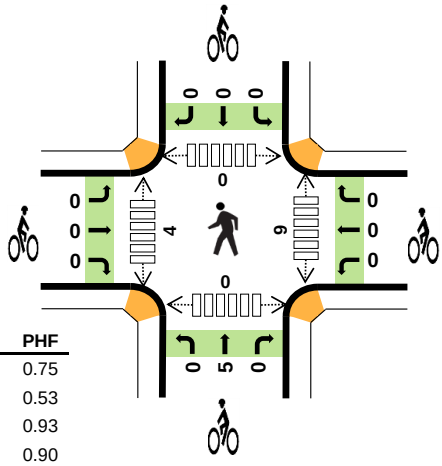
CROWS LANDING RD
OLIVERO RD

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour



	HV %:	PHF
EB	0.0%	0.75
WB	10.5%	0.53
NB	6.9%	0.93
SB	5.6%	0.90
TOTAL	6.2%	0.95



Two-Hour Count Summaries

Interval Start	DRIVEWAY Eastbound				OLIVERO RD Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	1	0	0	0	7	0	0	148	2	0	2	176	2	340	0
7:15 AM	0	2	0	1	0	0	0	6	0	0	184	0	0	0	206	2	401	0
7:30 AM	0	2	0	1	0	0	0	6	0	0	223	1	0	1	228	1	463	0
7:45 AM	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**224**	**7**	**0**	**1**	**271**	**1**	**510**	1,714
8:00 AM	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**258**	**2**	**0**	**3**	**269**	**3**	**542**	1,916
8:15 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**236**	**4**	**1**	**3**	**291**	**3**	**543**	2,058
8:30 AM	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**8**	**0**	**0**	**234**	**2**	**0**	**2**	**228**	**0**	**476**	**2,071**
8:45 AM	0	1	0	1	0	1	0	2	0	1	235	2	0	1	229	0	473	2,034
Count Total	0	15	0	5	0	3	0	38	0	1	1,742	20	1	13	1,898	12	3,748	0
Peak Hour All	**0**	**8**	**0**	**1**	**0**	**2**	**0**	**17**	**0**	**0**	**952**	**15**	**1**	**9**	**1,059**	**7**	**2,071**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**67**	**0**	**0**	**0**	**59**	**1**	**129**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**12%**	**-**	**-**	**7%**	**0%**	**0%**	**0%**	**6%**	**14%**	**6%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	0	3	27	19	*49*	0	0	0	0	*0*	1	0	0	0	*1*
7:15 AM	0	1	20	22	*43*	0	0	1	0	*1*	0	1	0	0	*1*
7:30 AM	0	1	21	11	*33*	0	0	0	0	*0*	2	2	0	0	*4*
7:45 AM	**0**	**1**	**18**	**11**	***30***	**0**	**0**	**2**	**0**	***2***	**1**	**1**	**0**	**0**	*2*
8:00 AM	**0**	**0**	**18**	**18**	***36***	**0**	**0**	**0**	**0**	***0***	**4**	**2**	**0**	**0**	*6*
8:15 AM	**0**	**1**	**15**	**17**	***33***	**0**	**0**	**2**	**0**	***2***	**2**	**1**	**0**	**0**	*3*
8:30 AM	**0**	**0**	**16**	**14**	***30***	**0**	**0**	**1**	**0**	***1***	**2**	**0**	**0**	**0**	***2***
8:45 AM	0	0	10	16	*26*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	7	145	128	*280*	0	0	6	0	*6*	12	7	0	0	*19*
Peak Hour	**0**	**2**	**67**	**60**	***129***	**0**	**0**	**5**	**0**	***5***	**9**	**4**	**0**	**0**	***13***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	DRIVEWAY				OLIVERO RD				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	3	0	0	27	0	0	0	19	0	49	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	20	0	0	0	22	0	43	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	21	0	0	0	11	0	33	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**18**	**0**	**0**	**0**	**11**	**0**	**30**	155
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**	**18**	**0**	**36**	142
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**15**	**0**	**0**	**0**	**16**	**1**	**33**	132
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**14**	**0**	**30**	**129**
8:45 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	16	0	26	125
Count Total	0	0	0	0	0	0	0	7	0	0	145	0	0	0	127	1	280	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**67**	**0**	**0**	**0**	**59**	**1**	**129**	**0**

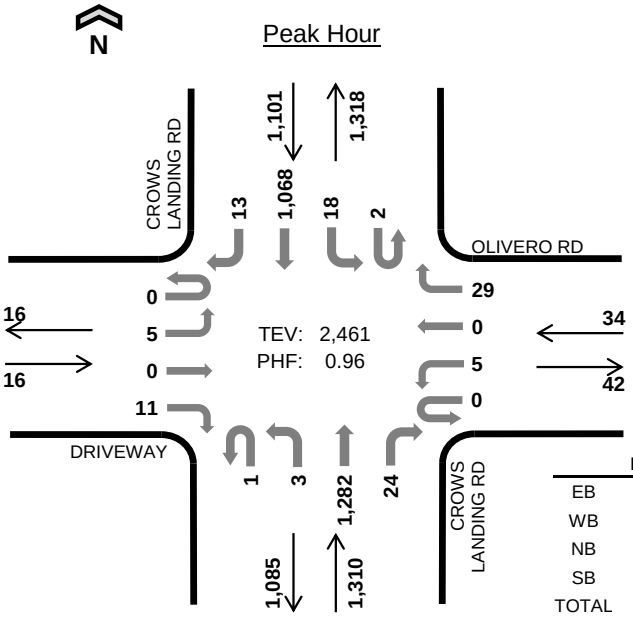
Two-Hour Count Summaries - Bikes

Interval Start	DRIVEWAY			OLIVERO RD			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	3
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	4
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**5**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	0	0	0	0	6	0	0	0	0	6	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**0**

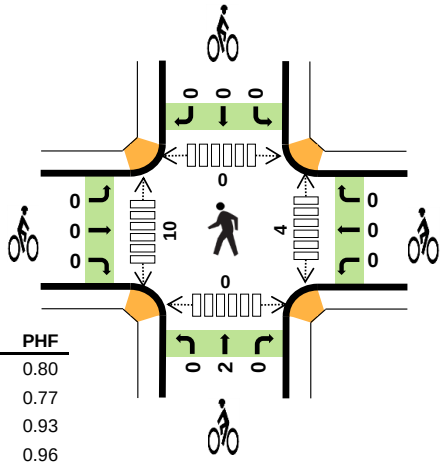
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
OLIVERO RD

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.0%	0.80
WB	0.0%	0.77
NB	3.1%	0.93
SB	3.9%	0.96
TOTAL	3.4%	0.96



Two-Hour Count Summaries

Interval Start		DRIVEWAY Eastbound				OLIVERO RD Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	1	1	1	0	0	0	4	0	0	309	3	1	5	237	2	564	0
4:15 PM		**0**	**3**	**0**	**1**	**0**	**2**	**0**	**5**	**0**	**1**	**290**	**5**	**0**	**7**	**261**	**1**	**576**	0
4:30 PM		**0**	**0**	**0**	**5**	**0**	**0**	**0**	**6**	**1**	**0**	**315**	**7**	**0**	**4**	**277**	**6**	**621**	0
4:45 PM		**0**	**1**	**0**	**2**	**0**	**2**	**0**	**8**	**0**	**2**	**332**	**5**	**1**	**5**	**266**	**2**	**626**	2,387
5:00 PM		**0**	**1**	**0**	**3**	**0**	**1**	**0**	**10**	**0**	**0**	**345**	**7**	**1**	**2**	**264**	**4**	**638**	**2,461**
5:15 PM		0	1	0	4	0	0	0	8	0	0	307	11	0	0	220	3	554	2,439
5:30 PM		0	1	0	2	0	3	1	6	0	1	296	11	2	2	259	4	588	2,406
5:45 PM		0	2	0	1	0	8	0	8	0	0	303	12	0	7	218	4	563	2,343
Count Total		0	10	1	19	0	16	1	55	1	4	2,497	61	5	32	2,002	26	4,730	0
Peak Hour	**All**	**0**	**5**	**0**	**11**	**0**	**5**	**0**	**29**	**1**	**3**	**1,282**	**24**	**2**	**18**	**1,068**	**13**	**2,461**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**0**	**42**	**1**	**84**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**0%**	**0%**	**3%**	**0%**	**0%**	**0%**	**4%**	**8%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	0	0	9	15	*24*	0	0	0	0	*0*	2	2	0	0	*4*
4:15 PM	**0**	**0**	**10**	**12**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
4:30 PM	**0**	**0**	**11**	**11**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
4:45 PM	**0**	**0**	**13**	**11**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**5**	**0**	**0**	*5*
5:00 PM	**0**	**0**	**7**	**9**	***16***	**0**	**0**	**2**	**0**	***2***	**4**	**3**	**0**	**0**	***7***
5:15 PM	0	0	8	5	*13*	0	0	0	1	*1*	2	0	0	0	*2*
5:30 PM	0	0	8	10	*18*	0	0	0	1	*1*	3	3	0	0	*6*
5:45 PM	0	0	5	5	*10*	0	0	1	0	*1*	1	1	0	0	*2*
Count Total	0	0	71	78	*149*	0	0	3	2	*5*	12	16	0	0	*28*
Peak Hour	**0**	**0**	**41**	**43**	***84***	**0**	**0**	**2**	**0**	***2***	**4**	**10**	**0**	**0**	***14***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	DRIVEWAY				OLIVERO RD				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	15	0	24	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**12**	**0**	**22**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**10**	**1**	**22**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**11**	**0**	**24**	92
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**9**	**0**	**16**	**84**
5:15 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	5	0	13	75
5:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	10	0	18	71
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	57
Count Total	0	0	0	0	0	0	0	0	0	0	71	0	0	0	77	1	149	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**0**	**42**	**1**	**84**	**0**

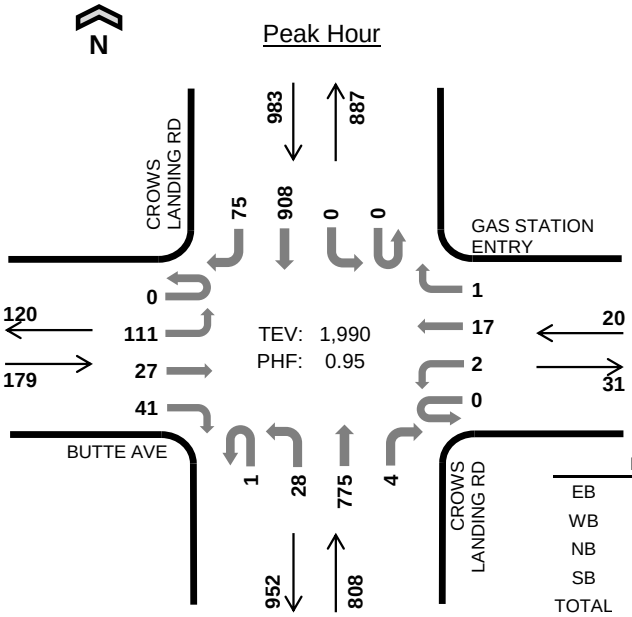
Two-Hour Count Summaries - Bikes

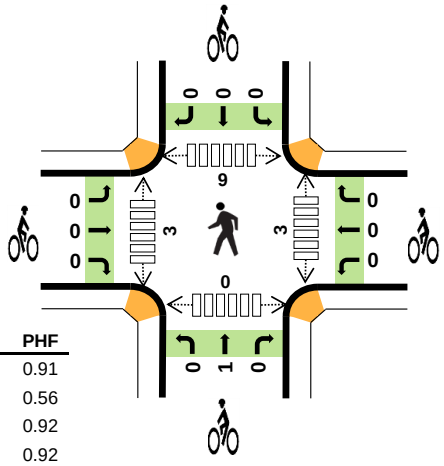
Interval Start	DRIVEWAY			OLIVERO RD			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2**
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	5
Count Total	0	0	0	0	0	0	0	3	0	1	1	0	5	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
BUTTE AVE

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	1.7%	0.91
WB	0.0%	0.56
NB	7.4%	0.92
SB	5.7%	0.92
TOTAL	6.0%	0.95

Two-Hour Count Summaries

Interval Start		BUTTE AVE Eastbound				GAS STATION ENTRY Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	23	1	2	0	0	0	0	0	0	131	0	0	0	150	5	312	0
7:15 AM		0	22	4	6	0	0	2	0	0	3	139	0	0	0	203	7	386	0
7:30 AM		0	29	1	3	0	0	0	0	0	2	187	0	0	0	206	7	435	0
7:45 AM		**0**	**26**	**6**	**7**	**0**	**0**	**2**	**0**	**0**	**8**	**188**	**1**	**0**	**0**	**254**	**14**	**506**	1,639
8:00 AM		**0**	**30**	**6**	**10**	**0**	**0**	**1**	**0**	**1**	**3**	**195**	**0**	**0**	**0**	**230**	**25**	**501**	1,828
8:15 AM		**0**	**24**	**7**	**14**	**0**	**1**	**8**	**0**	**0**	**11**	**207**	**2**	**0**	**0**	**234**	**18**	**526**	1,968
8:30 AM		**0**	**31**	**8**	**10**	**0**	**1**	**6**	**1**	**0**	**6**	**185**	**1**	**0**	**0**	**190**	**18**	**457**	**1,990**
8:45 AM		0	30	2	10	0	1	1	0	0	7	204	1	0	0	196	21	473	1,957
Count Total		0	215	35	62	0	3	20	1	1	40	1,436	5	0	0	1,663	115	3,596	0
Peak Hour	**All**	**0**	**111**	**27**	**41**	**0**	**2**	**17**	**1**	**1**	**28**	**775**	**4**	**0**	**0**	**908**	**75**	**1,990**	**0**
	HV	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**59**	**0**	**0**	**0**	**53**	**3**	**119**	**0**
	HV%	**-**	**2%**	**0%**	**2%**	**-**	**0%**	**0%**	**0%**	**0%**	**4%**	**8%**	**0%**	**-**	**-**	**6%**	**4%**	**6%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	5	0	22	14	*41*	0	0	0	0	*0*	0	0	1	0	*1*
7:15 AM	0	0	18	26	*44*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	1	0	21	8	*30*	0	0	0	0	*0*	0	0	2	0	*2*
7:45 AM	**1**	**0**	**12**	**11**	***24***	**0**	**0**	**0**	**0**	***0***	**1**	**2**	**0**	**0**	*3*
8:00 AM	**0**	**0**	**18**	**15**	***33***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**3**	**0**	*5*
8:15 AM	**1**	**0**	**16**	**19**	***36***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**2**	**0**	*2*
8:30 AM	**1**	**0**	**14**	**11**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**4**	**0**	***5***
8:45 AM	1	0	8	18	*27*	0	0	0	0	*0*	0	2	0	0	*2*
Count Total	10	0	129	122	*261*	0	0	1	0	*1*	3	5	13	0	*21*
Peak Hour	**3**	**0**	**60**	**56**	***119***	**0**	**0**	**1**	**0**	***1***	**3**	**3**	**9**	**0**	***15***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	BUTTE AVE				GAS STATION ENTRY				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	5	0	0	0	0	0	0	0	0	22	0	0	0	14	0	41	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	18	0	0	0	26	0	44	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	21	0	0	0	8	0	30	0
7:45 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**9**	**2**	**24**	139
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**	**15**	**0**	**33**	131
8:15 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**15**	**0**	**0**	**0**	**18**	**1**	**36**	123
8:30 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**11**	**0**	**26**	**119**
8:45 AM	0	1	0	0	0	0	0	0	0	0	8	0	0	0	17	1	27	122
Count Total	0	9	0	1	0	0	0	0	0	1	128	0	0	0	118	4	261	0
Peak Hour	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**59**	**0**	**0**	**0**	**53**	**3**	**119**	**0**

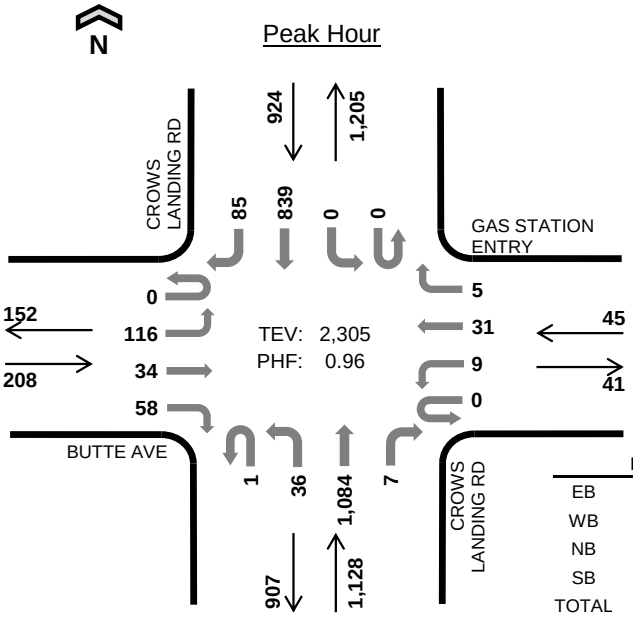
Two-Hour Count Summaries - Bikes

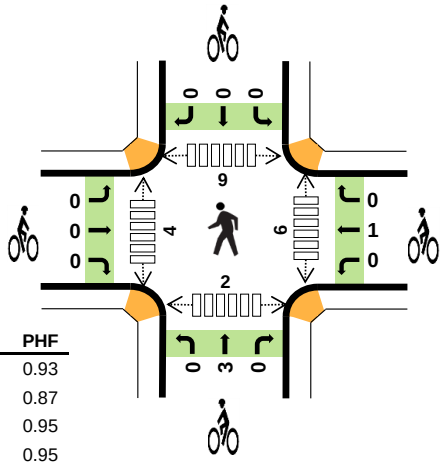
Interval Start	BUTTE AVE			GAS STATION ENTRY			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	1
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
BUTTE AVE

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV %:	PHF
EB	0.5%	0.93
WB	0.0%	0.87
NB	3.4%	0.95
SB	3.9%	0.95
TOTAL	3.3%	0.96

Two-Hour Count Summaries

Interval Start		BUTTE AVE Eastbound				GAS STATION ENTRY Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	31	10	13	0	3	8	0	0	2	266	2	0	0	204	17	556	0
4:15 PM		0	29	6	15	0	1	3	1	0	5	227	2	0	1	184	18	492	0
4:30 PM		**0**	**26**	**8**	**14**	**0**	**3**	**8**	**1**	**0**	**4**	**269**	**1**	**0**	**0**	**213**	**20**	**567**	0
4:45 PM		**0**	**26**	**10**	**12**	**0**	**2**	**10**	**1**	**0**	**11**	**282**	**3**	**0**	**0**	**211**	**32**	**600**	2,215
5:00 PM		**0**	**33**	**6**	**17**	**0**	**2**	**7**	**0**	**0**	**14**	**282**	**1**	**0**	**0**	**216**	**18**	**596**	2,255
5:15 PM		**0**	**31**	**10**	**15**	**0**	**2**	**6**	**3**	**1**	**7**	**251**	**2**	**0**	**0**	**199**	**15**	**542**	**2,305**
5:30 PM		0	30	4	11	0	0	8	0	0	4	251	1	0	0	204	23	536	2,274
5:45 PM		0	25	13	11	0	3	5	1	0	10	257	0	0	0	210	11	546	2,220
Count Total		0	231	67	108	0	16	55	7	1	57	2,085	12	0	1	1,641	154	4,435	0
Peak Hour	**All**	**0**	**116**	**34**	**58**	**0**	**9**	**31**	**5**	**1**	**36**	**1,084**	**7**	**0**	**0**	**839**	**85**	**2,305**	**0**
	HV	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**0**	**0**	**0**	**35**	**1**	**75**	**0**
	HV%	**-**	**1%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**0%**	**0%**	**4%**	**0%**	**-**	**-**	**4%**	**1%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	2	0	7	18	*27*	0	0	0	0	*0*	0	3	1	0	*4*
4:15 PM	0	0	10	9	*19*	0	0	0	0	*0*	1	1	2	0	*4*
4:30 PM	**0**	**0**	**12**	**10**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**2**	**0**	*3*
4:45 PM	**0**	**0**	**11**	**9**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**10**	**10**	***20***	**0**	**1**	**3**	**0**	***4***	**5**	**0**	**5**	**1**	*11*
5:15 PM	**1**	**0**	**5**	**7**	***13***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**2**	**1**	***7***
5:30 PM	0	0	7	14	*21*	0	0	0	0	*0*	0	0	1	0	*1*
5:45 PM	1	0	6	6	*13*	0	0	0	0	*0*	0	1	1	0	*2*
Count Total	4	0	68	83	*155*	0	1	3	0	*4*	7	9	14	2	*32*
Peak Hour	**1**	**0**	**38**	**36**	***75***	**0**	**1**	**3**	**0**	***4***	**6**	**4**	**9**	**2**	***21***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	BUTTE AVE				GAS STATION ENTRY				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	0	0	0	0	0	0	0	0	7	0	0	0	17	1	27	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	9	0	19	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**9**	**1**	**22**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**9**	**0**	**20**	88
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**10**	**0**	**20**	81
5:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**7**	**0**	**13**	**75**
5:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	13	1	21	74
5:45 PM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	6	0	13	67
Count Total	0	3	1	0	0	0	0	0	0	0	68	0	0	0	80	3	155	0
Peak Hour	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**0**	**0**	**0**	**35**	**1**	**75**	**0**

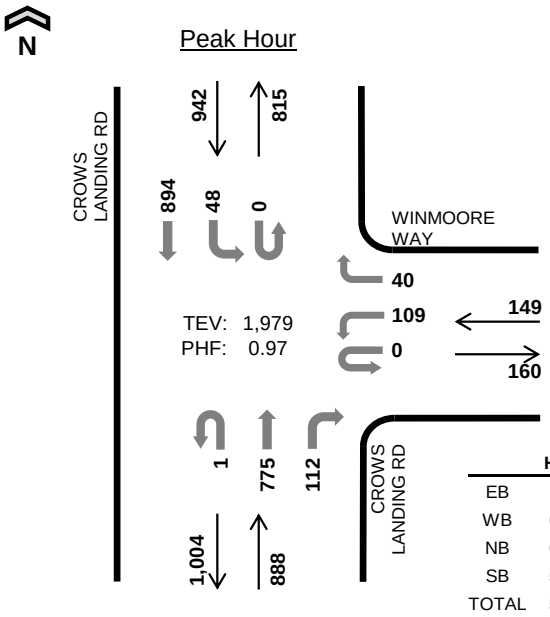
Two-Hour Count Summaries - Bikes

Interval Start	BUTTE AVE			GAS STATION ENTRY			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**4**	4
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	0	0	1	0	0	3	0	0	0	0	4	0
Peak Hour	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**4**	**0**

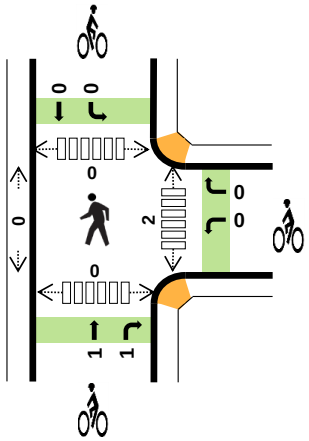
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
WINMOORE WAY

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	-	-
WB	6.0%	0.65
NB	6.1%	0.94
SB	5.7%	0.92
TOTAL	5.9%	0.97



Two-Hour Count Summaries

Interval Start		0 Eastbound				WINMOORE WAY Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	11	0	2	0	0	124	12	0	2	154	0	305	0
7:15 AM		0	0	0	0	0	8	0	4	0	0	147	14	1	3	216	0	393	0
7:30 AM		0	0	0	0	0	16	0	5	0	0	172	26	0	4	198	0	421	0
7:45 AM		**0**	**0**	**0**	**0**	**0**	**26**	**0**	**7**	**0**	**0**	**184**	**31**	**0**	**12**	**244**	**0**	**504**	1,623
8:00 AM		**0**	**0**	**0**	**0**	**0**	**20**	**0**	**9**	**1**	**0**	**198**	**28**	**0**	**5**	**235**	**0**	**496**	1,814
8:15 AM		**0**	**0**	**0**	**0**	**0**	**20**	**0**	**10**	**0**	**0**	**207**	**29**	**0**	**17**	**228**	**0**	**511**	1,932
8:30 AM		**0**	**0**	**0**	**0**	**0**	**43**	**0**	**14**	**0**	**0**	**186**	**24**	**0**	**14**	**187**	**0**	**468**	**1,979**
8:45 AM		0	0	0	0	0	14	0	20	0	0	194	24	0	16	195	0	463	1,938
Count Total		0	0	0	0	0	158	0	71	1	0	1,412	188	1	73	1,657	0	3,561	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**109**	**0**	**40**	**1**	**0**	**775**	**112**	**0**	**48**	**894**	**0**	**1,979**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**7**	**0**	**0**	**51**	**3**	**0**	**5**	**49**	**0**	**117**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**2%**	**-**	**18%**	**0%**	**-**	**7%**	**3%**	**-**	**10%**	**5%**	**-**	**6%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	22	15	*37*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	1	17	24	*42*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	0	4	18	8	*30*	0	0	0	0	*0*	1	0	0	0	*1*
7:45 AM	**0**	**2**	**12**	**10**	***24***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:00 AM	**0**	**1**	**16**	**16**	***33***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**3**	**15**	**16**	***34***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**0**	**0**	*1*
8:30 AM	**0**	**3**	**11**	**12**	***26***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***
8:45 AM	0	2	8	18	*28*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	16	119	119	*254*	0	0	2	0	*2*	4	0	0	0	*4*
Peak Hr	**0**	**9**	**54**	**54**	***117***	**0**	**0**	**2**	**0**	***2***	**2**	**0**	**0**	**0**	***2***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	0				WINMOORE WAY				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	22	0	0	1	14	0	37	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	17	0	0	0	24	0	42	0
7:30 AM	0	0	0	0	0	2	0	2	0	0	17	1	0	0	8	0	30	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**11**	**1**	**0**	**0**	**10**	**0**	**24**	133
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**15**	**1**	**0**	**0**	**16**	**0**	**33**	129
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**14**	**1**	**0**	**4**	**12**	**0**	**34**	121
8:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**11**	**0**	**0**	**1**	**11**	**0**	**26**	**117**
8:45 AM	0	0	0	0	0	0	0	2	0	0	8	0	0	1	17	0	28	121
Count Total	0	0	0	0	0	4	0	12	0	0	115	4	0	7	112	0	254	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**7**	**0**	**0**	**51**	**3**	**0**	**5**	**49**	**0**	**117**	**0**

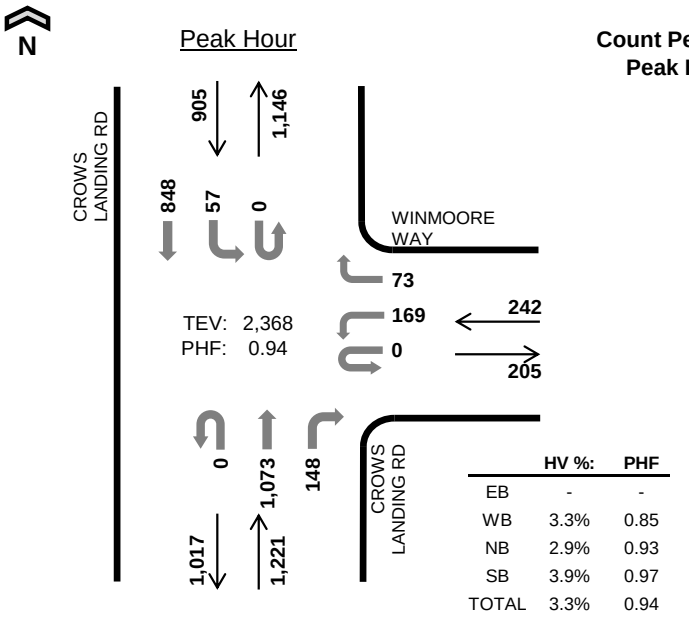
Two-Hour Count Summaries - Bikes

Interval Start	0			WINMOORE WAY			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	1
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	1	1	0	0	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**2**	**0**

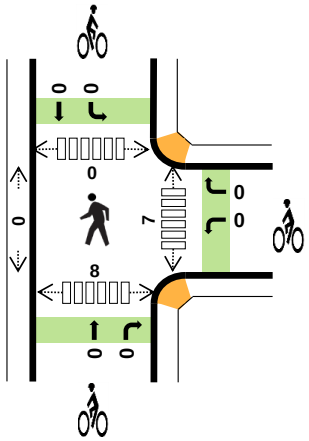
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
WINMOORE WAY

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	-	-
WB	3.3%	0.85
NB	2.9%	0.93
SB	3.9%	0.97
TOTAL	3.3%	0.94



Two-Hour Count Summaries

Interval Start		0 Eastbound				WINMOORE WAY Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	48	0	20	0	0	260	32	0	12	214	0	586	0
4:15 PM		0	0	0	0	0	38	0	14	0	0	213	45	0	14	189	0	513	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**43**	**0**	**13**	**0**	**0**	**264**	**33**	**0**	**14**	**213**	**0**	**580**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**55**	**0**	**16**	**0**	**0**	**291**	**39**	**0**	**16**	**212**	**0**	**629**	2,308
5:00 PM		**0**	**0**	**0**	**0**	**0**	**36**	**0**	**31**	**0**	**0**	**268**	**43**	**0**	**17**	**216**	**0**	**611**	2,333
5:15 PM		**0**	**0**	**0**	**0**	**0**	**35**	**0**	**13**	**0**	**0**	**250**	**33**	**0**	**10**	**207**	**0**	**548**	**2,368**
5:30 PM		0	0	0	0	0	39	0	11	0	0	252	37	0	5	212	0	556	2,344
5:45 PM		0	0	0	0	0	42	0	15	0	0	259	31	0	8	219	0	574	2,289
Count Total		0	0	0	0	0	336	0	133	0	0	2,057	293	0	96	1,682	0	4,597	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**169**	**0**	**73**	**0**	**0**	**1,073**	**148**	**0**	**57**	**848**	**0**	**2,368**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**0**	**0**	**34**	**1**	**0**	**5**	**30**	**0**	**78**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**3%**	**-**	**4%**	**-**	**-**	**3%**	**1%**	**-**	**9%**	**4%**	**-**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	3	8	18	*29*	0	0	0	0	*0*	2	0	0	2	*4*
4:15 PM	0	1	11	9	*21*	0	0	0	0	*0*	0	0	0	1	*1*
4:30 PM	**0**	**2**	**10**	**9**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**3**	*3*
4:45 PM	**0**	**2**	**10**	**9**	***21***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**1**	*3*
5:00 PM	**0**	**0**	**10**	**10**	***20***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**3**	*8*
5:15 PM	**0**	**4**	**5**	**7**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***
5:30 PM	0	4	8	12	*24*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	6	6	*12*	0	0	0	0	*0*	2	0	1	0	*3*
Count Total	0	16	68	80	*164*	0	0	0	0	*0*	11	0	1	11	*23*
Peak Hr	**0**	**8**	**35**	**35**	***78***	**0**	**0**	**0**	**0**	***0***	**7**	**0**	**0**	**8**	***15***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	0				WINMOORE WAY				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	2	0	1	0	0	6	2	0	2	16	0	29	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	9	2	0	1	8	0	21	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**10**	**0**	**0**	**0**	**9**	**0**	**21**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**10**	**0**	**0**	**2**	**7**	**0**	**21**	92
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**1**	**9**	**0**	**20**	83
5:15 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**4**	**1**	**0**	**2**	**5**	**0**	**16**	**78**
5:30 PM	0	0	0	0	0	3	0	1	0	0	6	2	0	0	12	0	24	81
5:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	12	72
Count Total	0	0	0	0	0	10	0	6	0	0	61	7	0	8	72	0	164	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**0**	**0**	**34**	**1**	**0**	**5**	**30**	**0**	**78**	**0**

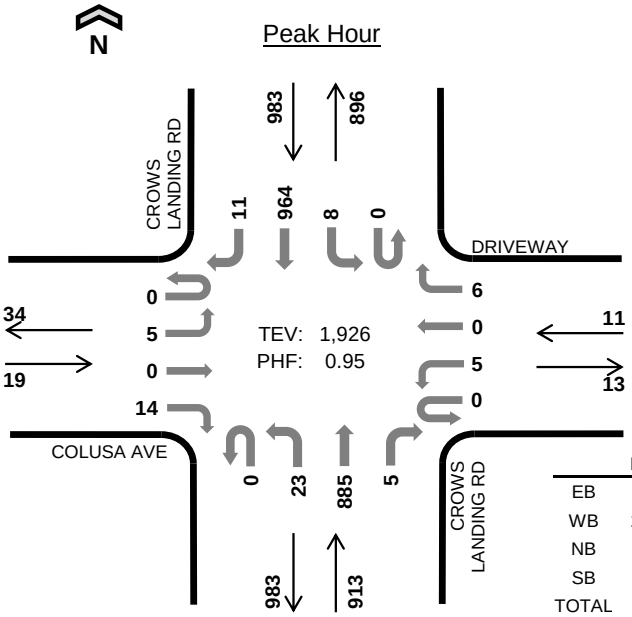
Two-Hour Count Summaries - Bikes

Interval Start	0			WINMOORE WAY			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

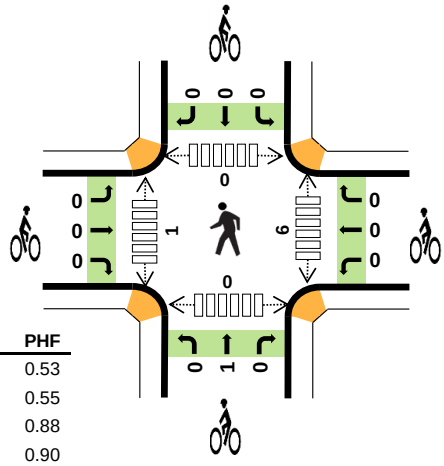
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
COLUSA AVE

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	0.0%	0.53
WB	27.3%	0.55
NB	6.8%	0.88
SB	4.9%	0.90
TOTAL	5.9%	0.95



Two-Hour Count Summaries

Interval Start	COLUSA AVE Eastbound				DRIVEWAY Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	3	0	6	0	1	0	2	0	1	141	1	0	1	167	2	325	0
7:15 AM	0	2	0	4	0	1	0	0	0	2	162	0	0	3	212	0	386	0
7:30 AM	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**3**	**0**	**5**	**199**	**0**	**0**	**3**	**211**	**0**	**426**	0
7:45 AM	**0**	**1**	**0**	**8**	**0**	**1**	**0**	**1**	**0**	**3**	**208**	**1**	**0**	**2**	**272**	**0**	**497**	1,634
8:00 AM	**0**	**1**	**0**	**2**	**0**	**2**	**0**	**1**	**0**	**7**	**228**	**4**	**0**	**0**	**245**	**6**	**496**	1,805
8:15 AM	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**8**	**250**	**0**	**0**	**3**	**236**	**5**	**507**	**1,926**
8:30 AM	0	1	0	4	0	0	0	1	0	3	192	0	0	0	207	6	414	1,914
8:45 AM	0	2	0	5	0	0	0	2	0	6	212	0	0	0	202	4	433	1,850
Count Total	0	13	0	33	0	7	0	11	0	35	1,592	6	0	12	1,752	23	3,484	0
Peak Hour All	**0**	**5**	**0**	**14**	**0**	**5**	**0**	**6**	**0**	**23**	**885**	**5**	**0**	**8**	**964**	**11**	**1,926**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**59**	**1**	**0**	**1**	**46**	**1**	**113**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**50%**	**-**	**9%**	**7%**	**20%**	**-**	**13%**	**5%**	**9%**	**6%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	0	0	22	15	*37*	0	0	0	0	*0*	0	0	0	1	*1*
7:15 AM	1	1	18	24	*44*	0	0	1	0	*1*	1	0	0	0	*1*
7:30 AM	**0**	**2**	**18**	**10**	***30***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
7:45 AM	**0**	**0**	**11**	**9**	***20***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**0**	*3*
8:00 AM	**0**	**0**	**19**	**16**	***35***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**1**	**14**	**13**	***28***	**0**	**0**	**1**	**0**	***1***	**2**	**0**	**0**	**0**	***2***
8:30 AM	0	0	10	10	*20*	0	0	1	0	*1*	3	0	0	0	*3*
8:45 AM	2	1	10	13	*26*	0	0	0	0	*0*	2	3	0	0	*5*
Count Total	3	5	122	110	*240*	0	0	3	0	*3*	12	4	0	1	*17*
Peak Hour	**0**	**3**	**62**	**48**	***113***	**0**	**0**	**1**	**0**	***1***	**6**	**1**	**0**	**0**	***7***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	COLUSA AVE				DRIVEWAY				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	22	0	0	1	14	0	37	0
7:15 AM	0	0	0	1	0	1	0	0	0	1	17	0	0	3	21	0	44	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**16**	**0**	**0**	**1**	**9**	**0**	**30**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**9**	**0**	**20**	131
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**1**	**0**	**0**	**15**	**1**	**35**	129
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**14**	**0**	**0**	**0**	**13**	**0**	**28**	**113**
8:30 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	20	103
8:45 AM	0	0	0	2	0	0	0	1	0	1	9	0	0	0	13	0	26	109
Count Total	0	0	0	3	0	1	0	4	0	4	117	1	0	5	104	1	240	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**59**	**1**	**0**	**1**	**46**	**1**	**113**	**0**

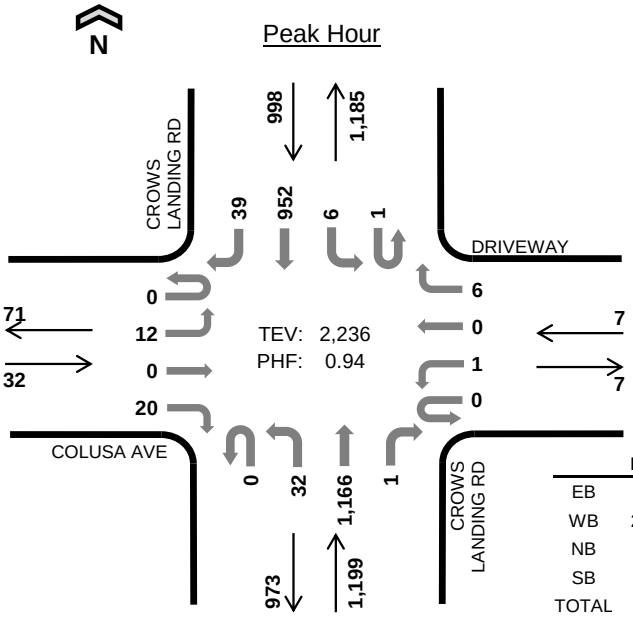
Two-Hour Count Summaries - Bikes

Interval Start	COLUSA AVE			DRIVEWAY			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	3	0	0	0	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**

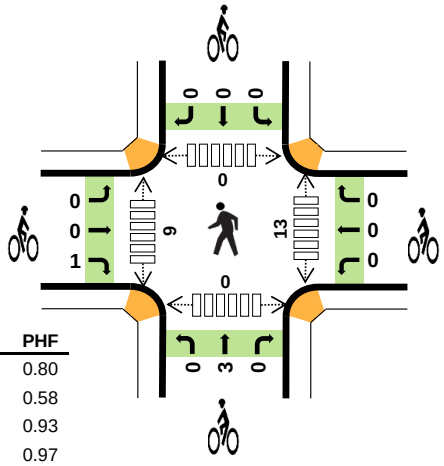
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
COLUSA AVE

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.0%	0.80
WB	28.6%	0.58
NB	2.6%	0.93
SB	3.4%	0.97
TOTAL	3.0%	0.94



Two-Hour Count Summaries

Interval Start	COLUSA AVE Eastbound				DRIVEWAY Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	5	0	4	0	0	0	1	0	7	266	0	0	0	232	7	522	0
4:15 PM	0	2	0	3	0	0	0	4	0	2	248	2	0	2	215	11	489	0
4:30 PM	**0**	**4**	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**10**	**313**	**0**	**1**	**1**	**246**	**10**	**592**	0
4:45 PM	**0**	**3**	**0**	**6**	**0**	**1**	**0**	**2**	**0**	**4**	**290**	**0**	**0**	**1**	**242**	**11**	**560**	2,163
5:00 PM	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**11**	**307**	**0**	**0**	**1**	**239**	**8**	**573**	2,214
5:15 PM	**0**	**3**	**0**	**5**	**0**	**0**	**0**	**1**	**0**	**7**	**256**	**1**	**0**	**3**	**225**	**10**	**511**	**2,236**
5:30 PM	0	6	0	6	0	3	0	0	1	3	284	0	1	2	239	5	550	2,194
5:45 PM	0	2	0	5	0	1	0	0	1	8	235	1	1	1	235	8	498	2,132
Count Total	0	27	0	38	0	5	0	11	2	52	2,199	4	3	11	1,873	70	4,295	0
Peak Hour All	**0**	**12**	**0**	**20**	**0**	**1**	**0**	**6**	**0**	**32**	**1,166**	**1**	**1**	**6**	**952**	**39**	**2,236**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**30**	**1**	**0**	**6**	**28**	**0**	**67**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**33%**	**-**	**0%**	**3%**	**100%**	**0%**	**100%**	**3%**	**0%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	7	15	*24*	0	0	0	0	*0*	4	1	2	0	*7*
4:15 PM	0	2	10	10	*22*	0	0	0	0	*0*	2	0	0	0	*2*
4:30 PM	**0**	**1**	**12**	**9**	***22***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**0**	*5*
4:45 PM	**0**	**0**	**6**	**7**	***13***	**1**	**0**	**0**	**0**	***1***	**4**	**0**	**0**	**0**	*4*
5:00 PM	**0**	**1**	**8**	**10**	***19***	**0**	**0**	**3**	**0**	***3***	**2**	**5**	**0**	**0**	*7*
5:15 PM	**0**	**0**	**5**	**8**	***13***	**0**	**0**	**0**	**0**	***0***	**2**	**4**	**0**	**0**	***6***
5:30 PM	0	1	8	12	*21*	0	0	0	0	*0*	3	2	0	0	*5*
5:45 PM	0	0	7	7	*14*	0	0	0	0	*0*	2	1	0	0	*3*
Count Total	2	5	63	78	*148*	1	0	3	0	*4*	24	13	2	0	*39*
Peak Hour	**0**	**2**	**31**	**34**	***67***	**1**	**0**	**3**	**0**	***4***	**13**	**9**	**0**	**0**	***22***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	COLUSA AVE				DRIVEWAY				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	2	0	0	0	0	0	0	7	0	0	0	15	0	24	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	9	1	0	2	8	0	22	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**12**	**0**	**0**	**1**	**8**	**0**	**22**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**1**	**6**	**0**	**13**	81
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**8**	**0**	**0**	**1**	**9**	**0**	**19**	76
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**1**	**0**	**3**	**5**	**0**	**13**	**67**
5:30 PM	0	0	0	0	0	1	0	0	0	0	8	0	0	1	11	0	21	66
5:45 PM	0	0	0	0	0	0	0	0	0	0	6	1	0	1	6	0	14	67
Count Total	0	0	0	2	0	1	0	4	0	0	60	3	0	10	68	0	148	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**30**	**1**	**0**	**6**	**28**	**0**	**67**	**0**

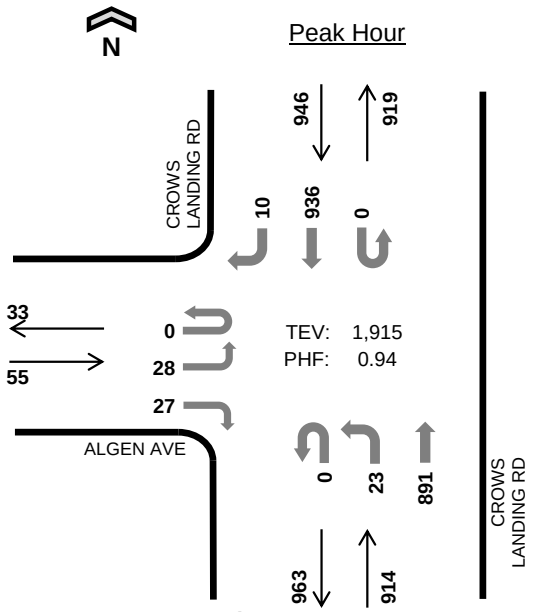
Two-Hour Count Summaries - Bikes

Interval Start	COLUSA AVE			DRIVEWAY			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	4
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	1	0	0	0	0	3	0	0	0	0	4	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**4**	**0**

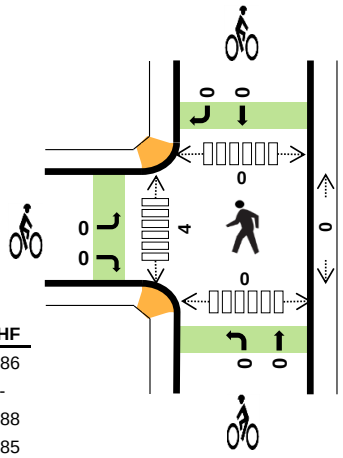
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
ALGEN AVE

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	1.8%	0.86
WB	-	-
NB	6.8%	0.88
SB	4.8%	0.85
TOTAL	5.6%	0.94



Two-Hour Count Summaries

Interval Start		ALGEN AVE Eastbound				0 Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	5	0	6	0	0	0	0	0	2	120	0	0	0	172	1	306	0
7:15 AM		0	5	0	12	0	0	0	0	0	2	145	0	0	0	213	0	377	0
7:30 AM		**0**	**6**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**5**	**200**	**0**	**0**	**0**	**211**	**1**	**431**	0
7:45 AM		**0**	**6**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**3**	**214**	**0**	**0**	**0**	**275**	**3**	**509**	1,623
8:00 AM		**0**	**10**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**7**	**224**	**0**	**0**	**0**	**226**	**3**	**476**	1,793
8:15 AM		**0**	**6**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**8**	**253**	**0**	**0**	**0**	**224**	**3**	**499**	**1,915**
8:30 AM		0	4	0	6	0	0	0	0	0	4	174	0	0	0	196	7	391	1,875
8:45 AM		0	6	0	4	0	0	0	0	0	3	197	0	0	0	176	2	388	1,754
Count Total		0	48	0	55	0	0	0	0	0	34	1,527	0	0	0	1,693	20	3,377	0
Peak Hour	**All**	**0**	**28**	**0**	**27**	**0**	**0**	**0**	**0**	**0**	**23**	**891**	**0**	**0**	**0**	**936**	**10**	**1,915**	**0**
	HV	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**61**	**0**	**0**	**0**	**45**	**0**	**108**	**0**
	HV%	**-**	**4%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**4%**	**7%**	**-**	**-**	**-**	**5%**	**0%**	**6%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	0	0	18	12	*30*	1	0	0	0	*1*	0	0	0	0	*0*
7:15 AM	0	0	15	24	*39*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**0**	**0**	**18**	**9**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**11**	**10**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**1**	**0**	**19**	**14**	***34***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**0**	*4*
8:15 AM	**0**	**0**	**14**	**12**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	0	0	8	12	*20*	0	0	0	0	*0*	0	4	0	0	*4*
8:45 AM	0	0	8	11	*19*	0	0	0	1	*1*	0	1	0	0	*1*
Count Total	1	0	111	104	*216*	1	0	0	1	*2*	0	9	0	0	*9*
Peak Hr	**1**	**0**	**62**	**45**	***108***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**0**	***4***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	ALGEN AVE				0				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	18	0	0	0	12	0	30	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	24	0	39	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**	**9**	**0**	**27**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**10**	**0**	**21**	117
8:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**18**	**0**	**0**	**0**	**14**	**0**	**34**	121
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**12**	**0**	**26**	**108**
8:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	12	0	20	101
8:45 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	11	0	19	99
Count Total	0	1	0	0	0	0	0	0	0	1	110	0	0	0	104	0	216	0
Peak Hour	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**61**	**0**	**0**	**0**	**45**	**0**	**108**	**0**

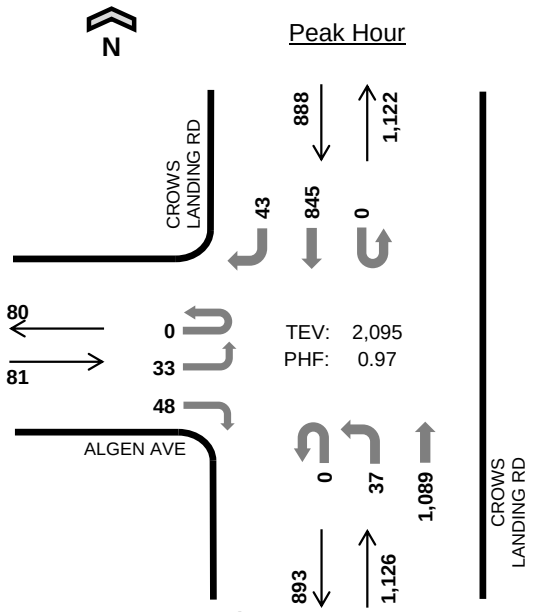
Two-Hour Count Summaries - Bikes

Interval Start	ALGEN AVE			0			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Count Total	1	0	0	0	0	0	0	0	0	0	0	1	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

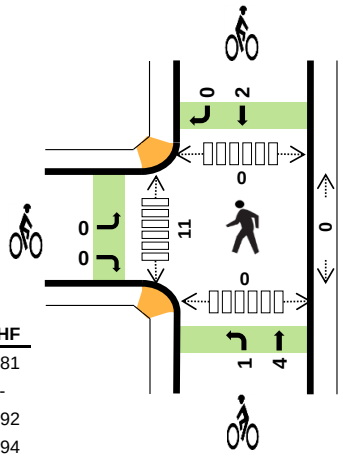
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
ALGEN AVE

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	2.5%	0.81
WB	-	-
NB	2.5%	0.92
SB	3.0%	0.94
TOTAL	2.7%	0.97



Two-Hour Count Summaries

Interval Start		ALGEN AVE Eastbound UT	LT	TH	RT	0 Westbound UT	LT	TH	RT	CROWS LANDING RD Northbound UT	LT	TH	RT	CROWS LANDING RD Southbound UT	LT	TH	RT	15-min Total	Rolling One Hour
4:00 PM		0	6	0	6	0	0	0	0	0	13	252	0	0	0	199	7	483	0
4:15 PM		0	5	0	10	0	0	0	0	0	7	256	0	0	0	204	10	492	0
4:30 PM		0	10	0	10	0	0	0	0	0	7	291	0	0	0	199	9	526	0
4:45 PM		**0**	**10**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**9**	**264**	**0**	**0**	**0**	**212**	**12**	**522**	2,023
5:00 PM		**0**	**6**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**11**	**295**	**0**	**0**	**0**	**206**	**12**	**542**	2,082
5:15 PM		**0**	**10**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**13**	**259**	**0**	**0**	**0**	**202**	**7**	**502**	2,092
5:30 PM		**0**	**7**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**4**	**271**	**0**	**0**	**0**	**225**	**12**	**529**	**2,095**
5:45 PM		0	3	0	8	0	0	0	0	0	5	225	0	0	0	210	9	460	2,033
Count Total		0	57	0	82	0	0	0	0	0	69	2,113	0	0	0	1,657	78	4,056	0
Peak Hour	**All**	**0**	**33**	**0**	**48**	**0**	**0**	**0**	**0**	**0**	**37**	**1,089**	**0**	**0**	**0**	**845**	**43**	**2,095**	**0**
	HV	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**26**	**1**	**57**	**0**
	HV%	**-**	**3%**	**-**	**2%**	**-**	**-**	**-**	**-**	**-**	**0%**	**3%**	**-**	**-**	**-**	**3%**	**2%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	0	0	9	12	*21*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	2	0	11	8	*21*	0	0	0	1	*1*	0	3	0	0	*3*
4:30 PM	0	0	13	8	*21*	0	0	0	0	*0*	0	4	0	0	*4*
4:45 PM	**2**	**0**	**6**	**3**	***11***	**0**	**0**	**1**	**1**	***2***	**0**	**8**	**0**	**0**	*8*
5:00 PM	**0**	**0**	**9**	**7**	***16***	**0**	**0**	**3**	**1**	***4***	**0**	**1**	**0**	**0**	*1*
5:15 PM	**0**	**0**	**5**	**3**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
5:30 PM	**0**	**0**	**8**	**14**	***22***	**0**	**0**	**1**	**0**	***1***	**0**	**1**	**0**	**0**	***1***
5:45 PM	0	0	7	6	*13*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	0	68	61	*133*	0	0	5	3	*8*	0	18	0	0	*18*
Peak Hr	**2**	**0**	**28**	**27**	***57***	**0**	**0**	**5**	**2**	***7***	**0**	**11**	**0**	**0**	***11***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	ALGEN AVE				0				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	12	0	21	0
4:15 PM	0	0	0	2	0	0	0	0	0	0	11	0	0	0	8	0	21	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	7	1	21	0
4:45 PM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**3**	**0**	**11**	74
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**6**	**1**	**16**	69
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**3**	**0**	**8**	56
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**14**	**0**	**22**	**57**
5:45 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	13	59
Count Total	0	1	0	3	0	0	0	0	0	0	68	0	0	0	59	2	133	0
Peak Hour	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**26**	**1**	**57**	**0**

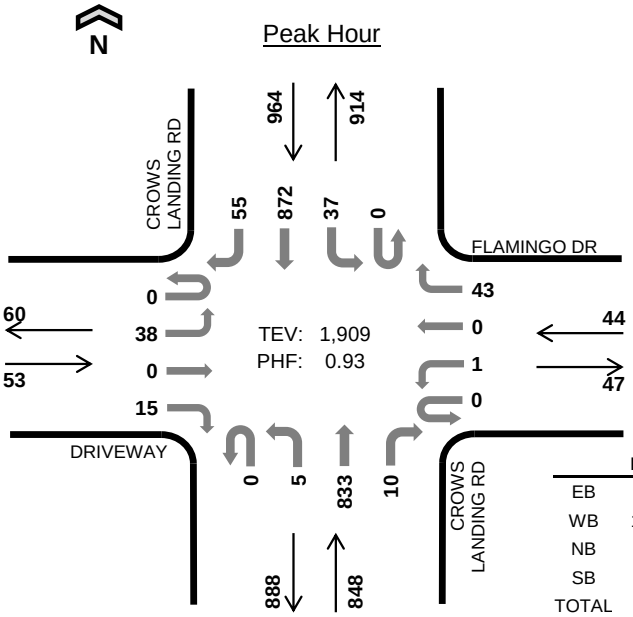
Two-Hour Count Summaries - Bikes

Interval Start	ALGEN AVE			0			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	3
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**4**	7
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**7**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	0	0	0	0	0	0	1	4	0	0	3	0	8	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**0**	**0**	**2**	**0**	**7**	**0**

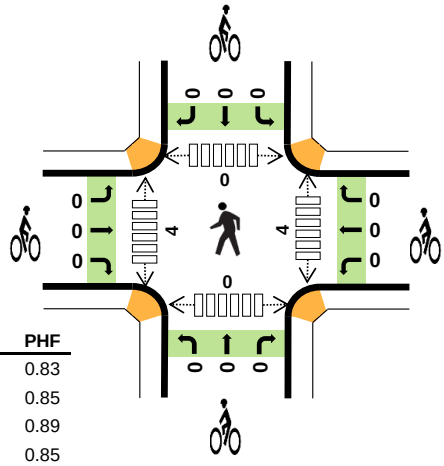
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
FLAMINGO DR

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	0.0%	0.83
WB	18.2%	0.85
NB	6.5%	0.89
SB	4.6%	0.85
TOTAL	5.6%	0.93



Two-Hour Count Summaries

Interval Start	DRIVEWAY Eastbound				FLAMINGO DR Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	5	0	4	0	0	0	7	0	1	103	4	1	2	163	8	298	0
7:15 AM	0	6	0	3	0	0	0	2	0	0	144	0	0	13	192	13	373	0
7:30 AM	**0**	**11**	**0**	**1**	**0**	**0**	**0**	**7**	**0**	**1**	**191**	**1**	**0**	**9**	**196**	**16**	**433**	0
7:45 AM	**0**	**9**	**0**	**5**	**0**	**1**	**0**	**12**	**0**	**1**	**197**	**5**	**0**	**8**	**267**	**10**	**515**	1,619
8:00 AM	**0**	**8**	**0**	**8**	**0**	**0**	**0**	**11**	**0**	**2**	**211**	**2**	**0**	**9**	**209**	**13**	**473**	1,794
8:15 AM	**0**	**10**	**0**	**1**	**0**	**0**	**0**	**13**	**0**	**1**	**234**	**2**	**0**	**11**	**200**	**16**	**488**	**1,909**
8:30 AM	0	10	0	2	0	0	0	12	0	3	164	6	0	8	180	13	398	1,874
8:45 AM	0	10	0	7	0	2	0	7	0	1	184	5	0	6	160	11	393	1,752
Count Total	0	69	0	31	0	3	0	71	0	10	1,428	25	1	66	1,567	100	3,371	0
Peak Hour All	**0**	**38**	**0**	**15**	**0**	**1**	**0**	**43**	**0**	**5**	**833**	**10**	**0**	**37**	**872**	**55**	**1,909**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**53**	**2**	**0**	**11**	**33**	**0**	**107**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**19%**	**-**	**0%**	**6%**	**20%**	**-**	**30%**	**4%**	**0%**	**6%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	0	4	17	13	*34*	0	0	0	0	*0*	1	0	0	0	*1*
7:15 AM	0	1	14	23	*38*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	**0**	**2**	**16**	**9**	***27***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**0**	**0**	**13**	**10**	***23***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:00 AM	**0**	**2**	**15**	**13**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**0**	*3*
8:15 AM	**0**	**4**	**11**	**12**	***27***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**0**	***3***
8:30 AM	0	4	7	12	*23*	0	0	0	0	*0*	0	3	0	0	*3*
8:45 AM	0	1	7	10	*18*	0	0	0	0	*0*	2	1	0	0	*3*
Count Total	0	18	100	102	*220*	0	0	0	0	*0*	8	8	0	0	*16*
Peak Hour	**0**	**8**	**55**	**44**	***107***	**0**	**0**	**0**	**0**	***0***	**4**	**4**	**0**	**0**	***8***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	DRIVEWAY				FLAMINGO DR				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	4	0	0	14	3	0	1	12	0	34	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	14	0	0	2	21	0	38	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**15**	**1**	**0**	**1**	**8**	**0**	**27**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**1**	**0**	**2**	**8**	**0**	**23**	122
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**15**	**0**	**0**	**4**	**9**	**0**	**30**	118
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**11**	**0**	**0**	**4**	**8**	**0**	**27**	**107**
8:30 AM	0	0	0	0	0	0	0	4	0	0	5	2	0	1	11	0	23	103
8:45 AM	0	0	0	0	0	1	0	0	0	0	6	1	0	1	8	1	18	98
Count Total	0	0	0	0	0	1	0	17	0	0	92	8	0	16	85	1	220	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**53**	**2**	**0**	**11**	**33**	**0**	**107**	**0**

Two-Hour Count Summaries - Bikes

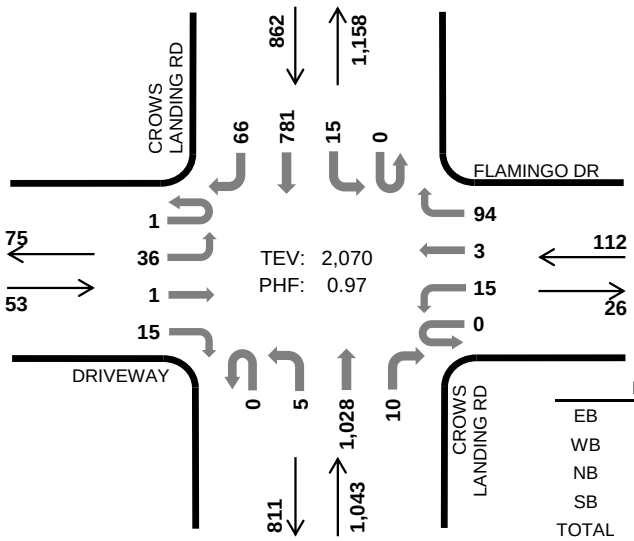
Interval Start	DRIVEWAY			FLAMINGO DR			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

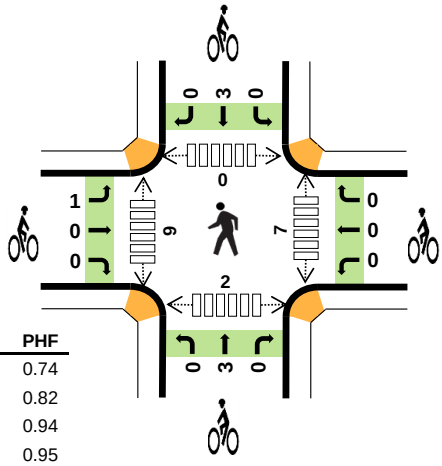
CROWS LANDING RD
FLAMINGO DR

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM

Peak Hour



	HV %:	PHF
EB	0.0%	0.74
WB	0.9%	0.82
NB	3.5%	0.94
SB	3.2%	0.95
TOTAL	3.2%	0.97



Two-Hour Count Summaries

Interval Start	DRIVEWAY Eastbound UT	LT	TH	RT	FLAMINGO DR Westbound UT	LT	TH	RT	CROWS LANDING RD Northbound UT	LT	TH	RT	CROWS LANDING RD Southbound UT	LT	TH	RT	15-min Total	Rolling One Hour
4:00 PM	0	7	0	5	0	1	0	27	0	1	240	7	0	6	179	11	484	0
4:15 PM	**0**	**7**	**0**	**2**	**0**	**6**	**0**	**19**	**0**	**0**	**244**	**1**	**0**	**6**	**189**	**20**	**494**	0
4:30 PM	**0**	**10**	**0**	**8**	**0**	**4**	**1**	**29**	**0**	**1**	**275**	**2**	**0**	**3**	**187**	**15**	**535**	0
4:45 PM	**0**	**10**	**1**	**1**	**0**	**4**	**1**	**18**	**0**	**3**	**237**	**4**	**0**	**4**	**210**	**12**	**505**	2,018
5:00 PM	**1**	**9**	**0**	**4**	**0**	**1**	**1**	**28**	**0**	**1**	**272**	**3**	**0**	**2**	**195**	**19**	**536**	**2,070**
5:15 PM	0	8	0	7	0	0	1	11	0	5	245	1	0	2	196	17	493	2,069
5:30 PM	0	10	0	4	0	1	0	10	0	6	264	1	0	4	216	15	531	2,065
5:45 PM	0	12	0	10	0	5	0	20	0	4	202	0	0	5	185	20	463	2,023
Count Total	1	73	1	41	0	22	4	162	0	21	1,979	19	0	32	1,557	129	4,041	0
Peak Hour All	**1**	**36**	**1**	**15**	**0**	**15**	**3**	**94**	**0**	**5**	**1,028**	**10**	**0**	**15**	**781**	**66**	**2,070**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**36**	**1**	**0**	**4**	**24**	**0**	**66**	**0**
Peak Hour HV%	**0%**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**1%**	**-**	**0%**	**4%**	**10%**	**-**	**27%**	**3%**	**0%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	0	0	8	11	*19*	0	0	0	0	*0*	2	0	0	1	*3*
4:15 PM	**0**	**0**	**12**	**11**	***23***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**0**	**1**	*6*
4:30 PM	**0**	**1**	**11**	**5**	***17***	**0**	**0**	**0**	**1**	***1***	**0**	**3**	**0**	**0**	*3*
4:45 PM	**0**	**0**	**6**	**5**	***11***	**1**	**0**	**0**	**1**	***2***	**3**	**1**	**0**	**1**	*5*
5:00 PM	**0**	**0**	**8**	**7**	***15***	**0**	**0**	**3**	**1**	***4***	**2**	**2**	**0**	**0**	***4***
5:15 PM	0	0	6	2	*8*	0	0	0	0	*0*	2	1	0	1	*4*
5:30 PM	0	0	11	14	*25*	0	1	0	0	*1*	1	2	0	0	*3*
5:45 PM	1	1	7	6	*15*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	1	2	69	61	*133*	1	1	3	3	*8*	13	12	0	4	*29*
Peak Hour	**0**	**1**	**37**	**28**	***66***	**1**	**0**	**3**	**3**	***7***	**7**	**9**	**0**	**2**	***18***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	DRIVEWAY				FLAMINGO DR				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	2	9	0	19	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**2**	**9**	**0**	**23**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**11**	**0**	**0**	**1**	**4**	**0**	**17**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**1**	**0**	**1**	**4**	**0**	**11**	70
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**7**	**0**	**15**	**66**
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	51
5:30 PM	0	0	0	0	0	0	0	0	0	1	10	0	0	1	13	0	25	59
5:45 PM	0	0	0	1	0	0	0	1	0	1	6	0	0	0	6	0	15	63
Count Total	0	0	0	1	0	0	0	2	0	2	66	1	0	7	54	0	133	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**36**	**1**	**0**	**4**	**24**	**0**	**66**	**0**

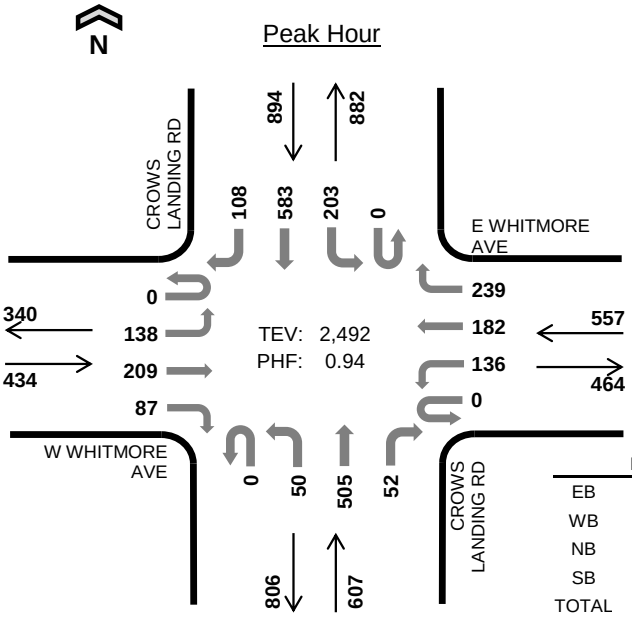
Two-Hour Count Summaries - Bikes

Interval Start	DRIVEWAY			FLAMINGO DR			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
4:45 PM	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	3
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**4**	**7**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	1	0	0	0	0	1	0	3	0	0	3	0	8	0
Peak Hour	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**3**	**0**	**7**	**0**

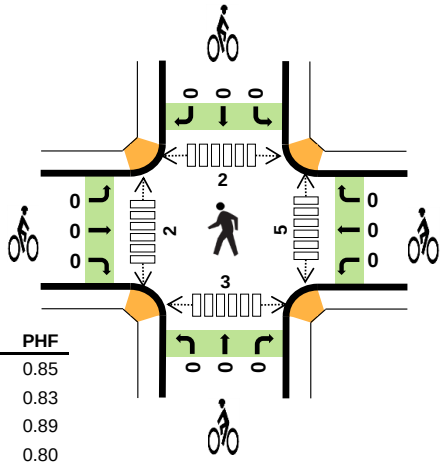
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
W WHITMORE AVE

Date: 11-09-2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	2.5%	0.85
WB	5.6%	0.83
NB	7.1%	0.89
SB	3.8%	0.80
TOTAL	4.8%	0.94



Two-Hour Count Summaries

Interval Start	W WHITMORE AVE Eastbound				E WHITMORE AVE Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	24	39	14	0	19	32	21	0	6	63	9	0	42	112	14	395	0
7:15 AM	0	22	78	26	0	33	32	29	0	12	93	14	0	42	152	13	546	0
7:30 AM	**0**	**35**	**68**	**24**	**0**	**34**	**32**	**51**	**0**	**12**	**121**	**16**	**0**	**48**	**135**	**16**	**592**	0
7:45 AM	**0**	**33**	**45**	**13**	**0**	**45**	**56**	**66**	**0**	**6**	**113**	**9**	**0**	**69**	**185**	**25**	**665**	2,198
8:00 AM	**0**	**24**	**45**	**28**	**0**	**30**	**45**	**59**	**0**	**17**	**132**	**11**	**0**	**50**	**129**	**34**	**604**	2,407
8:15 AM	**0**	**46**	**51**	**22**	**0**	**27**	**49**	**63**	**0**	**15**	**139**	**16**	**0**	**36**	**134**	**33**	**631**	**2,492**
8:30 AM	0	30	49	17	0	17	37	31	0	20	139	19	0	58	123	18	558	2,458
8:45 AM	0	32	43	15	0	22	40	57	0	10	103	15	0	35	127	16	515	2,308
Count Total	0	246	418	159	0	227	323	377	0	98	903	109	0	380	1,097	169	4,506	0
Peak Hour All	**0**	**138**	**209**	**87**	**0**	**136**	**182**	**239**	**0**	**50**	**505**	**52**	**0**	**203**	**583**	**108**	**2,492**	**0**
Peak Hour HV	**0**	**6**	**5**	**0**	**0**	**10**	**8**	**13**	**0**	**2**	**37**	**4**	**0**	**8**	**24**	**2**	**119**	**0**
Peak Hour HV%	**-**	**4%**	**2%**	**0%**	**-**	**7%**	**4%**	**5%**	**-**	**4%**	**7%**	**8%**	**-**	**4%**	**4%**	**2%**	**5%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	2	5	14	13	*34*	0	0	0	0	*0*	1	0	0	0	*1*
7:15 AM	2	6	14	22	*44*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	**3**	**8**	**14**	**7**	***32***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**2**	**10**	**9**	**10**	***31***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:00 AM	**2**	**7**	**13**	**8**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
8:15 AM	**4**	**6**	**7**	**9**	***26***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**2**	**2**	***9***
8:30 AM	2	5	8	12	*27*	0	0	0	0	*0*	1	2	2	0	*5*
8:45 AM	1	8	6	9	*24*	0	0	0	0	*0*	3	0	1	0	*4*
Count Total	18	55	85	90	*248*	0	0	0	0	*0*	10	4	6	3	*23*
Peak Hour	**11**	**31**	**43**	**34**	***119***	**0**	**0**	**0**	**0**	***0***	**5**	**2**	**2**	**3**	***12***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	W WHITMORE AVE				E WHITMORE AVE				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	0	0	1	1	3	0	1	11	2	0	4	8	1	34	0
7:15 AM	0	0	2	0	0	4	0	2	0	1	12	1	0	4	15	3	44	0
7:30 AM	**0**	**2**	**1**	**0**	**0**	**3**	**2**	**3**	**0**	**1**	**13**	**0**	**0**	**4**	**3**	**0**	**32**	0
7:45 AM	**0**	**1**	**1**	**0**	**0**	**3**	**3**	**4**	**0**	**0**	**8**	**1**	**0**	**0**	**9**	**1**	**31**	141
8:00 AM	**0**	**1**	**1**	**0**	**0**	**3**	**2**	**2**	**0**	**1**	**10**	**2**	**0**	**1**	**6**	**1**	**30**	137
8:15 AM	**0**	**2**	**2**	**0**	**0**	**1**	**1**	**4**	**0**	**0**	**6**	**1**	**0**	**3**	**6**	**0**	**26**	**119**
8:30 AM	0	0	2	0	0	2	2	1	0	1	4	3	0	5	6	1	27	114
8:45 AM	0	0	1	0	0	4	2	2	0	0	5	1	0	0	9	0	24	107
Count Total	0	8	10	0	0	21	13	21	0	5	69	11	0	21	62	7	248	0
Peak Hour	**0**	**6**	**5**	**0**	**0**	**10**	**8**	**13**	**0**	**2**	**37**	**4**	**0**	**8**	**24**	**2**	**119**	**0**

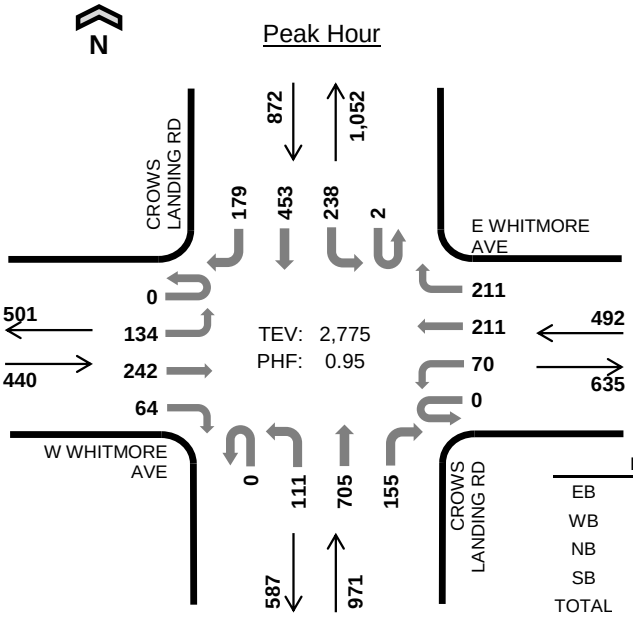
Two-Hour Count Summaries - Bikes

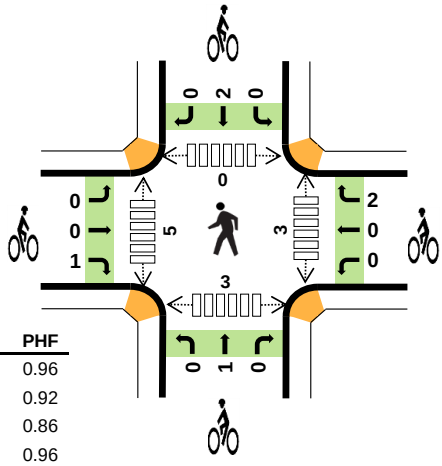
Interval Start	W WHITMORE AVE			E WHITMORE AVE			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

CROWS LANDING RD
W WHITMORE AVE

Date: 11-09-2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	2.3%	0.96
WB	2.0%	0.92
NB	3.0%	0.86
SB	2.9%	0.96
TOTAL	2.7%	0.95

Two-Hour Count Summaries

Interval Start		W WHITMORE AVE Eastbound				E WHITMORE AVE Westbound				CROWS LANDING RD Northbound				CROWS LANDING RD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	28	61	16	0	12	53	41	0	30	183	27	0	62	87	34	634	0
4:15 PM		0	20	59	25	0	9	49	59	0	19	164	19	1	58	99	45	626	0
4:30 PM		0	37	73	12	0	16	48	41	0	25	208	41	1	66	109	41	718	0
4:45 PM		**0**	**32**	**70**	**13**	**0**	**17**	**54**	**53**	**0**	**35**	**160**	**40**	**0**	**62**	**126**	**38**	**700**	2,678
5:00 PM		**0**	**32**	**55**	**16**	**0**	**12**	**53**	**37**	**0**	**22**	**213**	**46**	**1**	**62**	**109**	**42**	**700**	2,744
5:15 PM		**0**	**33**	**59**	**17**	**0**	**17**	**52**	**64**	**0**	**25**	**148**	**27**	**0**	**52**	**114**	**39**	**647**	2,765
5:30 PM		**0**	**37**	**58**	**18**	**0**	**24**	**52**	**57**	**0**	**29**	**184**	**42**	**1**	**62**	**104**	**60**	**728**	**2,775**
5:45 PM		0	23	52	15	1	6	54	45	0	21	153	28	0	64	110	52	624	2,699
Count Total		0	242	487	132	1	113	415	397	0	206	1,413	270	4	488	858	351	5,377	0
Peak Hour	**All**	**0**	**134**	**242**	**64**	**0**	**70**	**211**	**211**	**0**	**111**	**705**	**155**	**2**	**238**	**453**	**179**	**2,775**	**0**
	HV	**0**	**2**	**8**	**0**	**0**	**1**	**1**	**8**	**0**	**4**	**21**	**4**	**0**	**2**	**21**	**2**	**74**	**0**
	HV%	**-**	**1%**	**3%**	**0%**	**-**	**1%**	**0%**	**4%**	**-**	**4%**	**3%**	**3%**	**0%**	**1%**	**5%**	**1%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	5	2	7	9	*23*	0	0	0	0	*0*	5	0	1	2	*8*
4:15 PM	3	5	10	9	*27*	0	0	0	0	*0*	0	0	2	1	*3*
4:30 PM	1	4	13	4	*22*	0	0	0	0	*0*	0	1	0	3	*4*
4:45 PM	**4**	**2**	**7**	**4**	***17***	**1**	**0**	**0**	**1**	***2***	**1**	**1**	**0**	**0**	*2*
5:00 PM	**2**	**2**	**7**	**7**	***18***	**0**	**2**	**1**	**1**	***4***	**0**	**2**	**0**	**2**	*4*
5:15 PM	**2**	**2**	**7**	**5**	***16***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**0**	*3*
5:30 PM	**2**	**4**	**8**	**9**	***23***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**1**	***2***
5:45 PM	2	3	6	7	*18*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	21	24	65	54	*164*	1	2	1	2	*6*	8	6	3	9	*26*
Peak Hour	**10**	**10**	**29**	**25**	***74***	**1**	**2**	**1**	**2**	***6***	**3**	**5**	**0**	**3**	***11***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	W WHITMORE AVE				E WHITMORE AVE				CROWS LANDING RD				CROWS LANDING RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	3	0	0	1	0	1	0	1	5	1	0	2	6	1	23	0
4:15 PM	0	1	2	0	0	1	1	3	0	1	8	1	0	2	6	1	27	0
4:30 PM	0	1	0	0	0	1	1	2	0	1	8	4	0	3	1	0	22	0
4:45 PM	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**6**	**0**	**0**	**1**	**3**	**0**	**17**	89
5:00 PM	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**5**	**1**	**0**	**1**	**5**	**1**	**18**	84
5:15 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**4**	**2**	**0**	**0**	**4**	**1**	**16**	73
5:30 PM	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**0**	**1**	**6**	**1**	**0**	**0**	**9**	**0**	**23**	**74**
5:45 PM	0	0	1	1	0	0	0	3	0	1	3	2	0	1	5	1	18	75
Count Total	0	6	14	1	0	4	3	17	0	8	45	12	0	10	39	5	164	0
Peak Hour	**0**	**2**	**8**	**0**	**0**	**1**	**1**	**8**	**0**	**4**	**21**	**4**	**0**	**2**	**21**	**2**	**74**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	W WHITMORE AVE			E WHITMORE AVE			CROWS LANDING RD			CROWS LANDING RD			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	2
5:00 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**1**	**0**	**4**	6
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	1	0	0	2	0	1	0	0	2	0	6	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**2**	**0**	**6**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Turning Movement Count

NB / SB Street:	Crows Landing Rd	WB / EB Street	Amador Ave	Date:	7/20/2017

Time	SB Bikes	SB Peds	SB Right	SB Thru	SB Left	SB U tm	WB Bikes	WB Peds	WB Right	WB Thru	WB Left	WB U Tms	NB Bikes	NB Peds	NB Right	NB Thru	NB Left	NB UTm	EB Bikes	EB Peds	EB Right	EB Thru	EB Left	EB U Tm
7:00	0	0	8	169	0	0	0	0	0	0	0	0	0	0	0	137	0	0	0	0	5	0	9	0
7:15	0	0	3	232	0	0	0	0	0	0	0	0	0	0	0	149	1	0	0	0	3	0	9	0
7:30	0	6	4	254	0	0	0	0	0	0	0	0	0	0	0	201	1	0	0	1	4	0	10	0
7:45	0	0	10	210	0	0	0	0	0	0	0	0	0	0	0	155	0	0	0	1	2	0	6	0
8:00	0	0	2	217	0	0	0	0	0	0	0	0	0	0	0	176	1	0	0	2	8	0	10	0
8:15	0	4	12	221	0	0	0	0	0	0	0	0	0	0	0	167	2	0	1	0	0	0	5	0
8:30	0	1	5	175	0	0	0	0	0	0	0	0	0	0	0	182	0	0	0	0	2	0	5	0
8:45	0	1	4	199	0	0	0	0	0	0	0	0	0	1	0	155	0	0	0	2	4	0	7	0

Time	SB Bikes	SB Peds	SB Right	SB Thru	SB Left	SB U tm	WB Bikes	WB Peds	WB Right	WB Thru	WB Left	WB U Tms	NB Bikes	NB Peds	NB Right	NB Thru	NB Left	NB UTm	EB Bikes	EB Peds	EB Right	EB Thru	EB Left	EB U Tm
16:00	3	0	25	225	0	0	0	0	0	0	0	0	0	0	0	309	3	0	0	0	4	0	14	3
16:15	2	1	13	215	0	0	0	0	0	0	0	0	0	0	0	253	5	0	2	0	4	0	9	0
16:30	0	5	23	286	0	0	0	0	0	0	0	0	0	0	0	373	6	0	0	2	2	4	13	0
16:45	0	2	11	217	1	0	0	0	0	0	0	0	0	0	1	311	8	0	0	0	2	0	15	0
17:00	0	3	14	243	0	0	0	0	0	0	0	0	0	0	0	338	6	0	0	0	2	0	8	0
17:15	0	2	14	236	2	0	0	0	0	0	0	0	0	0	0	279	8	0	0	3	5	0	10	0
17:30	0	0	21	242	3	0	0	0	0	0	0	0	0	0	0	327	1	0	0	1	6	0	10	1
17:45	0	1	17	201	1	0	0	0	0	0	0	0	0	0	0	252	4	0	0	3	6	0	12	0

Turning Movement Count

NB / SB Street:	Crows Landing Rd	WB / EB Street	Glenn Ave	Date:	7/25/2017

Time	SB Bikes	SB Peds	SB Right	SB Thru	SB Left	SB U tn	WB Bikes	WB Peds	WB Right	WB Thru	WB Left	WB U Tms	NB Bikes	NB Peds	NB Right	NB Thru	NB Left	NB UTm	EB Bikes	EB Peds	EB Right	EB Thru	EB Left	EB U Tn
7:00	0	0	3	158	1	0	0	0	0	0	0	0	0	0	0	118	4	0	0	1	2	0	2	0
7:15	0	0	4	205	4	0	0	0	0	0	0	0	1	0	1	150	3	0	0	2	6	5	3	0
7:30	0	0	2	243	1	0	0	0	0	0	0	0	0	0	2	179	4	0	0	0	2	2	3	0
7:45	0	0	5	207	2	0	0	0	0	0	0	0	0	0	3	147	7	0	0	0	3	0	4	0
8:00	0	0	2	194	6	0	0	0	0	0	0	0	0	0	1	169	4	0	0	0	1	0	3	0
8:15	0	0	7	184	7	0	0	0	0	0	0	0	0	0	1	157	4	0	0	1	6	0	6	0
8:30	0	0	1	155	2	0	0	0	0	0	0	0	0	0	1	173	5	0	0	0	4	4	9	0
8:45	0	0	5	181	1	0	0	0	0	0	0	0	0	0	1	160	10	0	0	0	6	1	4	0

Time	SB Bikes	SB Peds	SB Right	SB Thru	SB Left	SB U tn	WB Bikes	WB Peds	WB Right	WB Thru	WB Left	WB U Tms	NB Bikes	NB Peds	NB Right	NB Thru	NB Left	NB UTm	EB Bikes	EB Peds	EB Right	EB Thru	EB Left	EB U Tn
16:00	0	0	5	222	3	0	0	0	3	0	1	0	0	1	1	268	11	0	0	2	13	0	4	0
16:15	1	0	3	225	6	0	0	0	3	0	4	0	1	1	3	248	11	0	0	0	8	0	3	0
16:30	2	1	7	215	4	0	2	0	7	0	2	0	1	0	2	257	6	0	1	2	9	0	6	0
16:45	0	0	7	207	1	0	0	2	2	0	4	0	1	0	3	234	6	0	0	0	6	0	8	0
17:00	0	1	10	199	4	0	0	0	5	0	5	0	0	0	5	270	5	0	0	1	4	0	10	0
17:15	0	1	8	213	1	2	0	0	4	0	1	0	1	1	6	242	6	0	0	0	6	0	12	0
17:30	1	1	6	224	1	0	0	0	1	0	1	0	3	0	2	290	8	0	0	0	8	0	9	1
17:45	0	5	9	201	3	0	0	0	3	0	3	0	0	0	3	201	11	0	0	0	12	0	4	0

Turning Movement Count

NB / SB Street:	Crows Landing Rd	WB / EB Street	Imperial Ave	Date:	8/2/2017

Time	SB Bikes	SB Peds	SB Right	SB Thru	SB Left	SB U tm	WB Bikes	WB Peds	WB Right	WB Thru	WB Left	WB U Tms	NB Bikes	NB Peds	NB Right	NB Thru	NB Left	NB UTm	EB Bikes	EB Peds	EB Right	EB Thru	EB Left	EB U Tm
7:00	0	0	7	159	0	0	0	0	0	0	0	0	0	0	0	121	8	0	0	0	7	0	13	0
7:15	0	1	7	217	0	0	0	0	0	0	0	0	0	0	0	160	6	0	0	0	8	0	4	0
7:30	0	0	2	236	0	0	0	0	0	0	0	0	0	0	0	174	6	0	0	0	8	0	3	0
7:45	0	2	4	213	0	0	0	0	0	0	0	0	0	0	0	151	5	0	0	0	6	0	4	0
8:00	0	2	8	178	0	0	0	0	0	0	0	0	0	0	0	166	3	0	0	0	5	0	6	0
8:15	0	0	3	163	0	0	0	0	0	0	0	0	0	0	0	166	4	0	0	0	4	0	1	0
8:30	0	0	9	178	0	0	0	0	0	0	0	0	0	0	0	188	6	0	0	0	7	0	2	0
8:45	0	0	6	161	0	0	0	0	0	0	0	0	0	0	0	172	2	0	0	0	8	0	2	0

Time	SB Bikes	SB Peds	SB Right	SB Thru	SB Left	SB U tm	WB Bikes	WB Peds	WB Right	WB Thru	WB Left	WB U Tms	NB Bikes	NB Peds	NB Right	NB Thru	NB Left	NB UTm	EB Bikes	EB Peds	EB Right	EB Thru	EB Left	EB U Tm
16:00	0	0	17	134	0	0	0	0	0	0	0	0	0	0	0	254	0	0	0	1	7	0	13	0
16:15	1	1	19	288	0	0	0	0	0	0	0	0	1	0	0	244	0	0	0	2	9	0	16	0
16:30	0	2	26	232	0	0	0	0	0	0	0	0	2	0	0	263	0	0	0	0	13	0	17	0
16:45	1	2	7	216	0	0	0	0	0	0	0	0	1	0	0	305	0	0	0	1	6	0	7	0
17:00	0	3	18	240	0	0	0	0	0	0	0	0	0	0	0	231	0	0	0	0	7	0	20	0
17:15	0	1	25	235	0	0	0	0	0	0	0	0	1	0	0	244	0	0	0	7	6	0	16	0
17:30	2	1	23	184	0	0	0	0	0	0	0	0	0	0	0	295	0	0	0	0	0	0	0	0
17:45	2	1	42	223	0	0	0	0	0	0	0	0	0	0	0	196	0	0	0	0	0	0	0	0

Vehicle Classification Report Summary

Location: Crows Landing Rd N/O Olivero Rd

Count Direction: Northbound / Southbound

Date Range: 11/9/2017 to 11/9/2017

Site Code: 01

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	257	10,132	3,332	20	644	387	0	14	206	127	7	4	176	15,306
Percent	1.7%	66.2%	21.8%	0.1%	4.2%	2.5%	0.0%	0.1%	1.3%	0.8%	0.0%	0.0%	1.1%	100%
Southbound	123	10,318	3,140	18	547	179	0	59	178	109	5	2	119	14,797
Percent	0.8%	69.7%	21.2%	0.1%	3.7%	1.2%	0.0%	0.4%	1.2%	0.7%	0.0%	0.0%	0.8%	100%
Total	380	20,450	6,472	38	1,191	566	0	73	384	236	12	6	295	30,103
Percent	1.3%	67.9%	21.5%	0.1%	4.0%	1.9%	0.0%	0.2%	1.3%	0.8%	0.0%	0.0%	1.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: Crows Landing Rd N/O Olivero Rd
Date Range: 11/9/2017 to 11/9/2017
Site Code: 01

Thursday, November 9, 2017
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	2	37	9	1	2	0	0	0	8	0	0	0	1	**60**
2:00 AM	3	58	13	2	7	2	0	0	11	0	0	0	0	**96**
3:00 AM	5	136	31	2	6	5	0	0	5	1	1	0	0	**192**
4:00 AM	1	131	42	1	13	1	0	1	7	0	1	0	0	**198**
5:00 AM	7	202	89	1	19	5	0	0	14	0	0	0	1	**338**
6:00 AM	3	347	133	1	44	10	0	2	10	3	0	0	5	**558**
7:00 AM	8	601	187	3	41	15	0	2	9	4	0	0	7	**877**
8:00 AM	8	640	219	1	37	18	0	3	7	18	0	0	10	**961**
9:00 AM	10	496	218	2	44	16	0	1	13	4	0	0	5	**809**
10:00 AM	3	573	189	1	52	10	0	9	4	6	0	0	6	**853**
11:00 AM	1	615	189	1	30	13	0	2	9	5	1	0	11	**877**
12:00 PM	7	695	199	0	45	16	0	2	7	12	0	0	9	**992**
1:00 PM	11	724	198	0	32	11	0	6	11	9	0	0	12	**1,014**
2:00 PM	5	769	194	0	24	11	0	10	7	7	1	1	10	**1,039**
3:00 PM	7	688	210	0	32	12	0	6	4	8	0	0	11	**978**
4:00 PM	11	679	258	2	31	9	0	3	5	9	0	0	9	**1,016**
5:00 PM	10	702	222	0	26	3	0	4	2	8	0	0	2	**979**
6:00 PM	4	629	165	0	20	4	0	4	4	7	0	1	8	**846**
7:00 PM	3	489	117	0	15	4	0	1	10	2	0	0	5	**646**
8:00 PM	5	384	97	0	11	6	0	2	7	2	0	0	4	**518**
9:00 PM	4	312	77	0	6	5	0	1	9	1	0	0	1	**416**
10:00 PM	2	246	50	0	6	1	0	0	9	3	0	0	1	**318**
11:00 PM	3	165	34	0	4	2	0	0	6	0	1	0	1	**216**
Total	**123**	**10,318**	**3,140**	**18**	**547**	**179**	**0**	**59**	**178**	**109**	**5**	**2**	**119**	**14,797**
Percent	**0.8%**	**69.7%**	**21.2%**	**0.1%**	**3.7%**	**1.2%**	**0.0%**	**0.4%**	**1.2%**	**0.7%**	**0.0%**	**0.0%**	**0.8%**	

Location: Crows Landing Rd N/O Olivero Rd
Date Range: 11/9/2017 to 11/9/2017
Site Code: 01

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	31	13	2	8	1	0	0	5	0	0	0	0	**60**
2:00 AM	2	45	13	1	7	4	0	0	9	0	2	0	0	**83**
3:00 AM	1	64	16	2	5	5	0	0	10	0	0	0	0	**103**
4:00 AM	2	128	46	1	19	9	0	0	11	1	2	0	0	**219**
5:00 AM	5	222	99	1	23	19	0	0	15	2	1	0	3	**390**
6:00 AM	12	273	129	2	41	31	0	1	23	2	0	2	2	**518**
7:00 AM	25	469	192	1	48	34	0	1	15	4	0	0	17	**806**
8:00 AM	19	596	205	3	36	22	0	1	8	9	0	1	24	**924**
9:00 AM	17	579	216	1	39	23	0	1	7	13	1	0	15	**912**
10:00 AM	11	547	239	1	53	26	0	1	11	8	0	0	8	**905**
11:00 AM	26	673	259	2	45	28	0	0	5	5	0	0	8	**1,051**
12:00 PM	11	645	253	0	42	19	0	2	3	7	0	0	9	**991**
1:00 PM	26	617	253	1	44	12	0	0	13	7	0	1	13	**987**
2:00 PM	22	704	227	2	50	23	0	2	14	3	0	0	7	**1,054**
3:00 PM	22	803	228	0	43	23	0	0	7	11	0	0	12	**1,149**
4:00 PM	11	808	220	0	23	28	0	1	9	16	0	0	15	**1,131**
5:00 PM	25	789	208	0	26	18	0	1	13	18	0	0	27	**1,125**
6:00 PM	7	637	180	0	38	22	0	3	3	11	0	0	10	**911**
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:00 PM	0	383	88	0	13	7	0	0	1	2	0	0	2	**496**
9:00 PM	5	307	72	0	13	7	0	0	8	3	1	0	2	**418**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	3	153	27	0	3	7	0	0	7	0	0	0	0	**200**
Total	**252**	**9,476**	**3,183**	**20**	**619**	**368**	**0**	**14**	**197**	**122**	**7**	**4**	**174**	**14,436**
Percent	**1.7%**	**65.6%**	**22.0%**	**0.1%**	**4.3%**	**2.5%**	**0.0%**	**0.1%**	**1.4%**	**0.8%**	**0.0%**	**0.0%**	**1.2%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Olivero Rd
Date Range: 11/9/2017 to 11/9/2017
Site Code: 01

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	2	37	9	1	2	0	0	0	8	0	0	0	1	**60**
2:00 AM	3	58	13	2	7	2	0	0	11	0	0	0	0	**96**
3:00 AM	5	136	31	2	6	5	0	0	5	1	1	0	0	**192**
4:00 AM	1	131	42	1	13	1	0	1	7	0	1	0	0	**198**
5:00 AM	7	202	89	1	19	5	0	0	14	0	0	0	1	**338**
6:00 AM	3	347	133	1	44	10	0	2	10	3	0	0	5	**558**
7:00 AM	8	601	187	3	41	15	0	2	9	4	0	0	7	**877**
8:00 AM	8	640	219	1	37	18	0	3	7	18	0	0	10	**961**
9:00 AM	10	496	218	2	44	16	0	1	13	4	0	0	5	**809**
10:00 AM	3	573	189	1	52	10	0	9	4	6	0	0	6	**853**
11:00 AM	1	615	189	1	30	13	0	2	9	5	1	0	11	**877**
12:00 PM	7	695	199	0	45	16	0	2	7	12	0	0	9	**992**
1:00 PM	11	724	198	0	32	11	0	6	11	9	0	0	12	**1,014**
2:00 PM	5	769	194	0	24	11	0	10	7	7	1	1	10	**1,039**
3:00 PM	7	688	210	0	32	12	0	6	4	8	0	0	11	**978**
4:00 PM	11	679	258	2	31	9	0	3	5	9	0	0	9	**1,016**
5:00 PM	10	702	222	0	26	3	0	4	2	8	0	0	2	**979**
6:00 PM	4	629	165	0	20	4	0	4	4	7	0	1	8	**846**
7:00 PM	3	489	117	0	15	4	0	1	10	2	0	0	5	**646**
8:00 PM	5	384	97	0	11	6	0	2	7	2	0	0	4	**518**
9:00 PM	4	312	77	0	6	5	0	1	9	1	0	0	1	**416**
10:00 PM	2	246	50	0	6	1	0	0	9	3	0	0	1	**318**
11:00 PM	3	165	34	0	4	2	0	0	6	0	1	0	1	**216**
Total	**123**	**10,318**	**3,140**	**18**	**547**	**179**	**0**	**59**	**178**	**109**	**5**	**2**	**119**	**14,797**
Percent	**0.8%**	**69.7%**	**21.2%**	**0.1%**	**3.7%**	**1.2%**	**0.0%**	**0.4%**	**1.2%**	**0.7%**	**0.0%**	**0.0%**	**0.8%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Olivero Rd
Date Range: 11/9/2017 to 11/9/2017
Site Code: 01

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	31	13	2	8	1	0	0	5	0	0	0	0	**60**
2:00 AM	2	45	13	1	7	4	0	0	9	0	2	0	0	**83**
3:00 AM	1	64	16	2	5	5	0	0	10	0	0	0	0	**103**
4:00 AM	2	128	46	1	19	9	0	0	11	1	2	0	0	**219**
5:00 AM	5	222	99	1	23	19	0	0	15	2	1	0	3	**390**
6:00 AM	12	273	129	2	41	31	0	1	23	2	0	2	2	**518**
7:00 AM	25	469	192	1	48	34	0	1	15	4	0	0	17	**806**
8:00 AM	19	596	205	3	36	22	0	1	8	9	0	1	24	**924**
9:00 AM	17	579	216	1	39	23	0	1	7	13	1	0	15	**912**
10:00 AM	11	547	239	1	53	26	0	1	11	8	0	0	8	**905**
11:00 AM	26	673	259	2	45	28	0	0	5	5	0	0	8	**1,051**
12:00 PM	11	645	253	0	42	19	0	2	3	7	0	0	9	**991**
1:00 PM	26	617	253	1	44	12	0	0	13	7	0	1	13	**987**
2:00 PM	22	704	227	2	50	23	0	2	14	3	0	0	7	**1,054**
3:00 PM	22	803	228	0	43	23	0	0	7	11	0	0	12	**1,149**
4:00 PM	11	808	220	0	23	28	0	1	9	16	0	0	15	**1,131**
5:00 PM	25	789	208	0	26	18	0	1	13	18	0	0	27	**1,125**
6:00 PM	7	637	180	0	38	22	0	3	3	11	0	0	10	**911**
7:00 PM	3	467	112	0	20	14	0	0	4	4	0	0	1	**625**
8:00 PM	0	383	88	0	13	7	0	0	1	2	0	0	2	**496**
9:00 PM	5	307	72	0	13	7	0	0	8	3	1	0	2	**418**
10:00 PM	2	189	37	0	5	5	0	0	5	1	0	0	1	**245**
11:00 PM	3	153	27	0	3	7	0	0	7	0	0	0	0	**200**
Total	**257**	**10,132**	**3,332**	**20**	**644**	**387**	**0**	**14**	**206**	**127**	**7**	**4**	**176**	**15,306**
Percent	**1.7%**	**66.2%**	**21.8%**	**0.1%**	**4.2%**	**2.5%**	**0.0%**	**0.1%**	**1.3%**	**0.8%**	**0.0%**	**0.0%**	**1.1%**	

Location: Crows Landing Rd N/O Olivero Rd
Date Range: 11/9/2017 to 11/9/2017
Site Code: 01

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	2	37	9	1	2	0	0	0	8	0	0	0	1	**60**
2:00 AM	3	58	13	2	7	2	0	0	11	0	0	0	0	**96**
3:00 AM	5	136	31	2	6	5	0	0	5	1	1	0	0	**192**
4:00 AM	1	131	42	1	13	1	0	1	7	0	1	0	0	**198**
5:00 AM	7	202	89	1	19	5	0	0	14	0	0	0	1	**338**
6:00 AM	3	347	133	1	44	10	0	2	10	3	0	0	5	**558**
7:00 AM	8	601	187	3	41	15	0	2	9	4	0	0	7	**877**
8:00 AM	8	640	219	1	37	18	0	3	7	18	0	0	10	**961**
9:00 AM	10	496	218	2	44	16	0	1	13	4	0	0	5	**809**
10:00 AM	3	573	189	1	52	10	0	9	4	6	0	0	6	**853**
11:00 AM	1	615	189	1	30	13	0	2	9	5	1	0	11	**877**
12:00 PM	7	695	199	0	45	16	0	2	7	12	0	0	9	**992**
1:00 PM	11	724	198	0	32	11	0	6	11	9	0	0	12	**1,014**
2:00 PM	5	769	194	0	24	11	0	10	7	7	1	1	10	**1,039**
3:00 PM	7	688	210	0	32	12	0	6	4	8	0	0	11	**978**
4:00 PM	11	679	258	2	31	9	0	3	5	9	0	0	9	**1,016**
5:00 PM	10	702	222	0	26	3	0	4	2	8	0	0	2	**979**
6:00 PM	4	629	165	0	20	4	0	4	4	7	0	1	8	**846**
7:00 PM	3	489	117	0	15	4	0	1	10	2	0	0	5	**646**
8:00 PM	5	384	97	0	11	6	0	2	7	2	0	0	4	**518**
9:00 PM	4	312	77	0	6	5	0	1	9	1	0	0	1	**416**
10:00 PM	2	246	50	0	6	1	0	0	9	3	0	0	1	**318**
11:00 PM	3	165	34	0	4	2	0	0	6	0	1	0	1	**216**
Total	**123**	**10,318**	**3,140**	**18**	**547**	**179**	**0**	**59**	**178**	**109**	**5**	**2**	**119**	**14,797**
Percent	**0.8%**	**69.7%**	**21.2%**	**0.1%**	**3.7%**	**1.2%**	**0.0%**	**0.4%**	**1.2%**	**0.7%**	**0.0%**	**0.0%**	**0.8%**	

Vehicle Classification Report Summary

Location: Crows Landing Rd N/O Colusa Ave

Count Direction: Northbound / Southbound

Date Range: 11/9/2017 to 11/9/2017

Site Code: 02

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	151	9,720	2,659	22	710	202	0	32	173	43	10	2	47	13,771
Percent	1.1%	70.6%	19.3%	0.2%	5.2%	1.5%	0.0%	0.2%	1.3%	0.3%	0.1%	0.0%	0.3%	100%
Southbound	101	10,222	2,563	25	710	230	0	43	303	44	15	2	49	14,307
Percent	0.7%	71.4%	17.9%	0.2%	5.0%	1.6%	0.0%	0.3%	2.1%	0.3%	0.1%	0.0%	0.3%	100%
Total	252	19,942	5,222	47	1,420	432	0	75	476	87	25	4	96	28,078
Percent	0.9%	71.0%	18.6%	0.2%	5.1%	1.5%	0.0%	0.3%	1.7%	0.3%	0.1%	0.0%	0.3%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: Crows Landing Rd N/O Colusa Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 02

DATA SOLUTIONS

Thursday, November 9, 2017
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	65	10	0	2	0	0	0	5	0	0	0	0	**82**
1:00 AM	0	32	11	0	3	0	0	0	11	0	1	0	1	**59**
2:00 AM	1	56	13	1	1	4	0	0	12	0	0	0	0	**88**
3:00 AM	1	111	28	3	6	1	0	1	9	0	0	0	1	**161**
4:00 AM	0	108	38	1	9	3	0	1	4	4	2	0	0	**170**
5:00 AM	2	223	79	1	13	4	0	1	16	0	0	0	2	**341**
6:00 AM	2	443	105	1	29	10	0	2	14	3	0	0	1	**610**
7:00 AM	7	661	129	0	44	18	0	4	17	7	1	0	7	**895**
8:00 AM	6	687	161	1	48	15	0	5	21	2	0	0	3	**949**
9:00 AM	3	483	162	1	59	20	0	4	23	1	1	0	2	**759**
10:00 AM	7	538	164	2	61	12	0	3	13	2	2	0	1	**805**
11:00 AM	8	568	171	2	53	22	0	1	19	2	0	1	2	**849**
12:00 PM	7	613	203	1	78	27	0	3	18	2	1	0	3	**956**
1:00 PM	8	638	171	2	72	31	0	2	19	6	3	1	4	**957**
2:00 PM	10	743	194	1	49	19	0	4	20	2	0	0	3	**1,045**
3:00 PM	6	717	187	2	57	12	0	4	14	0	0	0	1	**1,000**
4:00 PM	10	721	197	3	44	8	0	3	6	3	1	0	3	**999**
5:00 PM	7	720	169	1	24	7	0	3	9	3	1	0	6	**950**
6:00 PM	4	603	145	1	20	2	0	1	12	3	1	0	3	**795**
7:00 PM	3	463	67	0	14	7	0	1	6	1	0	0	3	**565**
8:00 PM	4	343	60	0	11	1	0	0	14	1	0	0	2	**436**
9:00 PM	3	308	41	0	5	3	0	0	6	1	0	0	0	**367**
10:00 PM	1	230	34	1	7	2	0	0	7	1	0	0	1	**284**
11:00 PM	1	148	24	0	1	2	0	0	8	0	1	0	0	**185**
Total	**101**	**10,222**	**2,563**	**25**	**710**	**230**	**0**	**43**	**303**	**44**	**15**	**2**	**49**	**14,307**
Percent	**0.7%**	**71.4%**	**17.9%**	**0.2%**	**5.0%**	**1.6%**	**0.0%**	**0.3%**	**2.1%**	**0.3%**	**0.1%**	**0.0%**	**0.3%**	

Location: Crows Landing Rd N/O Colusa Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 02

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	33	4	0	0	0	0	0	1	0	0	0	1	**39**
1:00 AM	0	40	15	1	2	0	0	0	3	1	0	0	0	**62**
2:00 AM	0	41	15	2	3	2	0	0	9	0	2	0	0	**74**
3:00 AM	1	58	21	2	9	2	0	0	9	2	0	0	0	**104**
4:00 AM	0	111	34	1	21	6	0	0	8	1	2	0	2	**186**
5:00 AM	4	195	67	1	20	11	0	1	10	4	2	0	4	**319**
6:00 AM	13	278	91	3	38	12	0	1	18	2	0	1	3	**460**
7:00 AM	8	497	124	2	61	19	0	1	13	6	0	0	6	**737**
8:00 AM	7	616	165	3	55	21	0	2	8	3	0	1	2	**883**
9:00 AM	14	605	169	3	52	16	0	2	15	3	0	0	3	**882**
10:00 AM	14	498	187	1	63	15	0	1	12	4	1	0	2	**798**
11:00 AM	13	626	208	1	44	14	0	2	5	2	1	0	5	**921**
12:00 PM	12	650	194	0	47	10	0	5	6	1	0	0	1	**926**
1:00 PM	9	557	164	0	59	14	0	3	10	3	2	0	3	**824**
2:00 PM	8	660	178	1	46	10	0	6	7	0	0	0	3	**919**
3:00 PM	13	773	220	0	44	11	0	3	4	4	0	0	4	**1,076**
4:00 PM	6	812	211	0	44	8	0	4	3	2	0	0	4	**1,094**
5:00 PM	12	836	198	0	43	7	0	1	1	4	0	0	1	**1,103**
6:00 PM	6	609	145	0	20	5	0	0	2	1	0	0	2	**790**
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:00 PM	0	272	71	0	9	2	0	0	3	0	0	0	0	**357**
9:00 PM	4	265	48	0	10	2	0	0	14	0	0	0	0	**343**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	1	131	23	0	1	3	0	0	5	0	0	0	0	**164**
Total	**145**	**9,163**	**2,552**	**21**	**691**	**190**	**0**	**32**	**166**	**43**	**10**	**2**	**46**	**13,061**
Percent	**1.1%**	**70.2%**	**19.5%**	**0.2%**	**5.3%**	**1.5%**	**0.0%**	**0.2%**	**1.3%**	**0.3%**	**0.1%**	**0.0%**	**0.4%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Colusa Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 02

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	65	10	0	2	0	0	0	5	0	0	0	0	**82**
1:00 AM	0	32	11	0	3	0	0	0	11	0	1	0	1	**59**
2:00 AM	1	56	13	1	1	4	0	0	12	0	0	0	0	**88**
3:00 AM	1	111	28	3	6	1	0	1	9	0	0	0	1	**161**
4:00 AM	0	108	38	1	9	3	0	1	4	4	2	0	0	**170**
5:00 AM	2	223	79	1	13	4	0	1	16	0	0	0	2	**341**
6:00 AM	2	443	105	1	29	10	0	2	14	3	0	0	1	**610**
7:00 AM	7	661	129	0	44	18	0	4	17	7	1	0	7	**895**
8:00 AM	6	687	161	1	48	15	0	5	21	2	0	0	3	**949**
9:00 AM	3	483	162	1	59	20	0	4	23	1	1	0	2	**759**
10:00 AM	7	538	164	2	61	12	0	3	13	2	2	0	1	**805**
11:00 AM	8	568	171	2	53	22	0	1	19	2	0	1	2	**849**
12:00 PM	7	613	203	1	78	27	0	3	18	2	1	0	3	**956**
1:00 PM	8	638	171	2	72	31	0	2	19	6	3	1	4	**957**
2:00 PM	10	743	194	1	49	19	0	4	20	2	0	0	3	**1,045**
3:00 PM	6	717	187	2	57	12	0	4	14	0	0	0	1	**1,000**
4:00 PM	10	721	197	3	44	8	0	3	6	3	1	0	3	**999**
5:00 PM	7	720	169	1	24	7	0	3	9	3	1	0	6	**950**
6:00 PM	4	603	145	1	20	2	0	1	12	3	1	0	3	**795**
7:00 PM	3	463	67	0	14	7	0	1	6	1	0	0	3	**565**
8:00 PM	4	343	60	0	11	1	0	0	14	1	0	0	2	**436**
9:00 PM	3	308	41	0	5	3	0	0	6	1	0	0	0	**367**
10:00 PM	1	230	34	1	7	2	0	0	7	1	0	0	1	**284**
11:00 PM	1	148	24	0	1	2	0	0	8	0	1	0	0	**185**
Total	**101**	**10,222**	**2,563**	**25**	**710**	**230**	**0**	**43**	**303**	**44**	**15**	**2**	**49**	**14,307**
Percent	**0.7%**	**71.4%**	**17.9%**	**0.2%**	**5.0%**	**1.6%**	**0.0%**	**0.3%**	**2.1%**	**0.3%**	**0.1%**	**0.0%**	**0.3%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Colusa Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 02

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	33	4	0	0	0	0	0	1	0	0	0	1	**39**
1:00 AM	0	40	15	1	2	0	0	0	3	1	0	0	0	**62**
2:00 AM	0	41	15	2	3	2	0	0	9	0	2	0	0	**74**
3:00 AM	1	58	21	2	9	2	0	0	9	2	0	0	0	**104**
4:00 AM	0	111	34	1	21	6	0	0	8	1	2	0	2	**186**
5:00 AM	4	195	67	1	20	11	0	1	10	4	2	0	4	**319**
6:00 AM	13	278	91	3	38	12	0	1	18	2	0	1	3	**460**
7:00 AM	8	497	124	2	61	19	0	1	13	6	0	0	6	**737**
8:00 AM	7	616	165	3	55	21	0	2	8	3	0	1	2	**883**
9:00 AM	14	605	169	3	52	16	0	2	15	3	0	0	3	**882**
10:00 AM	14	498	187	1	63	15	0	1	12	4	1	0	2	**798**
11:00 AM	13	626	208	1	44	14	0	2	5	2	1	0	5	**921**
12:00 PM	12	650	194	0	47	10	0	5	6	1	0	0	1	**926**
1:00 PM	9	557	164	0	59	14	0	3	10	3	2	0	3	**824**
2:00 PM	8	660	178	1	46	10	0	6	7	0	0	0	3	**919**
3:00 PM	13	773	220	0	44	11	0	3	4	4	0	0	4	**1,076**
4:00 PM	6	812	211	0	44	8	0	4	3	2	0	0	4	**1,094**
5:00 PM	12	836	198	0	43	7	0	1	1	4	0	0	1	**1,103**
6:00 PM	6	609	145	0	20	5	0	0	2	1	0	0	2	**790**
7:00 PM	5	398	88	1	12	9	0	0	2	0	0	0	1	**516**
8:00 PM	0	272	71	0	9	2	0	0	3	0	0	0	0	**357**
9:00 PM	4	265	48	0	10	2	0	0	14	0	0	0	0	**343**
10:00 PM	1	159	19	0	7	3	0	0	5	0	0	0	0	**194**
11:00 PM	1	131	23	0	1	3	0	0	5	0	0	0	0	**164**
Total	**151**	**9,720**	**2,659**	**22**	**710**	**202**	**0**	**32**	**173**	**43**	**10**	**2**	**47**	**13,771**
Percent	**1.1%**	**70.6%**	**19.3%**	**0.2%**	**5.2%**	**1.5%**	**0.0%**	**0.2%**	**1.3%**	**0.3%**	**0.1%**	**0.0%**	**0.3%**	

Location: Crows Landing Rd N/O Colusa Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 02

idax DATA SOLUTIONS

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	65	10	0	2	0	0	0	5	0	0	0	0	**82**
1:00 AM	0	32	11	0	3	0	0	0	11	0	1	0	1	**59**
2:00 AM	1	56	13	1	1	4	0	0	12	0	0	0	0	**88**
3:00 AM	1	111	28	3	6	1	0	1	9	0	0	0	1	**161**
4:00 AM	0	108	38	1	9	3	0	1	4	4	2	0	0	**170**
5:00 AM	2	223	79	1	13	4	0	1	16	0	0	0	2	**341**
6:00 AM	2	443	105	1	29	10	0	2	14	3	0	0	1	**610**
7:00 AM	7	661	129	0	44	18	0	4	17	7	1	0	7	**895**
8:00 AM	6	687	161	1	48	15	0	5	21	2	0	0	3	**949**
9:00 AM	3	483	162	1	59	20	0	4	23	1	1	0	2	**759**
10:00 AM	7	538	164	2	61	12	0	3	13	2	2	0	1	**805**
11:00 AM	8	568	171	2	53	22	0	1	19	2	0	1	2	**849**
12:00 PM	7	613	203	1	78	27	0	3	18	2	1	0	3	**956**
1:00 PM	8	638	171	2	72	31	0	2	19	6	3	1	4	**957**
2:00 PM	10	743	194	1	49	19	0	4	20	2	0	0	3	**1,045**
3:00 PM	6	717	187	2	57	12	0	4	14	0	0	0	1	**1,000**
4:00 PM	10	721	197	3	44	8	0	3	6	3	1	0	3	**999**
5:00 PM	7	720	169	1	24	7	0	3	9	3	1	0	6	**950**
6:00 PM	4	603	145	1	20	2	0	1	12	3	1	0	3	**795**
7:00 PM	3	463	67	0	14	7	0	1	6	1	0	0	3	**565**
8:00 PM	4	343	60	0	11	1	0	0	14	1	0	0	2	**436**
9:00 PM	3	308	41	0	5	3	0	0	6	1	0	0	0	**367**
10:00 PM	1	230	34	1	7	2	0	0	7	1	0	0	1	**284**
11:00 PM	1	148	24	0	1	2	0	0	8	0	1	0	0	**185**
Total	**101**	**10,222**	**2,563**	**25**	**710**	**230**	**0**	**43**	**303**	**44**	**15**	**2**	**49**	**14,307**
Percent	**0.7%**	**71.4%**	**17.9%**	**0.2%**	**5.0%**	**1.6%**	**0.0%**	**0.3%**	**2.1%**	**0.3%**	**0.1%**	**0.0%**	**0.3%**	

Vehicle Classification Report Summary

Location: Crows Landing Rd N/O Imperial Ave

Count Direction: Northbound / Southbound

Date Range: 11/9/2017 to 11/9/2017

Site Code: 03

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	76	8,799	2,769	19	788	377	0	41	240	63	20	3	79	13,274
Percent	0.6%	66.3%	20.9%	0.1%	5.9%	2.8%	0.0%	0.3%	1.8%	0.5%	0.2%	0.0%	0.6%	100%
Southbound	47	9,159	3,166	30	1,127	184	0	27	326	44	26	4	28	14,168
Percent	0.3%	64.6%	22.3%	0.2%	8.0%	1.3%	0.0%	0.2%	2.3%	0.3%	0.2%	0.0%	0.2%	100%
Total	123	17,958	5,935	49	1,915	561	0	68	566	107	46	7	107	27,442
Percent	0.4%	65.4%	21.6%	0.2%	7.0%	2.0%	0.0%	0.2%	2.1%	0.4%	0.2%	0.0%	0.4%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: Crows Landing Rd N/O Imperial Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 03

Thursday, November 9, 2017
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	72	16	0	6	2	0	0	9	1	2	0	0	**108**
1:00 AM	0	27	11	0	5	1	0	1	11	1	1	0	0	**58**
2:00 AM	0	56	8	1	8	2	0	0	7	2	0	0	3	**87**
3:00 AM	1	100	29	3	8	4	0	1	5	1	0	0	0	**152**
4:00 AM	0	104	39	2	18	5	0	1	8	4	2	0	0	**183**
5:00 AM	0	195	94	2	35	10	0	0	15	5	0	0	2	**358**
6:00 AM	1	384	132	1	51	10	0	2	17	1	1	0	1	**601**
7:00 AM	3	636	172	2	52	8	0	3	22	1	0	0	1	**900**
8:00 AM	1	656	176	4	64	12	0	1	22	0	0	0	0	**936**
9:00 AM	7	439	181	1	72	11	0	4	23	0	2	0	0	**740**
10:00 AM	4	485	178	3	81	13	0	2	15	0	1	0	2	**784**
11:00 AM	6	530	186	1	62	12	0	2	18	0	1	1	3	**822**
12:00 PM	6	519	233	2	95	11	0	1	21	1	3	0	1	**893**
1:00 PM	6	607	212	3	87	13	0	2	23	3	4	1	1	**962**
2:00 PM	1	705	244	0	71	10	0	2	20	2	0	1	0	**1,056**
3:00 PM	0	653	223	1	84	4	0	1	18	2	2	0	0	**988**
4:00 PM	0	590	279	1	90	6	0	1	9	1	2	0	1	**980**
5:00 PM	4	647	231	1	71	7	0	1	7	2	1	0	1	**973**
6:00 PM	2	517	192	0	71	13	0	0	14	5	1	0	2	**817**
7:00 PM	1	361	131	1	45	12	0	0	7	1	0	0	1	**560**
8:00 PM	1	285	74	0	26	6	0	1	12	4	1	1	4	**415**
9:00 PM	2	257	57	0	11	2	0	0	4	4	1	0	2	**340**
10:00 PM	1	207	37	1	9	5	0	1	11	2	0	0	3	**277**
11:00 PM	0	127	31	0	5	5	0	0	8	1	1	0	0	**178**
Total	**47**	**9,159**	**3,166**	**30**	**1,127**	**184**	**0**	**27**	**326**	**44**	**26**	**4**	**28**	**14,168**
Percent	**0.3%**	**64.6%**	**22.3%**	**0.2%**	**8.0%**	**1.3%**	**0.0%**	**0.2%**	**2.3%**	**0.3%**	**0.2%**	**0.0%**	**0.2%**	

Location: Crows Landing Rd N/O Imperial Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 03

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	69	8	0	5	3	0	0	6	0	0	0	1	**92**
1:00 AM	1	36	14	1	5	2	0	0	3	1	0	0	0	**63**
2:00 AM	0	43	11	2	5	3	0	0	8	1	2	0	1	**76**
3:00 AM	2	51	15	2	6	4	0	2	7	1	0	0	1	**91**
4:00 AM	0	98	31	1	19	8	0	0	7	4	4	0	1	**173**
5:00 AM	0	201	64	1	20	19	0	2	13	1	3	0	2	**326**
6:00 AM	2	257	100	2	34	21	0	4	21	1	0	0	8	**450**
7:00 AM	5	473	139	3	58	22	0	2	11	8	0	0	8	**729**
8:00 AM	2	558	191	3	70	34	0	2	11	5	1	0	4	**881**
9:00 AM	6	514	176	0	56	33	0	4	13	2	2	0	8	**814**
10:00 AM	7	464	172	1	52	30	0	3	22	5	0	0	5	**761**
11:00 AM	4	542	225	1	60	14	0	3	12	8	2	0	6	**877**
12:00 PM	5	543	210	0	51	24	0	5	12	3	0	0	3	**856**
1:00 PM	5	499	157	0	61	19	0	2	14	3	3	1	6	**770**
2:00 PM	4	571	206	2	45	33	0	2	13	1	0	1	3	**881**
3:00 PM	5	757	211	0	43	22	0	2	9	7	2	0	7	**1,065**
4:00 PM	4	776	235	0	57	13	0	2	5	6	1	1	5	**1,105**
5:00 PM	7	771	217	0	52	13	0	3	8	1	0	0	5	**1,077**
6:00 PM	5	514	133	0	31	22	0	2	8	1	0	0	0	**716**
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:00 PM	1	257	69	0	11	10	0	0	3	0	0	0	2	**353**
9:00 PM	4	220	51	0	13	7	0	0	11	2	0	0	1	**309**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	2	120	25	0	3	4	0	0	10	0	0	0	1	**165**
Total	**71**	**8,334**	**2,660**	**19**	**757**	**360**	**0**	**40**	**227**	**61**	**20**	**3**	**78**	**12,630**
Percent	**0.6%**	**66.0%**	**21.1%**	**0.2%**	**6.0%**	**2.9%**	**0.0%**	**0.3%**	**1.8%**	**0.5%**	**0.2%**	**0.0%**	**0.6%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Imperial Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 03

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	72	16	0	6	2	0	0	9	1	2	0	0	**108**
1:00 AM	0	27	11	0	5	1	0	1	11	1	1	0	0	**58**
2:00 AM	0	56	8	1	8	2	0	0	7	2	0	0	3	**87**
3:00 AM	1	100	29	3	8	4	0	1	5	1	0	0	0	**152**
4:00 AM	0	104	39	2	18	5	0	1	8	4	2	0	0	**183**
5:00 AM	0	195	94	2	35	10	0	0	15	5	0	0	2	**358**
6:00 AM	1	384	132	1	51	10	0	2	17	1	1	0	1	**601**
7:00 AM	3	636	172	2	52	8	0	3	22	1	0	0	1	**900**
8:00 AM	1	656	176	4	64	12	0	1	22	0	0	0	0	**936**
9:00 AM	7	439	181	1	72	11	0	4	23	0	2	0	0	**740**
10:00 AM	4	485	178	3	81	13	0	2	15	0	1	0	2	**784**
11:00 AM	6	530	186	1	62	12	0	2	18	0	1	1	3	**822**
12:00 PM	6	519	233	2	95	11	0	1	21	1	3	0	1	**893**
1:00 PM	6	607	212	3	87	13	0	2	23	3	4	1	1	**962**
2:00 PM	1	705	244	0	71	10	0	2	20	2	0	1	0	**1,056**
3:00 PM	0	653	223	1	84	4	0	1	18	2	2	0	0	**988**
4:00 PM	0	590	279	1	90	6	0	1	9	1	2	0	1	**980**
5:00 PM	4	647	231	1	71	7	0	1	7	2	1	0	1	**973**
6:00 PM	2	517	192	0	71	13	0	0	14	5	1	0	2	**817**
7:00 PM	1	361	131	1	45	12	0	0	7	1	0	0	1	**560**
8:00 PM	1	285	74	0	26	6	0	1	12	4	1	1	4	**415**
9:00 PM	2	257	57	0	11	2	0	0	4	4	1	0	2	**340**
10:00 PM	1	207	37	1	9	5	0	1	11	2	0	0	3	**277**
11:00 PM	0	127	31	0	5	5	0	0	8	1	1	0	0	**178**
Total	**47**	**9,159**	**3,166**	**30**	**1,127**	**184**	**0**	**27**	**326**	**44**	**26**	**4**	**28**	**14,168**
Percent	**0.3%**	**64.6%**	**22.3%**	**0.2%**	**8.0%**	**1.3%**	**0.0%**	**0.2%**	**2.3%**	**0.3%**	**0.2%**	**0.0%**	**0.2%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Imperial Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 03

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3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	69	8	0	5	3	0	0	6	0	0	0	1	**92**
1:00 AM	1	36	14	1	5	2	0	0	3	1	0	0	0	**63**
2:00 AM	0	43	11	2	5	3	0	0	8	1	2	0	1	**76**
3:00 AM	2	51	15	2	6	4	0	2	7	1	0	0	1	**91**
4:00 AM	0	98	31	1	19	8	0	0	7	4	4	0	1	**173**
5:00 AM	0	201	64	1	20	19	0	2	13	1	3	0	2	**326**
6:00 AM	2	257	100	2	34	21	0	4	21	1	0	0	8	**450**
7:00 AM	5	473	139	3	58	22	0	2	11	8	0	0	8	**729**
8:00 AM	2	558	191	3	70	34	0	2	11	5	1	0	4	**881**
9:00 AM	6	514	176	0	56	33	0	4	13	2	2	0	8	**814**
10:00 AM	7	464	172	1	52	30	0	3	22	5	0	0	5	**761**
11:00 AM	4	542	225	1	60	14	0	3	12	8	2	0	6	**877**
12:00 PM	5	543	210	0	51	24	0	5	12	3	0	0	3	**856**
1:00 PM	5	499	157	0	61	19	0	2	14	3	3	1	6	**770**
2:00 PM	4	571	206	2	45	33	0	2	13	1	0	1	3	**881**
3:00 PM	5	757	211	0	43	22	0	2	9	7	2	0	7	**1,065**
4:00 PM	4	776	235	0	57	13	0	2	5	6	1	1	5	**1,105**
5:00 PM	7	771	217	0	52	13	0	3	8	1	0	0	5	**1,077**
6:00 PM	5	514	133	0	31	22	0	2	8	1	0	0	0	**716**
7:00 PM	5	343	85	0	22	11	0	1	4	1	0	0	1	**473**
8:00 PM	1	257	69	0	11	10	0	0	3	0	0	0	2	**353**
9:00 PM	4	220	51	0	13	7	0	0	11	2	0	0	1	**309**
10:00 PM	0	122	24	0	9	6	0	0	9	1	0	0	0	**171**
11:00 PM	2	120	25	0	3	4	0	0	10	0	0	0	1	**165**
Total	**76**	**8,799**	**2,769**	**19**	**788**	**377**	**0**	**41**	**240**	**63**	**20**	**3**	**79**	**13,274**
Percent	**0.6%**	**66.3%**	**20.9%**	**0.1%**	**5.9%**	**2.8%**	**0.0%**	**0.3%**	**1.8%**	**0.5%**	**0.2%**	**0.0%**	**0.6%**	

Location: Crows Landing Rd N/O Imperial Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 03

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3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	72	16	0	6	2	0	0	9	1	2	0	0	**108**
1:00 AM	0	27	11	0	5	1	0	1	11	1	1	0	0	**58**
2:00 AM	0	56	8	1	8	2	0	0	7	2	0	0	3	**87**
3:00 AM	1	100	29	3	8	4	0	1	5	1	0	0	0	**152**
4:00 AM	0	104	39	2	18	5	0	1	8	4	2	0	0	**183**
5:00 AM	0	195	94	2	35	10	0	0	15	5	0	0	2	**358**
6:00 AM	1	384	132	1	51	10	0	2	17	1	1	0	1	**601**
7:00 AM	3	636	172	2	52	8	0	3	22	1	0	0	1	**900**
8:00 AM	1	656	176	4	64	12	0	1	22	0	0	0	0	**936**
9:00 AM	7	439	181	1	72	11	0	4	23	0	2	0	0	**740**
10:00 AM	4	485	178	3	81	13	0	2	15	0	1	0	2	**784**
11:00 AM	6	530	186	1	62	12	0	2	18	0	1	1	3	**822**
12:00 PM	6	519	233	2	95	11	0	1	21	1	3	0	1	**893**
1:00 PM	6	607	212	3	87	13	0	2	23	3	4	1	1	**962**
2:00 PM	1	705	244	0	71	10	0	2	20	2	0	1	0	**1,056**
3:00 PM	0	653	223	1	84	4	0	1	18	2	2	0	0	**988**
4:00 PM	0	590	279	1	90	6	0	1	9	1	2	0	1	**980**
5:00 PM	4	647	231	1	71	7	0	1	7	2	1	0	1	**973**
6:00 PM	2	517	192	0	71	13	0	0	14	5	1	0	2	**817**
7:00 PM	1	361	131	1	45	12	0	0	7	1	0	0	1	**560**
8:00 PM	1	285	74	0	26	6	0	1	12	4	1	1	4	**415**
9:00 PM	2	257	57	0	11	2	0	0	4	4	1	0	2	**340**
10:00 PM	1	207	37	1	9	5	0	1	11	2	0	0	3	**277**
11:00 PM	0	127	31	0	5	5	0	0	8	1	1	0	0	**178**
Total	**47**	**9,159**	**3,166**	**30**	**1,127**	**184**	**0**	**27**	**326**	**44**	**26**	**4**	**28**	**14,168**
Percent	**0.3%**	**64.6%**	**22.3%**	**0.2%**	**8.0%**	**1.3%**	**0.0%**	**0.2%**	**2.3%**	**0.3%**	**0.2%**	**0.0%**	**0.2%**	

Vehicle Classification Report Summary

Location: Crows Landing Rd N/O Algen Ave

Count Direction: Northbound / Southbound

Date Range: 11/9/2017 to 11/9/2017

Site Code: 04

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	57	8,057	2,896	25	846	149	0	30	298	38	21	1	61	12,479
Percent	0.5%	64.6%	23.2%	0.2%	6.8%	1.2%	0.0%	0.2%	2.4%	0.3%	0.2%	0.0%	0.5%	100%
Southbound	36	8,582	2,789	23	773	138	0	34	360	21	27	5	14	12,802
Percent	0.3%	67.0%	21.8%	0.2%	6.0%	1.1%	0.0%	0.3%	2.8%	0.2%	0.2%	0.0%	0.1%	100%
Total	93	16,639	5,685	48	1,619	287	0	64	658	59	48	6	75	25,281
Percent	0.4%	65.8%	22.5%	0.2%	6.4%	1.1%	0.0%	0.3%	2.6%	0.2%	0.2%	0.0%	0.3%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Project Manager: (415) 310-6469
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Location: Crows Landing Rd N/O Algen Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 04

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Thursday, November 9, 2017
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	60	16	0	4	2	0	0	10	0	2	0	0	**94**
1:00 AM	0	22	12	0	3	0	0	0	12	0	1	0	0	**50**
2:00 AM	2	47	9	1	4	2	0	0	12	0	0	0	0	**77**
3:00 AM	0	93	33	2	5	2	0	1	7	1	0	0	0	**144**
4:00 AM	0	101	33	2	20	1	0	1	10	1	2	0	0	**171**
5:00 AM	0	200	92	1	25	3	0	1	20	3	0	0	0	**345**
6:00 AM	3	376	117	1	47	7	0	3	17	0	1	0	2	**574**
7:00 AM	2	602	175	1	56	6	0	2	22	1	0	0	2	**869**
8:00 AM	0	585	171	2	58	12	0	1	19	2	0	0	0	**850**
9:00 AM	1	389	154	1	50	14	0	5	22	0	2	0	2	**640**
10:00 AM	4	435	159	3	63	11	0	2	11	1	1	0	1	**691**
11:00 AM	4	494	176	1	42	11	0	2	19	1	0	2	0	**752**
12:00 PM	3	544	179	0	63	9	0	2	22	3	2	1	1	**829**
1:00 PM	5	554	187	3	53	10	0	3	23	2	3	1	0	**844**
2:00 PM	0	620	211	1	47	9	0	4	21	0	0	1	1	**915**
3:00 PM	1	586	209	0	58	1	0	3	16	1	3	0	0	**878**
4:00 PM	3	571	220	2	51	8	0	1	9	0	2	0	0	**867**
5:00 PM	1	619	199	1	37	6	0	1	13	2	1	0	0	**880**
6:00 PM	2	497	142	0	26	9	0	1	15	0	3	0	2	**697**
7:00 PM	1	371	109	0	21	4	0	0	12	0	1	0	0	**519**
8:00 PM	3	273	64	0	20	3	0	1	18	1	1	0	1	**385**
9:00 PM	1	227	58	0	6	2	0	0	8	1	1	0	1	**305**
10:00 PM	0	197	33	1	6	4	0	0	14	1	0	0	1	**257**
11:00 PM	0	119	31	0	8	2	0	0	8	0	1	0	0	**169**
Total	**36**	**8,582**	**2,789**	**23**	**773**	**138**	**0**	**34**	**360**	**21**	**27**	**5**	**14**	**12,802**
Percent	**0.3%**	**67.0%**	**21.8%**	**0.2%**	**6.0%**	**1.1%**	**0.0%**	**0.3%**	**2.8%**	**0.2%**	**0.2%**	**0.0%**	**0.1%**	

Location: Crows Landing Rd N/O Algen Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 04

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	63	9	0	3	0	0	0	6	0	0	0	0	**81**
1:00 AM	0	32	10	2	5	0	0	0	5	0	0	0	0	**54**
2:00 AM	0	32	15	2	4	3	0	0	11	0	2	0	0	**69**
3:00 AM	2	47	16	2	8	2	0	1	9	0	0	0	0	**87**
4:00 AM	0	87	29	2	17	7	0	0	10	1	4	0	0	**157**
5:00 AM	3	158	59	1	18	12	0	3	17	0	3	0	2	**276**
6:00 AM	1	228	93	4	25	13	0	3	27	1	2	0	4	**401**
7:00 AM	6	434	160	3	60	8	0	4	26	1	1	0	3	**706**
8:00 AM	2	531	209	4	85	11	0	0	11	4	0	0	7	**864**
9:00 AM	2	475	177	1	57	9	0	3	20	2	3	0	3	**752**
10:00 AM	4	422	175	1	61	14	0	0	24	3	2	0	3	**709**
11:00 AM	9	478	229	1	50	10	0	1	10	3	1	0	7	**799**
12:00 PM	3	512	206	0	48	10	0	3	14	4	0	0	2	**802**
1:00 PM	4	469	177	0	56	4	0	3	18	1	1	0	6	**739**
2:00 PM	4	550	216	2	46	10	0	1	15	2	0	0	1	**847**
3:00 PM	3	679	231	0	64	3	0	0	12	4	2	0	8	**1,006**
4:00 PM	3	709	257	0	76	8	0	2	9	3	0	1	4	**1,072**
5:00 PM	5	762	221	0	46	5	0	2	5	5	0	0	6	**1,057**
6:00 PM	5	483	146	0	41	5	0	1	6	1	0	0	2	**690**
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:00 PM	1	218	75	0	15	2	0	1	6	1	0	0	0	**319**
9:00 PM	0	180	50	0	18	5	0	1	12	0	0	0	1	**267**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	95	26	0	12	2	0	0	10	2	0	0	0	**147**
Total	**57**	**7,644**	**2,786**	**25**	**815**	**143**	**0**	**29**	**283**	**38**	**21**	**1**	**59**	**11,901**
Percent	**0.5%**	**64.2%**	**23.4%**	**0.2%**	**6.8%**	**1.2%**	**0.0%**	**0.2%**	**2.4%**	**0.3%**	**0.2%**	**0.0%**	**0.5%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Algen Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 04

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	60	16	0	4	2	0	0	10	0	2	0	0	**94**
1:00 AM	0	22	12	0	3	0	0	0	12	0	1	0	0	**50**
2:00 AM	2	47	9	1	4	2	0	0	12	0	0	0	0	**77**
3:00 AM	0	93	33	2	5	2	0	1	7	1	0	0	0	**144**
4:00 AM	0	101	33	2	20	1	0	1	10	1	2	0	0	**171**
5:00 AM	0	200	92	1	25	3	0	1	20	3	0	0	0	**345**
6:00 AM	3	376	117	1	47	7	0	3	17	0	1	0	2	**574**
7:00 AM	2	602	175	1	56	6	0	2	22	1	0	0	2	**869**
8:00 AM	0	585	171	2	58	12	0	1	19	2	0	0	0	**850**
9:00 AM	1	389	154	1	50	14	0	5	22	0	2	0	2	**640**
10:00 AM	4	435	159	3	63	11	0	2	11	1	1	0	1	**691**
11:00 AM	4	494	176	1	42	11	0	2	19	1	0	2	0	**752**
12:00 PM	3	544	179	0	63	9	0	2	22	3	2	1	1	**829**
1:00 PM	5	554	187	3	53	10	0	3	23	2	3	1	0	**844**
2:00 PM	0	620	211	1	47	9	0	4	21	0	0	1	1	**915**
3:00 PM	1	586	209	0	58	1	0	3	16	1	3	0	0	**878**
4:00 PM	3	571	220	2	51	8	0	1	9	0	2	0	0	**867**
5:00 PM	1	619	199	1	37	6	0	1	13	2	1	0	0	**880**
6:00 PM	2	497	142	0	26	9	0	1	15	0	3	0	2	**697**
7:00 PM	1	371	109	0	21	4	0	0	12	0	1	0	0	**519**
8:00 PM	3	273	64	0	20	3	0	1	18	1	1	0	1	**385**
9:00 PM	1	227	58	0	6	2	0	0	8	1	1	0	1	**305**
10:00 PM	0	197	33	1	6	4	0	0	14	1	0	0	1	**257**
11:00 PM	0	119	31	0	8	2	0	0	8	0	1	0	0	**169**
Total	**36**	**8,582**	**2,789**	**23**	**773**	**138**	**0**	**34**	**360**	**21**	**27**	**5**	**14**	**12,802**
Percent	**0.3%**	**67.0%**	**21.8%**	**0.2%**	**6.0%**	**1.1%**	**0.0%**	**0.3%**	**2.8%**	**0.2%**	**0.2%**	**0.0%**	**0.1%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O Algen Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 04

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	63	9	0	3	0	0	0	6	0	0	0	0	**81**
1:00 AM	0	32	10	2	5	0	0	0	5	0	0	0	0	**54**
2:00 AM	0	32	15	2	4	3	0	0	11	0	2	0	0	**69**
3:00 AM	2	47	16	2	8	2	0	1	9	0	0	0	0	**87**
4:00 AM	0	87	29	2	17	7	0	0	10	1	4	0	0	**157**
5:00 AM	3	158	59	1	18	12	0	3	17	0	3	0	2	**276**
6:00 AM	1	228	93	4	25	13	0	3	27	1	2	0	4	**401**
7:00 AM	6	434	160	3	60	8	0	4	26	1	1	0	3	**706**
8:00 AM	2	531	209	4	85	11	0	0	11	4	0	0	7	**864**
9:00 AM	2	475	177	1	57	9	0	3	20	2	3	0	3	**752**
10:00 AM	4	422	175	1	61	14	0	0	24	3	2	0	3	**709**
11:00 AM	9	478	229	1	50	10	0	1	10	3	1	0	7	**799**
12:00 PM	3	512	206	0	48	10	0	3	14	4	0	0	2	**802**
1:00 PM	4	469	177	0	56	4	0	3	18	1	1	0	6	**739**
2:00 PM	4	550	216	2	46	10	0	1	15	2	0	0	1	**847**
3:00 PM	3	679	231	0	64	3	0	0	12	4	2	0	8	**1,006**
4:00 PM	3	709	257	0	76	8	0	2	9	3	0	1	4	**1,072**
5:00 PM	5	762	221	0	46	5	0	2	5	5	0	0	6	**1,057**
6:00 PM	5	483	146	0	41	5	0	1	6	1	0	0	2	**690**
7:00 PM	0	297	89	0	21	3	0	1	5	0	0	0	2	**418**
8:00 PM	1	218	75	0	15	2	0	1	6	1	0	0	0	**319**
9:00 PM	0	180	50	0	18	5	0	1	12	0	0	0	1	**267**
10:00 PM	0	116	21	0	10	3	0	0	10	0	0	0	0	**160**
11:00 PM	0	95	26	0	12	2	0	0	10	2	0	0	0	**147**
Total	**57**	**8,057**	**2,896**	**25**	**846**	**149**	**0**	**30**	**298**	**38**	**21**	**1**	**61**	**12,479**
Percent	**0.5%**	**64.6%**	**23.2%**	**0.2%**	**6.8%**	**1.2%**	**0.0%**	**0.2%**	**2.4%**	**0.3%**	**0.2%**	**0.0%**	**0.5%**	

Location: Crows Landing Rd N/O Algen Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 04

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	60	16	0	4	2	0	0	10	0	2	0	0	**94**
1:00 AM	0	22	12	0	3	0	0	0	12	0	1	0	0	**50**
2:00 AM	2	47	9	1	4	2	0	0	12	0	0	0	0	**77**
3:00 AM	0	93	33	2	5	2	0	1	7	1	0	0	0	**144**
4:00 AM	0	101	33	2	20	1	0	1	10	1	2	0	0	**171**
5:00 AM	0	200	92	1	25	3	0	1	20	3	0	0	0	**345**
6:00 AM	3	376	117	1	47	7	0	3	17	0	1	0	2	**574**
7:00 AM	2	602	175	1	56	6	0	2	22	1	0	0	2	**869**
8:00 AM	0	585	171	2	58	12	0	1	19	2	0	0	0	**850**
9:00 AM	1	389	154	1	50	14	0	5	22	0	2	0	2	**640**
10:00 AM	4	435	159	3	63	11	0	2	11	1	1	0	1	**691**
11:00 AM	4	494	176	1	42	11	0	2	19	1	0	2	0	**752**
12:00 PM	3	544	179	0	63	9	0	2	22	3	2	1	1	**829**
1:00 PM	5	554	187	3	53	10	0	3	23	2	3	1	0	**844**
2:00 PM	0	620	211	1	47	9	0	4	21	0	0	1	1	**915**
3:00 PM	1	586	209	0	58	1	0	3	16	1	3	0	0	**878**
4:00 PM	3	571	220	2	51	8	0	1	9	0	2	0	0	**867**
5:00 PM	1	619	199	1	37	6	0	1	13	2	1	0	0	**880**
6:00 PM	2	497	142	0	26	9	0	1	15	0	3	0	2	**697**
7:00 PM	1	371	109	0	21	4	0	0	12	0	1	0	0	**519**
8:00 PM	3	273	64	0	20	3	0	1	18	1	1	0	1	**385**
9:00 PM	1	227	58	0	6	2	0	0	8	1	1	0	1	**305**
10:00 PM	0	197	33	1	6	4	0	0	14	1	0	0	1	**257**
11:00 PM	0	119	31	0	8	2	0	0	8	0	1	0	0	**169**
Total	**36**	**8,582**	**2,789**	**23**	**773**	**138**	**0**	**34**	**360**	**21**	**27**	**5**	**14**	**12,802**
Percent	**0.3%**	**67.0%**	**21.8%**	**0.2%**	**6.0%**	**1.1%**	**0.0%**	**0.3%**	**2.8%**	**0.2%**	**0.2%**	**0.0%**	**0.1%**	

Vehicle Classification Report Summary

Location: Crows Landing Rd N/O E Whitmore Ave

Count Direction: Northbound / Southbound

Date Range: 11/9/2017 to 11/9/2017

Site Code: 05

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	58	8,132	2,713	15	738	146	0	33	269	42	14	3	71	12,234
Percent	0.5%	66.5%	22.2%	0.1%	6.0%	1.2%	0.0%	0.3%	2.2%	0.3%	0.1%	0.0%	0.6%	100%
Southbound	90	8,366	2,658	29	695	394	0	20	226	76	18	2	86	12,660
Percent	0.7%	66.1%	21.0%	0.2%	5.5%	3.1%	0.0%	0.2%	1.8%	0.6%	0.1%	0.0%	0.7%	100%
Total	148	16,498	5,371	44	1,433	540	0	53	495	118	32	5	157	24,894
Percent	0.6%	66.3%	21.6%	0.2%	5.8%	2.2%	0.0%	0.2%	2.0%	0.5%	0.1%	0.0%	0.6%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: Crows Landing Rd N/O E Whitmore Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 05

Thursday, November 9, 2017
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	50	15	0	3	5	0	1	8	0	1	0	2	**85**
1:00 AM	1	26	13	0	3	0	0	0	9	3	1	0	0	**56**
2:00 AM	1	41	11	3	1	5	0	0	10	3	0	0	1	**76**
3:00 AM	0	87	26	2	6	10	0	1	6	0	0	0	4	**142**
4:00 AM	0	88	42	1	11	10	0	0	7	3	2	0	1	**165**
5:00 AM	1	178	96	1	28	8	0	0	13	2	0	0	5	**332**
6:00 AM	4	391	111	2	44	32	0	1	11	5	1	0	1	**603**
7:00 AM	7	580	174	3	63	35	0	2	17	8	0	0	4	**893**
8:00 AM	8	537	184	1	68	22	0	1	11	2	0	0	2	**836**
9:00 AM	6	370	149	1	39	24	0	5	9	7	2	0	7	**619**
10:00 AM	3	384	157	2	58	19	0	3	10	2	0	0	5	**643**
11:00 AM	7	441	172	3	58	21	0	0	7	3	0	1	4	**717**
12:00 PM	9	492	160	0	63	23	0	1	10	4	0	0	9	**771**
1:00 PM	2	557	168	4	33	24	0	1	9	4	3	1	12	**818**
2:00 PM	7	650	193	0	34	23	0	1	13	6	1	0	7	**935**
3:00 PM	3	605	188	2	46	17	0	0	11	3	1	0	3	**879**
4:00 PM	7	594	199	1	44	33	0	2	2	5	1	0	1	**889**
5:00 PM	12	636	182	2	33	16	0	1	6	6	1	0	5	**900**
6:00 PM	5	494	149	0	27	17	0	0	11	3	2	0	2	**710**
7:00 PM	1	360	95	0	16	13	0	0	8	2	0	0	2	**497**
8:00 PM	2	267	65	0	10	13	0	0	13	1	1	0	4	**376**
9:00 PM	3	235	46	0	3	10	0	0	5	1	0	0	2	**305**
10:00 PM	1	188	34	1	3	7	0	0	11	3	0	0	1	**249**
11:00 PM	0	115	29	0	1	7	0	0	9	0	1	0	2	**164**
Total	**90**	**8,366**	**2,658**	**29**	**695**	**394**	**0**	**20**	**226**	**76**	**18**	**2**	**86**	**12,660**
Percent	**0.7%**	**66.1%**	**21.0%**	**0.2%**	**5.5%**	**3.1%**	**0.0%**	**0.2%**	**1.8%**	**0.6%**	**0.1%**	**0.0%**	**0.7%**	

Project Manager: (415) 310-6469
project.manager.ca@idaxdata.com

Location: Crows Landing Rd N/O E Whitmore Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 05

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	67	8	0	4	0	0	0	6	0	0	0	0	**85**
1:00 AM	1	44	9	0	8	0	0	0	5	0	0	0	0	**67**
2:00 AM	1	43	13	2	3	2	0	0	9	0	1	0	1	**75**
3:00 AM	2	54	15	1	14	2	0	1	5	0	0	0	1	**95**
4:00 AM	1	95	30	0	22	4	0	0	15	0	3	1	0	**171**
5:00 AM	0	162	79	1	27	4	0	1	20	0	2	0	1	**297**
6:00 AM	3	235	99	2	39	7	0	2	23	1	0	0	7	**418**
7:00 AM	4	461	133	1	53	12	0	2	20	7	0	0	7	**700**
8:00 AM	1	545	205	2	94	3	0	0	10	3	1	1	8	**873**
9:00 AM	5	435	161	1	51	5	0	2	16	4	2	0	4	**686**
10:00 AM	4	410	164	1	51	10	0	3	17	6	1	1	6	**674**
11:00 AM	3	491	198	1	37	15	0	5	13	5	1	0	4	**773**
12:00 PM	5	537	187	0	37	12	0	2	12	3	0	0	3	**798**
1:00 PM	4	492	156	1	46	8	0	4	10	0	2	0	10	**733**
2:00 PM	3	548	188	1	40	13	0	2	9	2	0	0	3	**809**
3:00 PM	3	644	224	1	45	9	0	1	15	3	1	0	2	**948**
4:00 PM	3	680	246	0	43	8	0	0	6	2	0	0	8	**996**
5:00 PM	6	735	200	0	51	10	0	4	7	4	0	0	3	**1,020**
6:00 PM	2	457	137	0	31	4	0	3	5	1	0	0	1	**641**
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
8:00 PM	2	237	67	0	12	1	0	0	4	1	0	0	0	**324**
9:00 PM	3	217	48	0	14	3	0	0	14	0	0	0	0	**299**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	1	123	25	0	0	6	0	0	11	0	0	0	0	**166**
Total	**57**	**7,712**	**2,592**	**15**	**722**	**138**	**0**	**32**	**252**	**42**	**14**	**3**	**69**	**11,648**
Percent	**0.5%**	**66.2%**	**22.3%**	**0.1%**	**6.2%**	**1.2%**	**0.0%**	**0.3%**	**2.2%**	**0.4%**	**0.1%**	**0.0%**	**0.6%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O E Whitmore Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 05

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	50	15	0	3	5	0	1	8	0	1	0	2	**85**
1:00 AM	1	26	13	0	3	0	0	0	9	3	1	0	0	**56**
2:00 AM	1	41	11	3	1	5	0	0	10	3	0	0	1	**76**
3:00 AM	0	87	26	2	6	10	0	1	6	0	0	0	4	**142**
4:00 AM	0	88	42	1	11	10	0	0	7	3	2	0	1	**165**
5:00 AM	1	178	96	1	28	8	0	0	13	2	0	0	5	**332**
6:00 AM	4	391	111	2	44	32	0	1	11	5	1	0	1	**603**
7:00 AM	7	580	174	3	63	35	0	2	17	8	0	0	4	**893**
8:00 AM	8	537	184	1	68	22	0	1	11	2	0	0	2	**836**
9:00 AM	6	370	149	1	39	24	0	5	9	7	2	0	7	**619**
10:00 AM	3	384	157	2	58	19	0	3	10	2	0	0	5	**643**
11:00 AM	7	441	172	3	58	21	0	0	7	3	0	1	4	**717**
12:00 PM	9	492	160	0	63	23	0	1	10	4	0	0	9	**771**
1:00 PM	2	557	168	4	33	24	0	1	9	4	3	1	12	**818**
2:00 PM	7	650	193	0	34	23	0	1	13	6	1	0	7	**935**
3:00 PM	3	605	188	2	46	17	0	0	11	3	1	0	3	**879**
4:00 PM	7	594	199	1	44	33	0	2	2	5	1	0	1	**889**
5:00 PM	12	636	182	2	33	16	0	1	6	6	1	0	5	**900**
6:00 PM	5	494	149	0	27	17	0	0	11	3	2	0	2	**710**
7:00 PM	1	360	95	0	16	13	0	0	8	2	0	0	2	**497**
8:00 PM	2	267	65	0	10	13	0	0	13	1	1	0	4	**376**
9:00 PM	3	235	46	0	3	10	0	0	5	1	0	0	2	**305**
10:00 PM	1	188	34	1	3	7	0	0	11	3	0	0	1	**249**
11:00 PM	0	115	29	0	1	7	0	0	9	0	1	0	2	**164**
Total	**90**	**8,366**	**2,658**	**29**	**695**	**394**	**0**	**20**	**226**	**76**	**18**	**2**	**86**	**12,660**
Percent	**0.7%**	**66.1%**	**21.0%**	**0.2%**	**5.5%**	**3.1%**	**0.0%**	**0.2%**	**1.8%**	**0.6%**	**0.1%**	**0.0%**	**0.7%**	

Note: Average only condsidered on days with 24-hours of data.

Location: Crows Landing Rd N/O E Whitmore Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 05

3-Day (Tuesday - Thursday) Average
Northbound

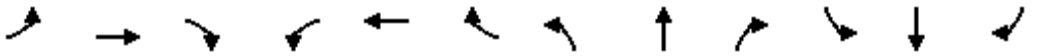
Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	67	8	0	4	0	0	0	6	0	0	0	0	**85**
1:00 AM	1	44	9	0	8	0	0	0	5	0	0	0	0	**67**
2:00 AM	1	43	13	2	3	2	0	0	9	0	1	0	1	**75**
3:00 AM	2	54	15	1	14	2	0	1	5	0	0	0	1	**95**
4:00 AM	1	95	30	0	22	4	0	0	15	0	3	1	0	**171**
5:00 AM	0	162	79	1	27	4	0	1	20	0	2	0	1	**297**
6:00 AM	3	235	99	2	39	7	0	2	23	1	0	0	7	**418**
7:00 AM	4	461	133	1	53	12	0	2	20	7	0	0	7	**700**
8:00 AM	1	545	205	2	94	3	0	0	10	3	1	1	8	**873**
9:00 AM	5	435	161	1	51	5	0	2	16	4	2	0	4	**686**
10:00 AM	4	410	164	1	51	10	0	3	17	6	1	1	6	**674**
11:00 AM	3	491	198	1	37	15	0	5	13	5	1	0	4	**773**
12:00 PM	5	537	187	0	37	12	0	2	12	3	0	0	3	**798**
1:00 PM	4	492	156	1	46	8	0	4	10	0	2	0	10	**733**
2:00 PM	3	548	188	1	40	13	0	2	9	2	0	0	3	**809**
3:00 PM	3	644	224	1	45	9	0	1	15	3	1	0	2	**948**
4:00 PM	3	680	246	0	43	8	0	0	6	2	0	0	8	**996**
5:00 PM	6	735	200	0	51	10	0	4	7	4	0	0	3	**1,020**
6:00 PM	2	457	137	0	31	4	0	3	5	1	0	0	1	**641**
7:00 PM	1	296	103	0	12	4	0	1	7	0	0	0	2	**426**
8:00 PM	2	237	67	0	12	1	0	0	4	1	0	0	0	**324**
9:00 PM	3	217	48	0	14	3	0	0	14	0	0	0	0	**299**
10:00 PM	0	124	18	0	4	4	0	0	10	0	0	0	0	**160**
11:00 PM	1	123	25	0	0	6	0	0	11	0	0	0	0	**166**
Total	**58**	**8,132**	**2,713**	**15**	**738**	**146**	**0**	**33**	**269**	**42**	**14**	**3**	**71**	**12,234**
Percent	**0.5%**	**66.5%**	**22.2%**	**0.1%**	**6.0%**	**1.2%**	**0.0%**	**0.3%**	**2.2%**	**0.3%**	**0.1%**	**0.0%**	**0.6%**	

Location: Crows Landing Rd N/O E Whitmore Ave
Date Range: 11/9/2017 to 11/9/2017
Site Code: 05

3-Day (Tuesday - Thursday) Average
Southbound

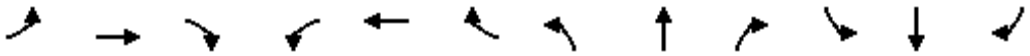
Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	50	15	0	3	5	0	1	8	0	1	0	2	**85**
1:00 AM	1	26	13	0	3	0	0	0	9	3	1	0	0	**56**
2:00 AM	1	41	11	3	1	5	0	0	10	3	0	0	1	**76**
3:00 AM	0	87	26	2	6	10	0	1	6	0	0	0	4	**142**
4:00 AM	0	88	42	1	11	10	0	0	7	3	2	0	1	**165**
5:00 AM	1	178	96	1	28	8	0	0	13	2	0	0	5	**332**
6:00 AM	4	391	111	2	44	32	0	1	11	5	1	0	1	**603**
7:00 AM	7	580	174	3	63	35	0	2	17	8	0	0	4	**893**
8:00 AM	8	537	184	1	68	22	0	1	11	2	0	0	2	**836**
9:00 AM	6	370	149	1	39	24	0	5	9	7	2	0	7	**619**
10:00 AM	3	384	157	2	58	19	0	3	10	2	0	0	5	**643**
11:00 AM	7	441	172	3	58	21	0	0	7	3	0	1	4	**717**
12:00 PM	9	492	160	0	63	23	0	1	10	4	0	0	9	**771**
1:00 PM	2	557	168	4	33	24	0	1	9	4	3	1	12	**818**
2:00 PM	7	650	193	0	34	23	0	1	13	6	1	0	7	**935**
3:00 PM	3	605	188	2	46	17	0	0	11	3	1	0	3	**879**
4:00 PM	7	594	199	1	44	33	0	2	2	5	1	0	1	**889**
5:00 PM	12	636	182	2	33	16	0	1	6	6	1	0	5	**900**
6:00 PM	5	494	149	0	27	17	0	0	11	3	2	0	2	**710**
7:00 PM	1	360	95	0	16	13	0	0	8	2	0	0	2	**497**
8:00 PM	2	267	65	0	10	13	0	0	13	1	1	0	4	**376**
9:00 PM	3	235	46	0	3	10	0	0	5	1	0	0	2	**305**
10:00 PM	1	188	34	1	3	7	0	0	11	3	0	0	1	**249**
11:00 PM	0	115	29	0	1	7	0	0	9	0	1	0	2	**164**
Total	**90**	**8,366**	**2,658**	**29**	**695**	**394**	**0**	**20**	**226**	**76**	**18**	**2**	**86**	**12,660**
Percent	**0.7%**	**66.1%**	**21.0%**	**0.2%**	**5.5%**	**3.1%**	**0.0%**	**0.2%**	**1.8%**	**0.6%**	**0.1%**	**0.0%**	**0.7%**	

Appendix C – Existing Conditions Intersection Level of Service



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	425	245	66	153	177	31	90	727	102	41	901	217
Future Volume (vph)	425	245	66	153	177	31	90	727	102	41	901	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.98		0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3162		1564	3207		1719	3438	1500	1719	3438	1503
Flt Permitted	0.95	0.98		0.95	0.99		0.10	1.00	1.00	0.25	1.00	1.00
Satd. Flow (perm)	1564	3162		1564	3207		181	3438	1500	452	3438	1503
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95	0.91	0.91	0.91
Adj. Flow (vph)	478	275	74	194	224	39	95	765	107	45	990	238
RTOR Reduction (vph)	0	8	0	0	8	0	0	0	55	0	0	106
Lane Group Flow (vph)	272	547	0	149	300	0	95	765	52	45	990	132
Confl. Peds. (#/hr)			4						10			9
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	28.3	28.3		18.7	18.7		54.2	44.9	44.9	47.8	41.7	41.7
Effective Green, g (s)	28.3	28.3		18.7	18.7		54.2	44.9	44.9	47.8	41.7	41.7
Actuated g/C Ratio	0.24	0.24		0.16	0.16		0.46	0.38	0.38	0.40	0.35	0.35
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	374	757		247	507		204	1305	569	248	1212	530
v/s Ratio Prot	c0.17	0.17		c0.10	0.09		c0.04	0.22		0.01	c0.29	
v/s Ratio Perm							0.18		0.03	0.06		0.09
v/c Ratio	0.73	0.72		0.60	0.59		0.47	0.59	0.09	0.18	0.82	0.25
Uniform Delay, d1	41.4	41.3		46.3	46.2		22.8	29.2	23.5	22.3	34.8	27.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.4	3.7		4.7	2.2		1.7	0.8	0.1	0.4	4.6	0.3
Delay (s)	48.8	45.0		51.0	48.4		24.5	30.0	23.6	22.6	39.4	27.5
Level of Service	D	D		D	D		C	C	C	C	D	C
Approach Delay (s)		46.2			49.3			28.8			36.6	
Approach LOS		D			D			C			D	

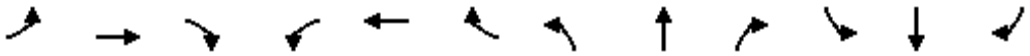
Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	118.2	Sum of lost time (s)	20.2
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	1	2	0	17	0	952	15	10	1059	7
Future Volume (Veh/h)	8	0	1	2	0	17	0	952	15	10	1059	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.53	0.53	0.53	0.93	0.93	0.93	0.90	0.90	0.90
Hourly flow rate (vph)	11	0	1	4	0	32	0	1024	16	11	1177	8
Pedestrians		4			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			1							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								887			461	
pX, platoon unblocked	0.77	0.77	0.74	0.77	0.77	0.95	0.74			0.95		
vC, conflicting volume	1751	2256	596	1652	2252	529	1189			1049		
vC1, stage 1 conf vol	1207	1207		1041	1041							
vC2, stage 2 conf vol	544	1049		612	1211							
vCu, unblocked vol	1085	1744	0	957	1739	403	560			949		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	96	100	100	98	100	94	100			98		
cM capacity (veh/h)	288	230	792	251	235	553	724			655		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	12	36	683	357	11	785	400
Volume Left	11	4	0	0	11	0	0
Volume Right	1	32	0	16	0	0	8
cSH	304	488	1700	1700	655	1700	1700
Volume to Capacity	0.04	0.07	0.40	0.21	0.02	0.46	0.24
Queue Length 95th (ft)	3	6	0	0	1	0	0
Control Delay (s)	17.3	13.0	0.0	0.0	10.6	0.0	0.0
Lane LOS	C	B			B		
Approach Delay (s)	17.3	13.0	0.0		0.1		
Approach LOS	C	B					

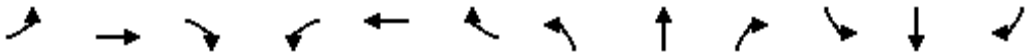
Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	39.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	0	14	0	0	0	4	699	0	0	902	28
Future Volume (Veh/h)	31	0	14	0	0	0	4	699	0	0	902	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.92	0.89	0.92	0.92	0.92	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	35	0	16	0	0	0	4	785	0	0	1013	31
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								680			668	
pX, platoon unblocked	0.79	0.79	0.76	0.79	0.79	0.94	0.76			0.94		
vC, conflicting volume	1429	1822	522	1316	1837	392	1044			785		
vC1, stage 1 conf vol	1028	1028		793	793							
vC2, stage 2 conf vol	400	793		522	1044							
vCu, unblocked vol	645	1141	0	501	1161	213	419			632		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	100	98	100	100	100	100			100		
cM capacity (veh/h)	425	341	822	390	335	741	861			885		

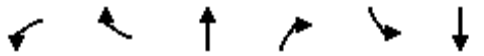
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	51	0	4	392	392	675	369
Volume Left	35	0	4	0	0	0	0
Volume Right	16	0	0	0	0	0	31
cSH	501	1700	861	1700	1700	1700	1700
Volume to Capacity	0.10	0.00	0.00	0.23	0.23	0.40	0.22
Queue Length 95th (ft)	8	0	0	0	0	0	0
Control Delay (s)	13.0	0.0	9.2	0.0	0.0	0.0	0.0
Lane LOS	B	A	A				
Approach Delay (s)	13.0	0.0	0.0			0.0	
Approach LOS	B	A					

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	35.8%	ICU Level of Service	A	
Analysis Period (min)	15			



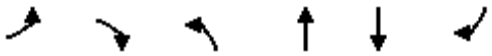
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	27	41	2	17	1	28	775	4	0	908	75
Future Volume (vph)	111	27	41	2	17	1	28	775	4	0	908	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	5.5			5.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.91	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		0.99			1.00		1.00	1.00			1.00	
Frt		0.97			0.99		1.00	1.00			0.99	
Flt Protected		0.97			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1676			1767		1703	3403			4827	
Flt Permitted		0.79			0.97		0.95	1.00			1.00	
Satd. Flow (perm)		1365			1718		1703	3403			4827	
Peak-hour factor, PHF	0.91	0.91	0.91	0.56	0.56	0.56	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	30	45	4	30	2	30	842	4	0	987	82
RTOR Reduction (vph)	0	17	0	0	2	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	180	0	0	34	0	30	846	0	0	1061	0
Confl. Peds. (#/hr)	9					9			3			3
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type	Perm	NA		Perm	NA		Prot	NA			NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4								
Actuated Green, G (s)		15.7			15.7		2.0	54.3			47.8	
Effective Green, g (s)		15.7			15.7		2.0	54.3			47.8	
Actuated g/C Ratio		0.20			0.20		0.02	0.68			0.60	
Clearance Time (s)		4.5			4.5		4.5	5.5			5.5	
Vehicle Extension (s)		3.0			3.0		3.0	4.5			4.5	
Lane Grp Cap (vph)		267			337		42	2309			2884	
v/s Ratio Prot							c0.02	c0.25			0.22	
v/s Ratio Perm		c0.13			0.02							
v/c Ratio		0.67			0.10		0.71	0.37			0.37	
Uniform Delay, d1		29.8			26.4		38.7	5.5			8.3	
Progression Factor		1.00			1.00		1.09	0.89			1.00	
Incremental Delay, d2		6.6			0.1		42.6	0.4			0.4	
Delay (s)		36.4			26.5		85.0	5.3			8.7	
Level of Service		D			C		F	A			A	
Approach Delay (s)		36.4			26.5			8.0			8.7	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	109	40	775	112	48	894
Future Volume (vph)	109	40	775	112	48	894
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		5.5		4.5	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.96		1.00		0.95	1.00
Satd. Flow (prot)	1666		4786		1703	3406
Flt Permitted	0.96		1.00		0.95	1.00
Satd. Flow (perm)	1666		4786		1703	3406
Peak-hour factor, PHF	0.65	0.65	0.94	0.94	0.92	0.92
Adj. Flow (vph)	168	62	824	119	52	972
RTOR Reduction (vph)	19	0	17	0	0	0
Lane Group Flow (vph)	211	0	926	0	52	972
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot		NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	15.3		45.0		5.2	54.7
Effective Green, g (s)	15.3		45.0		5.2	54.7
Actuated g/C Ratio	0.19		0.56		0.07	0.68
Clearance Time (s)	4.5		5.5		4.5	5.5
Vehicle Extension (s)	3.0		4.5		3.0	4.5
Lane Grp Cap (vph)	318		2692		110	2328
v/s Ratio Prot	c0.13		0.19		0.03	c0.29
v/s Ratio Perm						
v/c Ratio	0.66		0.34		0.47	0.42
Uniform Delay, d1	30.0		9.5		36.1	5.6
Progression Factor	1.00		1.00		0.82	0.44
Incremental Delay, d2	5.1		0.4		3.0	0.5
Delay (s)	35.1		9.8		32.8	3.0
Level of Service	D		A		C	A
Approach Delay (s)	35.1		9.8			4.5
Approach LOS	D		A			A

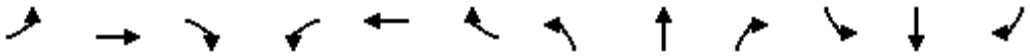
Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	14	23	890	964	11
Future Volume (Veh/h)	5	14	23	890	964	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	15	24	937	1015	12
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					760	
pX, platoon unblocked	0.90	0.90	0.90			
vC, conflicting volume	1538	514	1028			
vC1, stage 1 conf vol	1022					
vC2, stage 2 conf vol	516					
vCu, unblocked vol	1373	232	804			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.6	3.4	2.3			
p0 queue free %	98	98	97			
cM capacity (veh/h)	305	680	709			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	20	24	468	468	677	350
Volume Left	5	24	0	0	0	0
Volume Right	15	0	0	0	0	12
cSH	520	709	1700	1700	1700	1700
Volume to Capacity	0.04	0.03	0.28	0.28	0.40	0.21
Queue Length 95th (ft)	3	3	0	0	0	0
Control Delay (s)	12.2	10.3	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.2	0.3			0.0	
Approach LOS	B					

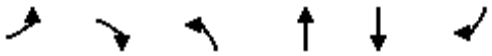
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	7	12	0	0	0	18	645	7	13	849	13
Future Volume (Veh/h)	13	7	12	0	0	0	18	645	7	13	849	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	14	8	13	0	0	0	20	717	8	14	943	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1160	
pX, platoon unblocked	0.94	0.94	0.94	0.94	0.94		0.94					
vC, conflicting volume	1376	1743	478	1278	1746	362	957			725		
vC1, stage 1 conf vol	978	978		761	761							
vC2, stage 2 conf vol	398	765		516	985							
vCu, unblocked vol	1279	1668	327	1174	1671	362	835			725		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	97	98	100	100	100	97			98		
cM capacity (veh/h)	270	265	631	309	259	634	750			874		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	35	0	20	478	247	14	629	328
Volume Left	14	0	20	0	0	14	0	0
Volume Right	13	0	0	0	8	0	0	14
cSH	341	1700	750	1700	1700	874	1700	1700
Volume to Capacity	0.10	0.00	0.03	0.28	0.15	0.02	0.37	0.19
Queue Length 95th (ft)	9	0	2	0	0	1	0	0
Control Delay (s)	16.8	0.0	9.9	0.0	0.0	9.2	0.0	0.0
Lane LOS	C	A	A			A		
Approach Delay (s)	16.8	0.0	0.3			0.1		
Approach LOS	C	A						

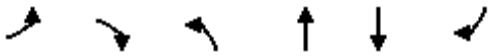
Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	33.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	27	20	651	844	21
Future Volume (Veh/h)	17	27	20	651	844	21
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	29	22	708	917	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1326	470	940			
vC1, stage 1 conf vol	928					
vC2, stage 2 conf vol	398					
vCu, unblocked vol	1326	470	940			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	95	97			
cM capacity (veh/h)	315	540	725			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	47	22	354	354	611	329
Volume Left	18	22	0	0	0	0
Volume Right	29	0	0	0	0	23
cSH	424	725	1700	1700	1700	1700
Volume to Capacity	0.11	0.03	0.21	0.21	0.36	0.19
Queue Length 95th (ft)	9	2	0	0	0	0
Control Delay (s)	14.5	10.1	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	14.5	0.3			0.0	
Approach LOS	B					

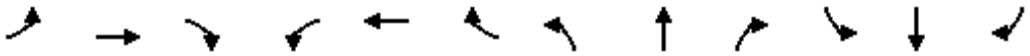
Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	27	23	891	936	10
Future Volume (Veh/h)	28	27	23	891	936	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	30	29	24	948	996	11
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1528	508	1011			
vC1, stage 1 conf vol	1006					
vC2, stage 2 conf vol	522					
vCu, unblocked vol	1528	508	1011			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.6	3.4	2.3			
p0 queue free %	89	94	96			
cM capacity (veh/h)	270	498	655			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	59	24	474	474	664	343
Volume Left	30	24	0	0	0	0
Volume Right	29	0	0	0	0	11
cSH	349	655	1700	1700	1700	1700
Volume to Capacity	0.17	0.04	0.28	0.28	0.39	0.20
Queue Length 95th (ft)	15	3	0	0	0	0
Control Delay (s)	17.4	10.7	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	17.4	0.3			0.0	
Approach LOS	C					

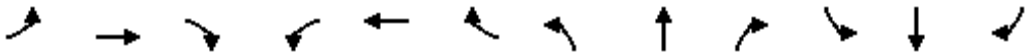
Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	0	15	1	0	43	5	833	10	37	872	55
Future Volume (Veh/h)	38	0	15	1	0	43	5	833	10	37	872	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	41	0	16	1	0	46	5	896	11	40	938	59
Pedestrians		4			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								910				
pX, platoon unblocked	0.88	0.88		0.88	0.88	0.88				0.88		
vC, conflicting volume	1556	1972	502	1480	1996	458	1001			911		
vC1, stage 1 conf vol	1052	1052		916	916							
vC2, stage 2 conf vol	504	921		565	1081							
vCu, unblocked vol	1353	1828	502	1267	1856	101	1001			618		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	81	100	97	100	100	94	99			95		
cM capacity (veh/h)	211	222	502	290	221	806	661			814		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	57	47	5	597	310	40	625	372
Volume Left	41	1	5	0	0	40	0	0
Volume Right	16	46	0	0	11	0	0	59
cSH	252	776	661	1700	1700	814	1700	1700
Volume to Capacity	0.23	0.06	0.01	0.35	0.18	0.05	0.37	0.22
Queue Length 95th (ft)	21	5	1	0	0	4	0	0
Control Delay (s)	23.4	9.9	10.5	0.0	0.0	9.7	0.0	0.0
Lane LOS	C	A	B			A		
Approach Delay (s)	23.4	9.9	0.1			0.4		
Approach LOS	C	A						

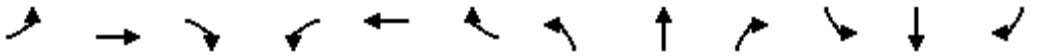
Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	47.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	209	87	136	182	239	50	505	52	203	583	108
Future Volume (vph)	138	209	87	136	182	239	50	505	52	203	583	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.91		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1721		1719	1642		1719	3380		1719	3345	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1719	1721		1719	1642		1719	3380		1719	3345	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	147	222	93	145	194	254	53	537	55	216	620	115
RTOR Reduction (vph)	0	20	0	0	59	0	0	10	0	0	19	0
Lane Group Flow (vph)	147	295	0	145	389	0	53	582	0	216	716	0
Confl. Peds. (#/hr)	2		3	3		2	2		5	5		2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	9.3	22.2		8.6	21.5		3.0	16.7		12.0	25.7	
Effective Green, g (s)	9.3	22.2		8.6	21.5		3.0	16.7		12.0	25.7	
Actuated g/C Ratio	0.12	0.30		0.11	0.29		0.04	0.22		0.16	0.34	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	213	509		197	470		68	752		275	1146	
v/s Ratio Prot	0.09	0.17		c0.08	c0.24		0.03	c0.17		c0.13	0.21	
v/s Ratio Perm												
v/c Ratio	0.69	0.58		0.74	0.83		0.78	0.77		0.79	0.62	
Uniform Delay, d1	31.5	22.4		32.1	25.0		35.7	27.4		30.3	20.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.5	1.8		11.6	11.7		39.0	7.6		12.7	2.6	
Delay (s)	39.0	24.2		43.7	36.7		74.6	35.0		43.0	23.2	
Level of Service	D	C		D	D		E	C		D	C	
Approach Delay (s)		28.9			38.4			38.3			27.7	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		

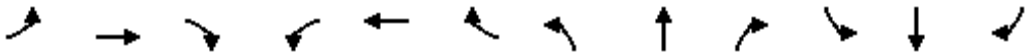
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	313	318	121	192	336	41	144	970	179	86	798	313
Future Volume (vph)	313	318	121	192	336	41	144	970	179	86	798	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3205		1595	3290		1752	3505	1524	1752	3505	1539
Flt Permitted	0.95	0.99		0.95	1.00		0.15	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)	1595	3205		1595	3290		280	3505	1524	193	3505	1539
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	323	328	125	198	346	42	148	1000	185	89	823	323
RTOR Reduction (vph)	0	19	0	0	6	0	0	0	58	0	0	180
Lane Group Flow (vph)	258	499	0	178	402	0	148	1000	127	89	823	143
Confl. Peds. (#/hr)	8		1	1		8	5		13	13		5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	27.6	27.6		22.8	22.8		54.9	42.8	42.8	49.7	40.2	40.2
Effective Green, g (s)	27.6	27.6		22.8	22.8		54.9	42.8	42.8	49.7	40.2	40.2
Actuated g/C Ratio	0.22	0.22		0.19	0.19		0.45	0.35	0.35	0.40	0.33	0.33
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	358	719		295	610		270	1220	530	198	1146	503
v/s Ratio Prot	c0.16	0.16		0.11	c0.12		c0.05	c0.29		0.03	0.23	
v/s Ratio Perm							0.19		0.08	0.15		0.09
v/c Ratio	0.72	0.69		0.60	0.66		0.55	0.82	0.24	0.45	0.72	0.28
Uniform Delay, d1	44.1	43.8		45.9	46.4		23.6	36.5	28.5	26.1	36.4	30.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.4	3.1		4.0	2.9		2.3	4.7	0.3	1.6	2.3	0.4
Delay (s)	51.5	46.9		49.9	49.3		25.8	41.2	28.8	27.8	38.7	31.1
Level of Service	D	D		D	D		C	D	C	C	D	C
Approach Delay (s)		48.5			49.5			37.8			35.9	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	122.9	Sum of lost time (s)	20.2
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

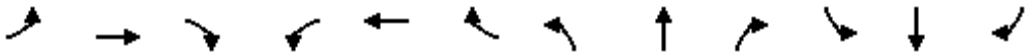
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	11	5	0	29	4	1282	24	20	1068	13
Future Volume (Veh/h)	5	0	11	5	0	29	4	1282	24	20	1068	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	5	0	11	5	0	30	4	1335	25	21	1113	14
Pedestrians		10			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								887			461	
pX, platoon unblocked	0.86	0.86	0.80	0.86	0.86	0.87	0.80			0.87		
vC, conflicting volume	1878	2544	574	1969	2538	684	1137			1364		
vC1, stage 1 conf vol	1172	1172		1360	1360							
vC2, stage 2 conf vol	706	1372		610	1179							
vCu, unblocked vol	1033	1810	0	1140	1804	352	657			1129		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	97	100	95	99			96		
cM capacity (veh/h)	272	184	851	183	197	559	724			530		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	16	35	4	890	470	21	742	385
Volume Left	5	5	4	0	0	21	0	0
Volume Right	11	30	0	0	25	0	0	14
cSH	511	432	724	1700	1700	530	1700	1700
Volume to Capacity	0.03	0.08	0.01	0.52	0.28	0.04	0.44	0.23
Queue Length 95th (ft)	2	7	0	0	0	3	0	0
Control Delay (s)	12.3	14.1	10.0	0.0	0.0	12.1	0.0	0.0
Lane LOS	B	B	A			B		
Approach Delay (s)	12.3	14.1	0.0			0.2		
Approach LOS	B	B						

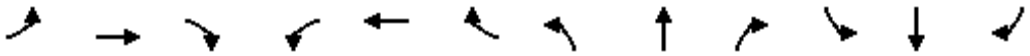
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	46.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	4	11	0	0	0	28	1301	1	3	982	62
Future Volume (Veh/h)	46	4	11	0	0	0	28	1301	1	3	982	62
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	53	5	13	0	0	0	33	1513	1	3	1142	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								680			668	
pX, platoon unblocked	0.88	0.88	0.80	0.88	0.88	0.84	0.80			0.84		
vC, conflicting volume	2006	2764	607	2172	2800	757	1214			1514		
vC1, stage 1 conf vol	1184	1184		1580	1580							
vC2, stage 2 conf vol	822	1580		592	1220							
vCu, unblocked vol	1056	1921	0	1245	1962	338	758			1236		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	81	97	98	100	100	100	95			99		
cM capacity (veh/h)	277	160	864	131	157	554	676			471		

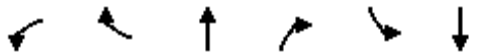
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	71	0	33	1009	505	574	643
Volume Left	53	0	33	0	0	3	0
Volume Right	13	0	0	0	1	0	72
cSH	298	1700	676	1700	1700	471	1700
Volume to Capacity	0.24	0.00	0.05	0.59	0.30	0.01	0.38
Queue Length 95th (ft)	23	0	4	0	0	0	0
Control Delay (s)	20.8	0.0	10.6	0.0	0.0	0.2	0.0
Lane LOS	C	A	B			A	
Approach Delay (s)	20.8	0.0	0.2			0.1	
Approach LOS	C	A					

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	46.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	34	58	9	31	5	36	1084	7	0	839	85
Future Volume (vph)	116	34	58	9	31	5	36	1084	7	0	839	85
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	5.5			5.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.91	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		0.96			0.99		1.00	1.00			0.99	
Flt Protected		0.97			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1713			1794		1752	3501			4953	
Flt Permitted		0.80			0.95		0.95	1.00			1.00	
Satd. Flow (perm)		1410			1713		1752	3501			4953	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	121	35	60	9	32	5	38	1129	7	0	874	89
RTOR Reduction (vph)	0	22	0	0	4	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	194	0	0	42	0	38	1136	0	0	953	0
Confl. Peds. (#/hr)	9		2	2		9	4		6	6		4
Confl. Bikes (#/hr)						1			3			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		Prot	NA			NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4								
Actuated Green, G (s)		16.1			16.1		3.0	53.9			46.4	
Effective Green, g (s)		16.1			16.1		3.0	53.9			46.4	
Actuated g/C Ratio		0.20			0.20		0.04	0.67			0.58	
Clearance Time (s)		4.5			4.5		4.5	5.5			5.5	
Vehicle Extension (s)		3.0			3.0		3.0	4.5			4.5	
Lane Grp Cap (vph)		283			344		65	2358			2872	
v/s Ratio Prot							0.02	c0.32			0.19	
v/s Ratio Perm		c0.14			0.02							
v/c Ratio		0.68			0.12		0.58	0.48			0.33	
Uniform Delay, d1		29.6			26.2		37.9	6.3			8.7	
Progression Factor		1.00			1.00		0.96	0.54			1.00	
Incremental Delay, d2		6.7			0.2		11.5	0.6			0.3	
Delay (s)		36.3			26.3		48.0	4.0			9.0	
Level of Service		D			C		D	A			A	
Approach Delay (s)		36.3			26.3			5.4			9.0	
Approach LOS		D			C			A			A	

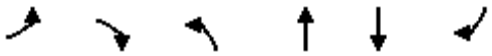
Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	169	73	1073	148	57	848
Future Volume (vph)	169	73	1073	148	57	848
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		5.5		4.5	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1710		4923		1752	3505
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1710		4923		1752	3505
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	180	78	1141	157	61	902
RTOR Reduction (vph)	23	0	16	0	0	0
Lane Group Flow (vph)	235	0	1282	0	61	902
Confl. Peds. (#/hr)	8			7	7	
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	16.2		43.9		5.4	53.8
Effective Green, g (s)	16.2		43.9		5.4	53.8
Actuated g/C Ratio	0.20		0.55		0.07	0.67
Clearance Time (s)	4.5		5.5		4.5	5.5
Vehicle Extension (s)	3.0		4.5		3.0	4.5
Lane Grp Cap (vph)	346		2701		118	2357
v/s Ratio Prot	c0.14		c0.26		c0.03	0.26
v/s Ratio Perm						
v/c Ratio	0.68		0.47		0.52	0.38
Uniform Delay, d1	29.5		11.0		36.0	5.8
Progression Factor	1.00		1.00		0.90	0.37
Incremental Delay, d2	5.2		0.6		3.7	0.5
Delay (s)	34.7		11.6		36.2	2.6
Level of Service	C		B		D	A
Approach Delay (s)	34.7		11.6			4.7
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	55.0%	ICU Level of Service	B
Analysis Period (min)	15		

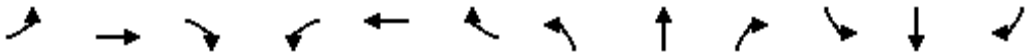
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	20	32	1167	952	39
Future Volume (Veh/h)	12	20	32	1167	952	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	13	21	34	1241	1013	41
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					760	
pX, platoon unblocked	0.90	0.90	0.90			
vC, conflicting volume	1731	536	1063			
vC1, stage 1 conf vol	1042					
vC2, stage 2 conf vol	688					
vCu, unblocked vol	1584	251	839			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	97	95			
cM capacity (veh/h)	277	663	698			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	34	34	620	620	675	379
Volume Left	13	34	0	0	0	0
Volume Right	21	0	0	0	0	41
cSH	432	698	1700	1700	1700	1700
Volume to Capacity	0.08	0.05	0.36	0.36	0.40	0.22
Queue Length 95th (ft)	6	4	0	0	0	0
Control Delay (s)	14.0	10.4	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	14.0	0.3			0.0	
Approach LOS	B					

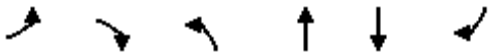
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	42.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	0	24	11	0	12	25	1036	16	7	843	31
Future Volume (Veh/h)	39	0	24	11	0	12	25	1036	16	7	843	31
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	42	0	26	12	0	13	27	1114	17	8	906	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1160	
pX, platoon unblocked	0.95	0.95	0.95	0.95	0.95		0.95					
vC, conflicting volume	1562	2124	470	1672	2132	566	939			1131		
vC1, stage 1 conf vol	938	938		1176	1176							
vC2, stage 2 conf vol	624	1185		495	955							
vCu, unblocked vol	1479	2073	323	1594	2081	566	819			1131		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	100	96	93	100	97	96			99		
cM capacity (veh/h)	252	201	636	184	200	468	761			613		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	68	25	27	743	388	8	604	335
Volume Left	42	12	27	0	0	8	0	0
Volume Right	26	13	0	0	17	0	0	33
cSH	328	269	761	1700	1700	613	1700	1700
Volume to Capacity	0.21	0.09	0.04	0.44	0.23	0.01	0.36	0.20
Queue Length 95th (ft)	19	8	3	0	0	1	0	0
Control Delay (s)	18.8	19.8	9.9	0.0	0.0	10.9	0.0	0.0
Lane LOS	C	C	A			B		
Approach Delay (s)	18.8	19.8	0.2			0.1		
Approach LOS	C	C						

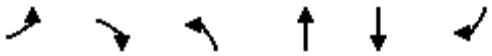
Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	40.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	35	0	1043	976	70
Future Volume (Veh/h)	60	35	0	1043	976	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	63	37	0	1098	1027	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1613	550	1101			
vC1, stage 1 conf vol	1064					
vC2, stage 2 conf vol	549					
vCu, unblocked vol	1613	550	1101			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	76	92	100			
cM capacity (veh/h)	263	478	630			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	100	0	549	549	685	416
Volume Left	63	0	0	0	0	0
Volume Right	37	0	0	0	0	74
cSH	315	1700	1700	1700	1700	1700
Volume to Capacity	0.32	0.00	0.32	0.32	0.40	0.24
Queue Length 95th (ft)	33	0	0	0	0	0
Control Delay (s)	21.6	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	21.6	0.0			0.0	
Approach LOS	C					

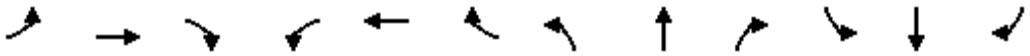
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	33	48	37	1089	845	43
Future Volume (Veh/h)	33	48	37	1089	845	43
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	34	49	38	1123	871	44
Pedestrians	11					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1542	468	926			
vC1, stage 1 conf vol	904					
vC2, stage 2 conf vol	638					
vCu, unblocked vol	1542	468	926			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	91	95			
cM capacity (veh/h)	287	533	720			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	83	38	562	562	581	334
Volume Left	34	38	0	0	0	0
Volume Right	49	0	0	0	0	44
cSH	394	720	1700	1700	1700	1700
Volume to Capacity	0.21	0.05	0.33	0.33	0.34	0.20
Queue Length 95th (ft)	20	4	0	0	0	0
Control Delay (s)	16.5	10.3	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	16.5	0.3			0.0	
Approach LOS	C					

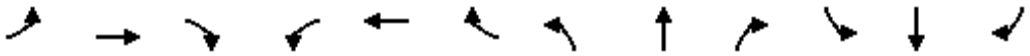
Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	42.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1	15	15	3	94	5	1028	10	15	781	66
Future Volume (Veh/h)	37	1	15	15	3	94	5	1028	10	15	781	66
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	38	1	15	15	3	97	5	1060	10	15	805	68
Pedestrians		9			7			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								910				
pX, platoon unblocked	0.80	0.80		0.80	0.80	0.80				0.80		
vC, conflicting volume	1516	1965	448	1532	1994	542	882			1077		
vC1, stage 1 conf vol	878	878		1082	1082							
vC2, stage 2 conf vol	638	1087		450	912							
vCu, unblocked vol	1134	1698	448	1154	1735	0	882			582		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	100	97	95	99	89	99			98		
cM capacity (veh/h)	276	256	550	307	254	854	750			775		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	54	115	5	707	363	15	537	336
Volume Left	38	15	5	0	0	15	0	0
Volume Right	15	97	0	0	10	0	0	68
cSH	320	660	750	1700	1700	775	1700	1700
Volume to Capacity	0.17	0.17	0.01	0.42	0.21	0.02	0.32	0.20
Queue Length 95th (ft)	15	16	1	0	0	1	0	0
Control Delay (s)	18.5	11.6	9.8	0.0	0.0	9.7	0.0	0.0
Lane LOS	C	B	A			A		
Approach Delay (s)	18.5	11.6	0.0			0.2		
Approach LOS	C	B						

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	45.4%	ICU Level of Service		A
Analysis Period (min)	15			



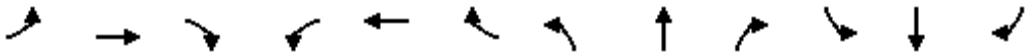
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	242	64	70	211	211	111	705	155	240	453	179
Future Volume (vph)	134	242	64	70	211	211	111	705	155	240	453	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.93		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1781		1752	1706		1752	3392		1752	3322	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1781		1752	1706		1752	3392		1752	3322	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	141	255	67	74	222	222	117	742	163	253	477	188
RTOR Reduction (vph)	0	10	0	0	35	0	0	18	0	0	43	0
Lane Group Flow (vph)	141	312	0	74	409	0	117	887	0	253	622	0
Confl. Peds. (#/hr)			3	3			5		3	3		5
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	9.6	26.1		9.7	26.2		7.3	32.2		16.5	41.4	
Effective Green, g (s)	9.6	26.1		9.7	26.2		7.3	32.2		16.5	41.4	
Actuated g/C Ratio	0.10	0.26		0.10	0.26		0.07	0.32		0.16	0.41	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	168	464		169	446		127	1092		289	1375	
v/s Ratio Prot	c0.08	0.18		0.04	c0.24		0.07	c0.26		c0.14	0.19	
v/s Ratio Perm												
v/c Ratio	0.84	0.67		0.44	0.92		0.92	0.81		0.88	0.45	
Uniform Delay, d1	44.4	33.1		42.6	35.9		46.1	31.1		40.7	21.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	28.0	4.0		0.7	23.9		55.4	6.6		23.6	1.1	
Delay (s)	72.4	37.1		43.2	59.8		101.4	37.7		64.3	22.2	
Level of Service	E	D		D	E		F	D		E	C	
Approach Delay (s)		47.9			57.4			45.0			33.8	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Appendix D – Existing plus Planned Roadway improvements Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	425	245	66	153	177	31	90	727	102	41	901	217
Future Volume (vph)	425	245	66	153	177	31	90	727	102	41	901	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.98		0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3162		1564	3207		1719	3438	1500	1719	3438	1503
Flt Permitted	0.95	0.98		0.95	0.99		0.10	1.00	1.00	0.25	1.00	1.00
Satd. Flow (perm)	1564	3162		1564	3207		181	3438	1500	452	3438	1503
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95	0.91	0.91	0.91
Adj. Flow (vph)	478	275	74	194	224	39	95	765	107	45	990	238
RTOR Reduction (vph)	0	8	0	0	8	0	0	0	55	0	0	106
Lane Group Flow (vph)	272	547	0	149	300	0	95	765	52	45	990	132
Confl. Peds. (#/hr)			4						10			9
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	28.3	28.3		18.7	18.7		54.2	44.9	44.9	47.8	41.7	41.7
Effective Green, g (s)	28.3	28.3		18.7	18.7		54.2	44.9	44.9	47.8	41.7	41.7
Actuated g/C Ratio	0.24	0.24		0.16	0.16		0.46	0.38	0.38	0.40	0.35	0.35
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	374	757		247	507		204	1305	569	248	1212	530
v/s Ratio Prot	c0.17	0.17		c0.10	0.09		c0.04	0.22		0.01	c0.29	
v/s Ratio Perm							0.18		0.03	0.06		0.09
v/c Ratio	0.73	0.72		0.60	0.59		0.47	0.59	0.09	0.18	0.82	0.25
Uniform Delay, d1	41.4	41.3		46.3	46.2		22.8	29.2	23.5	22.3	34.8	27.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.4	3.7		4.7	2.2		1.7	0.8	0.1	0.4	4.6	0.3
Delay (s)	48.8	45.0		51.0	48.4		24.5	30.0	23.6	22.6	39.4	27.5
Level of Service	D	D		D	D		C	C	C	C	D	C
Approach Delay (s)		46.2			49.3			28.8			36.6	
Approach LOS		D			D			C			D	

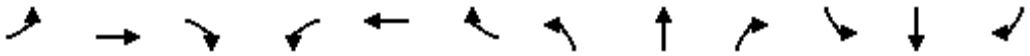
Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	118.2	Sum of lost time (s)	20.2
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	9	0	0	17	0	960	25	0	1069	7
Future Volume (Veh/h)	0	0	9	0	0	17	0	960	25	0	1069	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.53	0.53	0.53	0.93	0.93	0.93	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	12	0	0	32	0	1032	27	0	1188	8
Pedestrians		4			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1037			461	
pX, platoon unblocked	0.76	0.76	0.74	0.76	0.76	0.96	0.74			0.96		
vC, conflicting volume	1744	2264	602	1660	2254	538	1200			1068		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1111	1794	0	1002	1781	434	573			986		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	100	98	100	100	94	100			100		
cM capacity (veh/h)	112	57	792	141	59	532	716			640		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	12	32	688	371	792	404
Volume Left	0	0	0	0	0	0
Volume Right	12	32	0	27	0	8
cSH	792	532	1700	1700	1700	1700
Volume to Capacity	0.02	0.06	0.40	0.22	0.47	0.24
Queue Length 95th (ft)	1	5	0	0	0	0
Control Delay (s)	9.6	12.2	0.0	0.0	0.0	0.0
Lane LOS	A	B				
Approach Delay (s)	9.6	12.2	0.0		0.0	
Approach LOS	A	B				

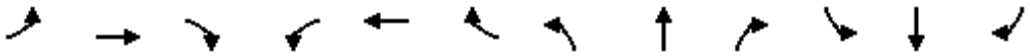
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	39.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	0	14	0	0	0	21	653	0	18	900	28
Future Volume (Veh/h)	87	0	14	0	0	0	21	653	0	18	900	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.92	0.89	0.92	0.92	0.92	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	98	0	16	0	0	0	24	734	0	20	1011	31
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								830			668	
pX, platoon unblocked	0.79	0.79	0.76	0.79	0.79	0.94	0.76			0.94		
vC, conflicting volume	1482	1848	521	1344	1864	367	1042			734		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	724	1189	0	549	1208	193	420			584		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	59	100	98	100	100	100	97			98		
cM capacity (veh/h)	238	140	823	312	137	766	862			925		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	114	0	24	489	245	20	674	368
Volume Left	98	0	24	0	0	20	0	0
Volume Right	16	0	0	0	0	0	0	31
cSH	265	1700	862	1700	1700	925	1700	1700
Volume to Capacity	0.43	0.00	0.03	0.29	0.14	0.02	0.40	0.22
Queue Length 95th (ft)	51	0	2	0	0	2	0	0
Control Delay (s)	28.5	0.0	9.3	0.0	0.0	9.0	0.0	0.0
Lane LOS	D	A	A			A		
Approach Delay (s)	28.5	0.0	0.3			0.2		
Approach LOS	D	A						

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A	
Analysis Period (min)	15			



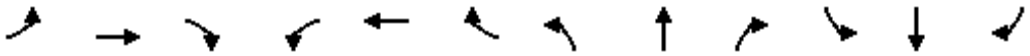
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	123	0	0	1	0	830	4	0	908	75
Future Volume (Veh/h)	0	0	123	0	0	1	0	830	4	0	908	75
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.56	0.56	0.56	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	135	0	0	2	0	902	4	0	987	82
Pedestrians		3			3						9	
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		3.5			3.5						3.5	
Percent Blockage		0			0						1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								150				
pX, platoon unblocked	0.86	0.86		0.86	0.86	0.86				0.86		
vC, conflicting volume	1493	1940	373	1371	1979	465	1072			909		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1242	1764	373	1100	1809	44	1072			561		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	100	78	100	100	100	100			100		
cM capacity (veh/h)	107	68	611	107	64	851	621			837		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	135	2	601	305	395	395	279
Volume Left	0	0	0	0	0	0	0
Volume Right	135	2	0	4	0	0	82
cSH	611	851	1700	1700	1700	1700	1700
Volume to Capacity	0.22	0.00	0.35	0.18	0.23	0.23	0.16
Queue Length 95th (ft)	21	0	0	0	0	0	0
Control Delay (s)	12.6	9.2	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	A					
Approach Delay (s)	12.6	9.2	0.0		0.0		
Approach LOS	B	A					

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	35.7%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	111	0	57	28	830	112	75	949	0
Future Volume (vph)	0	0	0	111	0	57	28	830	112	75	949	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		5.5	5.5		4.5	5.5	
Lane Util. Factor					1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Frt					0.95		1.00	0.98		1.00	1.00	
Flt Protected					0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)					1656		1770	3335		1703	3406	
Flt Permitted					0.97		0.26	1.00		0.95	1.00	
Satd. Flow (perm)					1656		479	3335		1703	3406	
Peak-hour factor, PHF	0.92	0.92	0.92	0.65	0.92	0.65	0.92	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	171	0	88	30	883	119	82	1032	0
RTOR Reduction (vph)	0	0	0	0	115	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	144	0	30	997	0	82	1032	0
Confl. Peds. (#/hr)									2			
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	2%	6%	2%	6%	2%	6%	6%	6%	6%	2%
Turn Type				Split	NA		Perm	NA		Prot	NA	
Protected Phases		4		8	8			2		1	6	
Permitted Phases	4						2					
Actuated Green, G (s)					14.2		66.4	66.4		7.4	78.3	
Effective Green, g (s)					14.2		66.4	66.4		7.4	78.3	
Actuated g/C Ratio					0.14		0.65	0.65		0.07	0.76	
Clearance Time (s)					4.5		5.5	5.5		4.5	5.5	
Vehicle Extension (s)					3.0		4.5	4.5		3.0	4.5	
Lane Grp Cap (vph)					229		310	2160		122	2601	
v/s Ratio Prot					c0.09			c0.30		c0.05	0.30	
v/s Ratio Perm							0.06					
v/c Ratio					0.63		0.10	0.46		0.67	0.40	
Uniform Delay, d1					41.7		6.8	9.1		46.4	4.1	
Progression Factor					1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2					5.6		0.6	0.7		13.6	0.5	
Delay (s)					47.2		7.4	9.8		60.0	4.6	
Level of Service					D		A	A		E	A	
Approach Delay (s)		0.0			47.2			9.7			8.6	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	102.5	Sum of lost time (s)	19.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
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)	0	0	19	0	0	11	0	918	5	0	974	34
Future Volume (Veh/h)	0	0	19	0	0	11	0	918	5	0	974	34
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	0	0	20	0	0	12	0	966	5	0	1025	36
Pedestrians		1										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											760	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	1539	2015	532	1501	2030	486	1062			971		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1408	1926	309	1366	1943	486	888			971		
tC, single (s)	7.6	6.5	7.0	7.5	6.5	6.9	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	100	97	100	100	98	100			100		
cM capacity (veh/h)	85	60	618	94	59	528	673			706		

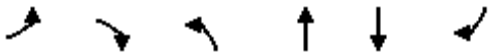
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	20	12	644	327	683	378
Volume Left	0	0	0	0	0	0
Volume Right	20	12	0	5	0	36
cSH	618	528	1700	1700	1700	1700
Volume to Capacity	0.03	0.02	0.38	0.19	0.40	0.22
Queue Length 95th (ft)	3	2	0	0	0	0
Control Delay (s)	11.0	12.0	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	11.0	12.0	0.0		0.0	
Approach LOS	B	B				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	38.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	32	0	0	0	18	658	20	0	867	13
Future Volume (Veh/h)	0	0	32	0	0	0	18	658	20	0	867	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	36	0	0	0	20	731	22	0	963	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1160	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1376	1763	488	1300	1759	376	977			753		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1304	1709	378	1225	1704	376	888			753		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	94	100	100	100	97			100		
cM capacity (veh/h)	111	84	594	119	84	621	727			853		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	36	0	20	487	266	642	335
Volume Left	0	0	20	0	0	0	0
Volume Right	36	0	0	0	22	0	14
cSH	594	1700	727	1700	1700	1700	1700
Volume to Capacity	0.06	0.00	0.03	0.29	0.16	0.38	0.20
Queue Length 95th (ft)	5	0	2	0	0	0	0
Control Delay (s)	11.5	0.0	10.1	0.0	0.0	0.0	0.0
Lane LOS	B	A	B				
Approach Delay (s)	11.5	0.0	0.3			0.0	
Approach LOS	B	A					

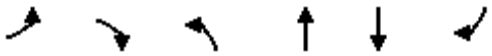
Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	44	20	668	844	21
Future Volume (Veh/h)	0	44	20	668	844	21
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	48	22	726	917	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1336	470	940			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1336	470	940			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	91	97			
cM capacity (veh/h)	140	540	725			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	48	22	363	363	611	329
Volume Left	0	22	0	0	0	0
Volume Right	48	0	0	0	0	23
cSH	540	725	1700	1700	1700	1700
Volume to Capacity	0.09	0.03	0.21	0.21	0.36	0.19
Queue Length 95th (ft)	7	2	0	0	0	0
Control Delay (s)	12.3	10.1	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.3	0.3			0.0	
Approach LOS	B					

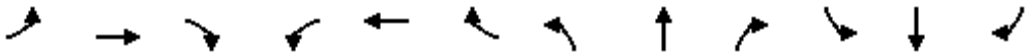
Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	34.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	55	23	918	936	10
Future Volume (Veh/h)	0	55	23	918	936	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	59	24	977	996	11
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1542	508	1011			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1542	508	1011			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	100	88	96			
cM capacity (veh/h)	98	498	655			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	59	24	488	488	664	343
Volume Left	0	24	0	0	0	0
Volume Right	59	0	0	0	0	11
cSH	498	655	1700	1700	1700	1700
Volume to Capacity	0.12	0.04	0.29	0.29	0.39	0.20
Queue Length 95th (ft)	10	3	0	0	0	0
Control Delay (s)	13.2	10.7	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	13.2	0.3			0.0	
Approach LOS	B					

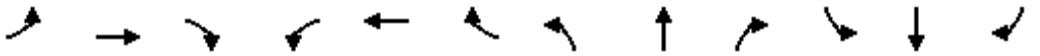
Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	15	0	0	44	0	866	47	0	937	55
Future Volume (Veh/h)	0	0	15	0	0	44	0	866	47	0	937	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	16	0	0	47	0	931	51	0	1008	59
Pedestrians		4			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								910				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1554	2028	538	1480	2032	495	1071			986		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1339	1883	538	1254	1887	122	1071			686		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	100	97	100	100	94	100			100		
cM capacity (veh/h)	87	58	476	103	58	775	621			761		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	47	621	361	672	395
Volume Left	0	0	0	0	0	0
Volume Right	16	47	0	51	0	59
cSH	476	775	1700	1700	1700	1700
Volume to Capacity	0.03	0.06	0.37	0.21	0.40	0.23
Queue Length 95th (ft)	3	5	0	0	0	0
Control Delay (s)	12.8	9.9	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	12.8	9.9	0.0		0.0	
Approach LOS	B	A				

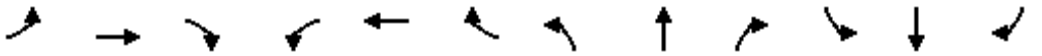
Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	37.7%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	209	87	136	182	239	50	505	52	203	583	108
Future Volume (vph)	138	209	87	136	182	239	50	505	52	203	583	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.91		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1721		1719	1642		1719	3380		1719	3345	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1719	1721		1719	1642		1719	3380		1719	3345	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	147	222	93	145	194	254	53	537	55	216	620	115
RTOR Reduction (vph)	0	20	0	0	59	0	0	10	0	0	19	0
Lane Group Flow (vph)	147	295	0	145	389	0	53	582	0	216	716	0
Confl. Peds. (#/hr)	2		3	3		2	2		5	5		2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	9.3	22.2		8.6	21.5		3.0	16.7		12.0	25.7	
Effective Green, g (s)	9.3	22.2		8.6	21.5		3.0	16.7		12.0	25.7	
Actuated g/C Ratio	0.12	0.30		0.11	0.29		0.04	0.22		0.16	0.34	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	213	509		197	470		68	752		275	1146	
v/s Ratio Prot	0.09	0.17		c0.08	c0.24		0.03	c0.17		c0.13	0.21	
v/s Ratio Perm												
v/c Ratio	0.69	0.58		0.74	0.83		0.78	0.77		0.79	0.62	
Uniform Delay, d1	31.5	22.4		32.1	25.0		35.7	27.4		30.3	20.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.5	1.8		11.6	11.7		39.0	7.6		12.7	2.6	
Delay (s)	39.0	24.2		43.7	36.7		74.6	35.0		43.0	23.2	
Level of Service	D	C		D	D		E	C		D	C	
Approach Delay (s)		28.9			38.4			38.3			27.7	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		

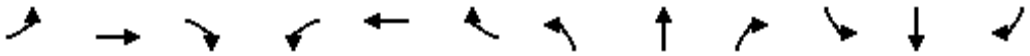
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	313	318	121	192	336	41	148	970	179	86	798	313
Future Volume (vph)	313	318	121	192	336	41	148	970	179	86	798	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3205		1595	3290		1752	3505	1524	1752	3505	1539
Flt Permitted	0.95	0.99		0.95	1.00		0.15	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	1595	3205		1595	3290		276	3505	1524	195	3505	1539
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	323	328	125	198	346	42	153	1000	185	89	823	323
RTOR Reduction (vph)	0	19	0	0	6	0	0	0	58	0	0	181
Lane Group Flow (vph)	258	499	0	178	402	0	153	1000	127	89	823	142
Confl. Peds. (#/hr)	8		1	1		8	5		13	13		5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	27.7	27.7		22.8	22.8		55.4	43.0	43.0	49.8	40.2	40.2
Effective Green, g (s)	27.7	27.7		22.8	22.8		55.4	43.0	43.0	49.8	40.2	40.2
Actuated g/C Ratio	0.22	0.22		0.18	0.18		0.45	0.35	0.35	0.40	0.33	0.33
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	358	720		294	608		272	1222	531	199	1142	501
v/s Ratio Prot	c0.16	0.16		0.11	c0.12		c0.06	c0.29		0.03	0.23	
v/s Ratio Perm							0.20		0.08	0.15		0.09
v/c Ratio	0.72	0.69		0.61	0.66		0.56	0.82	0.24	0.45	0.72	0.28
Uniform Delay, d1	44.2	43.9		46.1	46.7		23.6	36.6	28.5	26.2	36.6	30.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.4	3.1		4.0	3.0		2.7	4.6	0.3	1.6	2.4	0.4
Delay (s)	51.7	47.0		50.2	49.6		26.3	41.2	28.8	27.8	39.0	31.3
Level of Service	D	D		D	D		C	D	C	C	D	C
Approach Delay (s)		48.6			49.8			37.8			36.2	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	123.3	Sum of lost time (s)	20.2
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

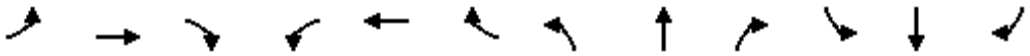
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	16	0	0	29	0	1257	44	0	1088	17
Future Volume (Veh/h)	0	0	16	0	0	29	0	1257	44	0	1088	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	17	0	0	30	0	1309	46	0	1133	18
Pedestrians		10			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1037			461	
pX, platoon unblocked	0.87	0.87	0.79	0.87	0.87	0.85	0.79			0.85		
vC, conflicting volume	1836	2511	586	1920	2497	682	1161			1359		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	894	1672	0	990	1656	281	683			1076		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	100	100	95	100			100		
cM capacity (veh/h)	189	80	850	167	82	606	707			542		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	30	873	482	755	396
Volume Left	0	0	0	0	0	0
Volume Right	17	30	0	46	0	18
cSH	850	606	1700	1700	1700	1700
Volume to Capacity	0.02	0.05	0.51	0.28	0.44	0.23
Queue Length 95th (ft)	2	4	0	0	0	0
Control Delay (s)	9.3	11.3	0.0	0.0	0.0	0.0
Lane LOS	A	B				
Approach Delay (s)	9.3	11.3	0.0		0.0	
Approach LOS	A	B				

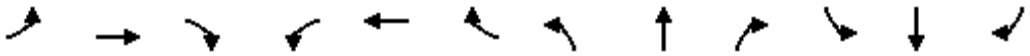
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	46.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	4	11	0	0	0	59	1247	1	12	977	62
Future Volume (Veh/h)	104	4	11	0	0	0	59	1247	1	12	977	62
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	121	5	13	0	0	0	69	1450	1	14	1136	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								830			668	
pX, platoon unblocked	0.90	0.90	0.80	0.90	0.90	0.79	0.80			0.79		
vC, conflicting volume	2063	2789	604	2200	2824	726	1208			1451		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	930	1741	0	1083	1780	135	749			1049		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	33	93	98	100	100	100	90			97		
cM capacity (veh/h)	180	67	863	129	64	705	681			523		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	139	0	69	967	484	14	757	451
Volume Left	121	0	69	0	0	14	0	0
Volume Right	13	0	0	0	1	0	0	72
cSH	182	1700	681	1700	1700	523	1700	1700
Volume to Capacity	0.76	0.00	0.10	0.57	0.28	0.03	0.45	0.27
Queue Length 95th (ft)	125	0	8	0	0	2	0	0
Control Delay (s)	69.4	0.0	10.9	0.0	0.0	12.1	0.0	0.0
Lane LOS	F	A	B			B		
Approach Delay (s)	69.4	0.0	0.5			0.1		
Approach LOS	F	A						

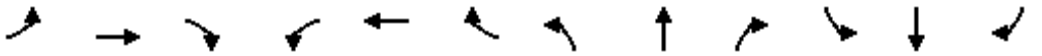
Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	54.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	150	0	0	5	0	1142	7	0	839	85
Future Volume (Veh/h)	0	0	150	0	0	5	0	1142	7	0	839	85
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	156	0	0	5	0	1190	7	0	874	89
Pedestrians		4			6			2			9	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								154				
pX, platoon unblocked	0.76	0.76		0.76	0.76	0.76				0.76		
vC, conflicting volume	1532	2126	342	1649	2166	614	967			1203		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1075	1854	342	1229	1908	0	967			645		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	76	100	100	99	100			100		
cM capacity (veh/h)	128	55	647	76	51	813	699			705		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	156	5	793	404	350	350	264
Volume Left	0	0	0	0	0	0	0
Volume Right	156	5	0	7	0	0	89
cSH	647	813	1700	1700	1700	1700	1700
Volume to Capacity	0.24	0.01	0.47	0.24	0.21	0.21	0.16
Queue Length 95th (ft)	23	0	0	0	0	0	0
Control Delay (s)	12.3	9.5	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	A					
Approach Delay (s)	12.3	9.5	0.0		0.0		
Approach LOS	B	A					

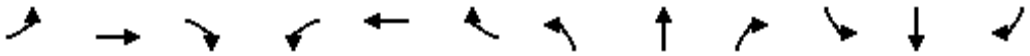
Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	44.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	174	0	104	44	1131	148	91	906	0
Future Volume (vph)	0	0	0	174	0	104	44	1131	148	91	906	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		5.5	5.5		4.5	5.5	
Lane Util. Factor					1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Frt					0.95		1.00	0.98		1.00	1.00	
Flt Protected					0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)					1698		1770	3428		1752	3505	
Flt Permitted					0.97		0.28	1.00		0.95	1.00	
Satd. Flow (perm)					1698		513	3428		1752	3505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Adj. Flow (vph)	0	0	0	185	0	111	48	1203	157	97	964	0
RTOR Reduction (vph)	0	0	0	0	112	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	184	0	48	1355	0	97	964	0
Confl. Peds. (#/hr)				8					7	7		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	3%	2%	3%	3%	3%	3%	2%
Turn Type				Split	NA		Perm	NA		Prot	NA	
Protected Phases		4		8	8			2		1	6	
Permitted Phases	4						2					
Actuated Green, G (s)					16.0		64.4	64.4		7.6	76.5	
Effective Green, g (s)					16.0		64.4	64.4		7.6	76.5	
Actuated g/C Ratio					0.16		0.63	0.63		0.07	0.75	
Clearance Time (s)					4.5		5.5	5.5		4.5	5.5	
Vehicle Extension (s)					3.0		4.5	4.5		3.0	4.5	
Lane Grp Cap (vph)					265		322	2153		129	2615	
v/s Ratio Prot					c0.11			c0.40		c0.06	0.28	
v/s Ratio Perm							0.09					
v/c Ratio					0.69		0.15	0.63		0.75	0.37	
Uniform Delay, d1					40.9		7.8	11.7		46.5	4.5	
Progression Factor					1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2					7.6		1.0	1.4		21.6	0.4	
Delay (s)					48.6		8.8	13.1		68.1	5.0	
Level of Service					D		A	B		E	A	
Approach Delay (s)		0.0			48.6			13.0			10.7	
Approach LOS		A			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	102.5	Sum of lost time (s)	19.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

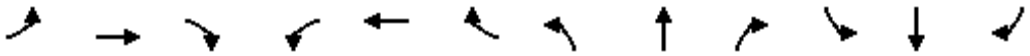
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	32	0	0	7	0	1202	1	0	964	71
Future Volume (Veh/h)	0	0	32	0	0	7	0	1202	1	0	964	71
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.92	0.94	0.92	0.92	0.92	0.94	0.94	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	0	0	34	0	0	8	0	1279	1	0	1026	76
Pedestrians		9										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		1										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											760	
pX, platoon unblocked	0.91	0.91	0.91	0.91	0.91		0.91					
vC, conflicting volume	1720	2353	560	1826	2390	640	1111			1280		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1596	2290	322	1712	2331	640	927			1280		
tC, single (s)	7.6	6.5	7.0	7.5	6.5	6.9	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	94	100	100	98	100			100		
cM capacity (veh/h)	62	35	606	50	33	418	657			538		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	34	8	853	427	684	418
Volume Left	0	0	0	0	0	0
Volume Right	34	8	0	1	0	76
cSH	606	418	1700	1700	1700	1700
Volume to Capacity	0.06	0.02	0.50	0.25	0.40	0.25
Queue Length 95th (ft)	4	1	0	0	0	0
Control Delay (s)	11.3	13.8	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	11.3	13.8	0.0		0.0	
Approach LOS	B	B				

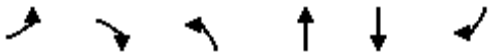
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	43.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	63	0	0	23	25	1096	23	0	862	31
Future Volume (Veh/h)	0	0	63	0	0	23	25	1096	23	0	862	31
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	68	0	0	25	27	1178	25	0	927	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1160	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1612	2200	480	1776	2204	602	960			1203		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1549	2164	366	1721	2169	602	868			1203		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	89	100	100	94	96			100		
cM capacity (veh/h)	68	43	604	47	43	443	739			576		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	68	25	27	785	418	618	342
Volume Left	0	0	27	0	0	0	0
Volume Right	68	25	0	0	25	0	33
cSH	604	443	739	1700	1700	1700	1700
Volume to Capacity	0.11	0.06	0.04	0.46	0.25	0.36	0.20
Queue Length 95th (ft)	9	4	3	0	0	0	0
Control Delay (s)	11.7	13.6	10.1	0.0	0.0	0.0	0.0
Lane LOS	B	B	B				
Approach Delay (s)	11.7	13.6	0.2			0.0	
Approach LOS	B	B					

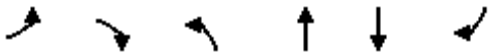
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	41.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	95	0	1043	1036	70
Future Volume (Veh/h)	0	95	0	1043	1036	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	100	0	1098	1091	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1677	582	1165			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1677	582	1165			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	78	100			
cM capacity (veh/h)	86	456	595			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	100	0	549	549	727	438
Volume Left	0	0	0	0	0	0
Volume Right	100	0	0	0	0	74
cSH	456	1700	1700	1700	1700	1700
Volume to Capacity	0.22	0.00	0.32	0.32	0.43	0.26
Queue Length 95th (ft)	21	0	0	0	0	0
Control Delay (s)	15.1	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	15.1	0.0			0.0	
Approach LOS	C					

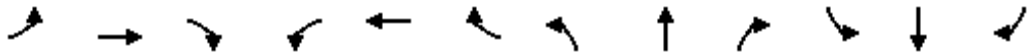
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	81	37	1122	845	43
Future Volume (Veh/h)	0	81	37	1122	845	43
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	84	38	1157	871	44
Pedestrians	11					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1558	468	926			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1558	468	926			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	84	95			
cM capacity (veh/h)	96	533	720			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	84	38	578	578	581	334
Volume Left	0	38	0	0	0	0
Volume Right	84	0	0	0	0	44
cSH	533	720	1700	1700	1700	1700
Volume to Capacity	0.16	0.05	0.34	0.34	0.34	0.20
Queue Length 95th (ft)	14	4	0	0	0	0
Control Delay (s)	13.0	10.3	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	13.0	0.3			0.0	
Approach LOS	B					

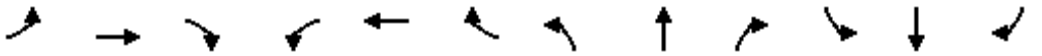
Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	36.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	15	0	0	112	0	1066	25	0	829	66
Future Volume (Veh/h)	0	0	15	0	0	112	0	1066	25	0	829	66
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	0	15	0	0	115	0	1099	26	0	855	68
Pedestrians		9			7			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								910				
pX, platoon unblocked	0.79	0.79		0.79	0.79	0.79				0.79		
vC, conflicting volume	1562	2030	472	1564	2051	570	932			1132		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1178	1771	472	1179	1797	0	932			632		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	100	100	86	100			100		
cM capacity (veh/h)	97	63	530	109	61	847	718			736		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	15	115	733	392	570	353
Volume Left	0	0	0	0	0	0
Volume Right	15	115	0	26	0	68
cSH	530	847	1700	1700	1700	1700
Volume to Capacity	0.03	0.14	0.43	0.23	0.34	0.21
Queue Length 95th (ft)	2	12	0	0	0	0
Control Delay (s)	12.0	9.9	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	12.0	9.9	0.0		0.0	
Approach LOS	B	A				

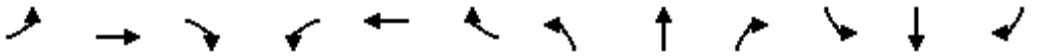
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	43.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	242	64	70	211	211	111	705	155	240	453	179
Future Volume (vph)	134	242	64	70	211	211	111	705	155	240	453	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.93		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1781		1752	1706		1752	3392		1752	3322	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1781		1752	1706		1752	3392		1752	3322	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	141	255	67	74	222	222	117	742	163	253	477	188
RTOR Reduction (vph)	0	10	0	0	35	0	0	18	0	0	43	0
Lane Group Flow (vph)	141	312	0	74	409	0	117	887	0	253	622	0
Confl. Peds. (#/hr)			3	3			5		3	3		5
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	9.6	26.1		9.7	26.2		7.3	32.2		16.5	41.4	
Effective Green, g (s)	9.6	26.1		9.7	26.2		7.3	32.2		16.5	41.4	
Actuated g/C Ratio	0.10	0.26		0.10	0.26		0.07	0.32		0.16	0.41	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	168	464		169	446		127	1092		289	1375	
v/s Ratio Prot	c0.08	0.18		0.04	c0.24		0.07	c0.26		c0.14	0.19	
v/s Ratio Perm												
v/c Ratio	0.84	0.67		0.44	0.92		0.92	0.81		0.88	0.45	
Uniform Delay, d1	44.4	33.1		42.6	35.9		46.1	31.1		40.7	21.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	28.0	4.0		0.7	23.9		55.4	6.6		23.6	1.1	
Delay (s)	72.4	37.1		43.2	59.8		101.4	37.7		64.3	22.2	
Level of Service	E	D		D	E		F	D		E	C	
Approach Delay (s)		47.9			57.4			45.0			33.8	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Appendix E – Existing plus Planned Roadway Improvements – Mitigations

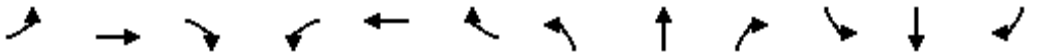


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	4	11	0	0	0	59	1247	1	12	977	62
Future Volume (vph)	104	4	11	0	0	0	59	1247	1	12	977	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5					4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00					1.00	0.95		1.00	0.95	
Frt		0.99					1.00	1.00		1.00	0.99	
Flt Protected		0.96					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1763					1770	3539		1770	3508	
Flt Permitted		0.96					0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1763					1770	3539		1770	3508	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	121	5	13	0	0	0	69	1450	1	14	1136	72
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	135	0	0	0	0	69	1451	0	14	1205	0
Turn Type	Split	NA					Prot	NA		Prot	NA	
Protected Phases	4	4			8		5	2		1	6	
Permitted Phases				8								
Actuated Green, G (s)		10.1					4.4	40.8		0.8	37.2	
Effective Green, g (s)		10.1					4.4	40.8		0.8	37.2	
Actuated g/C Ratio		0.15					0.07	0.63		0.01	0.57	
Clearance Time (s)		4.5					4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		273					119	2214		21	2001	
v/s Ratio Prot		c0.08					c0.04	c0.41		0.01	0.34	
v/s Ratio Perm												
v/c Ratio		0.49					0.58	0.66		0.67	0.60	
Uniform Delay, d1		25.2					29.5	7.7		32.1	9.2	
Progression Factor		1.00					1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4					6.7	0.7		58.7	0.5	
Delay (s)		26.6					36.2	8.4		90.7	9.7	
Level of Service		C					D	A		F	A	
Approach Delay (s)		26.6			0.0			9.7			10.6	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	65.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

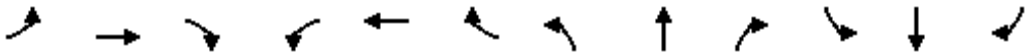
c Critical Lane Group

Appendix F – Cumulative (Year 2040) Conditions Intersection Level of Service



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	553	319	86	199	230	40	117	946	133	53	1172	282
Future Volume (vph)	553	319	86	199	230	40	117	946	133	53	1172	282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.98		0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3161		1564	3208		1719	3438	1498	1719	3438	1501
Flt Permitted	0.95	0.98		0.95	0.99		0.09	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	1564	3161		1564	3208		158	3438	1498	195	3438	1501
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95	0.91	0.91	0.91
Adj. Flow (vph)	621	358	97	252	291	51	123	996	140	58	1288	310
RTOR Reduction (vph)	0	7	0	0	8	0	0	0	58	0	0	113
Lane Group Flow (vph)	354	715	0	197	389	0	123	996	82	58	1288	197
Confl. Peds. (#/hr)			4						10			9
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	34.9	34.9		24.0	24.0		57.2	45.8	45.8	48.2	41.3	41.3
Effective Green, g (s)	34.9	34.9		24.0	24.0		57.2	45.8	45.8	48.2	41.3	41.3
Actuated g/C Ratio	0.26	0.26		0.18	0.18		0.43	0.35	0.35	0.37	0.31	0.31
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	414	837		284	584		203	1194	520	151	1077	470
v/s Ratio Prot	c0.23	0.23		c0.13	0.12		c0.05	c0.29		0.02	c0.37	
v/s Ratio Perm							0.21		0.05	0.12		0.13
v/c Ratio	0.86	0.85		0.69	0.67		0.61	0.83	0.16	0.38	1.20	0.42
Uniform Delay, d1	46.0	46.0		50.5	50.2		29.9	39.5	29.7	30.3	45.3	35.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.2	8.8		7.7	3.2		5.0	5.4	0.2	1.6	97.4	0.8
Delay (s)	62.3	54.8		58.2	53.3		34.9	44.9	29.9	31.9	142.6	36.6
Level of Service	E	D		E	D		C	D	C	C	F	D
Approach Delay (s)		57.2			54.9			42.3			118.9	
Approach LOS		E			D			D			F	

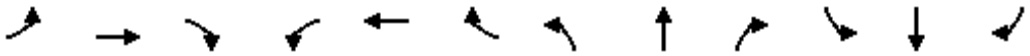
Intersection Summary			
HCM 2000 Control Delay	75.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	131.8	Sum of lost time (s)	20.2
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	1	3	0	22	0	1238	20	13	1378	9
Future Volume (Veh/h)	10	0	1	3	0	22	0	1238	20	13	1378	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.53	0.53	0.53	0.93	0.93	0.93	0.90	0.90	0.90
Hourly flow rate (vph)	13	0	1	6	0	42	0	1331	22	14	1531	10
Pedestrians		4			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			1							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								887			461	
pX, platoon unblocked	0.76	0.76	0.69	0.76	0.76	0.87	0.69			0.87		
vC, conflicting volume	2276	2930	774	2146	2924	686	1545			1362		
vC1, stage 1 conf vol	1568	1568		1351	1351							
vC2, stage 2 conf vol	708	1362		794	1573							
vCu, unblocked vol	1275	2139	0	1104	2131	342	900			1119		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	93	100	100	97	100	92	100			97		
cM capacity (veh/h)	177	156	740	182	161	555	501			516		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	14	48	887	466	14	1021	520
Volume Left	13	6	0	0	14	0	0
Volume Right	1	42	0	22	0	0	10
cSH	187	442	1700	1700	516	1700	1700
Volume to Capacity	0.07	0.11	0.52	0.27	0.03	0.60	0.31
Queue Length 95th (ft)	6	9	0	0	2	0	0
Control Delay (s)	25.8	14.1	0.0	0.0	12.2	0.0	0.0
Lane LOS	D	B			B		
Approach Delay (s)	25.8	14.1	0.0		0.1		
Approach LOS	D	B					

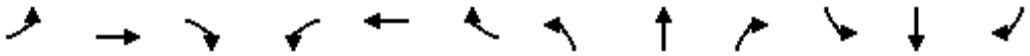
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	48.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	0	18	0	0	0	5	909	0	0	1173	36
Future Volume (Veh/h)	40	0	18	0	0	0	5	909	0	0	1173	36
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.92	0.89	0.92	0.92	0.92	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	45	0	20	0	0	0	6	1021	0	0	1318	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								680			668	
pX, platoon unblocked	0.77	0.77	0.70	0.77	0.77	0.86	0.70			0.86		
vC, conflicting volume	1860	2371	679	1712	2391	510	1358			1021		
vC1, stage 1 conf vol	1338	1338		1033	1033							
vC2, stage 2 conf vol	522	1033		679	1358							
vCu, unblocked vol	688	1354	0	494	1380	104	641			698		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	100	97	100	100	100	99			100		
cM capacity (veh/h)	303	265	755	324	257	800	654			769		

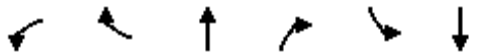
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	65	0	6	510	510	879	479
Volume Left	45	0	6	0	0	0	0
Volume Right	20	0	0	0	0	0	40
cSH	371	1700	654	1700	1700	1700	1700
Volume to Capacity	0.18	0.00	0.01	0.30	0.30	0.52	0.28
Queue Length 95th (ft)	16	0	1	0	0	0	0
Control Delay (s)	16.7	0.0	10.6	0.0	0.0	0.0	0.0
Lane LOS	C	A	B				
Approach Delay (s)	16.7	0.0	0.1			0.0	
Approach LOS	C	A					

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	43.6%	ICU Level of Service	A	
Analysis Period (min)	15			



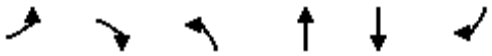
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	35	53	3	22	1	36	1008	5	0	1181	98
Future Volume (vph)	144	35	53	3	22	1	36	1008	5	0	1181	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	5.5			5.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.91	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		0.99			1.00		1.00	1.00			1.00	
Frt		0.97			0.99		1.00	1.00			0.99	
Flt Protected		0.97			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1676			1771		1703	3403			4827	
Flt Permitted		0.78			0.97		0.95	1.00			1.00	
Satd. Flow (perm)		1354			1720		1703	3403			4827	
Peak-hour factor, PHF	0.91	0.91	0.91	0.56	0.56	0.56	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	158	38	58	5	39	2	39	1096	5	0	1284	107
RTOR Reduction (vph)	0	16	0	0	2	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	238	0	0	44	0	39	1101	0	0	1382	0
Confl. Peds. (#/hr)	9					9			3			3
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Turn Type	Perm	NA		Perm	NA		Prot	NA			NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4								
Actuated Green, G (s)		19.3			19.3		3.0	50.7			43.2	
Effective Green, g (s)		19.3			19.3		3.0	50.7			43.2	
Actuated g/C Ratio		0.24			0.24		0.04	0.63			0.54	
Clearance Time (s)		4.5			4.5		4.5	5.5			5.5	
Vehicle Extension (s)		3.0			3.0		3.0	4.5			4.5	
Lane Grp Cap (vph)		326			414		63	2156			2606	
v/s Ratio Prot							0.02	c0.32			0.29	
v/s Ratio Perm		c0.18			0.03							
v/c Ratio		0.73			0.11		0.62	0.51			0.53	
Uniform Delay, d1		28.0			23.6		37.9	7.9			11.9	
Progression Factor		1.00			1.00		0.91	0.55			1.00	
Incremental Delay, d2		8.2			0.1		14.9	0.8			0.8	
Delay (s)		36.1			23.8		49.3	5.1			12.6	
Level of Service		D			C		D	A			B	
Approach Delay (s)		36.1			23.8			6.6			12.6	
Approach LOS		D			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	142	52	1008	146	62	1163
Future Volume (vph)	142	52	1008	146	62	1163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		5.5		4.5	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.96		1.00		0.95	1.00
Satd. Flow (prot)	1667		4785		1703	3406
Flt Permitted	0.96		1.00		0.95	1.00
Satd. Flow (perm)	1667		4785		1703	3406
Peak-hour factor, PHF	0.65	0.65	0.94	0.94	0.92	0.92
Adj. Flow (vph)	218	80	1072	155	67	1264
RTOR Reduction (vph)	18	0	19	0	0	0
Lane Group Flow (vph)	280	0	1208	0	67	1264
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%
Turn Type	Prot		NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	18.5		40.1		6.9	51.5
Effective Green, g (s)	18.5		40.1		6.9	51.5
Actuated g/C Ratio	0.23		0.50		0.09	0.64
Clearance Time (s)	4.5		5.5		4.5	5.5
Vehicle Extension (s)	3.0		4.5		3.0	4.5
Lane Grp Cap (vph)	385		2398		146	2192
v/s Ratio Prot	c0.17		0.25		0.04	c0.37
v/s Ratio Perm						
v/c Ratio	0.73		0.50		0.46	0.58
Uniform Delay, d1	28.4		13.3		34.8	8.1
Progression Factor	1.00		1.00		0.76	0.34
Incremental Delay, d2	6.7		0.8		2.0	1.0
Delay (s)	35.1		14.1		28.3	3.7
Level of Service	D		B		C	A
Approach Delay (s)	35.1		14.1			4.9
Approach LOS	D		B			A

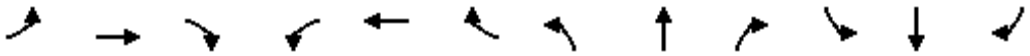
Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	18	30	1158	1254	14
Future Volume (Veh/h)	7	18	30	1158	1254	14
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	19	32	1219	1320	15
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					760	
pX, platoon unblocked	0.80	0.80	0.80			
vC, conflicting volume	2002	668	1336			
vC1, stage 1 conf vol	1328					
vC2, stage 2 conf vol	674					
vCu, unblocked vol	1758	99	929			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.6	3.4	2.3			
p0 queue free %	97	97	94			
cM capacity (veh/h)	229	743	568			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	26	32	610	610	880	455
Volume Left	7	32	0	0	0	0
Volume Right	19	0	0	0	0	15
cSH	463	568	1700	1700	1700	1700
Volume to Capacity	0.06	0.06	0.36	0.36	0.52	0.27
Queue Length 95th (ft)	4	4	0	0	0	0
Control Delay (s)	13.2	11.7	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	13.2	0.3			0.0	
Approach LOS	B					

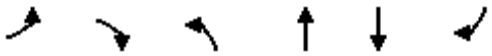
Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	45.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	9	16	0	0	0	23	839	9	17	1104	17
Future Volume (Veh/h)	17	9	16	0	0	0	23	839	9	17	1104	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	19	10	18	0	0	0	26	932	10	19	1227	19
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1160	
pX, platoon unblocked	0.84	0.84	0.84	0.84	0.84		0.84					
vC, conflicting volume	1792	2268	623	1664	2273	471	1246			942		
vC1, stage 1 conf vol	1274	1274		989	989							
vC2, stage 2 conf vol	518	994		674	1284							
vCu, unblocked vol	1562	2129	170	1409	2134	471	911			942		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	95	97	100	100	100	96			97		
cM capacity (veh/h)	207	196	709	231	190	539	624			724		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	47	0	26	621	321	19	818	428
Volume Left	19	0	26	0	0	19	0	0
Volume Right	18	0	0	0	10	0	0	19
cSH	279	1700	624	1700	1700	724	1700	1700
Volume to Capacity	0.17	0.00	0.04	0.37	0.19	0.03	0.48	0.25
Queue Length 95th (ft)	15	0	3	0	0	2	0	0
Control Delay (s)	20.5	0.0	11.0	0.0	0.0	10.1	0.0	0.0
Lane LOS	C	A	B			B		
Approach Delay (s)	20.5	0.0	0.3			0.2		
Approach LOS	C	A						

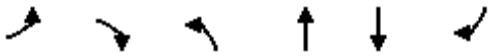
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	41.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	35	26	847	1098	27
Future Volume (Veh/h)	22	35	26	847	1098	27
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	38	28	921	1193	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1724	611	1222			
vC1, stage 1 conf vol	1208					
vC2, stage 2 conf vol	516					
vCu, unblocked vol	1724	611	1222			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	91	95			
cM capacity (veh/h)	225	437	566			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	62	28	460	460	795	427
Volume Left	24	28	0	0	0	0
Volume Right	38	0	0	0	0	29
cSH	320	566	1700	1700	1700	1700
Volume to Capacity	0.19	0.05	0.27	0.27	0.47	0.25
Queue Length 95th (ft)	18	4	0	0	0	0
Control Delay (s)	18.9	11.7	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	18.9	0.3			0.0	
Approach LOS	C					

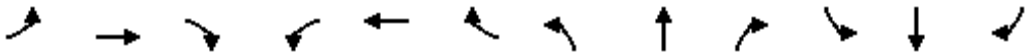
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	35	30	1159	1218	13
Future Volume (Veh/h)	36	35	30	1159	1218	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	38	37	32	1233	1296	14
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1988	659	1314			
vC1, stage 1 conf vol	1307					
vC2, stage 2 conf vol	680					
vCu, unblocked vol	1988	659	1314			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.6	3.4	2.3			
p0 queue free %	80	91	94			
cM capacity (veh/h)	186	395	499			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	75	32	616	616	864	446
Volume Left	38	32	0	0	0	0
Volume Right	37	0	0	0	0	14
cSH	252	499	1700	1700	1700	1700
Volume to Capacity	0.30	0.06	0.36	0.36	0.51	0.26
Queue Length 95th (ft)	30	5	0	0	0	0
Control Delay (s)	25.2	12.7	0.0	0.0	0.0	0.0
Lane LOS	D	B				
Approach Delay (s)	25.2	0.3			0.0	
Approach LOS	D					

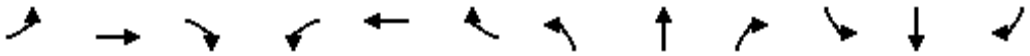
Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	44.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	0	20	1	0	56	7	1084	13	48	1134	72
Future Volume (Veh/h)	49	0	20	1	0	56	7	1084	13	48	1134	72
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	53	0	22	1	0	60	8	1166	14	52	1219	77
Pedestrians		4			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								910				
pX, platoon unblocked	0.82	0.82		0.82	0.82	0.82				0.82		
vC, conflicting volume	2024	2566	652	1928	2597	594	1300			1184		
vC1, stage 1 conf vol	1366	1366		1193	1193							
vC2, stage 2 conf vol	659	1200		736	1404							
vCu, unblocked vol	1815	2472	652	1698	2510	76	1300			793		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	59	100	94	100	100	92	98			92		
cM capacity (veh/h)	131	147	400	201	146	784	506			654		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	75	61	8	777	403	52	813	483
Volume Left	53	1	8	0	0	52	0	0
Volume Right	22	60	0	0	14	0	0	77
cSH	163	748	506	1700	1700	654	1700	1700
Volume to Capacity	0.46	0.08	0.02	0.46	0.24	0.08	0.48	0.28
Queue Length 95th (ft)	54	7	1	0	0	6	0	0
Control Delay (s)	44.7	10.2	12.2	0.0	0.0	11.0	0.0	0.0
Lane LOS	E	B	B			B		
Approach Delay (s)	44.7	10.2	0.1			0.4		
Approach LOS	E	B						

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	57.2%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	272	113	177	237	311	65	657	68	264	758	140
Future Volume (vph)	180	272	113	177	237	311	65	657	68	264	758	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.91		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1722		1719	1642		1719	3380		1719	3345	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1719	1722		1719	1642		1719	3380		1719	3345	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	191	289	120	188	252	331	69	699	72	281	806	149
RTOR Reduction (vph)	0	20	0	0	59	0	0	10	0	0	20	0
Lane Group Flow (vph)	191	389	0	188	524	0	69	761	0	281	935	0
Confl. Peds. (#/hr)	2		3	3		2	2		5	5		2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.7	22.2		9.8	21.3		4.0	15.4		12.1	23.5	
Effective Green, g (s)	10.7	22.2		9.8	21.3		4.0	15.4		12.1	23.5	
Actuated g/C Ratio	0.14	0.30		0.13	0.28		0.05	0.21		0.16	0.31	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	245	509		224	466		91	694		277	1048	
v/s Ratio Prot	0.11	0.23		c0.11	c0.32		0.04	c0.23		c0.16	0.28	
v/s Ratio Perm												
v/c Ratio	0.78	0.76		0.84	1.12		0.76	1.10		1.01	0.89	
Uniform Delay, d1	31.0	24.0		31.8	26.9		35.0	29.8		31.4	24.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.3	6.9		22.3	80.0		26.9	63.4		57.8	11.5	
Delay (s)	44.3	31.0		54.1	106.9		61.9	93.2		89.3	36.0	
Level of Service	D	C		D	F		E	F		F	D	
Approach Delay (s)		35.2			94.0			90.6			48.1	
Approach LOS		D			F			F			D	

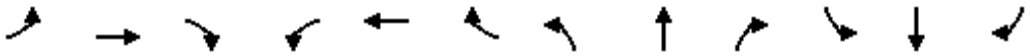
Intersection Summary			
HCM 2000 Control Delay	66.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	407	414	157	250	437	53	187	1262	233	112	1038	407
Future Volume (vph)	407	414	157	250	437	53	187	1262	233	112	1038	407
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3206		1595	3290		1752	3505	1520	1752	3505	1538
Flt Permitted	0.95	0.99		0.95	1.00		0.09	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)	1595	3206		1595	3290		167	3505	1520	183	3505	1538
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	420	427	162	258	451	55	193	1301	240	115	1070	420
RTOR Reduction (vph)	0	18	0	0	6	0	0	0	61	0	0	190
Lane Group Flow (vph)	336	655	0	232	526	0	193	1301	179	115	1070	230
Confl. Peds. (#/hr)	8		1	1		8	5		13	13		5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	33.4	33.4		29.6	29.6		59.7	44.3	44.3	51.9	40.4	40.4
Effective Green, g (s)	33.4	33.4		29.6	29.6		59.7	44.3	44.3	51.9	40.4	40.4
Actuated g/C Ratio	0.24	0.24		0.21	0.21		0.43	0.32	0.32	0.37	0.29	0.29
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	383	770		339	700		247	1117	484	198	1018	447
v/s Ratio Prot	c0.21	0.20		0.15	c0.16		c0.09	c0.37		0.05	0.31	
v/s Ratio Perm							0.25		0.12	0.17		0.15
v/c Ratio	0.88	0.85		0.68	0.75		0.78	1.16	0.37	0.58	1.05	0.51
Uniform Delay, d1	50.8	50.4		50.4	51.3		35.8	47.4	36.6	34.3	49.3	41.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.1	9.2		6.1	4.9		14.8	84.2	0.7	4.3	42.6	1.3
Delay (s)	71.0	59.6		56.5	56.1		50.6	131.5	37.2	38.6	91.9	42.4
Level of Service	E	E		E	E		D	F	D	D	F	D
Approach Delay (s)		63.4			56.2			109.5			75.1	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM 2000 Control Delay	81.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	139.0	Sum of lost time (s)	20.2
Intersection Capacity Utilization	94.8%	ICU Level of Service	F
Analysis Period (min)	15		

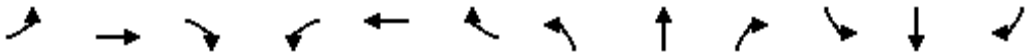
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	14	7	0	38	5	1668	31	26	1389	17
Future Volume (Veh/h)	7	0	14	7	0	38	5	1668	31	26	1389	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	15	7	0	40	5	1738	32	27	1447	18
Pedestrians		10			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			0							
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)								887			461	
pX, platoon unblocked	0.84	0.84	0.71	0.84	0.84	0.74	0.71			0.74		
vC, conflicting volume	2439	3304	742	2560	3297	889	1475			1774		
vC1, stage 1 conf vol	1520	1520		1768	1768							
vC2, stage 2 conf vol	919	1784		792	1529							
vCu, unblocked vol	960	1986	0	1105	1978	157	866			1349		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	98	94	100	94	99			93		
cM capacity (veh/h)	183	115	765	114	132	634	543			371		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	22	47	5	1159	611	27	965	500
Volume Left	7	7	5	0	0	27	0	0
Volume Right	15	40	0	0	32	0	0	18
cSH	380	378	543	1700	1700	371	1700	1700
Volume to Capacity	0.06	0.12	0.01	0.68	0.36	0.07	0.57	0.29
Queue Length 95th (ft)	5	11	1	0	0	6	0	0
Control Delay (s)	15.1	15.9	11.7	0.0	0.0	15.5	0.0	0.0
Lane LOS	C	C	B			C		
Approach Delay (s)	15.1	15.9	0.0			0.3		
Approach LOS	C	C						

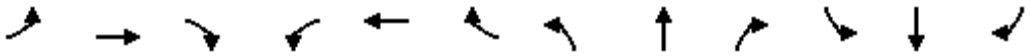
Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	57.1%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	5	14	0	0	0	36	1692	1	4	1277	81
Future Volume (Veh/h)	60	5	14	0	0	0	36	1692	1	4	1277	81
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	70	6	16	0	0	0	42	1967	1	5	1485	94
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								680			668	
pX, platoon unblocked	0.85	0.85	0.72	0.85	0.85	0.71	0.72			0.71		
vC, conflicting volume	2610	3594	790	2823	3640	984	1579			1968		
vC1, stage 1 conf vol	1542	1542		2052	2052							
vC2, stage 2 conf vol	1068	2052		772	1589							
vCu, unblocked vol	1041	2198	0	1292	2253	157	1016			1545		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	63	93	98	100	100	100	91			98		
cM capacity (veh/h)	187	88	777	64	88	610	486			302		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	92	0	42	1311	657	748	836
Volume Left	70	0	42	0	0	5	0
Volume Right	16	0	0	0	1	0	94
cSH	199	1700	486	1700	1700	302	1700
Volume to Capacity	0.46	0.00	0.09	0.77	0.39	0.02	0.49
Queue Length 95th (ft)	55	0	7	0	0	1	0
Control Delay (s)	37.8	0.0	13.1	0.0	0.0	0.6	0.0
Lane LOS	E	A	B			A	
Approach Delay (s)	37.8	0.0	0.3			0.3	
Approach LOS	E	A					

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	57.9%	ICU Level of Service	B	
Analysis Period (min)	15			



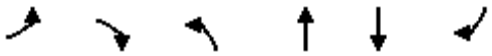
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	151	44	75	12	40	7	47	1410	9	0	1091	111
Future Volume (vph)	151	44	75	12	40	7	47	1410	9	0	1091	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	5.5			5.5	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.91	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		0.96			0.98		1.00	1.00			0.99	
Flt Protected		0.97			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1713			1793		1752	3501			4953	
Flt Permitted		0.80			0.93		0.95	1.00			1.00	
Satd. Flow (perm)		1411			1685		1752	3501			4953	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	157	46	78	12	42	7	49	1469	9	0	1136	116
RTOR Reduction (vph)	0	21	0	0	5	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	260	0	0	57	0	49	1478	0	0	1240	0
Confl. Peds. (#/hr)	9		2	2		9	4		6	6		4
Confl. Bikes (#/hr)						1			3			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		Prot	NA			NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4								
Actuated Green, G (s)		20.1			20.1		3.0	49.9			42.4	
Effective Green, g (s)		20.1			20.1		3.0	49.9			42.4	
Actuated g/C Ratio		0.25			0.25		0.04	0.62			0.53	
Clearance Time (s)		4.5			4.5		4.5	5.5			5.5	
Vehicle Extension (s)		3.0			3.0		3.0	4.5			4.5	
Lane Grp Cap (vph)		354			423		65	2183			2625	
v/s Ratio Prot							0.03	c0.42			0.25	
v/s Ratio Perm		c0.18			0.03							
v/c Ratio		0.73			0.13		0.75	0.68			0.47	
Uniform Delay, d1		27.5			23.2		38.1	9.8			11.8	
Progression Factor		1.00			1.00		0.82	0.42			1.00	
Incremental Delay, d2		7.7			0.1		29.6	1.2			0.6	
Delay (s)		35.2			23.4		60.9	5.4			12.4	
Level of Service		D			C		E	A			B	
Approach Delay (s)		35.2			23.4			7.2			12.4	
Approach LOS		D			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	220	95	1396	193	74	1103
Future Volume (vph)	220	95	1396	193	74	1103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		5.5		4.5	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1710		4923		1752	3505
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1710		4923		1752	3505
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	234	101	1485	205	79	1173
RTOR Reduction (vph)	22	0	18	0	0	0
Lane Group Flow (vph)	313	0	1672	0	79	1173
Confl. Peds. (#/hr)	8			7	7	
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	19.4		39.0		7.1	50.6
Effective Green, g (s)	19.4		39.0		7.1	50.6
Actuated g/C Ratio	0.24		0.49		0.09	0.63
Clearance Time (s)	4.5		5.5		4.5	5.5
Vehicle Extension (s)	3.0		4.5		3.0	4.5
Lane Grp Cap (vph)	414		2399		155	2216
v/s Ratio Prot	c0.18		c0.34		0.05	c0.33
v/s Ratio Perm						
v/c Ratio	0.76		0.70		0.51	0.53
Uniform Delay, d1	28.1		15.9		34.8	8.1
Progression Factor	1.00		1.00		0.81	0.32
Incremental Delay, d2	7.7		1.7		2.4	0.8
Delay (s)	35.8		17.6		30.4	3.5
Level of Service	D		B		C	A
Approach Delay (s)	35.8		17.6			5.2
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

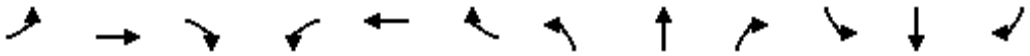
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	26	42	1518	1238	51
Future Volume (Veh/h)	16	26	42	1518	1238	51
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	17	28	45	1615	1317	54
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)					760	
pX, platoon unblocked	0.81	0.81	0.81			
vC, conflicting volume	2250	694	1380			
vC1, stage 1 conf vol	1353					
vC2, stage 2 conf vol	898					
vCu, unblocked vol	2077	162	1006			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	96	92			
cM capacity (veh/h)	199	686	546			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	45	45	808	808	878	493
Volume Left	17	45	0	0	0	0
Volume Right	28	0	0	0	0	54
cSH	356	546	1700	1700	1700	1700
Volume to Capacity	0.13	0.08	0.47	0.47	0.52	0.29
Queue Length 95th (ft)	11	7	0	0	0	0
Control Delay (s)	16.6	12.2	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	16.6	0.3			0.0	
Approach LOS	C					

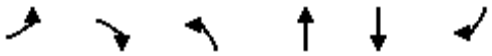
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	52.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	0	31	14	0	16	33	1348	21	9	1097	40
Future Volume (Veh/h)	51	0	31	14	0	16	33	1348	21	9	1097	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	55	0	33	15	0	17	35	1449	23	10	1180	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1160	
pX, platoon unblocked	0.85	0.85	0.85	0.85	0.85		0.85					
vC, conflicting volume	2033	2764	612	2174	2774	736	1223			1472		
vC1, stage 1 conf vol	1222	1222		1530	1530							
vC2, stage 2 conf vol	812	1542		643	1243							
vCu, unblocked vol	1866	2723	200	2031	2734	736	917			1472		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	70	100	95	86	100	95	94			98		
cM capacity (veh/h)	185	132	689	111	133	361	631			454		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	88	32	35	966	506	10	787	436
Volume Left	55	15	35	0	0	10	0	0
Volume Right	33	17	0	0	23	0	0	43
cSH	254	175	631	1700	1700	454	1700	1700
Volume to Capacity	0.35	0.18	0.06	0.57	0.30	0.02	0.46	0.26
Queue Length 95th (ft)	37	16	4	0	0	2	0	0
Control Delay (s)	26.4	30.1	11.0	0.0	0.0	13.1	0.0	0.0
Lane LOS	D	D	B			B		
Approach Delay (s)	26.4	30.1	0.3			0.1		
Approach LOS	D	D						

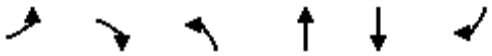
Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	51.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	78	46	0	1357	1270	91
Future Volume (Veh/h)	78	46	0	1357	1270	91
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	82	48	0	1428	1337	96
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2099	716	1433			
vC1, stage 1 conf vol	1385					
vC2, stage 2 conf vol	714					
vCu, unblocked vol	2099	716	1433			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	87	100			
cM capacity (veh/h)	179	372	470			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	130	0	714	714	891	542
Volume Left	82	0	0	0	0	0
Volume Right	48	0	0	0	0	96
cSH	221	1700	1700	1700	1700	1700
Volume to Capacity	0.59	0.00	0.42	0.42	0.52	0.32
Queue Length 95th (ft)	83	0	0	0	0	0
Control Delay (s)	42.2	0.0	0.0	0.0	0.0	0.0
Lane LOS	E					
Approach Delay (s)	42.2	0.0			0.0	
Approach LOS	E					

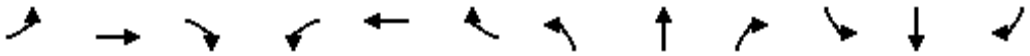
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	62	48	1417	1099	56
Future Volume (Veh/h)	43	62	48	1417	1099	56
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	44	64	49	1461	1133	58
Pedestrians	11					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2002	606	1202			
vC1, stage 1 conf vol	1173					
vC2, stage 2 conf vol	828					
vCu, unblocked vol	2002	606	1202			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	85	91			
cM capacity (veh/h)	203	433	565			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	108	49	730	730	755	436
Volume Left	44	49	0	0	0	0
Volume Right	64	0	0	0	0	58
cSH	296	565	1700	1700	1700	1700
Volume to Capacity	0.36	0.09	0.43	0.43	0.44	0.26
Queue Length 95th (ft)	40	7	0	0	0	0
Control Delay (s)	23.9	12.0	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	23.9	0.4			0.0	
Approach LOS	C					

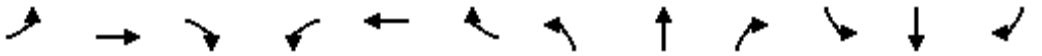
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1	20	20	4	122	7	1337	13	20	1016	86
Future Volume (Veh/h)	48	1	20	20	4	122	7	1337	13	20	1016	86
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	49	1	21	21	4	126	7	1378	13	21	1047	89
Pedestrians		9			7			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)								910				
pX, platoon unblocked	0.72	0.72		0.72	0.72	0.72				0.72		
vC, conflicting volume	1974	2554	579	1994	2592	702	1145			1398		
vC1, stage 1 conf vol	1142	1142		1406	1406							
vC2, stage 2 conf vol	831	1412		589	1187							
vCu, unblocked vol	1582	2385	579	1611	2437	0	1145			787		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	99	95	90	98	84	99			96		
cM capacity (veh/h)	187	175	451	207	175	777	595			591		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	71	151	7	919	472	21	698	438
Volume Left	49	21	7	0	0	21	0	0
Volume Right	21	126	0	0	13	0	0	89
cSH	226	527	595	1700	1700	591	1700	1700
Volume to Capacity	0.31	0.29	0.01	0.54	0.28	0.04	0.41	0.26
Queue Length 95th (ft)	32	29	1	0	0	3	0	0
Control Delay (s)	28.1	14.5	11.1	0.0	0.0	11.3	0.0	0.0
Lane LOS	D	B	B			B		
Approach Delay (s)	28.1	14.5	0.1			0.2		
Approach LOS	D	B						

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	58.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	315	83	91	274	274	144	917	202	312	589	233
Future Volume (vph)	174	315	83	91	274	274	144	917	202	312	589	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.93		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1781		1752	1706		1752	3391		1752	3322	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1781		1752	1706		1752	3391		1752	3322	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	332	87	96	288	288	152	965	213	328	620	245
RTOR Reduction (vph)	0	9	0	0	35	0	0	19	0	0	43	0
Lane Group Flow (vph)	183	410	0	96	541	0	152	1159	0	328	822	0
Confl. Peds. (#/hr)			3	3			5		3	3		5
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.5	27.1		8.0	24.6		7.0	30.4		19.0	42.4	
Effective Green, g (s)	10.5	27.1		8.0	24.6		7.0	30.4		19.0	42.4	
Actuated g/C Ratio	0.10	0.27		0.08	0.25		0.07	0.30		0.19	0.42	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	183	482		140	419		122	1030		332	1408	
v/s Ratio Prot	c0.10	0.23		0.05	c0.32		c0.09	c0.34		c0.19	0.25	
v/s Ratio Perm												
v/c Ratio	1.00	0.85		0.69	1.29		1.25	1.13		0.99	0.58	
Uniform Delay, d1	44.8	34.5		44.8	37.7		46.5	34.8		40.4	22.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	66.5	13.8		10.5	147.5		161.8	69.2		45.6	1.8	
Delay (s)	111.3	48.3		55.3	185.2		208.3	104.0		86.0	23.8	
Level of Service	F	D		E	F		F	F		F	C	
Approach Delay (s)		67.5			166.6			115.9			40.9	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	93.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	104.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Appendix G – Cumulative plus Planned Roadway improvements Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	553	319	86	199	230	40	117	946	133	53	1172	282
Future Volume (vph)	553	319	86	199	230	40	117	946	133	53	1172	282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.98		0.95	0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3161		1564	3208		1719	3438	1498	1719	3438	1501
Flt Permitted	0.95	0.98		0.95	0.99		0.09	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	1564	3161		1564	3208		158	3438	1498	195	3438	1501
Peak-hour factor, PHF	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95	0.91	0.91	0.91
Adj. Flow (vph)	621	358	97	252	291	51	123	996	140	58	1288	310
RTOR Reduction (vph)	0	7	0	0	8	0	0	0	58	0	0	113
Lane Group Flow (vph)	354	715	0	197	389	0	123	996	82	58	1288	197
Confl. Peds. (#/hr)			4						10			9
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	34.9	34.9		24.0	24.0		57.2	45.8	45.8	48.2	41.3	41.3
Effective Green, g (s)	34.9	34.9		24.0	24.0		57.2	45.8	45.8	48.2	41.3	41.3
Actuated g/C Ratio	0.26	0.26		0.18	0.18		0.43	0.35	0.35	0.37	0.31	0.31
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	414	837		284	584		203	1194	520	151	1077	470
v/s Ratio Prot	c0.23	0.23		c0.13	0.12		c0.05	c0.29		0.02	c0.37	
v/s Ratio Perm							0.21		0.05	0.12		0.13
v/c Ratio	0.86	0.85		0.69	0.67		0.61	0.83	0.16	0.38	1.20	0.42
Uniform Delay, d1	46.0	46.0		50.5	50.2		29.9	39.5	29.7	30.3	45.3	35.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.2	8.8		7.7	3.2		5.0	5.4	0.2	1.6	97.4	0.8
Delay (s)	62.3	54.8		58.2	53.3		34.9	44.9	29.9	31.9	142.6	36.6
Level of Service	E	D		E	D		C	D	C	C	F	D
Approach Delay (s)		57.2			54.9			42.3			118.9	
Approach LOS		E			D			D			F	

Intersection Summary			
HCM 2000 Control Delay	75.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	131.8	Sum of lost time (s)	20.2
Intersection Capacity Utilization	84.5%	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)	0	0	12	0	0	22	0	1249	33	0	1391	9
Future Volume (Veh/h)	0	0	12	0	0	22	0	1249	33	0	1391	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.53	0.53	0.53	0.93	0.93	0.93	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	16	0	0	42	0	1343	35	0	1546	10
Pedestrians		4			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1037			461	
pX, platoon unblocked	0.77	0.77	0.69	0.77	0.77	0.84	0.69			0.84		
vC, conflicting volume	2268	2942	782	2158	2930	698	1560			1387		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1123	1995	0	981	1979	260	922			1080		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	100	98	100	100	93	100			100		
cM capacity (veh/h)	110	43	740	147	44	605	492			515		

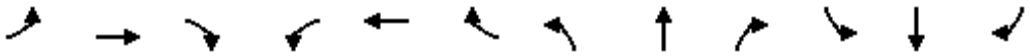
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	42	895	483	1031	525
Volume Left	0	0	0	0	0	0
Volume Right	16	42	0	35	0	10
cSH	740	605	1700	1700	1700	1700
Volume to Capacity	0.02	0.07	0.53	0.28	0.61	0.31
Queue Length 95th (ft)	2	6	0	0	0	0
Control Delay (s)	10.0	11.4	0.0	0.0	0.0	0.0
Lane LOS	A	B				
Approach Delay (s)	10.0	11.4	0.0		0.0	
Approach LOS	A	B				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	48.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	0	18	0	0	0	27	849	0	23	1171	36
Future Volume (Veh/h)	113	0	18	0	0	0	27	849	0	23	1171	36
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.92	0.89	0.92	0.92	0.92	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	127	0	20	0	0	0	30	954	0	25	1316	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								830			668	
pX, platoon unblocked	0.79	0.79	0.70	0.79	0.79	0.82	0.70			0.82		
vC, conflicting volume	1923	2400	678	1742	2420	477	1356			954		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	604	1211	0	374	1236	0	640			507		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	55	100	97	100	100	100	95			97		
cM capacity (veh/h)	284	132	755	403	127	890	655			865		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	147	0	30	636	318	25	877	479
Volume Left	127	0	30	0	0	25	0	0
Volume Right	20	0	0	0	0	0	0	40
cSH	310	1700	655	1700	1700	865	1700	1700
Volume to Capacity	0.47	0.00	0.05	0.37	0.19	0.03	0.52	0.28
Queue Length 95th (ft)	60	0	4	0	0	2	0	0
Control Delay (s)	26.7	0.0	10.8	0.0	0.0	9.3	0.0	0.0
Lane LOS	D	A	B			A		
Approach Delay (s)	26.7	0.0	0.3			0.2		
Approach LOS	D	A						

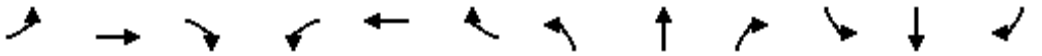
Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	47.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	160	0	0	1	0	1080	5	0	1181	98
Future Volume (Veh/h)	0	0	160	0	0	1	0	1080	5	0	1181	98
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.56	0.56	0.56	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	176	0	0	2	0	1174	5	0	1284	107
Pedestrians		3			3						9	
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		3.5			3.5						3.5	
Percent Blockage		0			0						1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								150				
pX, platoon unblocked	0.74	0.74		0.74	0.74	0.74				0.74		
vC, conflicting volume	1938	2522	484	1784	2574	602	1394			1182		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1568	2356	484	1359	2425	0	1394			548		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	100	66	100	100	100	100			100		
cM capacity (veh/h)	52	25	516	50	22	785	465			732		

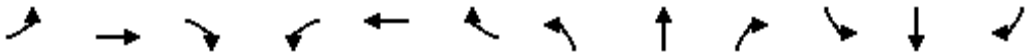
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	176	2	783	396	514	514	364
Volume Left	0	0	0	0	0	0	0
Volume Right	176	2	0	5	0	0	107
cSH	516	785	1700	1700	1700	1700	1700
Volume to Capacity	0.34	0.00	0.46	0.23	0.30	0.30	0.21
Queue Length 95th (ft)	37	0	0	0	0	0	0
Control Delay (s)	15.5	9.6	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	A					
Approach Delay (s)	15.5	9.6	0.0		0.0		
Approach LOS	C	A					

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	42.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	144	0	74	36	1080	146	98	1234	0
Future Volume (vph)	0	0	0	144	0	74	36	1080	146	98	1234	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		5.5	5.5		4.5	5.5	
Lane Util. Factor					1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Frt					0.95		1.00	0.98		1.00	1.00	
Flt Protected					0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)					1656		1770	3335		1703	3406	
Flt Permitted					0.97		0.16	1.00		0.95	1.00	
Satd. Flow (perm)					1656		296	3335		1703	3406	
Peak-hour factor, PHF	0.92	0.92	0.92	0.65	0.92	0.65	0.92	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	222	0	114	39	1149	155	107	1341	0
RTOR Reduction (vph)	0	0	0	0	108	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	228	0	39	1298	0	107	1341	0
Confl. Peds. (#/hr)									2			
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	2%	6%	2%	6%	2%	6%	6%	6%	6%	2%
Turn Type				Split	NA		Perm	NA		Prot	NA	
Protected Phases		4		8	8			2		1	6	
Permitted Phases	4						2					
Actuated Green, G (s)					18.9		60.0	60.0		9.1	73.6	
Effective Green, g (s)					18.9		60.0	60.0		9.1	73.6	
Actuated g/C Ratio					0.18		0.59	0.59		0.09	0.72	
Clearance Time (s)					4.5		5.5	5.5		4.5	5.5	
Vehicle Extension (s)					3.0		4.5	4.5		3.0	4.5	
Lane Grp Cap (vph)					305		173	1952		151	2445	
v/s Ratio Prot					c0.14			c0.39		c0.06	0.39	
v/s Ratio Perm							0.13					
v/c Ratio					0.75		0.23	0.66		0.71	0.55	
Uniform Delay, d1					39.5		10.2	14.4		45.4	6.7	
Progression Factor					1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2					9.5		3.0	1.8		14.1	0.9	
Delay (s)					49.1		13.2	16.2		59.5	7.6	
Level of Service					D		B	B		E	A	
Approach Delay (s)		0.0			49.1			16.1			11.4	
Approach LOS		A			D			B			B	

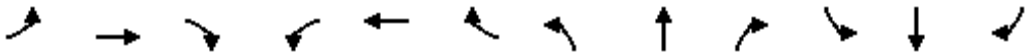
Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	102.5	Sum of lost time (s)	19.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	25	0	0	14	0	1194	7	0	1267	44
Future Volume (Veh/h)	0	0	25	0	0	14	0	1194	7	0	1267	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	0	0	26	0	0	15	0	1257	8	0	1334	46
Pedestrians		1										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											760	
pX, platoon unblocked	0.83	0.83	0.83	0.83	0.83		0.83					
vC, conflicting volume	2002	2623	691	1954	2642	632	1381			1265		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1794	2545	212	1737	2568	632	1045			1265		
tC, single (s)	7.6	6.5	7.0	7.5	6.5	6.9	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	100	96	100	100	96	100			100		
cM capacity (veh/h)	39	22	646	44	21	423	528			545		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	26	15	838	427	889	491
Volume Left	0	0	0	0	0	0
Volume Right	26	15	0	8	0	46
cSH	646	423	1700	1700	1700	1700
Volume to Capacity	0.04	0.04	0.49	0.25	0.52	0.29
Queue Length 95th (ft)	3	3	0	0	0	0
Control Delay (s)	10.8	13.8	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	10.8	13.8	0.0		0.0	
Approach LOS	B	B				

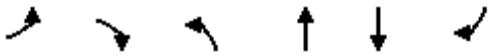
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	46.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	42	0	0	0	23	856	26	0	1128	17
Future Volume (Veh/h)	0	0	42	0	0	0	23	856	26	0	1128	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	47	0	0	0	26	951	29	0	1253	19
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1160	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1790	2294	636	1691	2290	490	1272			980		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1595	2181	256	1480	2175	490	994			980		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	93	100	100	100	96			100		
cM capacity (veh/h)	60	37	640	67	38	524	596			700		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	47	0	26	634	346	835	437
Volume Left	0	0	26	0	0	0	0
Volume Right	47	0	0	0	29	0	19
cSH	640	1700	596	1700	1700	1700	1700
Volume to Capacity	0.07	0.00	0.04	0.37	0.20	0.49	0.26
Queue Length 95th (ft)	6	0	3	0	0	0	0
Control Delay (s)	11.1	0.0	11.3	0.0	0.0	0.0	0.0
Lane LOS	B	A	B				
Approach Delay (s)	11.1	0.0	0.3			0.0	
Approach LOS	B	A					

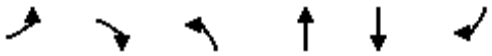
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	41.7%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	57	26	869	1098	27
Future Volume (Veh/h)	0	57	26	869	1098	27
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	62	28	945	1193	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1736	611	1222			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1736	611	1222			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	86	95			
cM capacity (veh/h)	75	437	566			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	62	28	472	472	795	427
Volume Left	0	28	0	0	0	0
Volume Right	62	0	0	0	0	29
cSH	437	566	1700	1700	1700	1700
Volume to Capacity	0.14	0.05	0.28	0.28	0.47	0.25
Queue Length 95th (ft)	12	4	0	0	0	0
Control Delay (s)	14.6	11.7	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	14.6	0.3			0.0	
Approach LOS	B					

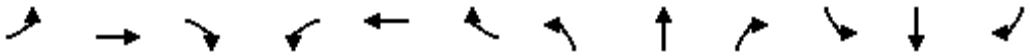
Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	72	30	1194	1218	13
Future Volume (Veh/h)	0	72	30	1194	1218	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	77	32	1270	1296	14
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2006	659	1314			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2006	659	1314			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	100	81	94			
cM capacity (veh/h)	46	395	499			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	77	32	635	635	864	446
Volume Left	0	32	0	0	0	0
Volume Right	77	0	0	0	0	14
cSH	395	499	1700	1700	1700	1700
Volume to Capacity	0.19	0.06	0.37	0.37	0.51	0.26
Queue Length 95th (ft)	18	5	0	0	0	0
Control Delay (s)	16.3	12.7	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	16.3	0.3			0.0	
Approach LOS	C					

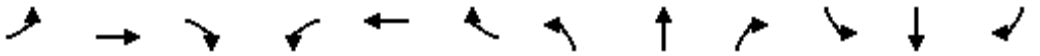
Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	45.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	20	0	0	57	0	1127	61	0	1219	72
Future Volume (Veh/h)	0	0	20	0	0	57	0	1127	61	0	1219	72
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	22	0	0	61	0	1212	66	0	1311	77
Pedestrians		4			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								910				
pX, platoon unblocked	0.82	0.82		0.82	0.82	0.82				0.82		
vC, conflicting volume	2020	2636	698	1926	2641	643	1392			1282		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1804	2555	698	1689	2562	122	1392			902		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	100	94	100	100	92	100			100		
cM capacity (veh/h)	35	20	372	44	20	729	465			591		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	22	61	808	470	874	514
Volume Left	0	0	0	0	0	0
Volume Right	22	61	0	66	0	77
cSH	372	729	1700	1700	1700	1700
Volume to Capacity	0.06	0.08	0.48	0.28	0.51	0.30
Queue Length 95th (ft)	5	7	0	0	0	0
Control Delay (s)	15.3	10.4	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	15.3	10.4	0.0		0.0	
Approach LOS	C	B				

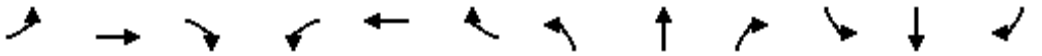
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	46.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	272	113	177	237	311	65	657	68	264	758	140
Future Volume (vph)	180	272	113	177	237	311	65	657	68	264	758	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.91		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1722		1719	1642		1719	3380		1719	3345	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1719	1722		1719	1642		1719	3380		1719	3345	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	191	289	120	188	252	331	69	699	72	281	806	149
RTOR Reduction (vph)	0	20	0	0	59	0	0	10	0	0	20	0
Lane Group Flow (vph)	191	389	0	188	524	0	69	761	0	281	935	0
Confl. Peds. (#/hr)	2		3	3		2	2		5	5		2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.7	22.2		9.8	21.3		4.0	15.4		12.1	23.5	
Effective Green, g (s)	10.7	22.2		9.8	21.3		4.0	15.4		12.1	23.5	
Actuated g/C Ratio	0.14	0.30		0.13	0.28		0.05	0.21		0.16	0.31	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	245	509		224	466		91	694		277	1048	
v/s Ratio Prot	0.11	0.23		c0.11	c0.32		0.04	c0.23		c0.16	0.28	
v/s Ratio Perm												
v/c Ratio	0.78	0.76		0.84	1.12		0.76	1.10		1.01	0.89	
Uniform Delay, d1	31.0	24.0		31.8	26.9		35.0	29.8		31.4	24.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.3	6.9		22.3	80.0		26.9	63.4		57.8	11.5	
Delay (s)	44.3	31.0		54.1	106.9		61.9	93.2		89.3	36.0	
Level of Service	D	C		D	F		E	F		F	D	
Approach Delay (s)		35.2			94.0			90.6			48.1	
Approach LOS		D			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	66.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		

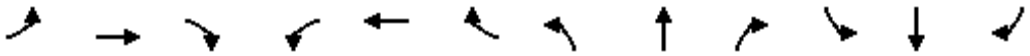
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	407	414	157	250	437	53	193	1262	233	112	1038	407
Future Volume (vph)	407	414	157	250	437	53	193	1262	233	112	1038	407
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Lane Util. Factor	0.91	0.91		0.91	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1595	3206		1595	3290		1752	3505	1520	1752	3505	1538
Flt Permitted	0.95	0.99		0.95	1.00		0.09	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)	1595	3206		1595	3290		165	3505	1520	183	3505	1538
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	420	427	162	258	451	55	199	1301	240	115	1070	420
RTOR Reduction (vph)	0	18	0	0	6	0	0	0	61	0	0	190
Lane Group Flow (vph)	336	655	0	232	526	0	199	1301	179	115	1070	230
Confl. Peds. (#/hr)	8		1	1		8	5		13	13		5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	33.4	33.4		29.6	29.6		60.4	44.6	44.6	51.8	40.3	40.3
Effective Green, g (s)	33.4	33.4		29.6	29.6		60.4	44.6	44.6	51.8	40.3	40.3
Actuated g/C Ratio	0.24	0.24		0.21	0.21		0.43	0.32	0.32	0.37	0.29	0.29
Clearance Time (s)	5.3	5.3		5.3	5.3		4.6	5.0	5.0	4.6	5.0	5.0
Vehicle Extension (s)	4.0	4.0		4.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	382	768		338	699		251	1122	486	197	1014	444
v/s Ratio Prot	c0.21	0.20		0.15	c0.16		c0.09	c0.37		0.05	0.31	
v/s Ratio Perm							0.25		0.12	0.17		0.15
v/c Ratio	0.88	0.85		0.69	0.75		0.79	1.16	0.37	0.58	1.06	0.52
Uniform Delay, d1	51.0	50.6		50.6	51.4		36.6	47.4	36.5	34.5	49.5	41.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.4	9.4		6.2	4.9		15.7	82.0	0.6	4.4	44.0	1.4
Delay (s)	71.5	60.0		56.7	56.3		52.3	129.3	37.2	38.8	93.5	42.7
Level of Service	E	E		E	E		D	F	D	D	F	D
Approach Delay (s)		63.8			56.4			107.8			76.3	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM 2000 Control Delay	81.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	139.3	Sum of lost time (s)	20.2
Intersection Capacity Utilization	94.8%	ICU Level of Service	F
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)	0	0	21	0	0	38	0	1635	57	0	1415	22
Future Volume (Veh/h)	0	0	21	0	0	38	0	1635	57	0	1415	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	22	0	0	40	0	1703	59	0	1474	23
Pedestrians		10			4							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1037			461	
pX, platoon unblocked	0.76	0.76	0.72	0.76	0.76	0.62	0.72			0.62		
vC, conflicting volume	2387	3262	758	2496	3244	885	1507			1766		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	515	1664	0	657	1640	0	914			1007		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	100	100	94	100			100		
cM capacity (veh/h)	309	71	767	254	74	667	521			418		

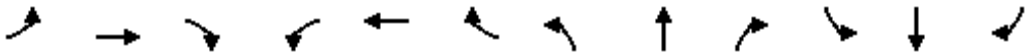
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	22	40	1135	627	983	514
Volume Left	0	0	0	0	0	0
Volume Right	22	40	0	59	0	23
cSH	767	667	1700	1700	1700	1700
Volume to Capacity	0.03	0.06	0.67	0.37	0.58	0.30
Queue Length 95th (ft)	2	5	0	0	0	0
Control Delay (s)	9.8	10.7	0.0	0.0	0.0	0.0
Lane LOS	A	B				
Approach Delay (s)	9.8	10.7	0.0		0.0	
Approach LOS	A	B				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	57.0%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	5	14	0	0	0	77	1622	1	16	1271	81
Future Volume (Veh/h)	135	5	14	0	0	0	77	1622	1	16	1271	81
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	157	6	16	0	0	0	90	1886	1	19	1478	94
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								830			668	
pX, platoon unblocked	0.70	0.70	0.72	0.70	0.70	0.56	0.72			0.56		
vC, conflicting volume	2686	3630	786	2862	3676	944	1572			1887		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	729	2082	0	982	2149	0	1010			1000		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	12	79	98	100	100	100	82			95		
cM capacity (veh/h)	179	28	778	97	26	603	489			383		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	179	0	90	1257	630	19	985	587
Volume Left	157	0	90	0	0	19	0	0
Volume Right	16	0	0	0	1	0	0	94
cSH	162	1700	489	1700	1700	383	1700	1700
Volume to Capacity	1.11	0.00	0.18	0.74	0.37	0.05	0.58	0.35
Queue Length 95th (ft)	234	0	17	0	0	4	0	0
Control Delay (s)	159.6	0.0	14.0	0.0	0.0	14.9	0.0	0.0
Lane LOS	F	A	B			B		
Approach Delay (s)	159.6	0.0	0.6			0.2		
Approach LOS	F	A						

Intersection Summary				
Average Delay	8.0			
Intersection Capacity Utilization	66.8%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	195	0	0	7	0	1486	9	0	1091	111
Future Volume (Veh/h)	0	0	195	0	0	7	0	1486	9	0	1091	111
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	203	0	0	7	0	1548	9	0	1136	116
Pedestrians		4			6			2			9	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								154				
pX, platoon unblocked	0.53	0.53		0.53	0.53	0.53				0.53		
vC, conflicting volume	1988	2761	443	2142	2814	794	1256			1563		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1091	2549	443	1382	2650	0	1256			289		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	64	100	100	99	100			100		
cM capacity (veh/h)	86	14	557	34	12	565	542			665		

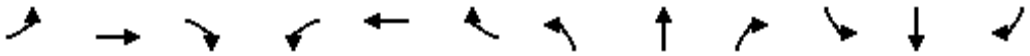
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	203	7	1032	525	454	454	343
Volume Left	0	0	0	0	0	0	0
Volume Right	203	7	0	9	0	0	116
cSH	557	565	1700	1700	1700	1700	1700
Volume to Capacity	0.36	0.01	0.61	0.31	0.27	0.27	0.20
Queue Length 95th (ft)	41	1	0	0	0	0	0
Control Delay (s)	15.1	11.5	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B					
Approach Delay (s)	15.1	11.5	0.0		0.0		
Approach LOS	C	B					

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	54.0%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	226	0	135	57	1471	193	118	1179	0
Future Volume (vph)	0	0	0	226	0	135	57	1471	193	118	1179	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		5.5	5.5		4.5	5.5	
Lane Util. Factor					1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes					1.00		1.00	1.00		1.00	1.00	
Frt					0.95		1.00	0.98		1.00	1.00	
Flt Protected					0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)					1698		1770	3428		1752	3505	
Flt Permitted					0.97		0.17	1.00		0.95	1.00	
Satd. Flow (perm)					1698		320	3428		1752	3505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Adj. Flow (vph)	0	0	0	240	0	144	62	1565	205	126	1254	0
RTOR Reduction (vph)	0	0	0	0	105	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	279	0	62	1764	0	126	1254	0
Confl. Peds. (#/hr)				8					7	7		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	3%	2%	3%	3%	3%	3%	2%
Turn Type				Split	NA		Perm	NA		Prot	NA	
Protected Phases		4		8	8			2		1	6	
Permitted Phases	4						2					
Actuated Green, G (s)					21.8		56.9	56.9		9.3	70.7	
Effective Green, g (s)					21.8		56.9	56.9		9.3	70.7	
Actuated g/C Ratio					0.21		0.56	0.56		0.09	0.69	
Clearance Time (s)					4.5		5.5	5.5		4.5	5.5	
Vehicle Extension (s)					3.0		4.5	4.5		3.0	4.5	
Lane Grp Cap (vph)					361		177	1902		158	2417	
v/s Ratio Prot					c0.16			c0.51		c0.07	0.36	
v/s Ratio Perm							0.19					
v/c Ratio					0.77		0.35	0.93		0.80	0.52	
Uniform Delay, d1					38.0		12.6	20.9		45.7	7.7	
Progression Factor					1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2					9.9		5.4	9.4		23.7	0.8	
Delay (s)					47.9		18.0	30.3		69.4	8.5	
Level of Service					D		B	C		E	A	
Approach Delay (s)		0.0			47.9			29.9			14.0	
Approach LOS		A			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	102.5	Sum of lost time (s)	19.0
Intersection Capacity Utilization	86.3%	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 (veh/h)	0	0	42	0	0	9	0	1564	1	0	1254	92
Future Volume (Veh/h)	0	0	42	0	0	9	0	1564	1	0	1254	92
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.92	0.94	0.92	0.92	0.92	0.94	0.94	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	0	0	45	0	0	10	0	1664	1	0	1334	98
Pedestrians		9										
Lane Width (ft)		12.0										
Walking Speed (ft/s)		3.5										
Percent Blockage		1										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											760	
pX, platoon unblocked	0.82	0.82	0.82	0.82	0.82		0.82					
vC, conflicting volume	2234	3057	725	2376	3106	832	1441			1665		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2071	3069	240	2244	3128	832	1109			1665		
tC, single (s)	7.6	6.5	7.0	7.5	6.5	6.9	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	93	100	100	97	100			100		
cM capacity (veh/h)	24	10	619	17	9	312	506			382		

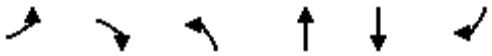
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	45	10	1109	556	889	543
Volume Left	0	0	0	0	0	0
Volume Right	45	10	0	1	0	98
cSH	619	312	1700	1700	1700	1700
Volume to Capacity	0.07	0.03	0.65	0.33	0.52	0.32
Queue Length 95th (ft)	6	2	0	0	0	0
Control Delay (s)	11.3	16.9	0.0	0.0	0.0	0.0
Lane LOS	B	C				
Approach Delay (s)	11.3	16.9	0.0		0.0	
Approach LOS	B	C				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	53.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	82	0	0	30	33	1426	30	0	1121	40
Future Volume (Veh/h)	0	0	82	0	0	30	33	1426	30	0	1121	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	88	0	0	32	35	1533	32	0	1205	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1160	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	2095	2862	624	2310	2867	782	1248			1565		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1953	2840	251	2201	2846	782	973			1565		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	86	100	100	90	94			100		
cM capacity (veh/h)	29	14	647	18	14	337	609			418		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	88	32	35	1022	543	803	445
Volume Left	0	0	35	0	0	0	0
Volume Right	88	32	0	0	32	0	43
cSH	647	337	609	1700	1700	1700	1700
Volume to Capacity	0.14	0.10	0.06	0.60	0.32	0.47	0.26
Queue Length 95th (ft)	12	8	5	0	0	0	0
Control Delay (s)	11.4	16.8	11.3	0.0	0.0	0.0	0.0
Lane LOS	B	C	B				
Approach Delay (s)	11.4	16.8	0.2			0.0	
Approach LOS	B	C					

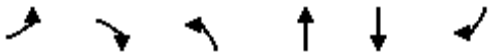
Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	50.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	124	0	1357	1348	91
Future Volume (Veh/h)	0	124	0	1357	1348	91
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	131	0	1428	1419	96
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2181	758	1515			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2181	758	1515			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	63	100			
cM capacity (veh/h)	39	350	437			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	131	0	714	714	946	569
Volume Left	0	0	0	0	0	0
Volume Right	131	0	0	0	0	96
cSH	350	1700	1700	1700	1700	1700
Volume to Capacity	0.37	0.00	0.42	0.42	0.56	0.33
Queue Length 95th (ft)	42	0	0	0	0	0
Control Delay (s)	21.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	21.3	0.0			0.0	
Approach LOS	C					

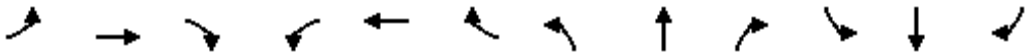
Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	54.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	105	48	1460	1099	56
Future Volume (Veh/h)	0	105	48	1460	1099	56
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	108	49	1505	1133	58
Pedestrians	11					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2024	606	1202			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2024	606	1202			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	75	91			
cM capacity (veh/h)	45	433	565			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	108	49	752	752	755	436
Volume Left	0	49	0	0	0	0
Volume Right	108	0	0	0	0	58
cSH	433	565	1700	1700	1700	1700
Volume to Capacity	0.25	0.09	0.44	0.44	0.44	0.26
Queue Length 95th (ft)	24	7	0	0	0	0
Control Delay (s)	16.1	12.0	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	16.1	0.4			0.0	
Approach LOS	C					

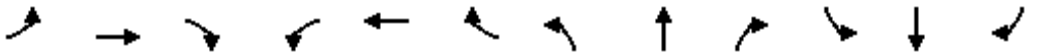
Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	45.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	20	0	0	146	0	1387	33	0	1078	86
Future Volume (Veh/h)	0	0	20	0	0	146	0	1387	33	0	1078	86
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	0	21	0	0	151	0	1430	34	0	1111	89
Pedestrians		9			7			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								910				
pX, platoon unblocked	0.72	0.72		0.72	0.72	0.72				0.72		
vC, conflicting volume	2030	2636	611	2032	2663	739	1209			1471		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1653	2494	611	1656	2532	0	1209			876		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	95	100	100	80	100			100		
cM capacity (veh/h)	36	20	430	43	19	773	562			543		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	21	151	953	511	741	459
Volume Left	0	0	0	0	0	0
Volume Right	21	151	0	34	0	89
cSH	430	773	1700	1700	1700	1700
Volume to Capacity	0.05	0.20	0.56	0.30	0.44	0.27
Queue Length 95th (ft)	4	18	0	0	0	0
Control Delay (s)	13.8	10.8	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	13.8	10.8	0.0		0.0	
Approach LOS	B	B				

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	55.1%	ICU Level of Service		B
Analysis Period (min)	15			

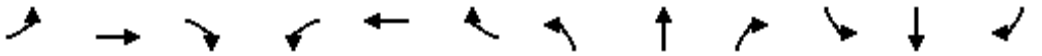


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	315	83	91	274	274	144	917	202	312	589	233
Future Volume (vph)	174	315	83	91	274	274	144	917	202	312	589	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.93		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1781		1752	1706		1752	3391		1752	3322	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1752	1781		1752	1706		1752	3391		1752	3322	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	332	87	96	288	288	152	965	213	328	620	245
RTOR Reduction (vph)	0	9	0	0	35	0	0	19	0	0	43	0
Lane Group Flow (vph)	183	410	0	96	541	0	152	1159	0	328	822	0
Confl. Peds. (#/hr)			3	3			5		3	3		5
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.5	27.1		8.0	24.6		7.0	30.4		19.0	42.4	
Effective Green, g (s)	10.5	27.1		8.0	24.6		7.0	30.4		19.0	42.4	
Actuated g/C Ratio	0.10	0.27		0.08	0.25		0.07	0.30		0.19	0.42	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	4.5		3.0	4.5	
Vehicle Extension (s)	0.5	3.5		0.5	3.5		0.5	3.5		0.5	3.5	
Lane Grp Cap (vph)	183	482		140	419		122	1030		332	1408	
v/s Ratio Prot	c0.10	0.23		0.05	c0.32		c0.09	c0.34		c0.19	0.25	
v/s Ratio Perm												
v/c Ratio	1.00	0.85		0.69	1.29		1.25	1.13		0.99	0.58	
Uniform Delay, d1	44.8	34.5		44.8	37.7		46.5	34.8		40.4	22.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	66.5	13.8		10.5	147.5		161.8	69.2		45.6	1.8	
Delay (s)	111.3	48.3		55.3	185.2		208.3	104.0		86.0	23.8	
Level of Service	F	D		E	F		F	F		F	C	
Approach Delay (s)		67.5			166.6			115.9			40.9	
Approach LOS		E			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	93.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	104.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Appendix H - Cumulative plus Planned Roadway Improvements – Mitigations

Appendix H - Cumulative plus Planned Roadway Improvements – Mitigations



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	5	14	0	0	0	77	1622	1	16	1271	81
Future Volume (vph)	135	5	14	0	0	0	77	1622	1	16	1271	81
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	
Lane Util. Factor		1.00					1.00	0.95		1.00	0.95	
Frt		0.99					1.00	1.00		1.00	0.99	
Flt Protected		0.96					0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1763					1770	3539		1770	3507	
Flt Permitted		0.96					0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1763					1770	3539		1770	3507	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	157	6	16	0	0	0	90	1886	1	19	1478	94
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	176	0	0	0	0	90	1887	0	19	1569	0
Turn Type	Split	NA					Prot	NA		Prot	NA	
Protected Phases	4	4			8		5	2		1	6	
Permitted Phases				8								
Actuated Green, G (s)		14.1					7.5	62.1		1.8	56.4	
Effective Green, g (s)		14.1					7.5	62.1		1.8	56.4	
Actuated g/C Ratio		0.15					0.08	0.68		0.02	0.62	
Clearance Time (s)		4.5					4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		271					145	2401		34	2161	
v/s Ratio Prot		c0.10					c0.05	c0.53		0.01	0.45	
v/s Ratio Perm												
v/c Ratio		0.65					0.62	0.79		0.56	0.73	
Uniform Delay, d1		36.4					40.6	10.1		44.5	12.2	
Progression Factor		1.00					1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.5					8.0	1.8		18.4	1.2	
Delay (s)		41.9					48.6	11.9		62.9	13.4	
Level of Service		D					D	B		E	B	
Approach Delay (s)		41.9			0.0			13.6			14.0	
Approach LOS		D			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Appendix I – Traffic Index Analysis

Existing Conditions - Northbound
20 Year Traffic Index

Crows Landing Road North of Olivero Road

Total estimated average daily traffic (ADT) = 15,049

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	664	916,320
3-axle trucks	3,680	387	1,424,160
4-axle trucks	5,880	14	82,320
5-axle trucks (or more)	13,780	520	7,165,600
Totals			9,588,400
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Northbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 19,576

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	864	1,191,962
3-axle trucks	3,680	503	1,852,568
4-axle trucks	5,880	18	107,083
5-axle trucks (or more)	13,780	676	9,321,117
Totals			12,472,731
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Southbound
20 Year Traffic Index

Crows Landing Road North of Olivero Road

Total estimated average daily traffic (ADT) = 14,674

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	565	779,700
3-axle trucks	3,680	179	658,720
4-axle trucks	5,880	59	346,920
5-axle trucks (or more)	13,780	413	5,691,140
Totals			7,476,480
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Southbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 19,088

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	735	1,014,245
3-axle trucks	3,680	233	856,873
4-axle trucks	5,880	77	451,279
5-axle trucks (or more)	13,780	537	7,403,118
Totals			9,725,514
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Northbound
20 Year Traffic Index

Crows Landing Road North of Colusa Ave

Total estimated average daily traffic (ADT) = 13,620

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	732	1,010,160
3-axle trucks	3,680	202	743,360
4-axle trucks	5,880	32	188,160
5-axle trucks (or more)	13,780	275	3,789,500
Totals			5,731,180
Traffic Index (TI) for 20 Year Design			**11.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Northbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 17,717

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	952	1,314,031
3-axle trucks	3,680	263	966,974
4-axle trucks	5,880	42	244,761
5-axle trucks (or more)	13,780	358	4,929,437
Totals			7,455,203
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Southbound
20 Year Traffic Index

Crows Landing Road North of Colusa Ave

Total estimated average daily traffic (ADT) = 14,206

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	735	1,014,300
3-axle trucks	3,680	230	846,400
4-axle trucks	5,880	43	252,840
5-axle trucks (or more)	13,780	413	5,691,140
Totals			7,804,680
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Southbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 18,479

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	956	1,319,416
3-axle trucks	3,680	299	1,101,009
4-axle trucks	5,880	56	328,898
5-axle trucks (or more)	13,780	537	7,403,118
Totals			10,152,442
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Northbound
20 Year Traffic Index

Crows Landing Road North of Imperial Ave

Total estimated average daily traffic (ADT) = 13,198

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	807	1,113,660
3-axle trucks	3,680	377	1,387,360
4-axle trucks	5,880	41	241,080
5-axle trucks (or more)	13,780	405	5,580,900
Totals			8,323,000
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Northbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 17,168

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	1050	1,448,665
3-axle trucks	3,680	490	1,804,698
4-axle trucks	5,880	53	313,600
5-axle trucks (or more)	13,780	527	7,259,716
Totals			10,826,680
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Southbound
20 Year Traffic Index

Crows Landing Road North of Imperial Ave

Total estimated average daily traffic (ADT) = 14,019

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	1157	1,596,660
3-axle trucks	3,680	184	677,120
4-axle trucks	5,880	27	158,760
5-axle trucks (or more)	13,780	326	4,492,280
Totals			6,924,820
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Southbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 18,236

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	1505	2,076,959
3-axle trucks	3,680	239	880,808
4-axle trucks	5,880	35	206,517
5-axle trucks (or more)	13,780	424	5,843,623
Totals			9,007,907
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Northbound
20 Year Traffic Index

Crows Landing Road North of Algen Avenue

Total estimated average daily traffic (ADT) = 12,422

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	871	1,201,980
3-axle trucks	3,680	149	548,320
4-axle trucks	5,880	30	176,400
5-axle trucks (or more)	13,780	419	5,773,820
Totals			7,700,520
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Northbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 16,159

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	1133	1,563,553
3-axle trucks	3,680	194	713,263
4-axle trucks	5,880	39	229,464
5-axle trucks (or more)	13,780	545	7,510,669
Totals			10,016,949
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Southbound
20 Year Traffic Index

Crows Landing Road North of Algen Avenue

Total estimated average daily traffic (ADT) = 12,766

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	796	1,098,480
3-axle trucks	3,680	138	507,840
4-axle trucks	5,880	34	199,920
5-axle trucks (or more)	13,780	427	5,884,060
Totals			7,690,300
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Southbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 16,606

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	1035	1,428,919
3-axle trucks	3,680	180	660,606
4-axle trucks	5,880	44	260,059
5-axle trucks (or more)	13,780	555	7,654,071
Totals			10,003,655
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Northbound
20 Year Traffic Index

Crows Landing Road North of Whitmore Avenue

Total estimated average daily traffic (ADT) = 12,176

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	753	1,039,140
3-axle trucks	3,680	146	537,280
4-axle trucks	5,880	33	194,040
5-axle trucks (or more)	13,780	399	5,498,220
Totals			7,268,680
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Northbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 15,839

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - NB*	*Total 20 Year ESAL*
2-axle trucks	1,380	980	1,351,728
3-axle trucks	3,680	190	698,902
4-axle trucks	5,880	43	252,410
5-axle trucks (or more)	13,780	519	7,152,165
Totals			9,455,205
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Existing Conditions - Southbound
20 Year Traffic Index

Crows Landing Road North of Whitmore Avenue

Total estimated average daily traffic (ADT) = 12,570

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	724	999,120
3-axle trucks	3,680	394	1,449,920
4-axle trucks	5,880	20	117,600
5-axle trucks (or more)	13,780	408	5,622,240
Totals			8,188,880
Traffic Index (TI) for 20 Year Design			**11.5**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual

Year 2040 Cumulative Conditions - Southbound
20 Year Traffic Index

Total estimated average daily traffic (ADT) = 16,351

Vehicle Type	*ESAL 20 Year Constants*	*Expanded Average Daily Trucks - SB*	*Total 20 Year ESAL*
2-axle trucks	1,380	942	1,299,670
3-axle trucks	3,680	513	1,886,077
4-axle trucks	5,880	26	152,976
5-axle trucks (or more)	13,780	531	7,313,492
Totals			10,652,215
Traffic Index (TI) for 20 Year Design			**12.0**

Obtain TI for 20 Year Design from Table 613.3C, Caltrans Design Manual