

# **Traffic Impact Study**

**Quigley Development**

**Prepared for  
Hennessy Company**

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## I. INTRODUCTION AND SUMMARY

### ***A. Purpose of the Report and Study Objectives***

The purpose of this report is to assess the effects of the proposed Quigley Development on the surrounding transportation network and to determine the provisions needed for safe and efficient site access and accommodate traffic flow in the area. The scope of this study is in accordance with Idaho Transportation Department (ITD), “*Requirements for Transportation Impact Studies*”, Board Policy B-12-06.

Existing traffic volumes and a 2042 horizon year have been analyzed for this study. In 2042, the Quigley Development Area is anticipated to be fully built.

### ***B. Executive Summary***

#### *Location and Study Area*

The Quigley Canyon Development is located on approximately 116 acres on the eastern edge of Hailey, Idaho. The project will use Fox Acres Road and Bullion Street/Quigley Drive as primary accesses to the proposed development. The following off-site intersections have been analyzed as part of this study:

- Fox Acres Road & Main Street (SH-75)
- Fox Acres Road & Creekside Drive
- Fox Acres Road & Woodside Boulevard
- Fox Acres Road & Eastridge Drive
- Fox Acres Road & Foxmoor Drive
- Fox Acres Road & Wood River High School Driveways (South, Middle, and North)
- Bullion Street & Main Street (SH-75)
- Croy Street & Main Street (SH-75)
- Bullion Street & 3<sup>rd</sup> Avenue
- Croy Street & 4<sup>th</sup> Avenue
- Croy Street & 8<sup>th</sup> Avenue
- Quigley Drive & 8<sup>th</sup> Avenue

Three different scenarios of traffic distribution were assumed using varying splits between the north access and Fox Acres Road of 25%/75%, 50%/50%, and 75%/25%. Traffic was then distributed to intersecting streets in the same proportions as existing traffic.

#### *Development Description*

The proposed Quigley development includes 200 residential units, athletic fields, mixed-use retail/commercial and non-profit offices, a trailhead, lodging, and a school. The total area of the development is approximately 116 acres.

#### *Principal Findings*

The results of this traffic analysis indicate Fox Acres Road and Quigley Drive would provide sufficient access to the development. The project will not have any significant impacts to the intersections in the study area. As traffic volumes increase in the study area, the anticipated Level of service (LOS) will deteriorate to an “E” or “F” at some of the intersections during peak hours in 2042. The largest increases in delay will occur at the minor legs of the SH-75 and Creekside intersections with Fox Acres.

Study Area Improvements

A roundabout was recently constructed at the Woodside and Fox Acres intersection. To accommodate additional traffic generated by the Quigley Development, a second westbound right turn lane could be added to Fox Acres Road at SH-75, and an acceptance lane (two-way left turn lane) can be added for the turning movement at Creekside. All of these improvements can be constructed inside existing right-of-way. In order to achieve acceptable level of service for all intersections throughout the analysis period, regardless of the development, will require improvements at over-capacity intersections.

Conclusions

The combination of the background traffic growth and traffic from the proposed Quigley Development will result in a peak hour LOS of “E” or worse for the Creekside and SH-75 intersections with Fox Acres Road, and the Croy & SH-75 intersection by the year 2042. The most significant impact to traffic will be at the Fox Acres leg of the SH-75 intersection. Deteriorating conditions will occur with growth of the background traffic alone. With the development, conditions are worsened.

The improvements listed in this study will provide additional capacity to significantly improve traffic flow. The additional capacity will provide an improved LOS with development traffic compared to no improvements with background traffic.

## II. PROPOSED DEVELOPMENT

### **A. Off-Site Development**

There is no proposed off-site development related to this project.

### **B. Description of On-Site Development**

Land Use and Density

The Quigley development is located on approximately 116 acres of land. It includes the following proposed improvements:

**Residential:**

- 77 individual home building lots ranging from 1/8<sup>th</sup> to 4+ acres in size
- 33 live/work units
- 20 duplex units
- 43 cottages
- 27 affordable units

**Lodging** – Bed & Breakfast with 25 rooms

**School** – Private school with 120 students and 20 employees

**Athletic Fields** – 12 acres

**Trailhead** – new trailhead

**Mixed Use** – 14,490 sf of retail/commercial and 59,156 sf of non-profit offices

Location

The Quigley development is located east of Hailey in Blaine County, Idaho. The proposed development begins at the entrance to Quigley Canyon and extends approximately 1/2 mile east up Quigley Canyon. See Figure 1 for a location map of the proposed development.

Figure 1 – Location Map





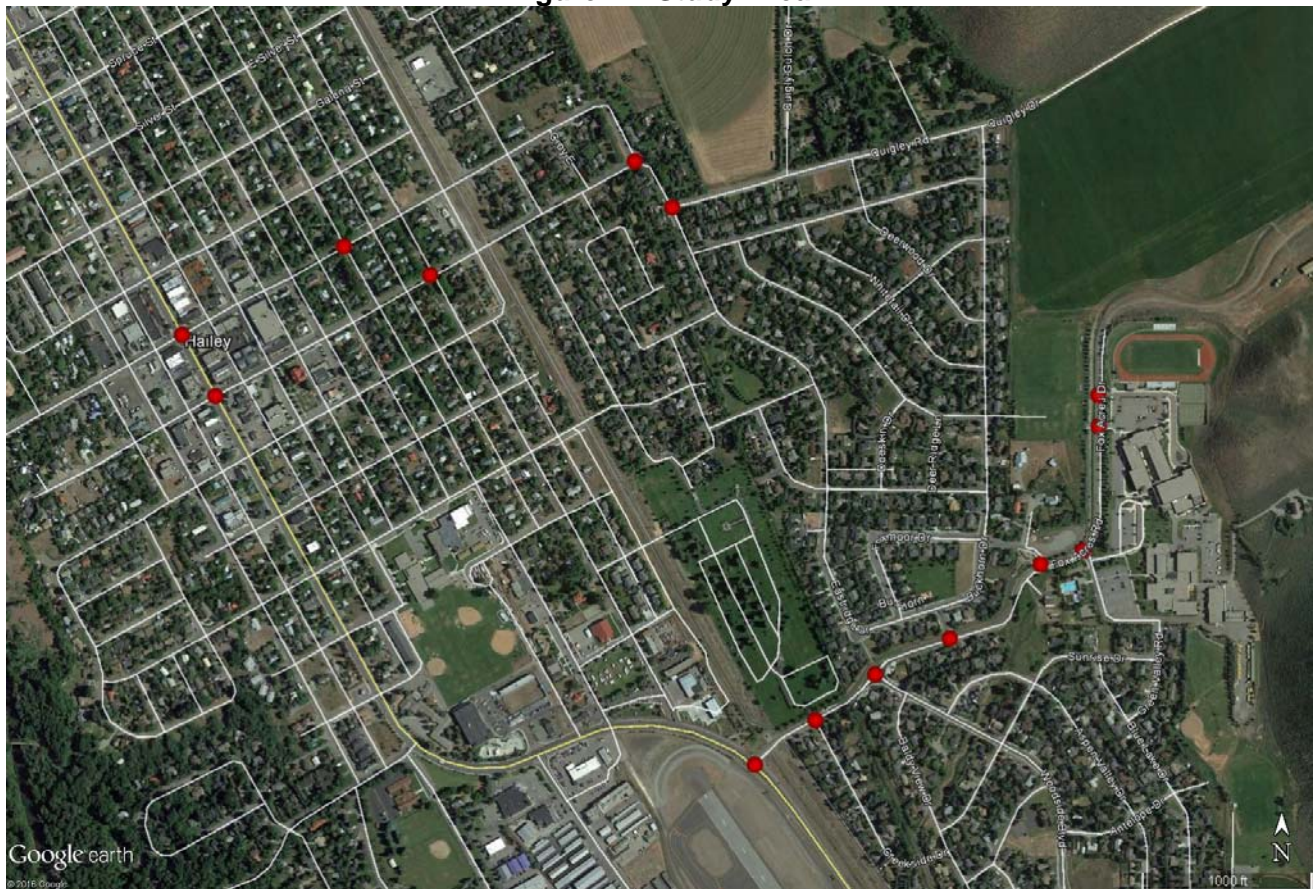
### III. AREA CONDITIONS

#### A. Study Area

The proposed project will use Bullion Street/Quigley Drive and Fox Acres Road as primary accesses to the proposed development. The study area includes the following intersections (see Figure 2):

- Main Street (SH-75)
- Creekside Drive
- Woodside Blvd.
- Eastridge Drive
- Foxmoor Drive
- Wood River High School Driveways (South, Middle, and North)
- Bullion Street & Main Street (SH-75)
- Croy Street & Main Street (SH-75)
- Bullion Street & 3<sup>rd</sup> Avenue
- Croy Street & 4<sup>th</sup> Avenue
- Croy Street & 8<sup>th</sup> Avenue
- Quigley Drive & 8<sup>th</sup> Avenue

Figure 2 – Study Area



## **B. Study Area Land Use**

### Existing Land Use

The land uses surrounding the project site are single-family residential and Wood River High School. The commercial core of the City of Hailey is approximately 2.0 miles from the project site.

### Anticipated Future Development

The City of Hailey is growing and there is little undeveloped area left in the vicinity of Quigley Canyon. There are a few vacant parcels north and west of Quigley Canyon. These are planned to be developed for residential use.

## **C. Site Accessibility/Study Area Roadway System**

### Fox Acres Road

Fox Acres Road is a collector, providing east/west access from State Highway 75 to residential neighborhoods and Wood River High School (WRHS). The speed limit for the entire length is 20 mph, and the school zone from west of Foxmoor to north of the WRHS south entrance is posted at 15 mph. Fox Acres Road is primarily a two-lane roadway with approximately 32 feet of pavement. At the SH-75 and Foxmoor Drive intersections, the pavement widens to approximately 40 feet to accommodate a left-turn lane in the median. The land uses adjacent to Fox Acres Road are low density residential and the Wood River High School. A 10 foot wide mixed use path runs along the north side of Fox Acres Road from where the Wood River Trail crosses near the SH-75 intersection to where the road currently ends. Additional segments of sidewalk provide connectivity to bus stops, Woodside Boulevard, Foxmoor Drive, and the High School entrances.

### State Highway 75

State Highway 75 is a major arterial providing regional north/south access throughout the Wood River Valley. At the intersection of State Highway 75/Fox Acres Road, State Highway 75 is a five-lane arterial with two northbound lanes, two southbound lanes and one southbound left turn lane. The intersection of State Highway 75/Fox Acres Road is controlled by an ITD traffic signal. At the intersection of State Highway 75 with Croy Street, State Highway 75 is a five-lane arterial with two northbound lanes, two southbound lanes, one two-way left turn lane, and parallel parking on both sides. Croy Street is stop controlled with one through lane in each direction and angled parking on both sides. At the intersection of State Highway 75 with Bullion Street, State Highway 75 is a five-lane arterial with two northbound lanes, two southbound lanes, one left turn lane in each direction, and parallel parking on both sides. Bullion Street has one through lane in each direction, one left turn lane in each direction, and angled parking on both sides. The intersection of State Highway 75 & Bullion Street is controlled by an ITD traffic signal.

### Creekside Drive

Creekside Drive is a two-lane local roadway. It provides north/south residential access to Fox Acres Road. The pavement width is approximately 30 feet and the speed limit is 20 mph. The intersection of Creekside Drive and Fox Acres Road is stop controlled for Creekside Drive.

### Woodside Boulevard

Woodside Boulevard is a two-lane collector in the City of Hailey. Woodside Boulevard provides north/south access through residential neighborhoods with a speed limit of 25 mph. Woodside Boulevard is bordered by single-family residential land uses in the vicinity of the project area. The

pavement width is approximately 32 feet. The intersection of Woodside Blvd and Fox Acres Road is a single lane roundabout.

Eastridge Drive

Eastridge Drive is a two-lane local roadway that provides north/south access from Fox Acres Road to Croy Street and 8<sup>th</sup> Avenue. Eastridge Drive has a pavement width of approximately 30 feet and a speed limit of 20 mph. Eastridge Dive is bordered by low-density residential developments. Eastridge Drive is stop controlled at the intersection with Fox Acres Road.

Foxmoor Drive

Foxmoor Dive is a two-lane local roadway. It provides access from the Foxmoor and Deerfield Subdivisions to Fox Acres Road. Foxmoor Drive has a pavement width of approximately 30 feet and a speed limit of 20 mph. It is bordered by low-density residential development. The intersection of Foxmoor Drive and Fox Acres Road is stop controlled for Foxmoor Drive.

Wood River High School/Blaine County Aquatic Center

Wood River High School and the Blaine County Aquatic Center are located at the east end of Fox Acres Road. They share a driveway on the south end of the campus. There are two additional driveways on the north end of the campus near the stadium. All three of the driveways are stop controlled where they intersect with Fox Acres Road

Quigley Drive

Quigley Drive is a two-lane collector roadway. It provides east/west access to 8<sup>th</sup> Avenue. Quigley Drive has a pavement width of approximately 30 feet. It is bordered by low-density residential development. The intersection of Quigley Drive and 8<sup>th</sup> Avenue is stop controlled for Quigley Drive.

8<sup>th</sup> Avenue

8<sup>th</sup> Avenue is a two-lane collector roadway. It provides north/south access between Croy Street and Bullion Street. 8<sup>th</sup> Avenue has a pavement width of approximately 26 feet. It is bordered by low-density residential development. The intersection of 8<sup>th</sup> Avenue and Croy Street/Eastridge Drive is stop controlled for 8<sup>th</sup> Avenue.

Croy Street

Croy Street provides east/west access between 8<sup>th</sup> Avenue and SH-75. The speed limit is 20 mph. Croy Street is a two-lane local roadway between Eastridge Drive and 2<sup>nd</sup> Avenue. It is bordered by low-density residential development. There are discontinuous, disconnected segments of detached sidewalk along the portion of Croy Street between 5<sup>th</sup> Avenue and 2<sup>nd</sup> Avenue, with wide swales and mature trees between the sidewalks and the street. The intersection of Croy Street and 4<sup>th</sup> Avenue is 4-way stop controlled. Between 2<sup>nd</sup> Avenue and SH-75, Croy Street has angled parking, sidewalks, and curb and gutter. This segment is part of Hailey's downtown core, and is bordered by shops and a grocery store.

Bullion Street

Bullion Street provides east/west access between 8<sup>th</sup> Avenue and SH-75. Bullion Street is a two-lane collector roadway, with a 20 mph speed limit. Between Eastridge Drive and 2<sup>nd</sup> Avenue, it is bordered by low-density residential development. There are discontinuous, disconnected segments of detached sidewalk along the portion of Bullion Street between 4<sup>th</sup> Avenue and 2<sup>nd</sup> Avenue, with wide swales and mature trees between the sidewalks and the street. The intersection of Bullion Street and 3<sup>rd</sup> Avenue is stop controlled for Bullion Street. Between 2<sup>nd</sup> Avenue and SH-75, Bullion Street has a mix of angled and 90-degree parking, sidewalks, and curb and gutter. This segment is part of Hailey's downtown core, and is bordered by shops and a grocery store.



Existing Traffic volumes

AM and PM peak hour traffic data was collected for the intersections on Fox Acres Road, and key intersections on Croy Street and Bullion Street as directed by City of Hailey staff. Volumes on Fox Acres Road were collected for each turning movement during the hours of 7:00 am to 9:00 am and 4:00 pm to 6:00 pm on Tuesday, November 17, 2015, except PM peak volumes for the High School entrances were collected between 3:00 pm and 5:00 pm. Volumes on Croy Street and Bullion Street were collected on March 30, 2017. The AM peak hour generally occurred from 7:30 am to 8:30 am. The PM peak hour varied by intersection. For most of the intersections, the PM peak hour began at roughly 5:00. The High School driveways' PM peak began at 3:15. For a conservative analysis approach, the PM peak hour for all of the intersections was assumed to occur at the same time. Existing traffic count data is included in the Appendix A.

Public transportation service

The Peak Bus, operated by South Valley Commuter Service, runs between Bellevue and Sun Valley. Buses run at approximately 30 minute headways during AM and PM peak hours and 2-3 hour headways during non-peak hours from 6:00 am to 8:00 pm. The route runs north-south along Woodside Blvd. and east-west along Fox Acres Road between SH-75 and Woodside Blvd. There are stops located on Fox Acres Road between Creekside Dr. and Woodside Blvd.

## IV. PROJECTED TRAFFIC

### A. Site Traffic

Trip generation for the Quigley Development was estimated using data published in *Trip Generation, Ninth Edition, Institute of Transportation Engineers (ITE), 2012*. Land Use Code 210, *Single-Family Detached Housing* was utilized to calculate trip generation for residences. Code 310, *Hotel* was used for lodging. Code 411, *City Park*, was used for the athletic fields. Code 534, *Private School (K-8)*, was used for the school. Code 710, *General Office Building*, was used for the mixed-use, non-profit offices. Finally, Code 826, *Specialty Retail Center*, was used for the mixed-use retail. See Appendix A for ITE trip generation rates used in this study. Table 2 includes trip generation data for each type of land use including AM peak, PM peak, average weekday, and directional distribution volumes.

The proposed Quigley Development may be constructed in more than one phase, however this study only considers full build out, which is anticipated to be in 2042. Table 3 includes trip generation data for the development including AM peak, PM peak, average weekday, and directional distribution volumes.

**Table 2 – Development Category Traffic Volumes**

Traffic Generator	Houses	Lodging (rooms)	School (students)	Athletic Fields (acres)	Trailhead	Retail	Office	Total Traffic
Quantity	200	25	120	12	1	14490	59156	-
AM Peak Hour Traffic	151	14	108	54	16	100	92	535
In	38	8	59	30	12	48	81	276
Out	113	6	49	24	4	52	11	259
PM Peak Hour Traffic	202	14	72	42	16	73	88	507
In	127	7	34	24	4	41	15	252
Out	75	7	38	18	12	32	73	255
Average Weekday Traffic	1914	185	180	96	164	642	652	3833

**Table 3 – Development Traffic Volumes**

Traffic Generators						Weekday Peak Hour Traffic						Average Weekday Traffic	
						AM			PM				
Houses	Lodging (rooms)	School (students)	Athletic Fields (acres)	Trailhead	Mixed Use (sf)	In	Out	Total	In	Out	Total		
						200	25	120	12	1	14490	59156	276

**B. Background Traffic Forecast**

To develop future volumes for through movements on SH-75, a growth rate was calculated from ITD automatic traffic recorder data. Comparison of traffic volumes between 1990 and 2015 resulted in an average growth rate of 1.6% per year. This rate was used to forecast future background traffic volumes for the horizon year.

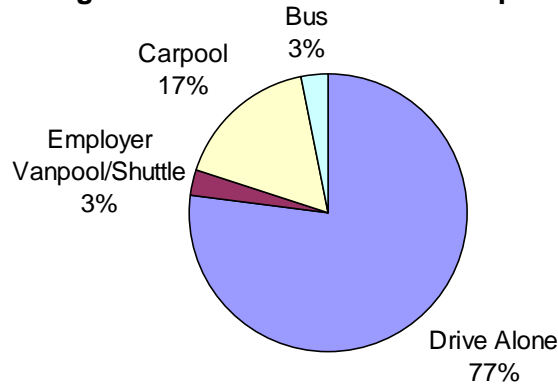
**C. Trip Distribution**

Three scenarios were analyzed for trip distribution. In the first scenario, 25% of the generated traffic was distributed to Quigley Drive and 75% was distributed to the Fox Acres Road access. The second scenario distributed the generated traffic 50%/50%. The third scenario distributed the generated traffic 75% to Quigley Drive and 25% to Fox Acres Road. The proposed development is not anticipated to change the current distribution of traffic flow through the study area. In developing forecast volumes for each intersection, the future volumes were dispersed using the observed existing distribution. See the Appendix A for traffic volumes for each intersection and distribution scenario.

**D. Modal Split/Travel Demand Management (TDM)**

ITD conducted a survey of commuters using the SH-75 corridor for the *Timmerman to Ketchum Environmental Analyses*. The results of this survey included the following modal split for the SH-75 corridor:

**Figure 4 – SH-75 Traffic Modal Split**



The Quigley development trip generation traffic volumes were not reduced to account for mode split. A conservative approach was taken considering the distance of the closest bus stop to the development and the uncertainty of vehicle trips on the local network for carpooling.

## V. TRAFFIC ANALYSIS

### A. Analysis Methodology

The study area intersections for the Quigley Development were analyzed using the methodologies presented in *Highway Capacity Manual 2010* edition. It provides a systematic and consistent basis for assessing the capacity and level of service of transportation facilities. Synchro v9 software was used to apply this methodology. Traffic models were developed and analyzed for AM and PM peak hours during existing conditions, Horizon Year (2042) without the project, and Horizon Year (2042) with the project using three different trip distribution scenarios as described above.

Two Measures of Effectiveness (MOE's) were used to quantify intersection traffic conditions for the various scenarios. These MOE's were Level of Service (LOS) and intersection delay (seconds/vehicle). LOS is a simplistic approach to describe the effectiveness of a transportation facility by grouping levels of performance to a letter "grade". The four types of controlled intersections within the study area, signalized, roundabout, all-way stop controlled and two-way stop controlled, each require a separate methodology for analysis. For two-way stop controlled intersections, LOS is calculated by approaching lane groups only. Table 4 shows the average vehicle delay criteria used by the HCM 2010 to determine LOS for signalized intersections. Table 5 shows LOS criteria for unsignalized intersections.

Average delay per vehicle calculated for intersections is also known as control delay. It is measured by comparing the travel time in seconds per vehicle of a movement that is controlled versus an uncontrolled condition. Comparison of delay between alternatives shows slight differences and quantifies excessive delays significantly higher than LOS E. Legs of an intersection that are free-flowing do not experience control delay and will not have values for "Delay" or "LOS" on Tables 6 and 7.

**Table 4 – Signalized Intersection LOS Criteria**

LOS	Average Delay (seconds/veh.)
A	≤ 10
B	> 10 to 20
C	> 20 to 35
D	> 35 to 55
E	> 55 to 80
F	> 80

Source: *Highway Capacity Manual* (Transportation Research Board, 2010)

**Table 5 – Unsignalized Intersection LOS Criteria**

LOS	Average Delay (seconds/veh.)
A	≤ 10
B	> 10 to 15
C	> 15 to 25
D	> 25 to 35
E	> 35 to 50
F	> 50

Source: *Highway Capacity Manual* (Transportation Research Board, 2010)

**B. Analysis Results**

A summary of the MOE’s for the intersections within the study area for each of the horizon years analyzed and existing conditions is included in Tables 6 and 7. As can be seen from these tables, all of the study area intersections currently operate at a LOS “D” or better under the existing traffic conditions, except the SH-75 & Croy intersection is LOS “F” in the PM peak hour. With addition of projected background traffic in horizon year 2042, the LOS at the SR-75 & Fox Acres and SH-75 & Croy intersections deteriorate to LOS “F” in the AM peak hour. The other study area intersections all remain at LOS “D” or better.

**25% North / 75% South Project Traffic Split**

During horizon year 2042, the Woodside, Creekside, Foxmoor, and Wood River High School (WRHS) south entrance intersections with Fox Acres will have at least one approach that will deteriorate to an LOS of “E “ or worse during the AM peak hour. Conditions will worsen at intersections that fail under background traffic alone with the addition of project traffic. Given that over 80% of existing traffic is currently travelling north on SH-75 from Fox Acres Road, this distribution pattern seems unlikely.

**50% North / 50% South Project Traffic Split**

With this distribution, only the Creekside intersection with Fox Acres will deteriorate to an LOS of “E“ or worse during the AM peak hour in addition to the intersections that fail under background traffic alone.

**75% North / 25% South Project Traffic Split**

Again, only the Creekside intersection with Fox Acres will deteriorate to an LOS of “E“ or worse during the AM peak hour in addition to the intersections that fail under background traffic alone.

**Table 6 – AM Peak Traffic Analysis Results**

Intersection	Approach	Traffic Control	2015 / 2017		2042							
			Existing		W/out Dev.		25% N/75% S		50% N/50% S		75% N/25% S	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SR-75/ Fox Acres	SB	Signal	B	14.1	E	66.7	F	84.4	E	71.8	E	65.2
	NB	Signal	C	25.7	F	75.5	F	128.2	F	114.6	F	104.4
	WB	Signal	E	79.6	F	281.4	F	341	F	330.3	F	297.6
	Intersection		D	35.1	F	122.2	F	171.2	F	157.2	F	141.1
SR-75/ Bullion	SB	Signal	A	5.4	A	6.7	A	8	A	8.9	A	10
	NB	Signal	A	9.2	B	12.6	B	15.5	B	18.5	B	19.5
	EB	Signal	B	10.5	C	20.1	B	18.9	B	16.8	B	17.9
	WB	Signal	B	10.7	C	20.9	C	21	C	20.4	C	24.9
	Intersection		A	8.6	B	12.9	B	14.7	B	16.3	B	17.9
Woodside/ Fox Acres	NE	Roundabout	A	7.0	A	9.7	B	13.1	B	11.8	B	10.7
	SW	Roundabout	A	8.7	C	15.2	D	29.7	C	22.9	C	18.4
	WB	Roundabout	B	12	D	32.7	F	72.2	F	55	E	41.9
	Intersection		A	9.5	C	20.5	E	39.5	D	31.2	C	25
Croy/ 4th Ave	SB	Stop	A	7.5	A	7.8	A	8	A	8.1	A	8.3
	NB	Stop	A	7.3	A	7.6	A	7.7	A	7.8	A	7.9
	EB	Stop	A	7.4	A	7.7	A	7.9	A	8.1	A	8.4
	WB	Stop	A	7.3	A	7.5	A	7.6	A	7.8	A	7.9
	Intersection		A	7.4	A	7.7	A	7.8	A	8	A	8.2
Creekside/ Fox Acres	NB	Stop	C	18.1	D	33.9	F	59	E	45.7	E	39
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intersection		N/A	0.8	N/A	1.6	N/A	2.3	N/A	1.9	N/A	1.7
Eastridge/ Fox Acres	SB	Stop	B	11.3	B	14.3	C	23.4	C	19.3	C	16.5
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intersection		N/A	2.4	N/A	2.9	N/A	3.4	N/A	3.1	N/A	2.9
Eastridge/ Quigley	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Stop	A	8.9	A	9.2	A	9.8	B	10.6	B	11.6
	Intersection		N/A	2.2	N/A	2.3	N/A	4.1	N/A	5.4	N/A	6.4
Foxmoor/ Fox Acres	SB	Stop	B	13.6	C	19.3	E	45.7	D	31.4	C	23.9
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intersection		N/A	2.6	N/A	3.8	N/A	8.1	N/A	5.7	N/A	4.5
WRHS S/ Fox Acres	NB	Stop	B	12.9	C	18.2	E	38.1	D	28.3	C	22.2
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intersection		N/A	3.9	N/A	5.4	N/A	7.9	N/A	6.5	N/A	5.8
WRHS Mid/ Fox Acres	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Stop	A	9.2	A	9.4	B	11.6	B	10.8	B	10
	Intersection		N/A	1.1	N/A	1.1	N/A	0.4	N/A	0.5	N/A	0.6
WRHS N/ Fox Acres	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Stop	A	9.0	A	9.4	B	11.1	B	10.3	A	9.6
	Intersection		N/A	2.5	N/A	2.6	N/A	0.5	N/A	0.6	N/A	0.9
Croy/ SH-75	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	EB	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F	ERR
	WB	Stop	D	29.6	F	466.4	F	772.9	F	1689.2	F	ERR
	Intersection		N/A	1.4	N/A	11.8	N/A	21	N/A	48.2	N/A	ERR
Croy/ 8th Ave	SE	Stop	A	9.6	B	10.2	B	11.3	B	12.8	C	15
	NE	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NW	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intersection		N/A	3.1	N/A	3.2	N/A	3.5	N/A	4	N/A	4.6
Bullion/ 3rd Ave	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	EB	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Stop	B	10	B	10.6	B	11.1	B	11.8	B	12.6
	Intersection		N/A	7.6	N/A	7.9	N/A	8.9	N/A	9.7	N/A	10.5



**Table 7 – PM Peak Traffic Analysis Results**

Intersection	Approach	Traffic Control	2015 / 2017		2042							
			Existing		W/out Dev.		25% N/75% S		50% N/50% S		75% N/25% S	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SR-75/ Fox Acres	SB	Signal	A	6.1	B	14.2	B	15.9	B	16.1	B	14.8
	NB	Signal	B	11.6	C	27.4	C	34.9	D	35.8	C	29
	WB	Signal	D	37.5	E	76.8	F	258.9	F	157.5	F	126.7
	Intersection		B	11	C	24.5	D	54.5	D	39.3	C	32.1
SR-75/ Bullion	SB	Signal	B	13.1	B	12.9	B	19	B	19	C	21.9
	NB	Signal	A	9	B	11.1	B	13.1	B	13.2	B	14.5
	EB	Signal	A	9.4	C	25.2	B	16.1	B	16.2	B	15.5
	WB	Signal	B	10.6	D	51.0	C	26.5	C	33.9	D	37.6
	Intersection		B	11.1	B	18.2	B	17.9	B	19	C	21.4
Woodside/ Fox Acres	NB	Roundabout	A	9.9	C	18.5	E	41.4	D	30	C	23.2
	SB	Roundabout	A	6.1	A	8.1	B	11.6	B	10.2	A	9.1
	WB	Roundabout	A	6.4	A	8.8	B	11.6	B	10.5	A	9.6
	Intersection		A	8.3	B	14	D	27.2	C	20.8	C	16.8
Croy/ 4th Ave	SB	Stop	A	7.7	A	8.1	A	8.3	A	8.6	A	8.8
	NB	Stop	A	7.7	A	8.1	A	8.3	A	8.5	A	8.7
	EB	Stop	A	7.8	A	8.3	A	8.6	A	9	A	9.4
	WB	Stop	A	7.5	A	7.8	A	8.1	A	8.3	A	8.6
	Intersection		A	7.7	A	8.1	A	8.4	A	8.7	A	9
Creekside/ Fox Acres	NB	Stop	C	16.1	C	24.7	D	34.3	D	30.4	D	27.4
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Intersection		N/A	0.4	N/A	0.5	N/A	0.6	N/A	0.6	N/A	0.6
Eastridge/ Fox Acres	SB	Stop	A	9.7	B	10.6	B	13.1	B	12.0	B	11.2
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Intersection		N/A	2.2	N/A	2.4	N/A	2	N/A	2	N/A	2.2
Eastridge/ Quigley	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Stop	A	8.9	A	9.2	A	9.7	B	10.6	B	12
	Intersection		N/A	2.7	N/A	2.8	N/A	4.4	N/A	5.6	N/A	6.8
Foxmoor/ Fox Acres	SB	Stop	B	11.0	B	12.0	C	16.7	B	14.7	B	13.2
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Intersection		N/A	1.5	N/A	1.8	N/A	2.2	N/A	2	N/A	1.9
WRHS S/ Fox Acres	NB	Stop	B	11.9	B	14.9	D	26.1	C	21	C	17.5
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Intersection		N/A	4.5	N/A	5.7	N/A	6.4	N/A	5.8	N/A	5.6
WRHS Mid/ Fox Acres	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Stop	A	9.6	B	10	B	12.9	B	11.8	B	10.8
	Intersection		N/A	5.0	N/A	5.2	N/A	2.4	N/A	2.8	N/A	3.5
WRHS N/ Fox Acres	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	WB	Stop	A	9.1	A	9.3	B	11.6	B	10.7	A	9.9
	Intersection		N/A	7.3	N/A	7.4	N/A	1.8	N/A	2.3	N/A	3.3
Croy/ SH-75	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	EB	Stop	N/A	N/A	F	981.6	F	ERR	F	ERR	F	ERR
	WB	Stop	F	146.8	F	ERR	F	ERR	F	ERR	F	ERR
Intersection		N/A	7.2	N/A	25.7	N/A	ERR	N/A	ERR	N/A	ERR	
Croy/ 8th Ave	SE	Stop	A	9.8	B	10.6	B	11.8	B	13.4	C	15.6
	NE	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	NW	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Intersection		N/A	3.2	N/A	3.5	N/A	3.6	N/A	3.9	N/A	4.4
Bullion/ 3rd Ave	SB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	NB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	EB	Stop	B	10	B	10.6	N/A	N/A	N/A	N/A	N/A	
	WB	Stop	B	10	B	10.6	B	11.1	B	11.7	B	12.5
	Intersection		N/A	7.8	N/A	8.2	N/A	8.9	N/A	9.6	N/A	10.3

**C. Traffic Safety**

Current traffic conditions on Fox Acres Road and Bullion Street operate acceptably, at an LOS of “D” or better. As volumes increase, improvements should be constructed to continually provide a safe facility. As delay increases, drivers tend to become frustrated and attempt to enter free-flowing traffic with smaller gaps than they normally would, potentially causing accidents.

**VI. IMPROVEMENT ANALYSIS**

**A. Study Area Improvements**

The analysis results shown in Section V indicate that as traffic volumes increase in the study area, the anticipated LOS will deteriorate at some of the intersections during peak hours in 2042. The largest increases in delay will occur at the minor legs of the SH-75 and Creekside intersections with Fox Acres, and at Croy & SH-75. To accommodate additional traffic generated by the Quigley development, capacity improvements could be constructed at those intersections. The following capacity and safety improvements were added to the study traffic model and analyzed for the 2042 horizon year:

- Second westbound right turn lane and overlap signal phase on Fox Acres Road at the SR-75 intersection.
- Northbound to westbound acceptance lane (TWLTL) at the Creekside intersection.

These improvements can be constructed inside existing right-of-way. The widening for the additional right turn lane at the SH-75 intersection could be constructed to the south to avoid the existing curb, gutter, and signal equipment on the north corner. The existing right-of-way for Fox Acres Road and Woodside Blvd. is 80 feet wide, ample room for a two-way left turn lane west of the Creekside intersection.

**B. Improvement Analysis Results**

The improvements listed above would reduce delay in the study area. Table 8 includes a summary of the MOE’s from the analysis of the study intersections with these enhancements. The improvements provide additional capacity to significantly improve the LOS and reduce delay. Analysis of the study area indicates that additional traffic from the Quigley development and the improvements listed above provide an improved LOS compared to the scenario of no development on the existing transportation network.

**Table 8 – AM/PM Improvement Traffic Analysis Results**

Intersection	Approach	Traffic Control	2042 AM		2042 PM		2042 AM		2042 PM		2042 AM		2042 PM	
			25% N/75% S		25% N/75% S		50% N/50% S		50% N/50% S		75% N/25% S		75% N/25% S	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SR-75/ Fox Acres	SB	Signal	C	31.7	B	12.5	C	29.8	B	11.2	C	25.7	B	10
	NB	Signal	E	59.0	C	25.3	D	50.3	C	22.1	D	43	B	18.3
	WB	Signal	C	31.5	B	17.1	C	31.3	B	15.6	C	31.2	B	17.2
	Intersection		D	44.3	B	15.7	D	39.9	B	14	D	35.4	B	12.6
Creekside/ Fox Acres	NB	Stop	C	22.8	C	19.3	C	21.0	C	18.3	C	19.8	C	17.5
	EB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WB	Free	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intersection		N/A	0.9	N/A	0.4	N/A	0.9	N/A	0.4	N/A	0.9	N/A	0.4

## VII. CONCLUSIONS/RECOMENDATIONS

### ***A. Site Accessibility***

The Quigley development is proposing to utilize Fox Acres Road and Quigley Drive as the primary accesses to the project. Fox Acres Road, Bullion Street and their connections to State Highway 75 are appropriate facilities for this development.

### ***B. Traffic Impacts***

The combination of the background traffic growth and traffic from the proposed Quigley development will result in a peak hour LOS of “E” or worse for three intersections by the year 2042. The most significant impacts to traffic will be at the minor legs of the SH-75 and Creekside intersections with Fox Acres. As the gaps in traffic are reduced with an increase in congestion, cars are less able to access Fox Acres Road and SH-75.

### ***C. Need for Improvements***

The improvements listed in Section VI will provide additional capacity in the study area to significantly improve traffic flow. Comparing the traffic analysis results on Table 8 with the results on Tables 6 and 7 reveals that if the listed improvements were constructed, the study area would experience an LOS better than conditions without the development for the minor approaches at the Creekside and SH-75 intersections with Fox Acres.

**TECHNICAL APPENDIX**

**APPENDIX A – EXISTING TRAFFIC & FORECAST VOLUMES**

**APPENDIX B – EXISTING ANALYSIS RESULTS**

**APPENDIX C – 2042 BASELINE ANALYSIS RESULTS**

**APPENDIX D – 2042 WITH PROJECT ANALYSIS RESULTS**

**APPENDIX E – IMPROVEMENT ANALYSIS RESULTS**

**APPENDIX A – EXISTING TRAFFIC &  
FORECAST VOLUMES**



# SR-75 & Fox Acres

## AM Peak Hour

				Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S			
Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds
NBL			0.0%								
NBT	970	0	90.6%	1389	0	1389	0	1389	0	1389	0
NBR	101		9.4%	176		165		155		145	
SBL	220		36.4%	381		359		337		315	
SBT	384	0	63.6%	550	0	550	0	550	0	550	0
SBR			0.0%								
EBL											
EBT		0			0		0		0		0
EBR											
WBL	59		11.6%	101		96		92		87	
WBT		0	0.0%								
WBR	451		88.4%	772		736		700		665	

## PM Peak Hour

				Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S			
Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds
NBL			0.0%								
NBT	384	0	86.5%	550	0	550	0	550	0	550	0
NBR	60		13.5%	101		96		91		86	
SBL	424		29.2%	707		674		641		607	
SBT	1026	0	70.8%	1469	0	1469	0	1469	0	1469	0
SBR			0.0%								
EBL											
EBT		0			0		0		0		0
EBR											
WBL	46		18.0%	85		79		73		67	
WBT		0	0.0%		0		0		0		0
WBR	210		82.0%	388		361		334		308	

SR-75 Growth Rate (%/Yr) = 1.6

## Creekside & Fox Acres

### AM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	34		87.2%	49		49		49		49	
NBT		0	0.0%		0		0		0		0
NBR	5		12.8%	9		9		8		7	
SBL											
SBT		0			0		0		0		0
SBR											
EBL			0.0%								
EBT	317	1	98.8%	584	1	519	1	486	1	454	1
EBR	4		1.2%	6		6		6		6	
WBL	2		0.4%	3		3		3		3	
WBT	491	0	99.6%	824	0	783	0	743	0	703	0
WBR			0.0%								

### PM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	16		100.0%	23		23		23		23	
NBT		0	0.0%		0		0		0		0
NBR	1		5.9%	1		1		1		1	
SBL											
SBT		0			0		0		0		0
SBR											
EBL	0		0.0%								
EBT	467	0	91.7%	784	0	746	0	707	0	669	0
EBR	42		8.3%	60		60		60		60	
WBL	0		0.0%	0		0		0		0	
WBT	246	0	100.0%	450	0	417	0	385	0	352	0
WBR			0.0%								

Growth Rate (%/Yr.) = 1.6

## Woodside & Fox Acres

### AM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	291		74.4%	417		417		417		417	
NBT		0	0.0%		0		0		0		0
NBR	100		25.6%	183		169		156		143	
SBL											
SBT					0		0		0		0
SBR											
EBL			0.0%								
EBT	250	0	77.9%	457	0	424	0	391	0	358	0
EBR	71		22.1%	102		102		102		102	
WBL	47		19.3%	96		87		77		67	
WBT	197	0	80.7%	403	0	362	0	322	0	282	0
WBR			0.0%								

### PM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	118		70.2%	169		169		169		169	
NBT		0	0.0%		0		0		0		0
NBR	50		29.8%	100		90		81		72	
SBL											
SBT					0		0		0		0
SBR											
EBL			0.0%								
EBT	207	0	44.6%	412	0	373	0	335	0	296	0
EBR	257		55.4%	368		368		368		368	
WBL	72		35.0%	155		137		120		103	
WBT	134	0	65.0%	289	0	257	0	224	0	192	0
WBR			0.0%								

Growth Rate (%/Yr.) = 1.6

# Eastridge & Fox Acres

## AM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL											
NBT		0			0		0		0		0
NBR											
SBL	21		21.2%	40		37		34		30	
SBT		0	0.0%		0		0		0		0
SBR	78		78.8%	112		112		112		112	
EBL	37		11.1%	53		53		53		53	
EBT	295	0	88.9%	561	0	515	0	469	0	422	0
EBR			0.0%								
WBL			0.0%								
WBT	166	10	98.8%	387	14	338	14	288	14	238	14
WBR	2		1.2%	5		4		4		3	

## PM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL											
NBT		0			0		0		0		0
NBR											
SBL	4		6.1%	10		8		7		6	
SBT		1	0.0%		1		1		1		1
SBR	62		93.9%	89		89		89		89	
EBL	44	0	18.4%	63	0	63	0	63	0	63	0
EBT	195		81.6%	423		375		327		279	
EBR			0.0%								
WBL			0.0%								
WBT	130	7	97.7%	335	10	285	10	236	10	186	10
WBR	3		2.3%	8		7		6		4	

Growth Rate (%/Yr.) = 1.6

## Foxmoor & Fox Acres

### AM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL											
NBT		0			0		0		0		0
NBR											
SBL	124		98.4%	236		216		197		178	
SBT		0	0.0%		0		0		0		0
SBR	2		1.6%	3		3		3		3	
EBL	2		0.6%	3		3		3		3	
EBT	319	0	99.4%	606	0	556	0	506	0	457	0
EBR			0.0%								
WBL			0.0%								
WBT	164	0	78.1%	387	0	336	0	285	0	235	0
WBR	46		21.9%	108		94		80		66	

### PM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL											
NBT		0					0				0
NBR											
SBL	55		96.5%	120		106		93		79	
SBT		1	0.0%		1		1		1		1
SBR	2		3.5%	3		3		3		3	
EBL	1		0.5%	1		1		1		1	
EBT	195	2	99.5%	374	3	324	3	275	3	226	3
EBR			0.0%								
WBL			0.0%								
WBT	134	4	80.2%	345	6	294	6	243	6	192	6
WBR	33		19.8%	85		72		60		47	

Growth Rate (%/Yr.) = 1.6



# WRHS South Driveway & Fox Acres

## AM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	191		99.5%	274		274		274		274	
NBT		0	0.0%		0		0		0		0
NBR	1		0.5%	1		1		1		1	
SBL											
SBT											
SBR											
EBL			0.0%								
EBT	78	0	17.7%	319	0	250	0	181	0	112	0
EBR	363		82.3%	520		520		520		520	
WBL	8		33.3%	11		11		11		11	
WBT	16		66.7%	217	0	153		88	0	23	
WBR			0.0%								

## PM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	182		99.5%	261		261		261		261	
NBT		1	0.0%		1		1		1		1
NBR	1		0.5%	1		1		1		1	
SBL											
SBT											
SBR											
EBL			0.0%								
EBT	18	25	10.2%	215	36	152	36	89	36	26	36
EBR	158		89.8%	226		226		226		226	
WBL	3		2.4%	4		4		4		4	
WBT	123		97.6%	367		303		240		176	
WBR			0.0%								

Growth Rate (%/Yr.) = 1.6

# WRHS Middle Driveway & Fox Acres

## AM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL			0.0%								
NBT	32	2	37.6%	253	3	184	3	115	3	46	3
NBR	53		62.4%	76		76		76		76	
SBL			0.0%	0		0		0		0	
SBT	13	4	100.0%	213	6	148	6	83	6	19	6
SBR			0.0%								
EBL											
EBT											
EBR											
WBL	12		92.3%	17		17		17		17	
WBT		0	0.0%		0		0		0		0
WBR	1		7.7%	1		1		1		1	

## PM Peak Hour

Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL			0.0%								
NBT	13	1	68.4%	208	1	145	1	82	1	19	1
NBR	6		31.6%	9		9		9		9	
SBL	1		2.0%	1		1		1		1	
SBT	50	0	98.0%	262	0	199	0	135	0	72	0
SBR			0.0%								
EBL											
EBT											
EBR											
WBL	76		100.0%	109		109		109		109	
WBT		0	0.0%		0		0		0		0
WBR	0		0.0%	0		0		0		0	

Growth Rate (%/Yr.) = 1.6

# WRHS North Driveway & Fox Acres

## AM Peak Hour

				Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S			
Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds
NBL			0.0%								
NBT		0	0.0%	207	0	138	0	69	0		0
NBR	33		100.0%	47		47		47		47	
SBL											
SBT				194		130		65			
SBR											
EBL											
EBT											
EBR											
WBL	13		100.0%	19		19		19		19	
WBT		0	0.0%		0		0		0		0
WBR			0.0%								

## PM Peak Hour

				Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S			
Movement	Existing 2015 Traffic	Existing 2015 Peds	Lane Dist.	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds
NBL			0.0%								
NBT		0	0.0%	189	0	126	0	63	0		0
NBR	13		100.0%	19		19		19		19	
SBL											
SBT				191		127		64			
SBR											
EBL											
EBT											
EBR											
WBL	52		100.0%	74		74		74		74	
WBT		0	0.0%		0		0		0		0
WBR			0.0%								

Growth Rate (%/Yr.) = 1.6

## Bullion & SH-75

### AM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	29		3.0%	41		41		41		41	
NBT	907	1	93.9%	1270	1	1270	1	1270	1	1270	1
NBR	30		3.1%	56		70		83		42	
SBL	18		4.0%	33		42		50		25	
SBT	415	3	93.3%	581	4	581	4	581	4	581	4
SBR	12		2.7%	17		17		17		17	
EBL	107		60.8%	150		150		150		150	
EBT	29		16.5%	54		67		80		41	
EBR	40		22.7%	56		56		56		56	
WBL	132		60.8%	213		241		268		185	
WBT	35	1	16.1%	56	1	63	1	70	1	49	1
WBR	50		23.0%	77		84		91		70	

### PM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	72		10.5%	101		101		101		101	
NBT	578	5	84.0%	809	7	809	7	809	7	809	7
NBR	38		5.5%	59		66		72		53	
SBL	42		4.2%	66		73		80		59	
SBT	932	8	92.3%	1305	11	1305	11	1305	11	1305	11
SBR	36		3.6%	50		50		50		50	
EBL	72		34.3%	101		101		101		101	
EBT	63	5	30.0%	98	7	108	7	118	7	88	7
EBR	75		35.7%	105		105		105		105	
WBL	172		63.9%	264		288		311		241	
WBT	57	1	21.2%	87	1	95	1	103	1	80	1
WBR	40		14.9%	62		67		73		56	

Growth Rate (%/Yr.) = 1.6

## Bullion & 3rd

### AM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	16		39.0%	22		22		22		22	
NBT	22	3	53.7%	31	4	31	4	31	4	31	4
NBR	3		7.3%	6		8		10		4	
SBL	0		0.0%	0		0		0		0	
SBT	10	0	76.9%	14	0	14	0	14	0	14	0
SBR	3		23.1%	4		4		4		4	
EBL	1		2.0%	1		1		1		1	
EBT	45	1	91.8%	98	1	133	1	169	1	63	1
EBR	3		6.1%	4		4		4		4	
WBL	2		2.6%	4		5		7		3	
WBT	75	1	96.2%	151	1	197	1	243	1	105	1
WBR	1		1.3%	2		3		3		1	

### PM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	7		21.2%	10		10		10		10	
NBT	18	0	54.5%	25	0	25	0	25	0	25	0
NBR	8		24.2%	14		16		19		11	
SBL	5		23.8%	9		11		13		7	
SBT	12	2	57.1%	17	3	17	3	17	3	17	3
SBR	4		19.0%	6		6		6		6	
EBL	2		2.4%	3		3		3		3	
EBT	70	7	83.3%	121	10	145	10	168	10	98	10
EBR	12		14.3%	17		17		17		17	
WBL	3		4.6%	6		8		10		4	
WBT	62	1	95.4%	124	1	161	1	198	1	87	1
WBR	0		0.0%	0		0		0		0	

Growth Rate (%/Yr.) = 1.6

# Croy & SH-75

## AM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	33		3.2%	46		46		46		46	
NBT	962	2	92.8%	1347	3	1347	3	1347	3	1347	3
NBR	42		4.1%	73		86		100		59	
SBL	11		1.9%	19		22		26		15	
SBT	570	3	96.9%	798	4	798	4	798	4	798	4
SBR	7		1.2%	10		10		10		10	
EBL	2		13.3%	3		3		3		3	
EBT	1	1	6.7%	1	1	1	1	1	1	1	1
EBR	12		80.0%	17		17		17		17	
WBL	7		22.6%	12		14		16		10	
WBT	1	1	3.2%	1	1	1	1	1	1	1	1
WBR	23		74.2%	39		45		52		32	

## PM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	31		4.3%	43		43		43		43	
NBT	621	2	85.5%	869	3	869	3	869	3	869	3
NBR	74		10.2%	119		135		151		104	
SBL	36		3.1%	58		66		73		50	
SBT	1115	11	95.1%	1561	15	1561	15	1561	15	1561	15
SBR	22		1.9%	31		31		31		31	
EBL	1		2.0%	1		1		1		1	
EBT	5	6	10.0%	8	8	10	8	11	8	7	8
EBR	44		88.0%	62		62		62		62	
WBL	26		36.1%	41		47		52		36	
WBT	4	4	5.6%	6	6	7	6	8	6	6	6
WBR	42		58.3%	67		75		84		59	

Growth Rate (%/Yr.) = 1.6

# Croy & 4th

## AM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	2		4.1%	3		3		3		3	
NBT	40	4	81.6%	56	6	56	6	56	6	56	6
NBR	7		14.3%	15		19		24		10	
SBL	7		11.1%	15		19		24		10	
SBT	54	3	85.7%	76	4	76	4	76	4	76	4
SBR	2		3.2%	3		3		3		3	
EBL	9		22.0%	13		13		13		13	
EBT	27	3	65.9%	56	4	74	4	92	4	38	4
EBR	5		12.2%	7		7		7		7	
WBL	2		11.1%	4		5		7		3	
WBT	13	0	72.2%	27	0	36	0	45	0	18	0
WBR	3		16.7%	6		8		10		4	

## PM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	4		6.0%	6		6		6		6	
NBT	53	2	79.1%	74	3	74	3	74	3	74	3
NBR	10		14.9%	18		22		25		14	
SBL	11		19.6%	19		23		27		15	
SBT	44	2	78.6%	62	3	62	3	62	3	62	3
SBR	1		1.8%	1		1		1		1	
EBL	4		4.5%	6		6		6		6	
EBT	70	6	78.7%	123	8	147	8	172	8	98	8
EBR	15		16.9%	21		21		21		21	
WBL	2		5.6%	4		5		7		3	
WBT	29	3	80.6%	55	4	70	4	85	4	41	4
WBR	5		13.9%	10		12		15		7	

Growth Rate (%/Yr.) = 1.6

# Croy & 8th

## AM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	22		21.8%	44		57		70		31	
NBT	79	0	78.2%	159	0	207	0	255	0	111	0
NBR											
SBL											
SBT	73	0	100.0%	139	0	177	0	214	0	102	0
SBR	0		0.0%	0		0		0		0	
EBL	0		0.0%	0		0		0		0	
EBT											
EBR	55		100.0%	105		132		160		77	
WBL											
WBT											
WBR											

## PM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL	23		31.9%	51		69		88		32	
NBT	49	0	68.1%	107	0	146	0	185	0	69	0
NBR											
SBL											
SBT	76	0	98.7%	134	0	167	0	190	0	106	0
SBR	1		1.3%	1		1		1		1	
EBL	2		2.2%	3		3		3		3	
EBT		1			1		1		1		1
EBR	89		97.8%	157		189		221		125	
WBL											
WBT											
WBR											

Growth Rate (%/Yr.) = 1.6



# Quigley & 8th

## AM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL											
NBT	70	2	97.2%	98	3	98	3	98	3	98	3
NBR	2		2.8%	7		11		15		3	
SBL	33		24.6%	111		176		241		46	
SBT	101	0	75.4%	141	0	141	0	141	0	141	0
SBR											
EBL											
EBT											
EBR											
WBL	2		6.5%	7		11		14		3	
WBT											
WBR	29		93.5%	102		162		223		41	

## PM Peak Hour

Movement	Existing 2017 Traffic	Existing 2017 Peds	Lane Dist.	Build Traffic Volumes						No-Build	
				25%N/75%S		50%N/50%S		75%N/25%S		2042 Traffic	2042 Peds
				2042 Traffic	2042 Peds	2042 Traffic	2042 Peds	2042 Traffic	2042 Peds		
NBL											
NBT	41	1	95.3%	57	1	57	1	57	1	57	1
NBR	2		4.7%	6		9		12		3	
SBL	40		25.6%	116		176		235		56	
SBT	116	0	74.4%	162	0	162	0	162	0	162	0
SBR											
EBL											
EBT											
EBR											
WBL	4		10.3%	12		18		25		6	
WBT											
WBR	35		89.7%	106		164		221		49	

Growth Rate (%/Yr.) = 1.6

## **APPENDIX B – EXISTING ANALYSIS RESULTS**

























HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/17/2017

Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	220	384	970	101	59	451		
Future Volume (veh/h)	220	384	970	101	59	451		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	250	436	1102	115	67	512		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	330	2159	1546	161	550	491		
Arrive On Green	0.09	0.61	0.48	0.48	0.31	0.31		
Sat Flow, veh/h	1774	3632	3329	337	1774	1583		
Grp Volume(v), veh/h	250	436	602	615	67	512		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1803	1774	1583		
Q Serve(g_s), s	6.7	5.5	26.9	27.0	2.7	31.0		
Cycle Q Clear(g_c), s	6.7	5.5	26.9	27.0	2.7	31.0		
Prop In Lane	1.00			0.19	1.00	1.00		
Lane Grp Cap(c), veh/h	330	2159	846	862	550	491		
V/C Ratio(X)	0.76	0.20	0.71	0.71	0.12	1.04		
Avail Cap(c_a), veh/h	451	2159	846	862	550	491		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	18.2	8.7	20.7	20.7	24.7	34.5		
Incr Delay (d2), s/veh	4.9	0.2	5.1	5.0	0.1	52.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.9	2.7	14.2	14.5	1.3	20.6		
LnGrp Delay(d),s/veh	23.1	8.9	25.7	25.7	24.8	86.8		
LnGrp LOS	C	A	C	C	C	F		
Approach Vol, veh/h		686	1217		579			
Approach Delay, s/veh		14.1	25.7		79.6			
Approach LOS		B	C		E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.2	51.8				65.0		35.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	41.0				61.0		31.0
Max Q Clear Time (g_c+I1), s	8.7	29.0				7.5		33.0
Green Ext Time (p_c), s	0.5	5.7				8.8		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			35.1					
HCM 2010 LOS			D					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	29	40	132	35	50	29	907	30	18	415	12
Future Volume (veh/h)	107	29	40	132	35	50	29	907	30	18	415	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	122	33	45	150	40	57	33	1031	34	20	472	14
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	390	331	487	390	331	577	1610	53	360	1616	48
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1163	1676	1423	1183	1676	1423	814	3147	104	475	3159	94
Grp Volume(v), veh/h	122	33	45	150	40	57	33	522	543	20	238	248
Grp Sat Flow(s),veh/h/ln	1163	1676	1423	1183	1676	1423	814	1593	1658	475	1593	1660
Q Serve(g_s), s	2.9	0.5	0.8	3.6	0.6	1.0	0.8	7.4	7.4	1.0	2.7	2.7
Cycle Q Clear(g_c), s	3.5	0.5	0.8	4.0	0.6	1.0	3.4	7.4	7.4	8.4	2.7	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	479	390	331	487	390	331	577	815	848	360	815	849
V/C Ratio(X)	0.25	0.08	0.14	0.31	0.10	0.17	0.06	0.64	0.64	0.06	0.29	0.29
Avail Cap(c_a), veh/h	803	858	728	817	858	728	577	815	848	360	815	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	9.4	9.5	11.0	9.4	9.6	5.4	5.5	5.5	8.6	4.4	4.4
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.4	0.1	0.2	0.2	3.8	3.7	0.3	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.2	0.3	1.2	0.3	0.4	0.2	4.1	4.2	0.2	1.3	1.4
LnGrp Delay(d),s/veh	11.1	9.5	9.7	11.3	9.6	9.8	5.6	9.4	9.2	8.9	5.3	5.3
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		200			247			1098			506	
Approach Delay, s/veh		10.5			10.7			9.2			5.4	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		11.3		20.0		11.3				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		9.4		5.5		10.4		6.0				
Green Ext Time (p_c), s		4.7		1.3		4.1		1.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			8.6									
HCM 2010 LOS			A									

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	9.5		
Intersection LOS	A		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	445	365	277
Demand Flow Rate, veh/h	454	373	282
Vehicles Circulating, veh/h	290	54	338
Vehicles Exiting, veh/h	137	566	406
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	12.0	7.0	8.7
Approach LOS	B	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	454	373	282
Cap Entry Lane, veh/h	845	1071	806
Entry HV Adj Factor	0.980	0.979	0.981
Flow Entry, veh/h	445	365	277
Cap Entry, veh/h	829	1046	789
V/C Ratio	0.537	0.349	0.350
Control Delay, s/veh	12.0	7.0	8.7
LOS	B	A	A
95th %tile Queue, veh	3	2	2

Intersection												
Intersection Delay, s/veh	7.4											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	9	27	5	0	2	13	3	0	2	40	7
Future Vol, veh/h	0	9	27	5	0	2	13	3	0	2	40	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	31	6	0	2	15	3	0	2	45	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0
Approach	EB				WB				NB			
Opposing Approach	WB				EB				SB			
Opposing Lanes	1				1				1			
Conflicting Approach Left	SB				NB				EB			
Conflicting Lanes Left	1				1				1			
Conflicting Approach Right	NB				SB				WB			
Conflicting Lanes Right	1				1				1			
HCM Control Delay	7.4				7.3				7.3			
HCM LOS	A				A				A			
Lane	NBLn1	EBLn1	WBLn1	SBLn1								
Vol Left, %	4%	22%	11%	11%								
Vol Thru, %	82%	66%	72%	86%								
Vol Right, %	14%	12%	17%	3%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	49	41	18	63								
LT Vol	2	9	2	7								
Through Vol	40	27	13	54								
RT Vol	7	5	3	2								
Lane Flow Rate	56	47	20	72								
Geometry Grp	1	1	1	1								
Degree of Util (X)	0.062	0.054	0.023	0.081								
Departure Headway (Hd)	4.026	4.14	4.112	4.094								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	884	857	861	871								
Service Time	2.077	2.202	2.181	2.141								
HCM Lane V/C Ratio	0.063	0.055	0.023	0.083								
HCM Control Delay	7.3	7.4	7.3	7.5								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.2	0.2	0.1	0.3								

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	54	2
Future Vol, veh/h	0	7	54	2
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	61	2
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.5
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 0.8

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	34	5	317	4	2	491
Future Vol, veh/h	34	5	317	4	2	491
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	6	360	5	2	558

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	927	365	0	0	366	0
Stage 1	364	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	298	680	-	-	1193	-
Stage 1	703	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	297	679	-	-	1192	-
Mov Cap-2 Maneuver	297	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	568	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	18.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	320	1192	-
HCM Lane V/C Ratio	-	-	0.138	0.002	-
HCM Control Delay (s)	-	-	18.1	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-



**Intersection**

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	37	295	166	2	21	78
Future Vol, veh/h	37	295	166	2	21	78
Conflicting Peds, #/hr	10	0	0	10	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	335	189	2	24	89

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	201	0	619
Stage 1	-	-	200
Stage 2	-	-	419
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1371	-	830
Stage 1	-	-	834
Stage 2	-	-	664
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1360	-	816
Mov Cap-2 Maneuver	-	-	428
Stage 1	-	-	827
Stage 2	-	-	633

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1360	-	-	-	684
HCM Lane V/C Ratio	0.031	-	-	-	0.164
HCM Control Delay (s)	7.7	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

**Intersection**

Int Delay, s/veh 2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	2	29	70	2	33	101
Future Vol, veh/h	2	29	70	2	33	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	33	80	2	38	115

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	271	81	0
Stage 1	81	-	-
Stage 2	190	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	718	979	1515
Stage 1	942	-	-
Stage 2	842	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	699	979	1515
Mov Cap-2 Maneuver	699	-	-
Stage 1	942	-	-
Stage 2	819	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	954	1515
HCM Lane V/C Ratio	-	-	0.037	0.025
HCM Control Delay (s)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

**Intersection**

Int Delay, s/veh 2.6

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	2	319	164	46	124	2
Future Vol, veh/h	2	319	164	46	124	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	363	186	52	141	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	239	0	580
Stage 1	-	-	213
Stage 2	-	-	367
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1328	-	477
Stage 1	-	-	823
Stage 2	-	-	701
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1328	-	476
Mov Cap-2 Maneuver	-	-	559
Stage 1	-	-	823
Stage 2	-	-	700

Approach	EB	WB	SE
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1328	-	-	-	562
HCM Lane V/C Ratio	0.002	-	-	-	0.255
HCM Control Delay (s)	7.7	-	-	-	13.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1

**Intersection**

Int Delay, s/veh 3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	78	363	8	16	191	1
Future Vol, veh/h	78	363	8	16	191	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	413	9	18	217	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	501
Stage 1	-	-	295
Stage 2	-	-	36
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1063	664
Stage 1	-	-	755
Stage 2	-	-	986
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1063	658
Mov Cap-2 Maneuver	-	-	669
Stage 1	-	-	755
Stage 2	-	-	978

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	669	744	-	-	1063	-
HCM Lane V/C Ratio	0.324	0.002	-	-	0.009	-
HCM Control Delay (s)	12.9	9.8	-	-	8.4	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.4	0	-	-	0	-

**Intersection**

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	12	1	32	53	0	13
Future Vol, veh/h	12	1	32	53	0	13
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	1	36	60	0	15

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	83	70	0	0	99	0
Stage 1	68	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	919	993	-	-	1494	-
Stage 1	955	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	916	990	-	-	1492	-
Mov Cap-2 Maneuver	860	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	1006	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	869	1492	-
HCM Lane V/C Ratio	-	-	0.017	-	-
HCM Control Delay (s)	-	-	9.2	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

**Intersection**

Int Delay, s/veh 2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	13	0	0	33	0	0
Future Vol, veh/h	13	0	0	33	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	0	0	38	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	19	19	0 0 38 0
Stage 1	19	-	- - - -
Stage 2	0	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	998	1059	- - 1572 -
Stage 1	1004	-	- - - -
Stage 2	-	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	998	1059	- - 1572 -
Mov Cap-2 Maneuver	916	-	- - - -
Stage 1	1004	-	- - - -
Stage 2	-	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 916	1572	-
HCM Lane V/C Ratio	-	- 0.016	-	-
HCM Control Delay (s)	-	- 9	0	-
HCM Lane LOS	-	- A	A	-
HCM 95th %tile Q(veh)	-	- 0	0	-

**Intersection**

Int Delay, s/veh 1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	1	12	7	1	23	33	962	42	11	570	7
Future Vol, veh/h	2	1	12	7	1	23	33	962	42	11	570	7
Conflicting Peds, #/hr	1	0	1	1	0	1	3	0	2	2	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	14	8	1	26	38	1093	48	13	648	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1301	1895	332	1543	1875	574	657	0	0	1142	0	0
Stage 1	678	678	-	1193	1193	-	-	-	-	-	-	-
Stage 2	623	1217	-	350	682	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	118	69	664	78	71	462	926	-	-	608	-	-
Stage 1	408	450	-	198	258	-	-	-	-	-	-	-
Stage 2	440	252	-	639	448	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	97	59	662	67	61	460	924	-	-	606	-	-
Mov Cap-2 Maneuver	97	59	-	67	61	-	-	-	-	-	-	-
Stage 1	361	434	-	175	228	-	-	-	-	-	-	-
Stage 2	365	223	-	601	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.3	29.6	0.8	0.4
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	269	181	606	-
HCM Lane V/C Ratio	0.041	-	-	0.063	0.195	0.021	-
HCM Control Delay (s)	9.1	0.5	-	19.3	29.6	11.1	0.2
HCM Lane LOS	A	A	-	C	D	B	A
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.7	0.1	-

**Intersection**

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	55	22	79	73	0
Future Vol, veh/h	0	55	22	79	73	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	63	25	90	83	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	115	0	70
Stage 1	-	-	70
Stage 2	-	-	63
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1474	-	993
Stage 1	-	-	953
Stage 2	-	-	960
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	993
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	953
Stage 2	-	-	960

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	861
HCM Lane V/C Ratio	-	-	-	-	0.096
HCM Control Delay (s)	0	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3



**Intersection**

Int Delay, s/veh 7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	45	3	2	75	1	16	22	3	0	10	3
Future Vol, veh/h	1	45	3	2	75	1	16	22	3	0	10	3
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	3	3	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	51	3	2	85	1	18	25	3	0	11	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	121	80	17	105	80	31	16	0	0	29	0	0
Stage 1	14	14	-	64	64	-	-	-	-	-	-	-
Stage 2	107	66	-	41	16	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	854	810	1062	875	810	1043	1602	-	-	1584	-	-
Stage 1	1006	884	-	947	842	-	-	-	-	-	-	-
Stage 2	898	840	-	974	882	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	774	800	1058	820	800	1040	1598	-	-	1580	-	-
Mov Cap-2 Maneuver	774	800	-	820	800	-	-	-	-	-	-	-
Stage 1	994	883	-	936	832	-	-	-	-	-	-	-
Stage 2	794	830	-	912	881	-	-	-	-	-	-	-












Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10	2.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1598	-	-	812	803	1580	-
HCM Lane V/C Ratio	0.011	-	-	0.069	0.11	-	-
HCM Control Delay (s)	7.3	0	-	9.8	10	0	-
HCM Lane LOS	A	A	-	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-

# HCM 2010 Signalized Intersection Summary























## 1: SR-75 & Fox Acres

4/17/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	424	1026	384	60	46	210		
Future Volume (veh/h)	424	1026	384	60	46	210		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	482	1166	436	68	52	239		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	746	2559	1627	252	323	289		
Arrive On Green	0.15	0.72	0.53	0.53	0.18	0.18		
Sat Flow, veh/h	1774	3632	3165	476	1774	1583		
Grp Volume(v), veh/h	482	1166	250	254	52	239		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1779	1774	1583		
Q Serve(g_s), s	9.5	11.5	6.5	6.6	2.1	12.3		
Cycle Q Clear(g_c), s	9.5	11.5	6.5	6.6	2.1	12.3		
Prop In Lane	1.00			0.27	1.00	1.00		
Lane Grp Cap(c), veh/h	746	2559	937	942	323	289		
V/C Ratio(X)	0.65	0.46	0.27	0.27	0.16	0.83		
Avail Cap(c_a), veh/h	824	2559	937	942	652	582		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	6.2	4.8	10.9	10.9	29.1	33.2		
Incr Delay (d2), s/veh	1.5	0.6	0.7	0.7	0.2	6.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.9	5.7	3.4	3.4	1.0	5.9		
LnGrp Delay(d),s/veh	7.7	5.4	11.6	11.6	29.3	39.3		
LnGrp LOS	A	A	B	B	C	D		
Approach Vol, veh/h		1648	504		291			
Approach Delay, s/veh		6.1	11.6		37.5			
Approach LOS		A	B		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.3	48.7				65.0		19.4
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	41.0				61.0		31.0
Max Q Clear Time (g_c+I1), s	11.5	8.6				13.5		14.3
Green Ext Time (p_c), s	0.9	9.0				9.5		1.1
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			11.0					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	63	75	172	57	40	72	578	38	42	932	36
Future Volume (veh/h)	72	63	75	172	57	40	72	578	38	42	932	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	82	72	85	195	65	45	82	657	43	48	1059	41
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	520	500	423	504	500	423	300	1419	93	424	1462	57
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1145	1676	1418	1098	1676	1418	459	3034	198	667	3126	121
Grp Volume(v), veh/h	82	72	85	195	65	45	82	345	355	48	540	560
Grp Sat Flow(s),veh/h/ln	1145	1676	1418	1098	1676	1418	459	1593	1639	667	1593	1654
Q Serve(g_s), s	1.9	1.1	1.5	5.4	1.0	0.8	6.0	5.0	5.0	1.8	9.3	9.3
Cycle Q Clear(g_c), s	2.9	1.1	1.5	6.5	1.0	0.8	15.3	5.0	5.0	6.8	9.3	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		0.07
Lane Grp Cap(c), veh/h	520	500	423	504	500	423	300	745	767	424	745	774
V/C Ratio(X)	0.16	0.14	0.20	0.39	0.13	0.11	0.27	0.46	0.46	0.11	0.72	0.72
Avail Cap(c_a), veh/h	714	784	663	689	784	663	300	745	767	424	745	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	8.8	9.0	11.2	8.8	8.7	13.5	6.2	6.2	8.5	7.3	7.3
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.5	0.1	0.1	2.2	2.1	2.0	0.5	6.1	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.6	1.7	0.4	0.3	0.9	2.6	2.7	0.4	5.3	5.5
LnGrp Delay(d),s/veh	10.0	8.9	9.2	11.7	8.9	8.8	15.7	8.2	8.2	9.1	13.4	13.2
LnGrp LOS	A	A	A	B	A	A	B	A	A	A	B	B
Approach Vol, veh/h		239			305			782			1148	
Approach Delay, s/veh		9.4			10.6			9.0			13.1	
Approach LOS		A			B			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		14.2		20.0		14.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		17.3		4.9		11.3		8.5				
Green Ext Time (p_c), s		0.0		1.8		3.9		1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				11.1								
HCM 2010 LOS				B								

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	8.3		
Intersection LOS	A		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	191	527	234
Demand Flow Rate, veh/h	195	538	239
Vehicles Circulating, veh/h	240	84	137
Vehicles Exiting, veh/h	382	292	298
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	6.4	9.9	6.1
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	195	538	239
Cap Entry Lane, veh/h	889	1039	985
Entry HV Adj Factor	0.979	0.980	0.979
Flow Entry, veh/h	191	527	234
Cap Entry, veh/h	871	1016	964
V/C Ratio	0.219	0.519	0.243
Control Delay, s/veh	6.4	9.9	6.1
LOS	A	A	A
95th %tile Queue, veh	1	3	1

**Intersection**

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	70	15	0	2	29	5	0	4	53	10
Future Vol, veh/h	0	4	70	15	0	2	29	5	0	4	53	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	80	17	0	2	33	6	0	5	60	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.8	7.5	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	4%	6%	20%
Vol Thru, %	79%	79%	81%	79%
Vol Right, %	15%	17%	14%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	89	36	56
LT Vol	4	4	2	11
Through Vol	53	70	29	44
RT Vol	10	15	5	1
Lane Flow Rate	76	101	41	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.088	0.116	0.048	0.075
Departure Headway (Hd)	4.152	4.116	4.184	4.268
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	850	859	842	827
Service Time	2.242	2.2	2.282	2.36
HCM Lane V/C Ratio	0.089	0.118	0.049	0.077
HCM Control Delay	7.7	7.8	7.5	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.2	0.2

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	11	44	1
Future Vol, veh/h	0	11	44	1
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	50	1
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.7
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 0.4

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	16	1	467	42	0	246
Future Vol, veh/h	16	1	467	42	0	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	1	531	48	0	280

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	835	555	0	0	578	0
Stage 1	555	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	338	531	-	-	996	-
Stage 1	575	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	338	531	-	-	996	-
Mov Cap-2 Maneuver	338	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	16.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	345	996	-
HCM Lane V/C Ratio	-	-	0.056	-	-
HCM Control Delay (s)	-	-	16.1	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

**Intersection**

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	44	195	130	3	4	62
Future Vol, veh/h	44	195	130	3	4	62
Conflicting Peds, #/hr	7	0	0	7	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	222	148	3	5	70

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	152	0	157
Stage 1	-	-	150
Stage 2	-	-	322
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1429	-	889
Stage 1	-	-	878
Stage 2	-	-	735
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1421	-	883
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	877
Stage 2	-	-	705

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1421	-	-	-	848
HCM Lane V/C Ratio	0.035	-	-	-	0.088
HCM Control Delay (s)	7.6	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3



**Intersection**

Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	4	35	41	2	40	116
Future Vol, veh/h	4	35	41	2	40	116
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	40	47	2	45	132

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	271	49	0	0	49	0
Stage 1	48	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	718	1020	-	-	1558	-
Stage 1	974	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	695	1019	-	-	1557	-
Mov Cap-2 Maneuver	695	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	973	1557	-
HCM Lane V/C Ratio	-	-	0.046	0.029	-
HCM Control Delay (s)	-	-	8.9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

**Intersection**

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	1	195	134	33	55	2
Future Vol, veh/h	1	195	134	33	55	2
Conflicting Peds, #/hr	2	0	0	4	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	222	152	38	63	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	191	0	396
Stage 1	-	-	172
Stage 2	-	-	224
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1383	-	609
Stage 1	-	-	858
Stage 2	-	-	813
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1381	-	608
Mov Cap-2 Maneuver	-	-	657
Stage 1	-	-	857
Stage 2	-	-	812

Approach	EB	WB	SE
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1381	-	-	-	663
HCM Lane V/C Ratio	0.001	-	-	-	0.098
HCM Control Delay (s)	7.6	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

**Intersection**

Int Delay, s/veh 4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	18	158	3	123	182	1
Future Vol, veh/h	18	158	3	123	182	1
Conflicting Peds, #/hr	0	25	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	180	3	140	207	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	258
Stage 1	-	-	111
Stage 2	-	-	147
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1371	731
Stage 1	-	-	914
Stage 2	-	-	880
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1371	714
Mov Cap-2 Maneuver	-	-	729
Stage 1	-	-	913
Stage 2	-	-	860

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	729	941	-	-	1371	-
HCM Lane V/C Ratio	0.284	0.001	-	-	0.002	-
HCM Control Delay (s)	11.9	8.8	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-

**Intersection**

Int Delay, s/veh 5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	76	0	13	6	1	50
Future Vol, veh/h	76	0	13	6	1	50
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	0	15	7	1	57

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	77	18	0	0	22	0
Stage 1	18	-	-	-	-	-
Stage 2	59	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	926	1061	-	-	1593	-
Stage 1	1005	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	925	1061	-	-	1593	-
Mov Cap-2 Maneuver	868	-	-	-	-	-
Stage 1	1005	-	-	-	-	-
Stage 2	963	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	868	1593	-
HCM Lane V/C Ratio	-	-	0.099	0.001	-
HCM Control Delay (s)	-	-	9.6	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

**Intersection**

Int Delay, s/veh 7.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	52	0	0	13	0	0
Future Vol, veh/h	52	0	0	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	0	0	15	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	7	7	0
Stage 1	7	-	-
Stage 2	0	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1014	1075	1603
Stage 1	1016	-	-
Stage 2	-	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1014	1075	1603
Mov Cap-2 Maneuver	927	-	-
Stage 1	1016	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	927	1603
HCM Lane V/C Ratio	-	-	0.064	-
HCM Control Delay (s)	-	-	9.1	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

**Intersection**

Int Delay, s/veh 7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	5	44	26	4	42	31	621	74	36	1115	22
Future Vol, veh/h	1	5	44	26	4	42	31	621	74	36	1115	22
Conflicting Peds, #/hr	4	0	6	6	0	4	11	0	2	2	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	6	50	30	5	48	35	706	84	41	1267	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1799	2233	663	1548	2204	412	1298	0	0	796	0	0
Stage 1	1367	1367	-	824	824	-	-	-	-	-	-	-
Stage 2	432	866	-	724	1380	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	50	42	404	78	44	589	530	-	-	822	-	-
Stage 1	155	213	-	333	385	-	-	-	-	-	-	-
Stage 2	572	369	-	383	210	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	32	30	398	45	31	581	525	-	-	814	-	-
Mov Cap-2 Maneuver	32	30	-	45	31	-	-	-	-	-	-	-
Stage 1	136	174	-	291	337	-	-	-	-	-	-	-
Stage 2	451	323	-	263	171	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.8	146.8	1.1	1.1
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	525	-	-	162	92	814	-	-
HCM Lane V/C Ratio	0.067	-	-	0.351	0.889	0.05	-	-
HCM Control Delay (s)	12.3	0.7	-	38.8	146.8	9.7	0.8	-
HCM Lane LOS	B	A	-	E	F	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.5	4.9	0.2	-	-

**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	2	89	23	49	76	1
Future Vol, veh/h	2	89	23	49	76	1
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	101	26	56	86	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	83	0	55
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1514	-	1012
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1514	-	1011
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1514	-	-	-	830
HCM Lane V/C Ratio	0.002	-	-	-	0.105
HCM Control Delay (s)	7.4	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4

**Intersection**

Int Delay, s/veh 7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	70	12	3	62	0	7	18	8	5	12	4
Future Vol, veh/h	2	70	12	3	62	0	7	18	8	5	12	4
Conflicting Peds, #/hr	1	0	7	7	0	1	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	80	14	3	70	0	8	20	9	6	14	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	117	86	25	129	85	34	25	0	0	37	0	0
Stage 1	34	34	-	48	48	-	-	-	-	-	-	-
Stage 2	83	52	-	81	37	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	859	804	1051	844	805	1039	1589	-	-	1574	-	-
Stage 1	982	867	-	965	855	-	-	-	-	-	-	-
Stage 2	925	852	-	927	864	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	789	788	1043	758	788	1031	1586	-	-	1571	-	-
Mov Cap-2 Maneuver	789	788	-	758	788	-	-	-	-	-	-	-
Stage 1	971	858	-	955	846	-	-	-	-	-	-	-
Stage 2	842	843	-	825	856	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	10	1.5	1.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1586	-	-	817	787	1571	-	-
HCM Lane V/C Ratio	0.005	-	-	0.117	0.094	0.004	-	-
HCM Control Delay (s)	7.3	0	-	10	10	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0	-	-



## **APPENDIX C – 2042 BASELINE ANALYSIS RESULTS**

























HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/17/2017

Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	315	550	1389	145	87	665		
Future Volume (veh/h)	315	550	1389	145	87	665		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	358	625	1578	165	99	756		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	291	2220	1501	155	532	475		
Arrive On Green	0.13	0.63	0.46	0.46	0.30	0.30		
Sat Flow, veh/h	1774	3632	3331	335	1774	1583		
Grp Volume(v), veh/h	358	625	854	889	99	756		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1804	1774	1583		
Q Serve(g_s), s	14.0	8.8	51.0	51.0	4.6	33.0		
Cycle Q Clear(g_c), s	14.0	8.8	51.0	51.0	4.6	33.0		
Prop In Lane	1.00			0.19	1.00	1.00		
Lane Grp Cap(c), veh/h	291	2220	820	836	532	475		
V/C Ratio(X)	1.23	0.28	1.04	1.06	0.19	1.59		
Avail Cap(c_a), veh/h	291	2220	820	836	532	475		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	36.8	9.3	29.5	29.5	28.5	38.5		
Incr Delay (d2), s/veh	129.5	0.3	42.7	49.1	0.2	276.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	19.3	4.4	34.6	36.7	2.3	50.8		
LnGrp Delay(d),s/veh	166.3	9.6	72.2	78.6	28.7	314.5		
LnGrp LOS	F	A	F	F	C	F		
Approach Vol, veh/h		983	1743		855			
Approach Delay, s/veh		66.7	75.5		281.4			
Approach LOS		E	E		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.0	55.0				73.0		37.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.0	51.0				69.0		33.0
Max Q Clear Time (g_c+I1), s	16.0	53.0				10.8		35.0
Green Ext Time (p_c), s	0.0	0.0				18.2		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			122.2					
HCM 2010 LOS			F					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	41	56	185	49	70	41	1270	42	25	581	17
Future Volume (veh/h)	150	41	56	185	49	70	41	1270	42	25	581	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	170	47	64	210	56	80	47	1443	48	28	660	19
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	409	347	379	409	347	477	1946	65	217	1956	56
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1122	1676	1423	1148	1676	1423	681	3146	104	316	3162	91
Grp Volume(v), veh/h	170	47	64	210	56	80	47	729	762	28	332	347
Grp Sat Flow(s),veh/h/ln	1122	1676	1423	1148	1676	1423	681	1593	1658	316	1593	1660
Q Serve(g_s), s	8.1	1.3	2.1	10.1	1.5	2.6	2.1	18.8	18.9	4.0	5.9	5.9
Cycle Q Clear(g_c), s	9.6	1.3	2.1	11.4	1.5	2.6	7.9	18.8	18.9	22.8	5.9	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.05
Lane Grp Cap(c), veh/h	368	409	347	379	409	347	477	985	1025	217	985	1027
V/C Ratio(X)	0.46	0.11	0.18	0.55	0.14	0.23	0.10	0.74	0.74	0.13	0.34	0.34
Avail Cap(c_a), veh/h	403	461	391	414	461	391	477	985	1025	217	985	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	17.1	17.4	21.6	17.2	17.6	7.3	7.8	7.8	15.9	5.3	5.3
Incr Delay (d2), s/veh	0.9	0.1	0.3	1.3	0.2	0.3	0.4	5.0	4.9	1.2	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.6	0.8	3.3	0.7	1.1	0.4	9.5	9.8	0.4	2.7	2.9
LnGrp Delay(d),s/veh	21.9	17.2	17.7	22.9	17.4	18.0	7.7	12.8	12.7	17.1	6.3	6.2
LnGrp LOS	C	B	B	C	B	B	A	B	B	B	A	A
Approach Vol, veh/h		281			346			1538			707	
Approach Delay, s/veh		20.1			20.9			12.6			6.7	
Approach LOS		C			C			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		18.2		40.0		18.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		36.0		16.0		36.0		16.0				
Max Q Clear Time (g_c+I1), s		20.9		11.6		24.8		13.4				
Green Ext Time (p_c), s		12.2		1.2		9.3		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				12.9								
HCM 2010 LOS				B								

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	20.5		
Intersection LOS	C		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	637	523	396
Demand Flow Rate, veh/h	649	533	404
Vehicles Circulating, veh/h	415	78	483
Vehicles Exiting, veh/h	196	809	581
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	32.7	9.7	15.2
Approach LOS	D	A	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	649	533	404
Cap Entry Lane, veh/h	746	1045	697
Entry HV Adj Factor	0.982	0.981	0.979
Flow Entry, veh/h	637	523	396
Cap Entry, veh/h	732	1023	682
V/C Ratio	0.870	0.511	0.580
Control Delay, s/veh	32.7	9.7	15.2
LOS	D	A	C
95th %tile Queue, veh	11	3	4

**Intersection**

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	13	38	7	0	3	18	4	0	3	56	10
Future Vol, veh/h	0	13	38	7	0	3	18	4	0	3	56	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	43	8	0	3	20	5	0	3	64	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.7	7.5	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	22%	12%	11%
Vol Thru, %	81%	66%	72%	85%
Vol Right, %	14%	12%	16%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	58	25	89
LT Vol	3	13	3	10
Through Vol	56	38	18	76
RT Vol	10	7	4	3
Lane Flow Rate	78	66	28	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.089	0.078	0.034	0.117
Departure Headway (Hd)	4.098	4.238	4.331	4.161
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	863	831	832	852
Service Time	2.177	2.335	2.331	2.233
HCM Lane V/C Ratio	0.09	0.079	0.034	0.119
HCM Control Delay	7.6	7.7	7.5	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.1	0.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	76	3
Future Vol, veh/h	0	10	76	3
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	86	3
Number of Lanes	0	0	1	0

**Approach**

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.8
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 1.6

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	7	454	6	3	703
Future Vol, veh/h	49	7	454	6	3	703
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	8	516	7	3	799

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1326	521	0	0	524	0
Stage 1	520	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	172	555	-	-	1043	-
Stage 1	597	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	171	554	-	-	1042	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	33.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	187	1042	-
HCM Lane V/C Ratio	-	-	0.34	0.003	-
HCM Control Delay (s)	-	-	33.9	8.5	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0	-

**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	53	422	238	3	30	112
Future Vol, veh/h	53	422	238	3	30	112
Conflicting Peds, #/hr	14	0	0	14	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	480	270	3	34	127

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	288	0	886
Stage 1	-	-	286
Stage 2	-	-	600
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1274	-	315
Stage 1	-	-	763
Stage 2	-	-	548
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1259	-	288
Mov Cap-2 Maneuver	-	-	288
Stage 1	-	-	754
Stage 2	-	-	506

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1259	-	-	-	548
HCM Lane V/C Ratio	0.048	-	-	-	0.294
HCM Control Delay (s)	8	0	-	-	14.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.2



**Intersection**

Int Delay, s/veh 2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	3	41	98	3	46	141
Future Vol, veh/h	3	41	98	3	46	141
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	47	111	3	52	160

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	378	116	0
Stage 1	113	-	-
Stage 2	265	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	624	936	1474
Stage 1	912	-	-
Stage 2	779	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	598	934	1470
Mov Cap-2 Maneuver	598	-	-
Stage 1	912	-	-
Stage 2	747	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	900	1470
HCM Lane V/C Ratio	-	-	0.056	0.036
HCM Control Delay (s)	-	-	9.2	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

**Intersection**

Int Delay, s/veh 3.8

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	3	457	235	66	178	3
Future Vol, veh/h	3	457	235	66	178	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	519	267	75	202	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	342	0	831
Stage 1	-	-	305
Stage 2	-	-	526
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1217	-	340
Stage 1	-	-	748
Stage 2	-	-	593
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1217	-	339
Mov Cap-2 Maneuver	-	-	452
Stage 1	-	-	748
Stage 2	-	-	592

Approach	EB	WB	SE
HCM Control Delay, s	0.1	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1217	-	-	-	455
HCM Lane V/C Ratio	0.003	-	-	-	0.452
HCM Control Delay (s)	8	-	-	-	19.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2.3

**Intersection**

Int Delay, s/veh 5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	112	520	11	23	274	1
Future Vol, veh/h	112	520	11	23	274	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	127	591	13	26	311	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	474
Stage 1	-	-	423
Stage 2	-	-	51
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	883	549
Stage 1	-	-	661
Stage 2	-	-	971
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	883	541
Mov Cap-2 Maneuver	-	-	579
Stage 1	-	-	661
Stage 2	-	-	957

Approach	EB	WB	NB
HCM Control Delay, s	0	3	18.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	579	631	-	-	883	-
HCM Lane V/C Ratio	0.538	0.002	-	-	0.014	-
HCM Control Delay (s)	18.2	10.7	-	-	9.1	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	3.2	0	-	-	0	-

**Intersection**

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	17	1	46	76	0	19
Future Vol, veh/h	17	1	46	76	0	19
Conflicting Peds, #/hr	3	3	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	1	52	86	0	22

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	120	101	0
Stage 1	98	-	-
Stage 2	22	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	876	954	1441
Stage 1	926	-	-
Stage 2	1001	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	872	949	1437
Mov Cap-2 Maneuver	830	-	-
Stage 1	924	-	-
Stage 2	998	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	836	1437
HCM Lane V/C Ratio	-	-	0.024	-
HCM Control Delay (s)	-	-	9.4	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

**Intersection**

Int Delay, s/veh 2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	19	0	0	47	0	0
Future Vol, veh/h	19	0	0	47	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	0	53	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	27	27	0 0 53 0
Stage 1	27	-	- - - -
Stage 2	0	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	988	1048	- - 1553 -
Stage 1	996	-	- - - -
Stage 2	-	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	988	1048	- - 1553 -
Mov Cap-2 Maneuver	909	-	- - - -
Stage 1	996	-	- - - -
Stage 2	-	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 909	1553	-
HCM Lane V/C Ratio	-	- 0.024	-	-
HCM Control Delay (s)	-	- 9.1	0	-
HCM Lane LOS	-	- A	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

**Intersection**

Int Delay, s/veh 11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	1	17	10	1	32	46	1347	59	15	798	10
Future Vol, veh/h	3	1	17	10	1	32	46	1347	59	15	798	10
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	19	11	1	36	52	1531	67	17	907	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1819	2651	464	2159	2623	804	919	0	0	1599	0	0
Stage 1	948	948	-	1670	1670	-	-	-	-	-	-	-
Stage 2	871	1703	-	489	953	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	48	23	545	27	24	326	738	-	-	406	-	-
Stage 1	280	338	-	100	151	-	-	-	-	-	-	-
Stage 2	312	146	-	529	336	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	16	7	543	~ 10	7	325	736	-	-	405	-	-
Mov Cap-2 Maneuver	16	7	-	~ 10	7	-	-	-	-	-	-	-
Stage 1	91	309	-	33	49	-	-	-	-	-	-	-
Stage 2	88	48	-	463	307	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	105	\$ 466.4	3.3	0.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	736	-	-	58	35	405	-	-
HCM Lane V/C Ratio	0.071	-	-	0.411	1.396	0.042	-	-
HCM Control Delay (s)	10.3	3.2	-	105\$	466.4	14.3	0.6	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.5	5.2	0.1	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	77	31	111	102	0
Future Vol, veh/h	0	77	31	111	102	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	88	35	126	116	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	161	0	98
Stage 1	-	-	98
Stage 2	-	-	88
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1418	-	958
Stage 1	-	-	926
Stage 2	-	-	935
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1418	-	958
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	926
Stage 2	-	-	935

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1418	-	-	-	803
HCM Lane V/C Ratio	-	-	-	-	0.144
HCM Control Delay (s)	0	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

**Intersection**

Int Delay, s/veh 7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	63	4	3	105	1	22	31	4	0	14	4
Future Vol, veh/h	1	63	4	3	105	1	22	31	4	0	14	4
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	4	4	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	72	5	3	119	1	25	35	5	0	16	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	168	110	23	145	109	43	21	0	0	41	0	0
Stage 1	19	19	-	88	88	-	-	-	-	-	-	-
Stage 2	149	91	-	57	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	796	780	1054	824	781	1027	1595	-	-	1568	-	-
Stage 1	1000	880	-	920	822	-	-	-	-	-	-	-
Stage 2	854	820	-	955	878	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	689	766	1050	749	767	1023	1590	-	-	1563	-	-
Mov Cap-2 Maneuver	689	766	-	749	767	-	-	-	-	-	-	-
Stage 1	983	879	-	905	808	-	-	-	-	-	-	-
Stage 2	713	806	-	871	877	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.6	2.8	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1590	-	-	777	768	1563	-	-
HCM Lane V/C Ratio	0.016	-	-	0.099	0.161	-	-	-
HCM Control Delay (s)	7.3	0	-	10.1	10.6	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.6	0	-	-



























HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/17/2017

Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	607	1469	550	86	67	308		
Future Volume (veh/h)	607	1469	550	86	67	308		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	690	1669	625	98	76	350		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	747	2407	977	153	378	338		
Arrive On Green	0.31	0.68	0.32	0.32	0.21	0.21		
Sat Flow, veh/h	1774	3632	3161	480	1774	1583		
Grp Volume(v), veh/h	690	1669	360	363	76	350		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1778	1774	1583		
Q Serve(g_s), s	19.2	21.4	13.1	13.1	2.6	16.0		
Cycle Q Clear(g_c), s	19.2	21.4	13.1	13.1	2.6	16.0		
Prop In Lane	1.00			0.27	1.00	1.00		
Lane Grp Cap(c), veh/h	747	2407	563	566	378	338		
V/C Ratio(X)	0.92	0.69	0.64	0.64	0.20	1.04		
Avail Cap(c_a), veh/h	886	2407	563	566	378	338		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	13.4	7.3	21.9	21.9	24.2	29.5		
Incr Delay (d2), s/veh	13.6	1.7	5.5	5.5	0.3	58.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	16.2	10.8	7.3	7.3	1.3	12.4		
LnGrp Delay(d),s/veh	27.0	8.9	27.4	27.4	24.5	88.1		
LnGrp LOS	C	A	C	C	C	F		
Approach Vol, veh/h		2359	723		426			
Approach Delay, s/veh		14.2	27.4		76.8			
Approach LOS		B	C		E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	27.1	27.9				55.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	29.0	18.0				51.0		16.0
Max Q Clear Time (g_c+I1), s	21.2	15.1				23.4		18.0
Green Ext Time (p_c), s	2.0	2.5				14.5		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			24.5					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	88	105	241	80	56	101	809	53	59	1305	50
Future Volume (veh/h)	101	88	105	241	80	56	101	809	53	59	1305	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	115	100	119	274	91	64	115	919	60	67	1483	57
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	402	339	295	402	339	198	1982	129	355	2043	78
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1097	1676	1413	1036	1676	1413	302	3034	198	515	3127	120
Grp Volume(v), veh/h	115	100	119	274	91	64	115	482	497	67	754	786
Grp Sat Flow(s),veh/h/ln	1097	1676	1413	1036	1676	1413	302	1593	1640	515	1593	1654
Q Serve(g_s), s	7.1	3.6	5.2	14.4	3.3	2.7	25.4	11.3	11.3	5.6	23.4	23.6
Cycle Q Clear(g_c), s	10.3	3.6	5.2	18.0	3.3	2.7	49.0	11.3	11.3	16.9	23.4	23.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		0.07
Lane Grp Cap(c), veh/h	311	402	339	295	402	339	198	1041	1071	355	1041	1081
V/C Ratio(X)	0.37	0.25	0.35	0.93	0.23	0.19	0.58	0.46	0.46	0.19	0.72	0.73
Avail Cap(c_a), veh/h	311	402	339	295	402	339	198	1041	1071	355	1041	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	23.0	23.7	32.3	22.9	22.7	26.2	6.5	6.5	10.7	8.6	8.6
Incr Delay (d2), s/veh	0.7	0.3	0.6	34.5	0.3	0.3	11.8	1.5	1.4	1.2	4.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.7	2.1	8.5	1.5	1.1	3.0	5.3	5.4	0.9	11.3	11.8
LnGrp Delay(d),s/veh	27.8	23.4	24.3	66.7	23.2	23.0	38.0	8.0	7.9	11.8	12.9	12.9
LnGrp LOS	C	C	C	E	C	C	D	A	A	B	B	B
Approach Vol, veh/h		334			429			1094			1607	
Approach Delay, s/veh		25.2			51.0			11.1			12.9	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.0		22.0		53.0		22.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		49.0		18.0		49.0		18.0				
Max Q Clear Time (g_c+I1), s		51.0		12.3		25.6		20.0				
Green Ext Time (p_c), s		0.0		1.8		20.3		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.2									
HCM 2010 LOS			B									

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	14.0		
Intersection LOS	B		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	274	754	335
Demand Flow Rate, veh/h	280	769	341
Vehicles Circulating, veh/h	343	119	196
Vehicles Exiting, veh/h	545	418	427
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	8.8	18.5	8.1
Approach LOS	A	C	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	280	769	341
Cap Entry Lane, veh/h	802	1003	929
Entry HV Adj Factor	0.979	0.981	0.981
Flow Entry, veh/h	274	754	335
Cap Entry, veh/h	785	982	911
V/C Ratio	0.349	0.768	0.367
Control Delay, s/veh	8.8	18.5	8.1
LOS	A	C	A
95th %tile Queue, veh	2	8	2

**Intersection**

Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	98	21	0	3	41	7	0	6	74	14
Future Vol, veh/h	0	6	98	21	0	3	41	7	0	6	74	14
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	111	24	0	3	47	8	0	7	84	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.3	7.8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	5%	6%	19%
Vol Thru, %	79%	78%	80%	79%
Vol Right, %	15%	17%	14%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	125	51	78
LT Vol	6	6	3	15
Through Vol	74	98	41	62
RT Vol	14	21	7	1
Lane Flow Rate	107	142	58	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0.131	0.172	0.072	0.112
Departure Headway (Hd)	4.414	4.359	4.473	4.54
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	825	802	791
Service Time	2.433	2.377	2.493	2.559
HCM Lane V/C Ratio	0.131	0.172	0.072	0.113
HCM Control Delay	8.1	8.3	7.8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.2	0.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	15	62	1
Future Vol, veh/h	0	15	62	1
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	17	70	1
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.1
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 0.5

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	669	60	0	352
Future Vol, veh/h	23	1	669	60	0	352
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	760	68	0	400

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1194	794	0	0	828	0
Stage 1	794	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	206	388	-	-	803	-
Stage 1	445	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	206	388	-	-	803	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	24.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	210	803	-
HCM Lane V/C Ratio	-	-	0.13	-	-
HCM Control Delay (s)	-	-	24.7	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

**Intersection**

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	63	279	186	4	6	89
Future Vol, veh/h	63	279	186	4	6	89
Conflicting Peds, #/hr	10	0	0	10	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	317	211	5	7	101

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	217	0	675
Stage 1	-	-	215
Stage 2	-	-	460
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1353	-	419
Stage 1	-	-	821
Stage 2	-	-	636
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1342	-	391
Mov Cap-2 Maneuver	-	-	391
Stage 1	-	-	820
Stage 2	-	-	594

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1342	-	-	-	756
HCM Lane V/C Ratio	0.053	-	-	-	0.143
HCM Control Delay (s)	7.8	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

**Intersection**

Int Delay, s/veh 2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	6	49	57	3	56	162
Future Vol, veh/h	6	49	57	3	56	162
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	56	65	3	64	184

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	377	67	0
Stage 1	66	-	-
Stage 2	311	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	625	997	1533
Stage 1	957	-	-
Stage 2	743	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	595	996	1532
Mov Cap-2 Maneuver	595	-	-
Stage 1	957	-	-
Stage 2	707	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	928	1532
HCM Lane V/C Ratio	-	-	0.067	0.042
HCM Control Delay (s)	-	-	9.2	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1



**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	1	226	192	47	79	3
Future Vol, veh/h	1	226	192	47	79	3
Conflicting Peds, #/hr	6	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	257	218	53	90	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	273	0	505
Stage 1	-	-	246
Stage 2	-	-	259
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1290	-	527
Stage 1	-	-	795
Stage 2	-	-	784
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1284	-	526
Mov Cap-2 Maneuver	-	-	600
Stage 1	-	-	794
Stage 2	-	-	783

Approach	EB	WB	SE
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1284	-	-	-	605
HCM Lane V/C Ratio	0.001	-	-	-	0.154
HCM Control Delay (s)	7.8	-	-	-	12
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

**Intersection**

Int Delay, s/veh 5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	26	226	4	176	261	1
Future Vol, veh/h	26	226	4	176	261	1
Conflicting Peds, #/hr	0	36	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	257	5	200	297	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	287
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1275
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1275
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	656	885	-	-	1275	-
HCM Lane V/C Ratio	0.452	0.001	-	-	0.004	-
HCM Control Delay (s)	14.9	9.1	-	-	7.8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	2.4	0	-	-	0	-

**Intersection**

Int Delay, s/veh 5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	109	0	19	9	1	72
Future Vol, veh/h	109	0	19	9	1	72
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	0	22	10	1	82

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	111	27	0 0 32 0
Stage 1	27	-	- - - -
Stage 2	84	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	886	1048	- - 1580 -
Stage 1	996	-	- - - -
Stage 2	939	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	885	1048	- - 1580 -
Mov Cap-2 Maneuver	841	-	- - - -
Stage 1	996	-	- - - -
Stage 2	938	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 841	1580	-
HCM Lane V/C Ratio	-	- 0.147	0.001	-
HCM Control Delay (s)	-	- 10	7.3	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.5	0	-

**Intersection**

Int Delay, s/veh 7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	74	0	0	19	0	0
Future Vol, veh/h	74	0	0	19	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	0	22	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	11	11	0
Stage 1	11	-	-
Stage 2	0	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1009	1070	1593
Stage 1	1012	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1009	1070	1593
Mov Cap-2 Maneuver	924	-	-
Stage 1	1012	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	924	1593
HCM Lane V/C Ratio	-	-	0.091	-
HCM Control Delay (s)	-	-	9.3	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0

**Intersection**

Int Delay, s/veh 25.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	7	62	36	6	59	43	869	104	50	1561	31
Future Vol, veh/h	1	7	62	36	6	59	43	869	104	50	1561	31
Conflicting Peds, #/hr	6	0	8	8	0	6	15	0	3	3	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	70	41	7	67	49	988	118	57	1774	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2516	3124	928	2165	3083	576	1817	0	0	1114	0	0
Stage 1	1913	1913	-	1152	1152	-	-	-	-	-	-	-
Stage 2	603	1211	-	1013	1931	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	14	11	270	~ 26	12	460	334	-	-	623	-	-
Stage 1	70	114	-	210	270	-	-	-	-	-	-	-
Stage 2	453	253	-	256	112	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 1	~ 7	265	-	7	451	330	-	-	615	-	-
Mov Cap-2 Maneuver	~ 1	~ 7	-	-	7	-	-	-	-	-	-	-
Stage 1	42	113	-	125	161	-	-	-	-	-	-	-
Stage 2	219	151	-	173	111	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 981.6		3.5	0.3
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	330	-	-	31	-	615	-
HCM Lane V/C Ratio	0.148	-	-	2.566	-	0.092	-
HCM Control Delay (s)	17.8	3.2	-	\$ 981.6	-	11.4	0
HCM Lane LOS	C	A	-	F	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	9.3	-	0.3	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	3	125	32	69	106	1
Future Vol, veh/h	3	125	32	69	106	1
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	142	36	78	120	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	116	0	77
Stage 1	-	-	77
Stage 2	-	-	149
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1473	-	984
Stage 1	-	-	946
Stage 2	-	-	879
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1473	-	983
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	945
Stage 2	-	-	877

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1473	-	-	-	761
HCM Lane V/C Ratio	0.002	-	-	-	0.16
HCM Control Delay (s)	7.5	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

**Intersection**

Int Delay, s/veh 8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	98	17	4	87	0	10	25	11	7	17	6
Future Vol, veh/h	3	98	17	4	87	0	10	25	11	7	17	6
Conflicting Peds, #/hr	1	0	10	10	0	1	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	111	19	5	99	0	11	28	13	8	19	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	166	123	36	181	119	48	36	0	0	51	0	0
Stage 1	49	49	-	67	67	-	-	-	-	-	-	-
Stage 2	117	74	-	114	52	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	798	767	1037	781	771	1021	1575	-	-	1555	-	-
Stage 1	964	854	-	943	839	-	-	-	-	-	-	-
Stage 2	888	833	-	891	852	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	703	745	1026	665	749	1010	1571	-	-	1551	-	-
Mov Cap-2 Maneuver	703	745	-	665	749	-	-	-	-	-	-	-
Stage 1	949	843	-	929	826	-	-	-	-	-	-	-
Stage 2	774	820	-	753	841	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	10.6	1.6	1.7
HCM LOS	B	B		

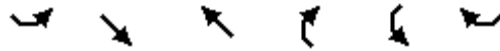
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	774	745	1551	-
HCM Lane V/C Ratio	0.007	-	-	0.173	0.139	0.005	-
HCM Control Delay (s)	7.3	0	-	10.6	10.6	7.3	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.6	0.5	0	-

## **APPENDIX D – 2042 WITH PROJECT ANALYSIS RESULTS**



HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

























4/17/2017



Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	381	550	1389	176	101	772		
Future Volume (veh/h)	381	550	1389	176	101	772		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	433	625	1578	200	115	877		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	343	2199	1357	170	570	509		
Arrive On Green	0.16	0.62	0.43	0.43	0.32	0.32		
Sat Flow, veh/h	1774	3632	3260	396	1774	1583		
Grp Volume(v), veh/h	433	625	872	906	115	877		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1793	1774	1583		
Q Serve(g_s), s	23.0	11.4	60.0	60.0	6.6	45.0		
Cycle Q Clear(g_c), s	23.0	11.4	60.0	60.0	6.6	45.0		
Prop In Lane	1.00			0.22	1.00	1.00		
Lane Grp Cap(c), veh/h	343	2199	758	768	570	509		
V/C Ratio(X)	1.26	0.28	1.15	1.18	0.20	1.72		
Avail Cap(c_a), veh/h	343	2199	758	768	570	509		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	48.5	12.2	40.0	40.0	34.5	47.5		
Incr Delay (d2), s/veh	139.6	0.3	82.1	94.0	0.2	333.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	26.5	5.7	46.6	49.7	3.3	66.8		
LnGrp Delay(d),s/veh	188.2	12.5	122.1	134.0	34.6	381.2		
LnGrp LOS	F	B	F	F	C	F		
Approach Vol, veh/h		1058	1778		992			
Approach Delay, s/veh		84.4	128.2		341.0			
Approach LOS		F	F		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	27.0	64.0				91.0		49.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	23.0	60.0				87.0		45.0
Max Q Clear Time (g_c+I1), s	25.0	62.0				13.4		47.0
Green Ext Time (p_c), s	0.0	0.0				19.8		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			171.2					
HCM 2010 LOS			F					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	54	56	213	56	77	41	1270	56	33	581	17
Future Volume (veh/h)	150	54	56	213	56	77	41	1270	56	33	581	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	170	61	64	242	64	88	47	1443	64	38	660	19
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	458	389	401	458	389	451	1837	81	195	1870	54
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1106	1676	1423	1134	1676	1423	681	3107	137	312	3162	91
Grp Volume(v), veh/h	170	61	64	242	64	88	47	738	769	38	332	347
Grp Sat Flow(s),veh/h/ln	1106	1676	1423	1134	1676	1423	681	1593	1652	312	1593	1660
Q Serve(g_s), s	8.1	1.6	2.0	12.1	1.7	2.8	2.3	20.9	21.1	6.3	6.4	6.4
Cycle Q Clear(g_c), s	9.8	1.6	2.0	13.7	1.7	2.8	8.6	20.9	21.1	27.3	6.4	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		0.05
Lane Grp Cap(c), veh/h	392	458	389	401	458	389	451	942	977	195	942	982
V/C Ratio(X)	0.43	0.13	0.16	0.60	0.14	0.23	0.10	0.78	0.79	0.19	0.35	0.35
Avail Cap(c_a), veh/h	408	482	409	416	482	409	451	942	977	195	942	982
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	16.2	16.4	21.4	16.2	16.7	8.5	9.2	9.2	19.7	6.2	6.2
Incr Delay (d2), s/veh	0.8	0.1	0.2	2.3	0.1	0.3	0.5	6.5	6.4	2.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.8	0.8	4.0	0.8	1.1	0.5	10.7	11.1	0.7	3.0	3.2
LnGrp Delay(d),s/veh	20.7	16.3	16.6	23.7	16.4	16.9	8.9	15.7	15.6	21.9	7.3	7.2
LnGrp LOS	C	B	B	C	B	B	A	B	B	C	A	A
Approach Vol, veh/h		295			394			1554			717	
Approach Delay, s/veh		18.9			21.0			15.5			8.0	
Approach LOS		B			C			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.0		20.2		39.0		20.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		35.0		17.0		35.0		17.0				
Max Q Clear Time (g_c+I1), s		23.1		11.8		29.3		15.7				
Green Ext Time (p_c), s		10.0		1.5		5.1		0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				14.7								
HCM 2010 LOS				B								

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	39.5		
Intersection LOS	E		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	682	635	567
Demand Flow Rate, veh/h	695	647	578
Vehicles Circulating, veh/h	529	111	483
Vehicles Exiting, veh/h	229	950	741
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	72.2	13.1	29.7
Approach LOS	F	B	D
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	695	647	578
Cap Entry Lane, veh/h	666	1011	697
Entry HV Adj Factor	0.981	0.981	0.981
Flow Entry, veh/h	682	635	567
Cap Entry, veh/h	653	990	683
V/C Ratio	1.044	0.641	0.830
Control Delay, s/veh	72.2	13.1	29.7
LOS	F	B	D
95th %tile Queue, veh	18	5	9

**Intersection**

Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	13	56	7	0	4	27	6	0	3	56	15
Future Vol, veh/h	0	13	56	7	0	4	27	6	0	3	56	15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	64	8	0	5	31	7	0	3	64	17
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.9	7.6	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	17%	11%	16%
Vol Thru, %	76%	74%	73%	81%
Vol Right, %	20%	9%	16%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	76	37	94
LT Vol	3	13	4	15
Through Vol	56	56	27	76
RT Vol	15	7	6	3
Lane Flow Rate	84	86	42	107
Geometry Grp	1	1	1	1
Degree of Util (X)	0.099	0.105	0.051	0.126
Departure Headway (Hd)	4.23	4.387	4.382	4.339
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	820	821	831
Service Time	2.236	2.393	2.389	2.339
HCM Lane V/C Ratio	0.099	0.105	0.051	0.129
HCM Control Delay	7.7	7.9	7.6	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.2	0.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	15	76	3
Future Vol, veh/h	0	15	76	3
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	17	86	3
Number of Lanes	0	0	1	0

**Approach**

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 2.3

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	9	584	6	3	824
Future Vol, veh/h	49	9	584	6	3	824
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	10	664	7	3	936

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1611	669	0	0	671	0
Stage 1	668	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	115	458	-	-	919	-
Stage 1	510	-	-	-	-	-
Stage 2	379	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	114	457	-	-	918	-
Mov Cap-2 Maneuver	114	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	376	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	59	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	129	918	-
HCM Lane V/C Ratio	-	-	0.511	0.004	-
HCM Control Delay (s)	-	-	59	8.9	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	2.4	0	-

**Intersection**

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	53	561	387	5	40	112
Future Vol, veh/h	53	561	387	5	40	112
Conflicting Peds, #/hr	14	0	0	14	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	638	440	6	45	127

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	459	0	1215
Stage 1	-	-	457
Stage 2	-	-	758
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1102	-	200
Stage 1	-	-	638
Stage 2	-	-	463
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1089	-	179
Mov Cap-2 Maneuver	-	-	179
Stage 1	-	-	631
Stage 2	-	-	419

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1089	-	-	-	365
HCM Lane V/C Ratio	0.055	-	-	-	0.473
HCM Control Delay (s)	8.5	0	-	-	23.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	2.4

**Intersection**

Int Delay, s/veh 4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	7	102	98	7	111	141
Future Vol, veh/h	7	102	98	7	111	141
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	116	111	8	126	160

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	528	118	0
Stage 1	115	-	-
Stage 2	413	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	511	934	1469
Stage 1	910	-	-
Stage 2	668	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	462	932	1465
Mov Cap-2 Maneuver	462	-	-
Stage 1	910	-	-
Stage 2	604	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	875	1465
HCM Lane V/C Ratio	-	-	0.142	0.086
HCM Control Delay (s)	-	-	9.8	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.3



**Intersection**

Int Delay, s/veh 8.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	3	606	387	108	236	3
Future Vol, veh/h	3	606	387	108	236	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	689	440	123	268	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	563	0	1196
Stage 1	-	-	501
Stage 2	-	-	695
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1008	-	~ 206
Stage 1	-	-	609
Stage 2	-	-	495
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1008	-	~ 205
Mov Cap-2 Maneuver	-	-	341
Stage 1	-	-	609
Stage 2	-	-	494

Approach	EB	WB	SE
HCM Control Delay, s	0	0	45.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1008	-	-	-	343
HCM Lane V/C Ratio	0.003	-	-	-	0.792
HCM Control Delay (s)	8.6	-	-	-	45.7
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	6.6

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 7.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	319	520	11	217	274	1
Future Vol, veh/h	319	520	11	217	274	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	363	591	13	247	311	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	930
Stage 1	-	-	658
Stage 2	-	-	272
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	721	~ 297
Stage 1	-	-	515
Stage 2	-	-	774
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	721	~ 292
Mov Cap-2 Maneuver	-	-	404
Stage 1	-	-	515
Stage 2	-	-	760

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	38.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	404	464	-	-	721	-
HCM Lane V/C Ratio	0.771	0.002	-	-	0.017	-
HCM Control Delay (s)	38.2	12.8	-	-	10.1	-
HCM Lane LOS	E	B	-	-	B	-
HCM 95th %tile Q(veh)	6.5	0	-	-	0.1	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	17	1	253	76	0	213
Future Vol, veh/h	17	1	253	76	0	213
Conflicting Peds, #/hr	3	3	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	1	288	86	0	242

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	576	337	0
Stage 1	334	-	-
Stage 2	242	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	479	705	1181
Stage 1	725	-	-
Stage 2	798	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	477	701	1178
Mov Cap-2 Maneuver	562	-	-
Stage 1	723	-	-
Stage 2	796	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	568	1178
HCM Lane V/C Ratio	-	-	0.036	-
HCM Control Delay (s)	-	-	11.6	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

**Intersection**

Int Delay, s/veh 0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	19	0	207	47	0	194
Future Vol, veh/h	19	0	207	47	0	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	235	53	0	220

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	482	262	0
Stage 1	262	-	-
Stage 2	220	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	543	777	1273
Stage 1	782	-	-
Stage 2	817	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	543	777	1273
Mov Cap-2 Maneuver	612	-	-
Stage 1	782	-	-
Stage 2	817	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	612	1273
HCM Lane V/C Ratio	-	-	0.035	-
HCM Control Delay (s)	-	-	11.1	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

**Intersection**

Int Delay, s/veh 21

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	1	17	12	1	39	46	1347	73	19	798	10
Future Vol, veh/h	3	1	17	12	1	39	46	1347	73	19	798	10
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	19	14	1	44	52	1531	83	22	907	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1828	2676	464	2176	2640	812	919	0	0	1615	0	0
Stage 1	957	957	-	1678	1678	-	-	-	-	-	-	-
Stage 2	871	1719	-	498	962	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	48	22	545	26	23	322	738	-	-	400	-	-
Stage 1	277	334	-	99	150	-	-	-	-	-	-	-
Stage 2	312	143	-	523	332	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	13	5	543	~ 8	5	321	736	-	-	399	-	-
Mov Cap-2 Maneuver	13	5	-	~ 8	5	-	-	-	-	-	-	-
Stage 1	69	296	-	25	38	-	-	-	-	-	-	-
Stage 2	65	36	-	444	294	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	153.3	\$ 772.9	3.6	1.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	736	-	-	45	29	399	-	-
HCM Lane V/C Ratio	0.071	-	-	0.53	2.038	0.054	-	-
HCM Control Delay (s)	10.3	3.6	-	153.3	\$ 772.9	14.5	0.8	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.9	7	0.2	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	105	44	159	139	0
Future Vol, veh/h	0	105	44	159	139	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	119	50	181	158	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	231	0	140
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1337	-	908
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1337	-	908
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1337	-	-	-	730
HCM Lane V/C Ratio	-	-	-	-	0.216
HCM Control Delay (s)	0	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

**Intersection**

Int Delay, s/veh 8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	98	4	4	151	2	22	31	6	0	14	4
Future Vol, veh/h	1	98	4	4	151	2	22	31	6	0	14	4
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	4	4	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	111	5	5	172	2	25	35	7	0	16	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	196	112	23	167	111	44	21	0	0	43	0	0
Stage 1	19	19	-	90	90	-	-	-	-	-	-	-
Stage 2	177	93	-	77	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	763	778	1054	797	779	1026	1595	-	-	1566	-	-
Stage 1	1000	880	-	917	820	-	-	-	-	-	-	-
Stage 2	825	818	-	932	878	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	620	764	1050	694	765	1022	1590	-	-	1561	-	-
Mov Cap-2 Maneuver	620	764	-	694	765	-	-	-	-	-	-	-
Stage 1	983	879	-	902	806	-	-	-	-	-	-	-
Stage 2	635	804	-	808	877	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	11.1	2.7	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1590	-	-	770	765	1561	-
HCM Lane V/C Ratio	0.016	-	-	0.152	0.233	-	-
HCM Control Delay (s)	7.3	0	-	10.5	11.1	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.9	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/17/2017

























Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	359	550	1389	165	96	736		
Future Volume (veh/h)	359	550	1389	165	96	736		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	408	625	1578	188	109	836		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	344	2242	1404	165	556	496		
Arrive On Green	0.17	0.63	0.44	0.44	0.31	0.31		
Sat Flow, veh/h	1774	3632	3284	375	1774	1583		
Grp Volume(v), veh/h	408	625	866	900	109	836		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1797	1774	1583		
Q Serve(g_s), s	25.0	11.8	66.0	66.0	6.7	47.0		
Cycle Q Clear(g_c), s	25.0	11.8	66.0	66.0	6.7	47.0		
Prop In Lane	1.00			0.21	1.00	1.00		
Lane Grp Cap(c), veh/h	344	2242	779	790	556	496		
V/C Ratio(X)	1.19	0.28	1.11	1.14	0.20	1.69		
Avail Cap(c_a), veh/h	344	2242	779	790	556	496		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	52.8	12.2	42.0	42.0	37.7	51.5		
Incr Delay (d2), s/veh	109.7	0.3	67.5	77.5	0.2	317.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	24.7	5.8	46.8	49.7	3.3	64.2		
LnGrp Delay(d),s/veh	162.5	12.6	109.5	119.5	37.8	368.5		
LnGrp LOS	F	B	F	F	D	F		
Approach Vol, veh/h		1033	1766		945			
Approach Delay, s/veh		71.8	114.6		330.3			
Approach LOS		E	F		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	29.0	70.0				99.0		51.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	25.0	66.0				95.0		47.0
Max Q Clear Time (g_c+I1), s	27.0	68.0				13.8		49.0
Green Ext Time (p_c), s	0.0	0.0				19.7		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			157.2					
HCM 2010 LOS			F					



HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	67	56	241	63	84	41	1270	70	42	581	17
Future Volume (veh/h)	150	67	56	241	63	84	41	1270	70	42	581	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	170	76	64	274	72	95	47	1443	80	48	660	19
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	414	488	414	419	488	414	436	1730	96	184	1782	51
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1091	1676	1424	1118	1676	1424	681	3069	170	307	3162	91
Grp Volume(v), veh/h	170	76	64	274	72	95	47	747	776	48	332	347
Grp Sat Flow(s),veh/h/ln	1091	1676	1424	1118	1676	1424	681	1593	1646	307	1593	1660
Q Serve(g_s), s	7.5	1.9	1.8	13.3	1.8	2.8	2.2	21.2	21.4	8.4	6.3	6.3
Cycle Q Clear(g_c), s	9.3	1.9	1.8	15.1	1.8	2.8	8.6	21.2	21.4	29.8	6.3	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.05
Lane Grp Cap(c), veh/h	414	488	414	419	488	414	436	898	928	184	898	936
V/C Ratio(X)	0.41	0.16	0.15	0.65	0.15	0.23	0.11	0.83	0.84	0.26	0.37	0.37
Avail Cap(c_a), veh/h	414	488	414	419	488	414	436	898	928	184	898	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	14.5	14.5	20.1	14.4	14.8	9.0	9.9	9.9	22.2	6.6	6.6
Incr Delay (d2), s/veh	0.7	0.1	0.2	3.6	0.1	0.3	0.5	8.9	8.9	3.4	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.9	0.7	4.5	0.8	1.1	0.5	11.3	11.8	0.9	3.1	3.2
LnGrp Delay(d),s/veh	18.5	14.6	14.6	23.7	14.6	15.1	9.5	18.7	18.8	25.6	7.8	7.7
LnGrp LOS	B	B	B	C	B	B	A	B	B	C	A	A
Approach Vol, veh/h		310			441			1570			727	
Approach Delay, s/veh		16.8			20.4			18.5			8.9	
Approach LOS		B			C			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		20.0		35.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		31.0		16.0		31.0		16.0				
Max Q Clear Time (g_c+I1), s		23.4		11.3		31.8		17.1				
Green Ext Time (p_c), s		6.7		1.5		0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				16.3								
HCM 2010 LOS				B								

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	31.2		
Intersection LOS	D		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	666	598	510
Demand Flow Rate, veh/h	679	610	520
Vehicles Circulating, veh/h	492	101	483
Vehicles Exiting, veh/h	219	902	688
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	55.0	11.8	22.9
Approach LOS	F	B	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	679	610	520
Cap Entry Lane, veh/h	691	1021	697
Entry HV Adj Factor	0.981	0.981	0.980
Flow Entry, veh/h	666	598	510
Cap Entry, veh/h	678	1000	683
V/C Ratio	0.983	0.598	0.747
Control Delay, s/veh	55.0	11.8	22.9
LOS	F	B	C
95th %tile Queue, veh	15	4	7

**Intersection**

Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	13	74	7	0	5	36	8	0	3	56	19
Future Vol, veh/h	0	13	74	7	0	5	36	8	0	3	56	19
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	84	8	0	6	41	9	0	3	64	22
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.1	7.8	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	14%	10%	19%
Vol Thru, %	72%	79%	73%	78%
Vol Right, %	24%	7%	16%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	94	49	98
LT Vol	3	13	5	19
Through Vol	56	74	36	76
RT Vol	19	7	8	3
Lane Flow Rate	89	107	56	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.106	0.131	0.069	0.137
Departure Headway (Hd)	4.293	4.431	4.429	4.423
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	837	811	810	813
Service Time	2.308	2.449	2.447	2.439
HCM Lane V/C Ratio	0.106	0.132	0.069	0.137
HCM Control Delay	7.8	8.1	7.8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.4	0.2	0.5

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	19	76	3
Future Vol, veh/h	0	19	76	3
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	86	3
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.1
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 1.9

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	9	519	6	3	783
Future Vol, veh/h	49	9	519	6	3	783
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	10	590	7	3	890

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1491	595	0	0	598	0
Stage 1	594	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	136	504	-	-	979	-
Stage 1	552	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	135	503	-	-	978	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	395	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	45.7	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	152	978	-
HCM Lane V/C Ratio	-	-	0.434	0.003	-
HCM Control Delay (s)	-	-	45.7	8.7	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.9	0	-

**Intersection**

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	53	515	338	4	37	112
Future Vol, veh/h	53	515	338	4	37	112
Conflicting Peds, #/hr	14	0	0	14	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	585	384	5	42	127

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	403	0	1106
Stage 1	-	-	400
Stage 2	-	-	706
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1156	-	233
Stage 1	-	-	677
Stage 2	-	-	489
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1143	-	210
Mov Cap-2 Maneuver	-	-	210
Stage 1	-	-	669
Stage 2	-	-	446

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1143	-	-	-	419
HCM Lane V/C Ratio	0.053	-	-	-	0.404
HCM Control Delay (s)	8.3	0	-	-	19.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.9

**Intersection**

Int Delay, s/veh 5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	11	162	98	11	176	141
Future Vol, veh/h	11	162	98	11	176	141
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	184	111	13	200	160

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	678	121	0
Stage 1	118	-	-
Stage 2	560	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	418	930	1463
Stage 1	907	-	-
Stage 2	572	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	354	928	1459
Mov Cap-2 Maneuver	354	-	-
Stage 1	907	-	-
Stage 2	485	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	4.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	841	1459
HCM Lane V/C Ratio	-	-	0.234	0.137
HCM Control Delay (s)	-	-	10.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.5

**Intersection**

Int Delay, s/veh 5.7

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	3	556	336	94	216	3
Future Vol, veh/h	3	556	336	94	216	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	632	382	107	245	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	489	0	1074
Stage 1	-	-	435
Stage 2	-	-	639
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1074	-	~ 243
Stage 1	-	-	653
Stage 2	-	-	526
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1074	-	~ 242
Mov Cap-2 Maneuver	-	-	374
Stage 1	-	-	653
Stage 2	-	-	525

Approach	EB	WB	SE
HCM Control Delay, s	0	0	31.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1074	-	-	-	376
HCM Lane V/C Ratio	0.003	-	-	-	0.662
HCM Control Delay (s)	8.4	-	-	-	31.4
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	4.6

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection**

Int Delay, s/veh 6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	250	520	11	153	274	1
Future Vol, veh/h	250	520	11	153	274	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	284	591	13	174	311	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	875
Stage 1	-	-	580
Stage 2	-	-	199
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	771
Stage 1	-	-	560
Stage 2	-	-	835
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	771
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	560
Stage 2	-	-	821

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	28.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	455	514	-	-	771	-
HCM Lane V/C Ratio	0.684	0.002	-	-	0.016	-
HCM Control Delay (s)	28.4	12	-	-	9.7	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	5.1	0	-	-	0	-

**Intersection**

Int Delay, s/veh 0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	17	1	184	76	0	148
Future Vol, veh/h	17	1	184	76	0	148
Conflicting Peds, #/hr	3	3	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	1	209	86	0	168

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	423	258	0 0 298 0
Stage 1	255	-	- - - -
Stage 2	168	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	588	781	- - 1263 -
Stage 1	788	-	- - - -
Stage 2	862	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	585	777	- - 1260 -
Mov Cap-2 Maneuver	640	-	- - - -
Stage 1	786	-	- - - -
Stage 2	860	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 646	1260	-
HCM Lane V/C Ratio	-	- 0.032	-	-
HCM Control Delay (s)	-	- 10.8	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

**Intersection**

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	19	0	138	47	0	130
Future Vol, veh/h	19	0	138	47	0	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	157	53	0	148

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	332	184	0
Stage 1	184	-	-
Stage 2	148	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	663	858	1361
Stage 1	848	-	-
Stage 2	880	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	663	858	1361
Mov Cap-2 Maneuver	696	-	-
Stage 1	848	-	-
Stage 2	880	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	696	1361
HCM Lane V/C Ratio	-	-	0.031	-
HCM Control Delay (s)	-	-	10.3	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

**Intersection**

Int Delay, s/veh 48.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	1	17	14	1	45	46	1347	86	22	798	10
Future Vol, veh/h	3	1	17	14	1	45	46	1347	86	22	798	10
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	19	16	1	51	52	1531	98	25	907	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1835	2698	464	2190	2654	819	919	0	0	1629	0	0
Stage 1	964	964	-	1685	1685	-	-	-	-	-	-	-
Stage 2	871	1734	-	505	969	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	47	21	545	25	23	319	738	-	-	395	-	-
Stage 1	274	332	-	98	149	-	-	-	-	-	-	-
Stage 2	312	141	-	518	330	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	8	3	543	~ 5	3	318	736	-	-	394	-	-
Mov Cap-2 Maneuver	8	3	-	~ 5	3	-	-	-	-	-	-	-
Stage 1	45	289	-	16	24	-	-	-	-	-	-	-
Stage 2	41	23	-	431	287	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 324.9	\$ 1689.2	4	1.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	736	-	-	28	18	394	-	-
HCM Lane V/C Ratio	0.071	-	-	0.852	3.788	0.063	-	-
HCM Control Delay (s)	10.3	4	-	\$ 324.9	\$ 1689.2	14.8	0.9	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	2.7	9.1	0.2	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	132	57	207	177	0
Future Vol, veh/h	0	132	57	207	177	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	150	65	235	201	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	300	0	182
Stage 1	-	-	182
Stage 2	-	-	150
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1261	-	861
Stage 1	-	-	849
Stage 2	-	-	878
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1261	-	861
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	849
Stage 2	-	-	878

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1261	-	-	-	663
HCM Lane V/C Ratio	-	-	-	-	0.303
HCM Control Delay (s)	0	-	-	-	12.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.3

**Intersection**

Int Delay, s/veh 9.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	133	4	5	197	3	22	31	8	0	14	4
Future Vol, veh/h	1	133	4	5	197	3	22	31	8	0	14	4
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	4	4	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	151	5	6	224	3	25	35	9	0	16	5












Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	223	114	23	188	112	45	21	0	0	45	0	0
Stage 1	19	19	-	91	91	-	-	-	-	-	-	-
Stage 2	204	95	-	97	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	733	776	1054	772	778	1025	1595	-	-	1563	-	-
Stage 1	1000	880	-	916	820	-	-	-	-	-	-	-
Stage 2	798	816	-	910	878	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	556	762	1050	641	764	1021	1590	-	-	1558	-	-
Mov Cap-2 Maneuver	556	762	-	641	764	-	-	-	-	-	-	-
Stage 1	983	879	-	901	806	-	-	-	-	-	-	-
Stage 2	563	802	-	748	877	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	11.8	2.6	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1590	-	-	766	763	1558	-
HCM Lane V/C Ratio	0.016	-	-	0.205	0.305	-	-
HCM Control Delay (s)	7.3	0	-	10.9	11.8	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.3	0	-























HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/17/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	337	550	1389	155	92	700		
Future Volume (veh/h)	337	550	1389	155	92	700		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	383	625	1578	176	105	795		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	332	2242	1436	158	556	496		
Arrive On Green	0.16	0.63	0.45	0.45	0.31	0.31		
Sat Flow, veh/h	1774	3632	3309	354	1774	1583		
Grp Volume(v), veh/h	383	625	860	894	105	795		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1800	1774	1583		
Q Serve(g_s), s	24.0	11.8	67.0	67.0	6.5	47.0		
Cycle Q Clear(g_c), s	24.0	11.8	67.0	67.0	6.5	47.0		
Prop In Lane	1.00			0.20	1.00	1.00		
Lane Grp Cap(c), veh/h	332	2242	790	804	556	496		
V/C Ratio(X)	1.15	0.28	1.09	1.11	0.19	1.60		
Avail Cap(c_a), veh/h	332	2242	790	804	556	496		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	53.0	12.2	41.5	41.5	37.6	51.5		
Incr Delay (d2), s/veh	98.1	0.3	58.6	67.1	0.2	280.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	22.8	5.8	45.6	48.3	3.2	59.2		
LnGrp Delay(d),s/veh	151.1	12.6	100.1	108.6	37.8	331.9		
LnGrp LOS	F	B	F	F	D	F		
Approach Vol, veh/h		1008	1754		900			
Approach Delay, s/veh		65.2	104.4		297.6			
Approach LOS		E	F		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.0	71.0				99.0		51.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	24.0	67.0				95.0		47.0
Max Q Clear Time (g_c+I1), s	26.0	69.0				13.8		49.0
Green Ext Time (p_c), s	0.0	0.0				19.4		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			141.1					
HCM 2010 LOS			F					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	80	56	268	70	91	41	1270	83	50	581	17
Future Volume (veh/h)	150	80	56	268	70	91	41	1270	83	50	581	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	170	91	64	305	80	103	47	1443	94	57	660	19
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	405	503	427	407	503	427	428	1721	112	172	1792	52
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1076	1676	1424	1103	1676	1424	681	3036	197	303	3162	91
Grp Volume(v), veh/h	170	91	64	305	80	103	47	754	783	57	332	347
Grp Sat Flow(s),veh/h/ln	1076	1676	1424	1103	1676	1424	681	1593	1641	303	1593	1660
Q Serve(g_s), s	8.3	2.4	2.0	15.6	2.1	3.3	2.4	23.4	23.7	10.3	6.9	6.9
Cycle Q Clear(g_c), s	10.4	2.4	2.0	18.0	2.1	3.3	9.3	23.4	23.7	34.0	6.9	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		0.05
Lane Grp Cap(c), veh/h	405	503	427	407	503	427	428	902	930	172	902	941
V/C Ratio(X)	0.42	0.18	0.15	0.75	0.16	0.24	0.11	0.84	0.84	0.33	0.37	0.37
Avail Cap(c_a), veh/h	405	503	427	407	503	427	428	902	930	172	902	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	15.5	15.4	22.7	15.4	15.8	9.7	10.7	10.8	25.3	7.1	7.1
Incr Delay (d2), s/veh	0.7	0.2	0.2	7.6	0.1	0.3	0.5	9.0	9.1	5.1	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.1	0.8	5.9	1.0	1.3	0.5	12.3	12.8	1.2	3.2	3.4
LnGrp Delay(d),s/veh	19.9	15.7	15.6	30.2	15.6	16.1	10.2	19.7	19.9	30.4	8.3	8.2
LnGrp LOS	B	B	B	C	B	B	B	B	B	C	A	A
Approach Vol, veh/h		325			488			1584			736	
Approach Delay, s/veh		17.9			24.9			19.5			10.0	
Approach LOS		B			C			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.0		22.0		38.0		22.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		18.0		34.0		18.0				
Max Q Clear Time (g_c+I1), s		25.7		12.4		36.0		20.0				
Green Ext Time (p_c), s		7.3		1.9		0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								



HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	25.0		
Intersection LOS	C		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	651	560	454
Demand Flow Rate, veh/h	664	571	463
Vehicles Circulating, veh/h	453	90	483
Vehicles Exiting, veh/h	208	856	634
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	41.9	10.7	18.4
Approach LOS	E	B	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	664	571	463
Cap Entry Lane, veh/h	718	1033	697
Entry HV Adj Factor	0.980	0.981	0.980
Flow Entry, veh/h	651	560	454
Cap Entry, veh/h	704	1011	682
V/C Ratio	0.924	0.554	0.665
Control Delay, s/veh	41.9	10.7	18.4
LOS	E	B	C
95th %tile Queue, veh	13	4	5

Intersection												
Intersection Delay, s/veh	8.2											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	13	92	7	0	7	45	10	0	3	56	24
Future Vol, veh/h	0	13	92	7	0	7	45	10	0	3	56	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	105	8	0	8	51	11	0	3	64	27
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0
Approach												
	EB				WB				NB			
Opposing Approach	WB				EB				SB			
Opposing Lanes	1				1				1			
Conflicting Approach Left	SB				NB				EB			
Conflicting Lanes Left	1				1				1			
Conflicting Approach Right	NB				SB				WB			
Conflicting Lanes Right	1				1				1			
HCM Control Delay	8.4				7.9				7.9			
HCM LOS	A				A				A			
Lane												
	NBLn1	EBLn1	WBLn1	SBLn1								
Vol Left, %	4%	12%	11%	23%								
Vol Thru, %	67%	82%	73%	74%								
Vol Right, %	29%	6%	16%	3%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	83	112	62	103								
LT Vol	3	13	7	24								
Through Vol	56	92	45	76								
RT Vol	24	7	10	3								
Lane Flow Rate	94	127	70	117								
Geometry Grp	1	1	1	1								
Degree of Util (X)	0.114	0.159	0.088	0.147								
Departure Headway (Hd)	4.359	4.484	4.489	4.525								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	823	802	799	794								
Service Time	2.382	2.504	2.513	2.547								
HCM Lane V/C Ratio	0.114	0.158	0.088	0.147								
HCM Control Delay	7.9	8.4	7.9	8.3								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.4	0.6	0.3	0.5								

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	24	76	3
Future Vol, veh/h	0	24	76	3
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	27	86	3
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 1.7

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	8	486	6	3	743
Future Vol, veh/h	49	8	486	6	3	743
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	9	552	7	3	844

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1408	558	0	0	560	0
Stage 1	557	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	153	529	-	-	1011	-
Stage 1	574	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	152	528	-	-	1010	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	416	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	39	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	169	1010	-
HCM Lane V/C Ratio	-	-	0.383	0.003	-
HCM Control Delay (s)	-	-	39	8.6	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0	-

**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	53	469	288	4	34	112
Future Vol, veh/h	53	469	288	4	34	112
Conflicting Peds, #/hr	14	0	0	14	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	533	327	5	39	127

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	346	0	997
Stage 1	-	-	344
Stage 2	-	-	653
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1213	-	271
Stage 1	-	-	718
Stage 2	-	-	518
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1199	-	246
Mov Cap-2 Maneuver	-	-	246
Stage 1	-	-	710
Stage 2	-	-	476

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1199	-	-	-	478
HCM Lane V/C Ratio	0.05	-	-	-	0.347
HCM Control Delay (s)	8.2	0	-	-	16.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

**Intersection**

Int Delay, s/veh 6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	14	223	98	15	241	141
Future Vol, veh/h	14	223	98	15	241	141
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	253	111	17	274	160

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	828	123	0
Stage 1	120	-	-
Stage 2	708	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	341	928	1458
Stage 1	905	-	-
Stage 2	488	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	270	926	1454
Mov Cap-2 Maneuver	270	-	-
Stage 1	905	-	-
Stage 2	386	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	5.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	810	1454
HCM Lane V/C Ratio	-	-	0.332	0.188
HCM Control Delay (s)	-	-	11.6	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.5	0.7

**Intersection**

Int Delay, s/veh 4.5

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	3	506	285	80	197	3
Future Vol, veh/h	3	506	285	80	197	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	575	324	91	224	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	415	0	951
Stage 1	-	-	369
Stage 2	-	-	582
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1144	-	288
Stage 1	-	-	699
Stage 2	-	-	559
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1144	-	287
Mov Cap-2 Maneuver	-	-	411
Stage 1	-	-	699
Stage 2	-	-	558

Approach	EB	WB	SE
HCM Control Delay, s	0	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1144	-	-	-	413
HCM Lane V/C Ratio	0.003	-	-	-	0.55
HCM Control Delay (s)	8.2	-	-	-	23.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	3.2

**Intersection**

Int Delay, s/veh 5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	181	520	11	88	274	1
Future Vol, veh/h	181	520	11	88	274	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	206	591	13	100	311	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	797
Stage 1	-	-	501
Stage 2	-	-	125
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	825
Stage 1	-	-	609
Stage 2	-	-	901
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	825
Mov Cap-2 Maneuver	-	-	514
Stage 1	-	-	609
Stage 2	-	-	887

Approach	EB	WB	NB
HCM Control Delay, s	0	1	22.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	514	570	-	-	825	-
HCM Lane V/C Ratio	0.606	0.002	-	-	0.015	-
HCM Control Delay (s)	22.2	11.3	-	-	9.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	4	0	-	-	0	-



**Intersection**

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	17	1	115	76	0	83
Future Vol, veh/h	17	1	115	76	0	83
Conflicting Peds, #/hr	3	3	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	1	131	86	0	94

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	271	180	0
Stage 1	177	-	-
Stage 2	94	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	718	863	1349
Stage 1	854	-	-
Stage 2	930	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	714	859	1346
Mov Cap-2 Maneuver	728	-	-
Stage 1	852	-	-
Stage 2	928	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 734	1346	-
HCM Lane V/C Ratio	-	- 0.028	-	-
HCM Control Delay (s)	-	- 10	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

**Intersection**

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	19	0	69	47	0	65
Future Vol, veh/h	19	0	69	47	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	0	78	53	0	74

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	179	105	0
Stage 1	105	-	-
Stage 2	74	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	811	949	1453
Stage 1	919	-	-
Stage 2	949	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	811	949	1453
Mov Cap-2 Maneuver	796	-	-
Stage 1	919	-	-
Stage 2	949	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	796	1453
HCM Lane V/C Ratio	-	-	0.027	-
HCM Control Delay (s)	-	-	9.6	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

**Intersection**

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	1	17	16	1	52	46	1347	100	26	798	10
Future Vol, veh/h	3	1	17	16	1	52	46	1347	100	26	798	10
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	3	3	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	19	18	1	59	52	1531	114	30	907	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1844	2723	464	2207	2671	827	919	0	0	1645	0	0
Stage 1	973	973	-	1693	1693	-	-	-	-	-	-	-
Stage 2	871	1750	-	514	978	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	46	20	545	25	22	315	738	-	-	389	-	-
Stage 1	271	329	-	97	147	-	-	-	-	-	-	-
Stage 2	312	138	-	511	327	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 1	543	-	~ 1	314	736	-	-	388	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	12	277	-	~ 4	6	-	-	-	-	-	-	-
Stage 2	9	6	-	412	275	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			4.5	1.5
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	736	-	-	-	388	-	-
HCM Lane V/C Ratio	0.071	-	-	-	0.076	-	-
HCM Control Delay (s)	10.3	4.6	-	-	15	1.1	-
HCM Lane LOS	B	A	-	-	C	A	-
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2	-	-

**Notes**  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	160	70	255	214	0
Future Vol, veh/h	0	160	70	255	214	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	182	80	290	243	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	369	0	224
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1190	-	815
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1190	-	815
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1190	-	-	-	601
HCM Lane V/C Ratio	-	-	-	-	0.405
HCM Control Delay (s)	0	-	-	-	15
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2

**Intersection**

Int Delay, s/veh 10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	169	4	7	243	3	22	31	10	0	14	4
Future Vol, veh/h	1	169	4	7	243	3	22	31	10	0	14	4
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	4	4	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	192	5	8	276	3	25	35	11	0	16	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	251	117	23	209	113	46	21	0	0	48	0	0
Stage 1	19	19	-	92	92	-	-	-	-	-	-	-
Stage 2	232	98	-	117	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	702	773	1054	748	777	1023	1595	-	-	1559	-	-
Stage 1	1000	880	-	915	819	-	-	-	-	-	-	-
Stage 2	771	814	-	888	878	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	495	759	1050	590	763	1019	1590	-	-	1554	-	-
Mov Cap-2 Maneuver	495	759	-	590	763	-	-	-	-	-	-	-
Stage 1	983	879	-	900	805	-	-	-	-	-	-	-
Stage 2	495	800	-	689	877	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	12.6	2.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1590	-	-	762	759	1554	-	-
HCM Lane V/C Ratio	0.016	-	-	0.259	0.379	-	-	-
HCM Control Delay (s)	7.3	0	-	11.4	12.6	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1	1.8	0	-	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

























4/17/2017

Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	707	1469	550	101	85	388		
Future Volume (veh/h)	707	1469	550	101	85	388		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	803	1669	625	115	97	441		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	850	2595	902	166	315	281		
Arrive On Green	0.39	0.73	0.30	0.30	0.18	0.18		
Sat Flow, veh/h	1774	3632	3080	549	1774	1583		
Grp Volume(v), veh/h	803	1669	370	370	97	441		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1766	1774	1583		
Q Serve(g_s), s	30.5	21.4	16.6	16.7	4.3	16.0		
Cycle Q Clear(g_c), s	30.5	21.4	16.6	16.7	4.3	16.0		
Prop In Lane	1.00			0.31	1.00	1.00		
Lane Grp Cap(c), veh/h	850	2595	535	534	315	281		
V/C Ratio(X)	0.94	0.64	0.69	0.69	0.31	1.57		
Avail Cap(c_a), veh/h	952	2595	535	534	315	281		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	17.3	6.1	27.7	27.7	32.2	37.0		
Incr Delay (d2), s/veh	16.4	1.2	7.2	7.3	0.5	271.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	22.6	10.6	9.2	9.2	2.1	28.2		
LnGrp Delay(d),s/veh	33.7	7.3	34.9	35.0	32.7	308.6		
LnGrp LOS	C	A	C	C	C	F		
Approach Vol, veh/h		2472	740		538			
Approach Delay, s/veh		15.9	34.9		258.9			
Approach LOS		B	C		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	38.8	31.2				70.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	40.0	22.0				66.0		16.0
Max Q Clear Time (g_c+I1), s	32.5	18.7				23.4		18.0
Green Ext Time (p_c), s	2.4	2.8				17.7		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			54.5					
HCM 2010 LOS			D					

# HCM 2010 Signalized Intersection Summary

## 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	98	105	264	87	62	101	809	59	66	1305	50
Future Volume (veh/h)	101	98	105	264	87	62	101	809	59	66	1305	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	115	111	119	300	99	70	115	919	67	75	1483	57
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	488	412	378	488	412	182	1696	124	321	1762	68
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1084	1676	1415	1026	1676	1415	302	3009	219	511	3127	120
Grp Volume(v), veh/h	115	111	119	300	99	70	115	486	500	75	754	786
Grp Sat Flow(s),veh/h/ln	1084	1676	1415	1026	1676	1415	302	1593	1635	511	1593	1654
Q Serve(g_s), s	4.9	2.8	3.6	13.2	2.4	2.0	9.2	10.6	10.6	5.9	21.6	21.8
Cycle Q Clear(g_c), s	7.4	2.8	3.6	16.0	2.4	2.0	31.0	10.6	10.6	16.5	21.6	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.07
Lane Grp Cap(c), veh/h	398	488	412	378	488	412	182	898	922	321	898	932
V/C Ratio(X)	0.29	0.23	0.29	0.79	0.20	0.17	0.63	0.54	0.54	0.23	0.84	0.84
Avail Cap(c_a), veh/h	398	488	412	378	488	412	182	898	922	321	898	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	14.8	15.1	22.1	14.7	14.5	25.5	7.5	7.5	12.7	9.9	10.0
Incr Delay (d2), s/veh	0.4	0.2	0.4	11.1	0.2	0.2	15.6	2.3	2.3	1.7	9.3	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.3	1.4	5.7	1.2	0.8	2.5	5.2	5.3	1.0	11.5	12.0
LnGrp Delay(d),s/veh	17.9	15.0	15.5	33.1	14.9	14.7	41.1	9.9	9.8	14.4	19.2	19.2
LnGrp LOS	B	B	B	C	B	B	D	A	A	B	B	B
Approach Vol, veh/h		345			469			1101			1615	
Approach Delay, s/veh		16.1			26.5			13.1			19.0	
Approach LOS		B			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		20.0		35.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		31.0		16.0		31.0		16.0				
Max Q Clear Time (g_c+I1), s		33.0		9.4		23.8		18.0				
Green Ext Time (p_c), s		0.0		2.2		6.8		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	27.2		
Intersection LOS	D		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	306	886	504
Demand Flow Rate, veh/h	312	903	515
Vehicles Circulating, veh/h	477	180	196
Vehicles Exiting, veh/h	606	531	593
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	11.6	41.4	11.6
Approach LOS	B	E	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	312	903	515
Cap Entry Lane, veh/h	701	944	929
Entry HV Adj Factor	0.981	0.981	0.979
Flow Entry, veh/h	306	886	504
Cap Entry, veh/h	688	924	909
V/C Ratio	0.445	0.959	0.555
Control Delay, s/veh	11.6	41.4	11.6
LOS	B	E	B
95th %tile Queue, veh	2	16	3



**Intersection**

Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	123	21	0	4	55	10	0	6	74	18
Future Vol, veh/h	0	6	123	21	0	4	55	10	0	6	74	18
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	140	24	0	5	63	11	0	7	84	20
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.6	8.1	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	4%	6%	23%
Vol Thru, %	76%	82%	80%	76%
Vol Right, %	18%	14%	14%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	150	69	82
LT Vol	6	6	4	19
Through Vol	74	123	55	62
RT Vol	18	21	10	1
Lane Flow Rate	111	170	78	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.14	0.21	0.099	0.121
Departure Headway (Hd)	4.518	4.428	4.531	4.674
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	794	811	790	767
Service Time	2.546	2.453	2.56	2.703
HCM Lane V/C Ratio	0.14	0.21	0.099	0.121
HCM Control Delay	8.3	8.6	8.1	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.8	0.3	0.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	19	62	1
Future Vol, veh/h	0	19	62	1
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	70	1
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh            0.6

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	784	60	0	450
Future Vol, veh/h	23	1	784	60	0	450
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	891	68	0	511

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1436	925	0	0	959	0
Stage 1	925	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	147	326	-	-	717	-
Stage 1	386	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	147	326	-	-	717	-
Mov Cap-2 Maneuver	147	-	-	-	-	-
Stage 1	386	-	-	-	-	-
Stage 2	602	-	-	-	-	-

Approach	NB		NE		SW
HCM Control Delay, s	34.3		0		0
HCM LOS	D				

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	150	717	-
HCM Lane V/C Ratio	-	-	0.182	-	-
HCM Control Delay (s)	-	-	34.3	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	63	423	335	8	10	89
Future Vol, veh/h	63	423	335	8	10	89
Conflicting Peds, #/hr	10	0	0	10	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	481	381	9	11	101

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	391	0	396
Stage 1	-	-	386
Stage 2	-	-	624
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1168	-	653
Stage 1	-	-	687
Stage 2	-	-	534
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1158	-	647
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	686
Stage 2	-	-	488

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1158	-	-	-	554
HCM Lane V/C Ratio	0.062	-	-	-	0.203
HCM Control Delay (s)	8.3	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

**Intersection**

Int Delay, s/veh 4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	12	106	57	6	116	162
Future Vol, veh/h	12	106	57	6	116	162
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	120	65	7	132	184

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	516	69	0
Stage 1	68	-	-
Stage 2	448	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	519	994	1528
Stage 1	955	-	-
Stage 2	644	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	469	993	1527
Mov Cap-2 Maneuver	469	-	-
Stage 1	955	-	-
Stage 2	582	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	892	1527
HCM Lane V/C Ratio	-	-	0.15	0.086
HCM Control Delay (s)	-	-	9.7	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.3

**Intersection**

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	1	374	345	85	120	3
Future Vol, veh/h	1	374	345	85	120	3
Conflicting Peds, #/hr	6	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	425	392	97	136	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	490	0	868
Stage 1	-	-	441
Stage 2	-	-	427
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1073	-	612
Stage 1	-	-	648
Stage 2	-	-	658
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1068	-	608
Mov Cap-2 Maneuver	-	-	444
Stage 1	-	-	647
Stage 2	-	-	657

Approach	EB	WB	SE
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1068	-	-	-	447
HCM Lane V/C Ratio	0.001	-	-	-	0.313
HCM Control Delay (s)	8.4	-	-	-	16.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.3

**Intersection**

Int Delay, s/veh 6.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	215	226	4	367	261	1
Future Vol, veh/h	215	226	4	367	261	1
Conflicting Peds, #/hr	0	36	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	244	257	5	417	297	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	800
Stage 1	-	-	374
Stage 2	-	-	426
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1062	354
Stage 1	-	-	696
Stage 2	-	-	659
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1062	341
Mov Cap-2 Maneuver	-	-	458
Stage 1	-	-	695
Stage 2	-	-	636

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	26.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	458	671	-	-	1062	-
HCM Lane V/C Ratio	0.648	0.002	-	-	0.004	-
HCM Control Delay (s)	26.2	10.4	-	-	8.4	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	4.5	0	-	-	0	-

**Intersection**

Int Delay, s/veh 2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	109	0	208	9	1	262
Future Vol, veh/h	109	0	208	9	1	262
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	0	236	10	1	298

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	541	241	0	0	247	0
Stage 1	241	-	-	-	-	-
Stage 2	300	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	502	798	-	-	1319	-
Stage 1	799	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	501	798	-	-	1319	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	751	-	-	-	-	-

Approach	WB		NB		SB
HCM Control Delay, s	12.9		0		0
HCM LOS	B				

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	581	1319
HCM Lane V/C Ratio	-	-	0.213	0.001
HCM Control Delay (s)	-	-	12.9	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0



**Intersection**

Int Delay, s/veh 1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	74	0	189	19	0	191
Future Vol, veh/h	74	0	189	19	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	215	22	0	217

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	443	226	0
Stage 1	226	-	-
Stage 2	217	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	572	813	1331
Stage 1	812	-	-
Stage 2	819	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	572	813	1331
Mov Cap-2 Maneuver	633	-	-
Stage 1	812	-	-
Stage 2	819	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	633	1331
HCM Lane V/C Ratio	-	-	0.133	-
HCM Control Delay (s)	-	-	11.6	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

**Intersection**

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	8	62	41	6	67	43	869	119	58	1561	31
Future Vol, veh/h	1	8	62	41	6	67	43	869	119	58	1561	31
Conflicting Peds, #/hr	6	0	8	8	0	6	15	0	3	3	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	9	70	47	7	76	49	988	135	66	1774	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2534	3159	928	2192	3110	584	1817	0	0	1131	0	0
Stage 1	1931	1931	-	1161	1161	-	-	-	-	-	-	-
Stage 2	603	1228	-	1031	1949	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	14	10	270	~ 25	11	455	334	-	-	613	-	-
Stage 1	68	112	-	208	268	-	-	-	-	-	-	-
Stage 2	453	249	-	249	110	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 6	265	-	~ 6	446	330	-	-	605	-	-
Mov Cap-2 Maneuver	-	~ 6	-	-	~ 6	-	-	-	-	-	-	-
Stage 1	40	111	-	122	157	-	-	-	-	-	-	-
Stage 2	209	146	-	166	109	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			3.5	0.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	330	-	-	-	605	-	-
HCM Lane V/C Ratio	0.148	-	-	-	0.109	-	-
HCM Control Delay (s)	17.8	3.3	-	-	11.7	0	-
HCM Lane LOS	C	A	-	-	B	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	0.4	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	3	157	51	107	134	1
Future Vol, veh/h	3	157	51	107	134	1
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	178	58	122	152	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	181	0	120
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1394	-	931
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1394	-	930
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1394	-	-	-	685
HCM Lane V/C Ratio	0.002	-	-	-	0.224
HCM Control Delay (s)	7.6	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.9

**Intersection**

Int Delay, s/veh 8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	121	17	6	124	0	10	25	14	9	17	6
Future Vol, veh/h	3	121	17	6	124	0	10	25	14	9	17	6
Conflicting Peds, #/hr	1	0	10	10	0	1	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	138	19	7	141	0	11	28	16	10	19	7












Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	193	130	36	201	126	49	36	0	0	54	0	0
Stage 1	53	53	-	69	69	-	-	-	-	-	-	-
Stage 2	140	77	-	132	57	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	767	761	1037	757	764	1020	1575	-	-	1551	-	-
Stage 1	960	851	-	941	837	-	-	-	-	-	-	-
Stage 2	863	831	-	871	847	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	641	738	1026	623	741	1009	1571	-	-	1547	-	-
Mov Cap-2 Maneuver	641	738	-	623	741	-	-	-	-	-	-	-
Stage 1	945	838	-	927	824	-	-	-	-	-	-	-
Stage 2	709	818	-	708	834	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	11.1	1.5	2.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	761	735	1547	-	-
HCM Lane V/C Ratio	0.007	-	-	0.211	0.201	0.007	-	-
HCM Control Delay (s)	7.3	0	-	11	11.1	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.7	0	-	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

























4/18/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	674	1469	550	96	79	361		
Future Volume (veh/h)	674	1469	550	96	79	361		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	766	1669	625	109	90	410		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	812	2477	843	147	355	317		
Arrive On Green	0.37	0.70	0.28	0.28	0.20	0.20		
Sat Flow, veh/h	1774	3632	3108	525	1774	1583		
Grp Volume(v), veh/h	766	1669	366	368	90	410		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1770	1774	1583		
Q Serve(g_s), s	25.9	21.4	15.0	15.1	3.4	16.0		
Cycle Q Clear(g_c), s	25.9	21.4	15.0	15.1	3.4	16.0		
Prop In Lane	1.00			0.30	1.00	1.00		
Lane Grp Cap(c), veh/h	812	2477	495	495	355	317		
V/C Ratio(X)	0.94	0.67	0.74	0.74	0.25	1.29		
Avail Cap(c_a), veh/h	887	2477	495	495	355	317		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	15.8	6.8	26.2	26.2	27.0	32.0		
Incr Delay (d2), s/veh	17.2	1.5	9.6	9.7	0.4	154.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	19.8	10.7	8.6	8.7	1.7	20.5		
LnGrp Delay(d),s/veh	33.0	8.3	35.7	35.9	27.3	186.1		
LnGrp LOS	C	A	D	D	C	F		
Approach Vol, veh/h		2435	734		500			
Approach Delay, s/veh		16.1	35.8		157.5			
Approach LOS		B	D		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	33.6	26.4				60.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	33.0	19.0				56.0		16.0
Max Q Clear Time (g_c+I1), s	27.9	17.1				23.4		18.0
Green Ext Time (p_c), s	1.7	1.7				15.9		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			39.3					
HCM 2010 LOS			D					

# HCM 2010 Signalized Intersection Summary

## 11: SH-75 & Bullion

4/18/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	108	105	288	95	67	101	809	66	73	1305	50
Future Volume (veh/h)	101	108	105	288	95	67	101	809	66	73	1305	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	115	123	119	327	108	76	115	919	75	83	1483	57
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	488	412	369	488	412	182	1680	137	318	1762	68
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1070	1676	1415	1015	1676	1415	302	2980	243	507	3127	120
Grp Volume(v), veh/h	115	123	119	327	108	76	115	491	503	83	754	786
Grp Sat Flow(s),veh/h/ln	1070	1676	1415	1015	1676	1415	302	1593	1631	507	1593	1654
Q Serve(g_s), s	5.0	3.1	3.6	12.9	2.7	2.2	9.2	10.7	10.7	6.8	21.6	21.8
Cycle Q Clear(g_c), s	7.7	3.1	3.6	16.0	2.7	2.2	31.0	10.7	10.7	17.5	21.6	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.07
Lane Grp Cap(c), veh/h	390	488	412	369	488	412	182	898	919	318	898	932
V/C Ratio(X)	0.29	0.25	0.29	0.89	0.22	0.18	0.63	0.55	0.55	0.26	0.84	0.84
Avail Cap(c_a), veh/h	390	488	412	369	488	412	182	898	919	318	898	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	14.9	15.1	22.8	14.8	14.6	25.5	7.6	7.6	13.1	9.9	10.0
Incr Delay (d2), s/veh	0.4	0.3	0.4	21.8	0.2	0.2	15.6	2.4	2.3	2.0	9.3	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.5	1.4	7.1	1.3	0.9	2.5	5.2	5.3	1.1	11.5	12.0
LnGrp Delay(d),s/veh	18.1	15.2	15.5	44.6	15.0	14.8	41.1	10.0	9.9	15.1	19.2	19.2
LnGrp LOS	B	B	B	D	B	B	D	A	A	B	B	B
Approach Vol, veh/h		357			511			1109			1623	
Approach Delay, s/veh		16.2			33.9			13.2			19.0	
Approach LOS		B			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		20.0		35.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		31.0		16.0		31.0		16.0				
Max Q Clear Time (g_c+I1), s		33.0		9.7		23.8		18.0				
Green Ext Time (p_c), s		0.0		2.3		6.9		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.0									
HCM 2010 LOS			B									

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	20.8		
Intersection LOS	C		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	294	842	448
Demand Flow Rate, veh/h	300	858	457
Vehicles Circulating, veh/h	432	159	196
Vehicles Exiting, veh/h	585	494	536
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	10.5	30.0	10.2
Approach LOS	B	D	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	300	858	457
Cap Entry Lane, veh/h	734	964	929
Entry HV Adj Factor	0.980	0.981	0.981
Flow Entry, veh/h	294	842	448
Cap Entry, veh/h	719	943	910
V/C Ratio	0.409	0.892	0.492
Control Delay, s/veh	10.5	30.0	10.2
LOS	B	D	B
95th %tile Queue, veh	2	13	3

**Intersection**

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	147	21	0	5	70	12	0	6	74	22
Future Vol, veh/h	0	6	147	21	0	5	70	12	0	6	74	22
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	167	24	0	6	80	14	0	7	84	25
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9	8.3	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	3%	6%	27%
Vol Thru, %	73%	84%	80%	72%
Vol Right, %	22%	12%	14%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	174	87	86
LT Vol	6	6	5	23
Through Vol	74	147	70	62
RT Vol	22	21	12	1
Lane Flow Rate	116	198	99	98
Geometry Grp	1	1	1	1
Degree of Util (X)	0.149	0.247	0.126	0.13
Departure Headway (Hd)	4.625	4.496	4.602	4.807
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	774	799	778	745
Service Time	2.659	2.524	2.636	2.843
HCM Lane V/C Ratio	0.15	0.248	0.127	0.132
HCM Control Delay	8.5	9	8.3	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	1	0.4	0.4



**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	23	62	1
Future Vol, veh/h	0	23	62	1
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	26	70	1
Number of Lanes	0	0	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.6
HCM LOS	A

**Lane**

**Intersection**

Int Delay, s/veh 0.6

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	746	60	0	417
Future Vol, veh/h	23	1	746	60	0	417
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	848	68	0	474

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1356	882	0	0	916	0
Stage 1	882	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	165	345	-	-	745	-
Stage 1	405	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	165	345	-	-	745	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	626	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	30.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	169	745	-
HCM Lane V/C Ratio	-	-	0.161	-	-
HCM Control Delay (s)	-	-	30.4	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	63	375	285	7	8	89
Future Vol, veh/h	63	375	285	7	8	89
Conflicting Peds, #/hr	10	0	0	10	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	426	324	8	9	101

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	333	0	898
Stage 1	-	-	329
Stage 2	-	-	569
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1226	-	310
Stage 1	-	-	729
Stage 2	-	-	566
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1216	-	285
Mov Cap-2 Maneuver	-	-	285
Stage 1	-	-	728
Stage 2	-	-	521

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1216	-	-	-	623
HCM Lane V/C Ratio	0.059	-	-	-	0.177
HCM Control Delay (s)	8.1	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

**Intersection**

Int Delay, s/veh 5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	18	164	57	9	176	162
Future Vol, veh/h	18	164	57	9	176	162
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	186	65	10	200	184

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	654	71	0
Stage 1	70	-	-
Stage 2	584	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	431	991	1524
Stage 1	953	-	-
Stage 2	557	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	368	990	1523
Mov Cap-2 Maneuver	368	-	-
Stage 1	953	-	-
Stage 2	475	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	848	1523
HCM Lane V/C Ratio	-	-	0.244	0.131
HCM Control Delay (s)	-	-	10.6	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.5

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	1	324	294	72	106	3
Future Vol, veh/h	1	324	294	72	106	3
Conflicting Peds, #/hr	6	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	368	334	82	120	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	417	0	746
Stage 1	-	-	376
Stage 2	-	-	370
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1142	-	665
Stage 1	-	-	694
Stage 2	-	-	699
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1136	-	661
Mov Cap-2 Maneuver	-	-	491
Stage 1	-	-	693
Stage 2	-	-	698

Approach	EB	WB	SE
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1136	-	-	-	495
HCM Lane V/C Ratio	0.001	-	-	-	0.25
HCM Control Delay (s)	8.2	-	-	-	14.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1

**Intersection**

Int Delay, s/veh 5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	152	226	4	303	261	1
Future Vol, veh/h	152	226	4	303	261	1
Conflicting Peds, #/hr	0	36	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	173	257	5	344	297	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	431
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1129
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1129
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	516	737	-	-	1129	-
HCM Lane V/C Ratio	0.575	0.002	-	-	0.004	-
HCM Control Delay (s)	21	9.9	-	-	8.2	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	3.6	0	-	-	0	-

**Intersection**

Int Delay, s/veh 2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	109	0	145	9	1	199
Future Vol, veh/h	109	0	145	9	1	199
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	0	165	10	1	226

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	398	170	0
Stage 1	170	-	-
Stage 2	228	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	607	874	-
Stage 1	860	-	-
Stage 2	810	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	606	874	-
Mov Cap-2 Maneuver	656	-	-
Stage 1	860	-	-
Stage 2	809	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	656	1401
HCM Lane V/C Ratio	-	-	0.189	0.001
HCM Control Delay (s)	-	-	11.8	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0

**Intersection**

Int Delay, s/veh 2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	74	0	126	19	0	127
Future Vol, veh/h	74	0	126	19	0	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	143	22	0	144

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	298	154	0
Stage 1	154	-	-
Stage 2	144	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	693	892	-
Stage 1	874	-	-
Stage 2	883	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	693	892	-
Mov Cap-2 Maneuver	717	-	-
Stage 1	874	-	-
Stage 2	883	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	717	1413
HCM Lane V/C Ratio	-	-	0.117	-
HCM Control Delay (s)	-	-	10.7	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0



**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	10	62	47	7	75	43	869	135	66	1561	31
Future Vol, veh/h	1	10	62	47	7	75	43	869	135	66	1561	31
Conflicting Peds, #/hr	6	0	8	8	0	6	15	0	3	3	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	11	70	53	8	85	49	988	153	75	1774	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2552	3196	928	2221	3137	593	1817	0	0	1149	0	0
Stage 1	1949	1949	-	1170	1170	-	-	-	-	-	-	-
Stage 2	603	1247	-	1051	1967	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	13	~ 10	270	~ 24	11	449	334	-	-	604	-	-
Stage 1	66	110	-	205	265	-	-	-	-	-	-	-
Stage 2	453	244	-	243	107	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 6	265	-	~ 6	440	330	-	-	596	-	-
Mov Cap-2 Maneuver	-	~ 6	-	-	~ 6	-	-	-	-	-	-	-
Stage 1	38	109	-	117	151	-	-	-	-	-	-	-
Stage 2	196	139	-	158	106	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			3.6	0.5
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	330	-	-	-	596	-	-
HCM Lane V/C Ratio	0.148	-	-	-	0.126	-	-
HCM Control Delay (s)	17.8	3.4	-	-	11.9	0	-
HCM Lane LOS	C	A	-	-	B	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	0.4	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	3	189	69	146	167	1
Future Vol, veh/h	3	189	69	146	167	1
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	215	78	166	190	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	245	0	384
Stage 1	-	-	162
Stage 2	-	-	222
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1321	-	619
Stage 1	-	-	867
Stage 2	-	-	815
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1321	-	616
Mov Cap-2 Maneuver	-	-	616
Stage 1	-	-	866
Stage 2	-	-	812

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1321	-	-	-	617
HCM Lane V/C Ratio	0.003	-	-	-	0.309
HCM Control Delay (s)	7.7	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.3

**Intersection**

Int Delay, s/veh 9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	145	17	8	161	0	10	25	16	11	17	6
Future Vol, veh/h	3	145	17	8	161	0	10	25	16	11	17	6
Conflicting Peds, #/hr	1	0	10	10	0	1	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	165	19	9	183	0	11	28	18	13	19	7












Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	220	137	36	220	131	51	36	0	0	57	0	0
Stage 1	58	58	-	70	70	-	-	-	-	-	-	-
Stage 2	162	79	-	150	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	736	754	1037	736	760	1017	1575	-	-	1547	-	-
Stage 1	954	847	-	940	837	-	-	-	-	-	-	-
Stage 2	840	829	-	853	844	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	581	730	1026	583	735	1006	1571	-	-	1543	-	-
Mov Cap-2 Maneuver	581	730	-	583	735	-	-	-	-	-	-	-
Stage 1	939	832	-	926	824	-	-	-	-	-	-	-
Stage 2	647	816	-	663	829	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	11.7	1.4	2.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	749	726	1543	-	-
HCM Lane V/C Ratio	0.007	-	-	0.25	0.265	0.008	-	-
HCM Control Delay (s)	7.3	0	-	11.4	11.7	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	1.1	0	-	-

























HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/17/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	641	1469	550	91	73	334		
Future Volume (veh/h)	641	1469	550	91	73	334		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	728	1669	625	103	83	380		
Adj No. of Lanes	1	2	2	0	1	1		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	781	2477	969	159	355	317		
Arrive On Green	0.33	0.70	0.32	0.32	0.20	0.20		
Sat Flow, veh/h	1774	3632	3136	501	1774	1583		
Grp Volume(v), veh/h	728	1669	363	365	83	380		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1774	1774	1583		
Q Serve(g_s), s	22.5	21.4	14.1	14.1	3.1	16.0		
Cycle Q Clear(g_c), s	22.5	21.4	14.1	14.1	3.1	16.0		
Prop In Lane	1.00			0.28	1.00	1.00		
Lane Grp Cap(c), veh/h	781	2477	563	565	355	317		
V/C Ratio(X)	0.93	0.67	0.64	0.65	0.23	1.20		
Avail Cap(c_a), veh/h	902	2477	563	565	355	317		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	14.7	6.8	23.4	23.4	26.9	32.0		
Incr Delay (d2), s/veh	14.8	1.5	5.6	5.6	0.3	116.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	18.4	10.7	7.7	7.8	1.6	17.2		
LnGrp Delay(d),s/veh	29.6	8.3	29.0	29.0	27.2	148.4		
LnGrp LOS	C	A	C	C	C	F		
Approach Vol, veh/h		2397	728		463			
Approach Delay, s/veh		14.8	29.0		126.7			
Approach LOS		B	C		F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	30.5	29.5				60.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	32.0	20.0				56.0		16.0
Max Q Clear Time (g_c+I1), s	24.5	16.1				23.4		18.0
Green Ext Time (p_c), s	2.1	3.2				15.8		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			32.1					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary  
 11: SH-75 & Bullion

4/17/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	118	105	311	103	73	101	809	72	80	1305	50
Future Volume (veh/h)	101	118	105	311	103	73	101	809	72	80	1305	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1676	1676	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	115	134	119	353	117	83	115	919	82	91	1483	57
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	518	437	381	518	437	171	1612	144	302	1705	65
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1055	1676	1415	1006	1676	1415	302	2956	264	504	3127	120
Grp Volume(v), veh/h	115	134	119	353	117	83	115	495	506	91	754	786
Grp Sat Flow(s),veh/h/ln	1055	1676	1415	1006	1676	1415	302	1593	1627	504	1593	1654
Q Serve(g_s), s	5.0	3.3	3.5	13.7	2.9	2.4	7.3	11.3	11.3	8.0	22.5	22.7
Cycle Q Clear(g_c), s	7.8	3.3	3.5	17.0	2.9	2.4	30.0	11.3	11.3	19.3	22.5	22.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.07
Lane Grp Cap(c), veh/h	402	518	437	381	518	437	171	869	887	302	869	902
V/C Ratio(X)	0.29	0.26	0.27	0.93	0.23	0.19	0.67	0.57	0.57	0.30	0.87	0.87
Avail Cap(c_a), veh/h	402	518	437	381	518	437	171	869	887	302	869	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	14.3	14.3	22.6	14.1	13.9	26.2	8.2	8.2	14.6	10.8	10.8
Incr Delay (d2), s/veh	0.4	0.3	0.3	28.2	0.2	0.2	19.1	2.7	2.7	2.5	11.4	11.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.6	1.4	8.3	1.3	0.9	2.6	5.5	5.6	1.3	12.4	12.9
LnGrp Delay(d),s/veh	17.4	14.5	14.7	50.8	14.3	14.2	45.3	11.0	10.9	17.1	22.2	22.2
LnGrp LOS	B	B	B	D	B	B	D	B	B	B	C	C
Approach Vol, veh/h		368			553			1116			1631	
Approach Delay, s/veh		15.5			37.6			14.5			21.9	
Approach LOS		B			D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.0		21.0		34.0		21.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		30.0		17.0		30.0		17.0				
Max Q Clear Time (g_c+I1), s		32.0		9.8		24.7		19.0				
Green Ext Time (p_c), s		0.0		2.7		5.1		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.4								
HCM 2010 LOS				C								

HCM 2010 Roundabout  
4: Fox Acres & Woodside

4/17/2017

Intersection			
Intersection Delay, s/veh	16.8		
Intersection LOS	C		
Approach	WB	NE	SW
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	284	799	391
Demand Flow Rate, veh/h	290	815	399
Vehicles Circulating, veh/h	389	139	196
Vehicles Exiting, veh/h	565	456	483
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	15	7
Ped Cap Adj	1.000	0.998	0.999
Approach Delay, s/veh	9.6	23.2	9.1
Approach LOS	A	C	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	290	815	399
Cap Entry Lane, veh/h	766	983	929
Entry HV Adj Factor	0.979	0.981	0.980
Flow Entry, veh/h	284	799	391
Cap Entry, veh/h	750	962	909
V/C Ratio	0.379	0.831	0.430
Control Delay, s/veh	9.6	23.2	9.1
LOS	A	C	A
95th %tile Queue, veh	2	10	2

**Intersection**

Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	6	172	21	0	7	85	15	0	6	74	25
Future Vol, veh/h	0	6	172	21	0	7	85	15	0	6	74	25
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	195	24	0	8	97	17	0	7	84	28
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.4	8.6	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	3%	7%	30%
Vol Thru, %	70%	86%	79%	69%
Vol Right, %	24%	11%	14%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	199	107	90
LT Vol	6	6	7	27
Through Vol	74	172	85	62
RT Vol	25	21	15	1
Lane Flow Rate	119	226	122	102
Geometry Grp	1	1	1	1
Degree of Util (X)	0.157	0.287	0.158	0.141
Departure Headway (Hd)	4.745	4.562	4.669	4.948
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	753	787	766	722
Service Time	2.793	2.601	2.714	2.997
HCM Lane V/C Ratio	0.158	0.287	0.159	0.141
HCM Control Delay	8.7	9.4	8.6	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.6	0.5

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	27	62	1
Future Vol, veh/h	0	27	62	1
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	70	1
Number of Lanes	0	0	1	0

**Approach**

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

**Lane**



**Intersection**

Int Delay, s/veh 0.6

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	707	60	0	385
Future Vol, veh/h	23	1	707	60	0	385
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	803	68	0	438

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1276	838	0	0	872	0
Stage 1	838	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	184	366	-	-	773	-
Stage 1	424	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	184	366	-	-	773	-
Mov Cap-2 Maneuver	184	-	-	-	-	-
Stage 1	424	-	-	-	-	-
Stage 2	651	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	27.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	188	773	-
HCM Lane V/C Ratio	-	-	0.145	-	-
HCM Control Delay (s)	-	-	27.4	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	-

**Intersection**

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	63	327	236	6	7	89
Future Vol, veh/h	63	327	236	6	7	89
Conflicting Peds, #/hr	10	0	0	10	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	372	268	7	8	101

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	276	0	788
Stage 1	-	-	273
Stage 2	-	-	515
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1287	-	360
Stage 1	-	-	773
Stage 2	-	-	600
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1276	-	334
Mov Cap-2 Maneuver	-	-	334
Stage 1	-	-	772
Stage 2	-	-	557

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1276	-	-	-	687
HCM Lane V/C Ratio	0.056	-	-	-	0.159
HCM Control Delay (s)	8	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

**Intersection**

Int Delay, s/veh 6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	25	221	57	12	235	162
Future Vol, veh/h	25	221	57	12	235	162
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	251	65	14	267	184

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	790	73	0
Stage 1	72	-	-
Stage 2	718	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	359	989	1520
Stage 1	951	-	-
Stage 2	483	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	288	988	1519
Mov Cap-2 Maneuver	288	-	-
Stage 1	951	-	-
Stage 2	388	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	4.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	792	1519
HCM Lane V/C Ratio	-	-	0.353	0.176
HCM Control Delay (s)	-	-	12	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.6	0.6

**Intersection**

Int Delay, s/veh 1.9

Movement	EBL	EBT	WBT	WBR	SEL	SER
Traffic Vol, veh/h	1	275	243	60	93	3
Future Vol, veh/h	1	275	243	60	93	3
Conflicting Peds, #/hr	6	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	313	276	68	106	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	345	0	626
Stage 1	-	-	311
Stage 2	-	-	315
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1214	-	448
Stage 1	-	-	743
Stage 2	-	-	740
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1208	-	447
Mov Cap-2 Maneuver	-	-	542
Stage 1	-	-	742
Stage 2	-	-	739

Approach	EB	WB	SE
HCM Control Delay, s	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1208	-	-	-	546
HCM Lane V/C Ratio	0.001	-	-	-	0.2
HCM Control Delay (s)	8	-	-	-	13.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

**Intersection**

Int Delay, s/veh 5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	89	226	4	240	261	1
Future Vol, veh/h	89	226	4	240	261	1
Conflicting Peds, #/hr	0	36	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	257	5	273	297	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	359
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1200
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1200
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	581	807	-	-	1200	-
HCM Lane V/C Ratio	0.51	0.001	-	-	0.004	-
HCM Control Delay (s)	17.5	9.5	-	-	8	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	2.9	0	-	-	0	-

**Intersection**

Int Delay, s/veh 3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	109	0	82	9	1	135
Future Vol, veh/h	109	0	82	9	1	135
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	0	93	10	1	153

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	254	98	0
Stage 1	98	-	-
Stage 2	156	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	735	958	1489
Stage 1	926	-	-
Stage 2	872	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	734	958	1489
Mov Cap-2 Maneuver	743	-	-
Stage 1	926	-	-
Stage 2	871	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	743	1489
HCM Lane V/C Ratio	-	-	0.167	0.001
HCM Control Delay (s)	-	-	10.8	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

**Intersection**

Int Delay, s/veh 3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	74	0	63	19	0	64
Future Vol, veh/h	74	0	63	19	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	72	22	0	73

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	155	82	0
Stage 1	82	-	-
Stage 2	73	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	836	978	1501
Stage 1	941	-	-
Stage 2	950	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	836	978	1501
Mov Cap-2 Maneuver	813	-	-
Stage 1	941	-	-
Stage 2	950	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	813	1501
HCM Lane V/C Ratio	-	-	0.103	-
HCM Control Delay (s)	-	-	9.9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	11	62	52	8	84	43	869	151	73	1561	31
Future Vol, veh/h	1	11	62	52	8	84	43	869	151	73	1561	31
Conflicting Peds, #/hr	6	0	8	8	0	6	15	0	3	3	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	13	70	59	9	95	49	988	172	83	1774	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2569	3230	928	2246	3162	603	1817	0	0	1167	0	0
Stage 1	1965	1965	-	1179	1179	-	-	-	-	-	-	-
Stage 2	604	1265	-	1067	1983	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	13	~ 9	270	~ 23	10	442	334	-	-	594	-	-
Stage 1	65	107	-	202	262	-	-	-	-	-	-	-
Stage 2	452	239	-	237	105	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 5	265	-	~ 6	434	330	-	-	587	-	-
Mov Cap-2 Maneuver	-	~ 5	-	-	~ 6	-	-	-	-	-	-	-
Stage 1	36	106	-	112	145	-	-	-	-	-	-	-
Stage 2	182	133	-	152	104	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			3.7	0.5
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	330	-	-	-	587	-	-
HCM Lane V/C Ratio	0.148	-	-	-	0.141	-	-
HCM Control Delay (s)	17.8	3.6	-	-	12.1	0	-
HCM Lane LOS	C	A	-	-	B	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	0.5	-	-

**Notes**  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection**

Int Delay, s/veh 4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	3	221	88	185	190	1
Future Vol, veh/h	3	221	88	185	190	1
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	251	100	210	216	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	311	0	464
Stage 1	-	-	206
Stage 2	-	-	258
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1249	-	835
Stage 1	-	-	829
Stage 2	-	-	785
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1249	-	834
Mov Cap-2 Maneuver	-	-	553
Stage 1	-	-	828
Stage 2	-	-	782

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1249	-	-	-	554
HCM Lane V/C Ratio	0.003	-	-	-	0.392
HCM Control Delay (s)	7.9	0	-	-	15.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

**Intersection**

Int Delay, s/veh 10.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	3	168	17	10	198	0	10	25	19	13	17	6
Future Vol, veh/h	3	168	17	10	198	0	10	25	19	13	17	6
Conflicting Peds, #/hr	1	0	10	10	0	1	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	191	19	11	225	0	11	28	22	15	19	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	246	145	36	239	138	52	36	0	0	60	0	0
Stage 1	62	62	-	72	72	-	-	-	-	-	-	-
Stage 2	184	83	-	167	66	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	708	746	1037	715	753	1016	1575	-	-	1544	-	-
Stage 1	949	843	-	938	835	-	-	-	-	-	-	-
Stage 2	818	826	-	835	840	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	526	721	1026	545	728	1005	1571	-	-	1540	-	-
Mov Cap-2 Maneuver	526	721	-	545	728	-	-	-	-	-	-	-
Stage 1	935	828	-	924	822	-	-	-	-	-	-	-
Stage 2	588	813	-	623	825	-	-	-	-	-	-	-












Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.5	1.4	2.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	736	716	1540	-
HCM Lane V/C Ratio	0.007	-	-	0.29	0.33	0.01	-
HCM Control Delay (s)	7.3	0	-	11.9	12.5	7.4	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	1.2	1.4	0	-

## **APPENDIX E – IMPROVEMENT ANALYSIS RESULTS**

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/18/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	381	550	1389	176	101	772		
Future Volume (veh/h)	381	550	1389	176	101	772		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	433	625	1578	200	115	877		
Adj No. of Lanes	1	2	2	0	1	2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	435	2595	1548	193	315	1053		
Arrive On Green	0.20	0.73	0.49	0.49	0.18	0.18		
Sat Flow, veh/h	1774	3632	3260	396	1774	2787		
Grp Volume(v), veh/h	433	625	872	906	115	877		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1793	1774	1393		
Q Serve(g_s), s	17.9	5.1	44.0	44.0	5.1	16.0		
Cycle Q Clear(g_c), s	17.9	5.1	44.0	44.0	5.1	16.0		
Prop In Lane	1.00			0.22	1.00	1.00		
Lane Grp Cap(c), veh/h	435	2595	865	877	315	1053		
V/C Ratio(X)	1.00	0.24	1.01	1.03	0.36	0.83		
Avail Cap(c_a), veh/h	435	2595	865	877	315	1053		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	29.5	3.9	23.0	23.0	32.5	25.4		
Incr Delay (d2), s/veh	42.0	0.2	32.4	39.5	0.7	5.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	15.8	2.5	29.2	31.3	2.6	10.7		
LnGrp Delay(d),s/veh	71.5	4.1	55.5	62.5	33.2	31.3		
LnGrp LOS	E	A	F	F	C	C		
Approach Vol, veh/h		1058	1778		992			
Approach Delay, s/veh		31.7	59.0		31.5			
Approach LOS		C	E		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	22.0	48.0				70.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	18.0	44.0				66.0		16.0
Max Q Clear Time (g_c+I1), s	19.9	46.0				7.1		18.0
Green Ext Time (p_c), s	0.0	0.0				19.0		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			44.3					
HCM 2010 LOS			D					

**Intersection**

Int Delay, s/veh 0.9

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	9	584	6	3	824
Future Vol, veh/h	49	9	584	6	3	824
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	10	664	7	3	936












Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1611	669	0	0	671	0
Stage 1	668	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	115	458	-	-	919	-
Stage 1	510	-	-	-	-	-
Stage 2	379	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	114	457	-	-	918	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	376	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	22.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	267	918	-
HCM Lane V/C Ratio	-	-	0.247	0.004	-
HCM Control Delay (s)	-	-	22.8	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/18/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	359	550	1389	165	96	736		
Future Volume (veh/h)	359	550	1389	165	96	736		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	408	625	1578	188	109	836		
Adj No. of Lanes	1	2	2	0	1	2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	415	2595	1595	188	315	1022		
Arrive On Green	0.19	0.73	0.50	0.50	0.18	0.18		
Sat Flow, veh/h	1774	3632	3284	375	1774	2787		
Grp Volume(v), veh/h	408	625	866	900	109	836		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1797	1774	1393		
Q Serve(g_s), s	16.5	5.1	43.1	45.0	4.8	16.0		
Cycle Q Clear(g_c), s	16.5	5.1	43.1	45.0	4.8	16.0		
Prop In Lane	1.00			0.21	1.00	1.00		
Lane Grp Cap(c), veh/h	415	2595	885	898	315	1022		
V/C Ratio(X)	0.98	0.24	0.98	1.00	0.35	0.82		
Avail Cap(c_a), veh/h	415	2595	885	898	315	1022		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	29.6	3.9	22.0	22.5	32.4	25.8		
Incr Delay (d2), s/veh	39.5	0.2	25.5	30.6	0.6	5.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.6	2.5	27.2	29.8	2.4	10.0		
LnGrp Delay(d),s/veh	69.1	4.1	47.5	53.1	33.1	31.1		
LnGrp LOS	E	A	D	F	C	C		
Approach Vol, veh/h		1033	1766		945			
Approach Delay, s/veh		29.8	50.3		31.3			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.0	49.0				70.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	17.0	45.0				66.0		16.0
Max Q Clear Time (g_c+I1), s	18.5	47.0				7.1		18.0
Green Ext Time (p_c), s	0.0	0.0				18.8		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			39.9					
HCM 2010 LOS			D					

**Intersection**

Int Delay, s/veh 0.9

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	9	519	6	3	783
Future Vol, veh/h	49	9	519	6	3	783
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	10	590	7	3	890












Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1491	595	0	0	598	0
Stage 1	594	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	136	504	-	-	979	-
Stage 1	552	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	135	503	-	-	978	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	395	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	21	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	290	978	-
HCM Lane V/C Ratio	-	-	0.227	0.003	-
HCM Control Delay (s)	-	-	21	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

4/18/2017

								
Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	337	550	1389	155	92	700		
Future Volume (veh/h)	337	550	1389	155	92	700		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	383	625	1578	176	105	795		
Adj No. of Lanes	1	2	2	0	1	2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	403	2595	1643	181	315	991		
Arrive On Green	0.18	0.73	0.51	0.51	0.18	0.18		
Sat Flow, veh/h	1774	3632	3309	354	1774	2787		
Grp Volume(v), veh/h	383	625	860	894	105	795		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1800	1774	1393		
Q Serve(g_s), s	14.7	5.1	41.6	43.4	4.7	16.0		
Cycle Q Clear(g_c), s	14.7	5.1	41.6	43.4	4.7	16.0		
Prop In Lane	1.00			0.20	1.00	1.00		
Lane Grp Cap(c), veh/h	403	2595	904	920	315	991		
V/C Ratio(X)	0.95	0.24	0.95	0.97	0.33	0.80		
Avail Cap(c_a), veh/h	403	2595	904	920	315	991		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	28.8	3.9	20.9	21.4	32.3	26.1		
Incr Delay (d2), s/veh	32.1	0.2	20.1	23.6	0.6	4.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	13.0	2.5	25.1	27.4	2.3	9.5		
LnGrp Delay(d),s/veh	60.9	4.1	41.0	44.9	33.0	31.0		
LnGrp LOS	E	A	D	D	C	C		
Approach Vol, veh/h		1008	1754		900			
Approach Delay, s/veh		25.7	43.0		31.2			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.0	50.0				70.0		20.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	46.0				66.0		16.0
Max Q Clear Time (g_c+I1), s	16.7	45.4				7.1		18.0
Green Ext Time (p_c), s	0.0	0.5				18.5		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			35.4					
HCM 2010 LOS			D					



**Intersection**

Int Delay, s/veh 0.9

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	49	8	486	6	3	743
Future Vol, veh/h	49	8	486	6	3	743
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	9	552	7	3	844

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1408	558	0	0	560	0
Stage 1	557	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	153	529	-	-	1011	-
Stage 1	574	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	152	528	-	-	1010	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	416	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	19.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	307	1010	-
HCM Lane V/C Ratio	-	-	0.211	0.003	-
HCM Control Delay (s)	-	-	19.8	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

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Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	707	1469	550	101	85	388		
Future Volume (veh/h)	707	1469	550	101	85	388		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	803	1669	625	115	97	441		
Adj No. of Lanes	1	2	2	0	1	2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	861	2730	1097	201	240	1373		
Arrive On Green	0.36	0.77	0.37	0.37	0.14	0.14		
Sat Flow, veh/h	1774	3632	3080	549	1774	2787		
Grp Volume(v), veh/h	803	1669	370	370	97	441		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1766	1774	1393		
Q Serve(g_s), s	25.5	17.5	14.3	14.4	4.3	8.2		
Cycle Q Clear(g_c), s	25.5	17.5	14.3	14.4	4.3	8.2		
Prop In Lane	1.00			0.31	1.00	1.00		
Lane Grp Cap(c), veh/h	861	2730	650	648	240	1373		
V/C Ratio(X)	0.93	0.61	0.57	0.57	0.40	0.32		
Avail Cap(c_a), veh/h	1056	2730	650	648	332	1517		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	14.6	4.2	21.7	21.7	33.8	13.1		
Incr Delay (d2), s/veh	12.7	1.0	3.6	3.6	1.1	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	20.7	8.7	7.6	7.6	2.2	3.1		
LnGrp Delay(d),s/veh	27.4	5.3	25.3	25.3	34.9	13.2		
LnGrp LOS	C	A	C	C	C	B		
Approach Vol, veh/h		2472	740		538			
Approach Delay, s/veh		12.5	25.3		17.1			
Approach LOS		B	C		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	34.6	35.4				70.0		15.6
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	40.0	22.0				66.0		16.0
Max Q Clear Time (g_c+I1), s	27.5	16.4				19.5		10.2
Green Ext Time (p_c), s	3.1	4.5				18.3		1.4
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			15.7					
HCM 2010 LOS			B					

**Intersection**

Int Delay, s/veh 0.4

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	784	60	0	450
Future Vol, veh/h	23	1	784	60	0	450
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	891	68	0	511

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1436	925	0	0	959	0
Stage 1	925	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	147	326	-	-	717	-
Stage 1	386	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	147	326	-	-	717	-
Mov Cap-2 Maneuver	277	-	-	-	-	-
Stage 1	386	-	-	-	-	-
Stage 2	602	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	19.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	279	717	-
HCM Lane V/C Ratio	-	-	0.098	-	-
HCM Control Delay (s)	-	-	19.3	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

HCM 2010 Signalized Intersection Summary  
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Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	674	1469	550	96	79	361		
Future Volume (veh/h)	674	1469	550	96	79	361		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	766	1669	625	109	90	410		
Adj No. of Lanes	1	2	2	0	1	2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	830	2668	1113	194	246	1308		
Arrive On Green	0.33	0.75	0.37	0.37	0.14	0.14		
Sat Flow, veh/h	1774	3632	3108	525	1774	2787		
Grp Volume(v), veh/h	766	1669	366	368	90	410		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1770	1774	1393		
Q Serve(g_s), s	19.8	16.3	12.2	12.3	3.4	6.8		
Cycle Q Clear(g_c), s	19.8	16.3	12.2	12.3	3.4	6.8		
Prop In Lane	1.00			0.30	1.00	1.00		
Lane Grp Cap(c), veh/h	830	2668	653	653	246	1308		
V/C Ratio(X)	0.92	0.63	0.56	0.56	0.37	0.31		
Avail Cap(c_a), veh/h	1032	2668	653	653	382	1522		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	12.2	4.3	18.6	18.7	29.0	12.3		
Incr Delay (d2), s/veh	11.5	1.1	3.5	3.5	0.9	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	17.1	8.1	6.5	6.6	1.7	2.6		
LnGrp Delay(d),s/veh	23.8	5.4	22.1	22.1	30.0	12.4		
LnGrp LOS	C	A	C	C	C	B		
Approach Vol, veh/h		2435	734		500			
Approach Delay, s/veh		11.2	22.1		15.6			
Approach LOS		B	C		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.6	31.4				60.0		14.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	33.0	19.0				56.0		16.0
Max Q Clear Time (g_c+I1), s	21.8	14.3				18.3		8.8
Green Ext Time (p_c), s	2.8	3.9				16.9		1.5
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			14.0					
HCM 2010 LOS			B					

**Intersection**

Int Delay, s/veh 0.4

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	746	60	0	417
Future Vol, veh/h	23	1	746	60	0	417
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	848	68	0	474












Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1356	882	0	0	916	0
Stage 1	882	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	165	345	-	-	745	-
Stage 1	405	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	165	345	-	-	745	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	626	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	18.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	297	745	-
HCM Lane V/C Ratio	-	-	0.092	-	-
HCM Control Delay (s)	-	-	18.3	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR-75 & Fox Acres

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Movement	SEL	SET	NWT	NWR	SWL	SWR		
Lane Configurations								
Traffic Volume (veh/h)	641	1469	550	91	73	334		
Future Volume (veh/h)	641	1469	550	91	73	334		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	728	1669	625	103	83	380		
Adj No. of Lanes	1	2	2	0	1	2		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	796	2674	1264	208	242	1178		
Arrive On Green	0.29	0.76	0.42	0.42	0.14	0.14		
Sat Flow, veh/h	1774	3632	3136	501	1774	2787		
Grp Volume(v), veh/h	728	1669	363	365	83	380		
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1774	1774	1393		
Q Serve(g_s), s	16.4	16.2	11.2	11.2	3.1	6.8		
Cycle Q Clear(g_c), s	16.4	16.2	11.2	11.2	3.1	6.8		
Prop In Lane	1.00			0.28	1.00	1.00		
Lane Grp Cap(c), veh/h	796	2674	735	737	242	1178		
V/C Ratio(X)	0.91	0.62	0.49	0.50	0.34	0.32		
Avail Cap(c_a), veh/h	1054	2674	735	737	383	1399		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	11.0	4.2	15.9	15.9	29.0	14.3		
Incr Delay (d2), s/veh	9.9	1.1	2.4	2.4	0.8	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	15.9	8.1	5.9	6.0	1.6	2.6		
LnGrp Delay(d),s/veh	20.9	5.3	18.3	18.3	29.8	14.5		
LnGrp LOS	C	A	B	B	C	B		
Approach Vol, veh/h		2397	728		463			
Approach Delay, s/veh		10.0	18.3		17.2			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	25.2	34.8				60.0		14.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	32.0	20.0				56.0		16.0
Max Q Clear Time (g_c+I1), s	18.4	13.2				18.2		8.8
Green Ext Time (p_c), s	2.8	5.3				16.9		1.4
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			12.6					
HCM 2010 LOS			B					

**Intersection**

Int Delay, s/veh 0.4

Movement	NBL	NBR	NET	NER	SWL	SWT
Traffic Vol, veh/h	23	1	707	60	0	385
Future Vol, veh/h	23	1	707	60	0	385
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	803	68	0	438

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1276	838	0	0	872	0
Stage 1	838	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	184	366	-	-	773	-
Stage 1	424	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	184	366	-	-	773	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	424	-	-	-	-	-
Stage 2	651	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	17.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	315	773	-
HCM Lane V/C Ratio	-	-	0.087	-	-
HCM Control Delay (s)	-	-	17.5	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-