Gresham Smith

TRAFFIC ENGINEERING REPORT

FOR

HAMMOND DRIVE CORRIDOR DESIGN PROJECT

IN

SANDY SPRINGS, GA

PREPARED FOR:

The City of Sandy Springs, GA

SANDY SPRINGS™
GEORGIA

December 9, 2019

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INTRODUCTION

This project proposes the widening and reconstruction of Hammond Drive from west of SR 9/Roswell Road to Barfield Road in Sandy Springs, GA. The project would start just west of SR 9/Roswell Road, where it would tie into the existing roadway. From there, the existing two-lane Hammond Drive would be widened to four 11-foot lanes with a raised median of varying width, before tying into the existing roadway at the intersection with Barfield Road. In addition to other appropriate intersection and pedestrian improvements, the project will also include the installation of two multi-lane roundabouts at the existing intersections of Hammond Drive and Hilderbrand Drive and Hammond Drive and Lorell Terrace and Brookgreen Road.

REASON FOR INVESTIGATION

The need exists to adequately accommodate future capacity requirements along Hammond Drive in Sandy Springs, GA. This traffic engineering study was conducted to support the reconstruction and widening of the section of Hammond Drive from west of SR 9/Roswell Road to the intersection with Barfield Road.

STUDY LOCATION

While a conceptual design has been developed for a roughly one-mile segment of Hammond Drive from west of SR 9/Roswell Road to Glenridge Road (project area), a longer segment of Hammond Drive was identified by the project team as an area of influence with regard to anticipating future traffic and development activity as well as the project's impact on surrounding roadways (study area). This study area includes the segment of Hammond Drive from Mt Vernon Highway to the Sandy Springs city limits west of Perimeter Center Parkway, as well as Mt Vernon Highway from Hammond Drive to Heards Ferry Road. The **project area** and **study area** are shown in Figure 1.

Figure 1. Project & Study Area

Currently, Hammond Drive within the study area is an east-west roadway, classified as an urban minor arterial according to GDOT's roadway functional classification system. From Mt Vernon Highway to SR 9/Roswell Road, Hammond Drive is a four-lane, undivided roadway. From SR 9/Roswell Road to Glenridge Drive, Hammond Drive is a two-lane, undivided roadway, which transitions back to a four-lane roadway east of Glenridge Drive with additional lanes as it crosses over SR 400. Mt Vernon Highway within the study area is a two-lane, undivided roadway, classified as an urban minor arterial. The posted speed limit on Hammond Drive and Mt Vernon Highway within the study area is 35 mph. The following intersections are currently signalized. All other study intersections are minor-street stop-controlled intersections.

Signalized Study Intersections

- Hammond Drive @ Mt Vernon Highway
- Hammond Drive @ Lake Forrest Drive
- Hammond Drive @ Sandy Springs Circle
- Hammond Drive @ SR 9/Roswell Road
- Hammond Drive @ Boylston Drive & Hammond Glen
- Hammond Drive @ Glenridge Drive
- Hammond Drive @ Barfield Road
- Hammond Drive @ GA 400 SB Ramps & Hampton Inn Driveway
- Hammond Drive @ GA 400 NB Ramps & Concourse Parkway
- Hammond Drive @ Concourse Driveway
- Hammond Drive @ Peachtree-Dunwoody Road
- Hammond Drive @ Citizen Perimeter Apts Driveway
- Mt Vernon Highway @ Heards Ferry Road

CRASH HISTORY

Crash data along Hammond Drive within the project area was obtained from GDOT for the period between January 1, 2014 and December 31, 2018. A summary of the crash data by type and by severity is provided in Table 1. Table 2 shows a comparison of the crash rates along Hammond Drive within the project area to the statewide average crash rates. As shown in Table 1 and Table 2, there were a total of 724 crashes reported along this section of roadway for the five (5) year period, which included 155 injury crashes and one (1) fatal crash. As shown in Table 2, the total crash rates and injury crash rates along Hammond Drive within the project area are higher than the corresponding statewide averages for urban minor arterials.

Table 1. Crash History by Type

Year	Crash Type						Total Crashes
	Angle	Head On	Rear End	Sideswipe-Same Direction	Sideswipe-Opposite Direction	Not A Collision with Motor Vehicle	
2014	34	4	66	29	0	4	137
2015	28	2	63	23	2	5	123
2016	56	2	71	25	2	8	164
2017	55	4	59	20	2	2	142
2018	58	1	67	27	2	3	158
Total	231	13	326	124	8	22	724

Table 2. Crash Rates & Statewide Averages

Year	Crashes			Crashes Per 100 Million Vehicle Miles		
	Total	Injury	Fatal	Total	Injury	Fatal
2014	137	25	0	1854 (601)	338 (145)	0.00 (1.21)
2015	123	27	0	1664 (637)	365 (156)	0.00 (1.68)
2016	164	32	1	2219 (655)	433 (156)	13.53 (1.53)
2017	142	30	0	1921 (623)	406 (153)	0.00 (1.35)
2018	158	41	0	2138 (--)	555 (--)	0.00 (--)
Total	724	155	1			
Average	145	31	0	1962 (629)	419 (153)	0.00 (1.44)

Note: The number in parentheses represents the statewide average crash rates for urban minor arterials. The statewide average for year 2018 is not currently available.

EXISTING CONDITIONS

To establish the existing capacity and operations along the corridor, the project team performed traffic analyses at each of the 20 intersections within the study area. Traffic data, including existing AM and PM peak hour turning movement counts and traffic signal timings, were obtained from National Data and Surveying Services, the Perimeter Transportation Operations Program (PTOP), as well as prior plans and studies. The counts collected include 20 turning movement counts and three (3) 24-hr tube counts with classification at the following locations. These locations are also noted in Figure 1. The raw counts are provided in Appendix A.

Peak Hour Turning Movement Counts

- Hammond Drive @ Mt Vernon Highway
- Hammond Drive @ Lake Forrest Drive
- Hammond Drive @ Sandy Springs Cir
- Hammond Drive @ SR 9/Roswell Road
- Hammond Drive @ Boylston Drive & Hammond Glen
- Hammond Drive @ Harleston Road
- Hammond Drive @ Hilderbrand Drive
- Hammond Drive @ Kayron Drive
- Hammond Drive @ Brookgreen Road
- Hammond Drive @ Greenbrier Road
- Hammond Drive @ Glenridge Drive
- Hammond Drive @ Barfield Road
- Hammond Drive @ GA 400 SB Ramps & Hampton Inn Driveway
- Hammond Drive @ GA 400 NB Ramps & Concourse Parkway
- Hammond Drive @ Concourse Driveway
- Hammond Drive @ Peachtree-Dunwoody Road
- Hammond Drive @ Citizen Perimeter Apts Driveway
- Mt Vernon Highway @ Long Island Drive
- Mt Vernon Highway @ Heards Ferry Road

24-Hr Tube Counts w/ Classification

- Hammond Drive between Hilderbrand Drive & Kayron Drive
- Hammond Drive between Brookgreen Road & Greenbrier Road
- Mt Vernon Highway between Long Island Drive & Heards Ferry Road

To create a consistent baseline of Existing Year (2018) traffic volumes, the raw data was normalized and balanced throughout the study area. The Existing Year (2018) AM and PM peak hour volumes are provided in Appendix B.

Existing Year (2018) Capacity Analysis

Based on the Existing Year (2018) annual average daily traffic (AADT) volumes, roadway capacity for Hammond Drive within the study area was analyzed based on the methodology outlined in Highway Capacity Manual (HCM), 6th ed. As shown in Table 3, the AADT along Hammond Drive is approaching the capacity of a 2-lane roadway (approximately 17,500 vehicles per day). Without capacity improvements made to the corridor, the traffic operations along Hammond Drive are expected to degrade as the traffic volume grows beyond the capacity of a 2-lane roadway.

Table 3. Existing Year (2018) Roadway AADT

Roadway Segment	Existing 2018 AADT
Hammond Dr between Hilderbrand Dr & Kayron Dr	16,150
Hammond Dr between Brookgreen Rd & Greenbrier Rd	16,200
Mt Vernon Hwy between Long Island Dr & Heards Ferry Rd	16,950

Based on the Existing Year (2018) turning movement traffic volumes, and the existing traffic control and lane configurations presented in Figure 2, AM and PM peak hour traffic operations were also analyzed at the study intersections using the methodologies outlined in the Highway Capacity Manual (HCM), 6th Edition, and the Synchro 9.2 software program. According to the HCM, there are six levels of service (LOS) by which the operational performance of an intersection may be described. These levels of service range between LOS A, which indicates a relatively free-flowing condition, and LOS F, which indicates operational breakdown.

For signalized intersections, LOS is defined in terms of a weighted average control delay for all traffic movements at the intersection. Control delay is a complex measure that quantifies the increase in travel time that a vehicle experiences due to the traffic signal control, which is based on multiple variables, including signal phasing and coordination (i.e., progression of movements through the intersection and along the corridor), signal cycle length, and traffic volumes with respect to intersection capacity and resulting queues. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday PM peak hour). Table 4 summarizes the LOS criteria for signalized intersections, as described in the HCM 6th Edition (Transportation Research Board, 2016).

Table 4. Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay (sec/veh)	General Description
A	≤ 10 seconds	Free Flow
B	> 10 seconds and ≤ 20 seconds	Stable Flow (slight delays)
C	> 20 seconds and ≤ 35 seconds	Stable flow (acceptable delays)
D	> 35 seconds and ≤ 55 seconds	Approaching unstable flow
E	> 55 seconds and ≤ 80 seconds	Approaching intersection capacity unstable flow, unfavorable progression
F[1]	> 80 seconds	Forced flow, poor progression

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

[1]If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned.

For unsignalized intersections (i.e. minor street stop-controlled intersections) LOS criteria is defined in terms of the average control delay for each minor-street movement as well as major-street left-turns. Major-street through vehicles are assumed to experience zero delay, because of minimal conflicts in operation. Several factors affect the control delay for unsignalized intersections, such as availability and distribution of gaps in the conflicting traffic stream. LOS A indicates excellent operations with minimal delay to motorists, while LOS F indicates insufficient gaps of acceptable size to allow vehicles on the minor street to cross safely, resulting in long delays and long queues. Table 5 shows LOS criteria for unsignalized intersections.

Table 5. Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay (sec/veh)	General Description
A	≤ 10 seconds	Minimal Delay
B	> 10 seconds and ≤ 15 seconds	Occasional Delay
C	> 15 seconds and ≤ 25 seconds	Moderate Delay
D	> 25 seconds and ≤ 35 seconds	Noticeable Delay
E	> 35 seconds and ≤ 50 seconds	Delay approaching tolerance
F[1]	> 50 seconds	Delay exceeding tolerance

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

[1]If the volume-to-capacity (v/c) ratio exceeds, 1.0 LOS F is assigned.

The results of the intersection LOS and delay analysis for the Existing Year (2018) conditions are summarized in Table 6. As shown, all study area intersections operate at LOS D or better in the AM and PM peak hours except for two (2) intersections during the AM peak and six (6) intersections during the PM peak, which are listed below. Detailed HCM analyses, including capacity analysis worksheets, can be found in Appendix C.

- Hammond Drive **at Hilderbrand Drive** – PM: LOS F (79.3 second delay)
- Hammond Drive **at Kayron Drive** – PM: LOS E (40.7 second delay)
- Hammond Drive **at Greenbrier Road** – PM: LOS E (41.5 second delay)
- Hammond Drive **at Glenridge Drive** – AM: LOS F (97.6 second delay), PM: LOS F (99.7 second delay)
- Hammond Drive **at Peachtree-Dunwoody Road** – PM: LOS E (67.9 second delay)
- Mt Vernon Highway **at Long Island Drive** – AM: LOS F (168.8 second delay), PM: LOS F (116.1 second delay)

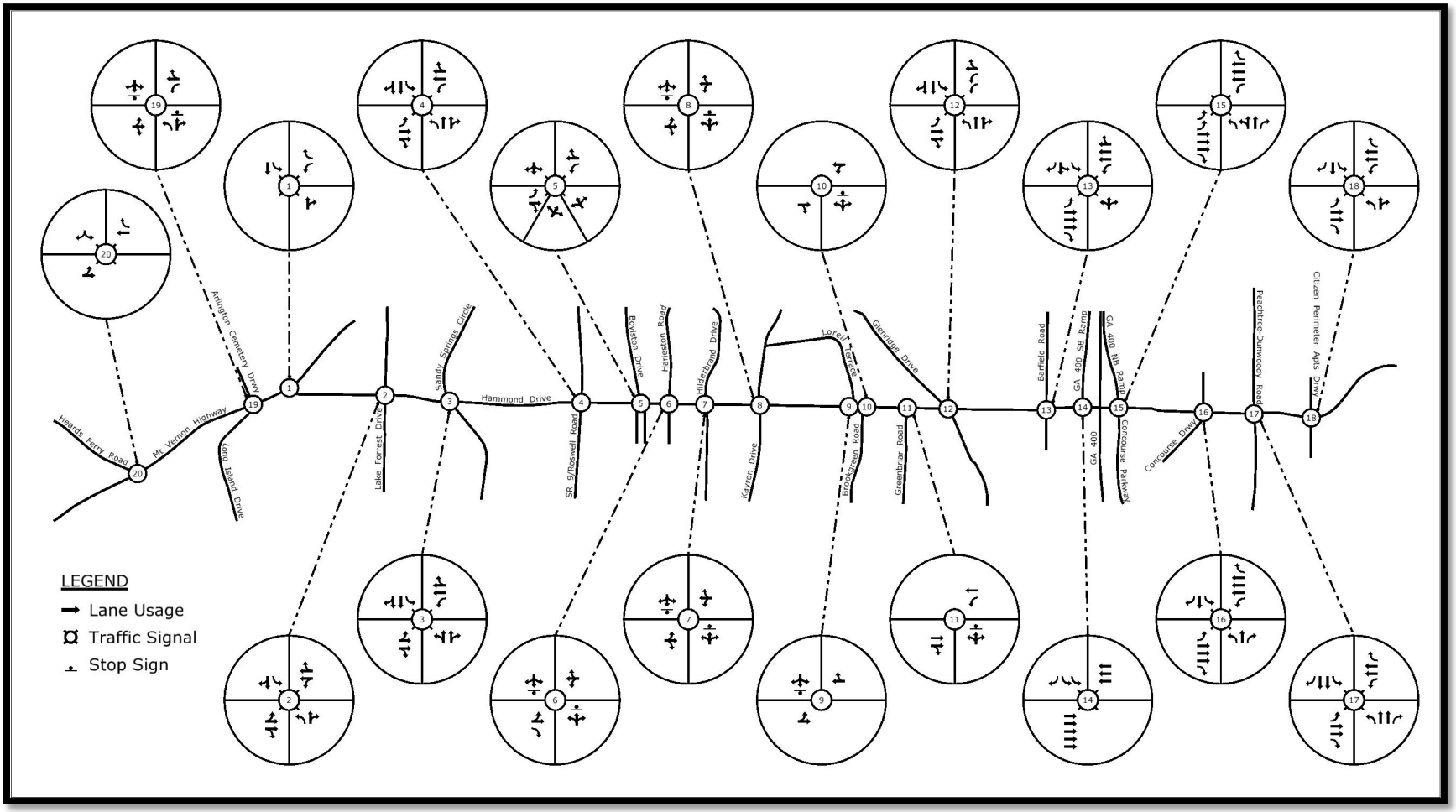


Figure 2. Existing Lane Configuration

Table 6. Existing Year (2018) Level of Service

Study Area Intersection	Intersection Control Type	Existing 2018	
		AM LOS *Delay (s)*	PM LOS *Delay (s)*
Hammond Dr @ Mt Vernon Hwy	Signal	A *9.2*	B *19.6*
Hammond Dr @ Lake Forrest Dr	Signal	B *11.5*	B *14.4*
Hammond Dr @ Sandy Springs Cir	Signal	B *15.5*	B *19.7*
Hammond Dr @ SR 9/Roswell Rd	Signal	C *33.7*	D *49.2*
Hammond Dr @ Boylston Dr & Hammond Glen	Signal	A *9.9*	B *16.8*
Hammond Dr @ Harleston Dr	Minor Stop	C* *23.7*	D* *31.7*
Hammond Dr @ Hilderbrand Dr	Minor Stop	D* *31.6*	F* *79.3*
Hammond Dr @ Kayron Dr	Minor Stop	C* *23.8*	E* *40.7*
Hammond Dr @ Lorell Ter	Minor Stop	B* *14.8*	D* *32.9*
Hammond Dr @ Brookgreen Rd	Minor Stop	C* *22.6*	C* *16.7*
Hammond Dr @ Greenbriar Rd	Minor Stop	C* *17.5*	E* *41.5*
Hammond Dr @ Glenridge Dr	Signal	F *97.6*	F *99.7*
Hammond Dr @ Barfield Rd	Signal	B *12.6*	B *13.5*
Hammond Dr @ GA 400 SB Ramps & Hampton Inn Drwy	Signal	C *20.8*	B *10.1*
Hammond Dr @ GA 400 NB Ramps & Concourse Pkwy	Signal	A *7.1*	C *31.5*
Hammond Dr @ Concourse Drwy	Signal	A *5.4*	B *16.8*
Hammond Dr @ Peachtree-Dunwoody Rd	Signal	D *52.5*	E *67.9*
Hammond Dr @ Citizen Perimeter Apts Drwy	Signal	B *16.9*	A *8.6*
Mt Vernon Highway @ Long Island Dr	Minor Stop	F* *168.8*	F* *116.1*
Mt Vernon Highway @ Heards Ferry Rd	Signal	B *19.5*	A *7.8*

**Unsignalized intersections show results for worst movement*

FUTURE NO BUILD CONDITIONS

To determine the appropriate roadway improvements along Hammond Drive, the project team performed future traffic analysis at each of the study corridor intersections. The year 2045 was chosen as the horizon year to conduct the traffic analysis. To perform the future analysis, anticipated future traffic volumes were developed at each of the study intersections for both no build and build conditions. The future **no build** conditions are defined as the existing condition traffic, plus the anticipated background growth in traffic along the corridor, plus any anticipated traffic due to major developments or diversions due to other projects near the study area, without any proposed improvements to the corridor. Hence, the following formula was used to calculate the future condition traffic volumes.

$$F = P(1 + r)^n + \text{Development Traffic} + \text{Traffic Diversions}$$

Where:

F = future projected traffic volume (vehicles per hour)
P = existing traffic volume (vehicles per hour)
r = annual growth rate
n = number of projection years = future projection year – existing year

Growth Rate Analysis

The anticipated annual background growth in traffic was based on both historical traffic trends, as well as future population and traffic predictions in the study area. The historical growth rate was calculated based on historical traffic count data obtained from the Georgia Department of Transportation (GDOT) at multiple count stations in the vicinity of the study area. For the purposes of this study, two (2) count stations were identified to determine the historical traffic growth. Based on the count data available over the past 10 years, growth rates were calculated at each of these count stations. As shown in Table 7, the average historical growth rate in the study area is 0.7%. The historical growth rate calculations are included in Appendix D.

Table 7. Historical Growth Rates

GDOT Count Location	Location Description	Growth Rate
1215986	Hammond Drive btw Lake Forest Drive & Sandy Springs Cir	-3.2%
1215988	Hammond Drive E/O Glenridge Drive	4.6%
Average		**0.7%**

The future population and traffic predictions in the study area were based on information provided by the Atlanta Regional Commission (ARC). The projected growth in traffic was calculated based on traffic assignments from the ARC's Travel Demand Model over several links in the study area. As shown in Table 8, the average future growth rate was calculated to be -0.4%.

Table 8. ARC TDM Forecasted Growth Rates

Model Link	ARC Travel Demand Model Output - Daily Volume		
	2020	2040	Growth Rate
Hammond Drive E/O Mt Vernon Road	5,151	5,576	0.4%
Hammond Drive W/O Lake Forest Drive	5,372	5,009	-0.3%
Hammond Drive E/O Lake Forest Drive	7,589	7,401	-0.1%
Hammond Drive W/O Sandy Springs Cir	8,424	8,537	0.1%
Hammond Drive E/O Sandy Springs Cir	4,720	5,116	0.4%
Hammond Drive W/O Roswell Road	7,488	6,666	-0.6%
Hammond Drive E/O Roswell Road	12,318	10,170	-1.0%
Hammond Drive btw Roswell Road & Glenridge Drive	11,948	11,427	-0.2%
Hammond Drive W/O Glenridge Drive	13,446	13,156	-0.1%
Hammond Drive E/O Glenridge Drive	28,577	25,300	-0.6%
Hammond Drive E/O Barfield Road	31,391	27,476	-0.7%
Hammond Drive btw SR 400 Ramps	35,854	30,767	-0.8%
Hammond Drive E/O SR 400 NB Ramp	44,782	34,774	-1.3%
Hammond Drive W/O Peachtree-Dunwoody	37,135	27,891	-1.4%
Hammond Drive E/O Peachtree-Dunwoody	17,956	16,921	-0.3%
Hammond Drive Btw Peachtree-Dunwoody & Perimeter Center Parkway	19,268	19,242	0.0%
Hammond Drive W/O Perimeter Center Parkway	25,749	26,531	0.1%
Average			**-0.4%**

The growth rates based on future population predictions for Fulton County and the Sandy Springs area were also calculated based on information provided by the ARC. The population forecasts and calculated growth rates for the region are shown in Table 9. The average population growth rate was calculated to be 0.8%.

Table 9. ARC Population Forecasts

Location	2015 Population	2040 Population	Growth Rate
Fulton County	970,290	1,264,376	1.1%
Sandy Springs	97,995	112,183	0.5%
Average			**0.8%**

Based on the results of the growth rate analyses, a **0.5%** average annual growth rate was determined to be representative of the future background growth in traffic along Hammond Drive and other roadways within the study area.

Major Developments & Roadway Projects

The following real estate development projects are planned and/or underway along the Hammond Drive corridor. These include redevelopment of several sites for commercial developments, office developments, residential developments, and hotels – primarily east of the study area. Information for each development, including traffic studies, was obtained from the Atlanta Regional Commission (ARC) and the City of Dunwoody. Anticipated net trips generated by each development were added to the study intersections, according to the information provided.

- Palisades Development – DRI# 1152
- High Street Development – DRI# 1423
- Lakeside Development – DRI# 1503
- Hammond Center – DRI# 1854
- State Farm Phase II (Park Center) – DRI# 2501
- Gold Kist (Dunwoody Crown Towers) – DRI# 2567
- The Park at Perimeter Center East – DRI# 2691
- Twelve24 Development

The following roadway projects are also planned and/or underway that will impact traffic along the Hammond Drive corridor. Information for each project was obtained from the Georgia Department of Transportation and the City of Sandy Springs. Anticipated traffic diversions due to each project were added to the study intersections, based on the information provided.

- I-285 & GA 400 Improvements (Transform 285/400)
- GA 400 Express Lanes
- I-285 Top End Express Lanes
- Intersection Improvements to Hammond Drive at Boylston Drive & Hammond Glen

Future Year (2045) No Build Capacity Analysis

Based on the Future Year (2045) annual average daily traffic (AADT) volumes, roadway capacity for Hammond Drive within the study area was analyzed. As shown in Table 10, the traffic volumes along Hammond Drive are projected to exceed the capacity of a 2-lane roadway (approximately 17,500 vehicles per day). Therefore, improvements, including widening the roadway from a 2-lane to a 4-lane section, are necessary to accommodate the expected traffic volumes along Hammond Drive. The capacity of a 4-lane roadway of approximately 34,500 vehicles per day will adequately accommodate the expected future traffic along Hammond Drive. With the improvements including the widening in place, Hammond Drive can be expected to operate at desirable operating conditions in the future year.

Table 10. Future Year (2045) AADT

Roadway Segment	Future Year 2045 AADT
Hammond Dr between Hilderbrand Dr & Kayron Dr	24,800
Hammond Dr between Brookgreen Rd & Greenbrier Rd	24,900

Based on the Future Year (2045) no build traffic volumes, and the existing traffic control and lane configurations presented in Figure 2, AM and PM peak hour traffic operations were analyzed at the study intersections. The results of the intersection LOS and delay analysis for the Future Year (2045) no build conditions are summarized in Table 11. As shown, half of all study area intersections operate at LOS E or worse in the AM peak hour, and the majority of the study intersections operate at LOS E or worse in the PM peak hour. These intersections are listed below. The Future Year (2045) AM and PM peak hour no build volumes are provided in Appendix B. Detailed HCM analyses for the no build conditions, including capacity analysis worksheets, can be found in Appendix C.

- Hammond Drive **at SR 9/Roswell Road** – AM: LOS E (63.3 second delay), PM: LOS E (73.4 second delay)
- Hammond Drive **at Boylston Drive & Hammond Glen** – PM: LOS E (70.4 second delay)
- Hammond Drive **at Harleston Drive** – AM: LOS F (67.1 second delay), PM: LOS F (124.1 second delay)
- Hammond Drive **at Hilderbrand Drive** – AM: LOS F (161.0 second delay), PM: LOS F (> 300 second delay)
- Hammond Drive **at Kayron Drive** – PM: LOS F (69.3 second delay), PM: LOS F (> 300 second delay)
- Hammond Drive **at Lorell Terrace** – PM: LOS F (95.2 second delay)
- Hammond Drive **at Brookgreen Road** – PM: LOS F (56.1 second delay)
- Hammond Drive **at Greenbrier Road** – PM: LOS E (39.1 second delay), PM: LOS F (> 300 second delay)
- Hammond Drive **at Glenridge Drive** – AM: LOS F (158.7 second delay), PM: LOS F (195.3 second delay)
- Hammond Drive **at Peachtree-Dunwoody Road** – AM: LOS F (225.7 second delay), PM: LOS F (242.1 second delay)
- Hammond Drive **at Citizen Perimeter Apartments Driveway** – AM: LOS E (61.2 second delay), PM: LOS F (83.9 second delay)
- Mt Vernon Highway **at Long Island Drive** – AM: LOS F (> 300 second delay), PM: LOS F (290.9 second delay)

Table 11. Future Year (2045) No Build Level of Service

Study Area Intersection	Intersection Control Type	No Build 2045	
		AM LOS *Delay (s)*	PM LOS *Delay (s)*
Hammond Dr @ Mt Vernon Hwy	Signal	B *11.4*	C *32.3*
Hammond Dr @ Lake Forrest Dr	Signal	B *12.7*	B *18.7*
Hammond Dr @ Sandy Springs Cir	Signal	B *16.6*	C *20.8*
Hammond Dr @ SR 9/Roswell Rd	Signal	E *63.3*	E *73.4*
Hammond Dr @ Boylston Dr & Hammond Glen	Signal	B *15.7*	E *70.4*
Hammond Dr @ Harleston Dr	Minor Stop	F* *67.1*	F* *124.1*
Hammond Dr @ Hilderbrand Dr	Minor Stop	F* *161.0*	F* *> 300*
Hammond Dr @ Kayron Dr	Minor Stop	F* *69.3*	F* *> 300*
Hammond Dr @ Lorell Ter	Minor Stop	D* *29.9*	F* *95.2*
Hammond Dr @ Brookgreen Rd	Minor Stop	F* *56.1*	D* *33.0*
Hammond Dr @ Greenbriar Rd	Minor Stop	E* *39.1*	F* *> 300*
Hammond Dr @ Glenridge Dr	Signal	F ***158.7***	F *195.3*
Hammond Dr @ Barfield Rd	Signal	A *10.0*	D *35.3*
Hammond Dr @ GA 400 SB Ramps & Hampton Inn Drwy	Signal	B *19.0*	A *8.2*
Hammond Dr @ GA 400 NB Ramps & Concourse Pkwy	Signal	A *4.1*	C *30.4*
Hammond Dr @ Concourse Drwy	Signal	A *5.4*	B *11.0*
Hammond Dr @ Peachtree-Dunwoody Rd	Signal	F *225.7*	F *242.1*
Hammond Dr @ Citizen Perimeter Apts Drwy	Signal	E *61.2*	F *83.9*
Mt Vernon Highway @ Long Island Dr	Minor Stop	F* *> 300*	F* *290.9*
Mt Vernon Highway @ Heards Ferry Rd	Signal	C *25.6*	A *8.8*

**Unsignalized intersections show results for worst movement*

FUTURE BUILD CONDITIONS

The future **build** conditions are defined as the same future conditions as described in the previous section, but under the proposed improvements to the project area. The following is a list of intersection control and lane configuration changes, which would be implemented under the proposed improvements by the Future Year (2045). While a greater area was considered as part of the study, **the proposed improvements focus on the portion of Hammond Drive from west of SR 9/Roswell Road to Barfield Road**. The lane configurations for the build conditions are shown in Figure 3. In addition to these changes, intersection signal timing and phasing were optimized as appropriate.

- Hammond Drive **at SR 9/Roswell Road**
  - Eastbound right turn lane added on Hammond Drive
  - Additional westbound left turn lane added on Hammond Drive

- Hammond Drive **at Boylston Drive & Hammond Glen**
  - Additional eastbound through turn lane added on Hammond Drive
  - Additional westbound through turn lane added on Hammond Drive
  - Westbound right turn lane added on Hammond Drive

- Hammond Drive **at Harleston Drive**
  - Intersection converted to right-in, right-out only
  - Additional eastbound through turn lane added on Hammond Drive
  - Additional westbound through turn lane added on Hammond Drive

- Hammond Drive **at Hilderbrand Drive**
  - Intersection converted to a multi-lane roundabout

- Hammond Drive **at Kayron Drive**
  - Access closed to Kayron Drive north and south of Hammond Drive

- Hammond Drive **at Lorell Terrace & Brookgreen Road**
  - Intersections realigned to single 4-legged intersection and converted to a multi-lane roundabout

- Hammond Drive **at Greenbriar Road**
  - Access closed to Greenbriar Road south of Hammond Drive

- Hammond Drive **at Glenridge Drive**
  - Eastbound yield controlled channelized right turn lane added on Hammond Drive
  - Additional westbound through lane added on Hammond Drive
  - Westbound right turn lane added on Hammond Drive
  - Northbound through-right lane on Glenridge Drive converted to right turn only lane
  - Additional southbound left turn lane added on Glenridge Drive

Based on the analysis performed throughout the project area, no additional traffic is anticipated along Hammond Drive or Mt Vernon Highway within the study area due to the widening of Hammond Drive. Therefore, the future build condition traffic volumes are the same as the future no build condition traffic volumes. However, due to the changes proposed at the Hammond Drive at Harleston Drive, Hammond Drive at Kayron Drive, and Hammond Drive at Greenbriar Road intersections and other driveways along the corridor, minor diversions were included in the build condition analysis. The Opening Year (2025) and Future Year (2045) AM and PM peak hour build volumes are provided in Appendix B.

Based on the Future Year (2045) build traffic volumes, and the build traffic control and lane configurations presented in Figure 3, AM and PM peak hour traffic operations were analyzed at study intersections where improvements are proposed. The results of the intersection LOS and delay analysis for the Future Year (2045) build conditions are summarized in Table 12. Since no improvements are proposed and there are no anticipated differences in traffic volumes at the study intersections outside of the project area, the LOS for the Future Year (2045) build conditions is the same as the Future Year (2045) no build conditions for those intersections. As shown, all study area intersections where improvements are proposed operate at LOS D or better in the AM and PM peak hours with the exception of one (1) intersection during the AM peak and two (2) intersections during the PM peak, which are listed below. Detailed HCM analyses, including capacity analysis worksheets, can also be found in Appendix C.

- Hammond Drive **at SR 9/Roswell Road** – PM: LOS E (66.8 second delay)
- Hammond Drive **at Glenridge Drive** – AM: LOS E (67.0 second delay), PM: LOS E (75.1 second delay)

While these intersections operate at LOS E or worse, the Hammond Drive at SR 9/Roswell Road intersection operates with a 12.8 second and 6.6 second improvement in control delay during the AM and PM peak hours, respectively. Additionally, the Hammond Drive at Glenridge Drive intersection operates with a 91.7 second and 120.2 second improvement in control delay during the AM and PM peak hours, respectively. This brings the intersection from a LOS F to LOS E. Additionally, all study intersections show the same LOS or better from the no build to the build condition, accounting for geometry and lane configuration improvements, as well as signal timing and phasing optimization where applicable.

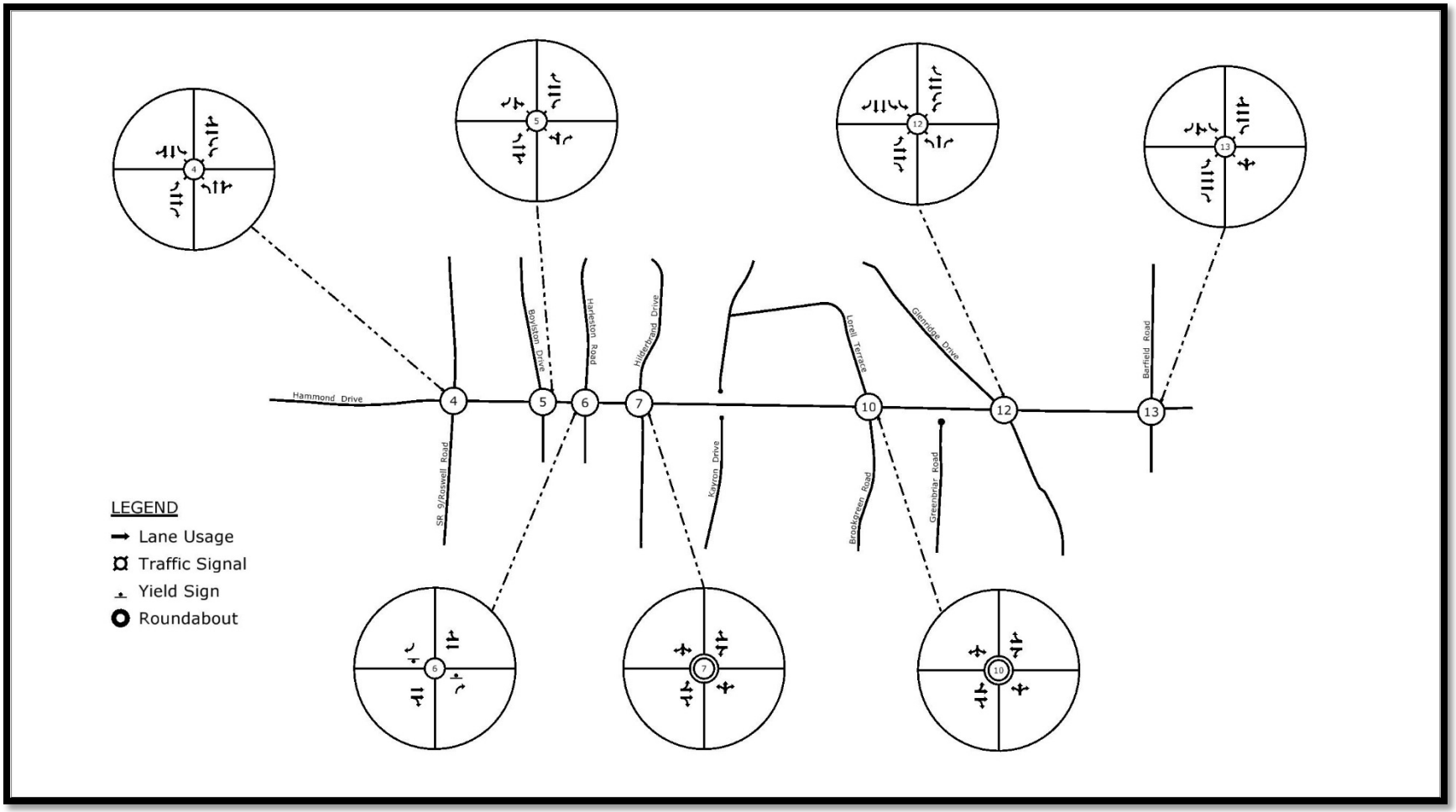


Figure 3. Proposed Future Lane Configuration

Table 12. Future Year (2045) Build Level of Service

Study Area Intersection	Proposed Intersection Control Type	Build 2045	
		AM LOS *Delay (s)*	PM LOS *Delay (s)*
Hammond Dr @ SR 9/Roswell Rd	Signal	D *50.5*	E *66.8*
Hammond Dr @ Boylston Dr & Hammond Glen	Signal	A *3.1*	A *8.4*
Hammond Dr @ Harleston Dr	RIRO	B* *14.8*	C* *16.2*
Hammond Dr @ Hilderbrand Dr	Roundabout	A *5.4*	A *5.8*
Hammond Dr @ Kayron Dr	Close Access	---	---
Hammond Dr @ Lorell Ter & Brookgreen Rd	Roundabout	A *5.6*	A *5.8*
Hammond Dr @ Greenbriar Rd	Close Access	---	---
Hammond Dr @ Glenridge Dr	Signal	E *67.0*	E *75.1*
Hammond Dr @ Barfield Rd	Signal	A *8.4*	B *18.3*

**Unsignalized intersections show results for worst movement*

CONCLUSIONS

The following key conclusions were developed from the traffic analysis for along Hammond Drive and Mt Vernon Highway within the study area:

- Crash data along Hammond Drive within the project area was obtained from GDOT for the period between January 1, 2014 and December 31, 2018. Based on the crashes reported, there were a total of 724 crashes along this section of roadway for the five (5) year period, which included 155 injury crashes and one (1) fatal crash. The total crash rates and injury crash rates along Hammond Drive within the project area are higher than the corresponding statewide averages for urban minor arterials. The crashes are predominantly rear end and angle crashes, indicating congestion along the corridor, lack of turn lanes, and inadequate vertical and horizontal sight distances. **The historical crash data supports the proposed project, which provides congestion relief by increasing capacity and enhances safety by improving roadway and intersection geometries along the corridor.**

- Based on the existing conditions, the traffic volumes along Hammond Drive are approaching the capacity of a 2-lane roadway. **The traffic volumes are expected to be much higher (approximately 50% higher) than the capacity of a 2-lane roadway based on the projected future year 2045 traffic volumes.** Based on this, if no improvements are made, Hammond Drive within the project area is expected to fail in the Future Year (2045). If Hammond Drive within the project area is widened to a 4-lane section, the roadway is expected to operate at desirable operating conditions in the future year.

- Under the Existing Year (2018) conditions, all study area intersections operate at LOS D or better in the AM and PM peak hours, except for two (2) intersections during the AM peak and six (6) intersections during the PM peak. This includes one (1) intersection out of the ten (10) project area intersections, which operates at LOS E or worse in the AM peak hour, and four (4) intersections out of the 10 project area intersections, which operate at LOS E or worse in the PM peak hour.

- Under the Future Year (2045) no build conditions, half of all study area intersections are expected to operate at LOS E or worse in the AM peak hour, and most of the study intersections are expected to operate at LOS E or worse in the PM peak hour. This includes seven (7) intersections out of the ten (10) project area intersections, which are expected to operate at LOS E or worse in the AM peak hour, and eight (8) intersections out of the ten (10) project area intersections, which are expected to operate at LOS E or worse in the PM peak hour.

- Under the Future Year (2045) build conditions, all project area intersections where improvements are proposed are expected to operate at LOS D or better in the AM and PM peak hours, except for one (1) intersection during the AM peak and two (2) intersections during the PM peak. **While Hammond Drive at SR 9/Roswell Road and Hammond Drive at Glenridge Drive intersections are expected to operate at LOS E, they are expected to improve considerably in the build condition compared to the no build condition.** The Hammond Drive at SR 9/Roswell Road intersection operates with a 12.8 second and 6.6 second improvement in control delay during the

AM and PM peak hours respectively. Additionally, the Hammond Drive at Glenridge Drive intersection operates with a 91.7 second and 120.2 second improvement in control delay during the AM and PM peak hours respectively. Additionally, all study intersections show the same LOS or better from the no build to the build condition.

- Based on the analysis performed throughout the project area, no additional traffic is anticipated along Hammond Drive or Mt Vernon Highway within the study area due to the widening of Hammond Drive. **Furthermore, the intersections along Hammond Drive west of SR 9/Roswell Road – at Mt Vernon Highway, Lake Forest Drive, and Sandy Springs Circle – and the Mt Vernon Highway at Heards Ferry Road intersection are expected to operate at LOS C or better in 2045 with the widening of Hammond Drive.** The Mt Vernon Highway at Long Island Drive intersection, which is an unsignalized intersection, currently operates at LOS F in the AM and PM peak hours – primarily due to the delay experienced by left-turning vehicles from Long Island Drive. It is understood that the City is looking into intersection improvements at this location outside of this project.

APPENDIX A

Raw Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mt Vernon Hwy & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-001
Date: 9/20/2018

Total

NS/EW Streets:	Mt Vernon Hwy				Mt Vernon Hwy				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	0	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	0	171	148	0	1	76	0	0	0	0	0	0	68	0	3	0	467
8:15 AM	0	164	170	0	3	97	0	0	0	0	0	0	52	0	3	1	490
8:30 AM	0	152	135	0	3	46	0	0	0	0	0	0	45	0	1	0	382
8:45 AM	0	125	135	0	4	46	0	0	0	0	0	0	48	0	0	0	358
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	612	588	0	11	265	0	0	0	0	0	0	213	0	7	1	1697
APPROACH %'s :	0.00%	51.00%	49.00%	0.00%	3.99%	96.01%	0.00%	0.00%					96.38%	0.00%	3.17%	0.45%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	612	588	0	11	265	0	0	0	0	0	0	213	0	7	1	1697
PEAK HR FACTOR :	0.000	0.895	0.865	0.000	0.688	0.683	0.000	0.000	0.000	0.000	0.000	0.000	0.783	0.000	0.583	0.250	0.866
		0.898				0.690								0.778			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	0	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	91	70	0	0	84	0	0	0	0	0	0	138	0	7	0	390
4:15 PM	0	112	73	0	1	79	0	0	0	0	0	0	143	0	3	0	411
4:30 PM	0	105	72	0	0	80	0	0	0	0	0	0	149	0	6	0	412
4:45 PM	0	125	99	0	1	102	0	0	0	0	0	0	156	0	6	0	489
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	433	314	0	2	345	0	0	0	0	0	0	586	0	22	0	1702
APPROACH %'s :	0.00%	57.97%	42.03%	0.00%	0.58%	99.42%	0.00%	0.00%					96.38%	0.00%	3.62%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	433	314	0	2	345	0	0	0	0	0	0	586	0	22	0	1702
PEAK HR FACTOR :	0.000	0.866	0.793	0.000	0.500	0.846	0.000	0.000	0.000	0.000	0.000	0.000	0.939	0.000	0.786	0.000	0.870
		0.834				0.842								0.938			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Lake Forrest Dr & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-002
Date: 9/20/2018

Total

NS/EW Streets:	Lake Forrest Dr				Lake Forrest Dr				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	0.5	0.5	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	25	35	24	0	3	61	0	0	1	136	20	0	19	65	9	0	398
8:15 AM	10	28	17	0	3	67	0	0	0	135	33	0	22	57	6	0	378
8:30 AM	11	33	23	0	3	54	1	0	2	134	25	0	29	61	12	0	388
8:45 AM	12	43	16	0	3	62	1	0	2	121	24	0	20	38	16	0	358
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	58	139	80	0	12	244	2	0	5	526	102	0	90	221	43	0	1522
APPROACH %'s :	20.94%	50.18%	28.88%	0.00%	4.65%	94.57%	0.78%	0.00%	0.79%	83.10%	16.11%	0.00%	25.42%	62.43%	12.15%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	58	139	80	0	12	244	2	0	5	526	102	0	90	221	43	0	1522
PEAK HR FACTOR :	0.580	0.808	0.833	0.000	1.000	0.910	0.500	0.000	0.625	0.967	0.773	0.000	0.776	0.850	0.672	0.000	0.956
	0.824				0.921				0.942				0.868				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	0.5	0.5	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	24	63	24	0	3	41	3	0	0	67	8	0	50	125	1	0	409
4:15 PM	13	66	38	0	12	32	4	0	4	68	15	0	51	153	9	0	465
4:30 PM	18	70	37	0	14	43	4	0	1	95	12	0	38	144	2	0	478
4:45 PM	19	60	31	0	5	46	5	0	1	128	12	0	37	134	5	0	483
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	74	259	130	0	34	162	16	0	6	358	47	0	176	556	17	0	1835
APPROACH %'s :	15.98%	55.94%	28.08%	0.00%	16.04%	76.42%	7.55%	0.00%	1.46%	87.10%	11.44%	0.00%	23.50%	74.23%	2.27%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	74	259	130	0	34	162	16	0	6	358	47	0	176	556	17	0	1835
PEAK HR FACTOR :	0.771	0.925	0.855	0.000	0.607	0.880	0.800	0.000	0.375	0.699	0.783	0.000	0.863	0.908	0.472	0.000	0.950
	0.926				0.869				0.729				0.879				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sandy Springs Cir & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-003
Date: 9/20/2018

Total

NS/EW Streets:	Sandy Springs Cir				Sandy Springs Cir				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	0	0	0	2	1	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	10	14	9	0	10	51	16	0	20	123	15	0	14	66	15	0	363
8:15 AM	8	20	14	0	17	35	18	0	17	113	19	0	19	55	17	0	352
8:30 AM	7	22	8	0	26	39	28	0	13	132	16	0	10	70	10	0	381
8:45 AM	6	20	11	0	25	48	25	0	22	104	16	0	6	43	12	0	338
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	31	76	42	0	78	173	87	0	72	472	66	0	49	234	54	0	1434
APPROACH %'s :	20.81%	51.01%	28.19%	0.00%	23.08%	51.18%	25.74%	0.00%	11.80%	77.38%	10.82%	0.00%	14.54%	69.44%	16.02%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	31	76	42	0	78	173	87	0	72	472	66	0	49	234	54	0	1434
PEAK HR FACTOR :	0.775	0.864	0.750	0.000	0.750	0.848	0.777	0.000	0.818	0.894	0.868	0.000	0.645	0.836	0.794	0.000	0.941
	0.887				0.862				0.947				0.887				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	0	0	0	2	1	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	6	55	12	0	18	19	31	0	18	64	9	0	26	154	34	0	446
4:15 PM	17	62	22	0	11	29	21	0	19	84	14	0	19	147	26	0	471
4:30 PM	15	65	22	0	14	24	24	0	19	103	8	0	19	141	24	0	478
4:45 PM	7	60	22	0	22	25	19	0	27	132	14	0	21	150	40	0	539
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	45	242	78	0	65	97	95	0	83	383	45	0	85	592	124	0	1934
APPROACH %'s :	12.33%	66.30%	21.37%	0.00%	25.29%	37.74%	36.96%	0.00%	16.24%	74.95%	8.81%	0.00%	10.61%	73.91%	15.48%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	45	242	78	0	65	97	95	0	83	383	45	0	85	592	124	0	1934
PEAK HR FACTOR :	0.662	0.931	0.886	0.000	0.739	0.836	0.766	0.000	0.769	0.725	0.804	0.000	0.817	0.961	0.775	0.000	0.897
	0.895				0.945				0.738				0.936				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Roswell Rd & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-004
Date: 9/20/2018

Total

NS/EW Streets:	Roswell Rd				Roswell Rd				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:30 AM	33	213	79	0	39	251	9	0	14	89	20	0	27	34	11	0	819
7:45 AM	32	168	84	0	52	273	11	0	15	94	26	0	23	68	13	0	859
8:00 AM	39	191	71	0	36	283	13	0	12	83	32	0	26	44	8	0	838
8:15 AM	32	193	84	0	37	239	12	0	14	103	43	0	32	59	12	0	860
8:30 AM	33	226	79	0	31	271	14	0	19	84	38	0	27	39	11	0	872
8:45 AM	28	200	80	0	36	215	11	0	19	100	58	0	31	57	19	0	854
9:00 AM	33	185	83	0	26	189	9	0	8	84	44	0	28	43	17	0	749
9:15 AM	35	163	66	1	28	207	5	0	17	85	44	0	34	61	12	0	758
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	265	1539	626	1	285	1928	84	0	118	722	305	0	228	405	103	0	6609
APPROACH %'s :	10.90%	63.31%	25.75%	0.04%	12.41%	83.94%	3.66%	0.00%	10.31%	63.06%	26.64%	0.00%	30.98%	55.03%	13.99%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	136	778	318	0	156	1066	50	0	60	364	139	0	108	210	44	0	3429
PEAK HR FACTOR :	0.872	0.861	0.946	0.000	0.750	0.942	0.893	0.000	0.789	0.883	0.808	0.000	0.844	0.772	0.846	0.000	0.983
	0.911				0.946				0.880				0.870				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	38	259	30	0	26	208	18	0	37	67	37	0	64	135	29	0	948
4:00 PM	33	317	34	0	21	192	40	0	26	48	31	0	66	138	29	0	975
4:15 PM	34	263	39	0	27	195	13	0	24	78	22	0	78	157	30	0	960
4:30 PM	18	240	45	0	17	195	22	0	26	83	28	0	83	145	46	0	948
4:45 PM	32	295	40	0	19	190	19	0	38	85	26	0	52	122	18	0	936
5:00 PM	32	266	29	0	22	181	0	0	37	80	23	0	62	160	19	0	911
5:15 PM	30	290	27	0	17	197	0	0	16	63	30	0	76	144	31	1	922
5:30 PM	36	304	31	0	31	235	0	0	21	79	29	0	55	124	25	0	970
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	253	2234	275	0	180	1593	112	0	225	583	226	0	536	1125	227	1	7570
APPROACH %'s :	9.16%	80.88%	9.96%	0.00%	9.55%	84.51%	5.94%	0.00%	21.76%	56.38%	21.86%	0.00%	28.37%	59.56%	12.02%	0.05%	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	123	1079	148	0	91	790	93	0	113	276	118	0	291	575	134	0	3831
PEAK HR FACTOR :	0.809	0.851	0.822	0.000	0.843	0.950	0.581	0.000	0.764	0.831	0.797	0.000	0.877	0.916	0.728	0.000	0.982
	0.879				0.962				0.899				0.912				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Boylston Dr/Hammond Glen Dwy & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-005
Date: 9/20/2018

Total

NS/EW Streets:	Boylston Dr/Hammond Glen Dwy					Boylston Dr/Hammond Glen Dwy					Hammond Dr					Hammond Dr											
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2						
	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L	N2U	N2L2	N2T2	N2R2	N2U2	TOTAL
8:00 AM	0	0	0	0	0	16	0	14	0	0	19	220	3	0	0	0	78	5	0	0		0	0	0	0	0	355
8:15 AM	1	0	0	0	0	9	0	13	0	0	13	225	1	0	2	1	78	5	0	0		0	0	0	0	0	348
8:30 AM	0	1	1	0	0	11	0	10	0	0	10	213	2	0	0	2	67	8	0	0		0	0	0	0	0	325
8:45 AM	0	0	1	0	0	13	0	17	0	0	7	230	1	0	0	1	77	3	0	0		0	0	0	1	0	351
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L	N2U	N2L2	N2T2	N2R2	N2U2	TOTAL
TOTAL VOLUMES :	1	1	2	0	0	49	0	54	0	0	49	888	7	0	2	4	300	21	0	0	0	0	0	0	1	0	1379
APPROACH %'s :	25.00%	25.00%	50.00%	0.00%	0.00%	47.57%	0.00%	52.43%	0.00%	0.00%	5.18%	93.87%	0.74%	0.00%	0.21%	1.23%	92.31%	6.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																										TOTAL
PEAK HR VOL :	1	1	2	0	0	49	0	54	0	0	49	888	7	0	2	4	300	21	0	0	0	0	0	0	1	0	1379
PEAK HR FACTOR :	0.250	0.250	0.500	0.000	0.000	0.766	0.000	0.794	0.000	0.000	0.645	0.965	0.583	0.000	0.250	0.500	0.962	0.656	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.971
			0.500					0.858					0.977					0.967						0.250			

PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2						
	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L	N2U	N2L2	N2T2	N2R2	N2U2	TOTAL
4:00 PM	5	0	0	0	0	3	0	22	0	0	21	110	6	0	0	0	246	19	0	0		0	2	0	3	0	437
4:15 PM	2	0	1	0	0	3	1	32	0	0	22	146	2	0	0	1	211	16	0	0		0	1	0	0	0	438
4:30 PM	2	0	0	0	0	6	1	14	0	0	24	134	0	0	2	2	255	21	0	0		0	3	0	0	0	464
4:45 PM	1	1	2	0	0	6	0	20	0	0	18	158	0	0	1	1	219	14	0	0		0	1	1	0	0	443
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L	N2U	N2L2	N2T2	N2R2	N2U2	TOTAL
TOTAL VOLUMES :	10	1	3	0	0	18	2	88	0	0	85	548	8	0	3	4	931	70	0	0	0	0	7	1	3	0	1782
APPROACH %'s :	71.43%	7.14%	21.43%	0.00%	0.00%	16.67%	1.85%	81.48%	0.00%	0.00%	13.20%	85.09%	1.24%	0.00%	0.47%	0.40%	92.64%	6.97%	0.00%	0.00%	0.00%	0.00%	63.64%	9.09%	27.27%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																										TOTAL
PEAK HR VOL :	10	1	3	0	0	18	2	88	0	0	85	548	8	0	3	4	931	70	0	0	0	0	7	1	3	0	1782
PEAK HR FACTOR :	0.500	0.250	0.375	0.000	0.000	0.750	0.500	0.688	0.000	0.000	0.885	0.867	0.333	0.000	0.375	0.500	0.913	0.833	0.000	0.000	0.000	0.000	0.583	0.250	0.250	0.000	0.960
			0.700					0.750					0.910					0.904						0.550			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harleston Rd & Hammond Dr
City: Atlanta
Control: 1-Way Stop (SB)

Project ID: 18-09517-006
Date: 9/20/2018

Total

NS/EW Streets:	Harleston Rd				Harleston Rd				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	0	0	1	0	3	0	1	0	1	231	2	0	2	74	1	0	316
8:15 AM	1	0	1	0	0	0	2	0	1	233	2	0	0	89	0	0	329
8:30 AM	2	0	1	0	0	0	1	0	0	227	1	0	0	73	0	0	305
8:45 AM	2	0	4	0	0	0	1	0	1	237	0	0	0	81	0	0	326
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	0	7	0	3	0	5	0	3	928	5	0	2	317	1	0	1276
APPROACH %'s :	41.67%	0.00%	58.33%	0.00%	37.50%	0.00%	62.50%	0.00%	0.32%	99.15%	0.53%	0.00%	0.63%	99.06%	0.31%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	5	0	7	0	3	0	5	0	3	928	5	0	2	317	1	0	1276
PEAK HR FACTOR :	0.625	0.000	0.438	0.000	0.250	0.000	0.625	0.000	0.750	0.979	0.625	0.000	0.250	0.890	0.250	0.000	0.970
	0.500				0.500				0.983				0.899				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	1	0	0	0	4	0	4	110	0	0	2	259	1	0	382
4:15 PM	1	0	1	0	0	0	8	0	4	146	0	0	1	225	0	0	386
4:30 PM	1	1	1	0	0	0	10	0	0	134	1	0	0	267	0	0	415
4:45 PM	0	0	2	0	2	0	10	0	4	161	3	0	2	221	0	0	405
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	1	5	0	2	0	32	0	12	551	4	0	5	972	1	0	1588
APPROACH %'s :	33.33%	11.11%	55.56%	0.00%	5.88%	0.00%	94.12%	0.00%	2.12%	97.18%	0.71%	0.00%	0.51%	99.39%	0.10%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	3	1	5	0	2	0	32	0	12	551	4	0	5	972	1	0	1588
PEAK HR FACTOR :	0.750	0.250	0.625	0.000	0.250	0.000	0.800	0.000	0.750	0.856	0.333	0.000	0.625	0.910	0.250	0.000	0.957
	0.750				0.708				0.844				0.916				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hilderbrand Dr & Hammond Dr
City: Atlanta
Control: 2-Way Stop (NB/SB)

Project ID: 18-09517-007
Date: 9/20/2018

Total

NS/EW Streets:	Hilderbrand Dr				Hilderbrand Dr				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	5	1	3	0	5	2	0	0	0	229	5	0	0	71	1	0	322
8:15 AM	0	0	0	0	4	0	3	0	1	233	3	0	0	87	3	0	334
8:30 AM	2	0	0	0	6	0	0	0	0	225	2	0	0	76	0	0	311
8:45 AM	0	0	3	0	3	2	1	0	0	242	1	0	0	74	0	0	326
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	1	6	0	18	4	4	0	1	929	11	0	0	308	4	0	1293
APPROACH %'s :	50.00%	7.14%	42.86%	0.00%	69.23%	15.38%	15.38%	0.00%	0.11%	98.72%	1.17%	0.00%	0.00%	98.72%	1.28%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	7	1	6	0	18	4	4	0	1	929	11	0	0	308	4	0	1293
PEAK HR FACTOR :	0.350	0.250	0.500	0.000	0.750	0.500	0.333	0.000	0.250	0.960	0.550	0.000	0.000	0.885	0.333	0.000	0.968
	0.389				0.929				0.968				0.867				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	10	10	0	0	0	0	0	0	0	107	4	0	1	241	10	0	383
4:15 PM	2	3	0	0	0	0	0	0	0	142	4	0	0	226	3	0	380
4:30 PM	4	7	1	0	2	1	1	0	3	132	1	0	0	259	2	0	413
4:45 PM	9	4	1	0	0	0	0	0	2	156	6	0	0	216	2	0	396
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	24	2	0	2	1	1	0	5	537	15	0	1	942	17	0	1572
APPROACH %'s :	49.02%	47.06%	3.92%	0.00%	50.00%	25.00%	25.00%	0.00%	0.90%	96.41%	2.69%	0.00%	0.10%	98.13%	1.77%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	25	24	2	0	2	1	1	0	5	537	15	0	1	942	17	0	1572
PEAK HR FACTOR :	0.625	0.600	0.500	0.000	0.250	0.250	0.250	0.000	0.417	0.861	0.625	0.000	0.250	0.909	0.425	0.000	0.952
	0.638				0.250				0.849				0.920				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Kayron Dr & Hammond Dr
City: Atlanta
Control: 2-Way Stop (NB/SB)

Project ID: 18-09517-008
Date: 9/20/2018

Total

NS/EW Streets:	Kayron Dr				Kayron Dr				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	2	1	4	0	1	0	5	0	1	226	3	0	0	65	2	0	310
8:15 AM	3	0	2	1	0	0	3	0	1	237	5	0	2	83	0	0	337
8:30 AM	0	0	5	0	0	0	3	0	1	229	0	0	0	70	1	0	309
8:45 AM	1	0	2	0	0	0	3	0	1	253	1	0	0	71	0	0	332
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	1	13	1	1	0	14	0	4	945	9	0	2	289	3	0	1288
APPROACH %'s :	28.57%	4.76%	61.90%	4.76%	6.67%	0.00%	93.33%	0.00%	0.42%	98.64%	0.94%	0.00%	0.68%	98.30%	1.02%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	6	1	13	1	1	0	14	0	4	945	9	0	2	289	3	0	1288
PEAK HR FACTOR :	0.500	0.250	0.650	0.250	0.250	0.000	0.700	0.000	1.000	0.934	0.450	0.000	0.250	0.870	0.375	0.000	0.955
	0.750				0.625				0.939				0.865				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	1	2	0	0	0	8	0	1	112	2	0	4	239	3	0	373
4:15 PM	2	1	0	0	0	0	18	0	1	135	2	0	3	204	3	0	369
4:30 PM	1	4	4	0	0	1	13	0	2	137	2	0	0	252	0	0	416
4:45 PM	1	0	0	0	1	0	20	0	0	150	2	0	1	207	2	0	384
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	6	6	0	1	1	59	0	4	534	8	0	8	902	8	0	1542
APPROACH %'s :	29.41%	35.29%	35.29%	0.00%	1.64%	1.64%	96.72%	0.00%	0.73%	97.80%	1.47%	0.00%	0.87%	98.26%	0.87%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	5	6	6	0	1	1	59	0	4	534	8	0	8	902	8	0	1542
PEAK HR FACTOR :	0.625	0.375	0.375	0.000	0.250	0.250	0.738	0.000	0.500	0.890	1.000	0.000	0.500	0.895	0.667	0.000	0.927
	0.472				0.726				0.898				0.911				

Prepared by National Data Surveying Services

1520 Forest Brook Trail, Cumming, GA | phone: 678.679.3023

Project ID: 15-9059-008
Location: Lorell Terrace & Hammond Dr
City: Sandy Springs

Day: Tuesday
Date: 3/3/2015

Peak Start Times	
AM	7:00 AM
MD	12:00 AM
PM	4:00 PM

Groups Printed - Cars, PU, Vans - Heavy Trucks

	Lorell Terrace Southbound					Hammond Dr Westbound					Lorell Terrace Northbound					Hammond Dr Eastbound					
Start Time	Rgt	Thru	Left	Peds	App. Total	Rgt	Thru	Left	Peds	App. Total	Rgt	Thru	Left	Peds	App. Total	Rgt	Thru	Left	Peds	App. Total	Int. Total
7:00 AM	0	0	0	0	0	2	52	0	0	54	0	0	0	0	0	0	150	0	0	150	204
7:15 AM	1	0	3	0	4	0	71	0	0	71	0	0	0	0	0	0	180	0	0	180	255
7:30 AM	0	0	2	0	2	0	63	0	0	63	0	0	0	0	0	0	203	0	0	203	268
7:45 AM	0	0	0	0	0	1	58	0	0	59	0	0	0	0	0	0	223	0	0	223	282
Total	1	0	5	0	6	3	244	0	0	247	0	0	0	0	0	0	756	0	0	756	1009
8:00 AM	2	0	0	0	2	0	66	0	0	66	1	0	0	0	1	0	207	0	0	207	276
8:15 AM	0	0	0	0	0	0	72	0	0	72	0	0	0	0	0	0	233	1	0	234	306
8:30 AM	1	0	1	0	2	0	75	0	0	75	0	0	0	0	0	0	257	0	0	257	334
8:45 AM	0	0	0	0	0	1	77	0	0	78	0	0	0	0	0	0	221	1	0	222	300
Total	3	0	1	0	4	1	290	0	0	291	1	0	0	0	1	0	918	2	0	920	1216
BREAK																					
4:00 PM	0	0	0	0	0	0	189	0	0	189	0	0	0	0	0	0	152	0	0	152	341
4:15 PM	0	0	2	0	2	0	218	0	0	218	0	0	0	0	0	0	125	0	0	125	345
4:30 PM	0	0	0	0	0	1	226	0	0	227	0	0	0	0	0	0	127	0	0	127	354
4:45 PM	0	0	0	0	0	0	206	0	0	206	0	0	0	0	0	0	141	0	0	141	347
Total	0	0	2	0	2	1	839	0	0	840	0	0	0	0	0	0	545	0	0	545	1387
5:00 PM	0	0	1	0	1	4	202	0	0	206	0	0	0	0	0	0	117	0	0	117	324
5:15 PM	0	0	0	0	0	0	178	0	0	178	0	0	0	0	0	0	170	0	0	170	348
5:30 PM	0	0	0	0	0	4	189	0	0	193	0	0	0	0	0	0	178	0	0	178	371
5:45 PM	0	0	1	0	1	4	174	0	0	178	0	0	0	0	0	0	171	0	0	171	350
Total	0	0	2	0	2	12	743	0	0	755	0	0	0	0	0	0	636	0	0	636	1393
Grand Total	4	0	10	0	14	17	2116	0	0	2133	1	0	0	0	1	0	2855	2	0	2857	5005
Apprch %	28.6	0.0	71.4	0.0		0.8	99.2	0.0	0.0		100.0	0.0	0.0	0.0		0.0	99.9	0.1	0.0		
Total %	0.1	0.0	0.2	0.0	0.3	0.3	42.3	0.0	0.0	42.6	0.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	57.1	
Cars, PU, Vans	4	0	10	0	14	17	2116	0	0	2133	1	0	0	0	1	0	2855	2	0	2857	5005
% Cars, PU, Vans	100.0	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0
Heavy Trucks	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
%Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Brookgreen Rd & Hammond Dr
City: Atlanta
Control: 1-Way Stop (NB)

Project ID: 18-09517-009
Date: 9/20/2018

Total

NS/EW Streets:	Brookgreen Rd				Brookgreen Rd				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	2	0	1	0	0	0	0	0	0	241	0	0	2	72	0	0	318
8:15 AM	0	0	4	0	0	0	0	0	0	248	1	0	0	77	0	0	330
8:30 AM	1	0	2	0	0	0	0	0	0	236	0	0	2	69	0	0	310
8:45 AM	2	0	2	0	0	0	0	0	0	265	3	0	0	70	0	0	342
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	0	9	0	0	0	0	0	0	990	4	0	4	288	0	0	1300
APPROACH %'s :	35.71%	0.00%	64.29%	0.00%					0.00%	99.60%	0.40%	0.00%	1.37%	98.63%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	5	0	9	0	0	0	0	0	0	990	4	0	4	288	0	0	1300
PEAK HR FACTOR :	0.625	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.934	0.333	0.000	0.500	0.935	0.000	0.000	0.950
	0.875								0.927				0.948				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	112	1	0	1	226	0	0	340
4:15 PM	0	0	2	0	0	0	0	0	0	125	2	0	0	226	0	0	355
4:30 PM	2	0	4	0	0	0	0	0	0	133	1	0	2	244	0	0	386
4:45 PM	0	0	1	0	0	0	0	0	0	134	1	0	0	238	0	0	374
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	7	0	0	0	0	0	0	504	5	0	3	934	0	0	1455
APPROACH %'s :	22.22%	0.00%	77.78%	0.00%					0.00%	99.02%	0.98%	0.00%	0.32%	99.68%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	0	7	0	0	0	0	0	0	504	5	0	3	934	0	0	1455
PEAK HR FACTOR :	0.250	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.940	0.625	0.000	0.375	0.957	0.000	0.000	0.942
	0.375								0.943				0.952				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Greenbrier Rd & Hammond Dr
City: Atlanta
Control: 1-Way Stop (NB)

Project ID: 18-09517-010
Date: 9/20/2018

Total

NS/EW Streets:	Greenbrier Rd				Greenbrier Rd				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	0	0	1	0	0	0	0	0	0	238	0	0	3	76	0	0	318
8:15 AM	2	0	7	0	0	0	0	0	0	255	1	0	3	71	0	0	339
8:30 AM	4	0	6	0	0	0	0	0	0	234	0	0	3	75	0	0	322
8:45 AM	0	0	1	0	0	0	0	0	0	260	3	0	0	75	0	1	340
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	0	15	0	0	0	0	0	0	987	4	0	9	297	0	1	1319
APPROACH %'s :	28.57%	0.00%	71.43%	0.00%					0.00%	99.60%	0.40%	0.00%	2.93%	96.74%	0.00%	0.33%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	6	0	15	0	0	0	0	0	0	987	4	0	9	297	0	1	1319
PEAK HR FACTOR :	0.375	0.000	0.536	0.000	0.000	0.000	0.000	0.000	0.000	0.949	0.333	0.000	0.750	0.977	0.000	0.250	0.970
	0.525								0.942				0.972				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	0	8	0	0	0	0	0	0	101	2	0	11	227	0	0	356
4:15 PM	16	0	17	0	0	0	0	0	0	133	2	1	5	202	0	0	376
4:30 PM	20	0	6	0	0	0	0	0	0	127	1	0	4	232	0	0	390
4:45 PM	10	0	7	0	0	0	0	0	0	136	1	0	6	218	0	1	379
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	53	0	38	0	0	0	0	0	0	497	6	1	26	879	0	1	1501
APPROACH %'s :	58.24%	0.00%	41.76%	0.00%					0.00%	98.61%	1.19%	0.20%	2.87%	97.02%	0.00%	0.11%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	53	0	38	0	0	0	0	0	0	497	6	1	26	879	0	1	1501
PEAK HR FACTOR :	0.663	0.000	0.559	0.000	0.000	0.000	0.000	0.000	0.000	0.914	0.750	0.250	0.591	0.947	0.000	0.250	0.962
	0.689								0.920				0.952				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Glenridge Dr & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-011
Date: 9/20/2018

Total

NS/EW Streets:	Glenridge Dr				Glenridge Dr				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1.5	0.5	0	1	1.5	0.5	0	1	2	0	0	2	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:30 AM	10	78	107	0	65	192	4	0	8	180	40	0	115	41	7	0	847
7:45 AM	20	63	130	0	61	158	9	0	7	184	44	0	104	55	13	0	848
8:00 AM	18	41	133	0	76	178	6	0	2	202	35	0	107	55	10	0	863
8:15 AM	18	53	126	0	68	225	3	0	8	211	33	0	94	53	9	0	901
8:30 AM	21	28	121	0	72	162	2	0	9	197	44	0	125	54	10	0	845
8:45 AM	18	35	135	0	71	148	2	0	5	204	65	0	107	56	15	0	861
9:00 AM	14	42	155	0	64	147	7	0	3	180	39	0	124	64	14	0	853
9:15 AM	16	40	140	0	35	133	5	0	5	133	29	0	143	65	21	0	765
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	135	380	1047	0	512	1343	38	0	47	1491	329	0	919	443	99	0	6783
APPROACH %'s :	8.64%	24.33%	67.03%	0.00%	27.05%	70.95%	2.01%	0.00%	2.52%	79.86%	17.62%	0.00%	62.90%	30.32%	6.78%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	75	157	515	0	287	713	13	0	24	814	177	0	433	218	44	0	3470
PEAK HR FACTOR :	0.893	0.741	0.954	0.000	0.944	0.792	0.542	0.000	0.667	0.964	0.681	0.000	0.866	0.973	0.733	0.000	0.963
	0.948				0.856				0.926				0.919				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1.5	0.5	0	1	1.5	0.5	0	1	2	0	0	2	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	47	139	121	0	22	86	11	0	13	72	20	0	165	153	52	0	901
4:00 PM	48	167	168	0	18	100	26	0	3	84	23	0	209	162	46	0	1054
4:15 PM	33	173	146	0	20	93	13	0	15	113	21	0	167	163	49	0	1006
4:30 PM	45	161	143	0	21	87	13	0	7	106	17	0	179	179	39	0	997
4:45 PM	53	163	139	0	24	140	19	0	11	114	17	0	170	155	44	0	1049
5:00 PM	40	167	115	0	25	118	13	0	13	103	22	0	191	144	46	0	997
5:15 PM	55	178	115	0	17	113	8	0	6	84	24	0	188	153	46	0	987
5:30 PM	39	147	145	0	24	122	16	0	6	108	23	0	171	167	39	0	1007
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	360	1295	1092	0	171	859	119	0	74	784	167	0	1440	1276	361	0	7998
APPROACH %'s :	13.11%	47.14%	39.75%	0.00%	14.88%	74.76%	10.36%	0.00%	7.22%	76.49%	16.29%	0.00%	46.80%	41.47%	11.73%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	179	664	596	0	83	420	71	0	36	417	78	0	725	659	178	0	4106
PEAK HR FACTOR :	0.844	0.960	0.887	0.000	0.865	0.750	0.683	0.000	0.600	0.914	0.848	0.000	0.867	0.920	0.908	0.000	0.974
	0.939				0.784				0.891				0.936				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Barfield Rd & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-012
Date: 9/20/2018

Total

NS/EW Streets:	Barfield Rd				Barfield Rd				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1.5	0.5	1	0	1	3	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	15	3	7	0	31	3	23	0	50	339	5	0	5	162	43	0	686
8:15 AM	11	11	14	0	25	0	33	0	43	353	11	0	9	147	44	0	701
8:30 AM	12	11	10	0	41	2	23	0	34	339	3	0	5	140	48	0	668
8:45 AM	21	6	15	0	30	2	23	0	40	362	6	0	12	155	29	0	701
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	31	46	0	127	7	102	0	167	1393	25	0	31	604	164	0	2756
APPROACH %'s :	43.38%	22.79%	33.82%	0.00%	53.81%	2.97%	43.22%	0.00%	10.54%	87.89%	1.58%	0.00%	3.88%	75.59%	20.53%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	59	31	46	0	127	7	102	0	167	1393	25	0	31	604	164	0	2756
PEAK HR FACTOR :	0.702	0.705	0.767	0.000	0.774	0.583	0.773	0.000	0.835	0.962	0.568	0.000	0.646	0.932	0.854	0.000	0.983
	0.810				0.894				0.971				0.951				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1.5	0.5	1	0	1	3	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	6	3	6	0	48	2	41	1	34	215	11	0	11	365	59	0	802
4:15 PM	5	2	13	0	45	8	34	0	51	209	11	0	13	336	69	0	796
4:30 PM	9	3	5	0	45	8	49	0	42	218	13	0	19	331	57	1	800
4:45 PM	7	3	8	0	26	7	40	0	41	227	18	1	17	311	64	1	771
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	27	11	32	0	164	25	164	1	168	869	53	1	60	1343	249	2	3169
APPROACH %'s :	38.57%	15.71%	45.71%	0.00%	46.33%	7.06%	46.33%	0.28%	15.40%	79.65%	4.86%	0.09%	3.63%	81.20%	15.05%	0.12%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	27	11	32	0	164	25	164	1	168	869	53	1	60	1343	249	2	3169
PEAK HR FACTOR :	0.750	0.917	0.615	0.000	0.854	0.781	0.837	0.250	0.824	0.957	0.736	0.250	0.789	0.920	0.902	0.500	0.988
	0.875				0.868				0.950				0.951				

National Data & Surveying Services

Intersection Turning Movement Count

Location: GA-400 SB Ramp & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-013
Date: 9/20/2018

Total

NS/EW Streets:	GA-400 SB Ramp				GA-400 SB Ramp				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	1	0	2	0	1	0	0	4	1	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	0	0	17	0	202	0	48	0	0	372	5	0	0	163	0	0	807
8:15 AM	0	0	14	0	216	0	71	0	0	373	1	0	0	126	0	0	801
8:30 AM	0	0	23	0	184	0	52	0	0	407	1	0	0	144	0	0	811
8:45 AM	0	0	19	0	176	0	68	0	0	412	1	0	0	135	0	0	811
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	73	0	778	0	239	0	0	1564	8	0	0	568	0	0	3230
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	76.50%	0.00%	23.50%	0.00%	0.00%	99.49%	0.51%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	73	0	778	0	239	0	0	1564	8	0	0	568	0	0	3230
PEAK HR FACTOR :	0.000	0.000	0.793	0.000	0.900	0.000	0.842	0.000	0.000	0.949	0.400	0.000	0.000	0.871	0.000	0.000	0.996
	0.793				0.886				0.952				0.871				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	1	0	2	0	1	0	0	4	1	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	4	0	34	0	45	0	0	275	1	0	0	397	0	0	756
4:15 PM	0	0	6	0	41	0	48	0	0	258	1	0	0	363	0	0	717
4:30 PM	0	0	9	0	29	0	38	0	0	268	2	0	0	379	0	0	725
4:45 PM	0	0	6	0	31	0	48	0	0	256	0	0	0	350	0	0	691
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	25	0	135	0	179	0	0	1057	4	0	0	1489	0	0	2889
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	42.99%	0.00%	57.01%	0.00%	0.00%	99.62%	0.38%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	25	0	135	0	179	0	0	1057	4	0	0	1489	0	0	2889
PEAK HR FACTOR :	0.000	0.000	0.694	0.000	0.823	0.000	0.932	0.000	0.000	0.961	0.500	0.000	0.000	0.938	0.000	0.000	0.955
	0.694				0.882				0.961				0.938				

National Data & Surveying Services

Intersection Turning Movement Count

Location: GA-400 NB Ramp/Concourse Pkwy & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-014
Date: 9/20/2018

Total

NS/EW Streets:	GA-400 NB Ramp/Concourse Pkwy				GA-400 NB Ramp/Concourse Pkwy				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	1.5	1	0	0	0	0	0	2	3	1	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	4	2	2	0	0	0	0	0	61	413	144	0	11	154	66	0	857
8:15 AM	7	5	4	0	0	0	0	0	38	393	143	0	8	128	69	1	796
8:30 AM	12	6	8	0	0	0	0	0	47	403	152	0	12	135	71	0	846
8:45 AM	10	7	6	0	0	0	0	0	60	401	150	0	16	132	55	0	837
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	33	20	20	0	0	0	0	0	206	1610	589	0	47	549	261	1	3336
APPROACH %'s :	45.21%	27.40%	27.40%	0.00%					8.57%	66.94%	24.49%	0.00%	5.48%	63.99%	30.42%	0.12%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	33	20	20	0	0	0	0	0	206	1610	589	0	47	549	261	1	3336
PEAK HR FACTOR :	0.688	0.714	0.625	0.000	0.000	0.000	0.000	0.000	0.844	0.975	0.969	0.000	0.734	0.891	0.919	0.250	0.973
	0.702								0.973				0.929				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	1.5	1	0	0	0	0	0	2	3	1	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	87	87	28	0	0	0	0	0	93	194	20	0	3	309	165	1	987
4:15 PM	64	119	21	0	0	0	0	0	83	199	21	0	4	301	144	0	956
4:30 PM	80	111	22	1	0	0	0	0	84	197	30	0	1	314	136	0	976
4:45 PM	60	117	34	0	0	0	0	0	67	198	26	0	0	280	141	1	924
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	291	434	105	1	0	0	0	0	327	788	97	0	8	1204	586	2	3843
APPROACH %'s :	35.02%	52.23%	12.64%	0.12%					26.98%	65.02%	8.00%	0.00%	0.44%	66.89%	32.56%	0.11%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	291	434	105	1	0	0	0	0	327	788	97	0	8	1204	586	2	3843
PEAK HR FACTOR :	0.836	0.912	0.772	0.250	0.000	0.000	0.000	0.000	0.879	0.990	0.808	0.000	0.500	0.959	0.888	0.500	0.973
	0.971								0.974				0.941				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Shopping Center Dwy/Business Dwy & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-015
Date: 9/20/2018

Total

NS/EW Streets:	Shopping Center Dwy/Business Dwy				Shopping Center Dwy/Business Dwy				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	3	1	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	6	2	8	0	14	3	13	0	14	282	67	0	39	237	12	0	697
8:15 AM	7	0	9	0	18	4	7	0	23	265	54	0	47	221	11	1	667
8:30 AM	4	2	11	0	10	1	14	0	32	288	75	0	64	230	8	0	739
8:45 AM	9	1	10	0	10	2	14	0	14	279	75	0	62	197	7	1	681
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	26	5	38	0	52	10	48	0	83	1114	271	0	212	885	38	2	2784
APPROACH %'s :	37.68%	7.25%	55.07%	0.00%	47.27%	9.09%	43.64%	0.00%	5.65%	75.89%	18.46%	0.00%	18.65%	77.84%	3.34%	0.18%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	26	5	38	0	52	10	48	0	83	1114	271	0	212	885	38	2	2784
PEAK HR FACTOR :	0.722	0.625	0.864	0.000	0.722	0.625	0.857	0.000	0.648	0.967	0.903	0.000	0.828	0.934	0.792	0.500	0.942
	0.863				0.917				0.929				0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	3	1	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	45	3	34	0	27	4	19	0	24	176	6	1	12	398	8	0	757
4:15 PM	34	4	37	0	40	5	32	0	22	196	8	0	6	355	8	0	747
4:30 PM	53	7	43	0	31	1	24	0	15	188	11	0	10	368	5	0	756
4:45 PM	51	7	58	0	31	4	24	0	20	189	10	1	12	320	6	1	734
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	183	21	172	0	129	14	99	0	81	749	35	2	40	1441	27	1	2994
APPROACH %'s :	48.67%	5.59%	45.74%	0.00%	53.31%	5.79%	40.91%	0.00%	9.34%	86.39%	4.04%	0.23%	2.65%	95.49%	1.79%	0.07%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	183	21	172	0	129	14	99	0	81	749	35	2	40	1441	27	1	2994
PEAK HR FACTOR :	0.863	0.750	0.741	0.000	0.806	0.700	0.773	0.000	0.844	0.955	0.795	0.500	0.833	0.905	0.844	0.250	0.989
	0.810				0.786				0.959				0.903				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Peachtree Dunwoody Rd & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-016
Date: 9/20/2018

Total

NS/EW Streets:	Peachtree Dunwoody Rd				Peachtree Dunwoody Rd				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	123	155	31	0	34	154	66	0	70	102	128	0	44	115	47	0	1069
8:15 AM	100	207	20	1	34	161	69	0	61	71	140	0	44	119	48	0	1075
8:30 AM	101	196	18	0	28	159	67	3	72	89	140	0	42	115	67	0	1097
8:45 AM	94	181	19	0	31	113	75	3	70	96	121	0	38	128	37	2	1008
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	418	739	88	1	127	587	277	6	273	358	529	0	168	477	199	2	4249
APPROACH %'s :	33.55%	59.31%	7.06%	0.08%	12.74%	58.88%	27.78%	0.60%	23.53%	30.86%	45.60%	0.00%	19.86%	56.38%	23.52%	0.24%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	418	739	88	1	127	587	277	6	273	358	529	0	168	477	199	2	4249
PEAK HR FACTOR :	0.850	0.893	0.710	0.250	0.934	0.911	0.923	0.500	0.948	0.877	0.945	0.000	0.955	0.932	0.743	0.250	0.968
	0.950				0.944				0.963				0.944				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	143	155	32	0	38	149	83	5	52	100	106	0	41	222	40	0	1166
4:15 PM	138	180	52	0	26	126	65	0	53	93	104	0	44	202	45	0	1128
4:30 PM	142	178	44	0	26	141	66	6	48	95	126	0	48	203	59	1	1183
4:45 PM	127	175	47	0	36	135	59	0	61	132	111	0	50	163	55	0	1151
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	550	688	175	0	126	551	273	11	214	420	447	0	183	790	199	1	4628
APPROACH %'s :	38.92%	48.69%	12.38%	0.00%	13.11%	57.34%	28.41%	1.14%	19.80%	38.85%	41.35%	0.00%	15.60%	67.35%	16.97%	0.09%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	550	688	175	0	126	551	273	11	214	420	447	0	183	790	199	1	4628
PEAK HR FACTOR :	0.962	0.956	0.841	0.000	0.829	0.924	0.822	0.458	0.877	0.795	0.887	0.000	0.915	0.890	0.843	0.250	0.978
	0.955				0.874				0.889				0.943				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Apartment Dwy & Hammond Dr
City: Atlanta
Control: Signalized

Project ID: 18-09517-017
Date: 9/20/2018

Total

NS/EW Streets:	Apartment Dwy				Apartment Dwy				Hammond Dr				Hammond Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0.5	0.5	0	1	1	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
8:00 AM	33	0	8	0	7	2	21	0	16	146	4	7	4	159	12	2	421
8:15 AM	37	0	11	0	8	1	21	0	11	109	7	5	5	143	10	3	371
8:30 AM	27	0	9	0	10	0	20	0	10	118	2	5	3	155	12	0	371
8:45 AM	25	1	8	0	12	1	29	0	14	139	3	5	8	138	12	1	396
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	122	1	36	0	37	4	91	0	51	512	16	22	20	595	46	6	1559
APPROACH %'s :	76.73%	0.63%	22.64%	0.00%	28.03%	3.03%	68.94%	0.00%	8.49%	85.19%	2.66%	3.66%	3.00%	89.21%	6.90%	0.90%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	122	1	36	0	37	4	91	0	51	512	16	22	20	595	46	6	1559
PEAK HR FACTOR :	0.824	0.250	0.818	0.000	0.771	0.500	0.784	0.000	0.797	0.877	0.571	0.786	0.625	0.936	0.958	0.500	0.926
	0.828				0.786				0.868				0.942				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0.5	0.5	0	1	1	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	8	0	6	0	5	0	10	0	8	155	3	5	8	268	6	1	483
4:15 PM	19	0	9	0	10	0	7	0	9	158	4	1	5	243	9	0	474
4:30 PM	6	0	4	0	13	0	10	0	10	137	6	1	7	281	12	2	489
4:45 PM	11	0	2	0	12	0	5	0	14	211	1	2	12	249	9	4	532
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	44	0	21	0	40	0	32	0	41	661	14	9	32	1041	36	7	1978
APPROACH %'s :	67.69%	0.00%	32.31%	0.00%	55.56%	0.00%	44.44%	0.00%	5.66%	91.17%	1.93%	1.24%	2.87%	93.28%	3.23%	0.63%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	44	0	21	0	40	0	32	0	41	661	14	9	32	1041	36	7	1978
PEAK HR FACTOR :	0.579	0.000	0.583	0.000	0.769	0.000	0.800	0.000	0.732	0.783	0.583	0.450	0.667	0.926	0.750	0.438	0.930
	0.580				0.783				0.795				0.924				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Heards Ferry Rd & Mt. Vernon Hwy
City: Sandy Springs
Control: Signalized

Project ID: 19-09542-001
Date: 8/20/2019

Total

NS/EW Streets:	Heards Ferry Rd				Heards Ferry Rd				Mt. Vernon Hwy				Mt. Vernon Hwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	77	0	2	0	3	126	0	0	0	41	24	0	273
7:15 AM	0	0	0	0	104	0	0	0	1	225	0	0	0	89	53	0	472
7:30 AM	0	0	0	0	137	0	3	0	4	203	0	0	0	73	85	0	505
7:45 AM	0	0	0	0	113	0	3	0	2	201	0	0	0	80	72	0	471
8:00 AM	0	0	0	0	135	0	1	0	1	155	0	0	0	62	47	0	401
8:15 AM	0	0	0	0	136	0	2	0	1	200	0	0	0	33	43	0	415
8:30 AM	0	0	0	0	125	0	0	0	0	206	0	0	0	61	33	0	425
8:45 AM	0	0	0	0	114	0	2	0	0	206	0	0	0	42	36	0	400
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	941	0	13	0	12	1522	0	0	0	481	393	0	3362
APPROACH %'s :					98.64%	0.00%	1.36%	0.00%	0.78%	99.22%	0.00%	0.00%	0.00%	55.03%	44.97%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	489	0	7	0	8	784	0	0	0	304	257	0	1849
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.892	0.000	0.583	0.000	0.500	0.871	0.000	0.000	0.000	0.854	0.756	0.000	0.915
						0.886				0.876				0.888			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	41	0	0	0	6	144	0	0	0	150	93	0	434
4:15 PM	0	0	0	0	31	0	3	0	4	132	0	0	0	172	113	0	455
4:30 PM	0	0	0	0	37	0	2	0	5	142	0	0	0	216	105	0	507
4:45 PM	0	0	0	0	25	0	3	0	4	138	0	0	0	222	96	0	488
5:00 PM	0	0	0	0	29	0	1	0	8	125	0	0	0	182	118	0	463
5:15 PM	0	0	0	0	27	0	5	0	8	183	0	0	0	172	97	0	492
5:30 PM	0	0	0	0	25	0	3	0	2	159	0	0	0	204	76	0	469
5:45 PM	0	0	0	0	31	0	0	0	16	166	0	0	0	142	85	0	440
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	246	0	17	0	53	1189	0	0	0	1460	783	0	3748
APPROACH %'s :					93.54%	0.00%	6.46%	0.00%	4.27%	95.73%	0.00%	0.00%	0.00%	65.09%	34.91%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	118	0	11	0	25	588	0	0	0	792	416	0	1950
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.797	0.000	0.550	0.000	0.781	0.803	0.000	0.000	0.000	0.892	0.881	0.000	0.962
						0.827				0.802				0.941			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Long Island Dr/Arlington Funeral Enterence & Mt. Vernon Hwy
City: Sandy Springs
Control: 1-Way Stop(NB)

Project ID: 19-09542-002
Date: 8/20/2019

Total

NS/EW Streets:	Long Island Dr/Arlington Funeral Enterence				Long Island Dr/Arlington Funeral Enterence				Mt. Vernon Hwy				Mt. Vernon Hwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0.5	0.5	0	0	1	0	0	0	0.5	0.5	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	1	8	0	1	0	0	0	1	196	9	0	14	67	4	0	306
7:15 AM	2	0	12	0	0	0	1	0	1	306	11	0	25	131	2	0	491
7:30 AM	1	1	22	0	1	0	2	0	1	318	21	0	21	150	3	0	541
7:45 AM	5	1	43	0	0	1	1	0	2	290	7	0	20	156	4	0	530
8:00 AM	5	0	39	0	2	0	0	0	1	289	15	0	32	92	4	0	479
8:15 AM	5	0	40	0	0	0	0	0	1	311	22	0	42	78	5	0	504
8:30 AM	3	0	46	0	0	1	0	0	2	317	7	0	13	90	0	0	479
8:45 AM	4	0	24	0	1	0	0	0	1	329	4	0	11	66	0	0	440
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	30	3	234	0	5	2	4	0	10	2356	96	0	178	830	22	0	3770
APPROACH %'s :	11.24%	1.12%	87.64%	0.00%	45.45%	18.18%	36.36%	0.00%	0.41%	95.69%	3.90%	0.00%	17.28%	80.58%	2.14%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	16	2	144	0	3	1	3	0	5	1208	65	0	115	476	16	0	2054
PEAK HR FACTOR :	0.800	0.500	0.837	0.000	0.375	0.250	0.375	0.000	0.625	0.950	0.739	0.000	0.685	0.763	0.800	0.000	0.949
	0.827				0.583				0.940				0.843				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0.5	0.5	0	0	1	0	0	0	0.5	0.5	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	11	0	37	0	3	0	2	0	0	186	5	0	10	232	3	0	489
4:15 PM	9	0	51	0	0	0	2	0	0	151	6	0	20	282	6	0	527
4:30 PM	11	0	64	0	3	0	1	0	1	172	6	0	17	309	2	0	586
4:45 PM	6	0	38	0	2	0	4	0	0	164	7	0	15	320	0	0	556
5:00 PM	6	0	40	0	3	0	3	0	0	155	5	0	22	285	1	0	520
5:15 PM	7	0	56	0	0	0	0	0	0	187	6	0	21	255	0	0	532
5:30 PM	0	0	60	0	4	0	1	0	0	181	11	0	27	279	1	0	564
5:45 PM	5	0	65	0	0	1	0	0	0	195	5	0	27	229	0	0	527
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	55	0	411	0	15	1	13	0	1	1391	51	0	159	2191	13	0	4301
APPROACH %'s :	11.80%	0.00%	88.20%	0.00%	51.72%	3.45%	44.83%	0.00%	0.07%	96.40%	3.53%	0.00%	6.73%	92.72%	0.55%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	30	0	198	0	8	0	8	0	1	678	24	0	75	1169	3	0	2194
PEAK HR FACTOR :	0.682	0.000	0.773	0.000	0.667	0.000	0.500	0.000	0.250	0.906	0.857	0.000	0.852	0.913	0.375	0.000	0.936
	0.760				0.667				0.911				0.931				

Prepared by National Data & Surveying Services

CLASSIFICATION

Hammond Dr Bet. Hilderbrand Dr & Kayron Dr

Day: Thursday
Date: 9/20/2018

City: Atlanta
Project #: GA18_9518_001e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	13	0	0	0	0	0	0	0	0	0	0	0	13
00:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
00:30	0	5	1	1	0	0	0	0	0	0	0	0	0	7
00:45	0	11	0	0	0	0	0	0	0	0	0	0	0	11
01:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
01:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:30	0	1	2	0	1	0	0	0	0	0	0	0	0	4
01:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5
02:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
04:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:30	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	9	1	0	1	0	0	0	0	0	0	0	0	11
05:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11
05:30	0	21	2	1	0	0	0	0	0	0	0	0	0	24
05:45	0	40	1	0	0	0	0	0	0	0	0	0	0	41
06:00	0	35	1	1	7	0	0	0	0	0	0	0	0	44
06:15	0	80	7	1	1	0	0	0	0	0	0	0	0	89
06:30	0	104	8	0	2	0	0	0	1	0	0	0	0	115
06:45	1	104	8	1	6	0	0	0	0	0	0	0	0	120
07:00	0	130	5	1	5	0	0	0	1	0	0	0	0	142
07:15	0	150	12	3	8	1	0	0	0	0	0	0	0	174
07:30	1	188	16	2	9	0	0	0	0	0	0	0	0	216
07:45	2	219	15	3	5	1	0	1	0	0	0	0	0	246
08:00	1	243	15	2	6	1	0	1	0	0	0	0	0	269
08:15	1	196	17	1	8	0	0	1	0	0	0	0	0	224
08:30	2	197	22	2	8	1	0	0	0	0	0	0	0	232
08:45	1	234	19	3	5	1	0	1	0	0	0	0	0	264
09:00	2	188	11	1	4	1	0	0	0	0	0	0	0	207
09:15	0	154	6	0	7	0	0	1	1	0	0	0	0	169
09:30	2	147	8	1	5	0	0	1	1	0	0	0	0	165
09:45	1	127	11	1	8	0	0	1	1	0	0	0	0	150
10:00	0	119	9	1	5	1	0	0	0	0	0	0	0	135
10:15	0	104	12	2	3	1	0	1	0	0	0	0	0	123
10:30	0	97	10	0	5	0	0	0	0	0	0	0	0	112
10:45	0	93	12	4	5	0	0	0	0	0	0	0	0	114
11:00	0	95	5	0	7	1	0	1	0	0	0	0	0	109
11:15	0	95	4	1	5	0	0	0	0	0	0	0	0	105
11:30	1	86	7	0	7	0	0	0	0	0	0	0	0	101
11:45	0	131	8	2	5	0	0	0	0	0	0	0	0	146
12:00 PM	0	131	14	0	11	1	0	1	0	0	0	0	0	158
12:15	0	162	13	1	9	0	0	1	0	0	0	0	0	186
12:30	1	150	13	0	9	1	0	1	0	0	0	0	0	175
12:45	0	159	14	2	6	0	0	0	0	0	0	0	0	181
13:00	1	184	6	1	7	0	0	0	1	0	0	0	0	200
13:15	1	161	17	2	5	0	0	1	0	0	0	0	0	187
13:30	0	132	19	0	9	0	0	0	1	0	0	0	0	161
13:45	1	135	13	2	7	0	0	0	1	0	0	0	0	159
14:00	1	119	10	0	1	0	0	1	0	0	0	0	0	132
14:15	0	117	9	0	1	0	0	0	0	0	0	0	0	127
14:30	0	101	11	0	5	0	0	0	0	0	0	0	0	117
14:45	0	92	11	0	3	0	0	0	0	0	0	0	0	106
15:00	0	113	6	1	6	0	0	0	0	0	0	0	0	126
15:15	1	117	13	1	3	1	0	1	1	0	0	0	0	138
15:30	2	101	7	3	3	0	0	1	0	0	0	0	0	117
15:45	0	96	13	0	2	0	0	1	1	0	0	0	0	113
16:00	1	96	13	0	4	0	0	0	0	0	0	0	0	114
16:15	1	123	6	4	4	0	0	0	0	0	0	0	0	138
16:30	0	125	5	0	3	0	0	0	1	0	0	0	0	134
16:45	0	149	8	2	3	0	0	1	0	0	0	0	0	163
17:00	1	106	4	1	7	1	0	1	0	0	0	0	0	121
17:15	1	112	6	2	2	0	0	0	0	0	0	0	0	123
17:30	0	109	11	1	3	0	0	0	1	0	0	0	0	125
17:45	1	102	9	1	3	0	0	0	0	0	0	0	0	116
18:00	1	135	5	3	4	0	0	1	0	0	0	0	0	149
18:15	1	122	4	2	4	1	0	0	0	0	0	0	0	134
18:30	0	94	6	0	2	0	0	1	0	0	0	0	0	103
18:45	0	122	7	1	1	1	0	0	0	0	0	0	0	132
19:00	1	135	3	1	1	0	0	0	0	0	0	0	0	141
19:15	0	105	7	0	6	0	0	0	0	0	0	0	0	118
19:30	0	91	5	0	4	0	0	0	0	0	0	0	0	100
19:45	0	84	5	1	5	0	0	0	0	0	0	0	0	95
20:00	0	87	7	1	2	0	0	0	0	0	0	0	0	97
20:15	0	98	8	0	2	0	0	0	0	0	0	0	0	108
20:30	0	53	3	1	2	0	0	0	0	0	0	0	0	59
20:45	0	67	4	0	2	0	0	0	0	0	0	0	0	73
21:00	0	54	2	1	2	0	0	0	0	0	0	0	0	59
21:15	0	63	2	0	4	0	0	0	0	0	0	0	0	69
21:30	0	44	0	0	1	0	0	0	1	0	0	0	0	46
21:45	0	38	0	1	0	0	0	0	0	0	0	0	0	39
22:00	0	45	2	0	1	0	0	0	0	0	0	0	0	48
22:15	0	36	1	0	1	0	0	0	0	0	0	0	0	38
22:30	0	33	0	1	2	0	0	0	0	0	0	0	0	36
22:45	0	34	2	0	0	0	0	0	0	0	0	0	0	36
23:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
23:15	0	14	4	1	0	0	0	0	0	0	0	0	0	19
23:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
23:45	0	8	1	0	2	0	0	0	0	0	0	0	0	11
Totals	31	8059	597	72	304	15		21	13					9109
% of Totals	0%	88%	7%	1%	3%	0%		0%	0%					100%

AM Volumes	15	3483	261	35	140	9	0	9	5	0	0	0	0	3957
% AM	0%	38%	3%	0%	2%	0%		0%	0%					43%
AM Peak Hour Volume														
PM Volumes	16	4576	332	38	164	6	0	12	8	0	0	0	0	5152
% PM	0%	50%	4%	0%	2%	0%		0%	0%					57%
PM Peak Hour Volume														

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	1767	19%	1407	15%	1034	11%	4901	54%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 >=4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Hammond Dr Bet. Hilderbrand Dr & Kayron Dr

Day: Thursday
Date: 9/20/2018

City: Atlanta
Project #: GA18_9518_001w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	12	0	1	1	0	0	0	0	0	0	0	0	14
00:15	0	10	0	0	1	0	0	0	0	0	0	0	0	11
00:30	0	3	0	0	1	0	0	0	0	0	0	0	0	4
00:45	0	7	0	1	0	0	0	0	0	0	0	0	0	8
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:30	0	1	0	0	1	0	0	0	0	0	0	0	0	2
03:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
04:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	3	0	1	0	0	0	0	0	0	0	0	0	4
05:15	0	10	0	1	1	0	0	0	0	0	0	0	0	12
05:30	0	23	1	0	0	0	0	0	0	0	0	0	0	24
05:45	0	15	0	1	5	0	0	0	0	0	0	0	0	21
06:00	0	24	0	1	2	0	0	0	0	0	0	0	0	27
06:15	0	19	2	0	4	0	0	0	0	0	0	0	0	25
06:30	0	38	4	1	3	0	0	1	0	0	0	0	0	47
06:45	0	52	3	1	2	0	0	0	0	0	0	0	0	58
07:00	0	34	3	1	6	0	0	0	0	0	0	0	0	44
07:15	0	43	3	0	5	1	0	0	0	0	0	0	0	52
07:30	1	55	3	0	6	0	0	0	0	0	0	0	0	65
07:45	2	72	7	3	4	0	0	0	0	0	0	0	0	88
08:00	1	60	6	1	4	0	0	0	0	0	0	0	0	72
08:15	1	66	3	1	4	0	0	0	0	0	0	0	0	75
08:30	0	65	4	1	5	0	0	0	0	0	0	0	0	75
08:45	0	61	3	1	7	0	0	0	0	0	0	0	0	72
09:00	0	79	8	0	2	0	0	0	0	0	0	0	0	89
09:15	1	70	4	1	3	0	0	0	0	0	0	0	0	79
09:30	0	64	9	0	3	0	0	1	0	0	0	0	0	77
09:45	1	71	5	2	7	0	0	0	0	0	0	0	0	86
10:00	1	77	5	0	0	0	0	0	0	0	0	0	0	83
10:15	0	79	2	2	3	0	0	0	0	0	0	0	0	86
10:30	0	89	11	0	6	0	0	0	0	0	0	0	0	106
10:45	0	105	7	2	8	0	0	0	0	0	0	0	0	122
11:00	0	82	14	0	9	0	0	0	0	0	0	0	0	105
11:15	0	110	9	1	9	0	0	0	0	0	0	0	0	129
11:30	0	145	9	0	10	1	0	0	0	0	0	0	0	165
11:45	0	155	10	2	12	0	0	0	0	0	0	0	0	179
12:00 PM	1	153	9	0	9	0	0	0	0	0	0	0	0	172
12:15	1	144	13	1	7	0	0	0	0	0	0	0	0	166
12:30	0	148	11	1	5	0	0	0	0	0	0	0	0	165
12:45	1	138	12	1	9	0	0	0	0	0	0	0	0	161
13:00	0	134	10	0	11	0	0	1	0	0	0	0	0	156
13:15	1	119	7	2	4	0	0	1	0	0	0	0	0	134
13:30	1	131	6	0	8	0	0	0	0	0	0	0	0	146
13:45	0	118	6	2	8	0	0	0	0	0	0	0	0	134
14:00	2	115	7	0	4	0	0	0	0	0	0	0	0	128
14:15	0	117	13	2	6	0	0	1	0	0	0	0	0	139
14:30	1	128	12	0	4	1	0	0	0	0	0	0	0	146
14:45	0	140	8	2	7	0	0	2	1	0	0	0	0	160
15:00	1	167	12	1	5	1	0	0	0	0	0	0	0	187
15:15	0	197	13	1	5	1	0	1	1	0	0	0	0	219
15:30	0	190	8	1	7	0	0	3	0	0	0	0	0	209
15:45	1	181	14	2	5	0	0	1	0	0	0	0	0	204
16:00	0	214	15	3	5	0	0	1	1	0	0	0	0	239
16:15	0	204	10	0	5	0	0	0	0	0	0	0	0	219
16:30	1	235	10	1	5	1	0	0	0	0	0	0	0	253
16:45	0	205	9	0	4	1	0	1	0	0	0	0	0	220
17:00	0	207	5	0	8	0	0	0	0	0	0	0	0	220
17:15	1	219	10	1	7	0	0	0	1	0	0	0	0	239
17:30	1	204	12	2	3	0	0	0	1	0	0	0	0	223
17:45	0	163	11	1	4	1	0	2	2	0	0	0	0	184
18:00	0	162	6	1	4	0	0	0	0	0	0	0	0	173
18:15	1	175	12	0	5	0	0	0	0	0	0	0	0	193
18:30	0	153	7	1	5	0	0	0	0	0	0	0	0	166
18:45	0	192	12	1	3	1	0	0	0	0	0	0	0	209
19:00	1	112	6	1	4	0	0	0	0	0	0	0	0	124
19:15	0	117	3	0	5	0	0	0	0	0	0	0	0	125
19:30	0	99	8	1	3	0	0	0	0	0	0	0	0	111
19:45	0	90	3	0	5	0	0	0	0	0	0	0	0	98
20:00	0	84	5	1	4	0	0	0	0	0	0	0	0	94
20:15	0	62	3	1	1	0	0	0	0	0	0	0	0	67
20:30	0	46	2	0	1	0	0	0	0	0	0	0	0	49
20:45	0	49	4	0	0	0	0	0	0	0	0	0	0	53
21:00	0	54	2	0	2	0	0	0	0	0	0	0	0	58
21:15	0	37	4	0	0	0	0	0	0	0	0	0	0	41
21:30	0	57	2	1	0	0	0	0	0	0	0	0	0	60
21:45	0	26	3	0	1	0	0	0	0	0	0	0	0	30
22:00	0	32	2	0	0	0	0	0	0	0	0	0	0	34
22:15	0	24	1	1	0	0	0	0	0	0	0	0	0	26
22:30	0	23	1	0	1	0	0	0	0	0	0	0	0	25
22:45	0	21	0	1	1	0	0	0	0	0	0	0	0	23
23:00	0	19	1	0	0	0	0	0	0	0	0	0	0	20
23:15	0	10	0	0	1	0	0	0	0	0	0	0	0	11
23:30	0	15	3	1	0	0	0	0	0	0	0	0	0	19
23:45	0	12	0	0	1	0	0	0	0	0	0	0	0	13
Totals	23	7481	471	61	327	8		16	7					8395
% of Totals	0%	89%	6%	1%	4%	0%		0%	0%					100%

AM Volumes	8	1839	138	26	135	2	0	2	0	0	0	0	0	2150
% AM	0%	22%	2%	0%	2%	0%		0%						26%
AM Peak Hour Volume														
PM Volumes	15	5642	333	35	192	7	0	14	7	0	0	0	0	6245
% PM	0%	67%	4%	0%	2%	0%		0%	0%					74%
PM Peak Hour Volume														

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	543	6%	1234	15%	1797	21%	4821	57%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 >=4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Hammond Dr Bet. Brookgreen Rd & Greenbrier Rd

Day: Thursday
Date: 9/20/2018

City: Atlanta
Project #: GA18_9518_002e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	14	0	0	0	0	0	0	0	0	0	0	0	14
00:15	0	5	1	0	1	0	0	0	0	0	0	0	0	7
00:30	0	5	0	1	0	0	0	0	0	0	0	0	0	6
00:45	0	11	0	0	0	0	0	0	0	0	0	0	0	11
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4
01:30	0	2	2	0	0	0	0	0	0	0	0	0	0	4
01:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:30	0	2	0	0	1	0	0	0	0	0	0	0	0	3
02:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:30	0	6	1	0	1	0	0	0	0	0	0	0	0	8
03:45	0	4	0	0	1	0	0	0	0	0	0	0	0	5
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
04:15	0	5	1	0	0	0	0	0	0	0	0	0	0	6
04:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	8	1	0	2	0	0	0	0	0	0	0	0	11
05:15	0	10	1	0	1	0	0	0	0	0	0	0	0	12
05:30	0	19	2	1	0	0	0	0	0	0	0	0	0	22
05:45	0	37	2	0	4	0	0	0	0	0	0	0	0	43
06:00	0	37	2	1	5	0	0	0	0	0	0	0	0	45
06:15	0	78	7	1	2	0	0	0	0	0	0	0	0	88
06:30	0	108	7	0	5	0	0	0	1	0	0	0	0	121
06:45	1	103	4	1	4	0	0	0	0	0	0	0	0	113
07:00	0	136	7	1	8	0	0	0	1	0	0	0	0	153
07:15	0	169	12	3	7	1	0	0	0	0	0	0	0	192
07:30	2	187	12	3	6	0	0	0	0	0	0	0	0	210
07:45	3	202	12	3	8	1	0	1	0	0	0	0	0	230
08:00	1	225	12	2	6	1	0	1	0	0	0	0	0	248
08:15	1	221	16	1	8	0	0	1	0	0	0	0	0	248
08:30	2	202	14	2	8	1	0	0	0	0	0	0	0	229
08:45	1	233	18	4	16	1	0	1	0	0	0	0	0	274
09:00	3	203	10	1	6	1	0	0	0	0	0	0	0	224
09:15	0	158	7	0	8	0	0	1	1	0	0	0	0	175
09:30	2	148	11	1	2	0	0	0	2	0	0	0	0	166
09:45	1	136	14	1	5	0	0	1	1	0	0	0	0	159
10:00	0	111	10	1	7	1	0	0	0	0	0	0	0	130
10:15	0	108	10	2	3	1	0	1	0	0	0	0	0	125
10:30	0	109	9	0	5	0	0	0	0	0	0	0	0	123
10:45	0	95	9	4	2	0	0	0	0	0	0	0	0	110
11:00	0	97	7	0	13	1	0	1	0	0	0	0	0	119
11:15	0	92	12	1	4	0	0	0	0	0	0	0	0	109
11:30	0	93	6	0	2	0	0	0	0	0	0	0	0	101
11:45	1	123	4	3	10	0	0	0	0	0	0	0	0	141
12:00 PM	0	129	11	0	9	1	0	1	0	0	0	0	0	151
12:15	0	174	16	1	8	0	0	1	0	0	0	0	0	200
12:30	1	148	18	0	3	1	0	1	0	0	0	0	0	172
12:45	0	149	14	2	9	0	0	0	0	0	0	0	0	174
13:00	1	171	6	1	9	0	0	0	1	0	0	0	0	189
13:15	1	159	12	2	9	0	0	1	0	0	0	0	0	184
13:30	0	144	8	0	12	0	0	1	0	0	0	0	0	165
13:45	2	142	13	2	5	0	0	0	1	0	0	0	0	165
14:00	0	123	6	0	3	0	0	1	0	0	0	0	0	133
14:15	0	123	6	0	8	0	0	0	0	0	0	0	0	137
14:30	0	102	7	0	12	0	0	0	0	0	0	0	0	121
14:45	0	86	6	0	3	0	0	0	0	0	0	0	0	95
15:00	0	109	5	1	5	0	0	0	0	0	0	0	0	120
15:15	1	113	9	1	6	1	0	1	1	0	0	0	0	133
15:30	2	104	5	3	1	0	0	1	0	0	0	0	0	116
15:45	0	86	9	0	4	0	0	1	1	0	0	0	0	101
16:00	1	97	8	0	5	0	0	0	0	0	0	0	0	111
16:15	1	122	7	5	2	0	0	0	0	0	0	0	0	137
16:30	0	107	8	0	4	0	0	0	1	0	0	0	0	120
16:45	0	124	7	2	3	0	0	1	0	0	0	0	0	137
17:00	1	124	8	1	5	1	0	1	0	0	0	0	0	141
17:15	1	103	7	2	7	0	0	0	0	0	0	0	0	120
17:30	0	116	6	1	2	0	0	0	1	0	0	0	0	126
17:45	1	105	3	1	5	0	0	0	0	0	0	0	0	115
18:00	1	131	10	3	2	0	0	1	0	0	0	0	0	148
18:15	2	129	4	2	2	0	0	1	0	0	0	0	0	140
18:30	0	107	6	0	3	0	0	1	0	0	0	0	0	117
18:45	0	89	8	1	5	1	0	0	0	0	0	0	0	104
19:00	1	133	7	1	4	0	0	0	0	0	0	0	0	146
19:15	0	110	2	0	6	0	0	0	0	0	0	0	0	118
19:30	0	93	2	0	1	0	0	0	0	0	0	0	0	96
19:45	0	87	4	1	2	0	0	0	0	0	0	0	0	94
20:00	0	79	7	2	3	0	0	0	0	0	0	0	0	91
20:15	0	88	7	0	3	0	0	0	0	0	0	0	0	98
20:30	0	55	0	1	2	0	0	0	0	0	0	0	0	58
20:45	0	67	4	0	0	0	0	0	0	0	0	0	0	71
21:00	0	42	3	1	2	0	0	0	0	0	0	0	0	48
21:15	0	55	5	0	3	0	0	0	0	0	0	0	0	63
21:30	0	43	2	0	0	0	0	1	0	0	0	0	0	46
21:45	0	29	3	1	1	0	0	0	0	0	0	0	0	34
22:00	0	44	2	0	1	0	0	0	0	0	0	0	0	47
22:15	0	31	1	0	0	0	0	0	0	0	0	0	0	32
22:30	0	31	0	1	1	0	0	0	0	0	0	0	0	33
22:45	0	31	1	0	2	0	0	0	0	0	0	0	0	34
23:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22
23:15	0	19	0	1	0	0	0	0	0	0	0	0	0	20
23:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
23:45	0	6	0	1	1	0	0	0	0	0	0	0	0	8
Totals	39	8021	530	79	348	14		23	12					9060
% of Totals	0%	89%	6%	1%	4%	0%		0%	0%					100%

AM Volumes	18	3533	245	38	163	9	0	8	6	0	0	0	0	4020
% AM	0%	39%	3%	0%	2%	0%		0%	0%					44%
AM Peak Hour Volume														
PM Volumes	17	4488	285	41	183	5	0	15	6	0	0	0	0	5040
% PM	0%	50%	3%	0%	2%	0%		0%	0%					56%
PM Peak Hour Volume														

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	1784	20%	1400	15%	1007	11%	4869	54%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 >=4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Hammond Dr Bet. Brookgreen Rd & Greenbrier Rd

Day: Thursday
Date: 9/20/2018

City: Atlanta
Project #: GA18_9518_002w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	12	0	1	1	0	0	0	0	0	0	0	0	14
00:15	0	10	0	0	1	0	0	0	0	0	0	0	0	11
00:30	0	4	0	0	1	0	0	0	0	0	0	0	0	5
00:45	0	6	0	1	0	0	0	0	0	0	0	0	0	7
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:30	0	1	0	0	1	0	0	0	0	0	0	0	0	2
03:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	3	0	1	0	0	0	0	0	0	0	0	0	4
05:15	0	10	0	1	1	0	0	0	0	0	0	0	0	12
05:30	0	22	0	0	1	0	0	0	0	0	0	0	0	23
05:45	0	16	0	1	4	0	0	0	0	0	0	0	0	21
06:00	0	21	0	1	3	0	0	0	0	0	0	0	0	25
06:15	0	20	3	0	3	0	0	0	0	0	0	0	0	26
06:30	0	39	4	1	2	1	0	1	0	0	0	0	0	48
06:45	0	49	2	1	2	0	0	0	0	0	0	0	0	54
07:00	0	35	3	2	6	1	0	0	0	0	0	0	0	47
07:15	0	39	3	1	7	1	0	0	0	0	0	0	0	51
07:30	1	48	4	0	5	0	0	0	0	0	0	0	0	58
07:45	2	66	6	3	4	0	0	0	0	0	0	0	0	81
08:00	1	70	6	1	2	0	0	0	0	0	0	0	0	80
08:15	1	66	2	1	4	0	0	0	0	0	0	0	0	74
08:30	0	62	6	1	5	0	0	0	0	0	0	0	0	74
08:45	0	61	5	1	6	0	0	0	0	0	0	0	0	73
09:00	0	84	10	0	1	0	0	0	0	0	0	0	0	95
09:15	1	66	5	1	3	2	0	0	0	0	0	0	0	78
09:30	0	68	6	0	4	0	0	0	1	0	0	0	0	79
09:45	1	68	5	2	9	1	0	0	0	0	0	0	0	86
10:00	1	82	7	0	1	0	0	0	0	0	0	0	0	91
10:15	0	76	7	2	1	0	0	0	0	0	0	0	0	86
10:30	0	85	14	0	5	0	0	0	0	0	0	0	0	104
10:45	0	100	5	2	6	0	0	0	0	0	0	0	0	113
11:00	0	87	17	0	8	0	0	0	0	0	0	0	0	112
11:15	0	118	11	1	7	0	0	0	0	0	0	0	0	137
11:30	0	142	9	0	8	2	0	0	0	0	0	0	0	161
11:45	0	159	12	3	10	0	0	0	0	0	0	0	0	184
12:00 PM	1	151	10	0	7	0	0	0	0	0	0	0	0	169
12:15	1	150	14	1	6	0	0	0	0	0	0	0	0	172
12:30	0	162	10	1	4	1	0	0	0	0	0	0	0	178
12:45	1	136	12	1	6	0	0	0	0	0	0	0	0	156
13:00	0	145	10	0	9	1	0	1	0	0	0	0	0	166
13:15	1	121	8	2	3	0	0	1	0	0	0	0	0	136
13:30	1	135	5	0	7	0	0	0	0	0	0	0	0	148
13:45	0	116	8	2	6	0	0	0	0	0	0	0	0	132
14:00	1	120	8	0	2	1	0	0	0	0	0	0	0	132
14:15	1	122	14	2	5	0	0	1	0	0	0	0	0	145
14:30	1	131	12	0	3	2	0	0	0	0	0	0	0	149
14:45	0	158	8	2	7	0	0	2	0	0	0	0	0	177
15:00	1	165	10	1	5	1	0	0	0	0	0	0	0	183
15:15	0	205	15	1	5	1	0	0	0	0	0	0	0	227
15:30	0	197	10	2	5	1	0	2	0	0	0	0	0	217
15:45	1	198	12	1	8	0	0	0	0	0	0	0	0	220
16:00	0	199	17	2	4	0	0	0	0	0	0	0	0	222
16:15	0	198	11	0	4	0	0	0	0	0	0	0	0	213
16:30	1	227	10	1	6	1	0	0	0	0	0	0	0	246
16:45	0	211	7	1	4	0	0	0	0	0	0	0	0	223
17:00	0	183	10	0	5	0	0	0	0	0	0	0	0	198
17:15	0	206	4	1	11	0	0	0	1	0	0	0	0	223
17:30	1	210	10	2	2	0	0	0	1	0	0	0	0	226
17:45	0	197	10	3	5	0	0	3	3	0	0	0	0	221
18:00	0	155	5	2	2	0	0	1	1	0	0	0	0	166
18:15	1	182	13	1	5	0	0	0	0	0	0	0	0	202
18:30	0	159	7	1	5	0	0	0	0	0	0	0	0	172
18:45	0	187	14	1	3	0	0	0	0	0	0	0	0	205
19:00	1	156	6	1	3	0	0	0	0	0	0	0	0	167
19:15	0	125	5	0	3	0	0	0	0	0	0	0	0	133
19:30	0	107	7	1	4	0	0	0	0	0	0	0	0	119
19:45	0	91	4	1	4	0	0	0	0	0	0	0	0	100
20:00	0	88	5	0	4	0	0	0	0	0	0	0	0	97
20:15	0	57	2	1	1	0	0	0	0	0	0	0	0	61
20:30	0	49	2	0	1	0	0	0	0	0	0	0	0	52
20:45	0	52	3	1	1	0	0	0	0	0	0	0	0	57
21:00	0	55	2	0	3	0	0	0	0	0	0	0	0	60
21:15	0	45	3	0	1	0	0	0	0	0	0	0	0	49
21:30	0	54	1	1	2	0	0	0	0	0	0	0	0	58
21:45	0	30	4	1	1	0	0	0	0	0	0	0	0	36
22:00	0	28	3	1	0	0	0	0	0	0	0	0	0	32
22:15	0	28	2	0	0	0	0	0	0	0	0	0	0	30
22:30	0	20	0	0	1	0	0	0	0	0	0	0	0	21
22:45	0	22	1	1	1	0	0	0	0	0	0	0	0	25
23:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13
23:15	0	11	0	0	1	0	0	0	0	0	0	0	0	12
23:30	0	17	3	1	0	0	0	0	0	0	0	0	0	21
23:45	0	12	0	0	0	0	0	0	0	0	0	0	0	12
Totals	22	7618	492	70	297	17		12	7					8535
% of Totals	0%	89%	6%	1%	3%	0%		0%	0%					100%

AM Volumes	8	1832	155	29	122	8	0	1	1	0	0	0	0	2156
% AM	0%	21%	2%	0%	1%	0%		0%	0%					25%
AM Peak Hour														
Volume														
PM Volumes	14	5786	337	41	175	9	0	11	6	0	0	0	0	6379
% PM	0%	68%	4%	0%	2%	0%		0%	0%					75%
PM Peak Hour														
Volume														

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	538	6%	1257	15%	1772	21%	4968	58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 >=4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Mt Vernon Hwy S/O Long Island Dr.

Day: Tuesday
Date: 8/20/2019

City: Sandy Springs
Project #: CA19_9543_001e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	29	6	0	2	0	0	0	0	0	0	0	0	37
00:15	0	10	2	0	0	0	0	0	0	0	0	0	0	12
00:30	0	14	1	0	0	0	0	0	0	0	0	0	0	15
00:45	0	13	1	0	0	0	0	0	0	0	0	0	0	14
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:15	0	1	2	0	0	0	0	0	0	0	0	0	0	3
01:30	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3
04:45	0	6	2	0	0	0	0	0	0	0	0	0	0	8
05:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:15	0	9	0	0	0	0	0	0	0	0	0	0	0	9
05:30	0	22	1	0	0	0	0	0	0	0	0	0	0	23
05:45	0	14	4	0	0	0	0	0	0	0	0	0	0	18
06:00	0	20	4	1	0	0	0	0	0	0	0	0	0	25
06:15	0	55	3	0	0	0	0	0	0	0	0	0	0	58
06:30	0	69	11	5	1	0	0	0	0	0	0	0	0	86
06:45	0	123	21	1	0	0	0	0	0	0	0	0	0	145
07:00	0	189	15	0	2	0	0	0	0	0	0	0	0	206
07:15	0	283	25	2	3	1	0	0	0	0	0	0	0	314
07:30	0	297	22	0	1	0	0	1	0	0	0	0	0	321
07:45	0	282	38	5	0	0	0	0	1	0	0	0	0	326
08:00	0	242	36	6	2	1	0	0	0	0	0	0	0	287
08:15	0	291	19	2	2	0	0	1	0	0	0	0	0	315
08:30	0	285	30	2	3	0	0	0	0	0	0	0	0	320
08:45	0	291	27	3	1	1	0	0	0	0	0	0	0	323
09:00	0	277	31	1	3	1	0	0	0	0	0	0	0	313
09:15	0	217	23	0	1	0	0	0	0	0	0	0	0	241
09:30	0	233	31	0	1	0	0	0	0	0	0	0	0	265
09:45	0	196	28	1	3	1	0	0	0	0	0	0	0	229
10:00	0	111	27	0	5	0	0	0	0	0	0	0	0	143
10:15	0	107	17	2	1	0	0	0	0	0	0	0	0	127
10:30	0	106	13	1	4	0	0	0	0	0	0	0	0	124
10:45	0	111	13	1	2	0	0	0	0	0	0	0	0	127
11:00	0	83	17	0	2	0	0	0	0	0	0	0	0	102
11:15	0	98	16	1	1	0	0	0	0	0	0	0	0	116
11:30	1	108	21	0	2	0	0	0	0	0	0	0	0	132
11:45	0	112	21	0	0	0	0	0	0	0	0	0	0	133
12:00 PM	0	88	8	1	1	0	0	0	0	0	0	0	0	98
12:15	0	87	18	1	2	0	0	0	0	0	0	0	0	108
12:30	0	94	21	0	0	0	0	0	0	0	0	0	0	115
12:45	1	89	17	0	0	1	0	0	0	0	0	0	0	108
13:00	0	114	18	1	1	0	0	0	0	0	0	0	0	134
13:15	0	116	23	2	1	0	0	0	0	0	0	0	0	142
13:30	0	112	16	0	0	0	0	1	0	0	0	0	0	129
13:45	0	100	13	7	0	0	0	0	0	0	0	0	0	120
14:00	0	114	15	0	0	0	0	0	0	0	0	0	0	129
14:15	0	104	12	0	0	0	0	0	0	0	0	0	0	116
14:30	0	135	16	2	2	0	0	0	0	0	0	0	0	155
14:45	0	132	22	1	1	0	0	1	0	0	0	0	0	157
15:00	1	99	17	0	0	0	0	0	0	0	0	0	0	117
15:15	0	141	15	1	0	0	0	0	0	0	0	0	0	157
15:30	0	155	17	1	0	0	0	0	0	0	0	0	0	173
15:45	0	159	16	12	0	0	0	0	0	0	0	0	0	187
16:00	0	167	15	1	1	0	0	1	0	0	0	0	0	185
16:15	0	125	14	1	1	0	1	0	0	0	0	0	0	142
16:30	0	143	21	0	2	0	0	0	0	0	0	0	0	166
16:45	0	149	21	1	1	0	0	0	0	0	0	0	0	172
17:00	0	161	26	0	1	0	0	0	0	0	0	0	0	188
17:15	0	157	19	1	2	0	1	0	0	0	0	0	0	180
17:30	0	150	23	0	1	0	0	0	0	0	0	0	0	174
17:45	1	168	12	1	0	1	0	0	0	0	0	0	0	183
18:00	0	136	15	0	1	1	0	0	0	0	0	0	0	153
18:15	0	168	13	0	1	0	0	0	0	0	0	0	0	182
18:30	0	154	12	0	0	0	0	0	0	0	0	0	0	166
18:45	0	101	10	0	0	0	0	1	0	0	0	0	0	112
19:00	1	90	3	0	0	0	0	0	0	0	0	0	0	94
19:15	0	91	11	0	0	0	0	0	0	0	0	0	0	102
19:30	0	58	10	0	0	0	0	0	0	0	0	0	0	68
19:45	0	55	1	0	0	0	0	0	0	0	0	0	0	56
20:00	1	55	4	0	0	0	0	0	0	0	0	0	0	60
20:15	0	44	7	0	0	0	0	0	0	0	0	0	0	51
20:30	0	34	3	0	0	0	0	0	0	0	0	0	0	37
20:45	0	37	3	0	0	0	0	0	0	0	0	0	0	40
21:00	0	27	1	0	0	0	0	0	0	0	0	0	0	28
21:15	0	24	0	0	0	0	0	0	0	0	0	0	0	24
21:30	0	8	2	0	0	0	0	0	0	0	0	0	0	10
21:45	0	12	1	0	1	0	0	0	0	0	0	0	0	14
22:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
22:15	0	21	4	0	0	0	0	0	0	0	0	0	0	25
22:30	0	63	5	0	0	0	0	0	0	0	0	0	0	68
22:45	0	63	5	0	1	0	0	0	0	0	0	0	0	69
23:00	0	46	5	0	0	0	0	0	0	0	0	0	0	51
23:15	0	32	1	0	0	0	0	0	0	0	0	0	0	33
23:30	0	35	1	0	0	0	0	0	0	0	0	0	0	36
23:45	0	41	5	0	0	0	0	0	0	0	0	0	0	46
Totals	6	8796	1068	68	63	8	2	6	1					10018
% of Totals	0%	88%	11%	1%	1%	0%	0%	0%	0%					100%

AM Volumes	1	4329	530	34	42	5	0	2	1	0	0	0	0	4944
% AM	0%	43%	5%	0%	0%	0%		0%	0%					49%
AM Peak Hour	10:45	08:15	07:45	07:45	09:45	07:15		07:30	07:00					08:15
Volume	1	1144	123	15	13	2		2	1					1271
PM Volumes	5	4467	538	34	21	3	2	4	0	0	0	0	0	5074
% PM	0%	45%	5%	0%	0%	0%	0%	0%						51%
PM Peak Hour	12:00	17:00	16:45	15:15	16:30	17:15	15:30	12:45						17:00
Volume	1	636	89	15	6	2	1	1						725

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	2412	24%	954	10%	1390	14%	5262	53%

Classification Definitions

1 Motorcycles	4 Buses	7 > =4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers	
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers		
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Mt Vernon Hwy S/O Long Island Dr.

Day: Tuesday
Date: 8/20/2019

City: Sandy Springs
Project #: CA19_9543_001w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
00:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:45	0	3	3	0	0	0	0	0	0	0	0	0	0	6
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
05:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
05:30	0	2	0	0	1	0	0	0	0	0	0	0	0	3
05:45	0	10	1	0	0	0	0	0	0	0	0	0	0	11
06:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
06:15	0	18	6	1	0	0	0	0	0	0	0	0	0	25
06:30	0	30	3	0	0	0	0	0	0	0	0	0	0	33
06:45	1	37	5	0	0	0	0	0	0	0	0	0	0	43
07:00	0	69	2	0	1	0	0	0	0	0	0	0	0	72
07:15	0	131	10	1	0	0	0	0	0	0	0	0	0	142
07:30	0	138	14	4	0	0	0	0	0	0	0	0	0	156
07:45	0	138	12	4	1	0	0	0	0	0	0	0	0	155
08:00	0	93	11	2	0	0	0	0	0	0	0	0	0	106
08:15	0	78	14	0	0	0	0	0	0	0	0	0	0	92
08:30	1	70	9	1	0	0	0	0	0	0	0	0	0	81
08:45	0	59	15	0	1	0	0	0	0	0	0	0	0	75
09:00	0	75	15	0	1	0	0	0	0	0	0	0	0	91
09:15	0	68	13	2	0	0	0	0	0	0	0	0	0	83
09:30	0	67	12	1	0	0	0	0	0	0	0	0	0	80
09:45	0	56	18	1	0	0	0	0	0	0	0	0	0	75
10:00	0	59	10	0	0	0	0	0	0	0	0	0	0	69
10:15	0	54	15	2	0	0	0	0	0	0	0	0	0	71
10:30	0	64	12	0	0	0	0	0	0	0	0	0	0	76
10:45	0	67	15	0	2	1	0	0	0	0	0	0	0	85
11:00	0	62	18	0	1	0	0	0	0	0	0	0	0	81
11:15	0	87	8	0	2	1	0	0	0	0	0	0	0	98
11:30	0	85	18	1	1	0	0	0	0	0	0	0	0	105
11:45	0	92	9	1	1	0	0	0	0	0	0	0	0	103
12:00 PM	0	85	10	0	1	0	0	0	0	0	0	0	0	96
12:15	0	100	14	1	0	0	0	0	0	0	0	0	0	115
12:30	0	95	16	0	1	0	0	0	0	0	0	0	0	112
12:45	0	113	16	0	0	1	0	0	0	0	0	0	0	130
13:00	0	106	20	1	1	1	0	0	0	0	0	0	0	129
13:15	0	109	18	0	1	1	0	0	0	0	0	0	0	129
13:30	0	124	20	0	0	1	0	0	0	0	0	0	0	145
13:45	0	116	16	1	3	0	0	0	0	0	0	0	0	136
14:00	0	114	23	0	1	1	0	0	0	0	0	0	0	139
14:15	0	134	15	0	2	0	0	1	0	0	0	0	0	152
14:30	0	123	16	2	1	1	0	0	0	0	0	0	0	143
14:45	0	136	15	8	0	0	0	0	0	0	0	0	0	159
15:00	0	157	28	2	1	1	0	0	0	0	0	0	0	189
15:15	0	165	21	1	3	0	0	0	0	0	0	0	0	190
15:30	0	171	24	0	0	0	0	0	0	0	0	0	0	195
15:45	0	213	24	0	2	0	0	0	0	0	0	0	0	239
16:00	0	231	19	2	1	0	0	0	0	0	0	0	0	253
16:15	1	266	14	0	1	0	0	1	0	0	0	0	0	283
16:30	0	257	21	2	2	0	0	0	0	0	0	0	0	282
16:45	0	251	23	1	3	0	0	0	0	0	0	0	0	278
17:00	0	259	20	3	1	0	0	0	0	0	0	0	0	283
17:15	0	249	22	0	3	0	0	0	0	0	0	0	0	274
17:30	1	281	23	0	1	0	0	0	0	0	0	0	0	306
17:45	0	231	18	1	0	0	0	0	0	0	0	0	0	250
18:00	1	242	12	0	2	0	0	0	0	0	0	0	0	257
18:15	0	238	23	0	1	0	0	0	0	0	0	0	0	262
18:30	1	203	25	1	0	0	0	0	0	0	0	0	0	230
18:45	0	205	18	0	0	0	0	0	0	0	0	0	0	223
19:00	0	225	18	0	0	0	0	0	0	0	0	0	0	243
19:15	0	188	22	0	0	0	0	0	0	0	0	0	0	210
19:30	1	130	15	0	1	0	0	0	1	0	0	0	0	148
19:45	0	82	7	0	1	0	0	0	0	0	0	0	0	90
20:00	0	83	8	0	0	0	0	0	0	0	0	0	0	91
20:15	0	56	4	0	1	0	0	0	0	0	0	0	0	61
20:30	0	67	7	0	0	0	0	0	0	0	0	0	0	74
20:45	0	66	5	0	1	0	0	0	0	0	0	0	0	72
21:00	0	54	7	0	0	0	0	0	0	0	0	0	0	61
21:15	1	58	2	0	0	0	0	0	0	0	0	0	0	61
21:30	0	49	4	0	0	0	0	0	0	0	0	0	0	53
21:45	0	36	0	0	0	0	0	0	0	0	0	0	0	36
22:00	0	21	2	0	0	0	0	0	0	0	0	0	0	23
22:15	0	14	1	0	0	0	0	0	0	0	0	0	0	15
22:30	0	15	2	0	0	0	0	0	0	0	0	0	0	17
22:45	0	9	0	0	0	0	0	0	0	0	0	0	0	9
23:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13
23:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8
23:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
23:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Totals	**8**	**7917**	**911**	**47**	**48**	**9**		**2**	**1**					**8943**
% of Totals	0%	89%	10%	1%	1%	0%		0%	0%					100%

AM Volumes	2	1759	271	21	12	2	0	0	0	0	0	0	0	2067
% AM	0%	20%	3%	0%	0%	0%								23%
AM Peak Hour	06:00	07:15	10:15	07:15	10:45	10:30								07:15
Volume	1	500	60	11	6	2								559
PM Volumes	6	6158	640	26	36	7	0	2	1	0	0	0	0	6876
% PM	0%	69%	7%	0%	0%	0%		0%	0%					77%
PM Peak Hour	17:15	16:45	15:00	14:30	16:30	12:45		13:30	18:45					16:45
Volume	2	1040	97	13	9	4		1	1					1141

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	879	10%	992	11%	2209	25%	4863	54%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

APPENDIX B

Peak Hour Volumes

Gresham Smith

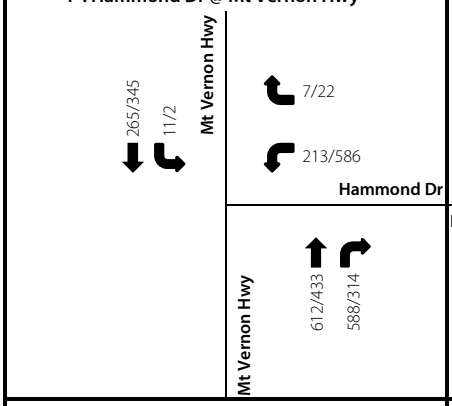
Genuine Ingenuity

EXISTING YEAR (2018)

AM & PM Peak Hour Volumes

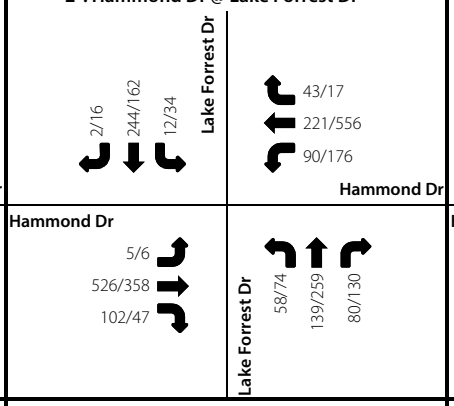
Existing AM/PM

1 : Hammond Dr @ Mt Vernon Hwy



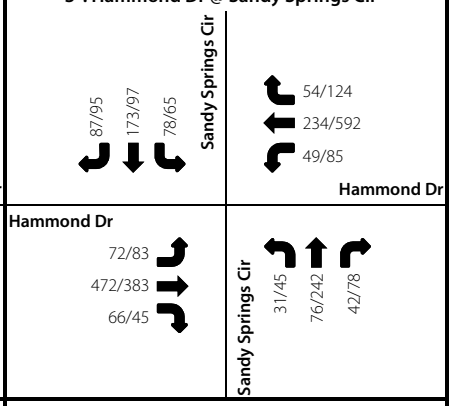
Existing AM/PM

2 : Hammond Dr @ Lake Forrest Dr



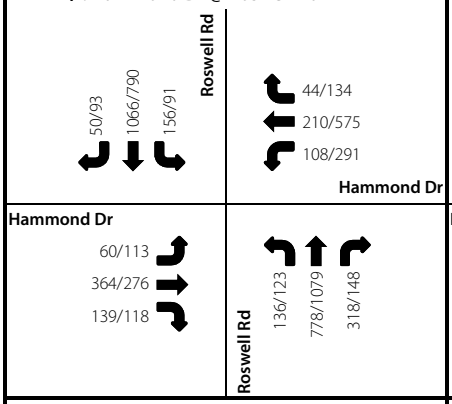
Existing AM/PM

3 : Hammond Dr @ Sandy Springs Cir



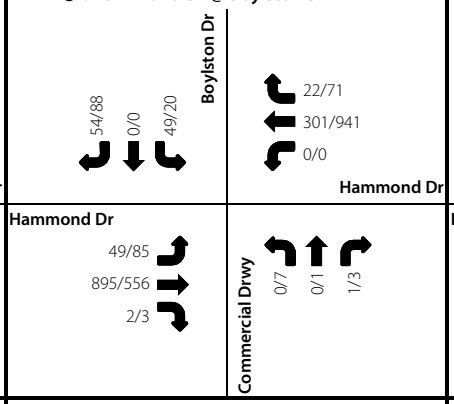
Existing AM/PM

4 : Hammond Dr @ Roswell Rd



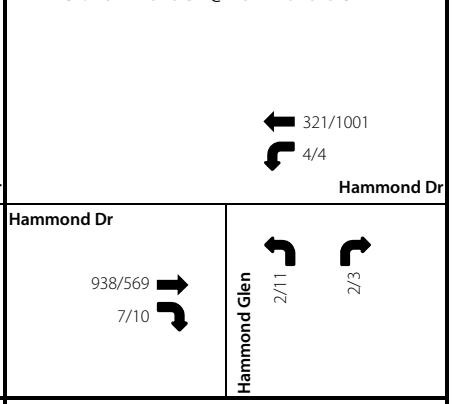
Existing AM/PM

5 : Hammond Dr @ Boylston Dr



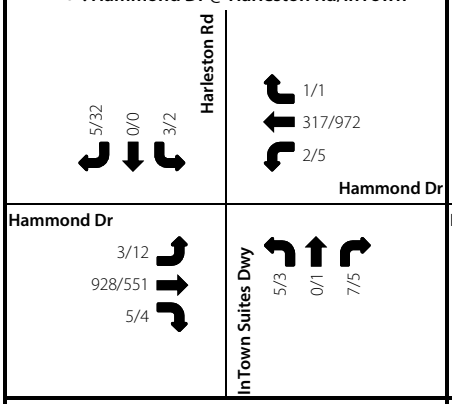
Existing AM/PM

5 : Hammond Dr @ Hammond Glen



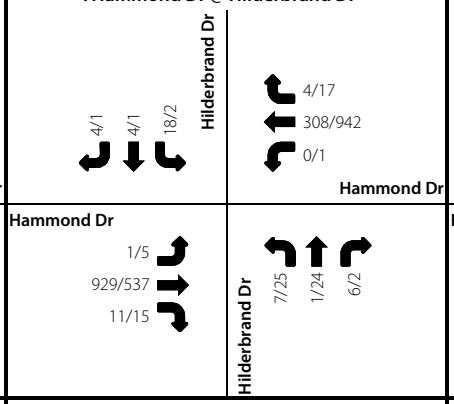
Existing AM/PM

6 : Hammond Dr @ Harleston Rd/InTown



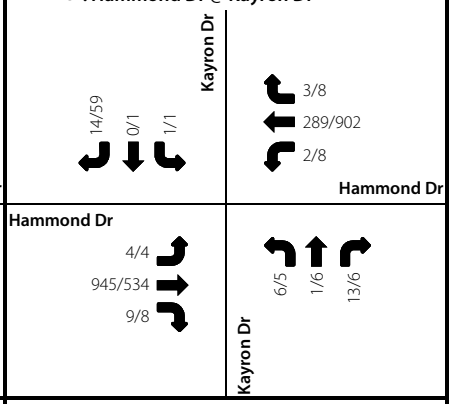
Existing AM/PM

7 : Hammond Dr @ Hilderbrand Dr



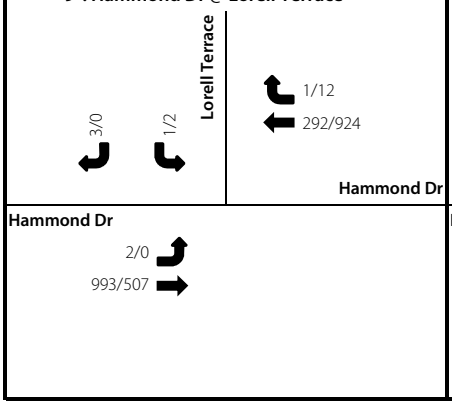
Existing AM/PM

8 : Hammond Dr @ Kayron Dr



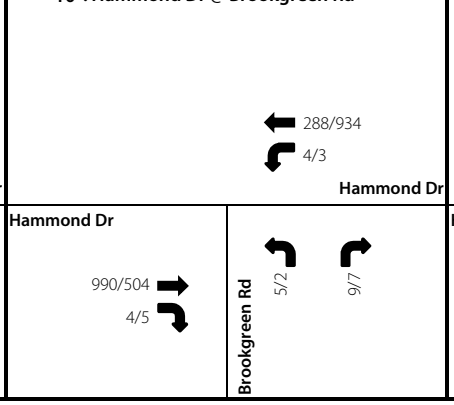
Existing AM/PM

9 : Hammond Dr @ Lorell Terrace



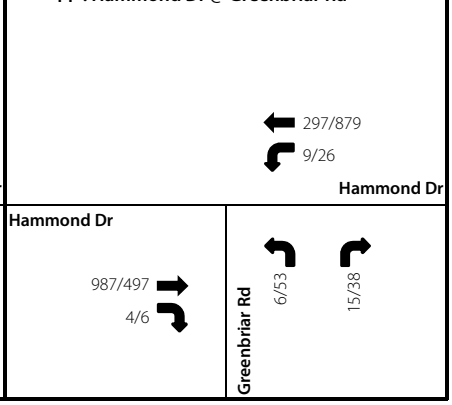
Existing AM/PM

10 : Hammond Dr @ Brookgreen Rd



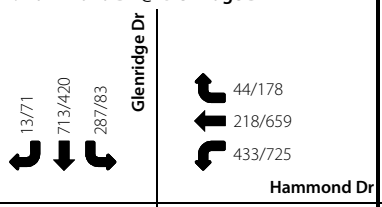
Existing AM/PM

11 : Hammond Dr @ Greenbriar Rd



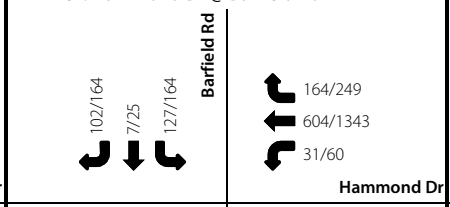
Existing AM/PM

12 : Hammond Dr @ Glenridge Dr



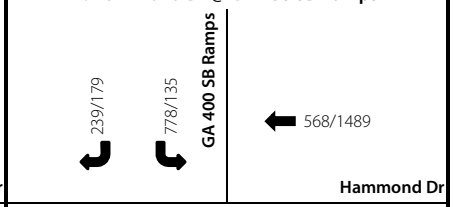
Existing AM/PM

13 : Hammond Dr @ Barfield Rd



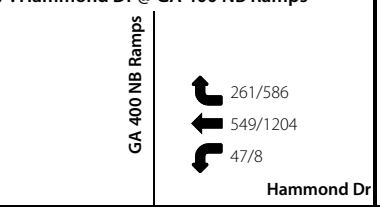
Existing AM/PM

14 : Hammond Dr @ GA 400 SB Ramps



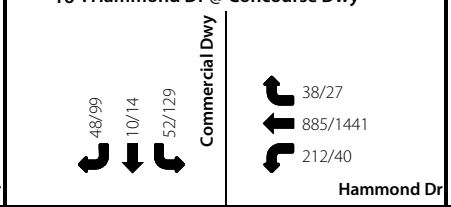
Existing AM/PM

15 : Hammond Dr @ GA 400 NB Ramps



Existing AM/PM

16 : Hammond Dr @ Concourse Dwy

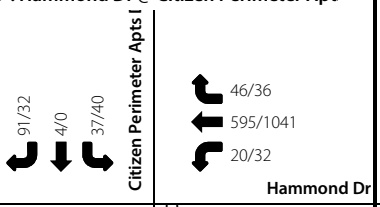


Existing AM/PM

17 : Hammond Dr @ Peachtree-Dunwoody

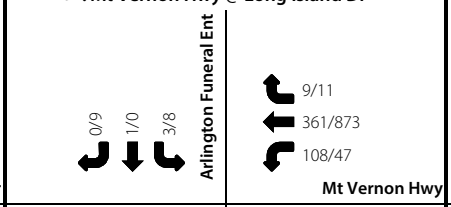
Existing AM/PM

18 : Hammond Dr @ Citizen Perimeter Apt



Existing AM/PM

19 : Mt Vernon Hwy @ Long Island Dr



Existing AM/PM

20 : Mt Vernon Hwy @ Heards Ferry Rd

Gresham Smith

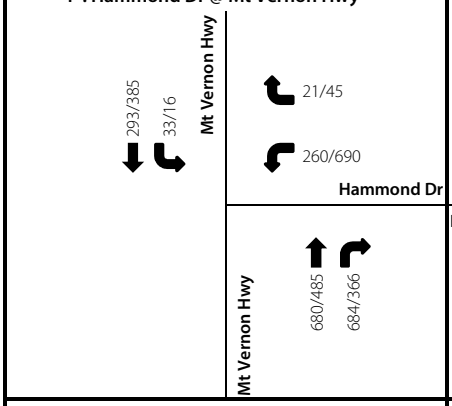
Genuine Ingenuity

FUTURE YEAR (2045) NO BUILD

AM & PM Peak Hour Volumes

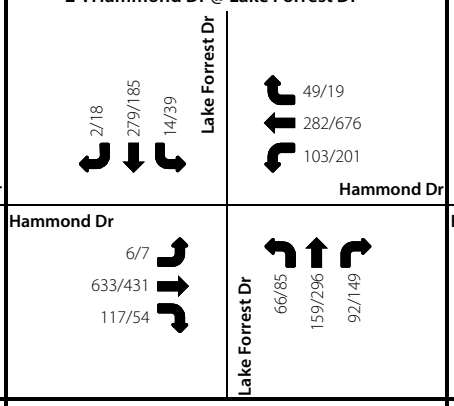
No Build w/ Developments AM/PM

1 : Hammond Dr @ Mt Vernon Hwy



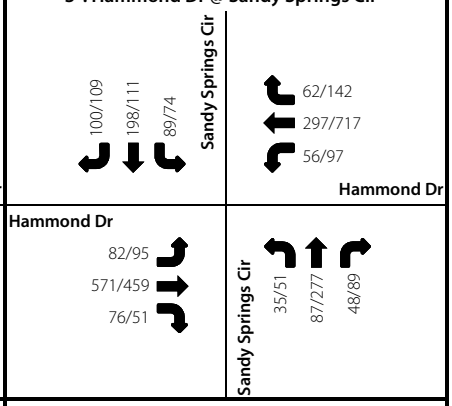
No Build w/ Developments AM/PM

2 : Hammond Dr @ Lake Forrest Dr



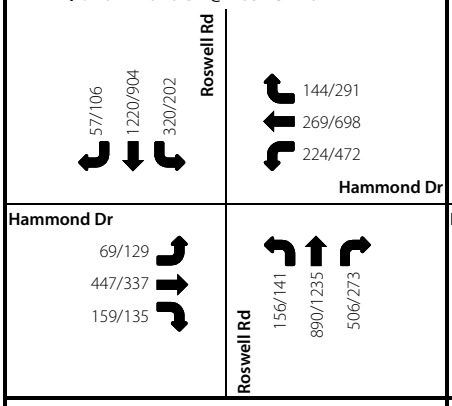
No Build w/ Developments AM/PM

3 : Hammond Dr @ Sandy Springs Cir



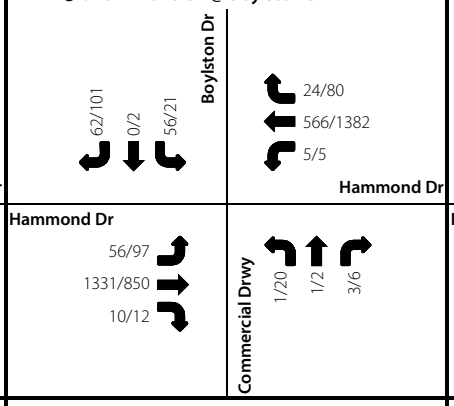
No Build w/ Developments AM/PM

4 : Hammond Dr @ Roswell Rd



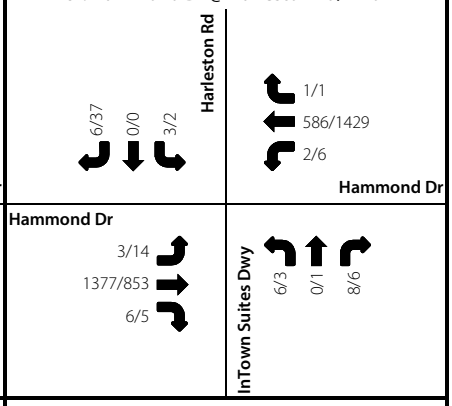
No Build w/ Developments AM/PM

5 : Hammond Dr @ Boylston Dr



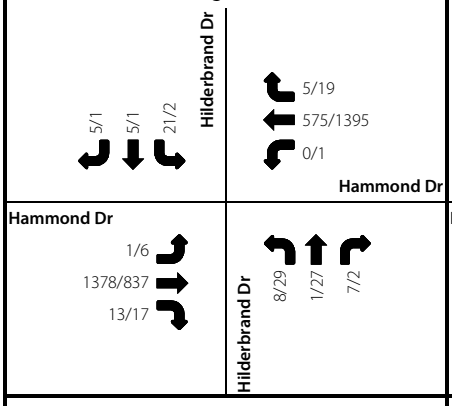
No Build w/ Developments AM/PM

6 : Hammond Dr @ Harleston Rd/InTown



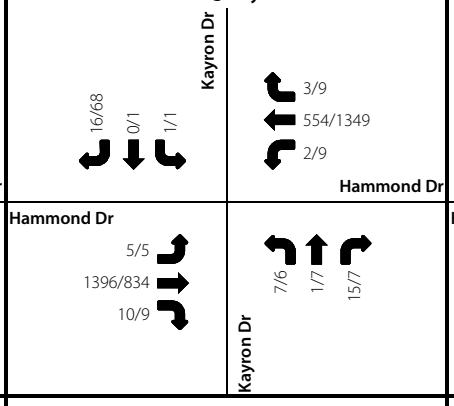
No Build w/ Developments AM/PM

7 : Hammond Dr @ Hilderbrand Dr



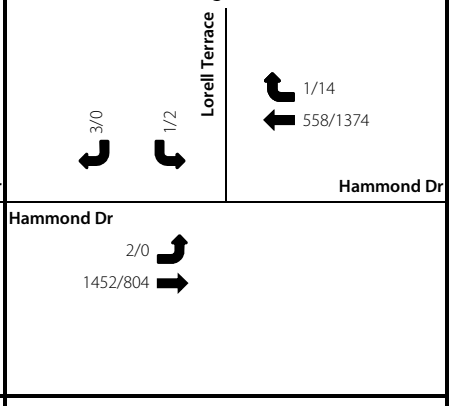
No Build w/ Developments AM/PM

8 : Hammond Dr @ Kayron Dr



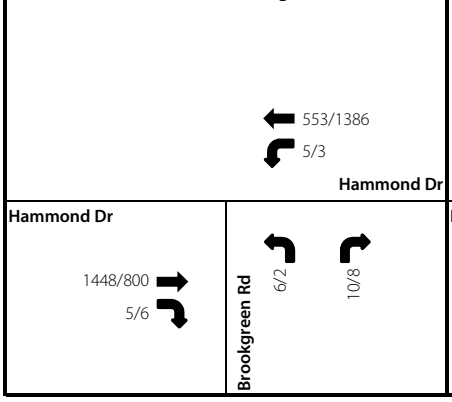
No Build w/ Developments AM/PM

9 : Hammond Dr @ Lorell Terrace



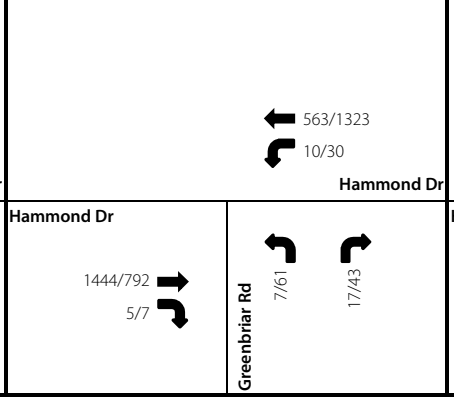
No Build w/ Developments AM/PM

10 : Hammond Dr @ Brookgreen Rd



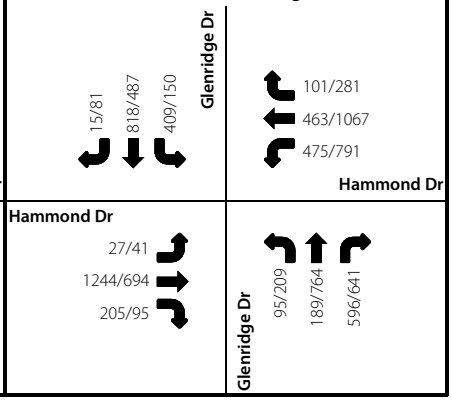
No Build w/ Developments AM/PM

11 : Hammond Dr @ Greenbriar Rd



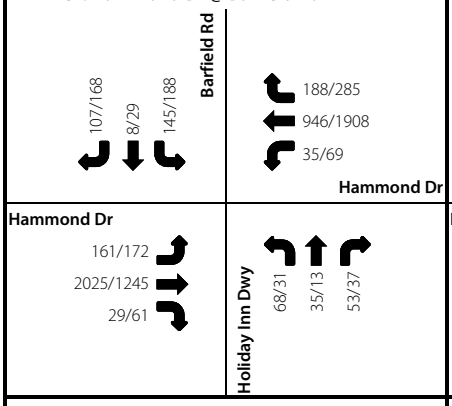
No Build w/ Developments AM/PM

12 : Hammond Dr @ Glenridge Dr



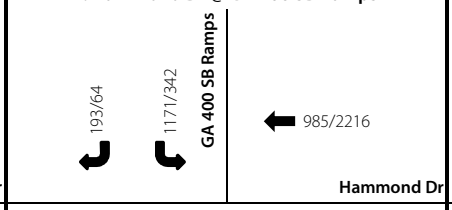
No Build w/ Developments AM/PM

13 : Hammond Dr @ Barfield Rd



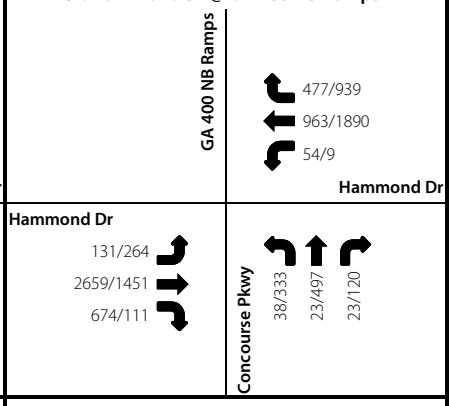
No Build w/ Developments AM/PM

14 : Hammond Dr @ GA 400 SB Ramps



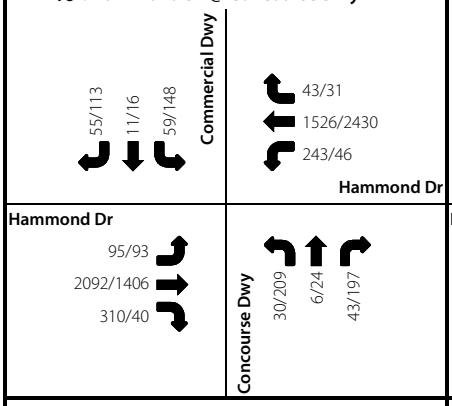
No Build w/ Developments AM/PM

15 : Hammond Dr @ GA 400 NB Ramps



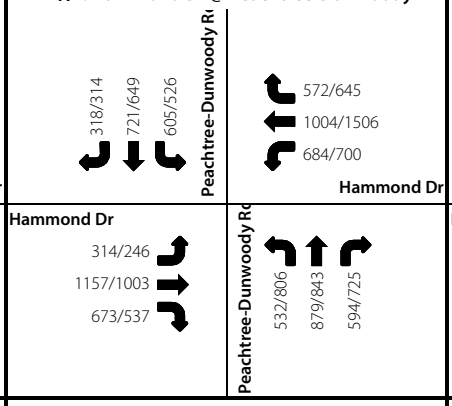
No Build w/ Developments AM/PM

16 : Hammond Dr @ Concourse Dwy



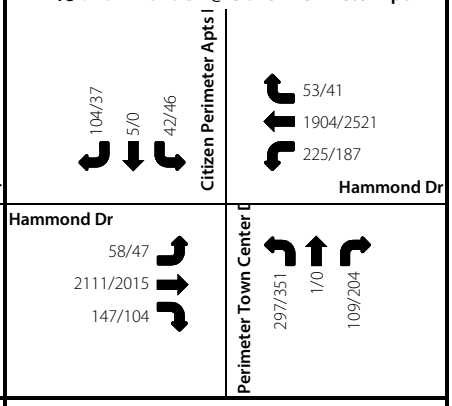
No Build w/ Developments AM/PM

17 : Hammond Dr @ Peachtree-Dunwoody



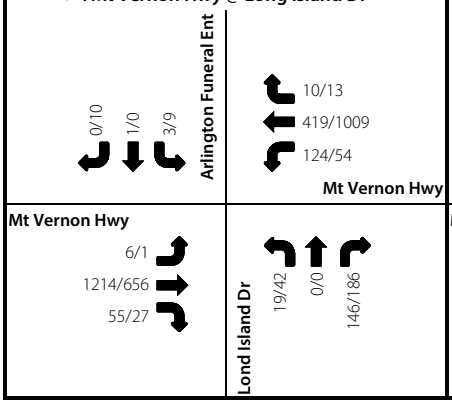
No Build w/ Developments AM/PM

18 : Hammond Dr @ Citizen Perimeter Apt



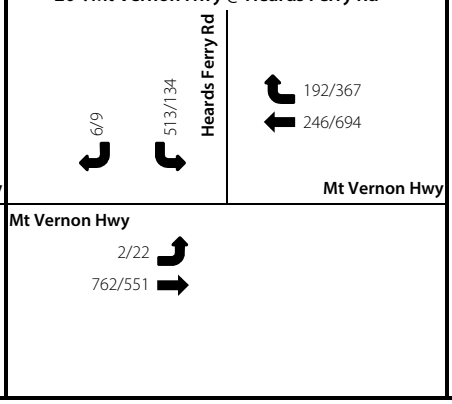
No Build w/ Developments AM/PM

19 : Mt Vernon Hwy @ Long Island Dr



No Build w/ Developments AM/PM

20 : Mt Vernon Hwy @ Heards Ferry Rd



Gresham Smith

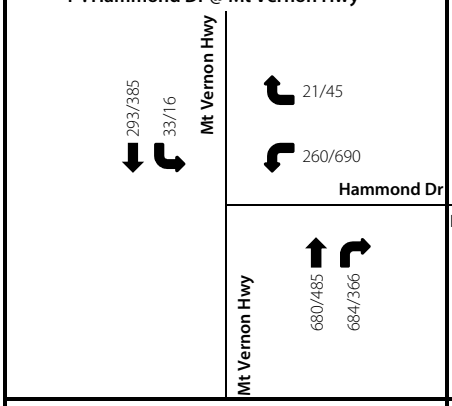
Genuine Ingenuity

FUTURE YEAR (2045) BUILD

AM & PM Peak Hour Volumes

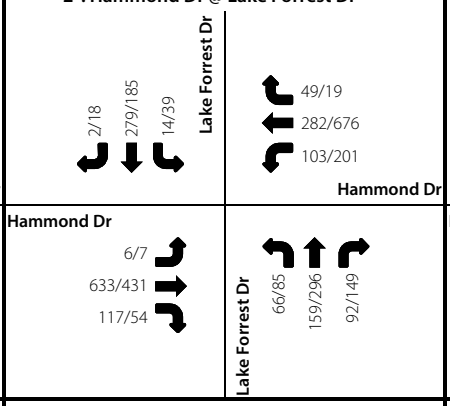
Build AM/PM

1 : Hammond Dr @ Mt Vernon Hwy



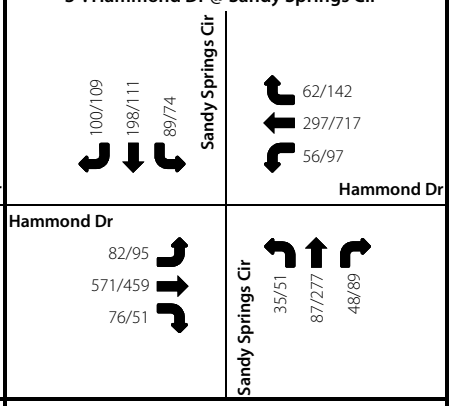
Build AM/PM

2 : Hammond Dr @ Lake Forrest Dr



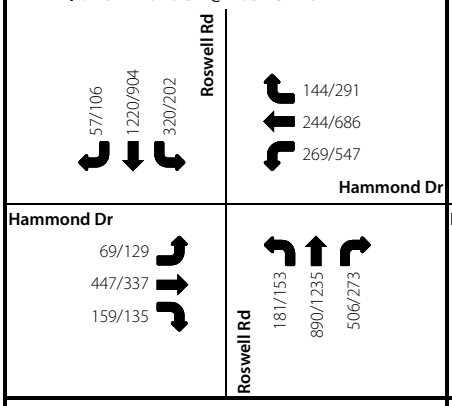
Build AM/PM

3 : Hammond Dr @ Sandy Springs Cir



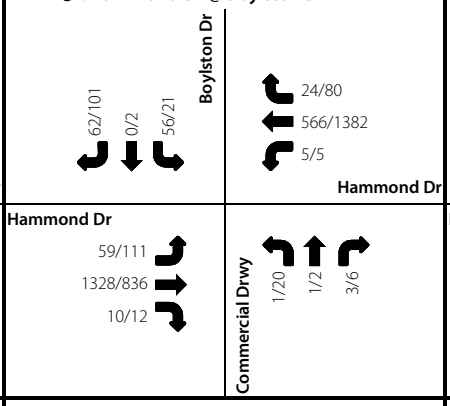
Build AM/PM

4 : Hammond Dr @ Roswell Rd



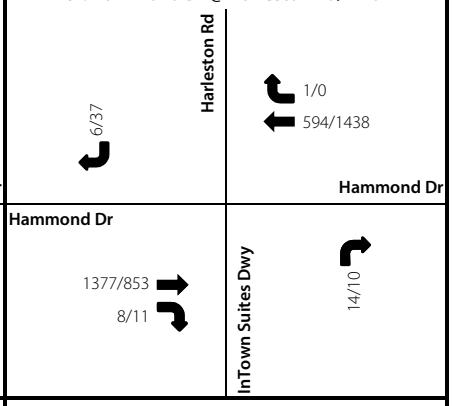
Build AM/PM

5 : Hammond Dr @ Boylston Dr



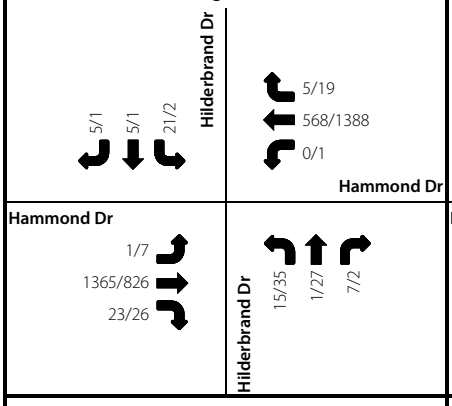
Build AM/PM

6 : Hammond Dr @ Harleston Rd/InTown



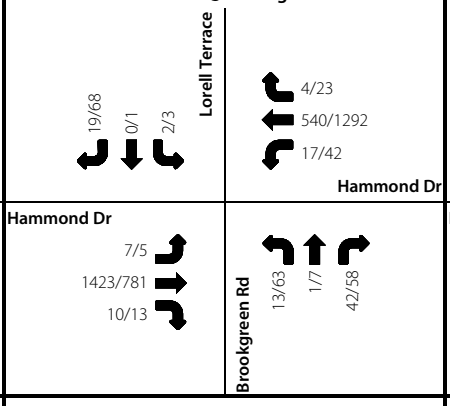
Build AM/PM

7 : Hammond Dr @ Hilderbrand Dr



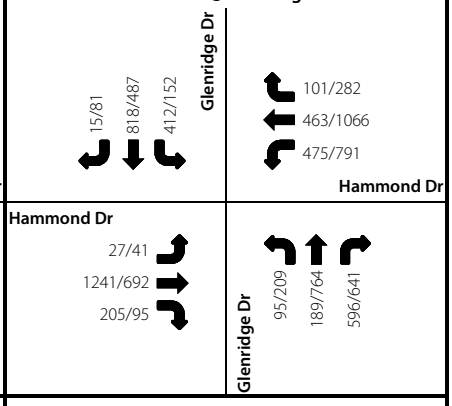
Build AM/PM

10 : Hammond Dr @ Brookgreen Rd



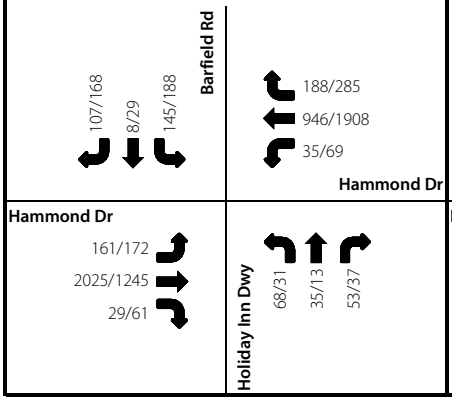
Build AM/PM

12 : Hammond Dr @ Glenridge Dr



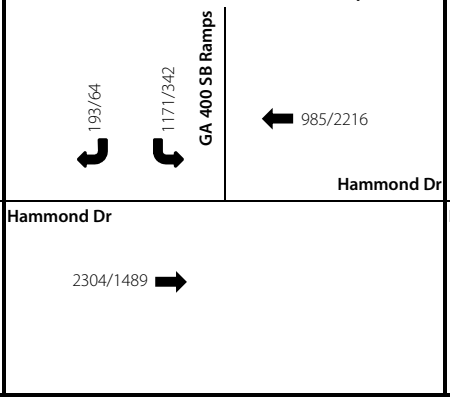
Build AM/PM

13 : Hammond Dr @ Barfield Rd



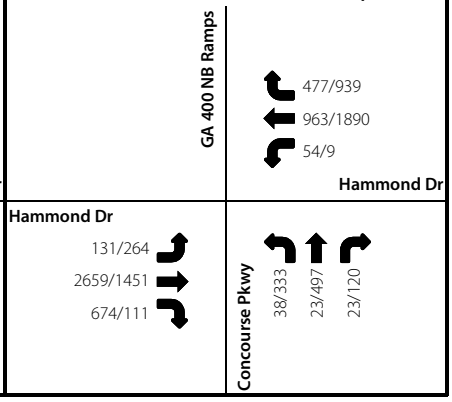
Build AM/PM

14 : Hammond Dr @ GA 400 SB Ramps



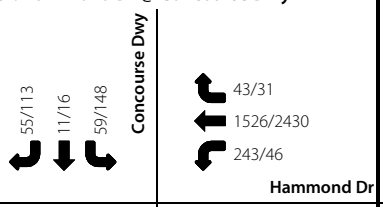
Build AM/PM

15 : Hammond Dr @ GA 400 NB Ramps



Build AM/PM

16 : Hammond Dr @ Concourse Dwy



Build AM/PM

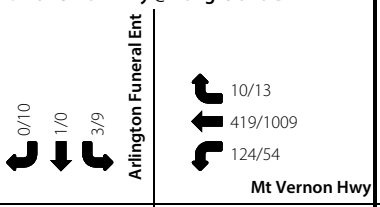
17 : Hammond Dr @ Peachtree-Dunwoody

Build AM/PM

18 : Hammond Dr @ Citizen Perimeter Apt

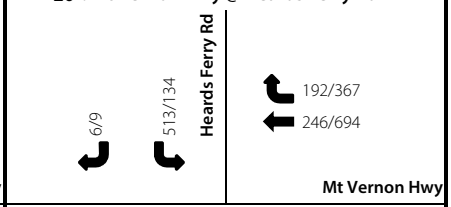
Build AM/PM

19 : Mt Vernon Hwy @ Long Island Dr



Build AM/PM

20 : Mt Vernon Hwy @ Heards Ferry Rd



APPENDIX C

Capacity Analysis

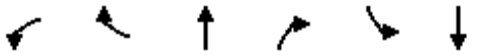
Gresham Smith

Genuine Ingenuity

EXISTING YEAR (2018)

AM & PM Peak Hour Analysis

Synchro Output



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	213	7	612	588	11	265
Future Volume (veh/h)	213	7	612	588	11	265
Number	7	14	6	16	5	2
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	8	703	0	13	305
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	342	306	1148	0	430	1148
Arrive On Green	0.19	0.19	0.60	0.00	0.60	0.60
Sat Flow, veh/h	1810	1615	1900	0	756	1900
Grp Volume(v), veh/h	245	8	703	0	13	305
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	0	756	1900
Q Serve(g_s), s	6.2	0.2	11.3	0.0	0.5	3.7
Cycle Q Clear(g_c), s	6.2	0.2	11.3	0.0	11.8	3.7
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	342	306	1148	0	430	1148
V/C Ratio(X)	0.72	0.03	0.61	0.00	0.03	0.27
Avail Cap(c_a), veh/h	594	530	1729	0	661	1729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	16.0	6.0	0.0	9.7	4.5
Incr Delay (d2), s/veh	2.1	0.0	1.1	0.0	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	0.2	10.1	0.0	0.2	3.5
LnGrp Delay(d),s/veh	20.5	16.0	7.2	0.0	9.8	4.8
LnGrp LOS	C	B	A		A	A
Approach Vol, veh/h	253		703			318
Approach Delay, s/veh	20.4		7.2			5.0
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		35.2		13.3		35.2		
Change Period (Y+Rc), s		6.9		5.1		6.9		
Max Green Setting (Gmax), s		43.1		14.9		43.1		
Max Q Clear Time (g_c+I1), s		13.8		8.2		13.3		
Green Ext Time (p_c), s		14.5		0.3		14.6		

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	526	102	90	221	43	58	139	80	12	244	2
Future Volume (veh/h)	5	526	102	90	221	43	58	139	80	12	244	2
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	548	106	94	230	45	60	145	83	12	254	2
Adj No. of Lanes	0	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1672	320	397	1008	208	236	225	129	247	373	3
Arrive On Green	0.54	0.57	0.54	0.54	0.57	0.54	0.20	0.20	0.18	0.20	0.20	0.18
Sat Flow, veh/h	5	2955	566	489	1782	368	1141	1135	650	1171	1883	15
Grp Volume(v), veh/h	354	0	305	166	0	203	60	0	228	12	0	256
Grp Sat Flow(s),veh/h/ln	1896	0	1629	974	0	1664	1141	0	1785	1171	0	1897
Q Serve(g_s), s	0.0	0.0	4.8	1.6	0.0	2.9	2.4	0.0	5.5	0.4	0.0	5.9
Cycle Q Clear(g_c), s	4.7	0.0	4.8	6.3	0.0	2.9	8.3	0.0	5.5	6.0	0.0	5.9
Prop In Lane	0.01		0.35	0.57		0.22	1.00		0.36	1.00		0.01
Lane Grp Cap(c), veh/h	1111	0	922	651	0	942	236	0	353	247	0	375
V/C Ratio(X)	0.32	0.00	0.33	0.25	0.00	0.22	0.25	0.00	0.65	0.05	0.00	0.68
Avail Cap(c_a), veh/h	2432	0	2066	1394	0	2110	236	0	353	247	0	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	0.0	5.6	5.6	0.0	5.1	21.3	0.0	17.5	20.1	0.0	17.5
Incr Delay (d2), s/veh	0.3	0.0	0.4	0.4	0.0	0.2	0.6	0.0	4.0	0.1	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	0.0	3.9	2.4	0.0	2.5	1.4	0.0	5.6	0.3	0.0	6.4
LnGrp Delay(d),s/veh	5.8	0.0	6.0	6.0	0.0	5.3	21.9	0.0	21.5	20.2	0.0	22.5
LnGrp LOS	A		A	A		A	C		C	C		C
Approach Vol, veh/h		659			369			288			268	
Approach Delay, s/veh		5.9			5.6			21.6			22.4	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.0		15.0		32.0		15.0
Change Period (Y+Rc), s		6.4		6.7		6.4		6.7
Max Green Setting (Gmax), s		58.6		8.3		58.6		8.3
Max Q Clear Time (g_c+I1), s		8.3		10.3		6.8		8.0
Green Ext Time (p_c), s		17.3		0.0		17.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	472	66	49	234	54	31	76	42	78	173	87
Future Volume (veh/h)	72	472	66	49	234	54	31	76	42	78	173	87
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	502	70	52	249	57	33	81	45	83	184	93
Adj No. of Lanes	0	2	0	1	2	0	0	2	0	0	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1811	250	610	2033	457	110	248	143	174	359	268
Arrive On Green	0.68	0.69	0.69	0.69	0.69	0.68	0.15	0.17	0.15	0.15	0.17	0.17
Sat Flow, veh/h	342	2609	361	854	2930	659	320	1491	860	653	2162	1615
Grp Volume(v), veh/h	326	0	323	52	152	154	76	0	83	130	137	93
Grp Sat Flow(s),veh/h/ln	1646	0	1665	854	1805	1784	1095	0	1577	1172	1643	1615
Q Serve(g_s), s	0.0	0.0	6.6	2.2	2.5	2.6	1.0	0.0	4.2	6.2	6.9	4.6
Cycle Q Clear(g_c), s	5.8	0.0	6.6	8.8	2.5	2.6	7.9	0.0	4.2	10.4	6.9	4.6
Prop In Lane	0.24		0.22	1.00		0.37	0.43		0.55	0.64		1.00
Lane Grp Cap(c), veh/h	1174	0	1156	610	1253	1238	227	0	262	247	273	268
V/C Ratio(X)	0.28	0.00	0.28	0.09	0.12	0.12	0.34	0.00	0.32	0.52	0.50	0.35
Avail Cap(c_a), veh/h	1174	0	1156	610	1253	1238	445	0	498	465	518	510
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)	0.91	0.00	0.91	0.91	0.91	0.91	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	0.0	5.2	6.9	4.6	4.7	33.6	0.0	33.3	36.7	34.2	33.2
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.2	0.2	0.2	0.3	0.0	0.3	0.6	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	0.0	5.8	1.0	2.4	2.5	3.3	0.0	3.3	5.7	5.6	3.7
LnGrp Delay(d),s/veh	5.7	0.0	5.8	7.2	4.8	4.9	34.0	0.0	33.5	37.3	34.7	33.5
LnGrp LOS	A		A	A	A	A	C		C	D	C	C
Approach Vol, veh/h		649			358			159			360	
Approach Delay, s/veh		5.7			5.2			33.7			35.3	
Approach LOS		A			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		68.5		21.5		68.5		21.5
Change Period (Y+Rc), s		7.0		7.6		7.0		7.6
Max Green Setting (Gmax), s		48.0		27.4		48.0		27.4
Max Q Clear Time (g_c+I1), s		10.8		9.9		8.6		12.4
Green Ext Time (p_c), s		4.3		1.6		4.3		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	364	139	108	210	44	136	778	318	156	1066	50
Future Volume (veh/h)	60	364	139	108	210	44	136	778	318	156	1066	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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	1900	1900	1900	1900	1900	1881	1881	1900	1881	1881	1900
Adj Flow Rate, veh/h	61	371	142	110	214	45	139	794	324	159	1088	51
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	264	414	156	178	547	113	347	1537	626	351	2174	102
Arrive On Green	0.08	0.32	0.32	0.13	0.37	0.37	0.05	0.62	0.61	0.05	0.63	0.63
Sat Flow, veh/h	1810	2566	968	1810	2981	615	1792	2480	1010	1792	3477	163
Grp Volume(v), veh/h	61	259	254	110	128	131	139	572	546	159	559	580
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1791	1792	1787	1703	1792	1787	1852
Q Serve(g_s), s	5.0	24.6	25.3	8.9	9.4	9.8	5.1	32.2	32.5	5.8	30.7	30.7
Cycle Q Clear(g_c), s	5.0	24.6	25.3	8.9	9.4	9.8	5.1	32.2	32.5	5.8	30.7	30.7
Prop In Lane	1.00		0.56	1.00		0.34	1.00		0.59	1.00		0.09
Lane Grp Cap(c), veh/h	264	291	279	178	331	329	347	1108	1055	351	1118	1159
V/C Ratio(X)	0.23	0.89	0.91	0.62	0.39	0.40	0.40	0.52	0.52	0.45	0.50	0.50
Avail Cap(c_a), veh/h	308	308	295	181	331	329	424	1108	1055	398	1118	1159
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	59.5	59.7	54.3	49.5	49.6	14.3	19.1	19.4	15.1	18.4	18.4
Incr Delay (d2), s/veh	0.2	24.5	28.6	4.4	0.7	0.8	0.3	1.7	1.8	0.3	1.6	1.5
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(95%),veh/ln	4.5	20.3	20.3	8.1	8.3	8.5	4.5	23.1	22.3	5.1	22.0	22.7
LnGrp Delay(d),s/veh	56.7	84.0	88.3	58.8	50.2	50.4	14.6	20.9	21.2	15.4	20.0	19.9
LnGrp LOS	E	F	F	E	D	D	B	C	C	B	B	B
Approach Vol, veh/h		574			369			1257			1298	
Approach Delay, s/veh		83.0			52.8			20.3			19.4	
Approach LOS		F			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	116.8	16.6	33.3	12.3	117.8	12.6	37.3
Change Period (Y+Rc), s	5.4	6.2	* 5.8	* 5.3	5.1	6.2	6.0	* 5.3
Max Green Setting (Gmax), s	12.6	103.8	* 11	* 30	14.9	101.8	11.0	* 30
Max Q Clear Time (g_c+I1), s	7.8	34.5	10.9	27.3	7.1	32.7	7.0	11.8
Green Ext Time (p_c), s	0.1	55.2	0.0	0.7	0.1	55.1	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBT	NBR	SBL2	SBT
Lane Configurations												
Traffic Volume (vph)	49	888	2	7	4	0	300	21	0	1	49	0
Future Volume (vph)	49	888	2	7	4	0	300	21	0	1	49	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-1%					0%		0%			0%
Total Lost time (s)	4.5	6.5				6.5	6.5		5.0			5.0
Lane Util. Factor	1.00	1.00				1.00	1.00		1.00			1.00
Frt	1.00	1.00				1.00	0.99		0.86			0.93
Flt Protected	0.95	1.00				0.95	1.00		1.00			0.98
Satd. Flow (prot)	1814	1906				1770	1881		1644			1710
Flt Permitted	0.52	1.00				0.27	1.00		1.00			0.85
Satd. Flow (perm)	996	1906				507	1881		1644			1480
Peak-hour factor, PHF	0.97	0.97	0.97	0.92	0.92	0.97	0.97	0.97	0.97	0.97	0.92	0.97
Adj. Flow (vph)	51	915	2	8	4	0	309	22	0	1	53	0
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	0	103
Lane Group Flow (vph)	51	925	0	0	0	4	329	0	1	0	0	6
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	2%	0%
Turn Type	pm+pt	NA			Perm	Perm	NA		NA		Perm	NA
Protected Phases	1	6					2		4			4
Permitted Phases	6				2	2					4	
Actuated Green, G (s)	68.0	68.0				60.9	60.9		5.0			5.0
Effective Green, g (s)	68.0	68.0				60.9	60.9		5.0			5.0
Actuated g/C Ratio	0.76	0.76				0.68	0.68		0.06			0.06
Clearance Time (s)	4.5	6.5				6.5	6.5		5.0			5.0
Vehicle Extension (s)	1.0	4.0				4.0	4.0		2.0			2.0
Lane Grp Cap (vph)	776	1440				343	1272		91			82
v/s Ratio Prot	0.00	c0.49					0.18		0.00			
v/s Ratio Perm	0.05					0.01						c0.00
v/c Ratio	0.07	0.64				0.01	0.26		0.01			0.07
Uniform Delay, d1	2.9	5.2				4.7	5.7		40.2			40.3
Progression Factor	0.73	1.15				1.00	1.00		1.00			1.00
Incremental Delay, d2	0.0	1.9				0.1	0.5		0.0			0.1
Delay (s)	2.1	7.9				4.8	6.2		40.2			40.4
Level of Service	A	A				A	A		D			D
Approach Delay (s)		7.6					6.2		40.2			40.4
Approach LOS		A					A		D			D

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	54	1	1	2
Future Volume (vph)	54	1	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900
Grade (%)		0%		
Total Lost time (s)		4.5		
Lane Util. Factor		1.00		
Frt		0.90		
Flt Protected		0.99		
Satd. Flow (prot)		1653		
Flt Permitted		0.99		
Satd. Flow (perm)		1653		
Peak-hour factor, PHF	0.97	0.92	0.92	0.92
Adj. Flow (vph)	56	1	1	2
RTOR Reduction (vph)	0	0	0	0
Lane Group Flow (vph)	0	4	0	0
Heavy Vehicles (%)	0%	2%	2%	2%
Turn Type		Prot		
Protected Phases		3		
Permitted Phases				
Actuated Green, G (s)		1.0		
Effective Green, g (s)		1.0		
Actuated g/C Ratio		0.01		
Clearance Time (s)		4.5		
Vehicle Extension (s)		1.5		
Lane Grp Cap (vph)		18		
v/s Ratio Prot		c0.00		
v/s Ratio Perm				
v/c Ratio		0.22		
Uniform Delay, d1		44.1		
Progression Factor		1.00		
Incremental Delay, d2		2.3		
Delay (s)		46.4		
Level of Service		D		
Approach Delay (s)		46.4		
Approach LOS		D		

Intersection Summary

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	928	5	2	317	1	5	0	7	3	0	5
Future Vol, veh/h	3	928	5	2	317	1	5	0	7	3	0	5
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	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	957	5	2	327	1	5	0	7	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	328	0	0	957	0	0	1297	1295	957	1297	1294	327
Stage 1	-	-	-	-	-	-	963	963	-	331	331	-
Stage 2	-	-	-	-	-	-	334	332	-	966	963	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1243	-	-	727	-	-	140	164	315	140	164	719
Stage 1	-	-	-	-	-	-	310	337	-	687	649	-
Stage 2	-	-	-	-	-	-	684	648	-	309	337	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1243	-	-	727	-	-	138	163	315	136	163	719
Mov Cap-2 Maneuver	-	-	-	-	-	-	138	163	-	136	163	-
Stage 1	-	-	-	-	-	-	308	335	-	684	647	-
Stage 2	-	-	-	-	-	-	677	646	-	300	335	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	23.7	18.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	205	1243	-	-	727	-	-	276
HCM Lane V/C Ratio	0.06	0.002	-	-	0.003	-	-	0.03
HCM Control Delay (s)	23.7	7.9	0	-	10	0	-	18.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	929	11	0	308	4	7	1	6	18	4	4
Future Vol, veh/h	1	929	11	0	308	4	7	1	6	18	4	4
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	958	11	0	318	4	7	1	6	19	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	322	0	0	969	0	0	1289	1287	963	1289	1291	320
Stage 1	-	-	-	-	-	-	965	965	-	320	320	-
Stage 2	-	-	-	-	-	-	324	322	-	969	971	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1249	-	-	719	-	-	142	166	313	142	165	725
Stage 1	-	-	-	-	-	-	309	336	-	696	656	-
Stage 2	-	-	-	-	-	-	692	655	-	307	334	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1249	-	-	719	-	-	138	166	313	138	165	725
Mov Cap-2 Maneuver	-	-	-	-	-	-	138	166	-	138	165	-
Stage 1	-	-	-	-	-	-	308	335	-	695	656	-
Stage 2	-	-	-	-	-	-	684	655	-	299	333	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	26.2	31.6
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	184	1249	-	-	719	-	-	162
HCM Lane V/C Ratio	0.078	0.001	-	-	-	-	-	0.165
HCM Control Delay (s)	26.2	7.9	0	-	0	-	-	31.6
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	945	9	2	289	3	6	1	13	1	0	14
Future Vol, veh/h	4	945	9	2	289	3	6	1	13	1	0	14
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	984	9	2	301	3	6	1	14	1	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	304	0	0	994	0	0	1311	1305	989	1312	1309	303
Stage 1	-	-	-	-	-	-	997	997	-	307	307	-
Stage 2	-	-	-	-	-	-	314	308	-	1005	1002	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1268	-	-	704	-	-	137	162	302	137	161	741
Stage 1	-	-	-	-	-	-	297	325	-	707	665	-
Stage 2	-	-	-	-	-	-	701	664	-	294	323	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	704	-	-	133	160	302	129	159	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	160	-	129	159	-
Stage 1	-	-	-	-	-	-	295	323	-	702	663	-
Stage 2	-	-	-	-	-	-	685	662	-	278	321	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	23.8	11.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	212	1268	-	-	704	-	-	563
HCM Lane V/C Ratio	0.098	0.003	-	-	0.003	-	-	0.028
HCM Control Delay (s)	23.8	7.8	0	-	10.1	0	-	11.6
HCM Lane LOS	C	A	A	-	B	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	993	292	1	1	3
Future Vol, veh/h	2	993	292	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	1091	321	1	1	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	322	0	-	0	1417	321
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	1096	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1249	-	-	-	153	724
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	323	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1249	-	-	-	152	724
Mov Cap-2 Maneuver	-	-	-	-	152	-
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	322	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1249	-	-	-	373
HCM Lane V/C Ratio	0.002	-	-	-	0.012
HCM Control Delay (s)	7.9	0	-	-	14.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	990	4	4	288	5	9
Future Vol, veh/h	990	4	4	288	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	5	5
Mvmt Flow	1042	4	4	303	5	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1046	0	1356	1044
Stage 1	-	-	-	-	1044	-
Stage 2	-	-	-	-	312	-
Critical Hdwy	-	-	4.1	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	673	-	162	274
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	673	-	161	274
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	22.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	219	-	-	673	-
HCM Lane V/C Ratio	0.067	-	-	0.006	-
HCM Control Delay (s)	22.6	-	-	10.4	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	987	4	9	297	6	15
Future Vol, veh/h	987	4	9	297	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1018	4	9	306	6	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1022	0	1345	511
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	-	-	4.1	-	6.6	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	687	-	157	513
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	687	-	155	513
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	727	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	309	-	-	687	-
HCM Lane V/C Ratio	0.07	-	-	0.014	-
HCM Control Delay (s)	17.5	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	814	177	433	218	44	75	157	515	287	713	13
Future Volume (veh/h)	24	814	177	433	218	44	75	157	515	287	713	13
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	1910	1910	1910	1900	1900	1900	1881	1881	1881	1919	1919	1919
Adj Flow Rate, veh/h	25	848	184	451	227	46	78	164	536	299	743	14
Adj No. of Lanes	1	2	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	468	1040	226	504	738	149	207	437	390	234	1099	21
Arrive On Green	0.02	0.35	0.35	0.24	0.80	0.80	0.04	0.24	0.24	0.10	0.30	0.30
Sat Flow, veh/h	1819	2966	643	3510	1534	311	1791	1787	1596	1828	3661	69
Grp Volume(v), veh/h	25	519	513	451	0	273	78	164	536	299	370	387
Grp Sat Flow(s),veh/h/ln	1819	1814	1795	1755	0	1845	1791	1787	1596	1828	1823	1907
Q Serve(g_s), s	1.5	44.2	44.2	21.1	0.0	6.6	5.5	13.0	41.6	17.8	30.3	30.3
Cycle Q Clear(g_c), s	1.5	44.2	44.2	21.1	0.0	6.6	5.5	13.0	41.6	17.8	30.3	30.3
Prop In Lane	1.00		0.36	1.00		0.17	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	468	636	629	504	0	887	207	437	390	234	547	572
V/C Ratio(X)	0.05	0.82	0.82	0.90	0.00	0.31	0.38	0.38	1.37	1.28	0.68	0.68
Avail Cap(c_a), veh/h	540	636	629	599	0	887	253	437	390	234	547	572
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	50.2	50.2	63.4	0.0	9.4	46.5	53.4	64.2	54.8	52.2	52.2
Incr Delay (d2), s/veh	0.0	11.0	11.2	15.2	0.0	0.9	1.1	1.1	183.3	154.4	4.3	4.2
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(95%),veh/ln	1.4	32.2	31.9	16.8	0.0	6.3	5.0	10.8	68.8	37.8	22.5	23.4
LnGrp Delay(d),s/veh	34.6	61.2	61.4	78.6	0.0	10.2	47.6	54.5	247.5	209.2	56.6	56.4
LnGrp LOS	C	E	E	E		B	D	D	F	F	E	E
Approach Vol, veh/h		1057			724			778			1056	
Approach Delay, s/veh		60.7			52.8			186.8			99.7	
Approach LOS		E			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.4	66.6	25.0	48.0	8.3	88.7	15.6	57.4
Change Period (Y+Rc), s	6.0	7.0	7.2	6.4	5.5	7.0	8.2	6.4
Max Green Setting (Gmax), s	29.0	55.0	17.8	41.6	9.5	75.0	11.8	46.6
Max Q Clear Time (g_c+I1), s	23.1	46.2	19.8	43.6	3.5	8.6	7.5	32.3
Green Ext Time (p_c), s	1.3	5.1	0.0	0.0	0.0	11.4	0.0	11.2

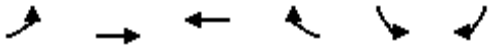
Intersection Summary	
HCM 2010 Ctrl Delay	97.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	1393	25	31	604	164	59	31	46	127	7	102
Future Volume (veh/h)	167	1393	25	31	604	164	59	31	46	127	7	102
Number	1	6	16	5	2	12	3	8	18	7	4	14
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		0.98
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	1948	1948	1948	1843	1843	1843	1786	1751	1786	1919	1919	1919
Adj Flow Rate, veh/h	170	1421	26	32	616	167	60	32	47	135	0	104
Adj No. of Lanes	1	3	1	1	3	0	0	1	0	2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	576	3436	1066	298	2439	649	69	37	54	311	0	137
Arrive On Green	0.10	1.00	1.00	0.04	1.00	1.00	0.10	0.10	0.10	0.09	0.00	0.09
Sat Flow, veh/h	1855	5317	1650	1755	3957	1053	699	373	548	3655	0	1602
Grp Volume(v), veh/h	170	1421	26	32	520	263	139	0	0	135	0	104
Grp Sat Flow(s),veh/h/ln	1855	1772	1650	1755	1677	1655	1619	0	0	1828	0	1602
Q Serve(g_s), s	6.0	0.0	0.0	1.2	0.0	0.0	14.4	0.0	0.0	6.0	0.0	10.8
Cycle Q Clear(g_c), s	6.0	0.0	0.0	1.2	0.0	0.0	14.4	0.0	0.0	6.0	0.0	10.8
Prop In Lane	1.00		1.00	1.00		0.64	0.43		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	576	3436	1066	298	2067	1020	159	0	0	311	0	137
V/C Ratio(X)	0.30	0.41	0.02	0.11	0.25	0.26	0.87	0.00	0.00	0.43	0.00	0.76
Avail Cap(c_a), veh/h	688	3436	1066	354	2067	1020	224	0	0	503	0	221
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	0.0	0.0	11.3	0.0	0.0	75.6	0.0	0.0	73.9	0.0	76.1
Incr Delay (d2), s/veh	0.3	0.4	0.0	0.2	0.3	0.6	22.4	0.0	0.0	1.0	0.0	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.2	0.0	1.0	0.1	0.3	11.9	0.0	0.0	5.5	0.0	8.8
LnGrp Delay(d),s/veh	10.1	0.4	0.0	11.5	0.3	0.6	98.0	0.0	0.0	74.8	0.0	84.5
LnGrp LOS	B	A	A	B	A	A	F			E		F
Approach Vol, veh/h		1617			815			139			239	
Approach Delay, s/veh		1.4			0.8			98.0			79.0	
Approach LOS		A			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.7	111.0		21.1	9.6	116.1		23.2
Change Period (Y+Rc), s	6.4	* 6.2		* 6.6	6.5	* 6.2		6.5
Max Green Setting (Gmax), s	18.6	* 79		* 23	8.5	* 89		23.5
Max Q Clear Time (g_c+I1), s	8.0	2.0		12.8	3.2	2.0		16.4
Green Ext Time (p_c), s	0.3	58.8		0.6	0.0	64.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

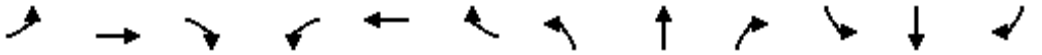


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1637	568	0	778	239
Future Volume (veh/h)	0	1637	568	0	778	239
Number	1	6	2	12	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1948	1862	0	1872	1872
Adj Flow Rate, veh/h	0	1654	574	0	786	241
Adj No. of Lanes	0	5	3	0	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	5340	3442	0	865	398
Arrive On Green	0.00	1.00	1.00	0.00	0.25	0.25
Sat Flow, veh/h	0	8627	5418	0	3458	1591
Grp Volume(v), veh/h	0	1654	574	0	786	241
Grp Sat Flow(s),veh/h/ln	0	1577	1694	0	1729	1591
Q Serve(g_s), s	0.0	0.0	0.0	0.0	37.5	22.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	37.5	22.8
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	5340	3442	0	865	398
V/C Ratio(X)	0.00	0.31	0.17	0.00	0.91	0.61
Avail Cap(c_a), veh/h	0	5340	3442	0	1281	590
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.91	0.99	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	61.9	56.3
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	6.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	0.1	0.0	25.7	15.4
LnGrp Delay(d),s/veh	0.0	0.1	0.1	0.0	68.2	57.5
LnGrp LOS		A	A		E	E
Approach Vol, veh/h		1654	574		1027	
Approach Delay, s/veh		0.1	0.1		65.7	
Approach LOS		A	A		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		120.5		49.5		120.5		
Change Period (Y+Rc), s		* 5.4		7.0		* 5.4		
Max Green Setting (Gmax), s		* 95		63.0		* 95		
Max Q Clear Time (g_c+I1), s		2.0		39.5		2.0		
Green Ext Time (p_c), s		69.3		3.0		69.3		

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	1610	589	47	549	261	33	20	20	0	0	0
Future Volume (veh/h)	206	1610	589	47	549	261	33	20	20	0	0	0
Number	1	6	16	5	2	12	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1948	1948	1948	1824	1824	1824	1852	1852	1852			
Adj Flow Rate, veh/h	212	1660	607	48	566	269	34	21	21			
Adj No. of Lanes	2	3	1	1	3	1	2	1	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	256	4318	1333	201	3778	1174	169	89	75			
Arrive On Green	0.14	1.00	1.00	0.04	1.00	1.00	0.05	0.05	0.05			
Sat Flow, veh/h	3598	5317	1641	1737	4980	1547	3529	1853	1565			
Grp Volume(v), veh/h	212	1660	607	48	566	269	34	21	21			
Grp Sat Flow(s),veh/h/ln	1799	1772	1641	1737	1660	1547	1764	1853	1565			
Q Serve(g_s), s	9.7	0.0	0.0	1.1	0.0	0.0	1.6	1.9	2.2			
Cycle Q Clear(g_c), s	9.7	0.0	0.0	1.1	0.0	0.0	1.6	1.9	2.2			
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	256	4318	1333	201	3778	1174	169	89	75			
V/C Ratio(X)	0.83	0.38	0.46	0.24	0.15	0.23	0.20	0.24	0.28			
Avail Cap(c_a), veh/h	377	4318	1333	302	3778	1174	475	250	211			
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.87	0.87	0.87	0.98	0.98	0.98	1.00	1.00	1.00			
Uniform Delay (d), s/veh	71.9	0.0	0.0	4.1	0.0	0.0	77.8	77.9	78.1			
Incr Delay (d2), s/veh	8.4	0.2	1.0	0.6	0.1	0.4	0.6	1.4	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	8.6	0.2	0.6	0.9	0.1	0.3	1.4	1.8	1.8			
LnGrp Delay(d),s/veh	80.3	0.2	1.0	4.7	0.1	0.4	78.4	79.3	80.1			
LnGrp LOS	F	A	A	A	A	A	E	E	F			
Approach Vol, veh/h		2479			883			76				
Approach Delay, s/veh		7.3			0.4			79.1				
Approach LOS		A			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	19.3	135.5			10.2	144.6		15.2
Change Period (Y+Rc), s	7.2	6.5			6.6	6.5		7.1
Max Green Setting (Gmax), s	17.8	108.5			13.4	113.5		22.9
Max Q Clear Time (g_c+I1), s	11.7	2.0			3.1	2.0		4.2
Green Ext Time (p_c), s	0.3	95.4			0.0	99.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.1
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	1114	271	212	885	38	26	5	38	52	10	48
Future Volume (veh/h)	83	1114	271	212	885	38	26	5	38	52	10	48
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.98		0.97	0.97		0.98
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	1881	1881	1881	1948	1948	1948	1872	1872	1872	1938	1938	1938
Adj Flow Rate, veh/h	88	1185	288	226	941	40	28	5	40	55	11	51
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	525	3930	1216	407	4177	1297	138	147	121	146	152	126
Arrive On Green	0.05	1.00	1.00	0.08	1.00	1.00	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1791	5135	1588	1855	5317	1652	1314	1872	1542	1370	1938	1609
Grp Volume(v), veh/h	88	1185	288	226	941	40	28	5	40	55	11	51
Grp Sat Flow(s),veh/h/ln	1791	1712	1588	1855	1772	1652	1314	1872	1542	1370	1938	1609
Q Serve(g_s), s	1.9	0.0	0.0	5.0	0.0	0.0	3.4	0.4	4.2	6.6	0.9	5.1
Cycle Q Clear(g_c), s	1.9	0.0	0.0	5.0	0.0	0.0	4.3	0.4	4.2	7.0	0.9	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	525	3930	1216	407	4177	1297	138	147	121	146	152	126
V/C Ratio(X)	0.17	0.30	0.24	0.56	0.23	0.03	0.20	0.03	0.33	0.38	0.07	0.40
Avail Cap(c_a), veh/h	628	3930	1216	530	4177	1297	216	258	212	228	267	222
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.9	0.0	0.0	3.5	0.0	0.0	74.6	72.4	74.1	75.6	72.6	74.6
Incr Delay (d2), s/veh	0.1	0.2	0.4	0.3	0.1	0.0	0.3	0.0	0.6	0.6	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.1	0.3	4.4	0.1	0.0	2.3	0.4	3.2	4.5	0.9	4.2
LnGrp Delay(d),s/veh	4.0	0.2	0.4	3.8	0.1	0.0	74.9	72.4	74.7	76.2	72.7	75.4
LnGrp LOS	A	A	A	A	A	A	E	E	E	E	E	E
Approach Vol, veh/h		1561			1207			73			117	
Approach Delay, s/veh		0.4			0.8			74.6			75.5	
Approach LOS		A			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	139.9		19.9	13.7	136.4		19.9
Change Period (Y+Rc), s	* 6.3	* 6.3		6.6	6.5	* 6.3		6.6
Max Green Setting (Gmax), s	* 14	* 1.1E2		23.4	18.5	* 1.1E2		23.4
Max Q Clear Time (g_c+I1), s	3.9	2.0		9.0	7.0	2.0		6.3
Green Ext Time (p_c), s	0.0	82.4		0.3	0.1	79.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	273	358	529	168	477	199	418	739	88	127	587	277
Future Volume (veh/h)	273	358	529	168	477	199	418	739	88	127	587	277
Number	3	8	18	7	4	14	1	6	16	5	2	12
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	0.99		0.99	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	1881	1881	1881	1834	1834	1834	1890	1890	1890	1900	1900	1900
Adj Flow Rate, veh/h	281	369	0	173	492	205	431	762	91	131	605	0
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	0	0	0
Cap, veh/h	362	1028	460	407	797	355	507	1333	595	368	1021	457
Arrive On Green	0.23	0.48	0.00	0.03	0.08	0.08	0.19	0.37	0.37	0.11	0.28	0.00
Sat Flow, veh/h	1791	3574	1599	1747	3485	1551	1800	3592	1604	1810	3610	1615
Grp Volume(v), veh/h	281	369	0	173	492	205	431	762	91	131	605	0
Grp Sat Flow(s),veh/h/ln	1791	1787	1599	1747	1742	1551	1800	1796	1604	1810	1805	1615
Q Serve(g_s), s	19.9	11.0	0.0	12.7	23.3	21.7	27.3	28.8	6.4	8.1	24.5	0.0
Cycle Q Clear(g_c), s	19.9	11.0	0.0	12.7	23.3	21.7	27.3	28.8	6.4	8.1	24.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	1028	460	407	797	355	507	1333	595	368	1021	457
V/C Ratio(X)	0.78	0.36	0.00	0.42	0.62	0.58	0.85	0.57	0.15	0.36	0.59	0.00
Avail Cap(c_a), veh/h	362	1028	460	407	797	355	507	1333	595	368	1021	457
HCM Platoon Ratio	1.67	1.67	1.67	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.1	34.3	0.0	47.3	71.4	70.6	33.4	42.7	35.6	34.9	52.5	0.0
Incr Delay (d2), s/veh	15.0	1.0	0.0	3.2	3.6	6.7	16.2	1.8	0.5	2.7	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.8	9.4	0.0	10.7	17.2	15.2	22.2	20.9	5.3	7.7	18.5	0.0
LnGrp Delay(d),s/veh	52.0	35.3	0.0	50.6	74.9	77.3	49.6	44.4	36.2	37.5	55.0	0.0
LnGrp LOS	D	D		D	E	E	D	D	D	D	E	
Approach Vol, veh/h		650			870			1284			736	
Approach Delay, s/veh		42.5			70.6			45.6			51.9	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	55.0	30.0	45.0	25.0	70.0	20.0	55.0
Change Period (Y+Rc), s	6.9	6.9	* 6.2	6.1	6.9	6.9	5.9	6.1
Max Green Setting (Gmax), s	33.1	48.1	* 24	38.9	18.1	63.1	14.1	48.9
Max Q Clear Time (g_c+I1), s	29.3	26.5	21.9	25.3	10.1	30.8	14.7	13.0
Green Ext Time (p_c), s	0.5	13.0	0.1	1.3	0.1	16.6	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	52.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	512	16	20	595	46	122	1	36	37	4	91
Future Volume (veh/h)	51	512	16	20	595	46	122	1	36	37	4	91
Number	1	6	16	5	2	12	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	1881	1881	1881	1834	1834	1834	1881	1881	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	551	17	22	640	49	131	1	39	40	4	98
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	610	2718	1216	692	2623	1174	188	5	179	170	217	184
Arrive On Green	0.04	1.00	1.00	0.02	0.75	0.75	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1792	3574	1599	1747	3485	1559	1300	40	1565	1389	1900	1615
Grp Volume(v), veh/h	55	551	17	22	640	49	131	0	40	40	4	98
Grp Sat Flow(s),veh/h/ln	1792	1787	1599	1747	1742	1559	1300	0	1605	1389	1900	1615
Q Serve(g_s), s	1.2	0.0	0.0	0.5	9.5	1.4	16.9	0.0	3.8	4.6	0.3	9.7
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.5	9.5	1.4	17.2	0.0	3.8	8.4	0.3	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	610	2718	1216	692	2623	1174	188	0	183	170	217	184
V/C Ratio(X)	0.09	0.20	0.01	0.03	0.24	0.04	0.70	0.00	0.22	0.24	0.02	0.53
Avail Cap(c_a), veh/h	769	2718	1216	860	2623	1174	258	0	269	244	319	271
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.6	0.0	0.0	4.6	6.4	5.4	74.5	0.0	68.4	72.2	66.8	71.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.1	2.0	0.0	0.2	0.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.1	0.0	0.4	8.1	1.1	10.3	0.0	3.1	3.2	0.3	7.8
LnGrp Delay(d),s/veh	4.7	0.2	0.0	4.6	6.6	5.4	76.5	0.0	68.6	72.5	66.8	71.9
LnGrp LOS	A	A	A	A	A	A	E		E	E	E	E
Approach Vol, veh/h		623			711			171			142	
Approach Delay, s/veh		0.6			6.4			74.7			71.9	
Approach LOS		A			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	134.2		25.9	8.6	135.5		25.9
Change Period (Y+Rc), s	* 6.2	* 6.2		6.5	6.0	* 6.2		6.5
Max Green Setting (Gmax), s	* 19	* 1E2		28.5	19.0	* 1E2		28.5
Max Q Clear Time (g_c+I1), s	3.2	11.5		19.2	2.5	2.0		11.7
Green Ext Time (p_c), s	0.0	17.9		0.2	0.0	18.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

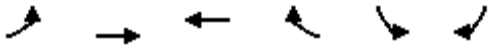
Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1069	48	108	361	9	17	0	128	3	1	0
Future Vol, veh/h	5	1069	48	108	361	9	17	0	128	3	1	0
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	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	1137	51	115	384	10	18	0	136	3	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	394	0	0	1137	0	0	1793	1797	1163	1834	1766	389
Stage 1	-	-	-	-	-	-	1173	1173	-	619	619	-
Stage 2	-	-	-	-	-	-	620	624	-	1215	1147	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1176	-	-	622	-	-	63	81	239	59	85	664
Stage 1	-	-	-	-	-	-	236	268	-	480	483	-
Stage 2	-	-	-	-	-	-	479	481	-	224	276	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1176	-	-	622	-	-	53	65	239	22	68	664
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	65	-	22	68	-
Stage 1	-	-	-	-	-	-	233	265	-	474	394	-
Stage 2	-	-	-	-	-	-	389	392	-	95	272	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	46.1	168.8
HCM LOS			E	F

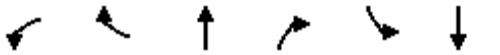
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	53	239	1176	-	-	622	-	-	26
HCM Lane V/C Ratio	0.341	0.57	0.005	-	-	0.185	-	-	0.164
HCM Control Delay (s)	104.7	38.3	8.1	0	-	12.1	-	-	168.8
HCM Lane LOS	F	E	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	1.2	3.2	0	-	-	0.7	-	-	0.5



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	674	210	168	448	5
Future Volume (veh/h)	2	674	210	168	448	5
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	695	216	173	462	5
Adj No. of Lanes	0	1	1	1	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	55	982	983	835	514	6
Arrive On Green	0.52	0.52	0.52	0.52	0.29	0.29
Sat Flow, veh/h	1	1898	1900	1615	1784	19
Grp Volume(v), veh/h	697	0	216	173	468	0
Grp Sat Flow(s),veh/h/ln	1899	0	1900	1615	1807	0
Q Serve(g_s), s	0.0	0.0	4.1	3.9	16.6	0.0
Cycle Q Clear(g_c), s	18.7	0.0	4.1	3.9	16.6	0.0
Prop In Lane	0.00			1.00	0.99	0.01
Lane Grp Cap(c), veh/h	1036	0	983	835	521	0
V/C Ratio(X)	0.67	0.00	0.22	0.21	0.90	0.00
Avail Cap(c_a), veh/h	1036	0	983	835	610	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.3	0.0	8.8	8.7	22.8	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.5	0.6	14.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.0	0.0	4.1	3.3	15.6	0.0
LnGrp Delay(d),s/veh	15.8	0.0	9.3	9.3	37.6	0.0
LnGrp LOS	B		A	A	D	
Approach Vol, veh/h		697	389		468	
Approach Delay, s/veh		15.8	9.3		37.6	
Approach LOS		B	A		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		41.0				41.0		25.7
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		34.5				34.5		22.5
Max Q Clear Time (g_c+I1), s		6.1				20.7		18.6
Green Ext Time (p_c), s		7.4				5.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	586	22	433	314	2	345
Future Volume (veh/h)	586	22	433	314	2	345
Number	7	14	6	16	5	2
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	674	25	498	0	2	397
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	568	507	928	0	422	928
Arrive On Green	0.31	0.31	0.49	0.00	0.49	0.49
Sat Flow, veh/h	1810	1615	1900	0	914	1900
Grp Volume(v), veh/h	674	25	498	0	2	397
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	0	914	1900
Q Serve(g_s), s	15.9	0.5	9.2	0.0	0.1	6.8
Cycle Q Clear(g_c), s	15.9	0.5	9.2	0.0	9.3	6.8
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	568	507	928	0	422	928
V/C Ratio(X)	1.19	0.05	0.54	0.00	0.00	0.43
Avail Cap(c_a), veh/h	568	507	1655	0	772	1655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	12.1	9.0	0.0	12.2	8.4
Incr Delay (d2), s/veh	100.4	0.0	1.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	42.5	0.4	8.6	0.0	0.0	6.7
LnGrp Delay(d),s/veh	117.8	12.1	10.0	0.0	12.2	9.0
LnGrp LOS	F	B	B		B	A
Approach Vol, veh/h	699		498			399
Approach Delay, s/veh	114.0		10.0			9.1
Approach LOS	F		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		30.6		20.0		30.6		
Change Period (Y+Rc), s		6.9		5.1		6.9		
Max Green Setting (Gmax), s		43.1		14.9		43.1		
Max Q Clear Time (g_c+I1), s		11.3		17.9		11.2		
Green Ext Time (p_c), s		12.4		0.0		12.5		

Intersection Summary	
HCM 2010 Ctrl Delay	55.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	358	47	176	556	17	74	259	130	34	162	16
Future Volume (veh/h)	6	358	47	176	556	17	74	259	130	34	162	16
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	377	49	185	585	18	78	273	137	36	171	17
Adj No. of Lanes	0	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	1932	247	474	1424	44	236	209	105	135	298	30
Arrive On Green	0.60	0.62	0.60	0.60	0.62	0.60	0.17	0.17	0.16	0.17	0.17	0.16
Sat Flow, veh/h	10	3135	400	602	2311	71	1214	1195	600	991	1701	169
Grp Volume(v), veh/h	229	0	203	356	0	432	78	0	410	36	0	188
Grp Sat Flow(s),veh/h/ln	1887	0	1658	1269	0	1716	1214	0	1794	991	0	1870
Q Serve(g_s), s	0.0	0.0	2.9	5.4	0.0	6.9	3.3	0.0	9.3	0.0	0.0	4.9
Cycle Q Clear(g_c), s	2.8	0.0	2.9	8.3	0.0	6.9	8.3	0.0	9.3	9.3	0.0	4.9
Prop In Lane	0.03		0.24	0.52		0.04	1.00		0.33	1.00		0.09
Lane Grp Cap(c), veh/h	1197	0	1022	861	0	1058	236	0	314	135	0	327
V/C Ratio(X)	0.19	0.00	0.20	0.41	0.00	0.41	0.33	0.00	1.31	0.27	0.00	0.57
Avail Cap(c_a), veh/h	2125	0	1859	1504	0	1924	236	0	314	135	0	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.5	0.0	4.5	5.6	0.0	5.2	23.9	0.0	22.1	26.6	0.0	20.2
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.7	0.0	0.5	0.8	0.0	159.0	1.0	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	2.5	5.4	0.0	6.1	2.1	0.0	33.1	1.0	0.0	4.9
LnGrp Delay(d),s/veh	4.6	0.0	4.7	6.3	0.0	5.8	24.7	0.0	181.1	27.6	0.0	22.6
LnGrp LOS	A		A	A		A	C		F	C		C
Approach Vol, veh/h		432			788			488			224	
Approach Delay, s/veh		4.7			6.0			156.1			23.4	
Approach LOS		A			A			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.2		15.0		38.2		15.0
Change Period (Y+Rc), s		6.4		6.7		6.4		6.7
Max Green Setting (Gmax), s		58.6		8.3		58.6		8.3
Max Q Clear Time (g_c+I1), s		10.3		11.3		4.9		11.3
Green Ext Time (p_c), s		21.4		0.0		22.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	383	45	85	592	124	45	242	78	65	97	95
Future Volume (veh/h)	83	383	45	85	592	124	45	242	78	65	97	95
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	426	50	94	658	138	50	269	87	72	108	106
Adj No. of Lanes	0	2	0	1	2	0	0	2	0	0	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	293	1426	174	617	2006	420	101	487	157	172	362	355
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.21	0.22	0.21	0.21	0.22	0.22
Sat Flow, veh/h	373	2113	258	933	2972	623	292	2211	715	509	1643	1615
Grp Volume(v), veh/h	242	0	326	94	399	397	211	0	195	72	108	106
Grp Sat Flow(s),veh/h/ln	1061	0	1683	933	1805	1790	1615	0	1603	509	1643	1615
Q Serve(g_s), s	6.7	0.0	9.4	5.4	11.1	11.2	7.9	0.0	13.0	8.0	6.6	6.6
Cycle Q Clear(g_c), s	17.9	0.0	9.4	14.8	11.1	11.2	14.5	0.0	13.0	21.0	6.6	6.6
Prop In Lane	0.38		0.15	1.00		0.35	0.24		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	749	0	1136	617	1218	1208	379	0	353	168	362	355
V/C Ratio(X)	0.32	0.00	0.29	0.15	0.33	0.33	0.56	0.00	0.55	0.43	0.30	0.30
Avail Cap(c_a), veh/h	749	0	1136	617	1218	1208	628	0	593	324	608	598
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)	0.98	0.00	0.98	0.36	0.36	0.36	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	7.9	10.8	8.1	8.2	42.2	0.0	41.8	51.4	39.1	39.1
Incr Delay (d2), s/veh	1.1	0.0	0.6	0.2	0.3	0.3	0.5	0.0	0.5	0.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	0.0	8.0	2.5	7.8	8.0	10.6	0.0	9.8	4.2	5.4	5.3
LnGrp Delay(d),s/veh	10.4	0.0	8.5	11.0	8.4	8.5	42.7	0.0	42.3	52.1	39.2	39.2
LnGrp LOS	B		A	B	A	A	D		D	D	D	D
Approach Vol, veh/h		568			890			406			286	
Approach Delay, s/veh		9.3			8.7			42.5			42.5	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		87.0		33.0		87.0		33.0
Change Period (Y+Rc), s		7.0		7.6		7.0		7.6
Max Green Setting (Gmax), s		62.0		43.4		62.0		43.4
Max Q Clear Time (g_c+I1), s		16.8		16.5		19.9		23.0
Green Ext Time (p_c), s		7.5		2.5		7.4		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

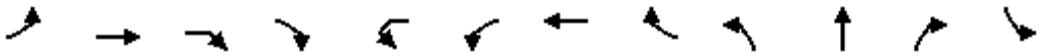
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	276	118	291	575	134	123	1079	148	91	790	93
Future Volume (veh/h)	113	276	118	291	575	134	123	1079	148	91	790	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	282	120	297	587	137	126	1101	151	93	806	95
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	169	411	171	298	609	142	392	1836	251	269	1871	221
Arrive On Green	0.07	0.16	0.16	0.22	0.42	0.42	0.05	0.58	0.58	0.04	0.58	0.58
Sat Flow, veh/h	1810	2489	1034	1810	2908	677	1792	3159	433	1810	3254	383
Grp Volume(v), veh/h	115	203	199	297	364	360	126	622	630	93	447	454
Grp Sat Flow(s),veh/h/ln	1810	1805	1718	1810	1805	1781	1792	1787	1805	1810	1805	1832
Q Serve(g_s), s	9.4	19.0	19.7	20.2	35.3	35.6	5.2	40.2	40.5	3.8	25.2	25.2
Cycle Q Clear(g_c), s	9.4	19.0	19.7	20.2	35.3	35.6	5.2	40.2	40.5	3.8	25.2	25.2
Prop In Lane	1.00		0.60	1.00		0.38	1.00		0.24	1.00		0.21
Lane Grp Cap(c), veh/h	169	298	283	298	378	373	392	1039	1049	269	1038	1054
V/C Ratio(X)	0.68	0.68	0.70	1.00	0.96	0.97	0.32	0.60	0.60	0.35	0.43	0.43
Avail Cap(c_a), veh/h	169	298	283	298	378	373	419	1039	1049	408	1038	1054
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.1	70.7	71.0	54.4	51.6	51.7	16.1	24.2	24.4	19.7	21.6	21.6
Incr Delay (d2), s/veh	8.3	5.9	7.3	50.8	36.3	37.6	0.2	2.6	2.5	0.3	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.7	15.1	15.0	13.7	28.7	28.9	4.6	28.0	28.4	3.4	18.8	19.1
LnGrp Delay(d),s/veh	67.4	76.6	78.3	105.2	87.9	89.3	16.3	26.8	26.9	19.9	22.9	22.9
LnGrp LOS	E	E	E	F	F	F	B	C	C	B	C	C
Approach Vol, veh/h		517			1021			1378			994	
Approach Delay, s/veh		75.2			93.4			25.9			22.6	
Approach LOS		E			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	109.8	25.0	34.0	12.3	108.7	17.0	42.0
Change Period (Y+Rc), s	5.4	6.2	* 5.8	* 5.3	5.1	6.2	6.0	* 5.3
Max Green Setting (Gmax), s	19.6	89.8	* 19	* 29	9.9	99.8	11.0	* 37
Max Q Clear Time (g_c+I1), s	5.8	42.5	22.2	21.7	7.2	27.2	11.4	37.6
Green Ext Time (p_c), s	0.1	38.9	0.0	3.7	0.0	54.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.2
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Traffic Volume (vph)	85	548	3	8	4	0	931	70	7	1	3	18
Future Volume (vph)	85	548	3	8	4	0	931	70	7	1	3	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-1%					0%			0%		
Total Lost time (s)	4.5	6.5				6.5	6.5			5.0		
Lane Util. Factor	1.00	1.00				1.00	1.00			1.00		
Frt	1.00	1.00				1.00	0.99			0.96		
Flt Protected	0.95	1.00				0.95	1.00			0.97		
Satd. Flow (prot)	1814	1903				1770	1880			1774		
Flt Permitted	0.11	1.00				0.44	1.00			0.64		
Satd. Flow (perm)	203	1903				828	1880			1174		
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.92
Adj. Flow (vph)	89	571	3	9	4	0	970	73	7	1	3	20
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	0	0
Lane Group Flow (vph)	89	583	0	0	0	4	1041	0	0	11	0	0
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	2%
Turn Type	pm+pt	NA			Perm	Perm	NA		Perm	NA		Perm
Protected Phases	1	6					2			4		
Permitted Phases	6				2	2			4			4
Actuated Green, G (s)	67.6	67.6				59.3	59.3			5.1		
Effective Green, g (s)	67.6	67.6				59.3	59.3			5.1		
Actuated g/C Ratio	0.75	0.75				0.66	0.66			0.06		
Clearance Time (s)	4.5	6.5				6.5	6.5			5.0		
Vehicle Extension (s)	1.0	4.0				4.0	4.0			2.0		
Lane Grp Cap (vph)	220	1429				545	1238			66		
v/s Ratio Prot	0.02	c0.31					c0.55					
v/s Ratio Perm	0.29					0.00				c0.01		
v/c Ratio	0.40	0.41				0.01	0.84			0.17		
Uniform Delay, d1	13.7	4.0				5.3	11.7			40.4		
Progression Factor	2.71	0.76				1.00	1.00			1.00		
Incremental Delay, d2	0.4	0.8				0.0	7.0			0.4		
Delay (s)	37.5	3.8				5.3	18.8			40.9		
Level of Service	D	A				A	B			D		
Approach Delay (s)		8.3					18.7			40.9		
Approach LOS		A					B			D		

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR	NWL	NWR	NWR2
Lane Configurations						
Traffic Volume (vph)	2	0	88	10	1	3
Future Volume (vph)	2	0	88	10	1	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%		0%		
Total Lost time (s)		5.0		4.5		
Lane Util. Factor		1.00		1.00		
Frt		0.89		0.96		
Flt Protected		0.99		0.96		
Satd. Flow (prot)		1671		1732		
Flt Permitted		0.93		0.96		
Satd. Flow (perm)		1569		1732		
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	2	0	92	11	1	3
RTOR Reduction (vph)	0	108	0	0	0	0
Lane Group Flow (vph)	0	6	0	15	0	0
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%
Turn Type	Perm	NA		Prot		
Protected Phases		4		3		
Permitted Phases	4					
Actuated Green, G (s)		5.1		1.3		
Effective Green, g (s)		5.1		1.3		
Actuated g/C Ratio		0.06		0.01		
Clearance Time (s)		5.0		4.5		
Vehicle Extension (s)		2.0		1.5		
Lane Grp Cap (vph)		88		25		
v/s Ratio Prot				c0.01		
v/s Ratio Perm		0.00				
v/c Ratio		0.07		0.60		
Uniform Delay, d1		40.2		44.1		
Progression Factor		1.00		1.00		
Incremental Delay, d2		0.1		23.2		
Delay (s)		40.3		67.2		
Level of Service		D		E		
Approach Delay (s)		40.3		67.2		
Approach LOS		D		E		

Intersection Summary

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	551	4	5	972	1	3	1	5	2	0	32
Future Vol, veh/h	12	551	4	5	972	1	3	1	5	2	0	32
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	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	574	4	5	1013	1	3	1	5	2	0	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1014	0	0	574	0	0	1639	1623	574	1625	1622	1013
Stage 1	-	-	-	-	-	-	599	599	-	1023	1023	-
Stage 2	-	-	-	-	-	-	1040	1024	-	602	599	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	692	-	-	1009	-	-	81	104	522	83	104	293
Stage 1	-	-	-	-	-	-	492	494	-	287	316	-
Stage 2	-	-	-	-	-	-	281	315	-	490	494	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	692	-	-	1009	-	-	70	100	522	79	100	293
Mov Cap-2 Maneuver	-	-	-	-	-	-	70	100	-	79	100	-
Stage 1	-	-	-	-	-	-	478	480	-	279	313	-
Stage 2	-	-	-	-	-	-	246	312	-	471	480	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	31.7	21.5
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	144	692	-	-	1009	-	-	253
HCM Lane V/C Ratio	0.065	0.018	-	-	0.005	-	-	0.14
HCM Control Delay (s)	31.7	10.3	0	-	8.6	0	-	21.5
HCM Lane LOS	D	B	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	537	15	1	942	17	25	24	2	2	1	1
Future Vol, veh/h	5	537	15	1	942	17	25	24	2	2	1	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	565	16	1	992	18	26	25	2	2	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1009	0	0	581	0	0	1588	1596	573	1600	1595	1001
Stage 1	-	-	-	-	-	-	584	584	-	1003	1003	-
Stage 2	-	-	-	-	-	-	1004	1012	-	597	592	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	695	-	-	1003	-	-	88	108	523	86	108	297
Stage 1	-	-	-	-	-	-	501	501	-	294	322	-
Stage 2	-	-	-	-	-	-	294	319	-	493	497	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	695	-	-	1003	-	-	86	107	523	69	107	297
Mov Cap-2 Maneuver	-	-	-	-	-	-	86	107	-	69	107	-
Stage 1	-	-	-	-	-	-	495	495	-	291	321	-
Stage 2	-	-	-	-	-	-	291	318	-	461	492	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	79.3	44.2
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	98	695	-	-	1003	-	-	96
HCM Lane V/C Ratio	0.548	0.008	-	-	0.001	-	-	0.044
HCM Control Delay (s)	79.3	10.2	0	-	8.6	0	-	44.2
HCM Lane LOS	F	B	A	-	A	A	-	E
HCM 95th %tile Q(veh)	2.5	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	534	8	8	902	8	5	6	6	1	1	59
Future Vol, veh/h	4	534	8	8	902	8	5	6	6	1	1	59
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	574	9	9	970	9	5	6	6	1	1	63

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	978	0	0	583	0	0	1611	1583	578	1585	1582	974
Stage 1	-	-	-	-	-	-	587	587	-	991	991	-
Stage 2	-	-	-	-	-	-	1024	996	-	594	591	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	714	-	-	1001	-	-	85	110	519	89	110	308
Stage 1	-	-	-	-	-	-	499	500	-	299	327	-
Stage 2	-	-	-	-	-	-	286	325	-	495	498	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	714	-	-	1001	-	-	66	107	519	82	107	308
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	107	-	82	107	-
Stage 1	-	-	-	-	-	-	495	496	-	297	320	-
Stage 2	-	-	-	-	-	-	222	319	-	479	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	40.7	21.3
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	119	714	-	-	1001	-	-	286
HCM Lane V/C Ratio	0.154	0.006	-	-	0.009	-	-	0.229
HCM Control Delay (s)	40.7	10.1	0	-	8.6	0	-	21.3
HCM Lane LOS	E	B	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	507	924	12	2	0
Future Vol, veh/h	0	507	924	12	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	539	983	13	2	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	996	0	-	0	1528	989
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	703	-	-	-	131	302
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	589	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	703	-	-	-	131	302
Mov Cap-2 Maneuver	-	-	-	-	131	-
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	589	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	32.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	703	-	-	-	131
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	32.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	504	5	3	934	2	7
Future Vol, veh/h	504	5	3	934	2	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	536	5	3	994	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	541	0	1539	539
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	1000	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1038	-	129	546
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	359	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1038	-	128	546
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	357	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	316	-	-	1038	-
HCM Lane V/C Ratio	0.03	-	-	0.003	-
HCM Control Delay (s)	16.7	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	497	6	26	879	53	38
Future Vol, veh/h	497	6	26	879	53	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	518	6	27	916	55	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	524	0	1491	262
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	970	-
Critical Hdwy	-	-	4.1	-	6.6	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1053	-	127	743
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	371	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1053	-	124	743
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	361	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	41.5
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	190	-	-	1053	-
HCM Lane V/C Ratio	0.499	-	-	0.026	-
HCM Control Delay (s)	41.5	-	-	8.5	-
HCM Lane LOS	E	-	-	A	-
HCM 95th %tile Q(veh)	2.5	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	417	78	725	659	178	179	664	596	83	420	71
Future Volume (veh/h)	36	417	78	725	659	178	179	664	596	83	420	71
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	1910	1910	1910	1900	1900	1900	1881	1881	1881	1919	1919	1919
Adj Flow Rate, veh/h	37	430	80	747	679	184	185	685	614	86	433	73
Adj No. of Lanes	1	2	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	838	155	828	707	192	295	536	472	121	848	142
Arrive On Green	0.02	0.27	0.27	0.39	0.82	0.82	0.07	0.30	0.30	0.04	0.27	0.27
Sat Flow, veh/h	1819	3058	565	3510	1441	390	1791	1799	1586	1828	3126	524
Grp Volume(v), veh/h	37	254	256	747	0	863	185	680	619	86	251	255
Grp Sat Flow(s),veh/h/ln	1819	1814	1809	1755	0	1831	1791	1787	1598	1828	1823	1827
Q Serve(g_s), s	2.6	21.3	21.6	36.0	0.0	71.7	11.8	53.6	53.6	6.1	21.0	21.3
Cycle Q Clear(g_c), s	2.6	21.3	21.6	36.0	0.0	71.7	11.8	53.6	53.6	6.1	21.0	21.3
Prop In Lane	1.00		0.31	1.00		0.21	1.00		0.99	1.00		0.29
Lane Grp Cap(c), veh/h	140	497	496	828	0	899	295	532	476	121	494	495
V/C Ratio(X)	0.26	0.51	0.52	0.90	0.00	0.96	0.63	1.28	1.30	0.71	0.51	0.51
Avail Cap(c_a), veh/h	197	497	496	1151	0	899	295	532	476	170	543	544
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	55.1	55.2	52.6	0.0	14.7	48.4	63.2	63.2	50.9	55.5	55.6
Incr Delay (d2), s/veh	0.4	3.7	3.8	8.6	0.0	21.7	4.2	139.2	149.9	3.2	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	16.6	16.9	25.5	0.0	50.5	5.0	84.7	78.3	5.7	16.3	16.4
LnGrp Delay(d),s/veh	49.1	58.8	59.1	61.2	0.0	36.4	52.5	202.4	213.1	54.1	57.2	57.3
LnGrp LOS	D	E	E	E		D	D	F	F	D	E	E
Approach Vol, veh/h		547			1610			1484			592	
Approach Delay, s/veh		58.3			47.9			188.2			56.8	
Approach LOS		E			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	48.4	56.3	15.2	60.0	9.4	95.4	20.0	55.2
Change Period (Y+Rc), s	6.0	7.0	7.2	6.4	5.5	7.0	8.2	6.4
Max Green Setting (Gmax), s	59.0	28.0	12.8	53.6	9.5	78.0	11.8	53.6
Max Q Clear Time (g_c+I1), s	38.0	23.6	8.1	55.6	4.6	73.7	13.8	23.3
Green Ext Time (p_c), s	4.4	3.2	0.0	0.0	0.0	3.1	0.0	24.4

Intersection Summary	
HCM 2010 Ctrl Delay	99.7
HCM 2010 LOS	F

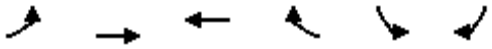
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	869	53	60	1343	249	27	11	32	164	25	164
Future Volume (veh/h)	168	869	53	60	1343	249	27	11	32	164	25	164
Number	1	6	16	5	2	12	3	8	18	7	4	14
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1948	1948	1948	1843	1843	1843	1786	1768	1786	1919	1919	1919
Adj Flow Rate, veh/h	170	878	54	61	1357	252	27	11	32	184	0	166
Adj No. of Lanes	1	3	1	1	3	0	0	1	0	2	0	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	335	3531	1096	459	2736	508	33	14	39	426	0	188
Arrive On Green	0.09	1.00	1.00	0.04	1.00	1.00	0.05	0.05	0.05	0.12	0.00	0.12
Sat Flow, veh/h	1855	5317	1650	1755	4265	791	620	253	735	3655	0	1610
Grp Volume(v), veh/h	170	878	54	61	1067	542	70	0	0	184	0	166
Grp Sat Flow(s),veh/h/ln	1855	1772	1650	1755	1677	1702	1608	0	0	1828	0	1610
Q Serve(g_s), s	6.0	0.0	0.0	2.2	0.0	0.0	7.8	0.0	0.0	8.4	0.0	18.3
Cycle Q Clear(g_c), s	6.0	0.0	0.0	2.2	0.0	0.0	7.8	0.0	0.0	8.4	0.0	18.3
Prop In Lane	1.00		1.00	1.00		0.47	0.39		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	335	3531	1096	459	2152	1092	86	0	0	426	0	188
V/C Ratio(X)	0.51	0.25	0.05	0.13	0.50	0.50	0.81	0.00	0.00	0.43	0.00	0.88
Avail Cap(c_a), veh/h	391	3531	1096	502	2152	1092	165	0	0	475	0	209
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	0.0	10.3	0.0	0.0	84.3	0.0	0.0	74.0	0.0	78.3
Incr Delay (d2), s/veh	1.2	0.2	0.1	0.1	0.7	1.5	16.6	0.0	0.0	0.7	0.0	31.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	0.1	0.0	1.9	0.4	0.8	6.9	0.0	0.0	7.7	0.0	14.9
LnGrp Delay(d),s/veh	10.5	0.2	0.1	10.4	0.7	1.5	100.9	0.0	0.0	74.6	0.0	109.3
LnGrp LOS	B	A	A	B	A	A	F			E		F
Approach Vol, veh/h		1102			1670			70			350	
Approach Delay, s/veh		1.8			1.3			100.9			91.1	
Approach LOS		A			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	121.7		27.6	10.5	125.8		16.1
Change Period (Y+Rc), s	6.4	* 6.2		* 6.6	6.5	* 6.2		6.5
Max Green Setting (Gmax), s	13.6	* 99		* 23	8.5	* 1E2		18.5
Max Q Clear Time (g_c+I1), s	8.0	2.0		20.3	4.2	2.0		9.8
Green Ext Time (p_c), s	0.2	79.5		0.4	0.0	82.8		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1082	1489	0	135	179
Future Volume (veh/h)	0	1082	1489	0	135	179
Number	1	6	2	12	7	14
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	0	1948	1862	0	1853	1853
Adj Flow Rate, veh/h	0	1127	1551	0	141	186
Adj No. of Lanes	0	5	3	0	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	1	1
Cap, veh/h	0	6320	4073	0	445	205
Arrive On Green	0.00	1.00	1.00	0.00	0.13	0.13
Sat Flow, veh/h	0	8627	5418	0	3424	1575
Grp Volume(v), veh/h	0	1127	1551	0	141	186
Grp Sat Flow(s),veh/h/ln	0	1577	1694	0	1712	1575
Q Serve(g_s), s	0.0	0.0	0.0	0.0	6.7	21.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	6.7	21.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	6320	4073	0	445	205
V/C Ratio(X)	0.00	0.18	0.38	0.00	0.32	0.91
Avail Cap(c_a), veh/h	0	6320	4073	0	533	245
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.86	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	71.1	77.3
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.3	30.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.2	0.0	5.8	16.3
LnGrp Delay(d),s/veh	0.0	0.1	0.2	0.0	71.4	107.5
LnGrp LOS		A	A		E	F
Approach Vol, veh/h		1127	1551		327	
Approach Delay, s/veh		0.1	0.2		91.9	
Approach LOS		A	A		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		149.6		30.4		149.6		
Change Period (Y+Rc), s		* 5.4		7.0		* 5.4		
Max Green Setting (Gmax), s		* 1.4E2		28.0		* 1.4E2		
Max Q Clear Time (g_c+I1), s		2.0		23.0		2.0		
Green Ext Time (p_c), s		112.1		0.4		112.1		

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	788	97	8	1204	586	291	434	105	0	0	0
Future Volume (veh/h)	327	788	97	8	1204	586	291	434	105	0	0	0
Number	1	6	16	5	2	12	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1948	1948	1948	1824	1824	1824	1852	1852	1852			
Adj Flow Rate, veh/h	337	812	100	8	1241	604	249	518	108			
Adj No. of Lanes	2	3	1	1	3	1	1	2	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	395	3762	1160	400	2997	931	305	641	272			
Arrive On Green	0.04	0.23	0.23	0.01	1.00	1.00	0.17	0.17	0.17			
Sat Flow, veh/h	3598	5317	1639	1737	4980	1547	1764	3705	1572			
Grp Volume(v), veh/h	337	812	100	8	1241	604	249	518	108			
Grp Sat Flow(s),veh/h/ln	1799	1772	1639	1737	1660	1547	1764	1853	1572			
Q Serve(g_s), s	16.8	22.2	8.6	0.3	0.0	0.0	24.5	24.2	11.0			
Cycle Q Clear(g_c), s	16.8	22.2	8.6	0.3	0.0	0.0	24.5	24.2	11.0			
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	395	3762	1160	400	2997	931	305	641	272			
V/C Ratio(X)	0.85	0.22	0.09	0.02	0.41	0.65	0.82	0.81	0.40			
Avail Cap(c_a), veh/h	656	3762	1160	469	2997	931	420	883	375			
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.99	0.90	0.90	0.90	1.00	1.00	1.00			
Uniform Delay (d), s/veh	85.3	28.7	23.5	13.7	0.0	0.0	71.7	71.6	66.1			
Incr Delay (d2), s/veh	5.7	0.1	0.1	0.0	0.4	3.2	8.6	4.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	13.5	16.4	7.1	0.3	0.2	1.5	18.5	18.6	8.4			
LnGrp Delay(d),s/veh	91.1	28.8	23.6	13.8	0.4	3.2	80.2	75.6	67.0			
LnGrp LOS	F	C	C	B	A	A	F	E	E			
Approach Vol, veh/h		1249			1853			875				
Approach Delay, s/veh		45.2			1.3			75.8				
Approach LOS		D			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	27.0	114.8			7.9	133.9		38.2
Change Period (Y+Rc), s	7.2	6.5			6.6	6.5		7.1
Max Green Setting (Gmax), s	32.8	83.5			8.4	108.5		42.9
Max Q Clear Time (g_c+I1), s	18.8	2.0			2.3	24.2		26.5
Green Ext Time (p_c), s	1.0	69.8			0.0	71.9		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	749	35	40	1441	27	183	21	172	129	14	99
Future Volume (veh/h)	81	749	35	40	1441	27	183	21	172	129	14	99
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1948	1948	1948	1872	1872	1872	1938	1938	1938
Adj Flow Rate, veh/h	82	757	35	40	1456	27	185	21	174	130	14	100
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	3673	1135	582	3784	1175	232	295	247	220	306	257
Arrive On Green	0.05	1.00	1.00	0.04	1.00	1.00	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1791	5135	1587	1855	5317	1651	1267	1872	1567	1217	1938	1629
Grp Volume(v), veh/h	82	757	35	40	1456	27	185	21	174	130	14	100
Grp Sat Flow(s),veh/h/ln	1791	1712	1587	1855	1772	1651	1267	1872	1567	1217	1938	1629
Q Serve(g_s), s	2.3	0.0	0.0	1.1	0.0	0.0	26.1	1.7	18.9	18.3	1.1	9.9
Cycle Q Clear(g_c), s	2.3	0.0	0.0	1.1	0.0	0.0	27.2	1.7	18.9	20.1	1.1	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	337	3673	1135	582	3784	1175	232	295	247	220	306	257
V/C Ratio(X)	0.24	0.21	0.03	0.07	0.38	0.02	0.80	0.07	0.70	0.59	0.05	0.39
Avail Cap(c_a), veh/h	431	3673	1135	634	3784	1175	232	295	247	220	306	257
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.35	0.35	0.35	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	0.0	0.0	6.5	0.0	0.0	75.8	64.6	71.8	73.1	64.3	68.0
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	0.1	0.0	16.2	0.0	7.5	2.8	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.1	0.0	1.0	0.1	0.0	15.4	1.6	13.6	10.5	1.1	8.0
LnGrp Delay(d),s/veh	6.6	0.1	0.0	6.5	0.1	0.0	92.0	64.6	79.3	75.9	64.3	68.4
LnGrp LOS	A	A	A	A	A	A	F	E	E	E	E	E
Approach Vol, veh/h		874			1523			380			244	
Approach Delay, s/veh		0.7			0.3			84.7			72.2	
Approach LOS		A			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	134.4		35.0	10.0	135.0		35.0
Change Period (Y+Rc), s	* 6.3	* 6.3		6.6	6.5	* 6.3		6.6
Max Green Setting (Gmax), s	* 14	* 1.2E2		28.4	8.5	* 1.2E2		28.4
Max Q Clear Time (g_c+I1), s	4.3	2.0		22.1	3.1	2.0		29.2
Green Ext Time (p_c), s	0.0	81.5		0.8	0.0	83.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	420	447	183	790	199	550	688	175	126	551	273
Future Volume (veh/h)	214	420	447	183	790	199	550	688	175	126	551	273
Number	3	8	18	7	4	14	1	6	16	5	2	12
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	0.99		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	1881	1881	1881	1834	1834	1834	1872	1872	1872	1900	1900	1900
Adj Flow Rate, veh/h	218	429	0	187	806	203	561	702	179	129	562	0
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	301	1169	523	419	947	422	545	1247	557	340	664	297
Arrive On Green	0.22	0.55	0.00	0.03	0.09	0.09	0.27	0.35	0.35	0.10	0.18	0.00
Sat Flow, veh/h	1791	3574	1599	1747	3485	1552	1783	3556	1588	1810	3610	1615
Grp Volume(v), veh/h	218	429	0	187	806	203	561	702	179	129	562	0
Grp Sat Flow(s),veh/h/ln	1791	1787	1599	1747	1742	1552	1783	1778	1588	1810	1805	1615
Q Serve(g_s), s	14.4	12.3	0.0	13.7	41.0	22.4	48.1	28.8	14.8	9.9	27.1	0.0
Cycle Q Clear(g_c), s	14.4	12.3	0.0	13.7	41.0	22.4	48.1	28.8	14.8	9.9	27.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	301	1169	523	419	947	422	545	1247	557	340	664	297
V/C Ratio(X)	0.72	0.37	0.00	0.45	0.85	0.48	1.03	0.56	0.32	0.38	0.85	0.00
Avail Cap(c_a), veh/h	301	1169	523	419	947	422	545	1247	557	340	664	297
HCM Platoon Ratio	1.67	1.67	1.67	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	30.2	0.0	44.9	78.3	69.9	50.6	47.3	42.8	49.6	71.0	0.0
Incr Delay (d2), s/veh	14.0	0.9	0.0	3.4	9.5	3.9	46.4	1.8	1.5	3.2	12.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.0	10.3	0.0	11.4	28.6	15.3	61.4	20.7	11.0	9.0	21.0	0.0
LnGrp Delay(d),s/veh	51.5	31.1	0.0	48.3	87.9	73.8	97.1	49.1	44.3	52.8	83.6	0.0
LnGrp LOS	D	C		D	F	E	F	D	D	D	F	
Approach Vol, veh/h		647			1196			1442			691	
Approach Delay, s/veh		38.0			79.3			67.2			77.9	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	55.0	40.0	30.0	55.0	25.0	70.0	20.0	65.0
Change Period (Y+Rc), s	6.9	6.9	* 6.2	6.1	6.9	6.9	5.9	6.1
Max Green Setting (Gmax), s	48.1	33.1	* 24	48.9	18.1	63.1	14.1	58.9
Max Q Clear Time (g_c+I1), s	50.1	29.1	16.4	43.0	11.9	30.8	15.7	14.3
Green Ext Time (p_c), s	0.0	3.2	0.2	1.5	0.1	15.9	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	67.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	661	14	32	1041	36	44	0	21	40	0	32
Future Volume (veh/h)	41	661	14	32	1041	36	44	0	21	40	0	32
Number	1	6	16	5	2	12	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	1881	1881	1881	1834	1834	1834	1845	1845	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	711	15	34	1119	39	47	0	23	43	0	34
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	0	0	0
Cap, veh/h	434	2939	1315	657	2856	1278	116	0	87	99	106	90
Arrive On Green	0.04	1.00	1.00	0.02	0.82	0.82	0.06	0.00	0.06	0.06	0.00	0.06
Sat Flow, veh/h	1792	3574	1599	1747	3485	1559	1356	0	1568	1410	1900	1615
Grp Volume(v), veh/h	44	711	15	34	1119	39	47	0	23	43	0	34
Grp Sat Flow(s),veh/h/ln	1792	1787	1599	1747	1742	1559	1356	0	1568	1410	1900	1615
Q Serve(g_s), s	0.7	0.0	0.0	0.6	15.4	0.8	6.1	0.0	2.5	5.4	0.0	3.7
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.6	15.4	0.8	6.1	0.0	2.5	8.0	0.0	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	434	2939	1315	657	2856	1278	116	0	87	99	106	90
V/C Ratio(X)	0.10	0.24	0.01	0.05	0.39	0.03	0.41	0.00	0.26	0.44	0.00	0.38
Avail Cap(c_a), veh/h	486	2939	1315	713	2856	1278	217	0	205	204	248	211
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.0	0.0	0.0	2.4	4.3	3.0	83.1	0.0	81.4	85.3	0.0	82.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.4	0.0	0.9	0.0	0.6	1.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.1	0.0	0.5	11.9	0.7	4.2	0.0	2.0	3.9	0.0	3.0
LnGrp Delay(d),s/veh	3.1	0.2	0.0	2.4	4.7	3.1	84.0	0.0	82.0	86.4	0.0	82.9
LnGrp LOS	A	A	A	A	A	A	F		F	F		F
Approach Vol, veh/h		770			1192			70			77	
Approach Delay, s/veh		0.3			4.6			83.3			84.9	
Approach LOS		A			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	153.7		16.5	9.3	154.2		16.5
Change Period (Y+Rc), s	* 6.2	* 6.2		6.5	6.0	* 6.2		6.5
Max Green Setting (Gmax), s	* 8.8	* 1.3E2		23.5	9.0	* 1.3E2		23.5
Max Q Clear Time (g_c+I1), s	2.7	17.4		8.1	2.6	2.0		10.0
Green Ext Time (p_c), s	0.0	41.8		0.1	0.0	43.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Notes

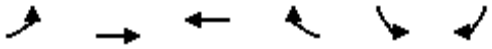
Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	576	24	47	873	11	37	0	163	8	0	9
Future Vol, veh/h	1	576	24	47	873	11	37	0	163	8	0	9
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	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	50	-	-	-	-	-
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	626	26	51	949	12	40	0	177	9	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	961	0	0	626	0	0	1703	1704	639	1774	1685	955
Stage 1	-	-	-	-	-	-	641	641	-	1057	1057	-
Stage 2	-	-	-	-	-	-	1062	1063	-	717	628	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	724	-	-	965	-	-	73	93	480	65	95	316
Stage 1	-	-	-	-	-	-	466	473	-	275	304	-
Stage 2	-	-	-	-	-	-	273	302	-	424	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	724	-	-	965	-	-	68	88	480	39	90	316
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	88	-	39	90	-
Stage 1	-	-	-	-	-	-	465	472	-	274	288	-
Stage 2	-	-	-	-	-	-	251	286	-	267	478	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	35.2	70.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	68	480	724	-	-	965	-	-	73
HCM Lane V/C Ratio	0.591	0.369	0.002	-	-	0.053	-	-	0.253
HCM Control Delay (s)	116.1	16.8	10	0	-	8.9	-	-	70.3
HCM Lane LOS	F	C	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	2.5	1.7	0	-	-	0.2	-	-	0.9



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	484	598	321	117	8
Future Volume (veh/h)	19	484	598	321	117	8
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	520	643	345	126	9
Adj No. of Lanes	0	1	1	1	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	93	1141	1192	1013	168	12
Arrive On Green	0.63	0.63	0.63	0.63	0.10	0.10
Sat Flow, veh/h	25	1819	1900	1615	1664	119
Grp Volume(v), veh/h	540	0	643	345	136	0
Grp Sat Flow(s),veh/h/ln	1844	0	1900	1615	1796	0
Q Serve(g_s), s	0.0	0.0	9.1	4.8	3.5	0.0
Cycle Q Clear(g_c), s	7.1	0.0	9.1	4.8	3.5	0.0
Prop In Lane	0.04			1.00	0.93	0.07
Lane Grp Cap(c), veh/h	1235	0	1192	1013	181	0
V/C Ratio(X)	0.44	0.00	0.54	0.34	0.75	0.00
Avail Cap(c_a), veh/h	1235	0	1192	1013	638	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.6	0.0	5.0	4.2	20.9	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.8	0.9	6.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.2	0.0	9.0	4.3	3.7	0.0
LnGrp Delay(d),s/veh	5.8	0.0	6.8	5.1	27.1	0.0
LnGrp LOS	A		A	A	C	
Approach Vol, veh/h		540	988		136	
Approach Delay, s/veh		5.8	6.2		27.1	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.5				36.5		11.3
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		30.0				30.0		17.0
Max Q Clear Time (g_c+I1), s		11.1				9.1		5.5
Green Ext Time (p_c), s		9.1				9.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

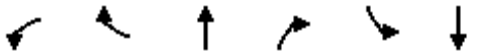
Gresham Smith

Genuine Ingenuity

FUTURE YEAR (2045) NO BUILD

AM & PM Peak Hour Analysis

Synchro Output



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	260	21	680	684	33	293
Future Volume (veh/h)	260	21	680	684	33	293
Number	7	14	6	16	5	2
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	299	24	782	0	38	337
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	390	348	1151	0	360	1151
Arrive On Green	0.22	0.22	0.61	0.00	0.61	0.61
Sat Flow, veh/h	1810	1615	1900	0	702	1900
Grp Volume(v), veh/h	299	24	782	0	38	337
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	0	702	1900
Q Serve(g_s), s	8.7	0.7	15.4	0.0	2.1	4.8
Cycle Q Clear(g_c), s	8.7	0.7	15.4	0.0	17.6	4.8
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	390	348	1151	0	360	1151
V/C Ratio(X)	0.77	0.07	0.68	0.00	0.11	0.29
Avail Cap(c_a), veh/h	612	546	1398	0	452	1398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	17.5	7.4	0.0	13.3	5.3
Incr Delay (d2), s/veh	2.4	0.1	1.7	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	0.5	13.1	0.0	0.8	4.6
LnGrp Delay(d),s/veh	23.0	17.5	9.1	0.0	13.5	5.6
LnGrp LOS	C	B	A		B	A
Approach Vol, veh/h	323		782			375
Approach Delay, s/veh	22.6		9.1			6.4
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		39.7		16.1		39.7		
Change Period (Y+Rc), s		6.9		5.1		6.9		
Max Green Setting (Gmax), s		40.1		17.9		40.1		
Max Q Clear Time (g_c+I1), s		19.6		10.7		17.4		
Green Ext Time (p_c), s		13.3		0.4		14.2		

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	633	117	103	282	49	66	159	92	14	279	2
Future Volume (veh/h)	6	633	117	103	282	49	66	159	92	14	279	2
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	659	122	107	294	51	69	166	96	15	291	2
Adj No. of Lanes	0	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	1536	282	301	901	167	305	332	192	318	554	4
Arrive On Green	0.50	0.52	0.50	0.50	0.52	0.50	0.29	0.29	0.28	0.29	0.29	0.28
Sat Flow, veh/h	6	2975	547	395	1746	323	1103	1131	654	1135	1885	13
Grp Volume(v), veh/h	423	0	364	188	0	264	69	0	262	15	0	293
Grp Sat Flow(s),veh/h/ln	1895	0	1633	792	0	1672	1103	0	1785	1135	0	1898
Q Serve(g_s), s	0.0	0.0	8.2	5.3	0.0	5.3	3.3	0.0	7.1	0.6	0.0	7.5
Cycle Q Clear(g_c), s	8.2	0.0	8.2	13.5	0.0	5.3	10.8	0.0	7.1	7.8	0.0	7.5
Prop In Lane	0.01		0.33	0.57		0.19	1.00		0.37	1.00		0.01
Lane Grp Cap(c), veh/h	1008	0	843	492	0	863	305	0	524	318	0	558
V/C Ratio(X)	0.42	0.00	0.43	0.38	0.00	0.31	0.23	0.00	0.50	0.05	0.00	0.53
Avail Cap(c_a), veh/h	1247	0	1050	614	0	1076	572	0	956	593	0	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	8.9	10.7	0.0	8.2	21.7	0.0	17.2	20.3	0.0	17.2
Incr Delay (d2), s/veh	0.6	0.0	0.8	1.0	0.0	0.4	0.4	0.0	0.7	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	6.9	4.3	0.0	4.6	1.9	0.0	6.5	0.4	0.0	7.2
LnGrp Delay(d),s/veh	9.4	0.0	9.7	11.7	0.0	8.6	22.1	0.0	18.0	20.4	0.0	18.0
LnGrp LOS	A		A	B		A	C		B	C		B
Approach Vol, veh/h		787			452			331			308	
Approach Delay, s/veh		9.5			9.9			18.8			18.1	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		35.6		22.9		35.6		22.9
Change Period (Y+Rc), s		6.4		6.7		6.4		6.7
Max Green Setting (Gmax), s		36.6		30.3		36.6		30.3
Max Q Clear Time (g_c+I1), s		15.5		12.8		10.2		9.8
Green Ext Time (p_c), s		13.7		3.4		15.9		3.6

Intersection Summary		
HCM 2010 Ctrl Delay		12.7
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	571	76	56	297	62	35	87	48	89	198	100
Future Volume (veh/h)	82	571	76	56	297	62	35	87	48	89	198	100
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	607	81	60	316	66	37	93	51	95	211	106
Adj No. of Lanes	0	2	0	1	2	0	0	2	0	0	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	262	1764	233	518	2001	413	116	274	159	191	398	305
Arrive On Green	0.66	0.67	0.67	0.45	0.45	0.44	0.18	0.19	0.18	0.18	0.19	0.19
Sat Flow, veh/h	317	2628	347	766	2982	615	310	1451	844	662	2109	1615
Grp Volume(v), veh/h	385	0	390	60	190	192	85	0	96	144	162	106
Grp Sat Flow(s),veh/h/ln	1624	0	1668	766	1805	1792	1025	0	1580	1129	1643	1615
Q Serve(g_s), s	1.0	0.0	9.0	4.6	5.6	5.8	1.5	0.0	4.7	7.3	8.0	5.1
Cycle Q Clear(g_c), s	7.8	0.0	9.0	13.6	5.6	5.8	9.5	0.0	4.7	12.0	8.0	5.1
Prop In Lane	0.23		0.21	1.00		0.34	0.43		0.53	0.66		1.00
Lane Grp Cap(c), veh/h	1121	0	1119	518	1211	1202	239	0	298	267	310	305
V/C Ratio(X)	0.34	0.00	0.35	0.12	0.16	0.16	0.36	0.00	0.32	0.54	0.52	0.35
Avail Cap(c_a), veh/h	1121	0	1119	518	1211	1202	548	0	639	575	664	653
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.00	0.87	0.85	0.85	0.85	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.2	0.0	6.4	14.8	9.7	9.8	32.6	0.0	31.8	35.9	32.8	31.7
Incr Delay (d2), s/veh	0.7	0.0	0.7	0.4	0.2	0.2	0.3	0.0	0.2	0.6	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	0.0	7.5	1.9	5.2	5.3	3.6	0.0	3.7	6.4	6.5	4.2
LnGrp Delay(d),s/veh	6.9	0.0	7.1	15.2	9.9	10.0	32.9	0.0	32.0	36.5	33.3	31.9
LnGrp LOS	A		A	B	A	B	C		C	D	C	C
Approach Vol, veh/h		775			442			181			412	
Approach Delay, s/veh		7.0			10.7			32.4			34.1	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		66.4		23.6		66.4		23.6
Change Period (Y+Rc), s		7.0		7.6		7.0		7.6
Max Green Setting (Gmax), s		40.0		35.4		40.0		35.4
Max Q Clear Time (g_c+I1), s		15.6		11.5		11.0		14.0
Green Ext Time (p_c), s		5.3		2.0		5.5		2.0

Intersection Summary		
HCM 2010 Ctrl Delay		16.6
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	447	159	224	269	144	156	890	506	320	1220	57
Future Volume (veh/h)	69	447	159	224	269	144	156	890	506	320	1220	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1900	1881	1881	1900
Adj Flow Rate, veh/h	70	456	162	229	274	147	159	908	516	327	1245	58
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	234	476	168	241	583	304	280	983	547	351	1893	88
Arrive On Green	0.07	0.36	0.36	0.04	0.08	0.08	0.07	0.44	0.44	0.16	0.54	0.54
Sat Flow, veh/h	1810	2619	923	1810	2296	1197	1792	2216	1234	1792	3478	162
Grp Volume(v), veh/h	70	313	305	229	214	207	159	729	695	327	639	664
Grp Sat Flow(s),veh/h/ln	1810	1805	1737	1810	1805	1689	1792	1787	1663	1792	1787	1853
Q Serve(g_s), s	5.7	30.4	31.0	18.0	20.3	21.1	8.6	69.0	72.0	26.7	45.7	45.8
Cycle Q Clear(g_c), s	5.7	30.4	31.0	18.0	20.3	21.1	8.6	69.0	72.0	26.7	45.7	45.8
Prop In Lane	1.00		0.53	1.00		0.71	1.00		0.74	1.00		0.09
Lane Grp Cap(c), veh/h	234	328	316	241	458	429	280	792	737	351	973	1008
V/C Ratio(X)	0.30	0.95	0.97	0.95	0.47	0.48	0.57	0.92	0.94	0.93	0.66	0.66
Avail Cap(c_a), veh/h	234	328	316	241	458	429	361	792	737	351	973	1008
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	56.6	56.8	58.1	70.8	71.2	27.2	47.1	48.3	59.7	29.1	29.1
Incr Delay (d2), s/veh	0.2	36.3	39.8	44.0	0.7	0.8	0.7	17.5	21.8	30.7	3.5	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	25.3	25.0	17.6	15.5	15.2	7.7	47.9	47.6	26.1	31.4	32.5
LnGrp Delay(d),s/veh	56.1	92.9	96.6	102.1	71.6	72.0	27.9	64.6	70.1	90.3	32.6	32.5
LnGrp LOS	E	F	F	F	E	E	C	E	E	F	C	C
Approach Vol, veh/h		688			650			1583			1630	
Approach Delay, s/veh		90.8			82.5			63.3			44.1	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	85.0	24.0	37.0	15.8	103.2	11.0	50.0
Change Period (Y+Rc), s	5.4	6.2	* 5.8	* 5.3	5.1	6.2	6.0	* 5.3
Max Green Setting (Gmax), s	28.6	78.8	* 18	* 32	18.9	88.8	5.0	* 45
Max Q Clear Time (g_c+I1), s	19.7	74.0	20.0	33.0	10.6	47.8	7.7	23.1
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	0.1	38.9	0.0	6.5

Intersection Summary		
HCM 2010 Ctrl Delay		63.3
HCM 2010 LOS		E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1331	10	5	566	24	1	1	3	56	0	62
Future Volume (veh/h)	56	1331	10	5	566	24	1	1	3	56	0	62
Number	1	6	16	5	2	12	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	1910	1909	1910	1900	1900	1900	1900	1900	1900	1900	1863	1900
Adj Flow Rate, veh/h	58	1372	11	5	584	25	1	1	3	61	0	64
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	570	1431	11	348	1217	52	60	41	187	80	0	187
Arrive On Green	0.07	1.00	1.00	0.67	0.67	0.67	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1819	1891	15	398	1809	77	0	355	1615	0	0	1615
Grp Volume(v), veh/h	58	0	1383	5	0	609	2	0	3	61	0	64
Grp Sat Flow(s),veh/h/ln	1819	0	1907	398	0	1886	355	0	1615	0	0	1615
Q Serve(g_s), s	0.8	0.0	0.0	0.4	0.0	14.0	0.0	0.0	0.1	0.0	0.0	3.3
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	0.0	14.0	10.4	0.0	0.1	10.4	0.0	3.3
Prop In Lane	1.00		0.01	1.00		0.04	0.50		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	1443	348	0	1269	101	0	187	80	0	187
V/C Ratio(X)	0.10	0.00	0.96	0.01	0.00	0.48	0.02	0.00	0.02	0.76	0.00	0.34
Avail Cap(c_a), veh/h	619	0	1443	348	0	1269	101	0	187	80	0	187
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.8	0.0	0.0	4.9	0.0	7.1	35.6	0.0	35.3	45.0	0.0	36.7
Incr Delay (d2), s/veh	0.0	0.0	15.7	0.1	0.0	1.3	0.0	0.0	0.0	31.4	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	10.4	0.1	0.0	12.3	0.1	0.0	0.1	4.0	0.0	2.7
LnGrp Delay(d),s/veh	4.8	0.0	15.7	5.0	0.0	8.4	35.7	0.0	35.3	76.4	0.0	37.1
LnGrp LOS	A		B	A		A	D		D	E		D
Approach Vol, veh/h		1441			614			5			125	
Approach Delay, s/veh		15.3			8.4			35.4			56.3	
Approach LOS		B			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.6	67.0		15.4		74.6		15.4
Change Period (Y+Rc), s	4.5	6.5		5.0		6.5		5.0
Max Green Setting (Gmax), s	5.5	58.1		10.4		68.1		10.4
Max Q Clear Time (g_c+I1), s	2.8	16.0		12.4		2.0		12.4
Green Ext Time (p_c), s	0.0	35.7		0.0		51.8		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		15.7
HCM 2010 LOS		B

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1377	6	2	586	1	6	0	8	3	0	6
Future Vol, veh/h	3	1377	6	2	586	1	6	0	8	3	0	6
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	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	1420	6	2	604	1	6	0	8	3	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	605	0	0	1420	0	0	2038	2035	1420	2039	2035	605
Stage 1	-	-	-	-	-	-	1426	1426	-	609	609	-
Stage 2	-	-	-	-	-	-	612	609	-	1430	1426	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	983	-	-	486	-	-	42	58	169	42	58	501
Stage 1	-	-	-	-	-	-	170	203	-	486	488	-
Stage 2	-	-	-	-	-	-	484	488	-	169	203	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	983	-	-	486	-	-	41	57	169	39	57	501
Mov Cap-2 Maneuver	-	-	-	-	-	-	41	57	-	39	57	-
Stage 1	-	-	-	-	-	-	167	200	-	479	485	-
Stage 2	-	-	-	-	-	-	475	485	-	158	200	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	67.1	44.2
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	72	983	-	-	486	-	-	101
HCM Lane V/C Ratio	0.2	0.003	-	-	0.004	-	-	0.092
HCM Control Delay (s)	67.1	8.7	0	-	12.4	0	-	44.2
HCM Lane LOS	F	A	A	-	B	A	-	E
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0.3

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	1	1378	13	0	575	5	8	1	7	21	5	5
Future Vol, veh/h	1	1378	13	0	575	5	8	1	7	21	5	5
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1421	13	0	593	5	8	1	7	22	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	598	0	0	1434	0	0	2030	2027	1427	2029	2031	595
Stage 1	-	-	-	-	-	-	1429	1429	-	595	595	-
Stage 2	-	-	-	-	-	-	601	598	-	1434	1436	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	989	-	-	480	-	-	43	58	167	43	58	508
Stage 1	-	-	-	-	-	-	169	202	-	494	496	-
Stage 2	-	-	-	-	-	-	491	494	-	168	201	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	989	-	-	480	-	-	40	58	167	40	58	508
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	58	-	40	58	-
Stage 1	-	-	-	-	-	-	168	201	-	492	496	-
Stage 2	-	-	-	-	-	-	481	494	-	159	200	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	82.9	161
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	62	989	-	-	480	-	-	50
HCM Lane V/C Ratio	0.266	0.001	-	-	-	-	-	0.639
HCM Control Delay (s)	82.9	8.6	0	-	0	-	-	161
HCM Lane LOS	F	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	2.5

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	1396	10	2	554	3	7	1	15	1	0	16
Future Vol, veh/h	5	1396	10	2	554	3	7	1	15	1	0	16
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	1454	10	2	577	3	7	1	16	1	0	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	580	0	0	1465	0	0	2061	2054	1459	2061	2058	579
Stage 1	-	-	-	-	-	-	1470	1470	-	583	583	-
Stage 2	-	-	-	-	-	-	591	584	-	1478	1475	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1004	-	-	467	-	-	41	56	160	41	56	519
Stage 1	-	-	-	-	-	-	160	193	-	502	502	-
Stage 2	-	-	-	-	-	-	497	501	-	158	192	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1004	-	-	467	-	-	39	54	160	36	54	519
Mov Cap-2 Maneuver	-	-	-	-	-	-	39	54	-	36	54	-
Stage 1	-	-	-	-	-	-	156	188	-	488	499	-
Stage 2	-	-	-	-	-	-	478	498	-	138	187	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	69.3	18.2
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	79	1004	-	-	467	-	-	290
HCM Lane V/C Ratio	0.303	0.005	-	-	0.004	-	-	0.061
HCM Control Delay (s)	69.3	8.6	0	-	12.7	0	-	18.2
HCM Lane LOS	F	A	A	-	B	A	-	C
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1452	558	1	1	3
Future Vol, veh/h	2	1452	558	1	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	1596	613	1	1	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	614	0	-	0	2214	614
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	1600	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	975	-	-	-	49	496
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	184	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	975	-	-	-	48	496
Mov Cap-2 Maneuver	-	-	-	-	48	-
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	181	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	29.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	975	-	-	-	149
HCM Lane V/C Ratio	0.002	-	-	-	0.03
HCM Control Delay (s)	8.7	0	-	-	29.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1448	5	5	553	6	10
Future Vol, veh/h	1448	5	5	553	6	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	5	5
Mvmt Flow	1524	5	5	582	6	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1529	0	2120	1527
Stage 1	-	-	-	-	1527	-
Stage 2	-	-	-	-	593	-
Critical Hdwy	-	-	4.1	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	441	-	54	142
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	441	-	53	142
Mov Cap-2 Maneuver	-	-	-	-	53	-
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	537	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	56.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	87	-	-	441	-
HCM Lane V/C Ratio	0.194	-	-	0.012	-
HCM Control Delay (s)	56.1	-	-	13.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1444	5	10	563	7	17
Future Vol, veh/h	1444	5	10	563	7	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1489	5	10	580	7	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1494	0	2092	747
Stage 1	-	-	-	-	1491	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	-	-	4.1	-	6.6	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	455	-	52	360
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	551	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	455	-	51	360
Mov Cap-2 Maneuver	-	-	-	-	51	-
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	539	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	39.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	130	-	-	455	-
HCM Lane V/C Ratio	0.19	-	-	0.023	-
HCM Control Delay (s)	39.1	-	-	13.1	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1244	205	475	463	101	95	189	596	409	818	15
Future Volume (veh/h)	27	1244	205	475	463	101	95	189	596	409	818	15
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	1910	1910	1910	1900	1900	1900	1881	1881	1881	1919	1919	1919
Adj Flow Rate, veh/h	28	1296	214	495	482	105	99	197	621	426	852	16
Adj No. of Lanes	1	2	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	234	1113	182	372	678	148	212	420	375	309	1180	22
Arrive On Green	0.02	0.36	0.36	0.11	0.45	0.45	0.05	0.24	0.24	0.15	0.32	0.32
Sat Flow, veh/h	1819	3121	511	3510	1512	329	1791	1787	1595	1828	3661	69
Grp Volume(v), veh/h	28	749	761	495	0	587	99	197	621	426	424	444
Grp Sat Flow(s),veh/h/ln	1819	1814	1818	1755	0	1842	1791	1787	1595	1828	1823	1907
Q Serve(g_s), s	1.7	60.6	60.6	18.0	0.0	43.9	7.1	16.1	40.0	24.8	34.9	34.9
Cycle Q Clear(g_c), s	1.7	60.6	60.6	18.0	0.0	43.9	7.1	16.1	40.0	24.8	34.9	34.9
Prop In Lane	1.00		0.28	1.00		0.18	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	234	647	648	372	0	825	212	420	375	309	587	614
V/C Ratio(X)	0.12	1.16	1.17	1.33	0.00	0.71	0.47	0.47	1.65	1.38	0.72	0.72
Avail Cap(c_a), veh/h	258	647	648	372	0	825	235	420	375	309	587	614
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	54.7	54.7	76.0	0.0	38.0	47.0	55.9	65.0	56.8	50.9	50.9
Incr Delay (d2), s/veh	0.1	87.5	94.2	166.7	0.0	5.2	1.6	1.7	306.1	189.5	5.4	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	82.9	85.3	31.2	0.0	31.5	6.5	12.8	89.2	55.4	25.5	26.4
LnGrp Delay(d),s/veh	36.4	142.2	148.9	242.7	0.0	43.2	48.6	57.6	371.1	246.3	56.3	56.0
LnGrp LOS	D	F	F	F		D	D	E	F	F	E	E
Approach Vol, veh/h		1538			1082			917			1294	
Approach Delay, s/veh		143.6			134.5			268.9			118.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	67.6	32.0	46.4	8.4	83.2	17.2	61.2
Change Period (Y+Rc), s	6.0	7.0	7.2	6.4	5.5	7.0	8.2	6.4
Max Green Setting (Gmax), s	18.0	60.6	24.8	40.0	5.1	74.0	11.2	52.6
Max Q Clear Time (g_c+I1), s	20.0	62.6	26.8	42.0	3.7	45.9	9.1	36.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	18.1	0.0	13.2

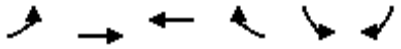
Intersection Summary	
HCM 2010 Ctrl Delay	158.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	2025	29	35	946	188	68	35	53	145	8	107
Future Volume (veh/h)	161	2025	29	35	946	188	68	35	53	145	8	107
Number	1	6	16	5	2	12	3	8	18	7	4	14
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1948	1948	1948	1843	1843	1843	1786	1751	1786	1919	1919	1919
Adj Flow Rate, veh/h	164	2066	30	36	965	192	69	36	54	154	0	109
Adj No. of Lanes	1	3	1	1	3	0	0	1	0	2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	430	3270	1015	189	2464	489	80	42	62	367	0	161
Arrive On Green	0.10	1.00	1.00	0.04	1.00	1.00	0.11	0.11	0.11	0.10	0.00	0.10
Sat Flow, veh/h	1855	5317	1650	1755	4212	836	703	367	550	3655	0	1607
Grp Volume(v), veh/h	164	2066	30	36	768	389	159	0	0	154	0	109
Grp Sat Flow(s),veh/h/ln	1855	1772	1650	1755	1677	1694	1619	0	0	1828	0	1607
Q Serve(g_s), s	6.2	0.0	0.0	1.4	0.0	0.0	16.4	0.0	0.0	6.7	0.0	11.1
Cycle Q Clear(g_c), s	6.2	0.0	0.0	1.4	0.0	0.0	16.4	0.0	0.0	6.7	0.0	11.1
Prop In Lane	1.00		1.00	1.00		0.49	0.43		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	430	3270	1015	189	1962	991	184	0	0	367	0	161
V/C Ratio(X)	0.38	0.63	0.03	0.19	0.39	0.39	0.86	0.00	0.00	0.42	0.00	0.68
Avail Cap(c_a), veh/h	506	3270	1015	207	1962	991	391	0	0	882	0	388
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.6	0.0	0.0	13.3	0.0	0.0	74.1	0.0	0.0	71.8	0.0	73.8
Incr Delay (d2), s/veh	0.6	0.9	0.1	0.5	0.6	1.1	11.4	0.0	0.0	0.8	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.5	0.0	1.3	0.3	0.5	12.6	0.0	0.0	6.2	0.0	8.9
LnGrp Delay(d),s/veh	12.1	0.9	0.1	13.8	0.6	1.1	85.5	0.0	0.0	72.6	0.0	78.7
LnGrp LOS	B	A	A	B	A	A	F			E		E
Approach Vol, veh/h		2260			1193			159			263	
Approach Delay, s/veh		1.7			1.1			85.5			75.1	
Approach LOS		A			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	105.7		23.7	9.8	110.8		25.8
Change Period (Y+Rc), s	6.4	* 6.2		* 6.6	6.5	* 6.2		6.5
Max Green Setting (Gmax), s	15.4	* 47		* 41	5.0	* 57		41.1
Max Q Clear Time (g_c+I1), s	8.2	2.0		13.1	3.4	2.0		18.4
Green Ext Time (p_c), s	0.2	43.8		0.9	0.0	53.5		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A

Notes



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2304	985	0	1171	193
Future Volume (veh/h)	0	2304	985	0	1171	193
Number	1	6	2	12	7	14
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	0	1948	1862	0	1872	1872
Adj Flow Rate, veh/h	0	2327	995	0	1183	195
Adj No. of Lanes	0	5	3	0	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	4413	2844	0	1271	585
Arrive On Green	0.00	1.00	0.74	0.00	0.37	0.37
Sat Flow, veh/h	0	8627	5418	0	3458	1591
Grp Volume(v), veh/h	0	2327	995	0	1183	195
Grp Sat Flow(s),veh/h/ln	0	1577	1694	0	1729	1591
Q Serve(g_s), s	0.0	0.0	11.5	0.0	55.9	15.0
Cycle Q Clear(g_c), s	0.0	0.0	11.5	0.0	55.9	15.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	4413	2844	0	1271	585
V/C Ratio(X)	0.00	0.53	0.35	0.00	0.93	0.33
Avail Cap(c_a), veh/h	0	4413	2844	0	1729	795
HCM Platoon Ratio	1.00	2.00	1.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.72	0.97	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	11.1	0.0	51.7	38.7
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	7.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	9.2	0.0	36.7	10.9
LnGrp Delay(d),s/veh	0.0	0.3	11.4	0.0	58.9	39.0
LnGrp LOS		A	B		E	D
Approach Vol, veh/h		2327	995		1378	
Approach Delay, s/veh		0.3	11.4		56.1	
Approach LOS		A	B		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		100.5		69.5		100.5		
Change Period (Y+Rc), s		* 5.4		7.0		* 5.4		
Max Green Setting (Gmax), s		* 73		85.0		* 73		
Max Q Clear Time (g_c+I1), s		13.5		57.9		2.0		
Green Ext Time (p_c), s		57.8		4.6		68.7		

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	2659	674	54	963	477	38	23	23	0	0	0
Future Volume (veh/h)	131	2659	674	54	963	477	38	23	23	0	0	0
Number	1	6	16	5	2	12	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1948	1948	1948	1824	1824	1824	1852	1852	1852			
Adj Flow Rate, veh/h	135	2741	695	56	993	492	39	24	24			
Adj No. of Lanes	2	3	1	1	3	1	2	1	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	176	4299	1327	119	3874	1204	179	94	79			
Arrive On Green	0.10	1.00	1.00	0.04	1.00	1.00	0.05	0.05	0.05			
Sat Flow, veh/h	3598	5317	1641	1737	4980	1547	3529	1853	1565			
Grp Volume(v), veh/h	135	2741	695	56	993	492	39	24	24			
Grp Sat Flow(s),veh/h/ln	1799	1772	1641	1737	1660	1547	1764	1853	1565			
Q Serve(g_s), s	6.2	0.0	0.0	1.1	0.0	0.0	1.8	2.1	2.5			
Cycle Q Clear(g_c), s	6.2	0.0	0.0	1.1	0.0	0.0	1.8	2.1	2.5			
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	176	4299	1327	119	3874	1204	179	94	79			
V/C Ratio(X)	0.77	0.64	0.52	0.47	0.26	0.41	0.22	0.26	0.30			
Avail Cap(c_a), veh/h	237	4299	1327	157	3874	1204	830	436	368			
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.70	0.93	0.93	0.93	1.00	1.00	1.00			
Uniform Delay (d), s/veh	75.8	0.0	0.0	8.2	0.0	0.0	77.4	77.6	77.8			
Incr Delay (d2), s/veh	7.2	0.5	1.0	2.7	0.1	1.0	0.6	1.4	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	5.7	0.4	0.7	3.5	0.1	0.6	1.6	2.0	2.0			
LnGrp Delay(d),s/veh	83.0	0.5	1.0	10.9	0.1	1.0	78.0	79.0	79.9			
LnGrp LOS	F	A	A	B	A	A	E	E	E			
Approach Vol, veh/h		3571			1541			87				
Approach Delay, s/veh		3.7			0.8			78.8				
Approach LOS		A			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	15.5	138.8			10.3	144.0		15.7
Change Period (Y+Rc), s	7.2	6.5			6.6	6.5		7.1
Max Green Setting (Gmax), s	11.3	98.0			7.4	102.4		40.0
Max Q Clear Time (g_c+I1), s	8.2	2.0			3.1	2.0		4.5
Green Ext Time (p_c), s	0.1	95.4			0.0	99.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	2092	310	243	1526	43	30	6	43	59	11	55
Future Volume (veh/h)	95	2092	310	243	1526	43	30	6	43	59	11	55
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.98		0.98	0.98		0.98
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	1881	1881	1881	1948	1948	1948	1872	1872	1872	1938	1938	1938
Adj Flow Rate, veh/h	101	2226	330	259	1623	46	32	6	46	63	12	59
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	304	3640	1125	276	4034	1253	166	188	156	176	194	162
Arrive On Green	0.06	1.00	1.00	0.15	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1791	5135	1587	1855	5317	1651	1309	1872	1553	1371	1938	1618
Grp Volume(v), veh/h	101	2226	330	259	1623	46	32	6	46	63	12	59
Grp Sat Flow(s),veh/h/ln	1791	1712	1587	1855	1772	1651	1309	1872	1553	1371	1938	1618
Q Serve(g_s), s	2.8	0.0	0.0	10.9	0.0	0.0	3.9	0.5	4.7	7.4	1.0	5.8
Cycle Q Clear(g_c), s	2.8	0.0	0.0	10.9	0.0	0.0	4.8	0.5	4.7	7.9	1.0	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	304	3640	1125	276	4034	1253	166	188	156	176	194	162
V/C Ratio(X)	0.33	0.61	0.29	0.94	0.40	0.04	0.19	0.03	0.30	0.36	0.06	0.36
Avail Cap(c_a), veh/h	359	3640	1125	456	4034	1253	297	374	311	313	388	324
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	29.1	0.0	0.0	71.4	69.0	70.9	72.6	69.2	71.4
Incr Delay (d2), s/veh	0.2	0.6	0.5	1.7	0.0	0.0	0.2	0.0	0.4	0.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.3	0.3	13.6	0.0	0.0	2.5	0.5	3.6	5.1	0.9	4.7
LnGrp Delay(d),s/veh	6.2	0.6	0.5	30.8	0.0	0.0	71.6	69.0	71.3	73.0	69.3	71.9
LnGrp LOS	A	A	A	C	A	A	E	E	E	E	E	E
Approach Vol, veh/h		2657			1928			84			134	
Approach Delay, s/veh		0.8			4.2			71.3			72.2	
Approach LOS		A			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	135.3		23.7	19.5	126.8		23.7
Change Period (Y+Rc), s	* 6.3	* 6.3		6.6	6.5	* 6.3		6.6
Max Green Setting (Gmax), s	* 9.3	* 1.1E2		34.0	29.5	* 87		34.0
Max Q Clear Time (g_c+I1), s	4.8	2.0		9.9	12.9	2.0		6.8
Green Ext Time (p_c), s	0.0	104.0		0.4	0.2	84.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	1157	673	684	1004	572	532	879	594	605	721	318
Future Volume (veh/h)	314	1157	673	684	1004	572	532	879	594	605	721	318
Number	3	8	18	7	4	14	1	6	16	5	2	12
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	1881	1881	1881	1834	1834	1834	1890	1890	1890	1900	1900	1900
Adj Flow Rate, veh/h	324	1193	0	705	1035	590	548	906	612	624	743	0
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	0	0	0
Cap, veh/h	310	923	413	372	1031	459	336	868	388	331	979	438
Arrive On Green	0.20	0.34	0.00	0.19	0.30	0.30	0.13	0.24	0.24	0.16	0.27	0.00
Sat Flow, veh/h	1791	3574	1599	1747	3485	1553	1800	3592	1603	1810	3610	1615
Grp Volume(v), veh/h	324	1193	0	705	1035	590	548	906	612	624	743	0
Grp Sat Flow(s),veh/h/ln	1791	1787	1599	1747	1742	1553	1800	1796	1603	1810	1805	1615
Q Serve(g_s), s	25.4	43.9	0.0	32.1	50.3	50.3	22.1	41.1	41.1	27.1	32.1	0.0
Cycle Q Clear(g_c), s	25.4	43.9	0.0	32.1	50.3	50.3	22.1	41.1	41.1	27.1	32.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	923	413	372	1031	459	336	868	388	331	979	438
V/C Ratio(X)	1.05	1.29	0.00	1.89	1.00	1.28	1.63	1.04	1.58	1.89	0.76	0.00
Avail Cap(c_a), veh/h	310	923	413	372	1031	459	336	868	388	331	979	438
HCM Platoon Ratio	1.33	1.33	1.33	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.6	55.8	0.0	56.7	59.8	59.8	47.4	64.4	64.4	56.7	56.9	0.0
Incr Delay (d2), s/veh	63.4	139.8	0.0	412.4	28.9	143.7	297.1	42.4	272.7	410.1	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.0	71.2	0.0	108.2	51.0	71.8	49.9	45.9	85.6	95.8	23.5	0.0
LnGrp Delay(d),s/veh	116.0	195.6	0.0	469.0	88.8	203.5	344.5	106.9	337.2	466.8	62.4	0.0
LnGrp LOS	F	F		F	F	F	F	F	F	F	E	
Approach Vol, veh/h		1517			2330			2066			1367	
Approach Delay, s/veh		178.6			232.9			238.1			247.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.0	53.0	31.6	56.4	34.0	48.0	38.0	50.0
Change Period (Y+Rc), s	6.9	6.9	* 6.2	6.1	6.9	6.9	5.9	6.1
Max Green Setting (Gmax), s	32.1	46.1	* 25	50.3	27.1	41.1	32.1	43.9
Max Q Clear Time (g_c+I1), s	24.1	34.1	27.4	52.3	29.1	43.1	34.1	45.9
Green Ext Time (p_c), s	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	225.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	2111	147	225	1904	53	297	1	109	42	5	104
Future Volume (veh/h)	58	2111	147	225	1904	53	297	1	109	42	5	104
Number	1	6	16	5	2	12	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	1881	1881	1881	1834	1834	1834	1881	1881	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	2270	158	242	2047	57	319	1	117	45	5	112
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	119	2103	941	207	2289	1024	306	3	330	229	395	335
Arrive On Green	0.02	0.59	0.59	0.09	0.66	0.66	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1792	3574	1599	1747	3485	1559	1282	14	1587	1294	1900	1615
Grp Volume(v), veh/h	62	2270	158	242	2047	57	319	0	118	45	5	112
Grp Sat Flow(s),veh/h/ln	1792	1787	1599	1747	1742	1559	1282	0	1601	1294	1900	1615
Q Serve(g_s), s	2.4	100.0	7.7	16.0	83.0	2.2	34.9	0.0	10.7	5.2	0.4	10.0
Cycle Q Clear(g_c), s	2.4	100.0	7.7	16.0	83.0	2.2	35.3	0.0	10.7	16.0	0.4	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Lane Grp Cap(c), veh/h	119	2103	941	207	2289	1024	306	0	332	229	395	335
V/C Ratio(X)	0.52	1.08	0.17	1.17	0.89	0.06	1.04	0.00	0.35	0.20	0.01	0.33
Avail Cap(c_a), veh/h	139	2103	941	207	2289	1024	306	0	332	229	395	335
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)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	35.0	16.0	64.7	24.3	10.4	69.9	0.0	57.6	64.4	53.5	57.3
Incr Delay (d2), s/veh	0.1	36.9	0.0	116.2	5.9	0.1	63.0	0.0	0.2	0.2	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(95%),veh/ln	2.4	103.9	4.3	29.5	52.3	1.8	35.5	0.0	8.4	3.4	0.3	8.0
LnGrp Delay(d),s/veh	35.2	71.9	16.0	180.9	30.2	10.5	132.9	0.0	57.8	64.6	53.5	57.6
LnGrp LOS	D	F	B	F	C	B	F		E	E	D	E
Approach Vol, veh/h		2490			2346			437			162	
Approach Delay, s/veh		67.4			45.2			112.7			59.4	
Approach LOS		E			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.3	117.9		41.8	22.0	106.2		41.8
Change Period (Y+Rc), s	* 6.2	* 6.2		6.5	6.0	* 6.2		6.5
Max Green Setting (Gmax), s	* 6	* 1.1E2		35.3	16.0	* 1E2		35.3
Max Q Clear Time (g_c+I1), s	4.4	85.0		37.3	18.0	102.0		18.0
Green Ext Time (p_c), s	0.0	24.7		0.0	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	61.2
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	9.7

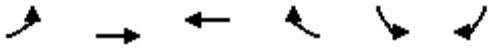
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1214	55	124	419	10	19	0	146	3	1	0
Future Vol, veh/h	6	1214	55	124	419	10	19	0	146	3	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	1291	59	132	446	11	20	0	155	3	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	457	0	0	1291	0	0	2049	2054	1321	2097	2019	452
Stage 1	-	-	-	-	-	-	1333	1333	-	716	716	-
Stage 2	-	-	-	-	-	-	716	721	-	1381	1303	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1114	-	-	544	-	-	42	56	193	39	59	612
Stage 1	-	-	-	-	-	-	192	225	-	424	437	-
Stage 2	-	-	-	-	-	-	424	435	-	180	233	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	544	-	-	33	41	193	6	44	612
Mov Cap-2 Maneuver	-	-	-	-	-	-	33	41	-	6	44	-
Stage 1	-	-	-	-	-	-	188	220	-	415	331	-
Stage 2	-	-	-	-	-	-	320	329	-	34	228	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.1	90	$ 694.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	33	193	1114	-	-	544	-	-	8
HCM Lane V/C Ratio	0.613	0.805	0.006	-	-	0.242	-	-	0.532
HCM Control Delay (s)	221	72.9	8.2	0	-	13.7	-	-	$ 694.4
HCM Lane LOS	F	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	2.1	5.6	0	-	-	0.9	-	-	1.1

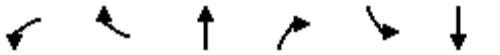
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	762	246	192	513	6
Future Volume (veh/h)	2	762	246	192	513	6
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	786	254	198	529	6
Adj No. of Lanes	0	1	1	1	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	47	970	971	825	572	6
Arrive On Green	0.51	0.51	0.51	0.51	0.32	0.32
Sat Flow, veh/h	1	1898	1900	1615	1784	20
Grp Volume(v), veh/h	788	0	254	198	536	0
Grp Sat Flow(s),veh/h/ln	1899	0	1900	1615	1807	0
Q Serve(g_s), s	0.0	0.0	5.8	5.3	22.1	0.0
Cycle Q Clear(g_c), s	26.8	0.0	5.8	5.3	22.1	0.0
Prop In Lane	0.00			1.00	0.99	0.01
Lane Grp Cap(c), veh/h	1017	0	971	825	580	0
V/C Ratio(X)	0.77	0.00	0.26	0.24	0.92	0.00
Avail Cap(c_a), veh/h	1017	0	971	825	643	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	10.7	10.5	25.3	0.0
Incr Delay (d2), s/veh	5.8	0.0	0.7	0.7	18.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	21.9	0.0	5.8	4.4	20.1	0.0
LnGrp Delay(d),s/veh	21.5	0.0	11.3	11.2	43.6	0.0
LnGrp LOS	C		B	B	D	
Approach Vol, veh/h		788	452		536	
Approach Delay, s/veh		21.5	11.3		43.6	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		46.0				46.0		31.3
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		39.5				39.5		27.5
Max Q Clear Time (g_c+I1), s		7.8				28.8		24.1
Green Ext Time (p_c), s		9.3				5.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	690	45	485	366	16	385
Future Volume (veh/h)	690	45	485	366	16	385
Number	7	14	6	16	5	2
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	793	52	557	0	18	443
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	789	704	785	0	256	785
Arrive On Green	0.44	0.44	0.41	0.00	0.41	0.41
Sat Flow, veh/h	1810	1615	1900	0	866	1900
Grp Volume(v), veh/h	793	52	557	0	18	443
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	0	866	1900
Q Serve(g_s), s	28.9	1.2	16.1	0.0	1.2	11.8
Cycle Q Clear(g_c), s	28.9	1.2	16.1	0.0	17.3	11.8
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	789	704	785	0	256	785
V/C Ratio(X)	1.01	0.07	0.71	0.00	0.07	0.56
Avail Cap(c_a), veh/h	789	704	891	0	304	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	10.9	16.1	0.0	23.3	14.9
Incr Delay (d2), s/veh	33.3	0.0	3.3	0.0	0.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	38.8	1.0	14.0	0.0	0.5	10.6
LnGrp Delay(d),s/veh	52.0	10.9	19.4	0.0	23.6	16.2
LnGrp LOS	F	B	B		C	B
Approach Vol, veh/h	845		557			461
Approach Delay, s/veh	49.5		19.4			16.5
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		33.3		33.0		33.3		
Change Period (Y+Rc), s		6.9		5.1		6.9		
Max Green Setting (Gmax), s		30.1		27.9		30.1		
Max Q Clear Time (g_c+I1), s		19.3		30.9		18.1		
Green Ext Time (p_c), s		7.1		0.0		7.7		

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	431	54	201	676	19	85	296	149	39	185	18
Future Volume (veh/h)	7	431	54	201	676	19	85	296	149	39	185	18
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	454	57	212	712	20	89	312	157	41	195	19
Adj No. of Lanes	0	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	1609	199	340	1115	33	398	406	205	196	581	57
Arrive On Green	0.50	0.51	0.50	0.50	0.51	0.50	0.34	0.34	0.33	0.34	0.34	0.33
Sat Flow, veh/h	12	3141	389	523	2178	64	1186	1193	601	939	1705	166
Grp Volume(v), veh/h	274	0	244	406	0	538	89	0	469	41	0	214
Grp Sat Flow(s),veh/h/ln	1881	0	1660	1047	0	1718	1186	0	1794	939	0	1871
Q Serve(g_s), s	0.0	0.0	6.4	20.3	0.0	16.8	4.6	0.0	17.6	3.1	0.0	6.4
Cycle Q Clear(g_c), s	6.2	0.0	6.4	26.6	0.0	16.8	11.0	0.0	17.6	20.7	0.0	6.4
Prop In Lane	0.03		0.23	0.52		0.04	1.00		0.33	1.00		0.09
Lane Grp Cap(c), veh/h	988	0	851	595	0	880	398	0	611	196	0	637
V/C Ratio(X)	0.28	0.00	0.29	0.68	0.00	0.61	0.22	0.00	0.77	0.21	0.00	0.34
Avail Cap(c_a), veh/h	1035	0	894	626	0	925	439	0	673	228	0	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	10.6	17.5	0.0	13.1	22.6	0.0	22.4	31.5	0.0	18.6
Incr Delay (d2), s/veh	0.3	0.0	0.4	3.9	0.0	1.8	0.3	0.0	4.9	0.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.2	0.0	5.3	12.6	0.0	13.1	2.7	0.0	14.6	1.5	0.0	6.1
LnGrp Delay(d),s/veh	10.8	0.0	11.0	21.5	0.0	14.8	22.9	0.0	27.2	32.0	0.0	18.9
LnGrp LOS	B		B	C		B	C		C	C		B
Approach Vol, veh/h		518			944			558			255	
Approach Delay, s/veh		10.9			17.7			26.5			21.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		44.0		31.4		44.0		31.4
Change Period (Y+Rc), s		6.4		6.7		6.4		6.7
Max Green Setting (Gmax), s		39.6		27.3		39.6		27.3
Max Q Clear Time (g_c+I1), s		28.6		19.6		8.4		22.7
Green Ext Time (p_c), s		9.0		2.9		20.9		2.0

Intersection Summary		
HCM 2010 Ctrl Delay		18.7
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	459	51	97	717	142	51	277	89	74	111	109
Future Volume (veh/h)	95	459	51	97	717	142	51	277	89	74	111	109
Number	1	6	16	5	2	12	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	510	57	108	797	158	57	308	99	82	123	121
Adj No. of Lanes	0	2	0	1	2	0	0	2	0	0	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	1304	153	519	1945	386	109	537	175	180	407	400
Arrive On Green	0.64	0.65	0.65	0.65	0.65	0.64	0.24	0.25	0.24	0.24	0.25	0.25
Sat Flow, veh/h	324	2015	236	858	3004	596	292	2170	707	484	1643	1615
Grp Volume(v), veh/h	266	0	407	108	479	476	239	0	225	82	123	121
Grp Sat Flow(s),veh/h/ln	888	0	1687	858	1805	1795	1565	0	1604	484	1643	1615
Q Serve(g_s), s	13.0	0.0	13.4	8.0	15.3	15.4	9.8	0.0	14.7	9.5	7.3	7.3
Cycle Q Clear(g_c), s	28.4	0.0	13.4	21.5	15.3	15.4	17.1	0.0	14.7	24.3	7.3	7.3
Prop In Lane	0.40		0.14	1.00		0.33	0.24		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	609	0	1092	519	1169	1162	411	0	397	176	407	400
V/C Ratio(X)	0.44	0.00	0.37	0.21	0.41	0.41	0.58	0.00	0.57	0.47	0.30	0.30
Avail Cap(c_a), veh/h	609	0	1092	519	1169	1162	544	0	527	256	539	530
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)	0.96	0.00	0.96	0.42	0.42	0.42	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	9.8	14.8	10.2	10.2	40.6	0.0	39.7	50.7	36.7	36.7
Incr Delay (d2), s/veh	2.2	0.0	0.9	0.4	0.4	0.4	0.5	0.0	0.5	0.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.5	0.0	10.6	3.4	10.7	10.7	11.7	0.0	10.8	4.8	6.0	5.9
LnGrp Delay(d),s/veh	15.7	0.0	10.8	15.2	10.6	10.7	41.0	0.0	40.2	51.4	36.9	36.9
LnGrp LOS	B		B	B	B	B	D		D	D	D	D
Approach Vol, veh/h		673			1063			464			326	
Approach Delay, s/veh		12.7			11.1			40.6			40.5	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		83.7		36.3		83.7		36.3
Change Period (Y+Rc), s		7.0		7.6		7.0		7.6
Max Green Setting (Gmax), s		67.0		38.4		67.0		38.4
Max Q Clear Time (g_c+I1), s		23.5		19.1		30.4		26.3
Green Ext Time (p_c), s		10.2		2.8		9.9		2.4

Intersection Summary		
HCM 2010 Ctrl Delay		20.8
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	337	135	472	698	291	141	1235	273	202	904	106
Future Volume (veh/h)	129	337	135	472	698	291	141	1235	273	202	904	106
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	344	138	482	712	297	144	1260	279	206	922	108
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	181	370	146	473	805	336	283	1251	274	197	1484	174
Arrive On Green	0.06	0.15	0.15	0.39	0.54	0.54	0.06	0.43	0.42	0.09	0.46	0.46
Sat Flow, veh/h	1810	2531	998	1810	2485	1037	1792	2918	638	1810	3256	381
Grp Volume(v), veh/h	132	244	238	482	517	492	144	766	773	206	511	519
Grp Sat Flow(s),veh/h/ln	1810	1805	1724	1810	1805	1717	1792	1787	1769	1810	1805	1833
Q Serve(g_s), s	10.0	24.0	24.7	42.2	45.4	45.4	8.0	77.1	77.2	15.6	38.7	38.7
Cycle Q Clear(g_c), s	10.0	24.0	24.7	42.2	45.4	45.4	8.0	77.1	77.2	15.6	38.7	38.7
Prop In Lane	1.00		0.58	1.00		0.60	1.00		0.36	1.00		0.21
Lane Grp Cap(c), veh/h	181	264	252	473	585	556	283	766	759	197	822	835
V/C Ratio(X)	0.73	0.92	0.95	1.02	0.88	0.88	0.51	1.00	1.02	1.05	0.62	0.62
Avail Cap(c_a), veh/h	181	264	252	473	585	556	331	766	759	197	822	835
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	75.9	76.1	41.4	38.4	38.4	29.7	51.4	51.6	63.3	37.2	37.2
Incr Delay (d2), s/veh	11.1	33.6	39.8	46.5	15.0	15.6	0.5	32.2	37.7	76.9	3.5	3.5
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(95%),veh/ln	3.6	20.4	20.5	53.1	33.1	31.8	7.1	55.9	82.2	25.2	27.5	27.8
LnGrp Delay(d),s/veh	75.5	109.5	115.9	87.8	53.3	54.0	30.3	83.6	89.3	140.3	40.7	40.7
LnGrp LOS	E	F	F	F	D	D	C	F	F	F	D	D
Approach Vol, veh/h		614			1491			1683			1236	
Approach Delay, s/veh		104.7			64.7			81.6			57.3	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	82.4	47.0	30.6	15.2	87.2	15.0	62.6
Change Period (Y+Rc), s	5.4	6.2	* 5.8	* 5.3	5.1	6.2	6.0	* 5.3
Max Green Setting (Gmax), s	14.6	76.2	* 41	* 25	14.9	76.2	9.0	* 57
Max Q Clear Time (g_c+I1), s	17.7	79.2	44.2	26.7	10.0	40.7	12.0	47.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	33.3	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	73.4
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	850	12	5	1382	80	20	2	6	21	2	101
Future Volume (veh/h)	97	850	12	5	1382	80	20	2	6	21	2	101
Number	1	6	16	5	2	12	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	1910	1910	1910	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	101	885	12	5	1440	83	21	2	6	22	2	105
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	1428	19	502	1191	69	77	4	181	77	4	181
Arrive On Green	0.08	1.00	1.00	0.67	0.67	0.67	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1819	1880	25	630	1779	103	0	36	1615	0	34	1615
Grp Volume(v), veh/h	101	0	897	5	0	1523	23	0	6	24	0	105
Grp Sat Flow(s),veh/h/ln	1819	0	1905	630	0	1882	36	0	1615	34	0	1615
Q Serve(g_s), s	1.4	0.0	0.0	0.2	0.0	60.2	0.0	0.0	0.3	0.0	0.0	5.6
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.2	0.0	60.2	10.1	0.0	0.3	10.1	0.0	5.6
Prop In Lane	1.00		0.01	1.00		0.05	0.91		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	154	0	1448	502	0	1259	81	0	181	81	0	181
V/C Ratio(X)	0.65	0.00	0.62	0.01	0.00	1.21	0.29	0.00	0.03	0.30	0.00	0.58
Avail Cap(c_a), veh/h	191	0	1448	502	0	1259	81	0	181	81	0	181
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	5.0	0.0	14.9	43.3	0.0	35.6	43.4	0.0	37.9
Incr Delay (d2), s/veh	2.9	0.0	2.0	0.0	0.0	101.9	0.7	0.0	0.0	0.8	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	0.0	1.4	0.1	0.0	119.6	1.1	0.0	0.2	1.1	0.0	4.7
LnGrp Delay(d),s/veh	26.7	0.0	2.0	5.0	0.0	116.8	44.0	0.0	35.6	44.2	0.0	41.0
LnGrp LOS	C		A	A		F	D		D	D		D
Approach Vol, veh/h		998			1528			29			129	
Approach Delay, s/veh		4.5			116.4			42.2			41.6	
Approach LOS		A			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	8.2	66.7		15.1		74.9		15.1
Change Period (Y+Rc), s	4.5	6.5		5.0		6.5		5.0
Max Green Setting (Gmax), s	5.5	43.3		10.1		53.3		10.1
Max Q Clear Time (g_c+I1), s	3.4	62.2		12.1		2.0		12.1
Green Ext Time (p_c), s	0.0	0.0		0.0		48.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		70.4
HCM 2010 LOS		E

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	853	5	6	1429	1	3	1	6	2	0	37
Future Vol, veh/h	14	853	5	6	1429	1	3	1	6	2	0	37
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	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	889	5	6	1489	1	3	1	6	2	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1490	0	0	889	0	0	2439	2420	889	2423	2420	1489
Stage 1	-	-	-	-	-	-	918	918	-	1502	1502	-
Stage 2	-	-	-	-	-	-	1521	1502	-	921	918	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	457	-	-	771	-	-	22	33	345	23	33	154
Stage 1	-	-	-	-	-	-	328	353	-	153	187	-
Stage 2	-	-	-	-	-	-	150	187	-	327	353	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	457	-	-	771	-	-	15	29	345	20	29	154
Mov Cap-2 Maneuver	-	-	-	-	-	-	15	29	-	20	29	-
Stage 1	-	-	-	-	-	-	307	330	-	143	179	-
Stage 2	-	-	-	-	-	-	107	179	-	299	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	124.1	52.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	40	457	-	-	771	-	-	115
HCM Lane V/C Ratio	0.26	0.032	-	-	0.008	-	-	0.353
HCM Control Delay (s)	124.1	13.1	0	-	9.7	0	-	52.5
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.4

Intersection	
Int Delay, s/veh	21.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	837	17	1	1395	19	29	27	2	2	1	1
Future Vol, veh/h	6	837	17	1	1395	19	29	27	2	2	1	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	881	18	1	1468	20	31	28	2	2	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1488	0	0	899	0	0	2385	2394	890	2399	2393	1478
Stage 1	-	-	-	-	-	-	903	903	-	1481	1481	-
Stage 2	-	-	-	-	-	-	1482	1491	-	918	912	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	458	-	-	764	-	-	~ 24	34	345	23	34	156
Stage 1	-	-	-	-	-	-	335	359	-	158	191	-
Stage 2	-	-	-	-	-	-	158	189	-	328	355	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	458	-	-	764	-	-	~ 23	33	345	6	33	156
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 23	33	-	6	33	-
Stage 1	-	-	-	-	-	-	326	350	-	154	189	-
Stage 2	-	-	-	-	-	-	155	187	-	292	346	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	$ 842.7	$ 468.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	28	458	-	-	764	-	-	11
HCM Lane V/C Ratio	2.18	0.014	-	-	0.001	-	-	0.383
HCM Control Delay (s)	$ 842.7	13	0	-	9.7	0	-	$ 468.5
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	7.3	0	-	-	0	-	-	0.9

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

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	834	9	9	1349	9	6	7	7	1	1	68
Future Vol, veh/h	5	834	9	9	1349	9	6	7	7	1	1	68
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	897	10	10	1451	10	6	8	8	1	1	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1460	0	0	906	0	0	2424	2392	902	2395	2392	1455
Stage 1	-	-	-	-	-	-	912	912	-	1475	1475	-
Stage 2	-	-	-	-	-	-	1512	1480	-	920	917	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	469	-	-	759	-	-	22	34	339	24	34	161
Stage 1	-	-	-	-	-	-	331	355	-	159	192	-
Stage 2	-	-	-	-	-	-	151	191	-	327	354	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	469	-	-	759	-	-	11	31	339	18	31	161
Mov Cap-2 Maneuver	-	-	-	-	-	-	11	31	-	18	31	-
Stage 1	-	-	-	-	-	-	324	347	-	156	179	-
Stage 2	-	-	-	-	-	-	76	178	-	306	346	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	$ 355.7	59.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	25	469	-	-	759	-	-	137
HCM Lane V/C Ratio	0.86	0.011	-	-	0.013	-	-	0.549
HCM Control Delay (s)	$ 355.7	12.8	0	-	9.8	0	-	59.4
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	2.6	0	-	-	0	-	-	2.7

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	804	1374	14	2	0
Future Vol, veh/h	0	804	1374	14	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	855	1462	15	2	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1477	0	-	0	2324	1469
Stage 1	-	-	-	-	1469	-
Stage 2	-	-	-	-	855	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	462	-	-	-	42	158
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	462	-	-	-	42	158
Mov Cap-2 Maneuver	-	-	-	-	42	-
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	420	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	95.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	462	-	-	-	42
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	95.2
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	800	6	3	1386	2	8
Future Vol, veh/h	800	6	3	1386	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	851	6	3	1474	2	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	857	0	2335	854
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	1481	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	792	-	41	361
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	210	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	792	-	40	361
Mov Cap-2 Maneuver	-	-	-	-	40	-
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	206	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	33
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	139	-	-	792	-
HCM Lane V/C Ratio	0.077	-	-	0.004	-
HCM Control Delay (s)	33	-	-	9.6	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	23.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	792	7	30	1323	61	43
Future Vol, veh/h	792	7	30	1323	61	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	825	7	31	1378	64	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	832	0	2270	416
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	1441	-
Critical Hdwy	-	-	4.1	-	6.6	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	809	-	~ 40	591
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	220	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	809	-	~ 38	591
Mov Cap-2 Maneuver	-	-	-	-	~ 38	-
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	212	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	$ 503.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	62	-	-	809	-
HCM Lane V/C Ratio	1.747	-	-	0.039	-
HCM Control Delay (s)	$ 503.1	-	-	9.6	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	9.9	-	-	0.1	-

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	694	95	791	1067	281	209	764	641	150	487	81
Future Volume (veh/h)	41	694	95	791	1067	281	209	764	641	150	487	81
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	1910	1910	1910	1900	1900	1900	1881	1881	1881	1919	1919	1919
Adj Flow Rate, veh/h	42	715	98	815	1100	290	215	788	661	155	502	84
Adj No. of Lanes	1	2	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	873	120	800	694	183	304	569	461	129	773	129
Arrive On Green	0.02	0.27	0.27	0.15	0.32	0.32	0.10	0.30	0.30	0.05	0.25	0.25
Sat Flow, veh/h	1819	3206	439	3510	1450	382	1791	1875	1521	1828	3129	521
Grp Volume(v), veh/h	42	404	409	815	0	1390	215	750	699	155	292	294
Grp Sat Flow(s),veh/h/ln	1819	1814	1831	1755	0	1833	1791	1787	1610	1828	1823	1827
Q Serve(g_s), s	3.0	37.6	37.6	41.0	0.0	86.1	15.8	54.6	54.6	8.8	25.8	26.0
Cycle Q Clear(g_c), s	3.0	37.6	37.6	41.0	0.0	86.1	15.8	54.6	54.6	8.8	25.8	26.0
Prop In Lane	1.00		0.24	1.00		0.21	1.00		0.95	1.00		0.29
Lane Grp Cap(c), veh/h	84	494	498	800	0	877	304	542	488	129	450	451
V/C Ratio(X)	0.50	0.82	0.82	1.02	0.00	1.59	0.71	1.38	1.43	1.20	0.65	0.65
Avail Cap(c_a), veh/h	101	494	498	800	0	877	336	542	488	129	450	451
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	61.3	61.4	76.3	0.0	61.2	45.1	62.7	62.7	56.3	60.8	60.8
Incr Delay (d2), s/veh	1.7	14.1	14.0	36.8	0.0	268.9	5.9	183.6	206.1	142.1	4.4	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	28.3	28.5	43.2	0.0	196.5	13.0	98.3	94.0	12.8	19.6	19.8
LnGrp Delay(d),s/veh	53.9	75.4	75.4	113.0	0.0	330.0	51.1	246.3	268.8	198.3	65.2	65.4
LnGrp LOS	D	E	E	F		F	D	F	F	F	E	E
Approach Vol, veh/h		855			2205			1664			741	
Approach Delay, s/veh		74.3			249.8			230.5			93.1	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	47.0	56.0	16.0	61.0	9.9	93.1	26.2	50.8
Change Period (Y+Rc), s	6.0	7.0	7.2	6.4	5.5	7.0	8.2	6.4
Max Green Setting (Gmax), s	41.0	49.0	8.8	54.6	6.0	84.5	21.2	41.2
Max Q Clear Time (g_c+I1), s	43.0	39.6	10.8	56.6	5.0	88.1	17.8	28.0
Green Ext Time (p_c), s	0.0	8.5	0.0	0.0	0.0	0.0	0.2	12.2

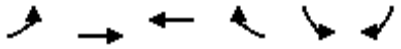
Intersection Summary	
HCM 2010 Ctrl Delay	195.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	1245	61	69	1908	285	31	13	37	188	29	168
Future Volume (veh/h)	172	1245	61	69	1908	285	31	13	37	188	29	168
Number	1	6	16	5	2	12	3	8	18	7	4	14
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1948	1948	1948	1843	1843	1843	1786	1768	1786	1919	1919	1919
Adj Flow Rate, veh/h	174	1258	62	70	1927	288	31	13	37	211	0	170
Adj No. of Lanes	1	3	1	1	3	0	0	1	0	2	0	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	182	3380	1049	334	2695	398	38	16	46	486	0	215
Arrive On Green	0.11	1.00	1.00	0.02	0.41	0.41	0.06	0.06	0.06	0.13	0.00	0.13
Sat Flow, veh/h	1855	5317	1650	1755	4428	653	615	258	734	3655	0	1613
Grp Volume(v), veh/h	174	1258	62	70	1454	761	81	0	0	211	0	170
Grp Sat Flow(s),veh/h/ln	1855	1772	1650	1755	1677	1726	1608	0	0	1828	0	1613
Q Serve(g_s), s	8.6	0.0	0.0	2.7	65.1	66.7	9.0	0.0	0.0	9.6	0.0	18.4
Cycle Q Clear(g_c), s	8.6	0.0	0.0	2.7	65.1	66.7	9.0	0.0	0.0	9.6	0.0	18.4
Prop In Lane	1.00		1.00	1.00		0.38	0.38		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	182	3380	1049	334	2042	1051	100	0	0	486	0	215
V/C Ratio(X)	0.96	0.37	0.06	0.21	0.71	0.72	0.81	0.00	0.00	0.43	0.00	0.79
Avail Cap(c_a), veh/h	182	3380	1049	386	2042	1051	367	0	0	833	0	367
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	0.0	0.0	12.6	40.1	40.6	83.3	0.0	0.0	71.8	0.0	75.6
Incr Delay (d2), s/veh	53.6	0.3	0.1	0.2	1.7	3.5	14.2	0.0	0.0	0.6	0.0	6.5
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(95%),veh/ln	16.7	0.2	0.1	2.4	38.9	41.3	7.8	0.0	0.0	8.5	0.0	13.4
LnGrp Delay(d),s/veh	97.4	0.3	0.1	12.9	41.9	44.1	97.5	0.0	0.0	72.4	0.0	82.1
LnGrp LOS	F	A	A	B	D	D	F			E		F
Approach Vol, veh/h		1494			2285			81			381	
Approach Delay, s/veh		11.6			41.7			97.5			76.7	
Approach LOS		B			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	115.8		30.5	11.1	120.6		17.7
Change Period (Y+Rc), s	6.4	* 6.2		* 6.6	6.5	* 6.2		6.5
Max Green Setting (Gmax), s	9.6	* 63		* 41	9.9	* 62		41.1
Max Q Clear Time (g_c+I1), s	10.6	68.7		20.4	4.7	2.0		11.0
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	59.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1489	2216	0	342	64
Future Volume (veh/h)	0	1489	2216	0	342	64
Number	1	6	2	12	7	14
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	0	1948	1862	0	1853	1853
Adj Flow Rate, veh/h	0	1551	2308	0	356	67
Adj No. of Lanes	0	5	3	0	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	1	1
Cap, veh/h	0	6402	4126	0	409	188
Arrive On Green	0.00	1.00	1.00	0.00	0.12	0.12
Sat Flow, veh/h	0	8627	5418	0	3424	1575
Grp Volume(v), veh/h	0	1551	2308	0	356	67
Grp Sat Flow(s),veh/h/ln	0	1577	1694	0	1712	1575
Q Serve(g_s), s	0.0	0.0	0.0	0.0	18.4	7.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	18.4	7.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	6402	4126	0	409	188
V/C Ratio(X)	0.00	0.24	0.56	0.00	0.87	0.36
Avail Cap(c_a), veh/h	0	6402	4126	0	875	403
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.68	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	77.9	72.9
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.0	4.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	0.3	0.0	13.9	5.6
LnGrp Delay(d),s/veh	0.0	0.1	0.4	0.0	82.3	73.7
LnGrp LOS		A	A		F	E
Approach Vol, veh/h		1551	2308		423	
Approach Delay, s/veh		0.1	0.4		80.9	
Approach LOS		A	A		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		151.5		28.5		151.5		
Change Period (Y+Rc), s		* 5.4		7.0		* 5.4		
Max Green Setting (Gmax), s		* 1.2E2		46.0		* 1.2E2		
Max Q Clear Time (g_c+I1), s		2.0		20.4		2.0		
Green Ext Time (p_c), s		117.7		1.1		117.7		

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	1451	111	9	1890	939	333	497	120	0	0	0
Future Volume (veh/h)	264	1451	111	9	1890	939	333	497	120	0	0	0
Number	1	6	16	5	2	12	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1948	1948	1948	1824	1824	1824	1852	1852	1852			
Adj Flow Rate, veh/h	272	1496	114	9	1948	968	285	593	124			
Adj No. of Lanes	2	3	1	1	3	1	1	2	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	290	3664	1129	242	3054	949	336	706	300			
Arrive On Green	0.11	0.92	0.92	0.01	0.82	0.82	0.19	0.19	0.19			
Sat Flow, veh/h	3598	5317	1639	1737	4980	1547	1764	3705	1572			
Grp Volume(v), veh/h	272	1496	114	9	1948	968	285	593	124			
Grp Sat Flow(s),veh/h/ln	1799	1772	1639	1737	1660	1547	1764	1853	1572			
Q Serve(g_s), s	13.5	6.7	1.2	0.4	27.0	110.4	28.1	27.8	12.5			
Cycle Q Clear(g_c), s	13.5	6.7	1.2	0.4	27.0	110.4	28.1	27.8	12.5			
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	290	3664	1129	242	3054	949	336	706	300			
V/C Ratio(X)	0.94	0.41	0.10	0.04	0.64	1.02	0.85	0.84	0.41			
Avail Cap(c_a), veh/h	290	3664	1129	276	3054	949	397	834	354			
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.95	0.66	0.66	0.66	1.00	1.00	1.00			
Uniform Delay (d), s/veh	79.9	2.6	2.4	12.9	8.9	16.6	70.3	70.2	64.0			
Incr Delay (d2), s/veh	35.5	0.3	0.2	0.0	0.7	29.1	13.8	6.7	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	12.7	5.9	1.0	0.3	16.9	96.0	21.3	21.2	9.4			
LnGrp Delay(d),s/veh	115.5	2.9	2.5	13.0	9.6	45.6	84.2	76.9	64.9			
LnGrp LOS	F	A	A	B	A	F	F	E	E			
Approach Vol, veh/h		1882			2925			1002				
Approach Delay, s/veh		19.2			21.5			77.5				
Approach LOS		B			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2			5	6		8
Phs Duration (G+Y+Rc), s	21.7	116.9			8.0	130.6		41.4
Change Period (Y+Rc), s	7.2	6.5			6.6	6.5		7.1
Max Green Setting (Gmax), s	14.5	104.2			5.0	114.3		40.5
Max Q Clear Time (g_c+I1), s	15.5	112.4			2.4	8.7		30.1
Green Ext Time (p_c), s	0.0	0.0			0.0	104.8		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1406	40	46	2430	31	209	24	197	148	16	113
Future Volume (veh/h)	93	1406	40	46	2430	31	209	24	197	148	16	113
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1948	1948	1948	1872	1872	1872	1938	1938	1938
Adj Flow Rate, veh/h	94	1420	40	46	2455	31	211	24	199	149	16	114
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	3503	1083	333	3590	1115	269	356	298	253	368	310
Arrive On Green	0.06	1.00	1.00	0.04	1.00	1.00	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1791	5135	1587	1855	5317	1651	1251	1872	1571	1189	1938	1632
Grp Volume(v), veh/h	94	1420	40	46	2455	31	211	24	199	149	16	114
Grp Sat Flow(s),veh/h/ln	1791	1712	1587	1855	1772	1651	1251	1872	1571	1189	1938	1632
Q Serve(g_s), s	3.0	0.0	0.0	1.4	0.0	0.0	29.8	1.9	21.2	21.2	1.2	11.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	1.4	0.0	0.0	31.0	1.9	21.2	23.1	1.2	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	3503	1083	333	3590	1115	269	356	298	253	368	310
V/C Ratio(X)	0.52	0.41	0.04	0.14	0.68	0.03	0.78	0.07	0.67	0.59	0.04	0.37
Avail Cap(c_a), veh/h	277	3503	1083	352	3590	1115	326	441	370	308	457	384
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.1	0.0	0.0	8.4	0.0	0.0	72.2	59.8	67.6	69.3	59.5	63.5
Incr Delay (d2), s/veh	0.8	0.3	0.1	0.0	0.1	0.0	7.8	0.0	1.8	0.8	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	0.2	0.0	1.1	0.1	0.0	16.3	1.8	14.4	11.4	1.2	8.6
LnGrp Delay(d),s/veh	8.9	0.3	0.1	8.4	0.1	0.0	80.0	59.8	69.4	70.1	59.6	63.7
LnGrp LOS	A	A	A	A	A	A	F	E	E	E	E	E
Approach Vol, veh/h		1554			2532			434			279	
Approach Delay, s/veh		0.8			0.2			74.0			66.9	
Approach LOS		A			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.3	127.9		40.8	10.1	129.1		40.8
Change Period (Y+Rc), s	* 6.3	* 6.3		6.6	6.5	* 6.3		6.6
Max Green Setting (Gmax), s	* 15	* 1E2		42.4	5.5	* 1.1E2		42.4
Max Q Clear Time (g_c+I1), s	5.0	2.0		25.1	3.4	2.0		33.0
Green Ext Time (p_c), s	0.0	100.5		1.4	0.0	109.3		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1003	537	700	1506	645	806	843	725	526	649	314
Future Volume (veh/h)	246	1003	537	700	1506	645	806	843	725	526	649	314
Number	3	8	18	7	4	14	1	6	16	5	2	12
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	1881	1881	1881	1834	1834	1834	1872	1872	1872	1900	1900	1900
Adj Flow Rate, veh/h	251	1023	0	714	1537	658	822	860	740	537	662	0
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	167	852	381	410	1315	586	457	911	407	319	624	279
Arrive On Green	0.14	0.48	0.00	0.14	0.25	0.25	0.23	0.26	0.26	0.15	0.17	0.00
Sat Flow, veh/h	1791	3574	1599	1747	3485	1554	1783	3556	1587	1810	3610	1615
Grp Volume(v), veh/h	251	1023	0	714	1537	658	822	860	740	537	662	0
Grp Sat Flow(s),veh/h/ln	1791	1787	1599	1747	1742	1554	1783	1778	1587	1810	1805	1615
Q Serve(g_s), s	12.8	42.9	0.0	38.1	67.9	67.9	42.1	42.7	46.1	27.1	31.1	0.0
Cycle Q Clear(g_c), s	12.8	42.9	0.0	38.1	67.9	67.9	42.1	42.7	46.1	27.1	31.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	852	381	410	1315	586	457	911	407	319	624	279
V/C Ratio(X)	1.50	1.20	0.00	1.74	1.17	1.12	1.80	0.94	1.82	1.69	1.06	0.00
Avail Cap(c_a), veh/h	167	852	381	410	1315	586	457	911	407	319	624	279
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.4	47.1	0.0	65.9	67.3	67.3	57.9	65.7	66.9	56.8	74.4	0.0
Incr Delay (d2), s/veh	253.4	101.7	0.0	344.2	84.6	75.6	368.2	19.0	378.7	322.0	53.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	24.7	59.6	0.0	107.2	86.8	74.7	125.0	31.4	113.3	79.8	36.2	0.0
LnGrp Delay(d),s/veh	302.8	148.8	0.0	410.1	151.9	142.9	426.1	84.7	445.7	378.8	127.9	0.0
LnGrp LOS	F	F		F	F	F	F	F	F	F	F	
Approach Vol, veh/h		1274			2909			2422			1199	
Approach Delay, s/veh		179.1			213.2			310.9			240.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	49.0	38.0	19.0	74.0	34.0	53.0	44.0	49.0
Change Period (Y+Rc), s	6.9	6.9	* 6.2	6.1	6.9	6.9	5.9	6.1
Max Green Setting (Gmax), s	42.1	31.1	* 13	67.9	27.1	46.1	38.1	42.9
Max Q Clear Time (g_c+I1), s	44.1	33.1	14.8	69.9	29.1	48.1	40.1	44.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	242.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	2015	104	187	2521	41	351	0	204	46	0	37
Future Volume (veh/h)	47	2015	104	187	2521	41	351	0	204	46	0	37
Number	1	6	16	5	2	12	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	1881	1881	1881	1834	1834	1834	1845	1845	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	2167	112	201	2711	44	377	0	219	49	0	40
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	0	0	0
Cap, veh/h	77	2101	940	176	2243	1003	351	0	362	165	438	372
Arrive On Green	0.04	1.00	1.00	0.08	0.64	0.64	0.23	0.00	0.23	0.23	0.00	0.23
Sat Flow, veh/h	1792	3574	1599	1747	3485	1559	1348	0	1568	1181	1900	1615
Grp Volume(v), veh/h	51	2167	112	201	2711	44	377	0	219	49	0	40
Grp Sat Flow(s),veh/h/ln	1792	1787	1599	1747	1742	1559	1348	0	1568	1181	1900	1615
Q Serve(g_s), s	2.1	105.8	0.0	14.0	115.8	1.9	41.5	0.0	22.5	7.0	0.0	3.5
Cycle Q Clear(g_c), s	2.1	105.8	0.0	14.0	115.8	1.9	41.5	0.0	22.5	29.5	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	2101	940	176	2243	1003	351	0	362	165	438	372
V/C Ratio(X)	0.66	1.03	0.12	1.14	1.21	0.04	1.07	0.00	0.61	0.30	0.00	0.11
Avail Cap(c_a), veh/h	90	2101	940	176	2243	1003	351	0	362	165	438	372
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.3	0.0	0.0	68.2	32.1	11.8	71.6	0.0	61.9	75.1	0.0	54.6
Incr Delay (d2), s/veh	0.8	16.4	0.0	111.5	98.4	0.1	69.3	0.0	2.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	8.6	0.0	25.5	155.0	1.5	43.6	0.0	15.1	4.1	0.0	2.8
LnGrp Delay(d),s/veh	45.1	16.4	0.0	179.7	130.5	11.9	140.9	0.0	64.0	75.5	0.0	54.7
LnGrp LOS	D	F	A	F	F	B	F		E	E		D
Approach Vol, veh/h		2330			2956			596			89	
Approach Delay, s/veh		16.2			132.1			112.6			66.1	
Approach LOS		B			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	122.0		48.0	20.0	112.0		48.0
Change Period (Y+Rc), s	* 6.2	* 6.2		6.5	6.0	* 6.2		6.5
Max Green Setting (Gmax), s	* 5	* 1.1E2		41.5	14.0	* 1.1E2		41.5
Max Q Clear Time (g_c+I1), s	4.1	117.8		43.5	16.0	107.8		31.5
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	83.9
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	9.8

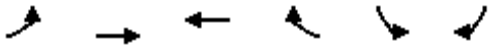
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	656	27	54	1009	13	42	0	186	9	0	10
Future Vol, veh/h	1	656	27	54	1009	13	42	0	186	9	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	50	-	-	-	-	-
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	713	29	59	1097	14	46	0	202	10	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1111	0	0	713	0	0	1958	1959	728	2038	1937	1104
Stage 1	-	-	-	-	-	-	730	730	-	1222	1222	-
Stage 2	-	-	-	-	-	-	1228	1229	-	816	715	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	636	-	-	896	-	-	48	64	427	42	66	259
Stage 1	-	-	-	-	-	-	417	431	-	222	254	-
Stage 2	-	-	-	-	-	-	220	252	-	374	438	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	636	-	-	896	-	-	~ 44	60	427	21	61	259
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 44	60	-	21	61	-
Stage 1	-	-	-	-	-	-	416	430	-	221	237	-
Stage 2	-	-	-	-	-	-	197	235	-	196	437	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	70.6	161.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	44	427	636	-	-	896	-	-	41
HCM Lane V/C Ratio	1.038	0.473	0.002	-	-	0.066	-	-	0.504
HCM Control Delay (s)	290.9	20.8	10.7	0	-	9.3	-	-	161.1
HCM Lane LOS	F	C	B	A	-	A	-	-	F
HCM 95th %tile Q(veh)	4.2	2.5	0	-	-	0.2	-	-	1.8

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	551	694	367	134	9
Future Volume (veh/h)	22	551	694	367	134	9
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	592	746	395	144	10
Adj No. of Lanes	0	1	1	1	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	94	1109	1174	998	191	13
Arrive On Green	0.62	0.62	0.62	0.62	0.11	0.11
Sat Flow, veh/h	27	1796	1900	1615	1669	116
Grp Volume(v), veh/h	616	0	746	395	155	0
Grp Sat Flow(s),veh/h/ln	1823	0	1900	1615	1796	0
Q Serve(g_s), s	0.0	0.0	12.0	6.0	4.1	0.0
Cycle Q Clear(g_c), s	8.9	0.0	12.0	6.0	4.1	0.0
Prop In Lane	0.04			1.00	0.93	0.06
Lane Grp Cap(c), veh/h	1203	0	1174	998	206	0
V/C Ratio(X)	0.51	0.00	0.64	0.40	0.75	0.00
Avail Cap(c_a), veh/h	1203	0	1174	998	629	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.2	0.0	5.8	4.7	20.8	0.0
Incr Delay (d2), s/veh	1.6	0.0	2.6	1.2	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	0.0	11.2	5.3	4.1	0.0
LnGrp Delay(d),s/veh	6.8	0.0	8.5	5.9	26.4	0.0
LnGrp LOS	A		A	A	C	
Approach Vol, veh/h		616	1141		155	
Approach Delay, s/veh		6.8	7.6		26.4	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.5				36.5		12.1
Change Period (Y+Rc), s		6.5				6.5		6.5
Max Green Setting (Gmax), s		30.0				30.0		17.0
Max Q Clear Time (g_c+I1), s		14.0				10.9		6.1
Green Ext Time (p_c), s		9.7				10.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Gresham Smith

Genuine Ingenuity

FUTURE YEAR (2045) BUILD

AM & PM Peak Hour Analysis

Synchro Output

SIDRA Roundabout Output

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	447	159	269	244	144	181	890	506	320	1220	57
Future Volume (veh/h)	69	447	159	269	244	144	181	890	506	320	1220	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1900	1881	1881	1900
Adj Flow Rate, veh/h	70	456	162	274	249	147	185	908	516	327	1245	58
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	213	537	240	325	459	262	312	1139	634	354	2053	96
Arrive On Green	0.01	0.05	0.05	0.15	0.35	0.35	0.07	0.51	0.51	0.14	0.59	0.59
Sat Flow, veh/h	1810	3610	1615	3510	2217	1265	1792	2216	1234	1792	3478	162
Grp Volume(v), veh/h	70	456	162	274	201	195	185	729	695	327	639	664
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1677	1792	1787	1663	1792	1787	1853
Q Serve(g_s), s	5.9	22.6	17.8	13.7	16.1	17.0	8.7	60.2	63.0	22.0	41.1	41.2
Cycle Q Clear(g_c), s	5.9	22.6	17.8	13.7	16.1	17.0	8.7	60.2	63.0	22.0	41.1	41.2
Prop In Lane	1.00		1.00	1.00		0.75	1.00		0.74	1.00		0.09
Lane Grp Cap(c), veh/h	213	537	240	325	374	347	312	918	855	354	1055	1094
V/C Ratio(X)	0.33	0.85	0.67	0.84	0.54	0.56	0.59	0.79	0.81	0.92	0.61	0.61
Avail Cap(c_a), veh/h	213	556	249	335	388	361	412	918	855	436	1055	1094
HCM Platoon Ratio	0.33	0.33	0.33	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.2	83.6	81.3	74.8	52.0	52.2	21.4	35.9	36.9	50.9	23.5	23.5
Incr Delay (d2), s/veh	0.3	10.9	6.3	15.9	1.4	1.8	0.7	7.0	8.4	20.6	2.6	2.5
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(95%),veh/ln	5.4	17.6	13.0	11.7	12.8	12.7	7.7	40.7	39.9	25.0	28.5	29.4
LnGrp Delay(d),s/veh	64.5	94.5	87.6	90.7	53.3	54.1	22.1	42.9	45.3	71.6	26.1	26.0
LnGrp LOS	E	F	F	F	D	D	C	D	D	E	C	C
Approach Vol, veh/h		688			670			1609			1630	
Approach Delay, s/veh		89.8			68.8			41.5			35.2	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.7	97.7	21.5	31.1	16.0	111.5	11.0	41.6
Change Period (Y+Rc), s	5.4	6.2	* 5.8	* 5.3	5.1	6.2	6.0	* 5.3
Max Green Setting (Gmax), s	22.6	81.8	* 16	* 27	20.9	93.8	5.0	* 38
Max Q Clear Time (g_c+I1), s	24.0	65.0	15.7	24.6	10.7	43.2	7.9	19.0
Green Ext Time (p_c), s	0.3	16.4	0.0	1.2	0.2	47.4	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	50.5
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1328	10	7	566	24	1	1	3	56	0	62
Future Volume (veh/h)	59	1328	10	7	566	24	1	1	3	56	0	62
Number	1	6	16	5	2	12	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	1910	1910	1910	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	1369	10	7	584	25	1	1	3	58	0	0
Adj No. of Lanes	1	2	0	1	2	1	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	712	3032	22	374	2658	1189	90	63	82	152	0	82
Arrive On Green	0.07	1.00	1.00	0.74	0.74	0.74	0.05	0.05	0.05	0.05	0.00	0.00
Sat Flow, veh/h	1819	3692	27	399	3610	1615	584	1243	1615	1407	0	1615
Grp Volume(v), veh/h	61	673	706	7	584	25	2	0	3	58	0	0
Grp Sat Flow(s),veh/h/ln	1819	1814	1905	399	1805	1615	1827	0	1615	1407	0	1615
Q Serve(g_s), s	0.6	0.0	0.0	0.4	4.6	0.4	0.0	0.0	0.2	3.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.4	4.6	0.4	0.1	0.0	0.2	3.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.50		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	712	1490	1564	374	2658	1189	153	0	82	152	0	82
V/C Ratio(X)	0.09	0.45	0.45	0.02	0.22	0.02	0.01	0.00	0.04	0.38	0.00	0.00
Avail Cap(c_a), veh/h	800	1490	1564	374	2658	1189	343	0	269	318	0	269
HCM Platoon Ratio	2.00	2.00	2.00	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	0.00
Uniform Delay (d), s/veh	2.2	0.0	0.0	3.2	3.7	3.2	40.6	0.0	40.6	42.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.9	0.1	0.2	0.0	0.0	0.0	0.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	0.7	0.7	0.1	4.2	0.3	0.1	0.0	0.1	2.6	0.0	0.0
LnGrp Delay(d),s/veh	2.2	1.0	0.9	3.3	3.9	3.2	40.6	0.0	40.7	42.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		
Approach Vol, veh/h		1440			616			5			58	
Approach Delay, s/veh		1.0			3.9			40.6			42.9	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.6	72.8		9.6		80.4		9.6
Change Period (Y+Rc), s	4.5	6.5		5.0		6.5		5.0
Max Green Setting (Gmax), s	7.5	51.5		15.0		63.5		15.0
Max Q Clear Time (g_c+I1), s	2.6	6.6		2.2		2.0		5.7
Green Ext Time (p_c), s	0.0	29.7		0.1		36.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	3.1
HCM 2010 LOS	A

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1377	8	0	594	1	0	0	14	0	0	6
Future Vol, veh/h	0	1377	8	0	594	1	0	0	14	0	0	6
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	-	-	Yield	-	-	Yield
Storage Length	-	-	50	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1420	8	0	612	1	0	0	14	0	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	710	-	-	307
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	381	0	0	695
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	381	-	-	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	14.8	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	381	-	-	-	-	695
HCM Lane V/C Ratio	0.038	-	-	-	-	0.009
HCM Control Delay (s)	14.8	-	-	-	-	10.2
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0

LANE SUMMARY

Site: [Hilderbrand Dr - 2045 Build - AM]

Hammond Dr @ Hilderbrand Dr
Roundabout

Lane Use and Performance	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Hilderbrand Dr													
Lane 1[d]	24	0.0	678	0.035	100	5.7	LOS A	0.1	3.4	Full	1600	0.0	0.0
Approach	24	0.0		0.035		5.7	LOS A	0.1	3.4				
East: Hammond Dr													
Lane 1	273	0.0	1510	0.181	100	3.8	LOS A	1.1	27.4	Full	1600	0.0	0.0
Lane 2[d]	319	0.0	1768	0.181	100	3.4	LOS A	1.1	28.0	Full	1600	0.0	0.0
Approach	592	0.0		0.181		3.6	LOS A	1.1	28.0				
North: Hilderbrand Dr													
Lane 1[d]	32	0.0	926	0.035	100	4.2	LOS A	0.1	3.1	Full	1600	0.0	0.0
Approach	32	0.0		0.035		4.2	LOS A	0.1	3.1				
West: Hammond Dr													
Lane 1	662	0.0	1504	0.440	100	6.5	LOS A	3.7	91.3	Full	1600	0.0	0.0
Lane 2[d]	776	0.0	1762	0.440	100	5.8	LOS A	3.7	92.1	Full	1600	0.0	0.0
Approach	1438	0.0		0.440		6.1	LOS A	3.7	92.1				
Intersection	2086	0.0		0.440		5.4	LOS A	3.7	92.1				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

LANE SUMMARY

Site: [Lorell Ter & Brookgreen Rd - 2045 Build - AM]

Hammond Dr @ Lorell Ter & Brookgreen Rd
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Brookgreen Rd													
Lane 1[d]	59	4.5	623	0.095	100	6.9	LOS A	0.4	9.6	Full	1600	0.0	0.0
Approach	59	4.5		0.095		6.9	LOS A	0.4	9.6				
East: Hammond Dr													
Lane 1	272	0.0	1511	0.180	100	3.8	LOS A	1.1	27.4	Full	1600	0.0	0.0
Lane 2[d]	318	0.0	1769	0.180	100	3.4	LOS A	1.1	28.0	Full	1600	0.0	0.0
Approach	591	0.0		0.180		3.6	LOS A	1.1	28.0				
North: Lorell Terrace													
Lane 1[d]	23	0.0	929	0.025	100	4.1	LOS A	0.1	2.2	Full	1600	0.0	0.0
Approach	23	0.0		0.025		4.1	LOS A	0.1	2.2				
West: Hammond Dr													
Lane 1	699	0.1	1516	0.461	100	6.7	LOS A	3.5	88.8	Full	1600	0.0	0.0
Lane 2[d]	817	0.1	1774	0.461	100	6.1	LOS A	3.5	87.8	Full	1600	0.0	0.0
Approach	1516	0.1		0.461		6.3	LOS A	3.5	88.8				
Intersection	2188	0.2		0.461		5.6	LOS A	3.5	88.8				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1241	205	481	463	101	95	189	596	412	818	15
Future Volume (veh/h)	27	1241	205	481	463	101	95	189	596	412	818	15
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	1910	1910	1910	1900	1900	1900	1881	1881	1881	1919	1919	1919
Adj Flow Rate, veh/h	28	1293	214	501	482	105	99	197	0	429	852	0
Adj No. of Lanes	1	2	1	2	2	1	1	1	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	387	1342	600	496	1793	802	167	397	338	430	1015	454
Arrive On Green	0.02	0.37	0.37	0.24	0.83	0.83	0.05	0.21	0.00	0.12	0.28	0.00
Sat Flow, veh/h	1819	3628	1621	3510	3610	1615	1791	1881	1599	3546	3646	1631
Grp Volume(v), veh/h	28	1293	214	501	482	105	99	197	0	429	852	0
Grp Sat Flow(s),veh/h/ln	1819	1814	1621	1755	1805	1615	1791	1881	1599	1773	1823	1631
Q Serve(g_s), s	1.6	59.3	16.3	24.0	5.0	2.1	7.4	15.7	0.0	20.6	37.4	0.0
Cycle Q Clear(g_c), s	1.6	59.3	16.3	24.0	5.0	2.1	7.4	15.7	0.0	20.6	37.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	1342	600	496	1793	802	167	397	338	430	1015	454
V/C Ratio(X)	0.07	0.96	0.36	1.01	0.27	0.13	0.59	0.50	0.00	1.00	0.84	0.00
Avail Cap(c_a), veh/h	410	1342	600	496	1793	802	167	443	376	430	1102	493
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.4	52.4	38.9	65.0	7.7	7.5	51.7	59.1	0.0	74.7	57.8	0.0
Incr Delay (d2), s/veh	0.0	17.2	1.7	43.2	0.4	0.3	5.6	2.0	0.0	43.0	6.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	42.5	12.1	26.2	4.5	1.7	7.0	13.1	0.0	18.5	27.0	0.0
LnGrp Delay(d),s/veh	32.5	69.7	40.5	108.2	8.1	7.8	57.3	61.1	0.0	117.7	64.2	0.0
LnGrp LOS	C	E	D	F	A	A	E	E		F	E	
Approach Vol, veh/h		1535			1088			296			1281	
Approach Delay, s/veh		64.9			54.1			59.8			82.1	
Approach LOS		E			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	69.9	27.8	42.3	8.4	91.5	16.4	53.7
Change Period (Y+Rc), s	6.0	7.0	7.2	6.4	5.5	7.0	8.2	6.4
Max Green Setting (Gmax), s	24.0	58.8	20.6	40.0	5.1	78.2	8.2	51.4
Max Q Clear Time (g_c+I1), s	26.0	61.3	22.6	17.7	3.6	7.0	9.4	39.4
Green Ext Time (p_c), s	0.0	0.0	0.0	12.3	0.0	25.6	0.0	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	67.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	2025	29	35	946	188	68	35	53	145	8	107
Future Volume (veh/h)	230	2025	29	35	946	188	68	35	53	145	8	107
Number	1	6	16	5	2	12	3	8	18	7	4	14
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	1948	1948	1948	1843	1843	1843	1786	1751	1786	1919	1919	1919
Adj Flow Rate, veh/h	235	2066	0	36	965	0	69	36	54	154	0	0
Adj No. of Lanes	1	3	1	1	3	0	0	1	0	2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	524	3398	1058	194	2983	0	80	42	62	279	0	125
Arrive On Green	0.13	1.00	0.00	0.04	1.00	0.00	0.11	0.11	0.11	0.08	0.00	0.00
Sat Flow, veh/h	1855	5317	1655	1755	5197	0	703	367	550	3655	0	1631
Grp Volume(v), veh/h	235	2066	0	36	965	0	159	0	0	154	0	0
Grp Sat Flow(s),veh/h/ln	1855	1772	1655	1755	1677	0	1619	0	0	1828	0	1631
Q Serve(g_s), s	8.8	0.0	0.0	1.4	0.0	0.0	16.4	0.0	0.0	6.9	0.0	0.0
Cycle Q Clear(g_c), s	8.8	0.0	0.0	1.4	0.0	0.0	16.4	0.0	0.0	6.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	0.43		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	524	3398	1058	194	2983	0	184	0	0	279	0	125
V/C Ratio(X)	0.45	0.61	0.00	0.19	0.32	0.00	0.86	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	605	3398	1058	212	2983	0	391	0	0	882	0	393
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.94	0.94	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	12.8	0.0	0.0	74.1	0.0	0.0	75.7	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.8	0.0	0.4	0.3	0.0	11.4	0.0	0.0	1.7	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.5	0.0	1.2	0.1	0.0	12.6	0.0	0.0	6.4	0.0	0.0
LnGrp Delay(d),s/veh	10.5	0.8	0.0	13.2	0.3	0.0	85.5	0.0	0.0	77.4	0.0	0.0
LnGrp LOS	B	A		B	A		F			E		
Approach Vol, veh/h		2301			1001			159			154	
Approach Delay, s/veh		1.8			0.7			85.5			77.4	
Approach LOS		A			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.6	107.0		19.6	9.8	114.8		25.8
Change Period (Y+Rc), s	6.4	* 6.2		* 6.6	6.5	* 6.2		6.5
Max Green Setting (Gmax), s	18.6	* 44		* 41	5.0	* 57		41.1
Max Q Clear Time (g_c+I1), s	10.8	2.0		8.9	3.4	2.0		18.4
Green Ext Time (p_c), s	0.4	40.3		0.5	0.0	52.9		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	337	135	547	686	291	153	1235	273	202	904	106
Future Volume (veh/h)	129	337	135	547	686	291	153	1235	273	202	904	106
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	344	138	558	700	297	156	1260	279	206	922	108
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	148	630	282	606	718	305	310	1316	288	225	1586	186
Arrive On Green	0.06	0.17	0.17	0.29	0.49	0.49	0.06	0.45	0.45	0.10	0.49	0.49
Sat Flow, veh/h	1810	3610	1615	3510	2471	1049	1792	2918	638	1810	3256	381
Grp Volume(v), veh/h	132	344	138	558	511	486	156	766	773	206	511	519
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1715	1792	1787	1769	1810	1805	1833
Q Serve(g_s), s	10.0	15.7	13.9	27.7	49.8	49.8	8.3	74.1	76.8	15.4	36.5	36.5
Cycle Q Clear(g_c), s	10.0	15.7	13.9	27.7	49.8	49.8	8.3	74.1	76.8	15.4	36.5	36.5
Prop In Lane	1.00		1.00	1.00		0.61	1.00		0.36	1.00		0.21
Lane Grp Cap(c), veh/h	148	630	282	606	524	498	310	806	798	225	879	893
V/C Ratio(X)	0.89	0.55	0.49	0.92	0.97	0.97	0.50	0.95	0.97	0.91	0.58	0.58
Avail Cap(c_a), veh/h	148	630	282	647	524	498	355	806	798	225	879	893
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	67.8	67.1	62.8	45.7	45.7	26.7	47.4	48.4	59.7	33.0	33.0
Incr Delay (d2), s/veh	39.4	0.9	1.2	17.3	32.8	33.8	0.5	21.6	25.2	36.7	2.8	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	12.3	10.2	21.2	38.3	36.7	7.4	52.0	53.7	18.2	26.0	26.3
LnGrp Delay(d),s/veh	101.6	68.7	68.3	80.1	78.5	79.5	27.2	69.0	73.6	96.5	35.8	35.8
LnGrp LOS	F	E	E	F	E	E	C	E	E	F	D	D
Approach Vol, veh/h		614			1555			1695			1236	
Approach Delay, s/veh		75.7			79.4			67.3			45.9	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	86.4	35.9	35.7	15.5	92.9	15.0	56.6
Change Period (Y+Rc), s	5.4	6.2	* 5.8	* 5.3	5.1	6.2	6.0	* 5.3
Max Green Setting (Gmax), s	16.6	80.2	* 32	* 28	14.9	82.2	9.0	* 51
Max Q Clear Time (g_c+I1), s	17.4	78.8	29.7	17.7	10.3	38.5	12.0	51.8
Green Ext Time (p_c), s	0.0	1.4	0.4	6.3	0.1	40.5	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		66.8
HCM 2010 LOS		E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	836	12	11	1382	80	20	2	6	21	2	101
Future Volume (veh/h)	111	836	12	11	1382	80	20	2	6	21	2	101
Number	1	6	16	5	2	12	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	1910	1910	1910	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	871	12	11	1440	83	21	2	6	22	2	105
Adj No. of Lanes	1	2	0	1	2	1	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	307	2748	38	500	2375	1063	77	4	197	77	4	197
Arrive On Green	0.08	1.00	1.00	0.66	0.66	0.66	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1819	3664	50	639	3610	1615	0	33	1615	0	31	1615
Grp Volume(v), veh/h	116	431	452	11	1440	83	23	0	6	24	0	105
Grp Sat Flow(s),veh/h/ln	1819	1814	1901	639	1805	1615	33	0	1615	31	0	1615
Q Serve(g_s), s	1.7	0.0	0.0	0.5	20.4	1.7	0.0	0.0	0.3	0.0	0.0	5.5
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.5	20.4	1.7	11.0	0.0	0.3	11.0	0.0	5.5
Prop In Lane	1.00		0.03	1.00		1.00	0.91		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	307	1361	1425	500	2375	1063	81	0	197	81	0	197
V/C Ratio(X)	0.38	0.32	0.32	0.02	0.61	0.08	0.29	0.00	0.03	0.30	0.00	0.53
Avail Cap(c_a), veh/h	362	1361	1425	500	2375	1063	81	0	197	81	0	197
HCM Platoon Ratio	2.00	2.00	2.00	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	7.5	0.0	0.0	5.4	8.8	5.5	43.1	0.0	34.8	43.3	0.0	37.1
Incr Delay (d2), s/veh	0.3	0.6	0.6	0.1	1.2	0.1	0.7	0.0	0.0	0.8	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.4	0.4	0.2	15.7	1.4	1.1	0.0	0.2	1.1	0.0	4.6
LnGrp Delay(d),s/veh	7.8	0.6	0.6	5.4	9.9	5.7	43.8	0.0	34.8	44.0	0.0	38.5
LnGrp LOS	A	A	A	A	A	A	D		C	D		D
Approach Vol, veh/h		999			1534			29			129	
Approach Delay, s/veh		1.4			9.7			41.9			39.5	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	8.3	65.7		16.0		74.0		16.0
Change Period (Y+Rc), s	4.5	6.5		5.0		6.5		5.0
Max Green Setting (Gmax), s	6.5	56.5		11.0		67.5		11.0
Max Q Clear Time (g_c+I1), s	3.7	22.4		13.0		2.0		13.0
Green Ext Time (p_c), s	0.0	28.3		0.0		47.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Notes

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	853	11	0	1438	0	0	0	10	0	0	37
Future Vol, veh/h	0	853	11	0	1438	0	0	0	10	0	0	37
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	-	-	Yield	-	-	Yield
Storage Length	-	-	50	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	889	11	0	1498	0	0	0	10	0	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	445	-	-	749
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	566	0	0	359
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	566	-	-	359
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.5	16.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	566	-	-	-	-	359
HCM Lane V/C Ratio	0.018	-	-	-	-	0.107
HCM Control Delay (s)	11.5	-	-	-	-	16.2
HCM Lane LOS	B	-	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.4

LANE SUMMARY

Site: [Hilderbrand Dr - 2045 Build - PM]

Hammond Dr @ Hilderbrand Dr
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Hilderbrand Dr													
Lane 1[d]	67	0.0	849	0.079	100	5.0	LOS A	0.3	7.1	Full	1600	0.0	0.0
Approach	67	0.0		0.079		5.0	LOS A	0.3	7.1				
East: Hammond Dr													
Lane 1	678	0.1	1434	0.473	100	7.1	LOS A	4.0	99.2	Full	1600	0.0	0.0
Lane 2[d]	804	0.1	1700	0.473	100	6.4	LOS A	4.0	100.7	Full	1600	0.0	0.0
Approach	1482	0.1		0.473		6.7	LOS A	4.0	100.7				
North: Hilderbrand Dr													
Lane 1[d]	4	0.0	621	0.007	100	5.9	LOS A	0.0	0.7	Full	1600	0.0	0.0
Approach	4	0.0		0.007		5.9	LOS A	0.0	0.7				
West: Hammond Dr													
Lane 1	419	0.1	1539	0.272	100	4.6	LOS A	1.9	47.1	Full	1600	0.0	0.0
Lane 2[d]	488	0.1	1793	0.272	100	4.1	LOS A	1.9	48.0	Full	1600	0.0	0.0
Approach	907	0.1		0.272		4.3	LOS A	1.9	48.0				
Intersection	2461	0.1		0.473		5.8	LOS A	4.0	100.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

LANE SUMMARY

Site: [Lorell Ter & Brookgreen Rd - 2045 Build - PM]

Hammond Dr @ Lorell Ter & Brookgreen Rd
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Brookgreen Rd													
Lane 1[d]	136	0.0	835	0.163	100	6.0	LOS A	0.6	15.9	Full	1600	0.0	0.0
Approach	136	0.0		0.163		6.0	LOS A	0.6	15.9				
East: Hammond Dr													
Lane 1	660	0.1	1426	0.463	100	7.0	LOS A	3.9	97.3	Full	1600	0.0	0.0
Lane 2[d]	783	0.1	1692	0.463	100	6.3	LOS A	4.0	99.2	Full	1600	0.0	0.0
Approach	1444	0.1		0.463		6.6	LOS A	4.0	99.2				
North: Lorell Terrace													
Lane 1[d]	77	0.0	627	0.122	100	7.1	LOS A	0.5	12.6	Full	1600	0.0	0.0
Approach	77	0.0		0.122		7.1	LOS A	0.5	12.6				
West: Hammond Dr													
Lane 1	390	0.1	1474	0.265	100	4.6	LOS A	1.7	42.0	Full	1600	0.0	0.0
Lane 2[d]	460	0.1	1737	0.265	100	4.1	LOS A	1.7	42.6	Full	1600	0.0	0.0
Approach	850	0.1		0.265		4.4	LOS A	1.7	42.6				
Intersection	2506	0.1		0.463		5.8	LOS A	4.0	99.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	692	95	838	1066	282	209	764	641	152	487	81
Future Volume (veh/h)	41	692	95	838	1066	282	209	764	641	152	487	81
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	1910	1910	1910	1900	1900	1900	1881	1881	1881	1919	1919	1919
Adj Flow Rate, veh/h	42	713	98	864	1099	291	215	788	0	157	502	0
Adj No. of Lanes	1	2	1	2	2	1	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	714	318	839	1489	666	394	692	588	173	1167	522
Arrive On Green	0.03	0.20	0.20	0.40	0.69	0.69	0.09	0.37	0.00	0.05	0.32	0.00
Sat Flow, veh/h	1819	3628	1619	3510	3610	1615	1791	1881	1599	3546	3646	1631
Grp Volume(v), veh/h	42	713	98	864	1099	291	215	788	0	157	502	0
Grp Sat Flow(s),veh/h/ln	1819	1814	1619	1755	1805	1615	1791	1881	1599	1773	1823	1631
Q Serve(g_s), s	3.3	35.4	9.3	43.0	34.7	14.4	14.2	66.2	0.0	7.9	19.5	0.0
Cycle Q Clear(g_c), s	3.3	35.4	9.3	43.0	34.7	14.4	14.2	66.2	0.0	7.9	19.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	714	318	839	1489	666	394	692	588	173	1167	522
V/C Ratio(X)	0.25	1.00	0.31	1.03	0.74	0.44	0.55	1.14	0.00	0.91	0.43	0.00
Avail Cap(c_a), veh/h	178	714	318	839	1489	666	434	692	588	173	1167	522
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.7	72.3	61.8	54.1	21.9	18.7	35.8	56.9	0.0	85.2	48.3	0.0
Incr Delay (d2), s/veh	0.3	33.5	2.5	39.1	3.3	2.1	1.2	79.4	0.0	41.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	28.6	7.8	45.6	24.6	11.1	11.5	89.4	0.0	8.5	15.1	0.0
LnGrp Delay(d),s/veh	56.0	105.8	64.3	93.2	25.2	20.8	37.0	136.3	0.0	126.8	48.8	0.0
LnGrp LOS	E	F	E	F	C	C	D	F		F	D	
Approach Vol, veh/h		853			2254			1003			659	
Approach Delay, s/veh		98.6			50.7			115.0			67.4	
Approach LOS		F			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	49.0	42.4	16.0	72.6	10.2	81.2	24.6	64.0
Change Period (Y+Rc), s	6.0	7.0	7.2	6.4	5.5	7.0	8.2	6.4
Max Green Setting (Gmax), s	43.0	35.4	8.8	66.2	5.9	73.0	20.4	53.6
Max Q Clear Time (g_c+I1), s	45.0	37.4	9.9	68.2	5.3	36.7	16.2	21.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	20.2	0.2	19.8

Intersection Summary	
HCM 2010 Ctrl Delay	75.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	1245	61	69	1908	285	31	13	37	188	29	168
Future Volume (veh/h)	193	1245	61	69	1908	285	31	13	37	188	29	168
Number	1	6	16	5	2	12	3	8	18	7	4	14
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	1948	1948	1948	1843	1843	1843	1786	1768	1786	1919	1919	1919
Adj Flow Rate, veh/h	195	1258	0	70	1927	0	31	13	37	211	0	0
Adj No. of Lanes	1	3	1	1	3	0	0	1	0	2	0	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	237	3620	1127	367	3303	0	38	16	46	327	0	146
Arrive On Green	0.10	1.00	0.00	0.02	0.66	0.00	0.06	0.06	0.06	0.09	0.00	0.00
Sat Flow, veh/h	1855	5317	1655	1755	5197	0	615	258	734	3655	0	1631
Grp Volume(v), veh/h	195	1258	0	70	1927	0	81	0	0	211	0	0
Grp Sat Flow(s),veh/h/ln	1855	1772	1655	1755	1677	0	1608	0	0	1828	0	1631
Q Serve(g_s), s	6.7	0.0	0.0	2.4	38.4	0.0	9.0	0.0	0.0	10.0	0.0	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.0	2.4	38.4	0.0	9.0	0.0	0.0	10.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	0.38		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	237	3620	1127	367	3303	0	100	0	0	327	0	146
V/C Ratio(X)	0.82	0.35	0.00	0.19	0.58	0.00	0.81	0.00	0.00	0.64	0.00	0.00
Avail Cap(c_a), veh/h	256	3620	1127	422	3303	0	367	0	0	833	0	372
HCM Platoon Ratio	2.00	2.00	2.00	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	0.00	0.81	0.81	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.3	0.0	0.0	9.6	17.2	0.0	83.3	0.0	0.0	79.2	0.0	0.0
Incr Delay (d2), s/veh	17.9	0.3	0.0	0.2	0.6	0.0	14.2	0.0	0.0	2.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.7	0.2	0.0	2.1	24.1	0.0	7.8	0.0	0.0	8.9	0.0	0.0
LnGrp Delay(d),s/veh	41.2	0.3	0.0	9.8	17.8	0.0	97.5	0.0	0.0	81.3	0.0	0.0
LnGrp LOS	D	A		A	B		F			F		
Approach Vol, veh/h		1453			1997			81			211	
Approach Delay, s/veh		5.8			17.5			97.5			81.3	
Approach LOS		A			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.2	124.4		22.7	10.8	128.8		17.7
Change Period (Y+Rc), s	6.4	* 6.2		* 6.6	6.5	* 6.2		6.5
Max Green Setting (Gmax), s	10.6	* 62		* 41	9.9	* 62		41.1
Max Q Clear Time (g_c+I1), s	8.7	40.4		12.0	4.4	2.0		11.0
Green Ext Time (p_c), s	0.1	20.9		0.7	0.1	58.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.3
HCM 2010 LOS	B

Notes

APPENDIX D

Historical Growth Rates

Gresham Smith

TC# 121-5986 Hammond Dr btw Lake Forest Dr & Sandy		TC# 121-5988 Hammond Dr E/O Glenridge Dr		
Year	AADT	Year	AADT	
2008	14370	2006	19160	
2012	10720	2013	26440	
2016	11100			
-3.2%		4.6%		AVERAGE 0.7%