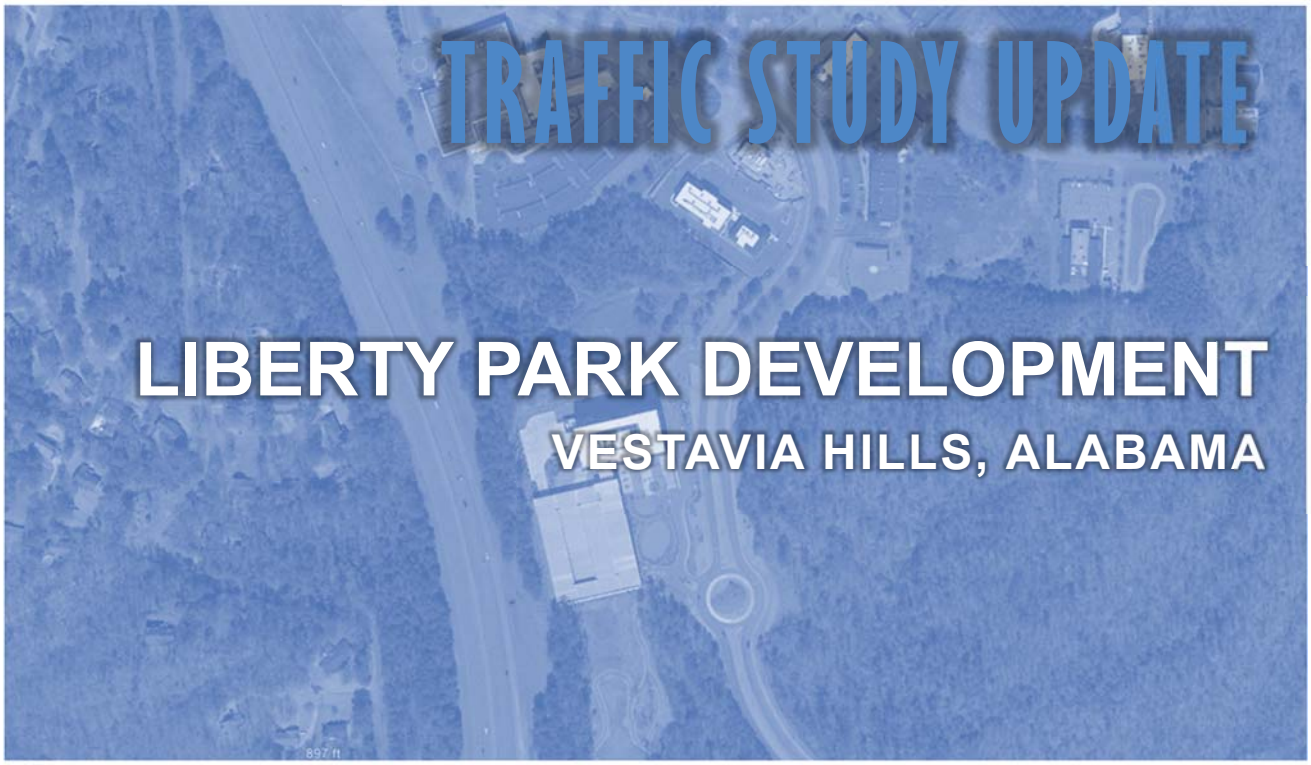


TRAFFIC STUDY UPDATE

LIBERTY PARK DEVELOPMENT

VESTAVIA HILLS, ALABAMA

SKIPPER
SKIPPER
SKIPPER
SKIPPER
SKIPPER
SKIPPER
SKIPPER
SKIPPER
SKIPPER

PREPARED FOR:

LIBERTY PARK
DANIEL COMMUNITIES

REVISED
AUGUST 2022

TRAFFIC STUDY UPDATE

LIBERTY PARK DEVELOPMENT

Vestavia Hills, Alabama

Prepared for:

Liberty Park
Daniel Communities

Prepared by:
Skipper Consulting, Inc.
3644 Vann Road
Suite 100
Birmingham, Alabama 35235
205.655.8855
skipperinc.com

REVISED
AUGUST 2022

Table of Contents

List of Appendices

Introduction

The purpose of this report is to document the findings of transportation planning and traffic operational assessment for short and long-term functionality for mobility and circulation associated with the Liberty Park development in Vestavia Hills, Alabama. The development's masterplan includes is a mix of retail, restaurants, office, and residential. The residential options will include apartments, townhomes, and single-family homes. Several of the masterplan elements are already in place with others planned for operation within the next 5 years and an assumed full-build out of the Liberty Park masterplan within the next 20 to 25 years. Accordingly, this study considers the existing traffic conditions, traffic conditions in 5 years, and traffic conditions in 20 years

This traffic study has been conducted to accomplish the following objectives:

- Examine the existing traffic conditions within the study area;
- Estimate traffic to be generated by the proposed developments for a 5-year and 20-year horizon;
- Predict the directional distribution of site generated traffic; and
- Determine any geometric and/or traffic control improvements needed to accommodate the development to facilitate the continued mobility and circulation of the transportation network

Sources of information used in this report include the Alabama Department of Transportation, Schoel Engineering, Daniel Communities, the Federal Highway Administration, the Institute of Transportation Engineers (ITE), and files and reconnaissance efforts of Skipper Consulting, Inc.

Liberty Park Development and Master Plan

The Liberty Park development is located to the east side and adjacent to Interstate 459 approximately 3 miles to the northeast of the US 280 corridor. The mixed-use development has surface street access in general to the already constructed Liberty Pkwy, Overton Rd. and Sicard Hollow Rd. Additional surface street assess will be provided by the future extension of S. Liberty Rd. to the south and connecting to Sicard Hollow Rd. **Figure 1** illustrates the location of the Liberty Park site in relation to the surrounding roadway network.

Figure 2 illustrates an excerpt of the masterplan focusing on the Liberty Park Towne Center section with much of the remaining build out of multi-family and retail elements is centrally located. The overall masterplan for the development is included as **Appendix A.**

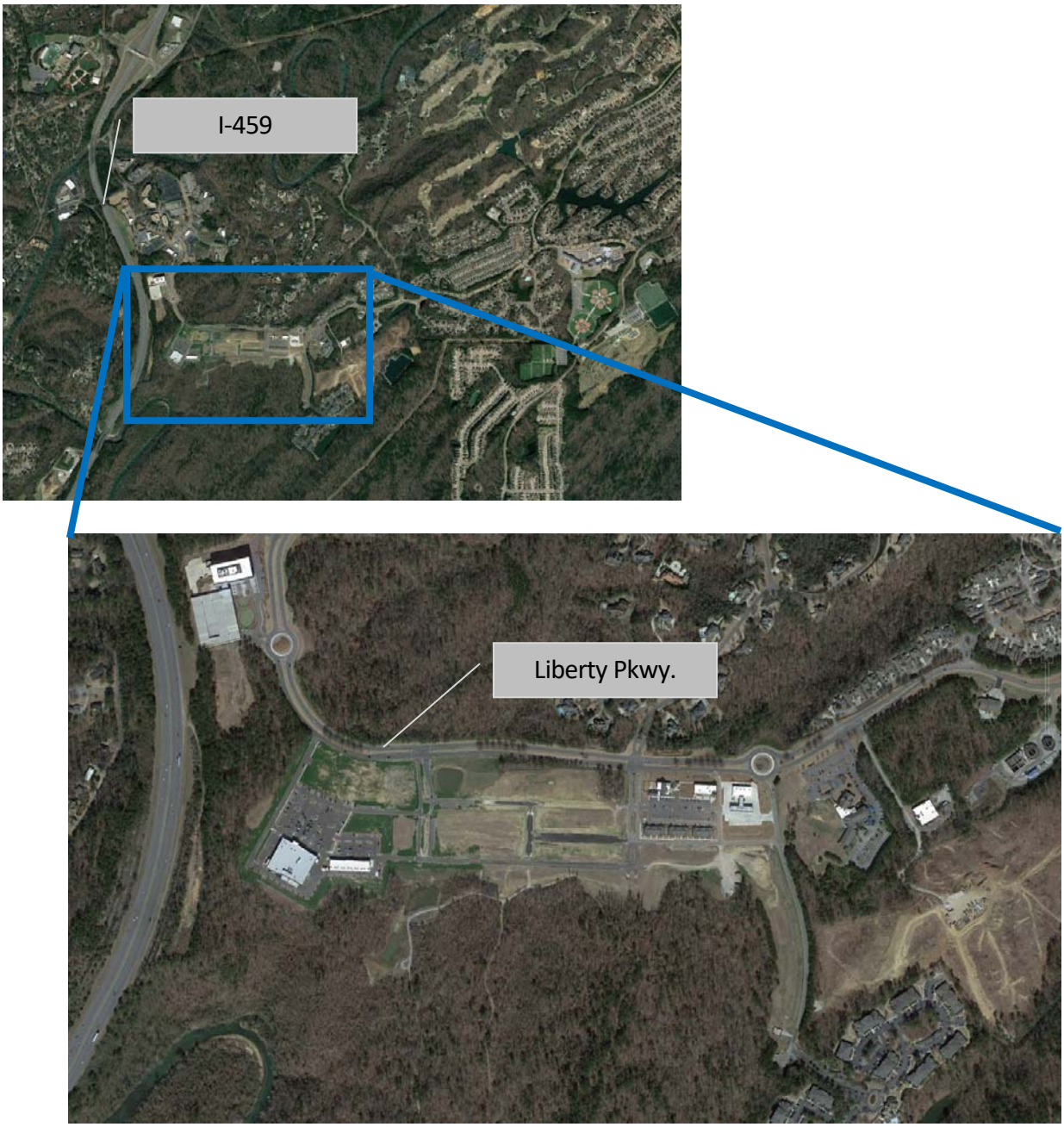


Figure 1 – Site Location and Vicinity

Figure 2 – Town Center Section (Excerpted from Liberty Park Masterplan)

Background Information

The Liberty Park Development continues to move forward with several roadway improvements and various traffic generators now in operation since the previous traffic operation assessment was previously conducted. Improvements include extending 4-lane median separated cross-section of Liberty Pkwy. This 4-lane cross-section now services a recently constructed grocery store and other new nearby retail and service land uses. The recently in-place Liberty Pkwy. roadway improvement with its added intersections and driveways along with the expected beginning construction for the S. Liberty Rd. improvement allows more detailed assessment for the short and long-term traffic operations for the Liberty Parkway development and its supporting infrastructure.

Traffic Impact Study Area & Analysis Scenarios

This current traffic operational assessment considers the following critical intersections serving the Liberty Park Development:

Intersections:

- Overton Road at Liberty Pkwy.
- Liberty Pkwy. at Urban Center Pkwy./River Run Ln. (Currently Signalized)
- Liberty Pkwy. at Urban Center Trail
- Liberty Pkwy. at Urban Center Pkwy.
- Liberty Pkwy. at Encompass Health (Roundabout)
- Liberty Pkwy. at Publix West Access (Right-In/Right-Out)
- Liberty Pkwy. at Publix East Access (Currently Signalized)
- Liberty Pkwy. at Iron Dr./Founders Dr.
- Liberty Pkwy. at S. Liberty Rd. (Roundabout)
- S. Liberty Rd. at Lime St.
- Liberty Pkwy. at Lake Pkwy. (Roundabout)
- Liberty Pkwy at Sicard Hollow Rd.
- Sicard Hollow Rd. at S. Liberty Pkwy. (Future)

The following analysis scenarios are included in this study effort:

- Existing Traffic Conditions (Existing)
    - This scenario considers traffic conditions present at the time of this study effort.
- Post Development Traffic Conditions (5 years)
    - This scenario considers traffic conditions projected with identified elements likely to be in-place in 5 years.
- Post Development Traffic Conditions (20 years)
    - This scenario considers traffic conditions projected with identified elements likely to be in-place in 20 years.

Existing Traffic Conditions

Existing Traffic Counts

Peak hour traffic counts were conducted to determine the magnitude of traffic along study area roadways and intersections during commuter peak periods. Peak hour traffic counts are conducted by recording existing traffic volumes at study intersections to determine the number of left turns, right turns, and through traffic at each intersection. The existing peak hour traffic counts were conducted for the morning and afternoon commuter peak periods for each of the existing study intersections, as noted above. Peak hour traffic counts for study intersections are illustrated in **Figure 3**. In addition, twenty-four-hour traffic counts were conducted for the four (4) segments of Liberty Parkway and a segment of Sicard Hollow Rd. Complete traffic count data is provided in **Appendix B** for reference.

The critical segment existing traffic counts are summarized in the following:

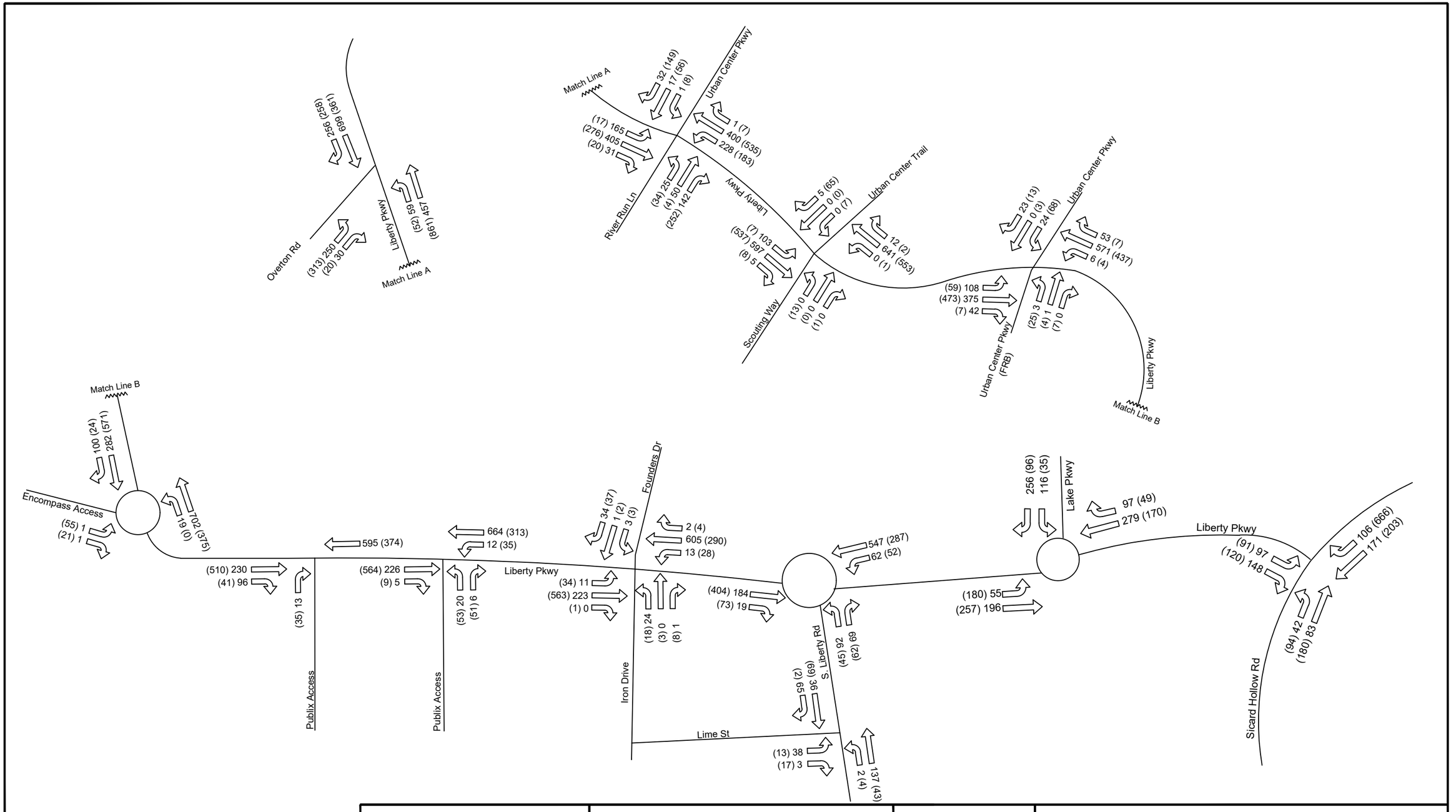
- Overton Road N. of the Cahaba River: ADT=**15,490** (NB=7777, SB=7713)
- Liberty Pkwy. N. of River Run Lane: ADT=**11,683** (NB=6595, SB=5088)
- Liberty Pkwy. W. of Iron Dr.: ADT=**9,573** (WB=4759, EB=4814)
- Liberty Pkwy. E. of Lake Pkwy.: ADT=**3,402** (WB=1597, EB=1805)

Existing Intersection Capacity Analysis

Analyses were conducted to measure performance and determine the levels of service that study intersections would operate with under pre-development conditions. Intersection capacity analyses were performed using the HCS 2010 software package which utilizes the methodology outlined in the 2010 *Highway Capacity Manual*, published by the Transportation Research Board.

> Measures of intersection capacity and delay are expressed as levels of service and range from a level of service "A" (highest quality of service) to a level of service "F" (lowest quality service). As a rule, operation at a level of service "C" or better is desirable, with a level of service "D" considered acceptable during peak hours of traffic flow.

Existing peak hour intersection capacity analysis printouts are included in **Appendix C** and the results are summarized in **Table 1**. As indicated in **Table 1**, overall acceptable levels of service are being experienced at the study intersections during the morning and afternoon peak hours.



SKIPPER CONSULTING INC

Legend

XX - AM PEAK HOUR COUNTS
(XX) - PM PEAK HOUR COUNTS

North

Scale: n.t.s

Figure 3 - Existing Peak Hour Liberty Park

Jefferson County, Alabama

Date: Aug. 2022

Table 1 - Existing Peak Hour Intersection Levels of Service

Intersection (traffic control)	APPROACH	AM DELAY	AM LOS	PM DELAY	PM LOS
Overton Rd. at Liberty Parkway T-Intersection (All Way Stop)	NB	18.1	C	61	F
	SB	28.9	D	17.4	C
	EB	30.7	D	55.6	F
River Run Land at Liberty Parkway (Signalized)	NB	25.0	C	11.1	B
	SB	20.8	C	18.1	B
	EB	21.7	C	10.8	B
	WB	8.1	A	11.0	B
Urban Center Trail at Liberty Parkway (All Way Stop)	NB	12.7	B	11.7	B
	SB	19.5	C	2.6	B
	EB	0	A	9.9	A
	WB	9.0	A	9.7	A
Urban Center Pkwy. at Liberty Parkway (Side Street Stop Signs)	NB	0.1	A	0.9	A
	SB	2.0	A	0.1	A
	EB	22.9	C	23.7	C
	WB	28.3	D	18.8	C
Encompass Health Driveway at Liberty Parkway (Roundabout)	NB	0.0	A	0.0	A
	SB	5.6	A	9.8	A
	EB	4.4	A	7.1	A

Existing Peak Hour Intersection Levels of Service (CONT'D)

Intersection (traffic control)	APPROACH	AM DELAY	AM LOS	PM DELAY	PM LOS
Publix Right-In/ Right Out at Liberty Parkway (Side Street Stop)	EB	0.0	A	0.0	A
	WB	0.0	A	0.0	A
	NB	9.2	A	10.7	B
Publix Full Access Driveway at Liberty Parkway (Signalized)	EB	20.0	C	25.4	C
	WB	29.1	C	21.9	C
	NB	14.3	B	10.2	B
Iron Dr./ Founders Dr. at Liberty Parkway (Side Street Stop)	EB	10.7	B	15.3	C
	WB	15.7	C	11.5	B
	NB	10.6	B	10.4	B
	SB	9.7	A	10.0	A
S. Liberty Rd. at Liberty Parkway (Roundabout)	EB	5.1	A	7.4	A
	WB	13.6	B	7.0	A
	NB	5.9	A	6.9	A
S. Liberty Rd. at Lime St. (Side Street Stop)	NB	0.1	A	0.6	A
	SB	0.0	A	0.0	A
	EB	9.3	A	9.0	A
Lake Pkwy. at Liberty Parkway (Roundabout)	EB	6.5	A	8.3	A
	WB	7.6	A	6.7	A
	SB	11.2	B	5.5	A
Sicard Hollow Rd. at Liberty Parkway (Unsignalized)	NB	2.7	A	8.1	A
	SB	0.0	A	0.0	A
	EB	13.6	B	16.3	C

Post-Development Traffic Conditions

Trip Generation Estimates

Trip generation estimates for the remaining elements of the mixed-use developed were prepared using information obtained from the Institute of Transportation Engineers' *Trip Generation Manual, 10th Edition*. Trips to be generated by the proposed mixed-use development can be described as a combination of mixed-use trips (internal capture), intercept trips, and new trips.

Mixed-use trips are defined as internally captured trips within the development. For example, a patron visits more than one land use in a single visit or a resident within the development visits a retail/restaurant use within the development. Intercept trip rates were determined using information contained in the Institute of Transportation Engineers' *Trip Generation Manual,* 10th Edition. Intercept rates utilized are presented in the **Table 4** summary. Overall trip generation estimates for the proposed mixed-use development for typical hours associated with the morning and afternoon peak periods are also summarized in **Table 4**.

New trips are defined as traffic that would not have otherwise traveled the study area roadways. New trips result in added traffic to study roadways. ***Mixed-use trips*** are defined as internally generated trips and would not be added to the external roadways adjacent to the development. ***Intercept trips*** are defined as traffic that would stop at the proposed development while enroute to another destination.

Direction of Approach

Using information as available from the Birmingham area travel demand model, trips generated by the Liberty Park development could be logically distributed to the available transportation network. The interrelationship between land use and a transportation system is used to determine the demand for travel on a roadway network. Each land use generates and attracts traffic dependent on the nature of the development and the amount of land developed. This information is used in conjunction with the physical location of the adjacent land uses, the roadway network, and the desire of traffic movement between identified Traffic Analysis Zones (TAZs). A traffic analysis zone is an area of land designated for specific type of development which is coded with the travel demand model.

Given estimates of the land use data for a TAZ, the trip generation program predicts the number of trips that will be produced by that TAZ and the number of trips that will be attracted to that TAZ from all other TAZ's in the study area. These "desire lines" can then be converted to trip percentages for the routing determinations into, out of, and within the development itself. **Figure 4** shows an example of desire lines used in the determination of trip distribution percentages. The resulting distribution of new trips are summarized in **Table 4.** Note the distribution of percentages varies slightly between the results of the 5-year analysis versus the 20-year analysis. This is due to the travel characteristics variations induced with the added 20-year full built out of Liberty Park's various sites which includes the geographic location of each within Liberty Park and likely routing that will occur once the complete Liberty Park roadway network is in place.

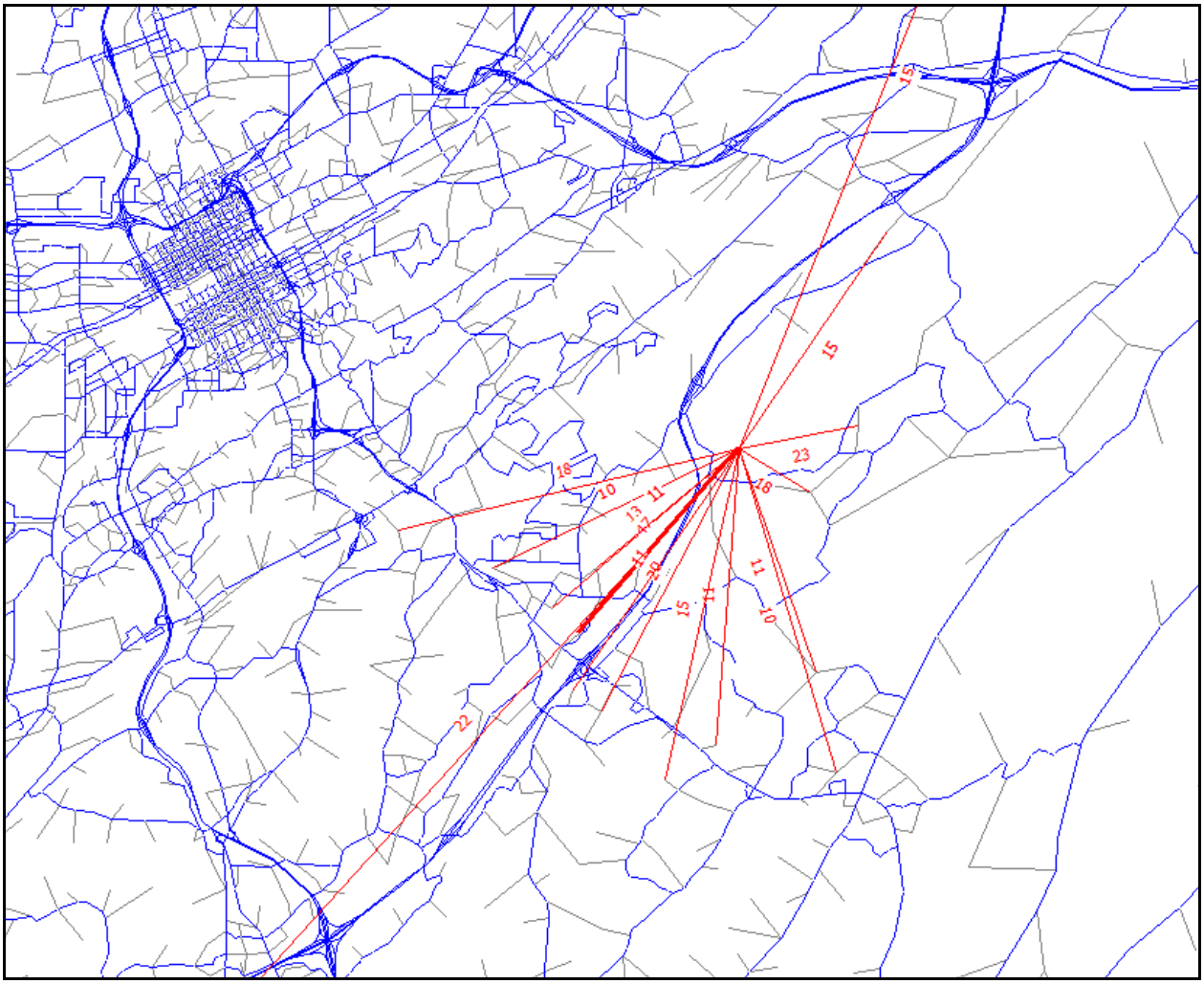


Figure 4 – Travel Demand Model "Desire Lines" Calculates Trips Distribution %

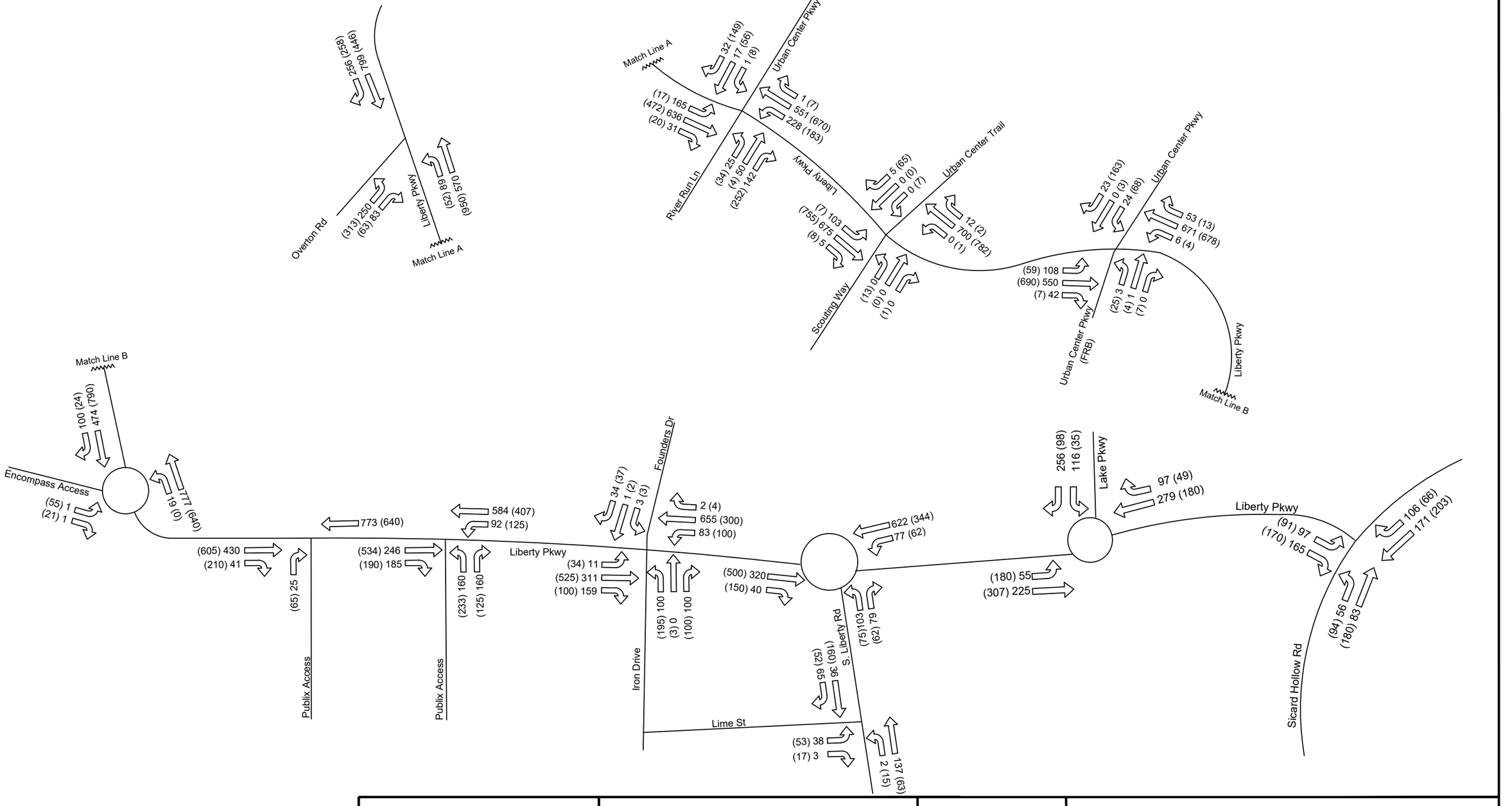
Liberty Park Traffic Study (March 2022 Update)		Daily Trips			AM Peak Hour Trips			PM Peak Hour Trips			Percent Pass-by Trips[1]	New Trips	Distribution of New Trips (Percentages)						
		Total	Entering Site	Exiting Site	Total	Entering Site	Exiting Site	Total	Entering Site	Exiting Site			I-459 North	Overton Rd North	I-459 South	Overton Rd South	Sicard Hollow South	Sicard Hollow East	Liberty Park Internal
5 years Non-Liberty Park Developmnt	1 CVS/Walgreens drug store (13,000 SF) in parcel across from the current Liberty Park commercial area	1,260	630	630	45	23	22	129	65	64	70%	30%	20%	5%	20%	20%	5%	5%	25%
	20,000 SF of commercial sales located in parcels across from HealthSouth site	893	447	446	58	36	22	69	30	39	62%	38%	20%	5%	20%	20%	5%	5%	25%
	Sub-Total	2,153	1,077	1,076	103	59	44	198	95	103									
5 Years Liberty Park Development	East Site - 15,000 SF office space	310	155	155	42	37	5	95	16	79	0%	100%	20%	5%	20%	20%	5%	5%	25%
	West Site - 35,000 SF office space	591	296	295	83	73	10	118	20	98	0%	100%	20%	5%	20%	20%	5%	5%	25%
	2 Out Parcel Restaurants (4000 Sq. Feet Each)	3768	1884	1884	322	164	158	261	136	125	50%	50%	20%	5%	20%	20%	5%	5%	25%
	West Site - 100,000 SF retail (shopping and restaurants)	4,316	2,158	2,158	156	97	59	261	115	146	39%	61%	20%	5%	20%	20%	5%	5%	25%
	Sub-Total	8,985	4,493	4,492	603	371	232	735	287	448									
Year 2045 Liberty Park Development	100 Single-Unit Homes located behind the gates	940	470	470	73	19	54	91	58	33	0%	100%	20%	5%	20%	20%	10%	5%	20%
	200 Townhouses within Liberty Park Town Center/South	1286	644	643	76	20	56	156	90	66	0%	100%	20%	5%	20%	20%	10%	5%	20%
	1008 Single-Unit Homes (South of Liberty Park Town Center)	8,899	4,450	4,449	725	189	538	826	528	298	0%	100%	20%	5%	20%	20%	10%	5%	20%
	120,000 General Office (Northside of Liberty Parkway)	2009	1006	1006	282	248	34	401	68	333	0%	100%	20%	5%	20%	20%	10%	5%	20%
	56,000 Sq. Feet Medical Office	1,949	974	974	528	411	116	660	184	476	0%	100%	20%	5%	20%	20%	10%	5%	20%
	215 TownHomes (Town Center Periphery)	1382	691	691	82	22	60	168	97	71	0%	100%	20%	5%	20%	20%	10%	5%	20%
	410 Apartment Homes	2,608	1,304	1,304	182	42	140	208	131	77	0%	100%	20%	5%	20%	20%	10%	5%	20%
	125 Room Hotel	746	373	373	66	39	27	75	38	37	0	100%	40%	0%	40%	10%	10%	0%	0%
	50,000 Sq. Ft. Commercial Space (Other)	2,158	1,079	1,079	78	49	30	131	58	73	39%	61%	20%	5%	20%	20%	10%	5%	20%
	Sub-Total	21,978	10,991	10,989	2,092	1,038	1,054	2,715	1,251	1,464									
Grand Total		33,116	16,561	16,557	2,798	1,468	1,330	3,648	1,633	2,015									

Traffic Conditions (5-Years and 20-Years)

Post-Development Traffic Volumes

Trip generation estimates were added to pre-development traffic volumes using the directions of approach listed above to result in projected post-development traffic volumes. Projected post-development traffic volumes for study intersections are included as **Figure 5** for a 5-year horizon.

The level of service analysis for each approach is illustrated in **Table 3** for future conditions (5-years). Capacity analysis printouts that illustrate the results of the analyses are provided in **Appendix E** for reference.



SKIPPER CONSULTING INC

Legend

XX - AM PEAK HOUR COUNTS
(XX) - PM PEAK HOUR COUNTS

North

Scale: n.t.s

Figure 5 - Future Peak Hour (5 Year) Liberty Park

Jefferson County, Alabama

Date: Aug. 2022

Table 3 - Peak Hour Intersection Levels of Service (5-Years)

Intersection (traffic control)	APPROACH	AM DELAY	AM LOS	PM DELAY	PM LOS
Overton Rd. at Liberty Parkway T-Intersection (All Way Stop)	NB	29.2	D	61.1	F
	SB	66.3	F	21.2	C
	EB	39.3	E	59.2	F
River Run Land at Liberty Parkway (Signalized)	NB	22.5	C	11.0	B
	SB	23.5	C	18.5	B
	EB	24.2	C	11.5	B
	WB	9.1	A	12.1	B
Urban Center Trail at Liberty Parkway (All Way Stop)	NB	14.0	B	22.9	C
	SB	20.1	C	24.2	C
	EB	0.0	A	10.6	B
	WB	9.1	A	10.5	B
Urban Center Pkwy. at Liberty Parkway (Side Street Stop Signs)	NB	0.1	A	0.7	A
	SB	1.6	A	0.1	A
	EB	41.1	E	43.8	E
	WB	31.7	D	48.4	E
Encompass Health Driveway at Liberty Parkway (Roundabout)	NB	0.0	A	0.0	A
	SB	7.9	A	16.9	C
	EB	5.5	A	9.3	A

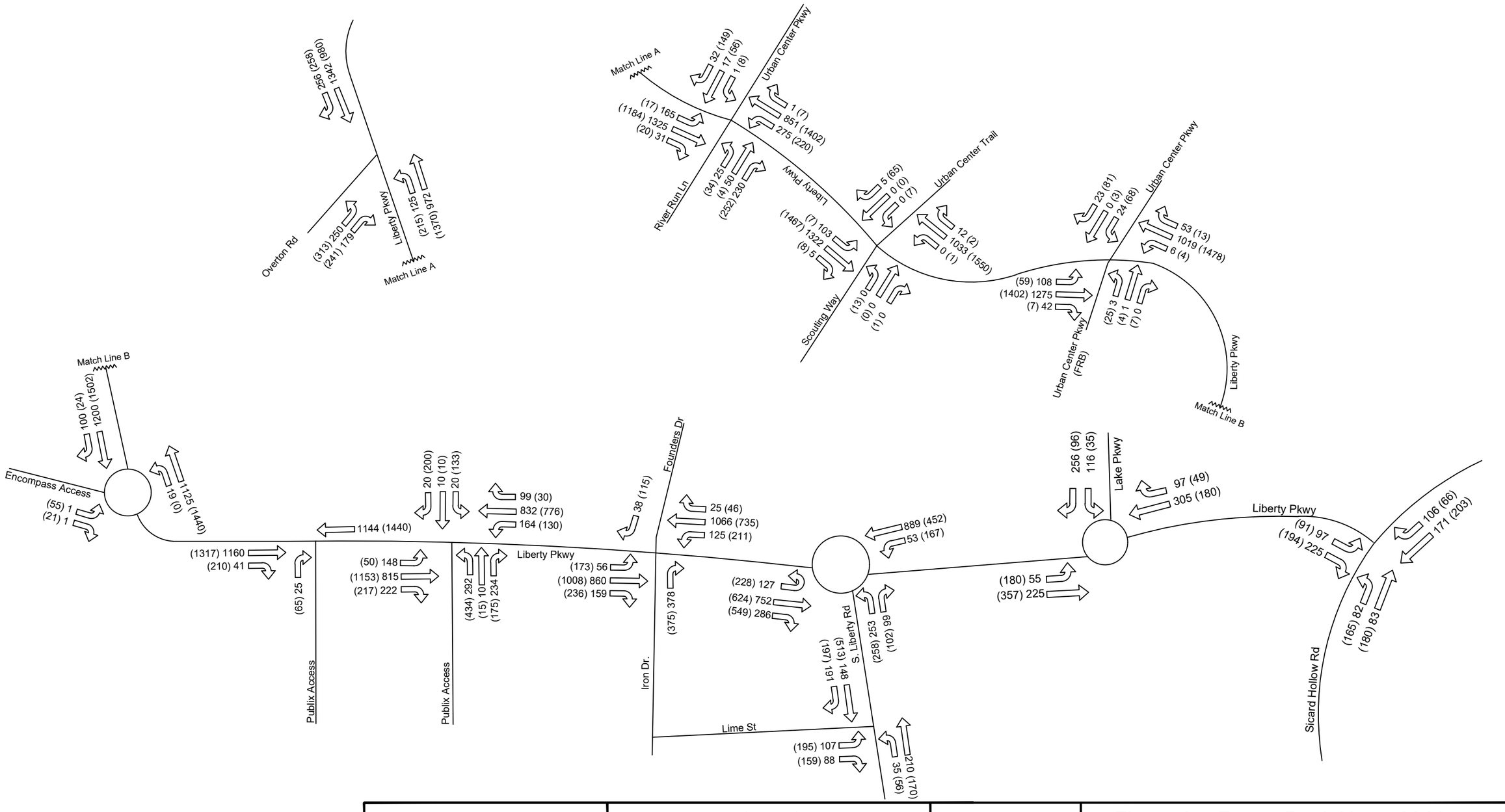
Peak Hour Intersection Levels of Service- CONT'D (5-Years)

Intersection (traffic control)	APPROACH	AM DELAY	AM LOS	PM DELAY	PM LOS
Publix Right-In/ Right Out at Liberty Parkway (Side Street Stop)	EB	0.0	A	0.0	A
	WB	0.0	A	0.0	A
	NB	10.0	B	12.3	B
Publix Full Access Driveway at Liberty Parkway (Signalized)	EB	14.1	B	19.9	B
	WB	26.0	C	37.5	D
	NB	11.7	B	17.1	B
Iron Dr./ Founders Dr. at Liberty Parkway (All Way Stop)	EB	18.4	C	26.6	D
	WB	37.6	E	15.9	C
	NB	14.2	B	17.9	C
	SB	12.4	B	12.6	B
S. Liberty Rd. at Liberty Parkway (Roundabout)	EB	6.7	A	8.7	A
	WB	18.5	C	8.4	A
	NB	7.5	A	8.5	A
S. Liberty Rd. at Lime St. (Side Street Stop)	NB	0.1	A	1.5	A
	SB	0.0	A	0.0	A
	EB	9.9	A	10.7	B
Lake Pkwy. at Liberty Parkway (Roundabout)	EB	6.9	A	8.3	A
	WB	7.6	A	6.8	A
	SB	11.2	B	5.5	A
Sicard Hollow Rd. at Liberty Parkway (Unsignalized)	NB	8.0	A	8.1	A
	SB	0.0	A	0.0	A
	EB	14.2	B	17.5	C

Trip generation estimates were added to pre-development traffic volumes using the directions of approach listed above to result in projected post-development traffic volumes. Projected post-development traffic volumes for study intersections are included as **Figure 6** for a 20- year horizon. The daily traffic comparison between existing 2022 volumes and projected 2045 volumes for the critical segments are as follows:

- Overton Road N. of the Cahaba River: **ADT=15,490 (2022)**, **ADT=30,900 (2045)**
- Liberty Pkwy. N. of River Run Lane: **ADT=11,683 (2022), ADT=26,200 (2045)**
- Liberty Pkwy. W. of Iron Dr.: **ADT=9,573 (2022), ADT=23,950 (2045)**

The level of service analysis for each approach is illustrated in **Table 4** for future conditions (20-years). Capacity analysis printouts that illustrate the results of the analyses are provided in **Appendix F** for reference.



SKIPPER CONSULTING INC

Legend

XX - AM PEAK HOUR COUNTS
(XX) - PM PEAK HOUR COUNTS

North

Scale: n.t.s

Figure 6 - Future Peak Hour (20 Year) Liberty Park

Jefferson County, Alabama

Date: Feb. 2022

Table 4 - Peak Hour Intersection Levels of Service (20-Years)

Intersection (traffic control)	APPROACH	AM DELAY	AM LOS	PM DELAY	PM LOS
Overton Rd. (South) at Liberty Parkway (Signalized)	NB	8.9	A	13.2	B
	SB	18.8	B	20.6	C
	EB	32.1	C	25.7	C
River Run Land at Liberty Parkway (Signalized)	NB	25.7	C	13.6	B
	SB	34.3	C	21.5	C
	EB	39.8	D	17.2	B
	WB	13.7	B	19.2	B
Urban Center Trail at Liberty Parkway (Side Street Stop Signs)	NB	0	A	A	A
	SB	2.7	A	A	A
	EB	0.0	A	47.6	E
	WB	12.8	B	27.3	D
Urban Center Pkwy. at Liberty Parkway (Side Street Stop Signs)	NB	0.9	A	0.6	A
	SB	0.1	A	0.0	A
	EB	52.6	F	75.0	F
	WB	27.1	D	90.2	F
Encompass Health Driveway at Liberty Parkway (Roundabout)	NB	0.0	A	0.0	A
	SB	0.0	A	0.0	A
	EB	12.2	B	23.8	C

Peak Hour Intersection Levels of Service- CONT'D (20-Years)

Intersection (traffic control)	APPROACH	AM DELAY	AM LOS	PM DELAY	PM LOS
Publix Right-In/ Right Out at Liberty Parkway (Side Street Stop)	EB	0.0	A	0.0	A
	WB	0.0	A	0.0	A
	NB	14.4	B	19.8	C
Publix Full Access Driveway at Liberty Parkway (Signalized)	EB	20.3	C	38.0	D
	WB	14.3	B	26.9	C
	NB	25.7	C	25.4	C
	SB	10.8	B	26.9	C
Iron Dr./ Founders Dr. at Liberty Parkway (RCUT)	EBL	20.1	B	36.4	C
	WBL	20.9	B	26.6	C
	NBR	4.1	A	45.5	D
	SBR	0.2	A	6.1	A
S. Liberty Rd. at Liberty Parkway (Roundabout)	EB	5.7	A	9.2	A
	WB	0.3	A	2.5	A
	NB	21.4	C	21.2	C
S. Liberty Rd. at Lime St. (Side Street Stop)	NB	1.2	A	2.4	A
	SB	0.0	A	0.0	A
	EB	13.0	B	41.9	E
Lake Pkwy. at Liberty Parkway (Roundabout)	EB	6.9	A	8.3	A
	WB	8.0	A	6.8	A
	SB	11.9	B	5.5	A
Sicard Hollow Rd. at Liberty Parkway (Signalized)	NB	3.5	A	3.7	A
	SB	3.0	A	2.9	A
	EB	16.0	C	16.47	C

Results and Findings

The following items summarize the notable findings when conducting the traffic operation analysis of the Liberty Park development:

5-Years

1. Liberty Pkwy. at Urban Center Pkwy. (Unsignalized side street stop control) will have excessive delay for the side streets due to the high through traffic on Liberty Pkwy. with the likely land uses added to the development within 5-years. The current traffic volumes at the intersection, although close, do not meet the MUTCD warrant volume thresholds (*approximately 90% of volume threshold*) for traffic signalization. ***However, the available sight distance as viewed from the side street approaches is limited to an extent that it is advisable to immediately pursue measures to design, permit, and construct a traffic signal for intersection operation in the near future.***
2. Liberty Pkwy at Iron Rd./Founders Dr. (All Way Stop) will be reaching is operational capacity for All-Way Stop Control with the likely land uses added to the development within 5-years. Recommend intersection geometric design to be considered for conversion to restricted crossing operations to allow directional left-in movements using median channelization within the next 5 years.

20-Years

3. Liberty Parkway at Overton Road (N. of Cahaba River) will require a traffic signal to be installed to facilitate operational efficiency of the intersection due to the likely land uses added to the development within the next 20-years.
4. Liberty Pkwy. at Urban Center Trail should be considered for operation with only side street stop control only in the future due to the high through traffic on Liberty Pkwy. with the likely land uses added within the next 20-years. The through traffic delay along Liberty Pkwy. will be excessive if the intersection continues operation as all way stop control in the future.
5. Liberty Pkwy at Sicard Hollow Rd. will require traffic signalization due increase traffic associated with the land uses added to the development within the next 20-years.
6. Sicard Hollow Rd. at S. Liberty Road will require traffic signalization due increase traffic associated with the land uses added to the development within the next 20-years.
7. The 20-year critical roadway segment ADTs of interest within the scope of this study are summarized in the following for forecast Year 2045:
    - Overton Road N. of Cahaba River: **ADT=30,900** (Year 2045)
    - Liberty Pkwy. N. of River Run Lane: **ADT=26,200** (Year 2045)
    - Liberty Pkwy. W. of Iron Dr.: **ADT=23,950** (Year 2045)

The above recommendations have been compared to those previously noted in a prior traffic study report by others dated 2016. The following items outline confirmed similarities between this study and the prior study of the Liberty Park corridor as indicated:

- Liberty Pkwy. at Overton Rd.-N. of River (**Both studies recommend traffic signal**).
- Liberty Pkwy. at Urban Center Trail* (**Both studies recommend change to operate with side street stop control**)
- Liberty Pkwy. at Urban Center Pkwy.* (**2022 Study recommends traffic signal**, 2016 Study recommended traffic signal where the current Encompass Health Home Office roundabout is installed further to south)

It is the recommendation of this study that the Urban Center Trail and Urban Center Pkwy. recommendations should be implemented concurrently.

Not To Scale

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

RCUT

10,200

Two-Lane Roadway w/Left-turn lanes along South Liberty Road at access driveways.

South Liberty Road

7,100

6,400

5,400

SOUTH LIBERTY ROAD
Recommended as a Two-Lane Roadway.
Note: The need for Turn Lanes should be evaluated at significant access locations as development occurs and implemented as needed.

SOUTH LIBERTY ROAD TRAFFIC PROJECTIONS

LEGEND:

X,XXX Daily Traffic Projections with Buildout and Connection to Sicard Hollow Road

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills08
Site Code : 00000000
Start Date : 09/22/2021
Page No : 1

Groups Printed- Unshifted

	OVERTON RD Southbound		LIBERTY PKWY Northbound		OVERTON RD Eastbound		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
04:00 PM	103	64	8	173	79	8	435
04:15 PM	111	33	6	219	67	7	443
04:30 PM	100	61	9	230	82	5	487
04:45 PM	89	54	8	175	82	5	413
Total	403	212	31	797	310	25	1778
05:00 PM	84	59	19	232	77	4	475
05:15 PM	88	84	16	224	72	6	490
05:30 PM	68	62	10	138	59	6	343
05:45 PM	95	60	13	107	59	5	339
Total	335	265	58	701	267	21	1647
07:00 AM	92	53	8	88	42	7	290
07:15 AM	129	63	17	133	62	13	417
07:30 AM	175	50	20	164	71	8	488
07:45 AM	208	74	13	81	58	4	438
Total	604	240	58	466	233	32	1633
08:00 AM	187	69	9	79	59	5	408
08:15 AM	156	59	9	61	52	2	339
08:30 AM	145	56	9	68	51	1	330
08:45 AM	122	75	6	71	46	3	323
Total	610	259	33	279	208	11	1400
Grand Total	1952	976	180	2243	1018	89	6458
Apprch %	66.7	33.3	7.4	92.6	92.0	8.0	
Total %	30.2	15.1	2.8	34.7	15.8	1.4	

	OVERTON RD Southbound				LIBERTY PKWY Northbound			OVERTON RD Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:30 PM										
Volume	361	258	619	0	52	861	913	313	20	333	1865
Percent	58.3	41.7			5.7	94.3		94.0	6.0		
05:15 Volume	88	84	172	0	16	224	240	72	6	78	490
Peak Factor											0.952
High Int.	05:15 PM			3:45:00 PM	05:00 PM			04:30 PM			
Volume	88	84	172	0	19	232	251	82	5	87	
Peak Factor			0.900				0.909			0.957	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:30 PM			04:00 PM	04:30 PM			04:00 PM			
Volume	361	258	619	0	52	861	913	310	25	335	
Percent	58.3	41.7			5.7	94.3		92.5	7.5		
High Int.	05:15 PM			-	05:00 PM			04:00 PM			
Volume	88	84	172	-	19	232	251	79	8	87	
Peak Factor			0.900	-			0.909			0.963	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills08
Site Code : 00000000
Start Date : 09/22/2021

	OVERTON RD Southbound				LIBERTY PKWY Northbound			OVERTON RD Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:15 AM										
Volume	699	256	955	0	59	457	516	250	30	280	1751
Percent	73.2	26.8			11.4	88.6		89.3	10.7		
07:30 Volume	175	50	225	0	20	164	184	71	8	79	488
Peak Factor											0.897
High Int.	07:45 AM				07:30 AM			07:30 AM			
Volume	208	74	282	0	20	164	184	71	8	79	
Peak Factor			0.847				0.701			0.886	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:30 AM			07:00 AM	07:00 AM			07:15 AM			
Volume	726	252	978	0	58	466	524	250	30	280	
Percent	74.2	25.8			11.1	88.9		89.3	10.7		
High Int.	07:45 AM			-	07:30 AM			07:30 AM			
Volume	208	74	282	-	20	164	184	71	8	79	
Peak Factor			0.867	-			0.712			0.886	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills16
Site Code : 00000000
Start Date : 09/28/2021
Page No : 1

Groups Printed- 1 - Unshifted

	LIBERTY PKWY Southbound			URBAN CENTER PKWY Westbound			LIBERTY PKWY Northbound			RIVER RUN LN Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	1	90	5	0	3	32	30	108	1	8	0	65	343
04:15 PM	10	61	8	0	8	30	39	90	5	11	2	67	331
04:30 PM	3	66	7	4	15	43	45	103	4	9	2	65	366
04:45 PM	7	80	3	2	8	28	42	97	0	6	0	63	336
Total	21	297	23	6	34	133	156	398	10	34	4	260	1376
05:00 PM	4	57	5	0	23	50	53	180	0	8	1	72	453
05:15 PM	3	73	5	2	10	28	43	155	3	11	1	52	386
05:30 PM	1	62	8	1	19	35	41	99	1	5	2	80	354
05:45 PM	3	92	6	1	13	21	30	85	1	4	3	68	327
Total	11	284	24	4	65	134	167	519	5	28	7	272	1520
07:00 AM	21	74	7	0	2	5	42	80	0	3	0	29	263
07:15 AM	29	105	7	0	4	7	54	120	0	7	9	33	375
07:30 AM	38	116	8	0	5	9	67	139	0	8	11	23	424
07:45 AM	59	142	7	1	3	7	60	74	0	6	13	48	420
Total	147	437	29	1	14	28	223	413	0	24	33	133	1482
08:00 AM	39	132	9	0	5	9	47	67	1	4	17	38	368
08:15 AM	36	113	5	0	2	8	35	55	1	3	8	27	293
08:30 AM	33	83	6	1	4	9	33	56	1	9	10	25	270
08:45 AM	27	84	4	0	0	7	38	68	0	1	3	21	253
Total	135	412	24	1	11	33	153	246	3	17	38	111	1184
Grand Total	314	1430	100	12	124	328	699	1576	18	103	82	776	5562
Apprch %	17.0	77.5	5.4	2.6	26.7	70.7	30.5	68.7	0.8	10.7	8.5	80.7	
Total %	5.6	25.7	1.8	0.2	2.2	5.9	12.6	28.3	0.3	1.9	1.5	14.0	

	LIBERTY PKWY Southbound				URBAN CENTER PKWY Westbound				LIBERTY PKWY Northbound				RIVER RUN LN Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	17	276	20	313	8	56	149	213	183	535	7	725	34	4	252	290	1541
Percent	5.4	88.2	6.4		3.8	26.3	70.0		25.2	73.8	1.0		11.7	1.4	86.9		
05:00 Volume	4	57	5	66	0	23	50	73	53	180	0	233	8	1	72	81	453
Peak Factor																	0.850
High Int.	04:45 PM				05:00 PM				05:00 PM				05:00 PM				
Volume	7	80	3	90	0	23	50	73	53	180	0	233	8	1	72	81	
Peak Factor				0.869				0.729				0.778				0.895	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:30 PM				04:30 PM				05:00 PM				
Volume	21	297	23	341	8	56	149	213	183	535	7	725	28	7	272	307	
Percent	6.2	87.1	6.7		3.8	26.3	70.0		25.2	73.8	1.0		9.1	2.3	88.6		
High Int.	04:00 PM				05:00 PM				05:00 PM				05:30 PM				
Volume	1	90	5	96	0	23	50	73	53	180	0	233	5	2	80	87	
Peak Factor				0.888				0.729				0.778				0.882	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills16
Site Code : 00000000
Start Date : 09/28/2021

	LIBERTY PKWY Southbound				URBAN CENTER PKWY Westbound				LIBERTY PKWY Northbound				RIVER RUN LN Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:15 AM																
Volume	165	495	31	691	1	17	32	50	228	400	1	629	25	50	142	217	1587
Percent	23.9	71.6	4.5		2.0	34.0	64.0		36.2	63.6	0.2		11.5	23.0	65.4		
07:30 Volume	38	116	8	162	0	5	9	14	67	139	0	206	8	11	23	42	424
Peak Factor																	0.936
High Int.	07:45 AM				07:30 AM				07:30 AM				07:45 AM				
Volume	59	142	7	208	0	5	9	14	67	139	0	206	6	13	48	67	
Peak Factor				0.831				0.893				0.763				0.810	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:30 AM				07:15 AM				07:00 AM				07:15 AM				
Volume	172	503	29	704	1	17	32	50	223	413	0	636	25	50	142	217	
Percent	24.4	71.4	4.1		2.0	34.0	64.0		35.1	64.9	0.0		11.5	23.0	65.4		
High Int.	07:45 AM				07:30 AM				07:30 AM				07:45 AM				
Volume	59	142	7	208	0	5	9	14	67	139	0	206	6	13	48	67	
Peak Factor				0.846				0.893				0.772				0.810	

TRAFFIC DATA, LLC

PO Box 187

Cullman, AL 35056

205-824-0125

Vestavia Hills, AL

File Name : vestaviahills18
Site Code : 00000000
Start Date : 09/23/2021
Page No : 1

Groups Printed- 1 - Unshifted

	LIBERTY PKWY Southbound			URBAN CENTER TRAIL Westbound			LIBERTY PKWY Northbound			SCOUTING WAY Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	3	152	2	2	0	11	0	124	0	0	0	0	294
04:15 PM	0	107	4	3	0	10	2	122	1	2	0	3	254
04:30 PM	0	113	0	3	0	13	0	151	1	2	0	0	283
04:45 PM	2	152	1	1	0	11	0	120	1	1	0	0	289
Total	5	524	7	9	0	45	2	517	3	5	0	3	1120
05:00 PM	3	135	3	2	0	28	0	152	0	6	0	1	330
05:15 PM	2	137	4	1	0	13	1	130	0	4	0	0	292
05:30 PM	3	133	2	1	0	12	0	112	0	0	0	0	263
05:45 PM	1	140	1	0	0	10	1	100	1	1	0	3	258
Total	9	545	10	4	0	63	2	494	1	11	0	4	1143
07:00 AM	11	92	0	0	0	1	0	125	1	0	0	0	230
07:15 AM	12	130	1	0	0	0	0	172	0	0	0	0	315
07:30 AM	22	144	0	0	0	1	0	197	1	0	0	0	365
07:45 AM	35	135	2	0	0	1	0	164	6	0	0	0	343
Total	80	501	3	0	0	3	0	658	8	0	0	0	1253
08:00 AM	34	188	2	0	0	3	0	108	5	0	0	0	340
08:15 AM	25	138	3	0	0	3	0	84	2	0	1	0	256
08:30 AM	23	111	1	0	0	0	0	99	2	1	0	0	237
08:45 AM	12	84	1	0	0	1	0	99	2	1	0	0	200
Total	94	521	7	0	0	7	0	390	11	2	1	0	1033
Grand Total	188	2091	27	13	0	118	4	2059	23	18	1	7	4549
Apprch %	8.2	90.7	1.2	9.9	0.0	90.1	0.2	98.7	1.1	69.2	3.8	26.9	
Total %	4.1	46.0	0.6	0.3	0.0	2.6	0.1	45.3	0.5	0.4	0.0	0.2	

	LIBERTY PKWY Southbound				URBAN CENTER TRAIL Westbound				LIBERTY PKWY Northbound				SCOUTING WAY Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	7	537	8	552	7	0	65	72	1	553	2	556	13	0	1	14	1194
Percent	1.3	97.3	1.4		9.7	0.0	90.3		0.2	99.5	0.4		92.9	0.0	7.1		
05:00 Volume	3	135	3	141	2	0	28	30	0	152	0	152	6	0	1	7	330
Peak Factor																	0.905
High Int.	04:45 PM				05:00 PM				04:30 PM				05:00 PM				
Volume	2	152	1	155	2	0	28	30	0	151	1	152	6	0	1	7	
Peak Factor				0.890				0.600				0.914				0.500	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:45 PM				04:30 PM				04:30 PM				04:15 PM				
Volume	10	557	10	577	7	0	65	72	1	553	2	556	11	0	4	15	
Percent	1.7	96.5	1.7		9.7	0.0	90.3		0.2	99.5	0.4		73.3	0.0	26.7		
High Int.	04:45 PM				05:00 PM				04:30 PM				05:00 PM				
Volume	2	152	1	155	2	0	28	30	0	151	1	152	6	0	1	7	
Peak Factor				0.931				0.600				0.914				0.536	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills18
Site Code : 00000000
Start Date : 09/23/2021

	LIBERTY PKWY Southbound				URBAN CENTER TRAIL Westbound				LIBERTY PKWY Northbound				SCOUTING WAY Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:15 AM																
Volume	103	597	5	705	0	0	5	5	0	641	12	653	0	0	0	0	1363
Percent	14.6	84.7	0.7		0.0	0.0	100.0		0.0	98.2	1.8		0.0	0.0	0.0		
07:30 Volume	22	144	0	166	0	0	1	1	0	197	1	198	0	0	0	0	365
Peak Factor																	0.934
High Int.	08:00 AM				08:00 AM				07:30 AM								
Volume	34	188	2	224	0	0	3	3	0	197	1	198					
Peak Factor				0.787				0.417				0.824					
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:30 AM				07:30 AM				07:00 AM				08:00 AM				
Volume	116	605	7	728	0	0	8	8	0	658	8	666	2	1	0	3	
Percent	15.9	83.1	1.0		0.0	0.0	100.0		0.0	98.8	1.2		66.7	33.3	0.0		
High Int.	08:00 AM				08:00 AM				07:30 AM				08:15 AM				
Volume	34	188	2	224	0	0	3	3	0	197	1	198	0	1	0	1	
Peak Factor				0.813				0.667				0.841				0.750	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills09
Site Code : 00000000
Start Date : 09/23/2021
Page No : 1

Groups Printed- Unshifted

	LIBERTY PKWY Southbound			URBAN CENTER PKWY Westbound			LIBERTY PKWY Northbound			URBAN CENTER PKWY (FRB) Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	17	131	1	20	0	9	2	107	2	2	1	1	293
04:15 PM	7	108	1	18	0	7	1	90	2	4	0	2	240
04:30 PM	12	102	1	14	2	24	0	101	3	7	2	2	270
04:45 PM	23	125	1	14	0	16	1	95	3	2	0	2	282
Total	59	466	4	66	2	56	4	393	10	15	3	7	1085
05:00 PM	10	124	2	16	1	19	3	131	1	3	0	1	311
05:15 PM	14	122	3	24	0	22	0	110	6	13	2	2	318
05:30 PM	8	129	0	9	0	13	0	96	3	0	0	2	260
05:45 PM	8	137	0	14	0	10	1	83	0	1	0	1	255
Total	40	512	5	63	1	64	4	420	10	17	2	6	1144
07:00 AM	10	74	9	2	0	2	0	99	8	0	0	0	204
07:15 AM	23	72	10	4	0	3	0	156	7	0	0	0	275
07:30 AM	31	70	13	9	0	10	4	177	13	1	0	0	328
07:45 AM	22	122	19	7	0	3	1	144	19	1	0	0	338
Total	86	338	51	22	0	18	5	576	47	2	0	0	1145
08:00 AM	32	111	0	4	0	7	1	94	14	1	1	0	265
08:15 AM	17	84	3	1	1	10	1	78	5	2	0	1	203
08:30 AM	17	70	2	5	0	7	2	89	6	2	0	0	200
08:45 AM	21	68	3	7	1	1	2	73	4	3	1	0	184
Total	87	333	8	17	2	25	6	334	29	8	2	1	852
Grand Total	272	1649	68	168	5	163	19	1723	96	42	7	14	4226
Apprch %	13.7	82.9	3.4	50.0	1.5	48.5	1.0	93.7	5.2	66.7	11.1	22.2	
Total %	6.4	39.0	1.6	4.0	0.1	3.9	0.4	40.8	2.3	1.0	0.2	0.3	

	LIBERTY PKWY Southbound				URBAN CENTER PKWY Westbound				LIBERTY PKWY Northbound				URBAN CENTER PKWY (FRB) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	59	473	7	539	68	3	81	152	4	437	13	454	25	4	7	36	1181
Percent	10.9	87.8	1.3		44.7	2.0	53.3		0.9	96.3	2.9		69.4	11.1	19.4		
05:15 Volume	14	122	3	139	24	0	22	46	0	110	6	116	13	2	2	17	318
Peak Factor																	0.928
High Int.	04:45 PM				05:15 PM				05:00 PM				05:15 PM				
Volume	23	125	1	149	24	0	22	46	3	131	1	135	13	2	2	17	
Peak Factor				0.904				0.826				0.841				0.529	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:45 PM				04:30 PM				04:30 PM				04:30 PM				
Volume	55	500	6	561	68	3	81	152	4	437	13	454	25	4	7	36	
Percent	9.8	89.1	1.1		44.7	2.0	53.3		0.9	96.3	2.9		69.4	11.1	19.4		
High Int.	04:45 PM				05:15 PM				05:00 PM				05:15 PM				
Volume	23	125	1	149	24	0	22	46	3	131	1	135	13	2	2	17	
Peak Factor				0.941				0.826				0.841				0.529	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills09
Site Code : 00000000
Start Date : 09/23/2021

	LIBERTY PKWY Southbound				URBAN CENTER PKWY Westbound				LIBERTY PKWY Northbound				URBAN CENTER PKWY (FRB) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:15 AM																
Volume	108	375	42	525	24	0	23	47	6	571	53	630	3	1	0	4	1206
Percent	20.6	71.4	8.0		51.1	0.0	48.9		1.0	90.6	8.4		75.0	25.0	0.0		
07:45 Volume	22	122	19	163	7	0	3	10	1	144	19	164	1	0	0	1	338
Peak Factor																	0.892
High Int.	07:45 AM				07:30 AM				07:30 AM				08:00 AM				
Volume	22	122	19	163	9	0	10	19	4	177	13	194	1	1	0	2	
Peak Factor				0.805				0.618				0.812				0.500	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:15 AM				07:30 AM				07:15 AM				08:00 AM				
Volume	108	375	42	525	21	1	30	52	6	571	53	630	8	2	1	11	
Percent	20.6	71.4	8.0		40.4	1.9	57.7		1.0	90.6	8.4		72.7	18.2	9.1		
High Int.	07:45 AM				07:30 AM				07:30 AM				08:45 AM				
Volume	22	122	19	163	9	0	10	19	4	177	13	194	3	1	0	4	
Peak Factor				0.805				0.684				0.812				0.688	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills12
Site Code : 00000000
Start Date : 09/27/2021
Page No : 1

Groups Printed- Unshifted

	LIBERTY PKWY Southbound		LIBERTY PKWY Northbound		ENCOMPASS ACCESS Eastbound		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
04:00 PM	148	6	0	100	17	9	280
04:15 PM	151	4	0	85	6	3	249
04:30 PM	132	7	0	91	14	4	248
04:45 PM	140	7	0	99	18	5	269
Total	571	24	0	375	55	21	1046
05:00 PM	128	3	0	97	29	7	264
05:15 PM	136	2	0	77	14	4	233
05:30 PM	142	1	0	84	9	5	241
05:45 PM	142	2	0	74	8	4	230
Total	548	8	0	332	60	20	968
07:00 AM	56	13	2	134	1	0	206
07:15 AM	67	18	2	206	0	0	293
07:30 AM	54	26	4	207	0	0	291
07:45 AM	74	19	6	175	0	1	275
Total	251	76	14	722	1	1	1065
08:00 AM	87	37	7	114	1	0	246
08:15 AM	82	24	7	86	0	0	199
08:30 AM	73	10	3	101	1	0	188
08:45 AM	52	10	0	95	1	0	158
Total	294	81	17	396	3	0	791
Grand Total	1664	189	31	1825	119	42	3870
Apprch %	89.8	10.2	1.7	98.3	73.9	26.1	
Total %	43.0	4.9	0.8	47.2	3.1	1.1	

	LIBERTY PKWY Southbound				LIBERTY PKWY Northbound			ENCOMPASS ACCESS Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:00 PM										
Volume	571	24	595	0	0	375	375	55	21	76	1046
Percent	96.0	4.0			0.0	100.0		72.4	27.6		
04:00 Volume	148	6	154	0	0	100	100	17	9	26	280
Peak Factor											0.934
High Int.	04:15 PM			3:45:00 PM	04:00 PM			04:00 PM			
Volume	151	4	155	0	0	100	100	17	9	26	
Peak Factor			0.960				0.938			0.731	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:00 PM			04:00 PM	04:00 PM			04:30 PM			
Volume	571	24	595	0	0	375	375	75	20	95	
Percent	96.0	4.0			0.0	100.0		78.9	21.1		
High Int.	04:15 PM			-	04:00 PM			05:00 PM			
Volume	151	4	155	-	0	100	100	29	7	36	
Peak Factor			0.960	-			0.938			0.660	

TRAFFIC DATA, LLC

PO Box 187

Cullman, AL 35056

205-824-0125

File Name : vestaviahills12
Site Code : 00000000
Start Date : 09/27/2021

	LIBERTY PKWY Southbound				LIBERTY PKWY Northbound			ENCOMPASS ACCESS Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:15 AM										
Volume	282	100	382	0	19	702	721	1	1	2	1105
Percent	73.8	26.2			2.6	97.4		50.0	50.0		
07:15 Volume	67	18	85	0	2	206	208	0	0	0	293
Peak Factor											0.943
High Int.	08:00 AM				07:30 AM			07:45 AM			
Volume	87	37	124	0	4	207	211	0	1	1	
Peak Factor			0.770				0.854			0.500	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:45 AM			07:00 AM	07:00 AM			07:45 AM			
Volume	316	90	406	0	14	722	736	2	1	3	
Percent	77.8	22.2			1.9	98.1		66.7	33.3		
High Int.	08:00 AM			-	07:30 AM			07:45 AM			
Volume	87	37	124	-	4	207	211	0	1	1	
Peak Factor			0.819	-			0.872			0.750	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills14
Site Code : 00000000
Start Date : 09/27/2021
Page No : 1

Groups Printed- Unshifted

	LIBERTY PKWY Westbound	PUBLIX ACCESS (W) Northbound	LIBERTY PKWY Eastbound		
Start Time	Thru	Right	Thru	Right	Int. Total
04:00 PM	102	8	130	22	262
04:15 PM	85	9	133	22	249
04:30 PM	92	9	114	32	247
04:45 PM	95	9	133	20	257
Total	374	35	510	96	1015
05:00 PM	91	3	118	23	235
05:15 PM	84	13	117	22	236
05:30 PM	88	6	133	16	243
05:45 PM	69	8	132	28	237
Total	332	30	500	89	951
07:00 AM	139	3	52	7	201
07:15 AM	192	2	57	3	254
07:30 AM	209	0	51	7	267
07:45 AM	178	4	65	10	257
Total	718	9	225	27	979
08:00 AM	119	7	57	21	204
08:15 AM	93	5	71	10	179
08:30 AM	101	1	65	11	178
08:45 AM	98	6	49	9	162
Total	411	19	242	51	723
Grand Total	1835	93	1477	263	3668
Apprch %	100.0	100.0	84.9	15.1	
Total %	50.0	2.5	40.3	7.2	

		LIBERTY PKWY Westbound		PUBLIX ACCESS (W) Northbound		LIBERTY PKWY Eastbound			
Start Time	App. Total	Thru	App. Total	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
Intersection	04:00 PM								
Volume	0	374	374	35	35	510	96	606	1015
Percent		100.0		100.0		84.2	15.8		
04:00 Volume	0	102	102	8	8	130	22	152	262
Peak Factor									0.969
High Int.	3:45:00 PM	04:00 PM		04:15 PM		04:15 PM			
Volume	0	102	102	9	9	133	22	155	
Peak Factor			0.917		0.972			0.977	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1									
By Approach	04:00 PM	04:00 PM		04:00 PM		04:00 PM			
Volume	0	374	374	35	35	510	96	606	
Percent		100.0		100.0		84.2	15.8		
High Int.	-	04:00 PM		04:15 PM		04:15 PM			
Volume	-	102	102	9	9	133	22	155	
Peak Factor	-		0.917		0.972			0.977	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills14
Site Code : 00000000
Start Date : 09/27/2021

		LIBERTY PKWY Westbound		PUBLIX ACCESS (W) Northbound		LIBERTY PKWY Eastbound			
Start Time	App. Total	Thru	App. Total	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
Intersection	07:15 AM								
Volume	0	698	698	13	13	230	41	271	982
Percent		100.0		100.0		84.9	15.1		
07:30 Volume	0	209	209	0	0	51	7	58	267
Peak Factor									0.919
High Int.		07:30 AM		08:00 AM		08:00 AM			
Volume	0	209	209	7	7	57	21	78	
Peak Factor			0.835		0.464			0.869	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1									
By Approach	07:00 AM	07:00 AM		08:00 AM		07:45 AM			
Volume	0	718	718	19	19	258	52	310	
Percent		100.0		100.0		83.2	16.8		
High Int.	-	07:30 AM		08:00 AM		08:15 AM			
Volume	-	209	209	7	7	71	10	81	
Peak Factor	-		0.859		0.679			0.957	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills13
Site Code : 00000000
Start Date : 09/28/2021
Page No : 1

Groups Printed- Unshifted

	LIBERTY PKWY Westbound		PUBLIX ACCESS Northbound		LIBERTY PKWY Eastbound		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
04:00 PM	10	74	18	10	115	2	229
04:15 PM	9	68	13	12	100	1	203
04:30 PM	10	71	6	5	126	1	219
04:45 PM	10	75	17	9	124	3	238
Total	39	288	54	36	465	7	889
05:00 PM	12	83	7	14	170	3	289
05:15 PM	7	86	10	22	126	1	252
05:30 PM	6	69	19	6	144	2	246
05:45 PM	12	71	9	10	116	2	220
Total	37	309	45	52	556	8	1007
07:00 AM	3	106	7	3	56	0	175
07:15 AM	2	195	5	1	55	1	259
07:30 AM	5	206	5	1	47	1	265
07:45 AM	3	160	5	2	60	0	230
Total	13	667	22	7	218	2	929
08:00 AM	2	103	5	2	64	3	179
08:15 AM	7	88	3	1	47	0	146
08:30 AM	3	122	3	2	56	0	186
08:45 AM	1	88	5	6	49	1	150
Total	13	401	16	11	216	4	661
Grand Total	102	1665	137	106	1455	21	3486
Apprch %	5.8	94.2	56.4	43.6	98.6	1.4	
Total %	2.9	47.8	3.9	3.0	41.7	0.6	

		LIBERTY PKWY Westbound			PUBLIX ACCESS Northbound			LIBERTY PKWY Eastbound			
Start Time	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:45 PM										
Volume	0	35	313	348	53	51	104	564	9	573	1025
Percent		10.1	89.9		51.0	49.0		98.4	1.6		
05:00 Volume	0	12	83	95	7	14	21	170	3	173	289
Peak Factor											0.887
High Int.	3:45:00 PM	05:00 PM			05:15 PM			05:00 PM			
Volume	0	12	83	95	10	22	32	170	3	173	
Peak Factor				0.916			0.813			0.828	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:00 PM	04:30 PM			04:45 PM			04:45 PM			
Volume	0	39	315	354	53	51	104	564	9	573	
Percent		11.0	89.0		51.0	49.0		98.4	1.6		
High Int.	-	05:00 PM			05:15 PM			05:00 PM			
Volume	-	12	83	95	10	22	32	170	3	173	
Peak Factor	-			0.932			0.813			0.828	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills13
Site Code : 00000000
Start Date : 09/28/2021

		LIBERTY PKWY Westbound			PUBLIX ACCESS Northbound			LIBERTY PKWY Eastbound			
Start Time	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:15 AM										
Volume	0	12	664	676	20	6	26	226	5	231	933
Percent		1.8	98.2		76.9	23.1		97.8	2.2		
07:30 Volume	0	5	206	211	5	1	6	47	1	48	265
Peak Factor											0.880
High Int.		07:30 AM			07:45 AM			08:00 AM			
Volume	0	5	206	211	5	2	7	64	3	67	
Peak Factor				0.801			0.929			0.862	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM	07:00 AM			07:00 AM			07:15 AM			
Volume	0	13	667	680	22	7	29	226	5	231	
Percent		1.9	98.1		75.9	24.1		97.8	2.2		
High Int.	-	07:30 AM			07:00 AM			08:00 AM			
Volume	-	5	206	211	7	3	10	64	3	67	
Peak Factor	-			0.806			0.725			0.862	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills15
Site Code : 00000000
Start Date : 09/28/2021
Page No : 1

Groups Printed- Unshifted

	FOUNDERS DR Southbound			LIBERTY PKWY Westbound			LIME ST Northbound			LIBERTY PKWY Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	1	0	6	1	70	0	6	2	1	9	111	3	210
04:15 PM	2	1	9	3	57	1	6	0	0	8	98	4	189
04:30 PM	2	3	8	4	66	0	10	0	1	11	135	3	243
04:45 PM	0	0	7	0	72	0	6	0	1	11	114	9	220
Total	5	4	30	8	265	1	28	2	3	39	458	19	862
05:00 PM	2	0	13	5	82	0	2	1	0	12	161	4	282
05:15 PM	0	2	7	10	80	0	3	1	3	6	134	5	251
05:30 PM	0	0	6	4	66	1	5	0	3	11	146	6	248
05:45 PM	1	0	11	9	62	3	6	1	2	5	122	9	231
Total	3	2	37	28	290	4	16	3	8	34	563	24	1012
07:00 AM	1	0	6	0	92	1	4	0	1	2	47	3	157
07:15 AM	1	0	15	1	166	1	5	0	0	2	52	3	246
07:30 AM	2	0	9	4	194	0	7	0	1	3	44	1	265
07:45 AM	0	0	3	4	149	1	5	0	0	3	62	4	231
Total	4	0	33	9	601	3	21	0	2	10	205	11	899
08:00 AM	0	1	7	4	96	0	7	0	0	3	65	1	184
08:15 AM	1	1	9	1	76	1	6	0	1	3	46	3	148
08:30 AM	2	1	11	1	94	2	9	1	1	6	49	3	180
08:45 AM	1	0	7	1	74	3	3	0	0	2	54	1	146
Total	4	3	34	7	340	6	25	1	2	14	214	8	658
Grand Total	16	9	134	52	1496	14	90	6	15	97	1440	62	3431
Apprch %	10.1	5.7	84.3	3.3	95.8	0.9	81.1	5.4	13.5	6.1	90.1	3.9	
Total %	0.5	0.3	3.9	1.5	43.6	0.4	2.6	0.2	0.4	2.8	42.0	1.8	

	FOUNDERS DR Southbound				LIBERTY PKWY Westbound				LIME ST Northbound				LIBERTY PKWY Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	3	2	37	42	28	290	4	322	16	3	8	27	34	563	24	621	1012
Percent	7.1	4.8	88.1		8.7	90.1	1.2		59.3	11.1	29.6		5.5	90.7	3.9		
05:00 Volume	2	0	13	15	5	82	0	87	2	1	0	3	12	161	4	177	282
Peak Factor																	0.897
High Int.	05:00 PM				05:15 PM				05:45 PM				05:00 PM				
Volume	2	0	13	15	10	80	0	90	6	1	2	9	12	161	4	177	
Peak Factor				0.700				0.894				0.750				0.877	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:15 PM				05:00 PM				04:00 PM				05:00 PM				
Volume	6	4	37	47	28	290	4	322	28	2	3	33	34	563	24	621	
Percent	12.8	8.5	78.7		8.7	90.1	1.2		84.8	6.1	9.1		5.5	90.7	3.9		
High Int.	05:00 PM				05:15 PM				04:30 PM				05:00 PM				
Volume	2	0	13	15	10	80	0	90	10	0	1	11	12	161	4	177	
Peak Factor				0.783				0.894				0.750				0.877	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills15
Site Code : 00000000
Start Date : 09/28/2021

	FOUNDERS DR Southbound				LIBERTY PKWY Westbound				LIME ST Northbound				LIBERTY PKWY Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:15 AM																
Volume	3	1	34	38	13	605	2	620	24	0	1	25	11	223	9	243	926
Percent	7.9	2.6	89.5		2.1	97.6	0.3		96.0	0.0	4.0		4.5	91.8	3.7		
07:30 Volume	2	0	9	11	4	194	0	198	7	0	1	8	3	44	1	48	265
Peak Factor																	0.874
High Int.	07:15 AM				07:30 AM				07:30 AM				07:45 AM				
Volume	1	0	15	16	4	194	0	198	7	0	1	8	3	62	4	69	
Peak Factor				0.594				0.783				0.781				0.880	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	08:00 AM				07:15 AM				07:45 AM				07:45 AM				
Volume	4	3	34	41	13	605	2	620	27	1	2	30	15	222	11	248	
Percent	9.8	7.3	82.9		2.1	97.6	0.3		90.0	3.3	6.7		6.0	89.5	4.4		
High Int.	08:30 AM				07:30 AM				08:30 AM				07:45 AM				
Volume	2	1	11	14	4	194	0	198	9	1	1	11	3	62	4	69	
Peak Factor				0.732				0.783				0.682				0.899	

TRAFFIC DATA, LLC

PO Box 187
Cullman, AL 35056
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills17
Site Code : 00000000
Start Date : 10/05/2021
Page No : 1

Groups Printed- 1 - Unshifted

	S. LIBERTY RD Southbound		S. LIBERTY RD Northbound		LIME ST Eastbound		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
04:00 PM	8	0	2	11	1	6	28
04:15 PM	15	1	2	12	2	3	35
04:30 PM	12	0	1	13	2	1	29
04:45 PM	15	0	2	15	2	2	36
Total	50	1	7	51	7	12	128
05:00 PM	22	0	1	14	2	3	42
05:15 PM	8	0	1	10	4	2	25
05:30 PM	14	1	2	13	5	6	41
05:45 PM	25	1	0	6	2	6	40
Total	69	2	4	43	13	17	148
07:00 AM	1	0	0	23	3	1	28
07:15 AM	5	1	1	43	2	0	52
07:30 AM	11	0	0	39	0	1	51
07:45 AM	19	4	1	20	3	1	48
Total	36	5	2	125	8	3	179
08:00 AM	9	0	1	11	3	1	25
08:15 AM	9	1	2	11	1	1	25
08:30 AM	2	1	0	14	2	2	21
08:45 AM	8	1	0	7	3	1	20
Total	28	3	3	43	9	5	91
Grand Total	183	11	16	262	37	37	546
Apprch %	94.3	5.7	5.8	94.2	50.0	50.0	
Total %	33.5	2.0	2.9	48.0	6.8	6.8	

	S. LIBERTY RD Southbound				S. LIBERTY RD Northbound			LIME ST Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	05:00 PM										
Volume	69	2	71	0	4	43	47	13	17	30	148
Percent	97.2	2.8			8.5	91.5		43.3	56.7		
05:00 Volume	22	0	22	0	1	14	15	2	3	5	42
Peak Factor											0.881
High Int.	05:45 PM			3:45:00 PM	05:00 PM			05:30 PM			
Volume	25	1	26	0	1	14	15	5	6	11	
Peak Factor			0.683				0.783			0.682	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	05:00 PM			04:00 PM	04:15 PM			05:00 PM			
Volume	69	2	71	0	6	54	60	13	17	30	
Percent	97.2	2.8			10.0	90.0		43.3	56.7		
High Int.	05:45 PM			-	04:45 PM			05:30 PM			
Volume	25	1	26	-	2	15	17	5	6	11	
Peak Factor			0.683	-			0.882			0.682	

TRAFFIC DATA, LLC
PO Box 187
Cullman, AL 35056
205-824-0125

File Name : vestaviahills17
Site Code : 00000000
Start Date : 10/05/2021

	S. LIBERTY RD Southbound				S. LIBERTY RD Northbound			LIME ST Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:00 AM										
Volume	36	5	41	0	2	125	127	8	3	11	179
Percent	87.8	12.2			1.6	98.4		72.7	27.3		
07:15 Volume	5	1	6	0	1	43	44	2	0	2	52
Peak Factor											0.861
High Int.	07:45 AM				07:15 AM			07:00 AM			
Volume	19	4	23	0	1	43	44	3	1	4	
Peak Factor			0.446				0.722			0.688	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:30 AM			07:00 AM	07:00 AM			07:45 AM			
Volume	48	5	53	0	2	125	127	9	5	14	
Percent	90.6	9.4			1.6	98.4		64.3	35.7		
High Int.	07:45 AM			-	07:15 AM			07:45 AM			
Volume	19	4	23	-	1	43	44	3	1	4	
Peak Factor			0.576	-			0.722			0.875	

TRAFFIC DATA, LLC

1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills04
Site Code : 00000000
Start Date : 09/16/2021
Page No : 1

Groups Printed- Unshifted

	LIBERTY PKWY Westbound		S LIBERTY RD Northbound		LIBERTY PKWY Eastbound		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	8	89	12	7	40	1	157
07:15 AM	22	125	32	23	36	4	242
07:30 AM	9	179	23	25	45	6	287
07:45 AM	21	157	15	12	54	1	260
Total	60	550	82	67	175	12	946
08:00 AM	10	86	22	9	49	8	184
08:15 AM	5	68	11	8	57	7	156
08:30 AM	9	71	16	5	50	7	158
08:45 AM	12	66	15	8	40	4	145
Total	36	291	64	30	196	26	643
04:00 PM	5	41	10	10	65	4	135
04:15 PM	9	84	9	11	77	13	203
04:30 PM	9	64	8	11	96	10	198
04:45 PM	12	70	8	15	103	18	226
Total	35	259	35	47	341	45	762
05:00 PM	18	61	12	21	106	22	240
05:15 PM	9	78	7	15	90	13	212
05:30 PM	13	78	18	11	105	20	245
05:45 PM	12	48	9	13	98	15	195
Total	52	265	46	60	399	70	892
Grand Total	183	1365	227	204	1111	153	3243
Apprch %	11.8	88.2	52.7	47.3	87.9	12.1	
Total %	5.6	42.1	7.0	6.3	34.3	4.7	

		LIBERTY PKWY Westbound			S LIBERTY RD Northbound			LIBERTY PKWY Eastbound			
Start Time	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:15 AM										
Volume	0	62	547	609	92	69	161	184	19	203	973
Percent		10.2	89.8		57.1	42.9		90.6	9.4		
07:30 Volume	0	9	179	188	23	25	48	45	6	51	287
Peak Factor											0.848
High Int.	6:45:00 AM	07:30 AM			07:15 AM			08:00 AM			
Volume	0	9	179	188	32	23	55	49	8	57	
Peak Factor				0.810			0.732			0.890	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM	07:00 AM			07:15 AM			07:45 AM			
Volume	0	60	550	610	92	69	161	210	23	233	
Percent		9.8	90.2		57.1	42.9		90.1	9.9		
High Int.	-	07:30 AM			07:15 AM			08:15 AM			
Volume	-	9	179	188	32	23	55	57	7	64	
Peak Factor	-			0.811			0.732			0.910	

TRAFFIC DATA, LLC

1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

File Name : vestaviahills04
Site Code : 00000000
Start Date : 09/16/2021

		LIBERTY PKWY Westbound			S LIBERTY RD Northbound			LIBERTY PKWY Eastbound			
Start Time	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:45 PM										
Volume	0	52	287	339	45	62	107	404	73	477	923
Percent		15.3	84.7		42.1	57.9		84.7	15.3		
05:30 Volume	0	13	78	91	18	11	29	105	20	125	245
Peak Factor											0.942
High Int.		05:30 PM			05:00 PM			05:00 PM			
Volume	0	13	78	91	12	21	33	106	22	128	
Peak Factor				0.931			0.811			0.932	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:00 PM	04:45 PM			04:45 PM			04:45 PM			
Volume	0	52	287	339	45	62	107	404	73	477	
Percent		15.3	84.7		42.1	57.9		84.7	15.3		
High Int.	-	05:30 PM			05:00 PM			05:00 PM			
Volume	-	13	78	91	12	21	33	106	22	128	
Peak Factor	-			0.931			0.811			0.932	

TRAFFIC DATA, LLC

1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills05
Site Code : 00000000
Start Date : 09/15/2021
Page No : 1

Groups Printed- Unshifted

	LAKE PKWY Southbound		LIBERTY PKWY Westbound		LIBERTY PKWY Eastbound		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
07:00 AM	6	39	19	3	6	35	108
07:15 AM	30	104	81	11	12	69	307
07:30 AM	52	70	83	39	8	76	328
07:45 AM	31	56	82	37	16	33	255
Total	119	269	265	90	42	213	998
08:00 AM	3	26	33	10	19	18	109
08:15 AM	1	29	19	7	12	18	86
08:30 AM	2	44	19	5	14	14	98
08:45 AM	5	47	24	4	22	19	121
Total	11	146	95	26	67	69	414
04:00 PM	8	31	24	11	51	67	192
04:15 PM	8	26	29	8	49	43	163
04:30 PM	12	27	43	11	47	65	205
04:45 PM	9	20	52	18	50	64	213
Total	37	104	148	48	197	239	773
05:00 PM	7	25	48	10	37	63	190
05:15 PM	7	26	27	10	46	65	181
05:30 PM	5	40	29	10	32	45	161
05:45 PM	15	35	54	9	46	62	221
Total	34	126	158	39	161	235	753
Grand Total	201	645	666	203	467	756	2938
Apprch %	23.8	76.2	76.6	23.4	38.2	61.8	
Total %	6.8	22.0	22.7	6.9	15.9	25.7	

	LAKE PKWY Southbound			LIBERTY PKWY Westbound				LIBERTY PKWY Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:15 AM										
Volume	116	256	372	279	97	376	0	55	196	251	999
Percent	31.2	68.8		74.2	25.8			21.9	78.1		
07:30 Volume	52	70	122	83	39	122	0	8	76	84	328
Peak Factor											0.761
High Int.	07:15 AM			07:30 AM			6:45:00 AM	07:30 AM			
Volume	30	104	134	83	39	122	0	8	76	84	
Peak Factor			0.694			0.770				0.747	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM			07:15 AM			07:00 AM	07:00 AM			
Volume	119	269	388	279	97	376	0	42	213	255	
Percent	30.7	69.3		74.2	25.8			16.5	83.5		
High Int.	07:15 AM			07:30 AM			-	07:30 AM			
Volume	30	104	134	83	39	122	-	8	76	84	
Peak Factor			0.724			0.770	-			0.759	

TRAFFIC DATA, LLC

1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

File Name : vestaviahills05
Site Code : 00000000
Start Date : 09/15/2021

	LAKE PKWY Southbound			LIBERTY PKWY Westbound				LIBERTY PKWY Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:30 PM										
Volume	35	98	133	170	49	219	0	180	257	437	789
Percent	26.3	73.7		77.6	22.4			41.2	58.8		
04:45 Volume	9	20	29	52	18	70	0	50	64	114	213
Peak Factor											0.926
High Int.	04:30 PM			04:45 PM				04:45 PM			
Volume	12	27	39	52	18	70	0	50	64	114	
Peak Factor			0.853			0.782				0.958	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	05:00 PM			04:15 PM			04:00 PM	04:30 PM			
Volume	34	126	160	172	47	219	0	180	257	437	
Percent	21.3	78.8		78.5	21.5			41.2	58.8		
High Int.	05:45 PM			04:45 PM			-	04:45 PM			
Volume	15	35	50	52	18	70	-	50	64	114	
Peak Factor			0.800			0.782	-			0.958	

TRAFFIC DATA, LLC

1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

Vestavia Hills, AL

File Name : vestaviahills06
Site Code : 00000000
Start Date : 09/14/2021
Page No : 1

Groups Printed- Unshifted

	SICARD HOLLOW RD Southbound		SICARD HILLOW RD Northbound		LIBERTY PKWY Eastbound		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	29	25	16	23	6	10	109
07:15 AM	42	41	18	19	23	30	173
07:30 AM	45	15	9	25	35	52	181
07:45 AM	52	29	10	16	31	44	182
Total	168	110	53	83	95	136	645
08:00 AM	32	21	5	23	8	22	111
08:15 AM	39	23	6	24	17	7	116
08:30 AM	23	24	11	16	5	8	87
08:45 AM	29	19	9	20	13	11	101
Total	123	87	31	83	43	48	415
04:00 PM	25	16	17	39	18	10	125
04:15 PM	19	15	21	40	21	22	138
04:30 PM	23	15	12	43	28	14	135
04:45 PM	45	9	24	36	26	30	170
Total	112	55	74	158	93	76	568
05:00 PM	44	19	29	44	22	37	195
05:15 PM	67	21	28	57	19	23	215
05:30 PM	47	17	13	43	24	30	174
05:45 PM	37	8	18	20	24	31	138
Total	195	65	88	164	89	121	722
Grand Total	598	317	246	488	320	381	2350
Apprch %	65.4	34.6	33.5	66.5	45.6	54.4	
Total %	25.4	13.5	10.5	20.8	13.6	16.2	

	SICARD HOLLOW RD Southbound				SICARD HILLOW RD Northbound			LIBERTY PKWY Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:15 AM										
Volume	171	106	277	0	42	83	125	97	148	245	647
Percent	61.7	38.3			33.6	66.4		39.6	60.4		
07:45 Volume	52	29	81	0	10	16	26	31	44	75	182
Peak Factor											0.889
High Int.	07:15 AM			6:45:00 AM	07:15 AM			07:30 AM			
Volume	42	41	83	0	18	19	37	35	52	87	
Peak Factor			0.834				0.845			0.704	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM			07:00 AM	07:00 AM			07:15 AM			
Volume	168	110	278	0	53	83	136	97	148	245	
Percent	60.4	39.6			39.0	61.0		39.6	60.4		
High Int.	07:15 AM			-	07:00 AM			07:30 AM			
Volume	42	41	83	-	16	23	39	35	52	87	
Peak Factor			0.837	-			0.872			0.704	

TRAFFIC DATA, LLC
1409 Turnham Lane
Birmingham, AL 35216
205-824-0125

File Name : vestaviahills06
Site Code : 00000000
Start Date : 09/14/2021
Page No : 2

	SICARD HOLLOW RD Southbound				SICARD HILLOW RD Northbound			LIBERTY PKWY Eastbound			
Start Time	Thru	Right	App. Total	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
Intersection	04:45 PM										
Volume	203	66	269	0	94	180	274	91	120	211	754
Percent	75.5	24.5			34.3	65.7		43.1	56.9		
05:15 Volume	67	21	88	0	28	57	85	19	23	42	215
Peak Factor											0.877
High Int.	05:15 PM				05:15 PM			05:00 PM			
Volume	67	21	88	0	28	57	85	22	37	59	
Peak Factor			0.764				0.806			0.894	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1											
By Approach	04:45 PM			04:00 PM	04:45 PM			04:45 PM			
Volume	203	66	269	0	94	180	274	91	120	211	
Percent	75.5	24.5			34.3	65.7		43.1	56.9		
High Int.	05:15 PM			-	05:15 PM			05:00 PM			
Volume	67	21	88	-	28	57	85	22	37	59	
Peak Factor			0.764	-			0.806			0.894	

TRAFFIC DATA, LLC
PO Box 187, Cullman, AL 35056
205-824-0125

Location:: OVERTON RD south of OVERTON ACCESS RD
City, State:: BIRMINGHAM, AL

Date: 9/21/2021
Tuesday

24 Hour Volume

	Begin	SB		NB		Combined	
	3:00 PM	107	520	183	662	290	1182
	3:15 PM	133		168		301	
	3:30 PM	115		154		269	
	3:45 PM	165		157		322	
	4:00 PM	106	476	189	831	295	1307
	4:15 PM	92		190		282	
	4:30 PM	143		203		346	
	4:45 PM	135		249		384	
	5:00 PM	141	559	253	844	394	1403
	5:15 PM	156		250		406	
	5:30 PM	120		196		316	
	5:45 PM	142		145		287	
	6:00 PM	137	382	163	493	300	875
	6:15 PM	83		150		233	
	6:30 PM	75		102		177	
	6:45 PM	87		78		165	
	7:00 PM	84	258	69	238	153	496
	7:15 PM	63		67		130	
	7:30 PM	63		50		113	
	7:45 PM	48		52		100	
	8:00 PM	59	178	62	162	121	340
	8:15 PM	49		42		91	
	8:30 PM	47		31		78	
	8:45 PM	23		27		50	
	9:00 PM	34	110	33	90	67	200
	9:15 PM	27		24		51	
	9:30 PM	31		15		46	
	9:45 PM	18		18		36	
	10:00 PM	14	52	24	65	38	117
	10:15 PM	20		17		37	
	10:30 PM	8		15		23	
	10:45 PM	10		9		19	
	11:00 PM	8	21	8	26	16	47
	11:15 PM	5		8		13	
	11:30 PM	4		9		13	
	11:45 PM	4		1		5	
9/22/2021	12:00 AM	4	9	3	12	7	21
	12:15 AM	1		4		5	
	12:30 AM	2		3		5	
	12:45 AM	2		2		4	
	1:00 AM	0	6	3	7	3	13
	1:15 AM	1		1		2	
	1:30 AM	2		1		3	
	1:45 AM	3		2		5	
	2:00 AM	0	8	0	2	0	10
	2:15 AM	3		1		4	
	2:30 AM	2		1		3	
	2:45 AM	3		0		3	

	Begin	SB		NB		Combined	
	3:00 AM	1	14	3	8	4	22
	3:15 AM	2		2		4	
	3:30 AM	4		3		7	
	3:45 AM	7		0		7	
	4:00 AM	0	23	3	32	3	55
	4:15 AM	3		8		11	
	4:30 AM	4		6		10	
	4:45 AM	16		15		31	
	5:00 AM	6	120	19	102	25	222
	5:15 AM	16		15		31	
	5:30 AM	31		26		57	
	5:45 AM	67		42		109	
	6:00 AM	53	444	55	241	108	685
	6:15 AM	88		62		150	
	6:30 AM	123		52		175	
	6:45 AM	180		72		252	
	7:00 AM	183	870	124	661	307	1531
	7:15 AM	186		157		343	
	7:30 AM	195		230		425	
	7:45 AM	306		150		456	
	8:00 AM	315	975	126	477	441	1452
	8:15 AM	247		109		356	
	8:30 AM	224		131		355	
	8:45 AM	189		111		300	
	9:00 AM	132	465	106	414	238	879
	9:15 AM	102		111		213	
	9:30 AM	124		94		218	
	9:45 AM	107		103		210	
	10:00 AM	108	388	103	428	211	816
	10:15 AM	89		98		187	
	10:30 AM	85		110		195	
	10:45 AM	106		117		223	
	11:00 AM	100	399	108	507	208	906
	11:15 AM	81		155		236	
	11:30 AM	106		121		227	
	11:45 AM	112		123		235	
	12:00 PM	115	482	122	483	237	965
	12:15 PM	117		108		225	
	12:30 PM	120		130		250	
	12:45 PM	130		123		253	
	1:00 PM	123	480	115	450	238	930
	1:15 PM	116		106		222	
	1:30 PM	129		123		252	
	1:45 PM	112		106		218	
	2:00 PM	109	474	131	542	240	1016
	2:15 PM	151		125		276	
	2:30 PM	106		138		244	
	2:45 PM	108		148		256	

	SB	NB	Combined
24 Hour Volume	7713 (49.8%)	7777 (50.2%)	15490

	12:00 AM - 12:00 PM			12:00 PM - 12:00 AM		
	SB	NB	Combined	SB	NB	Combined
Count	3721	2891	6612	3992	4886	8878
	56.3 %	43.7 %		45.0 %	55.0 %	
Peak Hour	7:45 AM	7:15 AM	7:30 AM	4:30 PM	4:30 PM	4:30 PM
Volume	1092	663	1678	575	955	1530
Factor	0.87	0.72	0.92	0.92	0.94	0.94

TRAFFIC DATA, LLC
PO Box 187, Cullman, AL 35056
205-824-0125

Location: : LIBERTY PKWY north of RIVER RUN LN
City, State: : VESTAVIA HILLS, AL

Date: 9/22/2021 Wednesday

24 Hour Volume

	Begin	SB		NB		Combined	
	4:00 PM	104	357	173	677	277	1034
	4:15 PM	80		150		230	
	4:30 PM	79		181		260	
	4:45 PM	94		173		267	
	5:00 PM	77	330	304	875	381	1205
	5:15 PM	81		249		330	
	5:30 PM	74		183		257	
	5:45 PM	98		139		237	
	6:00 PM	67	255	117	362	184	617
	6:15 PM	62		97		159	
	6:30 PM	65		69		134	
	6:45 PM	61		79		140	
	7:00 PM	43	163	59	203	102	366
	7:15 PM	41		69		110	
	7:30 PM	47		41		88	
	7:45 PM	32		34		66	
	8:00 PM	30	150	42	142	72	292
	8:15 PM	44		45		89	
	8:30 PM	40		22		62	
	8:45 PM	36		33		69	
	9:00 PM	19	76	49	95	68	171
	9:15 PM	25		21		46	
	9:30 PM	21		16		37	
	9:45 PM	11		9		20	
	10:00 PM	15	47	18	61	33	108
	10:15 PM	14		17		31	
	10:30 PM	9		16		25	
	10:45 PM	9		10		19	
	11:00 PM	5	15	11	38	16	53
	11:15 PM	5		16		21	
	11:30 PM	2		8		10	
	11:45 PM	3		3		6	
9/23/2021	12:00 AM	3	13	0	6	3	19
	12:15 AM	2		1		3	
	12:30 AM	3		2		5	
	12:45 AM	5		3		8	
	1:00 AM	1	4	0	2	1	6
	1:15 AM	0		0		0	
	1:30 AM	3		1		4	
	1:45 AM	0		1		1	
	2:00 AM	0	6	2	4	2	10
	2:15 AM	5		1		6	
	2:30 AM	0		0		0	
	2:45 AM	1		1		2	
	3:00 AM	2	13	4	12	6	25
	3:15 AM	6		4		10	
	3:30 AM	0		3		3	
	3:45 AM	5		1		6	

	Begin	SB		NB		Combined	
	4:00 AM	2	19	5	30	7	49
	4:15 AM	2		5		7	
	4:30 AM	5		6		11	
	4:45 AM	10		14		24	
	5:00 AM	11	76	11	72	22	148
	5:15 AM	5		14		19	
	5:30 AM	19		25		44	
	5:45 AM	41		22		63	
	6:00 AM	36	290	31	215	67	505
	6:15 AM	61		60		121	
	6:30 AM	72		50		122	
	6:45 AM	121		74		195	
	7:00 AM	101	605	122	640	223	1245
	7:15 AM	139		183		322	
	7:30 AM	165		208		373	
	7:45 AM	200		127		327	
	8:00 AM	180	578	102	383	282	961
	8:15 AM	154		92		246	
	8:30 AM	127		93		220	
	8:45 AM	117		96		213	
	9:00 AM	91	291	75	287	166	578
	9:15 AM	76		68		144	
	9:30 AM	57		70		127	
	9:45 AM	67		74		141	
	10:00 AM	60	266	71	310	131	576
	10:15 AM	63		81		144	
	10:30 AM	67		68		135	
	10:45 AM	76		90		166	
	11:00 AM	56	245	101	420	157	665
	11:15 AM	49		91		140	
	11:30 AM	78		109		187	
	11:45 AM	62		119		181	
	12:00 PM	69	355	101	376	170	731
	12:15 PM	88		100		188	
	12:30 PM	109		83		192	
	12:45 PM	89		92		181	
	1:00 PM	85	315	95	383	180	698
	1:15 PM	84		112		196	
	1:30 PM	71		91		162	
	1:45 PM	75		85		160	
	2:00 PM	98	309	101	402	199	711
	2:15 PM	69		95		164	
	2:30 PM	66		101		167	
	2:45 PM	76		105		181	
	3:00 PM	63	310	152	600	215	910
	3:15 PM	69		156		225	
	3:30 PM	71		173		244	
	3:45 PM	107		119		226	

	SB	NB	Combined
24 Hour Volume	5088 (43.6%)	6595 (56.4%)	11683

12:00 AM - 12:00 PM

	SB	NB	Combined
Count	2406	2381	4787
	50.3 %	49.7 %	
Peak Hour	7:30 AM	7:00 AM	7:15 AM
Volume	699	640	1304
Factor	0.87	0.77	0.87

12:00 PM - 12:00 AM

SB	NB	Combined
2682	4214	6896
38.9 %	61.1 %	
12:15 PM	4:45 PM	4:30 PM
371	909	1238
0.85	0.75	0.81

TRAFFIC DATA, LLC
PO Box 187, Cullman, AL 35056
205-824-0125

Location: : LIBERTY PKWY west of LIME ST
City, State: : VESTAVIA HILLS, AL

Date: 9/28/2021
Tuesday

24 Hour Volume

Begin	WB		EB		Combined	
10:00 AM	61	234	52	196	113	430
10:15 AM	63		51		114	
10:30 AM	59		54		113	
10:45 AM	51		39		90	
11:00 AM	47	255	45	254	92	509
11:15 AM	60		73		133	
11:30 AM	75		69		144	
11:45 AM	73		67		140	
12:00 PM	76	289	73	313	149	602
12:15 PM	68		77		145	
12:30 PM	75		81		156	
12:45 PM	70		82		152	
1:00 PM	78	264	85	300	163	564
1:15 PM	57		64		121	
1:30 PM	61		81		142	
1:45 PM	68		70		138	
2:00 PM	77	301	63	280	140	581
2:15 PM	76		83		159	
2:30 PM	79		64		143	
2:45 PM	69		70		139	
3:00 PM	107	363	82	401	189	764
3:15 PM	106		90		196	
3:30 PM	77		111		188	
3:45 PM	73		118		191	
4:00 PM	84	331	123	519	207	850
4:15 PM	76		112		188	
4:30 PM	90		149		239	
4:45 PM	81		135		216	
5:00 PM	99	347	181	626	280	973
5:15 PM	91		147		238	
5:30 PM	75		162		237	
5:45 PM	82		136		218	
6:00 PM	86	269	128	418	214	687
6:15 PM	55		105		160	
6:30 PM	67		88		155	
6:45 PM	61		97		158	
7:00 PM	44	151	83	265	127	416
7:15 PM	46		64		110	
7:30 PM	40		65		105	
7:45 PM	21		53		74	
8:00 PM	33	120	53	203	86	323
8:15 PM	38		58		96	
8:30 PM	24		45		69	
8:45 PM	25		47		72	
9:00 PM	20	70	29	101	49	171
9:15 PM	19		33		52	
9:30 PM	15		19		34	
9:45 PM	16		20		36	

	WB	EB	Combined
24 Hour Volume	4759 (49.7%)	4814 (50.3%)	9573

Begin	WB		EB		Combined	
10:00 PM	13	23	17	46	30	69
10:15 PM	5		14		19	
10:30 PM	4		7		11	
10:45 PM	1		8		9	
11:00 PM	3	7	7	17	10	24
11:15 PM	1		5		6	
11:30 PM	1		4		5	
11:45 PM	2		1		3	
9/29/2021 12:00 AM	0	5	3	8	3	13
12:15 AM	1		1		2	
12:30 AM	0		1		1	
12:45 AM	4		3		7	
1:00 AM	1	3	1	4	2	7
1:15 AM	1		2		3	
1:30 AM	0		0		0	
1:45 AM	1		1		2	
2:00 AM	0	1	1	4	1	5
2:15 AM	1		1		2	
2:30 AM	0		1		1	
2:45 AM	0		1		1	
3:00 AM	0	4	0	1	0	5
3:15 AM	2		0		2	
3:30 AM	1		0		1	
3:45 AM	1		1		2	
4:00 AM	1	22	0	5	1	27
4:15 AM	4		0		4	
4:30 AM	5		4		9	
4:45 AM	12		1		13	
5:00 AM	8	100	4	35	12	135
5:15 AM	19		11		30	
5:30 AM	42		7		49	
5:45 AM	31		13		44	
6:00 AM	35	210	21	123	56	333
6:15 AM	56		23		79	
6:30 AM	37		40		77	
6:45 AM	82		39		121	
7:00 AM	108	672	55	236	163	908
7:15 AM	184		60		244	
7:30 AM	212		52		264	
7:45 AM	168		69		237	
8:00 AM	112	420	69	250	181	670
8:15 AM	99		55		154	
8:30 AM	116		61		177	
8:45 AM	93		65		158	
9:00 AM	84	298	55	209	139	507
9:15 AM	79		61		140	
9:30 AM	78		39		117	
9:45 AM	57		54		111	

	12:00 AM - 12:00 PM			12:00 PM - 12:00 AM		
	WB	EB	Combined	WB	EB	Combined
Count	2224	1325	3549	2535	3489	6024
	62.7 %	37.3 %		42.1 %	57.9 %	
Peak Hour	7:15 AM	11:00 AM	7:15 AM	3:00 PM	5:00 PM	4:30 PM
Volume	676	254	926	363	626	973
Factor	0.80	0.87	0.88	0.85	0.86	0.87

TRAFFIC DATA, LLC
PO Box 187, Cullman, AL 35056
205-824-0125

Location: : LIBERTY PKWY east of LAKE COLONY
City, State: : VESTAVIA HILLS, AL

Date: 9/16/2021
Thursday

24 Hour Volume

Begin	EB		WB		Combined	
7:00 AM	23	322	20	255	43	577
7:15 AM	66		76		142	
7:30 AM	129		82		211	
7:45 AM	104		77		181	
8:00 AM	34	91	32	114	66	205
8:15 AM	16		27		43	
8:30 AM	22		29		51	
8:45 AM	19		26		45	
9:00 AM	22	57	19	58	41	115
9:15 AM	12		5		17	
9:30 AM	13		14		27	
9:45 AM	10		20		30	
10:00 AM	20	76	15	57	35	133
10:15 AM	19		13		32	
10:30 AM	12		17		29	
10:45 AM	25		12		37	
11:00 AM	15	65	17	67	32	132
11:15 AM	18		16		34	
11:30 AM	21		13		34	
11:45 AM	11		21		32	
12:00 PM	24	102	15	91	39	193
12:15 PM	28		25		53	
12:30 PM	25		30		55	
12:45 PM	25		21		46	
1:00 PM	17	85	21	74	38	159
1:15 PM	26		21		47	
1:30 PM	23		20		43	
1:45 PM	19		12		31	
2:00 PM	43	119	24	148	67	267
2:15 PM	23		23		46	
2:30 PM	20		31		51	
2:45 PM	33		70		103	
3:00 PM	76	200	42	143	118	343
3:15 PM	62		36		98	
3:30 PM	39		42		81	
3:45 PM	23		23		46	
4:00 PM	39	171	23	138	62	309
4:15 PM	38		28		66	
4:30 PM	38		38		76	
4:45 PM	56		49		105	
5:00 PM	54	194	33	144	87	338
5:15 PM	54		38		92	
5:30 PM	49		43		92	
5:45 PM	37		30		67	
6:00 PM	37	129	22	111	59	240
6:15 PM	29		27		56	
6:30 PM	40		41		81	
6:45 PM	23		21		44	
7:00 PM	19	64	15	59	34	123
7:15 PM	21		19		40	
7:30 PM	13		15		28	
7:45 PM	11		10		21	
8:00 PM	12	45	18	56	30	101
8:15 PM	12		17		29	
8:30 PM	12		8		20	
8:45 PM	9		13		22	
9:00 PM	4	15	6	19	10	34
9:15 PM	4		5		9	
9:30 PM	2		5		7	
9:45 PM	5		3		8	
10:00 PM	2	11	0	3	2	14
10:15 PM	4		2		6	
10:30 PM	4		0		4	
10:45 PM	1		1		2	
11:00 PM	3	4	0	3	3	7
11:15 PM	0		2		2	
11:30 PM	1		0		1	
11:45 PM	0		1		1	
9/17/2021 12:00 AM	0	2	2	3	2	5
12:15 AM	0		0		0	
12:30 AM	1		1		2	
12:45 AM	1		0		1	
1:00 AM	0	0	1	3	1	3
1:15 AM	0		0		0	
1:30 AM	0		1		1	
1:45 AM	0		1		1	
2:00 AM	1	1	0	2	1	3
2:15 AM	0		1		1	
2:30 AM	0		1		1	
2:45 AM	0		0		0	
3:00 AM	0	1	1	2	1	3
3:15 AM	0		0		0	
3:30 AM	0		0		0	
3:45 AM	1		1		2	
4:00 AM	0	0	0	3	0	3
4:15 AM	0		0		0	
4:30 AM	0		1		1	
4:45 AM	0		2		2	
5:00 AM	0	9	1	11	1	20
5:15 AM	4		3		7	
5:30 AM	4		5		9	
5:45 AM	1		2		3	
6:00 AM	1	42	6	33	7	75
6:15 AM	19		4		23	
6:30 AM	7		7		14	
6:45 AM	15		16		31	

	EB	WB	Combined
24 Hour Volume	1805 (53.1%)	1597 (46.9%)	3402

12:00 AM - 12:00 PM

	EB	WB	Combined
Count	666	608	1274
	52.3 %	47.7 %	
Peak Hour	7:15 AM	7:15 AM	7:15 AM
Volume	333	267	600
Factor	0.65	0.81	0.71

12:00 PM - 12:00 AM

EB	WB	Combined
1139	989	2128
53.5 %	46.5 %	
4:45 PM	2:45 PM	2:45 PM
213	190	400
0.95	0.68	0.85

TRAFFIC DATA, LLC
PO Box 187, Cullman, AL 35056
205-824-0125

Location: : SICARD HOLLOW RD west of CAHABA BEACH RD
City, State: : VESTAVIA HILLS, AL

Date: 9/21/2021
Tuesday

24 Hour Volume

	Begin	WB		EB		Combined	
	2:00 PM	36	130	36	189	72	319
	2:15 PM	33		43		76	
	2:30 PM	27		52		79	
	2:45 PM	34		58		92	
	3:00 PM	53	202	49	216	102	418
	3:15 PM	81		45		126	
	3:30 PM	33		62		95	
	3:45 PM	35		60		95	
	4:00 PM	37	164	76	352	113	516
	4:15 PM	37		76		113	
	4:30 PM	44		89		133	
	4:45 PM	46		111		157	
	5:00 PM	38	217	107	486	145	703
	5:15 PM	57		126		183	
	5:30 PM	49		142		191	
	5:45 PM	73		111		184	
	6:00 PM	45	191	110	335	155	526
	6:15 PM	61		103		164	
	6:30 PM	54		73		127	
	6:45 PM	31		49		80	
	7:00 PM	29	205	49	173	78	378
	7:15 PM	56		43		99	
	7:30 PM	22		43		65	
	7:45 PM	98		38		136	
	8:00 PM	92	161	28	91	120	252
	8:15 PM	25		32		57	
	8:30 PM	13		17		30	
	8:45 PM	31		14		45	
	9:00 PM	25	50	23	63	48	113
	9:15 PM	13		16		29	
	9:30 PM	6		12		18	
	9:45 PM	6		12		18	
	10:00 PM	2	13	7	17	9	30
	10:15 PM	3		3		6	
	10:30 PM	5		1		6	
	10:45 PM	3		6		9	
	11:00 PM	2	10	3	10	5	20
	11:15 PM	0		2		2	
	11:30 PM	4		4		8	
	11:45 PM	4		1		5	
9/22/2021	12:00 AM	2	3	1	5	3	8
	12:15 AM	1		2		3	
	12:30 AM	0		2		2	
	12:45 AM	0		0		0	
	1:00 AM	0	0	0	2	0	2
	1:15 AM	0		0		0	
	1:30 AM	0		2		2	
	1:45 AM	0		0		0	
	2:00 AM	1	3	1	3	2	6
	2:15 AM	0		0		0	
	2:30 AM	0		2		2	
	2:45 AM	2		0		2	
	3:00 AM	0	4	3	3	3	7
	3:15 AM	0		0		0	
	3:30 AM	2		0		2	
	3:45 AM	2		0		2	
	4:00 AM	0	7	0	3	0	10
	4:15 AM	1		2		3	
	4:30 AM	4		1		5	
	4:45 AM	2		0		2	
	5:00 AM	6	38	2	16	8	54
	5:15 AM	4		0		4	
	5:30 AM	10		3		13	
	5:45 AM	18		11		29	
	6:00 AM	15	108	7	63	22	171
	6:15 AM	22		9		31	
	6:30 AM	32		10		42	
	6:45 AM	39		37		76	
	7:00 AM	63	361	54	214	117	575
	7:15 AM	79		57		136	
	7:30 AM	93		71		164	
	7:45 AM	126		32		158	
	8:00 AM	80	251	32	128	112	379
	8:15 AM	58		49		107	
	8:30 AM	63		25		88	
	8:45 AM	50		22		72	
	9:00 AM	38	159	22	105	60	264
	9:15 AM	41		27		68	
	9:30 AM	42		26		68	
	9:45 AM	38		30		68	
	10:00 AM	31	132	23	124	54	256
	10:15 AM	27		32		59	
	10:30 AM	32		39		71	
	10:45 AM	42		30		72	
	11:00 AM	36	137	34	133	70	270
	11:15 AM	35		32		67	
	11:30 AM	33		25		58	
	11:45 AM	33		42		75	
	12:00 PM	42	138	46	157	88	295
	12:15 PM	32		35		67	
	12:30 PM	34		32		66	
	12:45 PM	30		44		74	
	1:00 PM	25	108	44	155	69	263
	1:15 PM	31		37		68	
	1:30 PM	26		34		60	
	1:45 PM	26		40		66	

	WB	EB	Combined
24 Hour Volume	2792 (47.8%)	3043 (52.2%)	5835

12:00 AM - 12:00 PM

	WB	EB	Combined
Count	1203	799	2002
	60.1 %	39.9 %	
Peak Hour	7:15 AM	6:45 AM	7:00 AM
Volume	378	219	575
Factor	0.75	0.77	0.88

12:00 PM - 12:00 AM

WB	EB	Combined
1589	2244	3833
41.5 %	58.5 %	
7:15 PM	5:15 PM	5:15 PM
268	489	713
0.68	0.86	0.93

Liberty Parkway at Overton Rd - AM Existing

Intersection	
Intersection Delay, s/veh	26
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	250	30	59	457	699	256
Future Vol, veh/h	250	30	59	457	699	256
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	272	33	64	497	760	278
Number of Lanes	1	1	1	2	2	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	2
HCM Control Delay	30.7	18.1	28.9
HCM LOS	D	C	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	229	229	250	30	350	350	256
LT Vol	59	0	0	250	0	0	0	0
Through Vol	0	229	229	0	0	350	350	0
RT Vol	0	0	0	0	30	0	0	256
Lane Flow Rate	64	248	248	272	33	380	380	278
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.16	0.585	0.462	0.717	0.075	0.805	0.805	0.396
Departure Headway (Hd)	8.995	8.479	6.69	9.5	8.283	7.745	7.745	5.24
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	401	427	541	383	434	471	471	690
Service Time	6.695	6.179	4.39	7.226	6.01	5.445	5.445	2.94
HCM Lane V/C Ratio	0.16	0.581	0.458	0.71	0.076	0.807	0.807	0.403
HCM Control Delay	13.4	22.5	15	33	11.7	35.3	35.3	11.3
HCM Lane LOS	B	C	B	D	B	E	E	B
HCM 95th-tile Q	0.6	3.6	2.4	5.4	0.2	7.5	7.5	1.9

Liberty Parkway at Overton Rd - PM Existing

Intersection	
Intersection Delay, s/veh	45.6
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	313	20	52	861	361	258
Future Vol, veh/h	313	20	52	861	361	258
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	340	22	57	936	392	280
Number of Lanes	1	1	1	2	2	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	2
HCM Control Delay	55.6	61	17.4
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	52	431	431	313	20	181	181	258
LT Vol	52	0	0	313	0	0	0	0
Through Vol	0	431	431	0	0	181	181	0
RT Vol	0	0	0	0	20	0	0	258
Lane Flow Rate	57	468	468	340	22	196	196	280
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.138	1.074	0.84	0.907	0.051	0.472	0.472	0.479
Departure Headway (Hd)	8.778	8.26	6.463	9.852	8.633	8.877	8.877	6.345
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	440	557	371	417	408	408	572
Service Time	6.545	6.026	4.228	7.552	6.333	6.577	6.577	4.045
HCM Lane V/C Ratio	0.14	1.064	0.84	0.916	0.053	0.48	0.48	0.49
HCM Control Delay	13	93.3	34.6	58.4	11.8	19.3	19.3	14.7
HCM Lane LOS	B	F	D	F	B	C	C	B
HCM 95th-tile Q	0.5	15.3	8.8	9.2	0.2	2.5	2.5	2.6

Liberty Pkwy and Founders Dr_Lime St - AM Existing

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	223	9	13	605	2	24	0	1	3	1	34
Future Vol, veh/h	11	223	9	13	605	2	24	0	1	3	1	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	242	10	14	658	2	26	0	1	3	1	37
Number of Lanes	1	2	0	1	2	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	3	3
HCM Control Delay	10.7	15.7	10.6	9.7
HCM LOS	B	C	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	0%	8%
Vol Thru, %	0%	0%	0%	100%	89%	0%	100%	99%	3%
Vol Right, %	0%	100%	0%	0%	11%	0%	0%	1%	89%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	1	11	149	83	13	403	204	38
LT Vol	24	0	11	0	0	13	0	0	3
Through Vol	0	0	0	149	74	0	403	202	1
RT Vol	0	1	0	0	9	0	0	2	34
Lane Flow Rate	26	1	12	162	91	14	438	221	41
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.055	0.002	0.022	0.276	0.153	0.023	0.664	0.335	0.074
Departure Headway (Hd)	7.551	6.348	6.648	6.145	6.069	5.958	5.456	5.45	6.417
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	564	539	585	591	604	666	664	558
Service Time	5.29	4.087	4.375	3.873	3.797	3.658	3.156	3.15	4.153
HCM Lane V/C Ratio	0.055	0.002	0.022	0.277	0.154	0.023	0.658	0.333	0.073
HCM Control Delay	10.7	9.1	9.5	11.2	9.9	8.8	18.3	10.9	9.7
HCM Lane LOS	B	A	A	B	A	A	C	B	A
HCM 95th-tile Q	0.2	0	0.1	1.1	0.5	0.1	5	1.5	0.2

Liberty Pkwy and Founders Dr_Lime St- PM Existing

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	563	24	28	290	4	16	3	8	3	2	37
Future Vol, veh/h	34	563	24	28	290	4	16	3	8	3	2	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	612	26	30	315	4	17	3	9	3	2	40
Number of Lanes	1	2	0	1	2	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	3	3
HCM Control Delay	15.3	11.5	10.4	10
HCM LOS	C	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	0%	7%
Vol Thru, %	0%	27%	0%	100%	89%	0%	100%	96%	5%
Vol Right, %	0%	73%	0%	0%	11%	0%	0%	4%	88%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	11	34	375	212	28	193	101	42
LT Vol	16	0	34	0	0	28	0	0	3
Through Vol	0	3	0	375	188	0	193	97	2
RT Vol	0	8	0	0	24	0	0	4	37
Lane Flow Rate	17	12	37	408	230	30	210	109	46
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.038	0.023	0.063	0.642	0.357	0.057	0.362	0.188	0.084
Departure Headway (Hd)	7.816	6.802	6.164	5.661	5.582	6.705	6.202	6.174	6.663
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	458	526	582	641	647	535	580	582	537
Service Time	5.565	4.551	3.889	3.387	3.307	4.437	3.935	3.907	4.41
HCM Lane V/C Ratio	0.037	0.023	0.064	0.637	0.355	0.056	0.362	0.187	0.086
HCM Control Delay	10.9	9.7	9.3	18	11.4	9.8	12.4	10.3	10
HCM Lane LOS	B	A	A	C	B	A	B	B	A
HCM 95th-tile Q	0.1	0.1	0.2	4.6	1.6	0.2	1.6	0.7	0.3

Liberty Pkwy and Hospital Circle - AM Existing

Intersection	
Intersection Delay, s/veh	5.5
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	0	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	2	0	416
Demand Flow Rate, veh/h	2	0	424
Vehicles Circulating, veh/h	313	1	21
Vehicles Exiting, veh/h	21	313	1
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.4	0.0	5.6
Approach LOS	A	-	A

Lane	Left	Bypass	Left	Bypass
Designated Moves	L	R	T	R
Assumed Moves	L	R	T	R
RT Channelized		Yield		Yield
Lane Util	1.000		1.000	
Critical Headway, s	5.193		5.193	
Entry Flow, veh/h	1	1	313	111
Cap Entry Lane, veh/h	826	826	1106	1106
Entry HV Adj Factor	1.000	0.980	0.980	0.980
Flow Entry, veh/h	1	1	307	109
Cap Entry, veh/h	826	810	1085	1085
V/C Ratio	0.001	0.001	0.283	0.100
Control Delay, s/veh	4.4	4.5	6.0	4.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	0

Liberty Pkwy and Hospital Circle - PM Existing

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	0	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	83	0	647
Demand Flow Rate, veh/h	84	0	660
Vehicles Circulating, veh/h	633	61	0
Vehicles Exiting, veh/h	0	633	61
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.1	0.0	9.8
Approach LOS	A	-	A

Lane	Left	Bypass	Left	Bypass
Designated Moves	L	R	T	R
Assumed Moves	L	R	T	R
RT Channelized		Yield		Yield
Lane Util	1.000		1.000	
Critical Headway, s	5.193		5.193	
Entry Flow, veh/h	61	23	633	27
Cap Entry Lane, veh/h	600	600	1130	1130
Entry HV Adj Factor	0.984	0.980	0.980	0.980
Flow Entry, veh/h	60	23	621	26
Cap Entry, veh/h	590	588	1108	1108
V/C Ratio	0.102	0.039	0.560	0.023
Control Delay, s/veh	7.3	6.6	10.1	3.4
LOS	A	A	B	A
95th %tile Queue, veh	0	0	4	0

Liberty Pkwy and Lake Colony Ln - AM Existing

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	245	0	0	148	0	228	0	0	0	0	0
Future Vol, veh/h	67	245	0	0	148	0	228	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	266	0	0	161	0	248	0	0	0	0	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	11.7	11	14.2	0
HCM LOS	B	B	B	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	228	0	67	245	148	0
LT Vol	228	0	67	0	0	0
Through Vol	0	0	0	245	148	0
RT Vol	0	0	0	0	0	0
Lane Flow Rate	248	0	73	266	161	0
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.442	0	0.124	0.417	0.263	0
Departure Headway (Hd)	6.425	5.92	6.143	5.637	5.895	6.457
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	0	587	642	611	0
Service Time	4.147	3.642	3.843	3.337	3.919	4.491
HCM Lane V/C Ratio	0.44	0	0.124	0.414	0.264	0
HCM Control Delay	14.2	8.6	9.7	12.3	11	9.5
HCM Lane LOS	B	N	A	B	B	N
HCM 95th-tile Q	2.2	0	0.4	2.1	1.1	0

Liberty Pkwy and Lake Colony Ln - PM Existing

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	245	0	0	148	0	0	0	0	0	0	80
Future Vol, veh/h	67	245	0	0	148	0	0	0	0	0	0	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	266	0	0	161	0	0	0	0	0	0	87
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	10.1	9.7	0	8.9
HCM LOS	B	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	67	245	148	80
LT Vol	0	0	67	0	0	0
Through Vol	0	0	0	245	148	0
RT Vol	0	0	0	0	0	80
Lane Flow Rate	0	0	73	266	161	87
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0	0	0.109	0.362	0.229	0.124
Departure Headway (Hd)	5.863	5.863	5.399	4.897	5.131	5.114
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	665	735	700	701
Service Time	3.608	3.608	3.126	2.624	3.161	3.146
HCM Lane V/C Ratio	0	0	0.11	0.362	0.23	0.124
HCM Control Delay	8.6	8.6	8.8	10.4	9.7	8.9
HCM Lane LOS	N	N	A	B	A	A
HCM 95th-tile Q	0	0	0.4	1.7	0.9	0.4

Liberty Pkwy and Lake Pkwy - AM Existing

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Approach	WB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	408	404	273
Demand Flow Rate, veh/h	416	413	278
Vehicles Circulating, veh/h	61	309	129
Vehicles Exiting, veh/h	346	168	593
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.6	11.2	6.5
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LR	LR
Assumed Moves	LR	LR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	416	413	278
Cap Entry Lane, veh/h	1063	830	993
Entry HV Adj Factor	0.981	0.978	0.982
Flow Entry, veh/h	408	404	273
Cap Entry, veh/h	1043	812	975
V/C Ratio	0.391	0.498	0.280
Control Delay, s/veh	7.6	11.2	6.5
LOS	A	B	A
95th %tile Queue, veh	2	3	1

Liberty Pkwy and Lake Pkwy- PM Existing

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Approach	WB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	238	145	475
Demand Flow Rate, veh/h	243	148	485
Vehicles Circulating, veh/h	200	189	39
Vehicles Exiting, veh/h	324	254	298
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.7	5.5	8.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LR	LR
Assumed Moves	LR	LR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	243	148	485
Cap Entry Lane, veh/h	925	935	1087
Entry HV Adj Factor	0.979	0.980	0.979
Flow Entry, veh/h	238	145	475
Cap Entry, veh/h	906	916	1064
V/C Ratio	0.263	0.158	0.446
Control Delay, s/veh	6.7	5.5	8.3
LOS	A	A	A
95th %tile Queue, veh	1	1	2

Liberty Pkwy and Liberty Rd - AM Existing

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Approach	EB	WB	NB
Entry Lanes	2	2	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	221	662	175
Demand Flow Rate, veh/h	225	675	178
Vehicles Circulating, veh/h	68	102	204
Vehicles Exiting, veh/h	709	280	89
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.1	13.6	5.9
Approach LOS	A	B	A

Lane	Left	Right	Left	Left
Designated Moves	LT	R	LT	LR
Assumed Moves	LT	R	LT	LR
RT Channelized				
Lane Util	0.907	0.093	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	204	21	675	178
Cap Entry Lane, veh/h	1056	1056	1020	921
Entry HV Adj Factor	0.980	1.000	0.981	0.983
Flow Entry, veh/h	200	21	662	175
Cap Entry, veh/h	1035	1056	1001	906
V/C Ratio	0.193	0.020	0.662	0.193
Control Delay, s/veh	5.3	3.6	13.6	5.9
LOS	A	A	B	A
95th %tile Queue, veh	1	0	5	1

Liberty Pkwy and Liberty Rd- PM Existing

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Approach	EB	WB	NB
Entry Lanes	2	2	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	518	369	116
Demand Flow Rate, veh/h	529	376	118
Vehicles Circulating, veh/h	58	50	448
Vehicles Exiting, veh/h	368	516	139
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.4	7.0	6.9
Approach LOS	A	A	A

Lane	Left	Right	Left	Left
Designated Moves	LT	R	LT	LR
Assumed Moves	LT	R	LT	LR
RT Channelized				
Lane Util	0.847	0.153	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	448	81	376	118
Cap Entry Lane, veh/h	1066	1066	1075	722
Entry HV Adj Factor	0.980	0.975	0.981	0.983
Flow Entry, veh/h	439	79	369	116
Cap Entry, veh/h	1045	1040	1054	710
V/C Ratio	0.420	0.076	0.350	0.163
Control Delay, s/veh	8.0	4.1	7.0	6.9
LOS	A	A	A	A
95th %tile Queue, veh	2	0	2	1

Liberty Pkwy and Publix East - AM Existing

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	226	5	12	664	0	20	0	6	0	0	0
Future Volume (veh/h)	0	226	5	12	664	0	20	0	6	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	1863	1863	1863	1863	1863	0	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	0	246	5	13	722	0	22	0	7	0	0	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	0	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	160	1416	633	559	1416	0	710	745	633	0	4	0
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
Prop Arrive On Green	0.00	0.40	0.40	0.40	0.40	0.00	0.40	0.00	0.40	0.00	0.00	0.00
Ln Grp Delay, s/veh	0.0	9.0	8.1	9.5	11.5	0.0	8.3	0.0	8.2	0.0	0.0	0.0
Ln Grp LOS		A	A	A	B		A		A			
Approach Vol, veh/h		251			735			29			0	
Approach Delay, s/veh		9.0			11.5			8.3			0.0	
Approach LOS		A			B			A				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6	2		4				8
Case No	12.0	9.0		5.0				6.0
Phs Duration (G+Y+Rc), s	0.0	22.5		22.5				22.5
Change Period (Y+Rc), s	4.5	4.5		4.5				4.5
Max Green (Gmax), s	18.0	18.0		18.0				18.0
Max Allow Headway (MAH), s	0.0	3.9		5.2				5.2
Max Q Clear (g_c+I1), s	0.0	2.3		4.0				8.9
Green Ext Time (g_e), s	0.0	0.0		1.2				3.3
Prob of Phs Call (p_c)	0.00	1.00		1.00				1.00
Prob of Max Out (p_x)	0.00	0.00		0.00				0.00

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				3
Mvmt Sat Flow, veh/h	0	1774		728				1124

Through Movement Data								
Assigned Mvmt	6	2		4				8
Mvmt Sat Flow, veh/h	1863	1863		3539				3632

Right-Turn Movement Data								
Assigned Mvmt	16	12		14				18
Mvmt Sat Flow, veh/h	0	1583		1583				0

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	3
Lane Assignment								

Liberty Pkwy and Publix East - AM Existing

Lanes in Grp	0	1	0	1	0	0	0	1
Grp Vol (v), veh/h	0	22	0	0	0	0	0	13
Grp Sat Flow (s), veh/h/ln	0	1774	0	728	0	0	0	1124
Q Serve Time (g_s), s	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.4
Perm LT Sat Flow (s_l), veh/h/ln	0	1774	0	728	0	0	0	1124
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	710	0	160	0	0	0	559
V/C Ratio (X)	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.02
Avail Cap (c_a), veh/h	0	710	0	160	0	0	0	559
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	0.0	0.0	0.0	0.0	9.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	0.0	0.0	0.0	0.0	9.5
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	2	0	4	0	0	0	8
Lane Assignment	T	T		T				T
Lanes in Grp	1	1	0	2	0	0	0	2
Grp Vol (v), veh/h	0	0	0	246	0	0	0	722
Grp Sat Flow (s), veh/h/ln	1863	1863	0	1770	0	0	0	1770
Q Serve Time (g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	6.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	6.9
Lane Grp Cap (c), veh/h	4	745	0	1416	0	0	0	1416
V/C Ratio (X)	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.51
Avail Cap (c_a), veh/h	745	745	0	1416	0	0	0	1416
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	8.7	0.0	0.0	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	9.0	0.0	0.0	0.0	11.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.0	0.0	0.0	0.0	3.3

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.0	0.0	0.0	0.0	3.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.31
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	16	12	0	14	0	0	0	18
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	7	0	5	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	633	0	633	0	0	0	0
V/C Ratio (X)	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	633	0	633	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	8.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	8.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay		10.7						
HCM 2010 LOS		B						

Liberty Pkwy and Publix East- PM Existing

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	564	9	35	313	0	53	0	51	0	0	0
Future Volume (veh/h)	0	564	9	35	313	0	53	0	51	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	1863	1863	1863	1863	1863	0	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	0	613	10	38	340	0	58	0	55	0	0	0
Adj No. of Lanes	1	2	1	1	2	0	1	1	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	0	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	160	1416	633	379	1416	0	710	745	633	0	4	0
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
Prop Arrive On Green	0.00	0.40	0.40	0.40	0.40	0.00	0.40	0.00	0.40	0.00	0.00	0.00
Ln Grp Delay, s/veh	0.0	10.8	8.2	13.0	9.4	0.0	8.6	0.0	8.7	0.0	0.0	0.0
Ln Grp LOS		B	A	B	A		A		A			
Approach Vol, veh/h		623			378			113			0	
Approach Delay, s/veh		10.7			9.7			8.6			0.0	
Approach LOS		B			A			A				

Timer:	1	2	3	4	5	6	7	8			
Assigned Phs	6	2		4				8			
Case No	12.0	9.0		5.0				6.0			
Phs Duration (G+Y+Rc), s	0.0	22.5		22.5				22.5			
Change Period (Y+Rc), s	4.5	4.5		4.5				4.5			
Max Green (Gmax), s	18.0	18.0		18.0				18.0			
Max Allow Headway (MAH), s	0.0	3.9		5.2				5.3			
Max Q Clear (g_c+I1), s	0.0	3.0		7.7				9.3			
Green Ext Time (g_e), s	0.0	0.2		3.0				1.6			
Prob of Phs Call (p_c)	0.00	1.00		1.00				1.00			
Prob of Max Out (p_x)	0.00	0.00		0.00				0.00			

Left-Turn Movement Data											
Assigned Mvmt	1	5		7				3			
Mvmt Sat Flow, veh/h	0	1774		1036				798			

Through Movement Data											
Assigned Mvmt	6	2		4				8			
Mvmt Sat Flow, veh/h	1863	1863		3539				3632			

Right-Turn Movement Data											
Assigned Mvmt	16	12		14				18			
Mvmt Sat Flow, veh/h	0	1583		1583				0			

Left Lane Group Data											
Assigned Mvmt	1	5	0	7	0	0	0	3			
Lane Assignment											

Liberty Pkwy and Publix East- PM Existing

Lanes in Grp	0	1	0	1	0	0	0	1
Grp Vol (v), veh/h	0	58	0	0	0	0	0	38
Grp Sat Flow (s), veh/h/ln	0	1774	0	1036	0	0	0	798
Q Serve Time (g_s), s	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1.6
Cycle Q Clear Time (g_c), s	0.0	0.9	0.0	0.0	0.0	0.0	0.0	7.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1774	0	1036	0	0	0	798
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	710	0	160	0	0	0	379
V/C Ratio (X)	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.10
Avail Cap (c_a), veh/h	0	710	0	160	0	0	0	379
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	0.0	0.0	0.0	0.0	12.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.6	0.0	0.0	0.0	0.0	0.0	13.0
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	2	0	4	0	0	0	8
Lane Assignment	T	T		T				T
Lanes in Grp	1	1	0	2	0	0	0	2
Grp Vol (v), veh/h	0	0	0	613	0	0	0	340
Grp Sat Flow (s), veh/h/ln	1863	1863	0	1770	0	0	0	1770
Q Serve Time (g_s), s	0.0	0.0	0.0	5.7	0.0	0.0	0.0	2.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	5.7	0.0	0.0	0.0	2.9
Lane Grp Cap (c), veh/h	4	745	0	1416	0	0	0	1416
V/C Ratio (X)	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.24
Avail Cap (c_a), veh/h	745	745	0	1416	0	0	0	1416
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	10.8	0.0	0.0	0.0	9.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.0	1.4

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.9	0.0	0.0	0.0	1.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	16	12	0	14	0	0	0	18
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	55	0	10	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	633	0	633	0	0	0	0
V/C Ratio (X)	0.00	0.09	0.00	0.02	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	633	0	633	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	8.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	0.0	8.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.1	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Liberty Pkwy and Publix West - AM Existing

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	230	41	0	698	0	13
Future Vol, veh/h	230	41	0	698	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	250	45	0	759	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	148
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	872
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	872
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	872	-	-	-
HCM Lane V/C Ratio	0.016	-	-	-
HCM Control Delay (s)	9.2	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Liberty Pkwy and Publix West - PM Existing

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	510	96	0	374	0	35
Future Vol, veh/h	510	96	0	374	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	554	104	0	407	0	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	329
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	667
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	667
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NE
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBT
Capacity (veh/h)	667	-	-	-
HCM Lane V/C Ratio	0.057	-	-	-
HCM Control Delay (s)	10.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Liberty Pkwy and River Run Ln - AM Existing

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	25	50	142	1	17	32	165	495	31	228	400	1
Future Volume (veh/h)	25	50	142	1	17	32	165	495	31	228	400	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q, 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	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	27	54	154	1	18	0	179	538	34	248	435	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	112	90	212	91	361	313	392	911	57	323	736	329
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
Prop Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.00	0.22	0.27	0.27	0.18	0.21	0.00
Ln Grp Delay, s/veh	17.8	0.0	0.0	14.4	0.0	0.0	15.7	15.2	15.2	21.0	16.6	0.0
Ln Grp LOS	B			B			B	B	B	C	B	
Approach Vol, veh/h		235			19			751			683	
Approach Delay, s/veh		17.8			14.4			15.3			18.2	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	5	6		8
Case No	3.0	2.0		8.0	2.0	4.0		7.0
Phs Duration (G+Y+Rc), s	14.7	15.3		14.2	12.5	17.4		14.2
Change Period (Y+Rc), s	* 5.5	5.5		5.5	4.5	5.5		5.5
Max Green (Gmax), s	* 20	40.5		24.5	20.5	39.5		24.5
Max Allow Headway (MAH), s	5.2	3.8		5.5	3.8	5.3		5.3
Max Q Clear (g_c+l1), s	6.9	5.9		7.9	7.9	8.1		2.4
Green Ext Time (g_e), s	2.3	0.5		1.3	0.6	3.8		0.0
Prob of Phs Call (p_c)	1.00	0.89		0.96	0.95	1.00		0.96
Prob of Max Out (p_x)	0.10	0.00		0.01	0.00	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7	5			3
Mvmt Sat Flow, veh/h		1774		107	1774			25

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3539			457		3381		1822

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1583			1073		213		1583

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	5	0	0	3
Lane Assignment		(Prot)		L+T+R	(Prot)			L+T

Liberty Pkwy and River Run Ln - AM Existing

Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	179	0	235	248	0	0	19
Grp Sat Flow (s), veh/h/ln	0	1774	0	1637	1774	0	0	1848
Q Serve Time (g_s), s	0.0	3.9	0.0	2.2	5.9	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.9	0.0	5.9	5.9	0.0	0.0	0.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1417	0	0	0	1192
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1852	0	0	0	1858
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	8.7	0.0	0.0	0.0	8.7
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	8.4	0.0	0.0	0.0	2.8
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	3.7	0.0	0.0	0.0	6.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.4
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.11	1.00	0.00	0.00	0.05
Lane Grp Cap (c), veh/h	0	392	0	415	323	0	0	451
V/C Ratio (X)	0.00	0.46	0.00	0.57	0.77	0.00	0.00	0.04
Avail Cap (c_a), veh/h	0	1626	0	990	823	0	0	1095
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	16.6	17.2	0.0	0.0	14.4
Incr Delay (d2), s/veh	0.0	0.8	0.0	1.2	3.8	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.7	0.0	17.8	21.0	0.0	0.0	14.4
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.7	2.8	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.8	3.2	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	0.27	1.07	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T					T		
Lanes in Grp	2	0	0	0	0	1	0	0
Grp Vol (v), veh/h	435	0	0	0	0	281	0	0
Grp Sat Flow (s), veh/h/ln	1770	0	0	0	0	1770	0	0
Q Serve Time (g_s), s	4.9	0.0	0.0	0.0	0.0	6.1	0.0	0.0
Cycle Q Clear Time (g_c), s	4.9	0.0	0.0	0.0	0.0	6.1	0.0	0.0
Lane Grp Cap (c), veh/h	736	0	0	0	0	477	0	0
V/C Ratio (X)	0.59	0.00	0.00	0.00	0.00	0.59	0.00	0.00
Avail Cap (c_a), veh/h	1562	0	0	0	0	1582	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	15.8	0.0	0.0	0.0	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	16.6	0.0	0.0	0.0	0.0	15.2	0.0	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	0.0	0.0	0.0	3.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.4	0.0	0.0	0.0	0.0	3.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.20	0.00	0.00	0.00	0.00	0.17	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R					T+R		R
Lanes in Grp	1	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	291	0	0
Grp Sat Flow (s), veh/h/ln	1583	0	0	0	0	1825	0	1583
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	0.66	0.00	0.12	0.00	1.00
Lane Grp Cap (c), veh/h	329	0	0	0	0	492	0	313
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00
Avail Cap (c_a), veh/h	699	0	0	0	0	1631	0	878
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Liberty Pkwy and River Run Ln - PM Existing

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	34	4	252	8	56	149	17	276	20	183	535	7
Future Volume (veh/h)	34	4	252	8	56	149	17	276	20	183	535	7
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q, 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	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	37	4	274	9	61	0	18	300	22	199	582	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	126	28	375	120	473	432	40	598	44	260	1071	479
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
Prop Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.00	0.02	0.18	0.18	0.15	0.30	0.00
Ln Grp Delay, s/veh	14.6	0.0	0.0	11.4	0.0	0.0	27.5	16.4	16.4	21.6	12.4	0.0
Ln Grp LOS	B			B			C	B	B	C	B	
Approach Vol, veh/h		315			70			340			781	
Approach Delay, s/veh		14.6			11.4			17.0			14.7	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		7.0
Phs Duration (G+Y+Rc), s	6.4	17.9		16.7	11.5	12.8		16.7
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5
Max Green (Gmax), s	12.5	41.5		29.5	12.5	41.5		29.5
Max Allow Headway (MAH), s	3.8	5.2		5.5	3.8	5.3		5.3
Max Q Clear (g_c+I1), s	2.4	7.6		9.4	6.4	5.3		3.2
Green Ext Time (g_e), s	0.0	4.4		2.0	0.3	2.0		0.3
Prob of Phs Call (p_c)	0.19	1.00		0.99	0.90	1.00		0.99
Prob of Max Out (p_x)	0.00	0.00		0.01	0.17	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			104	1774			77

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		101		3345		1733

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1374		244		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T

Liberty Pkwy and River Run Ln - PM Existing

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	18	0	0	315	199	0	0	70
Grp Sat Flow (s), veh/h/ln	1774	0	0	1579	1774	0	0	1810
Q Serve Time (g_s), s	0.4	0.0	0.0	2.6	4.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.4	0.0	0.0	7.4	4.4	0.0	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1363	0	0	0	1119
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1852	0	0	0	1851
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	11.2	0.0	0.0	0.0	11.2
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	10.1	0.0	0.0	0.0	3.9
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	4.8	0.0	0.0	0.0	7.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	4.8	0.0	0.0	0.0	1.2
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.12	1.00	0.00	0.00	0.13
Lane Grp Cap (c), veh/h	40	0	0	529	260	0	0	593
V/C Ratio (X)	0.45	0.00	0.00	0.60	0.77	0.00	0.00	0.12
Avail Cap (c_a), veh/h	540	0	0	1220	540	0	0	1354
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	19.8	0.0	0.0	13.5	16.9	0.0	0.0	11.3
Incr Delay (d2), s/veh	7.7	0.0	0.0	1.1	4.7	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	27.5	0.0	0.0	14.6	21.6	0.0	0.0	11.4
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	3.2	2.2	0.0	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.2	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.3	0.0	0.0	3.4	2.5	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.05	0.00	0.00	0.33	0.85	0.00	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	582	0	0	0	158	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	5.6	0.0	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	0.0	0.0	3.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	1071	0	0	0	316	0	0
V/C Ratio (X)	0.00	0.54	0.00	0.00	0.00	0.50	0.00	0.00
Avail Cap (c_a), veh/h	0	3576	0	0	0	1788	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.0	0.0	0.0	0.0	15.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.4	0.0	0.0	0.0	16.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	0.0	0.0	1.6	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	0.0	0.0	1.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.00	0.00	0.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		R
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	164	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1820	0	1583
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.87	0.00	0.13	0.00	1.00
Lane Grp Cap (c), veh/h	0	479	0	0	0	325	0	432
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00
Avail Cap (c_a), veh/h	0	1600	0	0	0	1838	0	1137
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Liberty Pkwy and Sicard Hollow Rd - AM Existing

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	97	148	42	83	171	106
Future Vol, veh/h	97	148	42	83	171	106
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	161	46	90	186	115

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	426	244	301	0	-	0
Stage 1	244	-	-	-	-	-
Stage 2	182	-	-	-	-	-
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	585	795	1260	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	563	795	1260	-	-	-
Mov Cap-2 Maneuver	563	-	-	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1260	-	683	-	-
HCM Lane V/C Ratio	0.036	-	0.39	-	-
HCM Control Delay (s)	8	0	13.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.9	-	-

Liberty Pkwy and Sicard Hollow Rd - PM Existing

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	91	120	94	180	203	66
Future Vol, veh/h	91	120	94	180	203	66
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	130	102	196	221	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	657	257	293	0	-	0
Stage 1	257	-	-	-	-	-
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	430	782	1269	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	391	782	1269	-	-	-
Mov Cap-2 Maneuver	391	-	-	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1269	-	546	-	-
HCM Lane V/C Ratio	0.081	-	0.42	-	-
HCM Control Delay (s)	8.1	0	16.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	2.1	-	-

Liberty Pkwy and Urban Center Pkwy South - AM Existing

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	108	375	42	6	571	53	3	1	0	24	0	23
Future Vol, veh/h	108	375	42	6	571	53	3	1	0	24	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	0	0	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	117	408	46	7	621	58	3	1	0	26	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	679	0	0	454	0	0	990	1358	227	1103	1352	340
Stage 1	-	-	-	-	-	-	665	665	-	664	664	-
Stage 2	-	-	-	-	-	-	325	693	-	439	688	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	909	-	-	1103	-	-	201	148	776	166	149	656
Stage 1	-	-	-	-	-	-	416	456	-	416	456	-
Stage 2	-	-	-	-	-	-	661	443	-	567	445	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	909	-	-	1103	-	-	173	128	776	148	129	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	128	-	148	129	-
Stage 1	-	-	-	-	-	-	362	397	-	362	453	-
Stage 2	-	-	-	-	-	-	632	440	-	493	388	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	2	0.1	28.3	22.9
HCM LOS			D	C

Minor Lane/Major Mvmt	NELn1	NELn2	EBL	EBT	EBR	WBL	WBT	WBR	SWLn1	SWLn2	SWLn3
Capacity (veh/h)	159	-	909	-	-	1103	-	-	148	-	656
HCM Lane V/C Ratio	0.027	-	0.129	-	-	0.006	-	-	0.176	-	0.038
HCM Control Delay (s)	28.3	0	9.5	-	-	8.3	-	-	34.5	0	10.7
HCM Lane LOS	D	A	A	-	-	A	-	-	D	A	B
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-	0	-	-	0.6	-	0.1

Liberty Pkwy and Urban Center Pkwy South - PM Existing

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	59	473	7	4	437	13	25	4	7	68	3	81
Future Vol, veh/h	59	473	7	4	437	13	25	4	7	68	3	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	0	0	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	514	8	4	475	14	27	4	8	74	3	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	489	0	0	522	0	0	893	1143	261	877	1140	245
Stage 1	-	-	-	-	-	-	646	646	-	490	490	-
Stage 2	-	-	-	-	-	-	247	497	-	387	650	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1070	-	-	1041	-	-	236	199	738	243	200	755
Stage 1	-	-	-	-	-	-	427	465	-	529	547	-
Stage 2	-	-	-	-	-	-	735	543	-	608	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1070	-	-	1041	-	-	196	186	738	225	187	755
Mov Cap-2 Maneuver	-	-	-	-	-	-	196	186	-	225	187	-
Stage 1	-	-	-	-	-	-	401	437	-	497	545	-
Stage 2	-	-	-	-	-	-	643	541	-	560	435	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0.9	0.1	23.7	18.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NELn1	NELn2	EBL	EBT	EBR	WBL	WBT	WBR	SWLn1	SWLn2	SWLn3
Capacity (veh/h)	195	738	1070	-	-	1041	-	-	225	187	755
HCM Lane V/C Ratio	0.162	0.01	0.06	-	-	0.004	-	-	0.329	0.017	0.117
HCM Control Delay (s)	27	9.9	8.6	-	-	8.5	-	-	28.6	24.6	10.4
HCM Lane LOS	D	A	A	-	-	A	-	-	D	C	B
HCM 95th %tile Q(veh)	0.6	0	0.2	-	-	0	-	-	1.4	0.1	0.4

Liberty Pkwy and Urban Centra Trail_Scouting Way - AM Existing

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Traffic Vol, veh/h	0	0	0	0	0	5	597	5	0	641
Future Vol, veh/h	0	0	0	0	0	5	597	5	0	641
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	5	649	5	0	697
Number of Lanes	0	1	0	0	1	0	2	0	0	2

Approach	EB	WB	NW
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB	NW	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NW	SB	SB
Conflicting Lanes Right	2	2	2
HCM Control Delay	0	9	12.7
HCM LOS	-	A	B

Lane	NWLn1	NWLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	0%	100%	98%
Vol Thru, %	0%	0%	100%	0%	0%	0%
Vol Right, %	100%	100%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	427	226	0	5	402	304
LT Vol	0	0	0	0	402	299
Through Vol	0	0	0	0	0	0
RT Vol	427	226	0	5	0	5
Lane Flow Rate	464	245	0	5	436	330
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.603	0.318	0	0.009	0.679	0.512
Departure Headway (Hd)	4.673	4.673	6.493	5.864	5.604	5.584
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	771	768	0	605	642	643
Service Time	2.408	2.408	4.584	3.952	3.368	3.348
HCM Lane V/C Ratio	0.602	0.319	0	0.008	0.679	0.513
HCM Control Delay	14.3	9.6	9.6	9	19.5	14.1
HCM Lane LOS	B	A	N	A	C	B
HCM 95th-tile Q	4.1	1.4	0	0	5.3	2.9

Liberty Pkwy and Urban Centra Trail_Scouting Way - PM Existing

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Traffic Vol, veh/h	13	0	1	7	0	65	537	8	0	553
Future Vol, veh/h	13	0	1	7	0	65	537	8	0	553
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	1	8	0	71	584	9	0	601
Number of Lanes	0	1	0	0	1	0	2	0	0	2

Approach	EB	WB	NW
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB	NW	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NW	SB	SB
Conflicting Lanes Right	2	2	2
HCM Control Delay	9.9	9.7	11.7
HCM LOS	A	A	B

Lane	NWLn1	NWLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	93%	10%	100%	97%
Vol Thru, %	0%	0%	0%	0%	0%	0%
Vol Right, %	100%	100%	7%	90%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	369	186	14	72	276	277
LT Vol	0	0	13	7	276	269
Through Vol	0	0	0	0	0	0
RT Vol	369	186	1	65	0	8
Lane Flow Rate	401	203	15	78	299	301
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.53	0.268	0.028	0.126	0.483	0.482
Departure Headway (Hd)	4.765	4.765	6.679	5.816	5.812	5.777
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	749	745	539	620	614	616
Service Time	2.544	2.544	4.683	3.816	3.61	3.575
HCM Lane V/C Ratio	0.535	0.272	0.028	0.126	0.487	0.489
HCM Control Delay	12.9	9.3	9.9	9.7	14	13.9
HCM Lane LOS	B	A	A	A	B	B
HCM 95th-tile Q	3.2	1.1	0.1	0.4	2.6	2.6

Liberty Road and Lime St - AM Existing

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	3	2	125	36	5
Future Vol, veh/h	8	3	2	125	36	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	3	2	136	39	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	182	42	44	0	-	0
Stage 1	42	-	-	-	-	-
Stage 2	140	-	-	-	-	-
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	807	1029	1564	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	806	1029	1564	-	-	-
Mov Cap-2 Maneuver	806	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	887	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1564	-	857	-	-
HCM Lane V/C Ratio	0.001	-	0.014	-	-
HCM Control Delay (s)	7.3	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Liberty Road and Lime St- PM Existing

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	17	4	43	69	2
Future Vol, veh/h	13	17	4	43	69	2
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	18	4	47	75	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	131	76	77	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	55	-	-	-	-	-
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	863	985	1522	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	860	985	1522	-	-	-
Mov Cap-2 Maneuver	860	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1522	-	927	-	-
HCM Lane V/C Ratio	0.003	-	0.035	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Overton Access Rd at Overton Rd - AM Existing

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	104	840	618	39	70	57
Future Volume (veh/h)	104	840	618	39	70	57
Number	7	14	1	6	2	12
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	113	0	672	42	76	0
Adj No. of Lanes	2	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	305	140	969	1194	229	195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.09	0.00	0.38	0.64	0.12	0.00
Ln Grp Delay, s/veh	18.2	0.0	7.7	2.7	17.1	0.0
Ln Grp LOS	B		A	A	B	
Approach Vol, veh/h	113			714	76	
Approach Delay, s/veh	18.2			7.4	17.1	
Approach LOS	B			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	21.1	10.5		9.1		31.6		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	59.5	9.5		14.5		74.5		
Max Allow Headway (MAH), s	3.8	5.2		3.8		5.2		
Max Q Clear (g_c+I1), s	13.0	3.5		3.3		2.3		
Green Ext Time (g_e), s	2.5	0.1		0.2		0.2		
Prob of Phs Call (p_c)	1.00	1.00		0.72		1.00		
Prob of Max Out (p_x)	0.00	0.55		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1774	0		3442				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1583		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Pr/Pm)							

Overton Access Rd at Overton Rd - AM Existing

Lanes in Grp	1	0	0	2	0	0	0	0
Grp Vol (v), veh/h	672	0	0	113	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1774	0	0	1721	0	0	0	0
Q Serve Time (g_s), s	11.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	11.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1318	0	0	1721	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	969	0	0	305	0	0	0	0
V/C Ratio (X)	0.69	0.00	0.00	0.37	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	2886	0	0	1227	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.8	0.0	0.0	17.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	0.0	18.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	5.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.50	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	76	0	0	0	42	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	1.5	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	0.0	0.0	0.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	229	0	0	0	1194	0	0
V/C Ratio (X)	0.00	0.33	0.00	0.00	0.00	0.04	0.00	0.00
Avail Cap (c_a), veh/h	0	435	0	0	0	3413	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	16.3	0.0	0.0	0.0	2.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.1	0.0	0.0	0.0	2.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	0.2	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	195	0	140	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	370	0	565	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Overton Access Rd at Overton Rd - PM Existing

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	99	474	859	100	80	84
Future Volume (veh/h)	99	474	859	100	80	84
Number	7	14	1	6	2	12
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	108	0	934	109	87	0
Adj No. of Lanes	2	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	261	120	1114	1329	178	152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.00	0.51	0.71	0.10	0.00
Ln Grp Delay, s/veh	24.1	0.0	9.0	2.3	24.4	0.0
Ln Grp LOS	C		A	A	C	
Approach Vol, veh/h	108			1043	87	
Approach Delay, s/veh	24.1			8.3	24.4	
Approach LOS	C			A	C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	32.2	10.5		9.5		42.7		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	59.5	9.5		14.5		74.5		
Max Allow Headway (MAH), s	3.8	5.2		3.8		5.2		
Max Q Clear (g_c+I1), s	22.5	4.3		3.6		2.9		
Green Ext Time (g_e), s	4.2	0.1		0.2		0.7		
Prob of Phs Call (p_c)	1.00	1.00		0.79		1.00		
Prob of Max Out (p_x)	0.00	1.00		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1774	0		3442				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1583		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Pr/Pm)							

Overton Access Rd at Overton Rd - PM Existing

Lanes in Grp	1	0	0	2	0	0	0	0
Grp Vol (v), veh/h	934	0	0	108	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1774	0	0	1721	0	0	0	0
Q Serve Time (g_s), s	20.5	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	20.5	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1305	0	0	1721	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1114	0	0	261	0	0	0	0
V/C Ratio (X)	0.84	0.00	0.00	0.41	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	2227	0	0	956	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.3	0.0	0.0	23.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.0	0.0	0.0	24.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	9.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	9.9	0.0	0.0	0.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.93	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	87	0	0	0	109	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	2.3	0.0	0.0	0.0	0.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	0.0	0.0	0.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	178	0	0	0	1329	0	0
V/C Ratio (X)	0.00	0.49	0.00	0.00	0.00	0.08	0.00	0.00
Avail Cap (c_a), veh/h	0	339	0	0	0	2659	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	22.4	0.0	0.0	0.0	2.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.4	0.0	0.0	0.0	2.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	0.5	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.0	0.0	0.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	152	0	120	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	288	0	440	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay		10.8						
HCM 2010 LOS		B						

I-459 SB Ramp at Overton Access Rd - Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	48	14	640	121	0	0	0	0	638	0	46
Future Volume (veh/h)	0	48	14	640	121	0	0	0	0	638	0	46
Number	7	4	14	3	8	18				1	6	16
Initial Q, veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	52	15	696	132	0				693	0	50
Adj No. of Lanes	0	1	0	2	2	0				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	511	148	1178	1301	0				796	0	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	0.37	0.37	0.37	0.37	0.00				0.45	0.00	0.45
Ln Grp Delay, s/veh	0.0	0.0	10.2	15.0	10.2	0.0				15.3	0.0	7.7
Ln Grp LOS			B	B	B					B		A
Approach Vol, veh/h		67			828						743	
Approach Delay, s/veh		10.2			14.2						14.8	
Approach LOS		B			B						B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4				8
Case No	9.0			8.0				6.0
Phs Duration (G+Y+Rc), s	26.5			22.5				22.5
Change Period (Y+Rc), s	4.5			4.5				4.5
Max Green (Gmax), s	40.5			25.5				25.5
Max Allow Headway (MAH), s	3.8			5.3				4.2
Max Q Clear (g_c+l1), s	19.3			3.2				15.1
Green Ext Time (g_e), s	2.7			0.3				2.9
Prob of Phs Call (p_c)	1.00			1.00				1.00
Prob of Max Out (p_x)	0.01			0.00				0.21

Left-Turn Movement Data								
Assigned Mvmt	1			7				3
Mvmt Sat Flow, veh/h	1774			0				2578

Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	0			1391				3632

Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	1583			401				0

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	0	0	3
Lane Assignment								

I-459 SB Ramp at Overton Access Rd - Future 2045

Lanes in Grp	1	0	0	0	0	0	0	2
Grp Vol (v), veh/h	693	0	0	0	0	0	0	696
Grp Sat Flow (s), veh/h/ln	1774	0	0	0	0	0	0	1289
Q Serve Time (g_s), s	17.3	0.0	0.0	0.0	0.0	0.0	0.0	11.9
Cycle Q Clear Time (g_c), s	17.3	0.0	0.0	0.0	0.0	0.0	0.0	13.1
Perm LT Sat Flow (s_l), veh/h/ln	1774	0	0	0	0	0	0	1289
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.8
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9
Time to First Blk (g_f), s	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	796	0	0	0	0	0	0	1178
V/C Ratio (X)	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.59
Avail Cap (c_a), veh/h	1467	0	0	0	0	0	0	1573
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	12.2	0.0	0.0	0.0	0.0	0.0	0.0	14.5
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	15.3	0.0	0.0	0.0	0.0	0.0	0.0	15.0
1st-Term Q (Q1), veh/ln	8.3	0.0	0.0	0.0	0.0	0.0	0.0	4.2
2nd-Term Q (Q2), veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	9.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
%ile Storage Ratio (RQ%)	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.43
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment								T
Lanes in Grp	0	0	0	0	0	0	0	2
Grp Vol (v), veh/h	0	0	0	0	0	0	0	132
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	1770
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	1301
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	1843
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment	R			T+R				
Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	50	0	0	67	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1583	0	0	1792	0	0	0	0
Q Serve Time (g_s), s	0.9	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.9	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	710	0	0	659	0	0	0	0
V/C Ratio (X)	0.07	0.00	0.00	0.10	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1309	0	0	933	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.7	0.0	0.0	10.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	0.0	10.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.06	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

I-459 SB Ramp at Overton Access Rd - PM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	50	62	755	57	0	0	0	0	489	0	14
Future Volume (veh/h)	0	50	62	755	57	0	0	0	0	489	0	14
Number	5	2	12	1	6	16				7	4	14
Initial Q, veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1863	0	1863
Adj Flow Rate, veh/h	0	54	67	821	62	0				532	0	15
Adj No. of Lanes	0	1	0	2	2	0				1	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	79	99	958	1691	0				591	0	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	0.10	0.10	0.28	0.48	0.00				0.33	0.00	0.33
Ln Grp Delay, s/veh	0.0	0.0	29.6	26.4	8.1	0.0				32.2	0.0	13.1
Ln Grp LOS			C	C	A					C		B
Approach Vol, veh/h		121			883						547	
Approach Delay, s/veh		29.6			25.1						31.7	
Approach LOS		C			C						C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	2.0	8.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	21.7	11.6		24.9		33.3		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	18.0	18.1		22.4		41.6		
Max Allow Headway (MAH), s	3.8	5.4		3.8		5.2		
Max Q Clear (g_c+l1), s	15.1	6.0		18.6		2.5		
Green Ext Time (g_e), s	1.0	0.4		0.8		0.4		
Prob of Phs Call (p_c)	1.00	0.95		1.00		1.00		
Prob of Max Out (p_x)	1.00	0.02		1.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	3442	0		1774				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		757		0		3632		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		940		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Prot)							

Overton Access Rd at Overton Rd - AM Future 2045

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	104	1422	1162	60	172	57
Future Volume (veh/h)	104	1422	1162	60	172	57
Number	7	14	1	6	2	12
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	113	0	1263	65	187	0
Adj No. of Lanes	2	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	265	122	1601	1329	268	228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.00	0.47	0.71	0.14	0.00
Ln Grp Delay, s/veh	24.2	0.0	12.8	2.2	24.7	0.0
Ln Grp LOS	C		B	A	C	
Approach Vol, veh/h	113			1328	187	
Approach Delay, s/veh	24.2			12.2	24.7	
Approach LOS	C			B	C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	2.0	7.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	29.9	13.0		9.5		43.0		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	54.5	14.5		14.5		74.5		
Max Allow Headway (MAH), s	3.8	5.2		3.8		5.2		
Max Q Clear (g_c+I1), s	18.3	7.0		3.6		2.5		
Green Ext Time (g_e), s	6.2	0.5		0.2		0.4		
Prob of Phs Call (p_c)	1.00	1.00		0.81		1.00		
Prob of Max Out (p_x)	0.00	0.31		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	3442	0		3442				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1583		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Prot)							

Overton Access Rd at Overton Rd - AM Future 2045

Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	1263	0	0	113	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1721	0	0	1721	0	0	0	0
Q Serve Time (g_s), s	16.3	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	16.3	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1721	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1601	0	0	265	0	0	0	0
V/C Ratio (X)	0.79	0.00	0.00	0.43	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	3571	0	0	950	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	11.9	0.0	0.0	23.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.8	0.0	0.0	24.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	7.5	0.0	0.0	0.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.7	0.0	0.0	0.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.49	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	187	0	0	0	65	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	5.0	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	0.0	0.0	0.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	268	0	0	0	1329	0	0
V/C Ratio (X)	0.00	0.70	0.00	0.00	0.00	0.05	0.00	0.00
Avail Cap (c_a), veh/h	0	514	0	0	0	2642	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.4	0.0	0.0	0.0	2.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.7	0.0	0.0	0.0	2.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	0.3	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	0.0	0.0	0.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	228	0	122	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	437	0	437	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay		14.5						
HCM 2010 LOS		B						

Overton Access Rd at Overton Rd - PM Future 2045

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	99	1070	1420	163	150	84
Future Volume (veh/h)	99	1070	1420	163	150	84
Number	7	14	1	6	2	12
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	108	0	1543	177	163	0
Adj No. of Lanes	2	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	259	119	2045	1334	234	199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.00	0.49	0.72	0.13	0.00
Ln Grp Delay, s/veh	24.4	0.0	7.1	2.4	25.8	0.0
Ln Grp LOS	C		A	A	C	
Approach Vol, veh/h	108			1720	163	
Approach Delay, s/veh	24.4			6.6	25.8	
Approach LOS	C			A	C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	31.1	12.1		9.5		43.3		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	59.5	9.5		14.5		74.5		
Max Allow Headway (MAH), s	3.8	5.2		3.8		5.2		
Max Q Clear (g_c+l1), s	17.0	6.4		3.6		3.6		
Green Ext Time (g_e), s	8.6	0.2		0.2		1.1		
Prob of Phs Call (p_c)	1.00	1.00		0.79		1.00		
Prob of Max Out (p_x)	0.01	1.00		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	3442	0		3442				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1583		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Pr/Pm)							

Overton Access Rd at Overton Rd - PM Future 2045

Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	1543	0	0	108	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1721	0	0	1721	0	0	0	0
Q Serve Time (g_s), s	15.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	15.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1181	0	0	1721	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	2045	0	0	259	0	0	0	0
V/C Ratio (X)	0.75	0.00	0.00	0.42	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	4254	0	0	946	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	0.0	23.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.1	0.0	0.0	24.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	6.9	0.0	0.0	0.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.30	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	163	0	0	0	177	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	4.4	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.4	0.0	0.0	0.0	1.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	234	0	0	0	1334	0	0
V/C Ratio (X)	0.00	0.70	0.00	0.00	0.00	0.13	0.00	0.00
Avail Cap (c_a), veh/h	0	335	0	0	0	2631	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	22.1	0.0	0.0	0.0	2.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.8	0.0	0.0	0.0	2.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	0.0	0.0	0.8	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	0.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	199	0	119	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	285	0	435	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay		9.1						
HCM 2010 LOS		A						

Lanes in Grp	2	0	0	1	0	0	0	0
Grp Vol (v), veh/h	821	0	0	532	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1721	0	0	1774	0	0	0	0
Q Serve Time (g_s), s	13.1	0.0	0.0	16.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	13.1	0.0	0.0	16.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	958	0	0	591	0	0	0	0
V/C Ratio (X)	0.86	0.00	0.00	0.90	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1065	0	0	683	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	19.9	0.0	0.0	18.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	0.0	13.7	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.4	0.0	0.0	32.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	6.2	0.0	0.0	8.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.9	0.0	0.0	2.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.71	0.00	0.00	0.43	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment						T		
Lanes in Grp	0	0	0	0	0	2	0	0
Grp Vol (v), veh/h	0	0	0	0	0	62	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	1691	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	2532	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		T+R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	121	0	15	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1697	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	4.0	0.0	0.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	0.4	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.55	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	178	0	527	0	0	0	0
V/C Ratio (X)	0.00	0.68	0.00	0.03	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	528	0	610	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.1	0.0	13.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.6	0.0	13.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.03	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Liberty Parkway at Overton Rd - AM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	250	179	125	972	1342	256
Future Volume (veh/h)	250	179	125	972	1342	256
Number	7	14	5	2	6	16
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	272	0	136	1057	1459	0
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	322	288	284	2353	1851	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.18	0.00	0.07	0.66	0.52	0.00
Ln Grp Delay, s/veh	36.9	0.0	14.5	5.9	15.4	0.0
Ln Grp LOS	D		B	A	B	
Approach Vol, veh/h	272			1193	1459	
Approach Delay, s/veh	36.9			6.9	15.4	
Approach LOS	D			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	1.2	7.0		
Phs Duration (G+Y+Rc), s		53.2		18.5	10.2	43.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		
Max Green (Gmax), s		59.5		19.5	7.5	46.5		
Max Allow Headway (MAH), s		5.2		3.8	3.8	5.2		
Max Q Clear (g_c+I1), s		12.2		12.6	4.3	26.0		
Green Ext Time (g_e), s		10.1		0.5	0.1	11.5		
Prob of Phs Call (p_c)		1.00		1.00	0.93	1.00		
Prob of Max Out (p_x)		0.01		0.13	1.00	0.42		

Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				1774	1774	0		

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3632		0		3632		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1583		1583		

Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment					(Pr/Pm)			

Liberty Parkway at Overton Rd - AM Future 2045

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	272	136	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1774	1774	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.6	2.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.6	2.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1774	363	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	39.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	322	284	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.84	0.48	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	483	354	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	28.3	13.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	8.5	1.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	36.9	14.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.2	1.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.8	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.0	1.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.32	0.10	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1057	0	0	0	1459	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	10.2	0.0	0.0	0.0	24.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.2	0.0	0.0	0.0	24.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2353	0	0	0	1851	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.79	0.00	0.00
Avail Cap (c_a), veh/h	0	2938	0	0	0	2296	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.7	0.0	0.0	0.0	13.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	1.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.9	0.0	0.0	0.0	15.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.0	0.0	11.6	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.9	0.0	0.0	0.0	11.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.00	0.00	0.45	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1583	0	1583	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	288	0	828	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	431	0	1027	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Liberty Pkwy and River Run Ln - AM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	25	50	230	1	17	32	165	1325	31	275	851	1
Future Volume (veh/h)	25	50	230	1	17	32	165	1325	31	275	851	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q, 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	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	27	54	250	1	18	0	179	1440	34	299	925	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	59	70	268	46	400	346	217	1581	37	337	1823	815
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
Prop Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.00	0.12	0.45	0.45	0.19	0.51	0.00
Ln Grp Delay, s/veh	50.4	0.0	0.0	29.0	0.0	0.0	47.8	37.9	37.7	53.8	15.2	0.0
Ln Grp LOS	D			C			D	D	D	D	B	
Approach Vol, veh/h		331			19			1653			1224	
Approach Delay, s/veh		50.4			29.0			38.9			24.6	
Approach LOS		D			C			D			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		7.0
Phs Duration (G+Y+Rc), s	16.0	52.8		25.0	22.3	46.5		25.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	22.5	43.5		20.5	22.5	43.5		20.5
Max Allow Headway (MAH), s	3.8	5.2		5.5	3.8	5.2		5.3
Max Q Clear (g_c+l1), s	11.2	18.1		20.8	17.4	37.7		2.8
Green Ext Time (g_e), s	0.4	7.3		0.0	0.4	4.3		0.0
Prob of Phs Call (p_c)	0.99	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.00	0.07		1.00	0.45	0.97		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			78	1774			24

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		319		3534		1832

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1224		83		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T

Liberty Pkwy and River Run Ln - AM Future 2045

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	179	0	0	331	299	0	0	19
Grp Sat Flow (s), veh/h/ln	1774	0	0	1620	1774	0	0	1856
Q Serve Time (g_s), s	9.2	0.0	0.0	10.5	15.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.2	0.0	0.0	18.8	15.4	0.0	0.0	0.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1417	0	0	0	1092
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1855	0	0	0	1858
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	20.5	0.0	0.0	0.0	20.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	19.7	0.0	0.0	0.0	1.7
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	15.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.8
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.08	1.00	0.00	0.00	0.05
Lane Grp Cap (c), veh/h	217	0	0	396	337	0	0	446
V/C Ratio (X)	0.82	0.00	0.00	0.84	0.89	0.00	0.00	0.04
Avail Cap (c_a), veh/h	426	0	0	396	426	0	0	446
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	40.2	0.0	0.0	35.9	37.0	0.0	0.0	28.9
Incr Delay (d2), s/veh	7.7	0.0	0.0	14.4	16.8	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.8	0.0	0.0	50.4	53.8	0.0	0.0	29.0
1st-Term Q (Q1), veh/ln	4.5	0.0	0.0	8.4	7.6	0.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.0	1.6	1.6	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	5.0	0.0	0.0	10.0	9.1	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.84	0.00	0.00	0.96	3.09	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	925	0	0	0	720	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	16.1	0.0	0.0	0.0	35.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.1	0.0	0.0	0.0	35.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	1823	0	0	0	792	0	0
V/C Ratio (X)	0.00	0.51	0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap (c_a), veh/h	0	1823	0	0	0	821	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	0.0	0.0	24.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	13.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.2	0.0	0.0	0.0	37.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.8	0.0	0.0	0.0	17.2	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	3.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.9	0.0	0.0	0.0	20.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.00	0.00	0.00	1.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		R
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	754	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1848	0	1583
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	35.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	35.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.76	0.00	0.05	0.00	1.00
Lane Grp Cap (c), veh/h	0	815	0	0	0	827	0	346
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap (c_a), veh/h	0	815	0	0	0	857	0	346
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	24.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	37.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	21.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Liberty Pkwy and Urban Centra Trail_Scouting Way - AM Future 2045

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	5	0	1033	12	103	1322	5
Future Vol, veh/h	0	0	0	0	0	5	0	1033	12	103	1322	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	5	0	1123	13	112	1437	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2226	2800	721	2073	2796	568	1442	0	0	1136	0	0
Stage 1	1664	1664	-	1130	1130	-	-	-	-	-	-	-
Stage 2	562	1136	-	943	1666	-	-	-	-	-	-	-
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	24	18	370	31	18	466	466	-	-	611	-	-
Stage 1	101	152	-	217	277	-	-	-	-	-	-	-
Stage 2	479	275	-	282	152	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	4	1	370	6	1	466	466	-	-	611	-	-
Mov Cap-2 Maneuver	4	1	-	6	1	-	-	-	-	-	-	-
Stage 1	101	11	-	217	277	-	-	-	-	-	-	-
Stage 2	473	275	-	21	11	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.8	0	5.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	466	-	-	-	466	611	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	0.183	-	-
HCM Control Delay (s)	0	-	-	0	12.8	12.2	4.9	-
HCM Lane LOS	A	-	-	A	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0.7	-	-

Liberty Pkwy and Urban Center Pkwy South - AM Future 2045

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	108	1275	42	6	1019	53	3	1	0	24	0	23
Future Vol, veh/h	108	1275	42	6	1019	53	3	1	0	24	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	0	0	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	117	1386	46	7	1108	58	3	1	0	26	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1166	0	0	1432	0	0	2211	2823	716	2079	2817	583
Stage 1	-	-	-	-	-	-	1643	1643	-	1151	1151	-
Stage 2	-	-	-	-	-	-	568	1180	-	928	1666	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	595	-	-	470	-	-	24	17	373	31	18	456
Stage 1	-	-	-	-	-	-	104	156	-	211	271	-
Stage 2	-	-	-	-	-	-	475	262	-	288	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	595	-	-	470	-	-	19	13	373	~ 26	14	456
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	88	-	128	99	-
Stage 1	-	-	-	-	-	-	84	125	-	169	267	-
Stage 2	-	-	-	-	-	-	442	258	-	229	122	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0.9	0.1	52.6	27.1
HCM LOS			F	D

Minor Lane/Major Mvmt	NELn1	NELn2	EBL	EBT	EBR	WBL	WBT	WBR	SWLn1	SWLn2	SWLn3
Capacity (veh/h)	80	-	595	-	-	470	-	-	128	-	456
HCM Lane V/C Ratio	0.054	-	0.197	-	-	0.014	-	-	0.204	-	0.055
HCM Control Delay (s)	52.6	0	12.5	-	-	12.8	-	-	40.2	0	13.4
HCM Lane LOS	F	A	B	-	-	B	-	-	E	A	B
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	0	-	-	0.7	-	0.2

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

Liberty Pkwy and Hospital Circle - AM Future 2045

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	3	3
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	2	0	0	0
Demand Flow Rate, veh/h	2	0	0	0
Vehicles Circulating, veh/h	1330	1269	1	21
Vehicles Exiting, veh/h	21	0	1330	1248
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.2	0.0	0.0	0.0
Approach LOS	B	-	-	-

Lane	Left	Bypass	Left		Bypass	Bypass
Designated Moves	L	R	R		R	R
Assumed Moves	L	R	R		R	R
RT Channelized		Yield			Yield	Free
Lane Util	1.000		1.000			
Critical Headway, s	5.193		5.193			
Entry Flow, veh/h	1	1	0		0	111
Cap Entry Lane, veh/h	299	299	318		0	0
Entry HV Adj Factor	1.000	0.980	1.000		0.980	0.980
Flow Entry, veh/h	1	1	0		0	109
Cap Entry, veh/h	299	293	318		0	0
V/C Ratio	0.003	0.003	0.000		0.000	0.000
Control Delay, s/veh	12.1	12.3	11.3		0.0	0.0
LOS	B	B	B		-	-
95th %tile Queue, veh	0	0	0		0	0

Liberty Road and Lime St - AM Future 2045

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	107	88	35	210	148	191
Future Vol, veh/h	107	88	35	210	148	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	96	38	228	161	208

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	569	265	369	0	-	0
Stage 1	265	-	-	-	-	-
Stage 2	304	-	-	-	-	-
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	484	774	1190	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	466	774	1190	-	-	-
Mov Cap-2 Maneuver	466	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	1.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1190	-	568	-	-
HCM Lane V/C Ratio	0.032	-	0.373	-	-
HCM Control Delay (s)	8.1	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.7	-	-

Liberty Pkwy and Lake Pkwy - AM Future 2045

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	WB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	437	404	305
Demand Flow Rate, veh/h	446	413	311
Vehicles Circulating, veh/h	61	339	129
Vehicles Exiting, veh/h	379	168	623
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.0	11.9	6.9
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LR	LR
Assumed Moves	LR	LR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	446	413	311
Cap Entry Lane, veh/h	1063	805	993
Entry HV Adj Factor	0.980	0.978	0.981
Flow Entry, veh/h	437	404	305
Cap Entry, veh/h	1042	788	974
V/C Ratio	0.420	0.513	0.313
Control Delay, s/veh	8.0	11.9	6.9
LOS	A	B	A
95th %tile Queue, veh	2	3	1

Liberty Pkwy and Lake Colony Ln - AM Future 2045

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	245	0	0	148	0	228	0	0	0	0	0
Future Vol, veh/h	67	245	0	0	148	0	228	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	266	0	0	161	0	248	0	0	0	0	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	11.7	11	14.2	0
HCM LOS	B	B	B	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	228	0	67	245	148	0
LT Vol	228	0	67	0	0	0
Through Vol	0	0	0	245	148	0
RT Vol	0	0	0	0	0	0
Lane Flow Rate	248	0	73	266	161	0
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.442	0	0.124	0.417	0.263	0
Departure Headway (Hd)	6.425	5.92	6.143	5.637	5.895	6.457
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	0	587	642	611	0
Service Time	4.147	3.642	3.843	3.337	3.919	4.491
HCM Lane V/C Ratio	0.44	0	0.124	0.414	0.264	0
HCM Control Delay	14.2	8.6	9.7	12.3	11	9.5
HCM Lane LOS	B	N	A	B	B	N
HCM 95th-tile Q	2.2	0	0.4	2.1	1.1	0

Liberty Pkwy and Sicard Hollow - AM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	97	225	82	83	171	106
Future Volume (veh/h)	97	225	82	83	171	106
Number	7	14	5	2	6	16
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	1863	1863	1900
Adj Flow Rate, veh/h	105	245	89	90	186	115
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	333	298	764	1267	734	454
Arrive On Green	0.19	0.19	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1774	1583	1074	1863	1078	667
Grp Volume(v), veh/h	105	245	89	90	0	301
Grp Sat Flow(s),veh/h/ln	1774	1583	1074	1863	0	1745
Q Serve(g_s), s	3.5	10.2	2.4	1.1	0.0	4.6
Cycle Q Clear(g_c), s	3.5	10.2	6.9	1.1	0.0	4.6
Prop In Lane	1.00	1.00	1.00			0.38
Lane Grp Cap(c), veh/h	333	298	764	1267	0	1187
V/C Ratio(X)	0.31	0.82	0.12	0.07	0.00	0.25
Avail Cap(c_a), veh/h	506	452	764	1267	0	1187
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	0.00	1.00
Uniform Delay (d), s/veh	24.0	26.7	5.6	3.7	0.0	4.2
Incr Delay (d2), s/veh	0.5	7.3	0.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.0	0.8	0.6	0.0	2.3
LnGrp Delay(d),s/veh	24.5	34.0	5.9	3.8	0.0	4.7
LnGrp LOS	C	C	A	A		A
Approach Vol, veh/h	350			179	301	
Approach Delay, s/veh	31.1			4.8	4.7	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		51.0		17.3		51.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		46.5		19.5		46.5		
Max Q Clear Time (g_c+I1), s		8.9		12.2		6.6		
Green Ext Time (p_c), s		0.9		0.7		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Liberty Parkway at Overton Rd - PM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	313	241	215	1370	980	258
Future Volume (veh/h)	313	241	215	1370	980	258
Number	7	14	5	2	6	16
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	340	0	234	1489	1065	0
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	411	367	409	2170	1522	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.00	0.11	0.61	0.43	0.00
Ln Grp Delay, s/veh	25.5	0.0	11.5	7.9	14.1	0.0
Ln Grp LOS	C		B	A	B	
Approach Vol, veh/h	340			1723	1065	
Approach Delay, s/veh	25.5			8.4	14.1	
Approach LOS	C			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	1.2	7.0		
Phs Duration (G+Y+Rc), s		40.1		17.9	10.6	29.4		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green (Gmax), s		62.5		28.5	16.5	41.5		
Max Allow Headway (MAH), s		5.2		3.8	3.8	5.2		
Max Q Clear (g_c+I1), s		18.3		12.6	5.8	16.2		
Green Ext Time (g_e), s		17.2		0.9	0.5	8.7		
Prob of Phs Call (p_c)		1.00		1.00	0.98	1.00		
Prob of Max Out (p_x)		0.12		0.00	0.01	0.12		

Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				1774	1774	0		

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3632		0		3632		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1583		1583		

Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment					(Pr/Pm)			

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	340	234	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1774	1774	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.6	3.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.6	3.8	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1774	528	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	26.9	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	24.9	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	411	409	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.83	0.57	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	871	726	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	21.2	10.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	25.5	11.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.1	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	5.6	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.30	0.12	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1489	0	0	0	1065	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	16.3	0.0	0.0	0.0	14.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.3	0.0	0.0	0.0	14.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	2170	0	0	0	1522	0	0
V/C Ratio (X)	0.00	0.69	0.00	0.00	0.00	0.70	0.00	0.00
Avail Cap (c_a), veh/h	0	3812	0	0	0	2531	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.5	0.0	0.0	0.0	13.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	0.0	0.0	14.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.9	0.0	0.0	0.0	6.8	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.0	0.0	0.0	0.0	6.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.42	0.00	0.00	0.00	0.26	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1583	0	1583	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	367	0	681	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	778	0	1132	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Liberty Pkwy and River Run Ln - PM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	34	4	252	8	56	149	17	1184	20	220	1402	7
Future Volume (veh/h)	34	4	252	8	56	149	17	1184	20	220	1402	7
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q, 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	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	37	4	274	9	61	0	18	1287	22	239	1524	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	76	19	306	74	379	353	37	1596	27	285	2082	931
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
Prop Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.00	0.02	0.45	0.45	0.16	0.59	0.00
Ln Grp Delay, s/veh	38.8	0.0	0.0	25.3	0.0	0.0	48.9	23.1	22.9	39.4	13.3	0.0
Ln Grp LOS	D			C			D	C	C	D	B	
Approach Vol, veh/h		315			70			1327			1763	
Approach Delay, s/veh		38.8			25.3			23.3			16.9	
Approach LOS		D			C			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		7.0
Phs Duration (G+Y+Rc), s	6.2	51.8		22.4	17.4	40.5		22.4
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	21.5	45.5		19.5	21.5	45.5		19.5
Max Allow Headway (MAH), s	3.8	5.2		5.5	3.8	5.2		5.3
Max Q Clear (g_c+l1), s	2.8	27.0		17.6	12.5	27.1		4.4
Green Ext Time (g_e), s	0.0	11.3		0.4	0.5	8.9		0.2
Prob of Phs Call (p_c)	0.33	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.00	0.51		1.00	0.03	0.42		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			118	1774			103

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		87		3561		1696

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1370		61		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T

Liberty Pkwy and River Run Ln - PM Future 2045

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	18	0	0	315	239	0	0	70
Grp Sat Flow (s), veh/h/ln	1774	0	0	1575	1774	0	0	1799
Q Serve Time (g_s), s	0.8	0.0	0.0	9.2	10.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.8	0.0	0.0	15.6	10.5	0.0	0.0	2.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1363	0	0	0	1119
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1852	0	0	0	1731
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	17.9	0.0	0.0	0.0	17.9
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	2.4
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	6.4	0.0	0.0	0.0	9.6
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	6.4	0.0	0.0	0.0	2.4
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.12	1.00	0.00	0.00	0.13
Lane Grp Cap (c), veh/h	37	0	0	402	285	0	0	452
V/C Ratio (X)	0.49	0.00	0.00	0.78	0.84	0.00	0.00	0.15
Avail Cap (c_a), veh/h	475	0	0	432	475	0	0	485
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	38.9	0.0	0.0	30.2	32.7	0.0	0.0	25.2
Incr Delay (d2), s/veh	9.9	0.0	0.0	8.6	6.7	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.9	0.0	0.0	38.8	39.4	0.0	0.0	25.3
1st-Term Q (Q1), veh/ln	0.4	0.0	0.0	6.7	5.1	0.0	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	1.0	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.5	0.0	0.0	7.7	5.6	0.0	0.0	1.3
%ile Storage Ratio (RQ%)	0.08	0.00	0.00	0.74	1.91	0.00	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	1524	0	0	0	639	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	25.0	0.0	0.0	0.0	25.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	25.0	0.0	0.0	0.0	25.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2082	0	0	0	793	0	0
V/C Ratio (X)	0.00	0.73	0.00	0.00	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	0	2082	0	0	0	1002	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.0	0.0	0.0	0.0	19.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	3.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	0.0	0.0	23.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.1	0.0	0.0	0.0	12.1	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.5	0.0	0.0	0.0	12.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.02	0.00	0.00	0.00	0.70	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		R
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	670	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1852	0	1583
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	25.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	25.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.87	0.00	0.03	0.00	1.00
Lane Grp Cap (c), veh/h	0	931	0	0	0	830	0	353
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	0	931	0	0	0	1049	0	384
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	19.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	22.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Liberty Pkwy and Urban Centra Trail_Scouting Way - PM Future 2045

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	1	7	0	65	0	1550	2	7	1467	8
Future Vol, veh/h	13	0	1	7	0	65	0	1550	2	7	1467	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	1	8	0	71	0	1685	2	8	1595	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2459	3303	802	2500	3306	844	1604	0	0	1687	0	0
Stage 1	1616	1616	-	1686	1686	-	-	-	-	-	-	-
Stage 2	843	1687	-	814	1620	-	-	-	-	-	-	-
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	16	8	327	15	8	307	404	-	-	375	-	-
Stage 1	108	161	-	98	149	-	-	-	-	-	-	-
Stage 2	325	148	-	338	160	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 10	6	327	13	6	307	404	-	-	375	-	-
Mov Cap-2 Maneuver	~ 10	6	-	13	6	-	-	-	-	-	-	-
Stage 1	108	129	-	98	149	-	-	-	-	-	-	-
Stage 2	250	148	-	271	128	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 878.1	125.4	0	1.5
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	404	-	-	11	96	375	-	-
HCM Lane V/C Ratio	-	-	-	1.383	0.815	0.02	-	-
HCM Control Delay (s)	0	-	-	$ 878.1	125.4	14.8	1.4	-
HCM Lane LOS	A	-	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	2.7	4.4	0.1	-	-

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

Liberty Pkwy and Urban Center Pkwy South - PM Future 2045

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	59	1402	7	4	1478	13	25	4	7	68	3	81
Future Vol, veh/h	59	1402	7	4	1478	13	25	4	7	68	3	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	0	0	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	1524	8	4	1607	14	27	4	8	74	3	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1621	0	0	1532	0	0	2469	3285	766	2514	3282	811
Stage 1	-	-	-	-	-	-	1656	1656	-	1622	1622	-
Stage 2	-	-	-	-	-	-	813	1629	-	892	1660	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	398	-	-	430	-	-	~ 15	9	345	~ 14	9	322
Stage 1	-	-	-	-	-	-	102	154	-	107	160	-
Stage 2	-	-	-	-	-	-	339	159	-	303	153	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	398	-	-	430	-	-	~ 9	7	345	~ 11	7	322
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	70	-	79	90	-
Stage 1	-	-	-	-	-	-	86	129	-	90	159	-
Stage 2	-	-	-	-	-	-	239	158	-	240	128	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0.6	0	75	90.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NELn1	NELn2	EBL	EBT	EBR	WBL	WBT	WBR	SWLn1	SWLn2	SWLn3
Capacity (veh/h)	72	345	398	-	-	430	-	-	79	90	322
HCM Lane V/C Ratio	0.438	0.022	0.161	-	-	0.01	-	-	0.936	0.036	0.273
HCM Control Delay (s)	89.3	15.7	15.8	-	-	13.5	-	-	175.4	46.5	20.3
HCM Lane LOS	F	C	C	-	-	B	-	-	F	E	C
HCM 95th %tile Q(veh)	1.7	0.1	0.6	-	-	0	-	-	5	0.1	1.1

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

Liberty Pkwy and Hospital Circle - PM Future 2045

Intersection	
Intersection Delay, s/veh	23.8
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	3	3
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	83	0	0	0
Demand Flow Rate, veh/h	84	0	0	0
Vehicles Circulating, veh/h	1666	1657	61	0
Vehicles Exiting, veh/h	0	0	1666	1657
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	23.8	0.0	0.0	0.0
Approach LOS	C	-	-	-

Lane	Left	Bypass	Left		Bypass	Bypass
Designated Moves	L	R	R		R	R
Assumed Moves	L	R	R		R	R
RT Channelized		Yield			Free	Free
Lane Util	1.000		1.000			
Critical Headway, s	5.193		5.193			
Entry Flow, veh/h	61	23	0		0	27
Cap Entry Lane, veh/h	214	214	215		0	0
Entry HV Adj Factor	0.984	0.980	1.000		0.980	0.980
Flow Entry, veh/h	60	23	0		0	26
Cap Entry, veh/h	210	209	215		0	0
V/C Ratio	0.286	0.110	0.000		0.000	0.000
Control Delay, s/veh	25.3	19.9	16.7		0.0	0.0
LOS	D	C	C		-	-
95th %tile Queue, veh	1	0	0		0	0

Liberty Pkwy and Hospital Circle - PM Future 2045

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	0	21	0	0	0	0	1440	0	0	1502	24
Future Vol, veh/h	55	0	21	0	0	0	0	1440	0	0	1502	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Free	-	-	Free
Storage Length	0	-	0	-	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	0	23	0	0	0	0	1565	0	0	1633	26

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	-	-	783	1633	0	-	1565	0	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	337	393	-	0	418	-	0
Stage 1	0	0	-	-	-	0	-	-	0
Stage 2	0	0	-	-	-	0	-	-	0
Platoon blocked, %					-			-	
Mov Cap-1 Maneuver	-	0	337	393	-	-	418	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	393	-	-	418	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-
HCM Lane LOS	A	-	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Liberty Pkwy and Publix East - PM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1153	217	125	887	30	323	0	175	133	0	200
Future Volume (veh/h)	50	1153	217	125	887	30	323	0	175	133	0	200
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, 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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	54	1253	236	136	964	33	351	0	190	145	0	217
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	332	1753	784	255	1819	814	302	570	485	439	0	485
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
Prop Arrive On Green	0.04	0.50	0.50	0.06	0.51	0.51	0.31	0.00	0.31	0.31	0.00	0.31
Ln Grp Delay, s/veh	12.4	21.5	15.4	18.1	16.7	11.7	144.1	0.0	26.9	26.8	0.0	27.5
Ln Grp LOS	B	C	B	B	B	B	F		C	C		C
Approach Vol, veh/h		1543			1133			541			362	
Approach Delay, s/veh		20.3			16.8			102.9			27.2	
Approach LOS		C			B			F			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	1.1	3.0		5.0	1.1	3.0		6.0
Phs Duration (G+Y+Rc), s	10.1	52.2		34.0	8.3	54.0		34.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	13.5	43.5		29.5	7.5	49.5		29.5
Max Allow Headway (MAH), s	3.8	5.1		4.2	3.8	5.2		5.0
Max Q Clear (g_c+l1), s	5.6	28.6		31.5	3.4	19.5		12.6
Green Ext Time (g_e), s	0.2	8.6		0.0	0.0	8.2		1.7
Prob of Phs Call (p_c)	0.97	1.00		1.00	0.76	1.00		1.00
Prob of Max Out (p_x)	0.02	0.00		1.00	0.69	0.00		0.01

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			1160	1774			1188

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		0

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1583		1583		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Pr/Pm)				(Pr/Pm)			

2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.5	0.0	0.0	0.0	8.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.20	0.00	0.00	0.00	0.76	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	236	0	190	0	33	0	217
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	1583	0	1583
Q Serve Time (g_s), s	0.0	8.5	0.0	9.1	0.0	1.0	0.0	10.6
Cycle Q Clear Time (g_c), s	0.0	8.5	0.0	9.1	0.0	1.0	0.0	10.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	784	0	485	0	814	0	485
V/C Ratio (X)	0.00	0.30	0.00	0.39	0.00	0.04	0.00	0.45
Avail Cap (c_a), veh/h	0	784	0	485	0	814	0	485
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	26.3	0.0	11.6	0.0	26.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.5	0.0	0.1	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.4	0.0	26.9	0.0	11.7	0.0	27.5
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	3.9	0.0	0.4	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	4.0	0.0	0.5	0.0	4.7
%ile Storage Ratio (RQ%)	0.00	0.67	0.00	0.36	0.00	0.04	0.00	1.88
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Liberty Pkwy and Publix East - AM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	860	159	125	939	25	175	0	175	3	1	34
Future Volume (veh/h)	56	860	159	125	939	25	175	0	175	3	1	34
Number	5	2	12	1	6	16	7	4	14	3	8	18
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	61	935	173	136	1021	27	190	0	190	3	1	37
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	2079	930	413	2123	950	321	356	302	314	8	296
Arrive On Green	0.05	0.59	0.59	0.06	0.60	0.60	0.19	0.00	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1364	1863	1583	1188	42	1548
Grp Volume(v), veh/h	61	935	173	136	1021	27	190	0	190	3	0	38
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1364	1863	1583	1188	0	1590
Q Serve(g_s), s	1.1	12.2	4.2	2.4	13.4	0.6	11.1	0.0	9.1	0.2	0.0	1.6
Cycle Q Clear(g_c), s	1.1	12.2	4.2	2.4	13.4	0.6	12.7	0.0	9.1	0.2	0.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	403	2079	930	413	2123	950	321	356	302	314	0	304
V/C Ratio(X)	0.15	0.45	0.19	0.33	0.48	0.03	0.59	0.00	0.63	0.01	0.00	0.13
Avail Cap(c_a), veh/h	483	2079	930	600	2123	950	548	666	566	512	0	568
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.8	9.5	7.9	6.9	9.3	6.7	32.9	0.0	30.7	27.1	0.0	27.7
Incr Delay (d2), s/veh	0.2	0.7	0.4	0.5	0.8	0.1	1.7	0.0	2.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.0	1.9	1.2	6.8	0.3	4.3	0.0	4.1	0.1	0.0	0.7
LnGrp Delay(d),s/veh	7.0	10.2	8.3	7.3	10.1	6.8	34.7	0.0	32.8	27.1	0.0	27.8
LnGrp LOS	A	B	A	A	B	A	C		C	C		C
Approach Vol, veh/h		1169			1184			380			41	
Approach Delay, s/veh		9.8			9.7			33.8			27.8	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	53.0		20.3	8.3	54.0		20.3
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	13.5	43.5		29.5	7.5	49.5		29.5
Max Q Clear Time (g_c+I1), s	4.4	14.2		14.7	3.1	15.4		3.6
Green Ext Time (p_c), s	0.2	8.5		1.1	0.0	9.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	229	0	0	366	188	0	0	3
Grp Sat Flow (s), veh/h/ln	1774	0	0	1258	1774	0	0	1215
Q Serve Time (g_s), s	6.8	0.0	0.0	27.0	5.6	0.0	0.0	0.2
Cycle Q Clear Time (g_c), s	6.8	0.0	0.0	32.5	5.6	0.0	0.0	7.6
Perm LT Sat Flow (s_l), veh/h/ln	401	0	0	1258	778	0	0	1215
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	40.7	0.0	0.0	32.5	40.7	0.0	0.0	32.5
Perm LT Serve Time (g_u), s	6.0	0.0	0.0	27.0	30.1	0.0	0.0	25.1
Perm LT Q Serve Time (g_ps), s	6.0	0.0	0.0	27.0	3.4	0.0	0.0	0.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	267	0	0	430	463	0	0	394
V/C Ratio (X)	0.86	0.00	0.00	0.85	0.41	0.00	0.00	0.01
Avail Cap (c_a), veh/h	314	0	0	430	529	0	0	394
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	21.0	0.0	0.0	34.7	13.8	0.0	0.0	26.1
Incr Delay (d2), s/veh	18.3	0.0	0.0	14.9	0.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	39.3	0.0	0.0	49.6	14.4	0.0	0.0	26.1
1st-Term Q (Q1), veh/ln	3.3	0.0	0.0	9.6	2.7	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	1.4	0.0	0.0	1.8	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	4.7	0.0	0.0	11.3	2.8	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	1.18	0.00	0.00	3.60	0.71	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	678	0	0	0	320	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	34.1	0.0	0.0	0.0	11.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	34.1	0.0	0.0	0.0	11.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	753	0	0	0	776	0	0
V/C Ratio (X)	0.00	0.90	0.00	0.00	0.00	0.41	0.00	0.00
Avail Cap (c_a), veh/h	0	786	0	0	0	790	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.6	0.0	0.0	0.0	18.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	13.1	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.7	0.0	0.0	0.0	18.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	16.6	0.0	0.0	0.0	5.8	0.0	0.0

Liberty Pkwy and Liberty Rd - PM Future 2045

Intersection	
Intersection Delay, s/veh	17.9
Intersection LOS	C

Approach	EB	WB	NB
Entry Lanes	2	2	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1275	673	391
Demand Flow Rate, veh/h	1301	687	399
Vehicles Circulating, veh/h	186	286	692
Vehicles Exiting, veh/h	787	692	186
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	16.0	23.9	13.7
Approach LOS	C	C	B

Lane	Left	Bypass	Left	Left	Bypass
Designated Moves	T	R	LT	L	R
Assumed Moves	T	R	LT	L	R
RT Channelized		Yield			Yield
Lane Util	1.000		1.000	1.000	
Critical Headway, s	5.193		5.193	5.193	
Entry Flow, veh/h	692	609	687	286	113
Cap Entry Lane, veh/h	938	938	849	566	566
Entry HV Adj Factor	0.980	0.980	0.980	0.979	0.980
Flow Entry, veh/h	678	597	673	280	111
Cap Entry, veh/h	920	920	832	554	555
V/C Ratio	0.738	0.649	0.809	0.506	0.200
Control Delay, s/veh	17.7	14.1	23.9	15.5	9.1
LOS	C	B	C	C	A
95th %tile Queue, veh	7	5	9	3	1

Liberty Road and Lime St - PM Future 2045

Intersection	
Int Delay, s/veh	41.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	195	159	56	170	513	197
Future Vol, veh/h	195	159	56	170	513	197
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	212	173	61	185	558	214

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	972	665	772	0	-	0
Stage 1	665	-	-	-	-	-
Stage 2	307	-	-	-	-	-
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	280	460	843	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	257	460	843	-	-	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	150.6	2.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	843	-	321	-	-
HCM Lane V/C Ratio	0.072	-	1.199	-	-
HCM Control Delay (s)	9.6	0	150.6	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	16.6	-	-

Liberty Pkwy and Lake Colony Ln - PM Future 2045

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	245	0	0	148	0	0	0	0	0	0	80
Future Vol, veh/h	67	245	0	0	148	0	0	0	0	0	0	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	266	0	0	161	0	0	0	0	0	0	87
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	10.1	9.7	0	8.9
HCM LOS	B	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	67	245	148	80
LT Vol	0	0	67	0	0	0
Through Vol	0	0	0	245	148	0
RT Vol	0	0	0	0	0	80
Lane Flow Rate	0	0	73	266	161	87
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0	0	0.109	0.362	0.229	0.124
Departure Headway (Hd)	5.863	5.863	5.399	4.897	5.131	5.114
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	665	735	700	701
Service Time	3.608	3.608	3.126	2.624	3.161	3.146
HCM Lane V/C Ratio	0	0	0.11	0.362	0.23	0.124
HCM Control Delay	8.6	8.6	8.8	10.4	9.7	8.9
HCM Lane LOS	N	N	A	B	A	A
HCM 95th-tile Q	0	0	0.4	1.7	0.9	0.4

Liberty Pkwy and Sicard Hollow Rd - PM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	194	165	180	203	66
Future Volume (veh/h)	91	194	165	180	203	66
Number	7	14	5	2	6	16
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	99	211	179	196	221	72
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	297	265	818	1299	1299	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.17	0.17	0.70	0.70	0.70	0.70
Ln Grp Delay, s/veh	25.1	32.0	5.3	3.7	3.7	3.3
Ln Grp LOS	C	C	A	A	A	A
Approach Vol, veh/h	310			375	293	
Approach Delay, s/veh	29.8			4.5	3.6	
Approach LOS	C			A	A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Case No		6.0		9.0		7.0		
Phs Duration (G+Y+Rc), s		51.0		15.7		51.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green (Gmax), s		46.5		19.5		46.5		
Max Allow Headway (MAH), s		4.9		4.0		5.0		
Max Q Clear (g_c+I1), s		9.3		10.5		4.7		
Green Ext Time (g_e), s		2.0		0.7		1.6		
Prob of Phs Call (p_c)		1.00		1.00		1.00		
Prob of Max Out (p_x)		0.00		0.06		0.00		

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		
Mvmt Sat Flow, veh/h		1082		1774		0		

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1583		1583		

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	0
Lane Assignment								

Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	179	0	99	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1082	0	1774	0	0	0	0
Q Serve Time (g_s), s	0.0	4.5	0.0	3.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.3	0.0	3.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1082	0	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	46.5	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	43.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	46.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	818	0	297	0	0	0	0
V/C Ratio (X)	0.00	0.22	0.00	0.33	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	818	0	519	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.7	0.0	24.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.7	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.3	0.0	25.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	1.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	1.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.82	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	196	0	0	0	221	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	2.4	0.0	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.4	0.0	0.0	0.0	2.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1299	0	0	0	1299	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.17	0.00	0.00
Avail Cap (c_a), veh/h	0	1299	0	0	0	1299	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.4	0.0	0.0	0.0	3.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.7	0.0	0.0	0.0	3.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	1.4	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.0	0.0	1.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.00	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	211	0	72	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1583	0	1583	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	8.5	0.0	1.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.5	0.0	1.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	265	0	1104	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.80	0.00	0.07	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	463	0	1104	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	26.7	0.0	3.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.4	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	32.0	0.0	3.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.7	0.0	0.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.1	0.0	0.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	2.04	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Liberty Pkwy and Publix West - PM Future 2045

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1317	210	0	1440	0	65
Future Vol, veh/h	1317	210	0	1440	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1432	228	0	1565	0	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	830
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	313
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	313	-	-	-
HCM Lane V/C Ratio	0.226	-	-	-
HCM Control Delay (s)	19.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-

Liberty Pkwy and Publix West - AM Future 2045

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1160	41	0	1144	0	25
Future Vol, veh/h	1160	41	0	1144	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1261	45	0	1243	0	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	653
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	410
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	410
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NE
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBT
Capacity (veh/h)	410	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-
HCM Control Delay (s)	14.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Overton Access Rd at Overton Rd - AM Future 2045

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	104	1422	1162	60	172	57
Future Volume (veh/h)	104	1422	1162	60	172	57
Number	7	14	1	6	2	12
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	113	0	1263	65	187	0
Adj No. of Lanes	2	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	265	122	1601	1329	268	228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.00	0.47	0.71	0.14	0.00
Ln Grp Delay, s/veh	24.2	0.0	12.8	2.2	24.7	0.0
Ln Grp LOS	C		B	A	C	
Approach Vol, veh/h	113			1328	187	
Approach Delay, s/veh	24.2			12.2	24.7	
Approach LOS	C			B	C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	2.0	7.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	29.9	13.0		9.5		43.0		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	54.5	14.5		14.5		74.5		
Max Allow Headway (MAH), s	3.8	5.2		3.8		5.2		
Max Q Clear (g_c+I1), s	18.3	7.0		3.6		2.5		
Green Ext Time (g_e), s	6.2	0.5		0.2		0.4		
Prob of Phs Call (p_c)	1.00	1.00		0.81		1.00		
Prob of Max Out (p_x)	0.00	0.31		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	3442	0		3442				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1583		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Prot)							

Overton Access Rd at Overton Rd - AM Future 2045

Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	1263	0	0	113	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1721	0	0	1721	0	0	0	0
Q Serve Time (g_s), s	16.3	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	16.3	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1721	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1601	0	0	265	0	0	0	0
V/C Ratio (X)	0.79	0.00	0.00	0.43	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	3571	0	0	950	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	11.9	0.0	0.0	23.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.8	0.0	0.0	24.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	7.5	0.0	0.0	0.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.7	0.0	0.0	0.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.49	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	187	0	0	0	65	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	5.0	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	0.0	0.0	0.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	268	0	0	0	1329	0	0
V/C Ratio (X)	0.00	0.70	0.00	0.00	0.00	0.05	0.00	0.00
Avail Cap (c_a), veh/h	0	514	0	0	0	2642	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.4	0.0	0.0	0.0	2.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.7	0.0	0.0	0.0	2.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	0.3	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	0.0	0.0	0.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	228	0	122	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	437	0	437	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay		14.5						
HCM 2010 LOS		B						

Overton Access Rd at Overton Rd - PM Future 2045

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	99	1070	1420	163	150	84
Future Volume (veh/h)	99	1070	1420	163	150	84
Number	7	14	1	6	2	12
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	108	0	1543	177	163	0
Adj No. of Lanes	2	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	259	119	2045	1334	234	199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.00	0.49	0.72	0.13	0.00
Ln Grp Delay, s/veh	24.4	0.0	7.1	2.4	25.8	0.0
Ln Grp LOS	C		A	A	C	
Approach Vol, veh/h	108			1720	163	
Approach Delay, s/veh	24.4			6.6	25.8	
Approach LOS	C			A	C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		9.0		4.0		
Phs Duration (G+Y+Rc), s	31.1	12.1		9.5		43.3		
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		
Max Green (Gmax), s	59.5	9.5		14.5		74.5		
Max Allow Headway (MAH), s	3.8	5.2		3.8		5.2		
Max Q Clear (g_c+l1), s	17.0	6.4		3.6		3.6		
Green Ext Time (g_e), s	8.6	0.2		0.2		1.1		
Prob of Phs Call (p_c)	1.00	1.00		0.79		1.00		
Prob of Max Out (p_x)	0.01	1.00		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	3442	0		3442				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1583		1583		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	(Pr/Pm)							

Overton Access Rd at Overton Rd - PM Future 2045

Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	1543	0	0	108	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1721	0	0	1721	0	0	0	0
Q Serve Time (g_s), s	15.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	15.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1181	0	0	1721	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	2045	0	0	259	0	0	0	0
V/C Ratio (X)	0.75	0.00	0.00	0.42	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	4254	0	0	946	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	0.0	23.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.1	0.0	0.0	24.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	6.9	0.0	0.0	0.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.30	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	163	0	0	0	177	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	4.4	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.4	0.0	0.0	0.0	1.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	234	0	0	0	1334	0	0
V/C Ratio (X)	0.00	0.70	0.00	0.00	0.00	0.13	0.00	0.00
Avail Cap (c_a), veh/h	0	335	0	0	0	2631	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	22.1	0.0	0.0	0.0	2.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.8	0.0	0.0	0.0	2.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	0.0	0.0	0.8	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	0.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	199	0	119	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	285	0	435	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 2010 Ctrl Delay		9.1						
HCM 2010 LOS		A						

Lanes in Grp	2	0	0	1	0	0	0	0
Grp Vol (v), veh/h	821	0	0	532	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1721	0	0	1774	0	0	0	0
Q Serve Time (g_s), s	13.1	0.0	0.0	16.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	13.1	0.0	0.0	16.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	958	0	0	591	0	0	0	0
V/C Ratio (X)	0.86	0.00	0.00	0.90	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1065	0	0	683	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	19.9	0.0	0.0	18.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	0.0	13.7	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.4	0.0	0.0	32.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	6.2	0.0	0.0	8.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.9	0.0	0.0	2.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.71	0.00	0.00	0.43	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment						T		
Lanes in Grp	0	0	0	0	0	2	0	0
Grp Vol (v), veh/h	0	0	0	0	0	62	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	1691	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	2532	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		T+R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	121	0	15	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1697	0	1583	0	0	0	0
Q Serve Time (g_s), s	0.0	4.0	0.0	0.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	0.4	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.55	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	178	0	527	0	0	0	0
V/C Ratio (X)	0.00	0.68	0.00	0.03	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	528	0	610	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.1	0.0	13.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.6	0.0	13.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.03	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Liberty Parkway at Overton Rd - AM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	250	179	125	972	1342	256
Future Volume (veh/h)	250	179	125	972	1342	256
Number	7	14	5	2	6	16
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	272	0	136	1057	1459	0
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	322	288	284	2353	1851	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.18	0.00	0.07	0.66	0.52	0.00
Ln Grp Delay, s/veh	36.9	0.0	14.5	5.9	15.4	0.0
Ln Grp LOS	D		B	A	B	
Approach Vol, veh/h	272			1193	1459	
Approach Delay, s/veh	36.9			6.9	15.4	
Approach LOS	D			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	1.2	7.0		
Phs Duration (G+Y+Rc), s		53.2		18.5	10.2	43.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		
Max Green (Gmax), s		59.5		19.5	7.5	46.5		
Max Allow Headway (MAH), s		5.2		3.8	3.8	5.2		
Max Q Clear (g_c+I1), s		12.2		12.6	4.3	26.0		
Green Ext Time (g_e), s		10.1		0.5	0.1	11.5		
Prob of Phs Call (p_c)		1.00		1.00	0.93	1.00		
Prob of Max Out (p_x)		0.01		0.13	1.00	0.42		

Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				1774	1774	0		

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3632		0		3632		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1583		1583		

Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment					(Pr/Pm)			

Liberty Parkway at Overton Rd - AM Future 2045

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	272	136	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1774	1774	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.6	2.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.6	2.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1774	363	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	39.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	322	284	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.84	0.48	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	483	354	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	28.3	13.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	8.5	1.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	36.9	14.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.2	1.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.8	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.0	1.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.32	0.10	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1057	0	0	0	1459	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	10.2	0.0	0.0	0.0	24.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.2	0.0	0.0	0.0	24.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2353	0	0	0	1851	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.79	0.00	0.00
Avail Cap (c_a), veh/h	0	2938	0	0	0	2296	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.7	0.0	0.0	0.0	13.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	1.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.9	0.0	0.0	0.0	15.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.0	0.0	11.6	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.9	0.0	0.0	0.0	11.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.00	0.00	0.45	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1583	0	1583	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	288	0	828	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	431	0	1027	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Liberty Pkwy and River Run Ln - AM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	25	50	230	1	17	32	165	1325	31	275	851	1
Future Volume (veh/h)	25	50	230	1	17	32	165	1325	31	275	851	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q, 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	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	27	54	250	1	18	0	179	1440	34	299	925	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	59	70	268	46	400	346	217	1581	37	337	1823	815
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
Prop Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.00	0.12	0.45	0.45	0.19	0.51	0.00
Ln Grp Delay, s/veh	50.4	0.0	0.0	29.0	0.0	0.0	47.8	37.9	37.7	53.8	15.2	0.0
Ln Grp LOS	D			C			D	D	D	D	B	
Approach Vol, veh/h		331			19			1653			1224	
Approach Delay, s/veh		50.4			29.0			38.9			24.6	
Approach LOS		D			C			D			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		7.0
Phs Duration (G+Y+Rc), s	16.0	52.8		25.0	22.3	46.5		25.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	22.5	43.5		20.5	22.5	43.5		20.5
Max Allow Headway (MAH), s	3.8	5.2		5.5	3.8	5.2		5.3
Max Q Clear (g_c+l1), s	11.2	18.1		20.8	17.4	37.7		2.8
Green Ext Time (g_e), s	0.4	7.3		0.0	0.4	4.3		0.0
Prob of Phs Call (p_c)	0.99	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.00	0.07		1.00	0.45	0.97		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			78	1774			24

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		319		3534		1832

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1224		83		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T

Liberty Pkwy and River Run Ln - AM Future 2045

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	179	0	0	331	299	0	0	19
Grp Sat Flow (s), veh/h/ln	1774	0	0	1620	1774	0	0	1856
Q Serve Time (g_s), s	9.2	0.0	0.0	10.5	15.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.2	0.0	0.0	18.8	15.4	0.0	0.0	0.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1417	0	0	0	1092
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1855	0	0	0	1858
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	20.5	0.0	0.0	0.0	20.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	19.7	0.0	0.0	0.0	1.7
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	15.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.8
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.08	1.00	0.00	0.00	0.05
Lane Grp Cap (c), veh/h	217	0	0	396	337	0	0	446
V/C Ratio (X)	0.82	0.00	0.00	0.84	0.89	0.00	0.00	0.04
Avail Cap (c_a), veh/h	426	0	0	396	426	0	0	446
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	40.2	0.0	0.0	35.9	37.0	0.0	0.0	28.9
Incr Delay (d2), s/veh	7.7	0.0	0.0	14.4	16.8	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.8	0.0	0.0	50.4	53.8	0.0	0.0	29.0
1st-Term Q (Q1), veh/ln	4.5	0.0	0.0	8.4	7.6	0.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.0	1.6	1.6	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	5.0	0.0	0.0	10.0	9.1	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.84	0.00	0.00	0.96	3.09	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	925	0	0	0	720	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	16.1	0.0	0.0	0.0	35.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.1	0.0	0.0	0.0	35.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	1823	0	0	0	792	0	0
V/C Ratio (X)	0.00	0.51	0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap (c_a), veh/h	0	1823	0	0	0	821	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	0.0	0.0	24.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	13.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.2	0.0	0.0	0.0	37.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.8	0.0	0.0	0.0	17.2	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	3.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.9	0.0	0.0	0.0	20.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.00	0.00	0.00	1.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		R
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	754	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1848	0	1583
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	35.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	35.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.76	0.00	0.05	0.00	1.00
Lane Grp Cap (c), veh/h	0	815	0	0	0	827	0	346
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap (c_a), veh/h	0	815	0	0	0	857	0	346
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	24.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	37.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	21.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Liberty Pkwy and Urban Centra Trail_Scouting Way - AM Future 2045

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	5	0	1033	12	103	1322	5
Future Vol, veh/h	0	0	0	0	0	5	0	1033	12	103	1322	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	5	0	1123	13	112	1437	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2226	2800	721	2073	2796	568	1442	0	0	1136	0	0
Stage 1	1664	1664	-	1130	1130	-	-	-	-	-	-	-
Stage 2	562	1136	-	943	1666	-	-	-	-	-	-	-
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	24	18	370	31	18	466	466	-	-	611	-	-
Stage 1	101	152	-	217	277	-	-	-	-	-	-	-
Stage 2	479	275	-	282	152	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	4	1	370	6	1	466	466	-	-	611	-	-
Mov Cap-2 Maneuver	4	1	-	6	1	-	-	-	-	-	-	-
Stage 1	101	11	-	217	277	-	-	-	-	-	-	-
Stage 2	473	275	-	21	11	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.8	0	5.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	466	-	-	-	466	611	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	0.183	-	-
HCM Control Delay (s)	0	-	-	0	12.8	12.2	4.9	-
HCM Lane LOS	A	-	-	A	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0.7	-	-

Liberty Pkwy and Urban Center Pkwy South - AM Future 2045

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	108	1275	42	6	1019	53	3	1	0	24	0	23
Future Vol, veh/h	108	1275	42	6	1019	53	3	1	0	24	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	0	0	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	117	1386	46	7	1108	58	3	1	0	26	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1166	0	0	1432	0	0	2211	2823	716	2079	2817	583
Stage 1	-	-	-	-	-	-	1643	1643	-	1151	1151	-
Stage 2	-	-	-	-	-	-	568	1180	-	928	1666	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	595	-	-	470	-	-	24	17	373	31	18	456
Stage 1	-	-	-	-	-	-	104	156	-	211	271	-
Stage 2	-	-	-	-	-	-	475	262	-	288	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	595	-	-	470	-	-	19	13	373	~ 26	14	456
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	88	-	128	99	-
Stage 1	-	-	-	-	-	-	84	125	-	169	267	-
Stage 2	-	-	-	-	-	-	442	258	-	229	122	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0.9	0.1	52.6	27.1
HCM LOS			F	D

Minor Lane/Major Mvmt	NELn1	NELn2	EBL	EBT	EBR	WBL	WBT	WBR	SWLn1	SWLn2	SWLn3
Capacity (veh/h)	80	-	595	-	-	470	-	-	128	-	456
HCM Lane V/C Ratio	0.054	-	0.197	-	-	0.014	-	-	0.204	-	0.055
HCM Control Delay (s)	52.6	0	12.5	-	-	12.8	-	-	40.2	0	13.4
HCM Lane LOS	F	A	B	-	-	B	-	-	E	A	B
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	0	-	-	0.7	-	0.2

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

Liberty Pkwy and Hospital Circle - AM Future 2045

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	3	3
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	2	0	0	0
Demand Flow Rate, veh/h	2	0	0	0
Vehicles Circulating, veh/h	1330	1269	1	21
Vehicles Exiting, veh/h	21	0	1330	1248
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.2	0.0	0.0	0.0
Approach LOS	B	-	-	-

Lane	Left	Bypass	Left		Bypass	Bypass
Designated Moves	L	R	R		R	R
Assumed Moves	L	R	R		R	R
RT Channelized		Yield			Yield	Free
Lane Util	1.000		1.000			
Critical Headway, s	5.193		5.193			
Entry Flow, veh/h	1	1	0		0	111
Cap Entry Lane, veh/h	299	299	318		0	0
Entry HV Adj Factor	1.000	0.980	1.000		0.980	0.980
Flow Entry, veh/h	1	1	0		0	109
Cap Entry, veh/h	299	293	318		0	0
V/C Ratio	0.003	0.003	0.000		0.000	0.000
Control Delay, s/veh	12.1	12.3	11.3		0.0	0.0
LOS	B	B	B		-	-
95th %tile Queue, veh	0	0	0		0	0

Liberty Pkwy and Founders Dr_Lime St - AM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	860	159	125	939	25	175	0	175	3	1	34
Future Volume (veh/h)	56	860	159	125	939	25	175	0	175	3	1	34
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, 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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	61	935	173	136	1021	27	190	0	190	3	1	37
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	358	1334	247	362	1657	44	389	0	296	74	22	268
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
Prop Arrive On Green	0.05	0.45	0.45	0.08	0.47	0.47	0.19	0.00	0.19	0.19	0.19	0.19
Ln Grp Delay, s/veh	8.8	13.9	13.9	10.1	12.0	12.0	22.6	0.0	23.8	19.5	0.0	0.0
Ln Grp LOS	A	B	B	B	B	B	C		C	B		
Approach Vol, veh/h		1169			1184			380			41	
Approach Delay, s/veh		13.6			11.8			23.2			19.5	
Approach LOS		B			B			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	1.1	4.0		6.0	1.1	4.0		8.0
Phs Duration (G+Y+Rc), s	9.9	31.1		16.2	8.6	32.4		16.2
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5
Max Green (Gmax), s	9.5	48.5		25.5	9.5	48.5		25.5
Max Allow Headway (MAH), s	3.8	5.3		4.7	3.8	5.2		5.6
Max Q Clear (g_c+l1), s	4.3	16.4		9.1	3.0	14.4		3.2
Green Ext Time (g_e), s	0.1	9.1		1.6	0.0	8.4		0.1
Prob of Phs Call (p_c)	0.88	1.00		1.00	0.62	1.00		1.00
Prob of Max Out (p_x)	0.26	0.09		0.01	0.03	0.06		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			1364	1774			35

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2983		0		3523		120

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		552		1583		93		1435

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Pr/Pm)				(Pr/Pm)			L+T+R

Liberty Pkwy and Founders Dr_Lime St - AM Future 2045

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	136	0	0	190	61	0	0	41
Grp Sat Flow (s), veh/h/ln	1774	0	0	1364	1774	0	0	1590
Q Serve Time (g_s), s	2.3	0.0	0.0	5.9	1.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	2.3	0.0	0.0	7.1	1.0	0.0	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	507	0	0	1364	536	0	0	1212
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1774	0	0	0	0
Perm LT Eff Green (g_p), s	25.6	0.0	0.0	10.7	25.6	0.0	0.0	10.7
Perm LT Serve Time (g_u), s	11.1	0.0	0.0	9.5	14.5	0.0	0.0	4.3
Perm LT Q Serve Time (g_ps), s	5.3	0.0	0.0	5.9	1.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.07
Lane Grp Cap (c), veh/h	362	0	0	389	358	0	0	365
V/C Ratio (X)	0.38	0.00	0.00	0.49	0.17	0.00	0.00	0.11
Avail Cap (c_a), veh/h	519	0	0	743	557	0	0	767
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	9.5	0.0	0.0	21.7	8.6	0.0	0.0	19.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.9	0.2	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.1	0.0	0.0	22.6	8.8	0.0	0.0	19.5
1st-Term Q (Q1), veh/ln	1.1	0.0	0.0	2.8	0.5	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	1.1	0.0	0.0	2.9	0.5	0.0	0.0	0.5
%ile Storage Ratio (RQ%)	0.29	0.00	0.00	0.92	0.13	0.00	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	554	0	0	0	513	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	14.4	0.0	0.0	0.0	12.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.4	0.0	0.0	0.0	12.4	0.0	0.0
Lane Grp Cap (c), veh/h	0	791	0	0	0	832	0	0
V/C Ratio (X)	0.00	0.70	0.00	0.00	0.00	0.62	0.00	0.00
Avail Cap (c_a), veh/h	0	1502	0	0	0	1502	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.7	0.0	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.9	0.0	0.0	0.0	12.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	0.0	0.0	6.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.2	0.0	0.0	0.0	6.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.00	0.00	0.25	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		
Lanes in Grp	0	1	0	1	0	1	0	0
Grp Vol (v), veh/h	0	554	0	190	0	535	0	0
Grp Sat Flow (s), veh/h/ln	0	1765	0	1583	0	1846	0	0
Q Serve Time (g_s), s	0.0	14.4	0.0	6.3	0.0	12.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.4	0.0	6.3	0.0	12.4	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.05	0.00	0.90
Lane Grp Cap (c), veh/h	0	789	0	296	0	868	0	0
V/C Ratio (X)	0.00	0.70	0.00	0.64	0.00	0.62	0.00	0.00
Avail Cap (c_a), veh/h	0	1498	0	706	0	1567	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.7	0.0	21.5	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	2.3	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.9	0.0	23.8	0.0	12.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	2.7	0.0	6.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.2	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.2	0.0	2.9	0.0	6.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.30	0.00	0.26	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Liberty Pkwy and Liberty Rd - AM Future 2045

Intersection	
Intersection Delay, s/veh	49.6
Intersection LOS	E

Approach	EB	WB	NB
Entry Lanes	2	2	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1128	967	383
Demand Flow Rate, veh/h	1150	986	390
Vehicles Circulating, veh/h	59	280	833
Vehicles Exiting, veh/h	1207	943	376
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	15.1	102.8	17.2
Approach LOS	C	F	C

Lane	Left	Right	Left	Left	Right
Designated Moves	LT	R	LT	L	TR
Assumed Moves	LT	R	LT	L	TR
RT Channelized					
Lane Util	0.724	0.276	1.000	0.718	0.282
Critical Headway, s	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	833	317	986	280	110
Cap Entry Lane, veh/h	1065	1065	854	491	491
Entry HV Adj Factor	0.980	0.981	0.981	0.982	0.982
Flow Entry, veh/h	817	311	967	275	108
Cap Entry, veh/h	1044	1045	837	482	482
V/C Ratio	0.782	0.298	1.155	0.570	0.224
Control Delay, s/veh	18.5	6.4	102.8	19.7	10.7
LOS	C	A	F	C	B
95th %tile Queue, veh	8	1	29	4	1

Liberty Road and Lime St - AM Future 2045

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	107	88	35	210	148	191
Future Vol, veh/h	107	88	35	210	148	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	96	38	228	161	208

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	569	265	369	0	-	0
Stage 1	265	-	-	-	-	-
Stage 2	304	-	-	-	-	-
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	484	774	1190	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	466	774	1190	-	-	-
Mov Cap-2 Maneuver	466	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	1.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1190	-	568	-	-
HCM Lane V/C Ratio	0.032	-	0.373	-	-
HCM Control Delay (s)	8.1	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.7	-	-

Liberty Pkwy and Lake Pkwy - AM Future 2045

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	WB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	437	404	305
Demand Flow Rate, veh/h	446	413	311
Vehicles Circulating, veh/h	61	339	129
Vehicles Exiting, veh/h	379	168	623
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.0	11.9	6.9
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LR	LR
Assumed Moves	LR	LR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	446	413	311
Cap Entry Lane, veh/h	1063	805	993
Entry HV Adj Factor	0.980	0.978	0.981
Flow Entry, veh/h	437	404	305
Cap Entry, veh/h	1042	788	974
V/C Ratio	0.420	0.513	0.313
Control Delay, s/veh	8.0	11.9	6.9
LOS	A	B	A
95th %tile Queue, veh	2	3	1

Liberty Pkwy and Lake Colony Ln - AM Future 2045

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	245	0	0	148	0	228	0	0	0	0	0
Future Vol, veh/h	67	245	0	0	148	0	228	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	266	0	0	161	0	248	0	0	0	0	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	11.7	11	14.2	0
HCM LOS	B	B	B	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	228	0	67	245	148	0
LT Vol	228	0	67	0	0	0
Through Vol	0	0	0	245	148	0
RT Vol	0	0	0	0	0	0
Lane Flow Rate	248	0	73	266	161	0
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.442	0	0.124	0.417	0.263	0
Departure Headway (Hd)	6.425	5.92	6.143	5.637	5.895	6.457
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	0	587	642	611	0
Service Time	4.147	3.642	3.843	3.337	3.919	4.491
HCM Lane V/C Ratio	0.44	0	0.124	0.414	0.264	0
HCM Control Delay	14.2	8.6	9.7	12.3	11	9.5
HCM Lane LOS	B	N	A	B	B	N
HCM 95th-tile Q	2.2	0	0.4	2.1	1.1	0

Liberty Pkwy and Sicard Hollow - AM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	97	225	82	83	171	106
Future Volume (veh/h)	97	225	82	83	171	106
Number	7	14	5	2	6	16
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	1863	1863	1900
Adj Flow Rate, veh/h	105	245	89	90	186	115
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	333	298	764	1267	734	454
Arrive On Green	0.19	0.19	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1774	1583	1074	1863	1078	667
Grp Volume(v), veh/h	105	245	89	90	0	301
Grp Sat Flow(s),veh/h/ln	1774	1583	1074	1863	0	1745
Q Serve(g_s), s	3.5	10.2	2.4	1.1	0.0	4.6
Cycle Q Clear(g_c), s	3.5	10.2	6.9	1.1	0.0	4.6
Prop In Lane	1.00	1.00	1.00			0.38
Lane Grp Cap(c), veh/h	333	298	764	1267	0	1187
V/C Ratio(X)	0.31	0.82	0.12	0.07	0.00	0.25
Avail Cap(c_a), veh/h	506	452	764	1267	0	1187
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	0.00	1.00
Uniform Delay (d), s/veh	24.0	26.7	5.6	3.7	0.0	4.2
Incr Delay (d2), s/veh	0.5	7.3	0.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.0	0.8	0.6	0.0	2.3
LnGrp Delay(d),s/veh	24.5	34.0	5.9	3.8	0.0	4.7
LnGrp LOS	C	C	A	A		A
Approach Vol, veh/h	350			179	301	
Approach Delay, s/veh	31.1			4.8	4.7	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		51.0		17.3		51.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		46.5		19.5		46.5		
Max Q Clear Time (g_c+I1), s		8.9		12.2		6.6		
Green Ext Time (p_c), s		0.9		0.7		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Liberty Parkway at Overton Rd - PM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	313	241	215	1370	980	258
Future Volume (veh/h)	313	241	215	1370	980	258
Number	7	14	5	2	6	16
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	340	0	234	1489	1065	0
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	411	367	409	2170	1522	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.00	0.11	0.61	0.43	0.00
Ln Grp Delay, s/veh	25.5	0.0	11.5	7.9	14.1	0.0
Ln Grp LOS	C		B	A	B	
Approach Vol, veh/h	340			1723	1065	
Approach Delay, s/veh	25.5			8.4	14.1	
Approach LOS	C			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	1.2	7.0		
Phs Duration (G+Y+Rc), s		40.1		17.9	10.6	29.4		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green (Gmax), s		62.5		28.5	16.5	41.5		
Max Allow Headway (MAH), s		5.2		3.8	3.8	5.2		
Max Q Clear (g_c+I1), s		18.3		12.6	5.8	16.2		
Green Ext Time (g_e), s		17.2		0.9	0.5	8.7		
Prob of Phs Call (p_c)		1.00		1.00	0.98	1.00		
Prob of Max Out (p_x)		0.12		0.00	0.01	0.12		

Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				1774	1774	0		

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3632		0		3632		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1583		1583		

Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment					(Pr/Pm)			

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	340	234	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1774	1774	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.6	3.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.6	3.8	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1774	528	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	26.9	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	24.9	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	411	409	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.83	0.57	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	871	726	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	21.2	10.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	25.5	11.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.1	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	5.6	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.30	0.12	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	1489	0	0	0	1065	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	16.3	0.0	0.0	0.0	14.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.3	0.0	0.0	0.0	14.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	2170	0	0	0	1522	0	0
V/C Ratio (X)	0.00	0.69	0.00	0.00	0.00	0.70	0.00	0.00
Avail Cap (c_a), veh/h	0	3812	0	0	0	2531	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.5	0.0	0.0	0.0	13.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	0.0	0.0	14.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.9	0.0	0.0	0.0	6.8	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.0	0.0	0.0	0.0	6.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.42	0.00	0.00	0.00	0.26	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1583	0	1583	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	367	0	681	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	778	0	1132	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Liberty Pkwy and River Run Ln - PM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	34	4	252	8	56	149	17	1184	20	220	1402	7
Future Volume (veh/h)	34	4	252	8	56	149	17	1184	20	220	1402	7
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q, 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	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	37	4	274	9	61	0	18	1287	22	239	1524	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	76	19	306	74	379	353	37	1596	27	285	2082	931
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
Prop Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.00	0.02	0.45	0.45	0.16	0.59	0.00
Ln Grp Delay, s/veh	38.8	0.0	0.0	25.3	0.0	0.0	48.9	23.1	22.9	39.4	13.3	0.0
Ln Grp LOS	D			C			D	C	C	D	B	
Approach Vol, veh/h		315			70			1327			1763	
Approach Delay, s/veh		38.8			25.3			23.3			16.9	
Approach LOS		D			C			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		7.0
Phs Duration (G+Y+Rc), s	6.2	51.8		22.4	17.4	40.5		22.4
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	21.5	45.5		19.5	21.5	45.5		19.5
Max Allow Headway (MAH), s	3.8	5.2		5.5	3.8	5.2		5.3
Max Q Clear (g_c+l1), s	2.8	27.0		17.6	12.5	27.1		4.4
Green Ext Time (g_e), s	0.0	11.3		0.4	0.5	8.9		0.2
Prob of Phs Call (p_c)	0.33	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.00	0.51		1.00	0.03	0.42		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			118	1774			103

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		87		3561		1696

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1370		61		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T

Liberty Pkwy and River Run Ln - PM Future 2045

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	18	0	0	315	239	0	0	70
Grp Sat Flow (s), veh/h/ln	1774	0	0	1575	1774	0	0	1799
Q Serve Time (g_s), s	0.8	0.0	0.0	9.2	10.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.8	0.0	0.0	15.6	10.5	0.0	0.0	2.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1363	0	0	0	1119
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1852	0	0	0	1731
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	17.9	0.0	0.0	0.0	17.9
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	2.4
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	6.4	0.0	0.0	0.0	9.6
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	6.4	0.0	0.0	0.0	2.4
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.12	1.00	0.00	0.00	0.13
Lane Grp Cap (c), veh/h	37	0	0	402	285	0	0	452
V/C Ratio (X)	0.49	0.00	0.00	0.78	0.84	0.00	0.00	0.15
Avail Cap (c_a), veh/h	475	0	0	432	475	0	0	485
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	38.9	0.0	0.0	30.2	32.7	0.0	0.0	25.2
Incr Delay (d2), s/veh	9.9	0.0	0.0	8.6	6.7	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.9	0.0	0.0	38.8	39.4	0.0	0.0	25.3
1st-Term Q (Q1), veh/ln	0.4	0.0	0.0	6.7	5.1	0.0	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	1.0	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.5	0.0	0.0	7.7	5.6	0.0	0.0	1.3
%ile Storage Ratio (RQ%)	0.08	0.00	0.00	0.74	1.91	0.00	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	1524	0	0	0	639	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	25.0	0.0	0.0	0.0	25.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	25.0	0.0	0.0	0.0	25.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2082	0	0	0	793	0	0
V/C Ratio (X)	0.00	0.73	0.00	0.00	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	0	2082	0	0	0	1002	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.0	0.0	0.0	0.0	19.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	3.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	0.0	0.0	23.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.1	0.0	0.0	0.0	12.1	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.5	0.0	0.0	0.0	12.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.02	0.00	0.00	0.00	0.70	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		R
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	670	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1852	0	1583
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	25.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	25.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.87	0.00	0.03	0.00	1.00
Lane Grp Cap (c), veh/h	0	931	0	0	0	830	0	353
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	0	931	0	0	0	1049	0	384
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	19.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	22.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Liberty Pkwy and Urban Centra Trail_Scouting Way - PM Future 2045

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	1	7	0	65	0	1550	2	7	1467	8
Future Vol, veh/h	13	0	1	7	0	65	0	1550	2	7	1467	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	1	8	0	71	0	1685	2	8	1595	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2459	3303	802	2500	3306	844	1604	0	0	1687	0	0
Stage 1	1616	1616	-	1686	1686	-	-	-	-	-	-	-
Stage 2	843	1687	-	814	1620	-	-	-	-	-	-	-
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	16	8	327	15	8	307	404	-	-	375	-	-
Stage 1	108	161	-	98	149	-	-	-	-	-	-	-
Stage 2	325	148	-	338	160	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 10	6	327	13	6	307	404	-	-	375	-	-
Mov Cap-2 Maneuver	~ 10	6	-	13	6	-	-	-	-	-	-	-
Stage 1	108	129	-	98	149	-	-	-	-	-	-	-
Stage 2	250	148	-	271	128	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 878.1	125.4	0	1.5
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	404	-	-	11	96	375	-	-
HCM Lane V/C Ratio	-	-	-	1.383	0.815	0.02	-	-
HCM Control Delay (s)	0	-	-	$ 878.1	125.4	14.8	1.4	-
HCM Lane LOS	A	-	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	2.7	4.4	0.1	-	-

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

Liberty Pkwy and Urban Center Pkwy South - PM Future 2045

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	59	1402	7	4	1478	13	25	4	7	68	3	81
Future Vol, veh/h	59	1402	7	4	1478	13	25	4	7	68	3	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	0	0	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	1524	8	4	1607	14	27	4	8	74	3	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1621	0	0	1532	0	0	2469	3285	766	2514	3282	811
Stage 1	-	-	-	-	-	-	1656	1656	-	1622	1622	-
Stage 2	-	-	-	-	-	-	813	1629	-	892	1660	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	398	-	-	430	-	-	~ 15	9	345	~ 14	9	322
Stage 1	-	-	-	-	-	-	102	154	-	107	160	-
Stage 2	-	-	-	-	-	-	339	159	-	303	153	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	398	-	-	430	-	-	~ 9	7	345	~ 11	7	322
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	70	-	79	90	-
Stage 1	-	-	-	-	-	-	86	129	-	90	159	-
Stage 2	-	-	-	-	-	-	239	158	-	240	128	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0.6	0	75	90.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NELn1	NELn2	EBL	EBT	EBR	WBL	WBT	WBR	SWLn1	SWLn2	SWLn3
Capacity (veh/h)	72	345	398	-	-	430	-	-	79	90	322
HCM Lane V/C Ratio	0.438	0.022	0.161	-	-	0.01	-	-	0.936	0.036	0.273
HCM Control Delay (s)	89.3	15.7	15.8	-	-	13.5	-	-	175.4	46.5	20.3
HCM Lane LOS	F	C	C	-	-	B	-	-	F	E	C
HCM 95th %tile Q(veh)	1.7	0.1	0.6	-	-	0	-	-	5	0.1	1.1

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

Liberty Pkwy and Hospital Circle - PM Future 2045

Intersection	
Intersection Delay, s/veh	23.8
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	3	3
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	83	0	0	0
Demand Flow Rate, veh/h	84	0	0	0
Vehicles Circulating, veh/h	1666	1657	61	0
Vehicles Exiting, veh/h	0	0	1666	1657
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	23.8	0.0	0.0	0.0
Approach LOS	C	-	-	-

Lane	Left	Bypass	Left		Bypass	Bypass
Designated Moves	L	R	R		R	R
Assumed Moves	L	R	R		R	R
RT Channelized		Yield			Free	Free
Lane Util	1.000		1.000			
Critical Headway, s	5.193		5.193			
Entry Flow, veh/h	61	23	0		0	27
Cap Entry Lane, veh/h	214	214	215		0	0
Entry HV Adj Factor	0.984	0.980	1.000		0.980	0.980
Flow Entry, veh/h	60	23	0		0	26
Cap Entry, veh/h	210	209	215		0	0
V/C Ratio	0.286	0.110	0.000		0.000	0.000
Control Delay, s/veh	25.3	19.9	16.7		0.0	0.0
LOS	D	C	C		-	-
95th %tile Queue, veh	1	0	0		0	0

Liberty Pkwy and Hospital Circle - PM Future 2045

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	0	21	0	0	0	0	1440	0	0	1502	24
Future Vol, veh/h	55	0	21	0	0	0	0	1440	0	0	1502	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Free	-	-	Free
Storage Length	0	-	0	-	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	0	23	0	0	0	0	1565	0	0	1633	26

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	-	-	783	1633	0	-	1565	0	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	337	393	-	0	418	-	0
Stage 1	0	0	-	-	-	0	-	-	0
Stage 2	0	0	-	-	-	0	-	-	0
Platoon blocked, %					-			-	
Mov Cap-1 Maneuver	-	0	337	393	-	-	418	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	393	-	-	418	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-
HCM Lane LOS	A	-	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Liberty Pkwy and Publix East - PM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1153	217	125	887	30	323	0	175	133	0	200
Future Volume (veh/h)	50	1153	217	125	887	30	323	0	175	133	0	200
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, 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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	54	1253	236	136	964	33	351	0	190	145	0	217
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	332	1753	784	255	1819	814	302	570	485	439	0	485
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
Prop Arrive On Green	0.04	0.50	0.50	0.06	0.51	0.51	0.31	0.00	0.31	0.31	0.00	0.31
Ln Grp Delay, s/veh	12.4	21.5	15.4	18.1	16.7	11.7	144.1	0.0	26.9	26.8	0.0	27.5
Ln Grp LOS	B	C	B	B	B	B	F		C	C		C
Approach Vol, veh/h		1543			1133			541			362	
Approach Delay, s/veh		20.3			16.8			102.9			27.2	
Approach LOS		C			B			F			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	1.1	3.0		5.0	1.1	3.0		6.0
Phs Duration (G+Y+Rc), s	10.1	52.2		34.0	8.3	54.0		34.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	13.5	43.5		29.5	7.5	49.5		29.5
Max Allow Headway (MAH), s	3.8	5.1		4.2	3.8	5.2		5.0
Max Q Clear (g_c+l1), s	5.6	28.6		31.5	3.4	19.5		12.6
Green Ext Time (g_e), s	0.2	8.6		0.0	0.0	8.2		1.7
Prob of Phs Call (p_c)	0.97	1.00		1.00	0.76	1.00		1.00
Prob of Max Out (p_x)	0.02	0.00		1.00	0.69	0.00		0.01

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			1160	1774			1188

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		1863		3539		0

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		1583		1583		1583

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Pr/Pm)				(Pr/Pm)			

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	136	0	0	351	54	0	0	145
Grp Sat Flow (s), veh/h/ln	1774	0	0	1160	1774	0	0	1188
Q Serve Time (g_s), s	3.6	0.0	0.0	18.9	1.4	0.0	0.0	9.3
Cycle Q Clear Time (g_c), s	3.6	0.0	0.0	29.5	1.4	0.0	0.0	9.3
Perm LT Sat Flow (s_l), veh/h/ln	352	0	0	1160	563	0	0	1188
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	47.7	0.0	0.0	29.5	47.7	0.0	0.0	29.5
Perm LT Serve Time (g_u), s	21.1	0.0	0.0	18.9	32.0	0.0	0.0	29.5
Perm LT Q Serve Time (g_ps), s	16.8	0.0	0.0	18.9	1.7	0.0	0.0	9.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	255	0	0	302	332	0	0	439
V/C Ratio (X)	0.53	0.00	0.00	1.16	0.16	0.00	0.00	0.33
Avail Cap (c_a), veh/h	400	0	0	302	400	0	0	439
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	16.4	0.0	0.0	41.1	12.2	0.0	0.0	26.4
Incr Delay (d2), s/veh	1.7	0.0	0.0	103.0	0.2	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	18.1	0.0	0.0	144.1	12.4	0.0	0.0	26.8
1st-Term Q (Q1), veh/ln	1.7	0.0	0.0	8.0	0.7	0.0	0.0	3.1
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	8.6	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	1.9	0.0	0.0	16.6	0.7	0.0	0.0	3.1
%ile Storage Ratio (RQ%)	0.47	0.00	0.00	5.28	0.12	0.00	0.00	1.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		
Lanes in Grp	0	2	0	1	0	2	0	0
Grp Vol (v), veh/h	0	1253	0	0	0	964	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	1863	0	1770	0	0
Q Serve Time (g_s), s	0.0	26.6	0.0	0.0	0.0	17.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	26.6	0.0	0.0	0.0	17.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	1753	0	570	0	1819	0	0
V/C Ratio (X)	0.00	0.71	0.00	0.00	0.00	0.53	0.00	0.00
Avail Cap (c_a), veh/h	0	1753	0	570	0	1819	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	19.0	0.0	0.0	0.0	15.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.5	0.0	0.0	0.0	16.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.9	0.0	0.0	0.0	8.6	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.5	0.0	0.0	0.0	8.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.20	0.00	0.00	0.00	0.76	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	236	0	190	0	33	0	217
Grp Sat Flow (s), veh/h/ln	0	1583	0	1583	0	1583	0	1583
Q Serve Time (g_s), s	0.0	8.5	0.0	9.1	0.0	1.0	0.0	10.6
Cycle Q Clear Time (g_c), s	0.0	8.5	0.0	9.1	0.0	1.0	0.0	10.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	784	0	485	0	814	0	485
V/C Ratio (X)	0.00	0.30	0.00	0.39	0.00	0.04	0.00	0.45
Avail Cap (c_a), veh/h	0	784	0	485	0	814	0	485
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	26.3	0.0	11.6	0.0	26.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.5	0.0	0.1	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.4	0.0	26.9	0.0	11.7	0.0	27.5
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	3.9	0.0	0.4	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	4.0	0.0	0.5	0.0	4.7
%ile Storage Ratio (RQ%)	0.00	0.67	0.00	0.36	0.00	0.04	0.00	1.88
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Liberty Pkwy and Publix East - AM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	860	159	125	939	25	175	0	175	3	1	34
Future Volume (veh/h)	56	860	159	125	939	25	175	0	175	3	1	34
Number	5	2	12	1	6	16	7	4	14	3	8	18
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	61	935	173	136	1021	27	190	0	190	3	1	37
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	2079	930	413	2123	950	321	356	302	314	8	296
Arrive On Green	0.05	0.59	0.59	0.06	0.60	0.60	0.19	0.00	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1364	1863	1583	1188	42	1548
Grp Volume(v), veh/h	61	935	173	136	1021	27	190	0	190	3	0	38
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1364	1863	1583	1188	0	1590
Q Serve(g_s), s	1.1	12.2	4.2	2.4	13.4	0.6	11.1	0.0	9.1	0.2	0.0	1.6
Cycle Q Clear(g_c), s	1.1	12.2	4.2	2.4	13.4	0.6	12.7	0.0	9.1	0.2	0.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	403	2079	930	413	2123	950	321	356	302	314	0	304
V/C Ratio(X)	0.15	0.45	0.19	0.33	0.48	0.03	0.59	0.00	0.63	0.01	0.00	0.13
Avail Cap(c_a), veh/h	483	2079	930	600	2123	950	548	666	566	512	0	568
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.8	9.5	7.9	6.9	9.3	6.7	32.9	0.0	30.7	27.1	0.0	27.7
Incr Delay (d2), s/veh	0.2	0.7	0.4	0.5	0.8	0.1	1.7	0.0	2.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.0	1.9	1.2	6.8	0.3	4.3	0.0	4.1	0.1	0.0	0.7
LnGrp Delay(d),s/veh	7.0	10.2	8.3	7.3	10.1	6.8	34.7	0.0	32.8	27.1	0.0	27.8
LnGrp LOS	A	B	A	A	B	A	C		C	C		C
Approach Vol, veh/h		1169			1184			380			41	
Approach Delay, s/veh		9.8			9.7			33.8			27.8	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	53.0		20.3	8.3	54.0		20.3
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	13.5	43.5		29.5	7.5	49.5		29.5
Max Q Clear Time (g_c+I1), s	4.4	14.2		14.7	3.1	15.4		3.6
Green Ext Time (p_c), s	0.2	8.5		1.1	0.0	9.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Liberty Pkwy and Founders Dr_Lime St - PM Future 2045

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	1008	236	211	560	39	337	3	150	3	2	115
Future Volume (veh/h)	173	1008	236	211	560	39	337	3	150	3	2	115
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, 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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	188	1096	257	229	609	42	366	3	163	3	2	125
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	463	1213	283	267	1474	102	430	10	530	394	8	531
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
Prop Arrive On Green	0.08	0.43	0.43	0.09	0.44	0.44	0.34	0.34	0.34	0.34	0.34	0.34
Ln Grp Delay, s/veh	14.4	38.7	40.1	39.3	18.8	18.8	49.6	0.0	23.6	26.1	0.0	22.9
Ln Grp LOS	B	D	D	D	B	B	D		C	C		C
Approach Vol, veh/h		1541			880			532			130	
Approach Delay, s/veh		36.3			24.1			41.5			23.0	
Approach LOS		D			C			D			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	1.1	4.0		6.0	1.1	4.0		6.0
Phs Duration (G+Y+Rc), s	13.5	45.2		37.0	12.2	46.5		37.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green (Gmax), s	11.5	42.5		32.5	11.3	42.7		32.5
Max Allow Headway (MAH), s	3.8	5.3		4.5	3.8	5.3		5.5
Max Q Clear (g_c+l1), s	8.8	36.7		34.5	7.6	13.9		9.6
Green Ext Time (g_e), s	0.2	4.0		0.0	0.2	4.4		0.7
Prob of Phs Call (p_c)	1.00	1.00		1.00	0.99	1.00		1.00
Prob of Max Out (p_x)	1.00	0.97		1.00	1.00	0.01		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			1258	1774			1215

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		2851		29		3360		25

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		664		1559		231		1562

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Pr/Pm)				(Pr/Pm)			

Lanes in Grp	1	0	0	1	1	0	0	1
Grp Vol (v), veh/h	229	0	0	366	188	0	0	3
Grp Sat Flow (s), veh/h/ln	1774	0	0	1258	1774	0	0	1215
Q Serve Time (g_s), s	6.8	0.0	0.0	27.0	5.6	0.0	0.0	0.2
Cycle Q Clear Time (g_c), s	6.8	0.0	0.0	32.5	5.6	0.0	0.0	7.6
Perm LT Sat Flow (s_l), veh/h/ln	401	0	0	1258	778	0	0	1215
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	40.7	0.0	0.0	32.5	40.7	0.0	0.0	32.5
Perm LT Serve Time (g_u), s	6.0	0.0	0.0	27.0	30.1	0.0	0.0	25.1
Perm LT Q Serve Time (g_ps), s	6.0	0.0	0.0	27.0	3.4	0.0	0.0	0.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	267	0	0	430	463	0	0	394
V/C Ratio (X)	0.86	0.00	0.00	0.85	0.41	0.00	0.00	0.01
Avail Cap (c_a), veh/h	314	0	0	430	529	0	0	394
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	21.0	0.0	0.0	34.7	13.8	0.0	0.0	26.1
Incr Delay (d2), s/veh	18.3	0.0	0.0	14.9	0.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	39.3	0.0	0.0	49.6	14.4	0.0	0.0	26.1
1st-Term Q (Q1), veh/ln	3.3	0.0	0.0	9.6	2.7	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	1.4	0.0	0.0	1.8	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	4.7	0.0	0.0	11.3	2.8	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	1.18	0.00	0.00	3.60	0.71	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	678	0	0	0	320	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	34.1	0.0	0.0	0.0	11.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	34.1	0.0	0.0	0.0	11.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	753	0	0	0	776	0	0
V/C Ratio (X)	0.00	0.90	0.00	0.00	0.00	0.41	0.00	0.00
Avail Cap (c_a), veh/h	0	786	0	0	0	790	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.6	0.0	0.0	0.0	18.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	13.1	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.7	0.0	0.0	0.0	18.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	16.6	0.0	0.0	0.0	5.8	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	2.7	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	19.3	0.0	0.0	0.0	5.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.59	0.00	0.00	0.00	0.25	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	675	0	166	0	331	0	127
Grp Sat Flow (s), veh/h/ln	0	1745	0	1588	0	1822	0	1587
Q Serve Time (g_s), s	0.0	34.7	0.0	7.4	0.0	11.9	0.0	5.5
Cycle Q Clear Time (g_c), s	0.0	34.7	0.0	7.4	0.0	11.9	0.0	5.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.38	0.00	0.98	0.00	0.13	0.00	0.98
Lane Grp Cap (c), veh/h	0	743	0	539	0	799	0	539
V/C Ratio (X)	0.00	0.91	0.00	0.31	0.00	0.41	0.00	0.24
Avail Cap (c_a), veh/h	0	775	0	539	0	813	0	539
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.8	0.0	23.3	0.0	18.4	0.0	22.7
Incr Delay (d2), s/veh	0.0	14.3	0.0	0.3	0.0	0.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	40.1	0.0	23.6	0.0	18.8	0.0	22.9
1st-Term Q (Q1), veh/ln	0.0	16.7	0.0	3.2	0.0	6.0	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	3.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	19.6	0.0	3.3	0.0	6.0	0.0	2.4
%ile Storage Ratio (RQ%)	0.00	0.60	0.00	0.33	0.00	0.25	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Liberty Pkwy and Lake Pkwy - PM Future 2045

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Approach	WB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	249	145	584
Demand Flow Rate, veh/h	254	148	596
Vehicles Circulating, veh/h	200	200	39
Vehicles Exiting, veh/h	435	254	309
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.8	5.5	10.1
Approach LOS	A	A	B

Lane	Left	Left	Left
Designated Moves	LR	LR	LR
Assumed Moves	LR	LR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	254	148	596
Cap Entry Lane, veh/h	925	925	1087
Entry HV Adj Factor	0.980	0.980	0.980
Flow Entry, veh/h	249	145	584
Cap Entry, veh/h	907	906	1065
V/C Ratio	0.275	0.160	0.548
Control Delay, s/veh	6.8	5.5	10.1
LOS	A	A	B
95th %tile Queue, veh	1	1	3

Liberty Pkwy and Lake Colony Ln - PM Future 2045

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	245	0	0	148	0	0	0	0	0	0	80
Future Vol, veh/h	67	245	0	0	148	0	0	0	0	0	0	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	266	0	0	161	0	0	0	0	0	0	87
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	10.1	9.7	0	8.9
HCM LOS	B	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	67	245	148	80
LT Vol	0	0	67	0	0	0
Through Vol	0	0	0	245	148	0
RT Vol	0	0	0	0	0	80
Lane Flow Rate	0	0	73	266	161	87
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0	0	0.109	0.362	0.229	0.124
Departure Headway (Hd)	5.863	5.863	5.399	4.897	5.131	5.114
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	665	735	700	701
Service Time	3.608	3.608	3.126	2.624	3.161	3.146
HCM Lane V/C Ratio	0	0	0.11	0.362	0.23	0.124
HCM Control Delay	8.6	8.6	8.8	10.4	9.7	8.9
HCM Lane LOS	N	N	A	B	A	A
HCM 95th-tile Q	0	0	0.4	1.7	0.9	0.4

Liberty Pkwy and Sicard Hollow Rd - PM Future 2045

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	194	165	180	203	66
Future Volume (veh/h)	91	194	165	180	203	66
Number	7	14	5	2	6	16
Initial Q, 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	1863	1863	1863
Adj Flow Rate, veh/h	99	211	179	196	221	72
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes		Yes			
Cap, veh/h	297	265	818	1299	1299	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.17	0.17	0.70	0.70	0.70	0.70
Ln Grp Delay, s/veh	25.1	32.0	5.3	3.7	3.7	3.3
Ln Grp LOS	C	C	A	A	A	A
Approach Vol, veh/h	310			375	293	
Approach Delay, s/veh	29.8			4.5	3.6	
Approach LOS	C			A	A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Case No		6.0		9.0		7.0		
Phs Duration (G+Y+Rc), s		51.0		15.7		51.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green (Gmax), s		46.5		19.5		46.5		
Max Allow Headway (MAH), s		4.9		4.0		5.0		
Max Q Clear (g_c+I1), s		9.3		10.5		4.7		
Green Ext Time (g_e), s		2.0		0.7		1.6		
Prob of Phs Call (p_c)		1.00		1.00		1.00		
Prob of Max Out (p_x)		0.00		0.06		0.00		

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		
Mvmt Sat Flow, veh/h		1082		1774		0		

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1863		0		1863		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1583		1583		

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	0
Lane Assignment								

Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	179	0	99	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1082	0	1774	0	0	0	0
Q Serve Time (g_s), s	0.0	4.5	0.0	3.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.3	0.0	3.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1082	0	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	46.5	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	43.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	46.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	818	0	297	0	0	0	0
V/C Ratio (X)	0.00	0.22	0.00	0.33	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	818	0	519	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.7	0.0	24.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.7	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.3	0.0	25.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	1.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	1.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.82	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	196	0	0	0	221	0	0
Grp Sat Flow (s), veh/h/ln	0	1863	0	0	0	1863	0	0
Q Serve Time (g_s), s	0.0	2.4	0.0	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.4	0.0	0.0	0.0	2.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1299	0	0	0	1299	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.17	0.00	0.00
Avail Cap (c_a), veh/h	0	1299	0	0	0	1299	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.4	0.0	0.0	0.0	3.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.7	0.0	0.0	0.0	3.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	1.4	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.0	0.0	1.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.00	0.00	0.05	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	211	0	72	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1583	0	1583	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	8.5	0.0	1.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.5	0.0	1.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	265	0	1104	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.80	0.00	0.07	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	463	0	1104	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	26.7	0.0	3.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.4	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	32.0	0.0	3.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.7	0.0	0.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.1	0.0	0.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	2.04	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Liberty Pkwy and Publix West - PM Future 2045

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1317	210	0	1440	0	65
Future Vol, veh/h	1317	210	0	1440	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1432	228	0	1565	0	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	830
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	313
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	313	-	-	-
HCM Lane V/C Ratio	0.226	-	-	-
HCM Control Delay (s)	19.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-

Liberty Pkwy and Publix West - AM Future 2045

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1160	41	0	1144	0	25
Future Vol, veh/h	1160	41	0	1144	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1261	45	0	1243	0	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	653
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	410
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	410
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NE
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBT
Capacity (veh/h)	410	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-
HCM Control Delay (s)	14.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-