DECATUR CROSSING DRI - Addendum 1

Location: Decatur Georgia - DeKalb County
Non-Expedited Review
DRI #2558

April 15, 2016

Prepared for:

Fuqua Development, LP
Fifteen Piedmont Center
3575 Piedmont Rd., NE Suite 800
Atlanta GA 30305
(404) 907-1709

Prepared by:

FORESITE group
5185 Peachtree Parkway
Suite 240
Norcross, Georgia 30092
(770) 368-1399
www.fg-inc.net

Table of Contents

1 Introduction and Executive Summary 1
1.1 Site Description 1
1.2 Study Area 1
1.3 Methodology 2
1.4 Mitigation Measures Summary 2
2 Traffic Analysis 7
2.1 Existing Conditions 7
2.1.1 Existing Conditions Capacity Analysis 7
2.1.2 Existing Conditions Required Improvements 8
2.2 Background 2018 ("No-Build") Conditions 18
2.2.1 Background Traffic 18
2.3 Background Conditions Capacity Analysis 18
2.4 Background Conditions Recommended Improvements 18
2.5 Future Build-Out Conditions 27
2.5.1 Future Build-Out Traffic 27
2.5.2 Future Build-Out Capacity Analysis 27
2.5.3 Future Build-Out Capacity Analysis with Improvements 28
2.6 Segment Analysis 39
3 Conclusions/Recommendations 39

List of Figures

Figure 1: Existing Lane Geometry 10
Figure 2: Existing Lane Geometry Continued 11
Figure 3: Existing Lane Geometry with Improvements 12
Figure 4: Existing Lane Geometry with Improvements Continued 13
Figure 5: Existing Traffic Volumes 14
Figure 6: Existing Traffic Volumes Continued 15
Figure 7: No Build Lane Geometry 19
Figure 8: No Build Lane Geometry Continued 20
Figure 9: No Build Lane Geometry With Improvements 21
Figure 10: No Build Lane Geometry With Improvements Continued 22
Figure 11: No-Build 2018 Traffic Volumes 23
Figure 12: No-Build 2018 Traffic Volumes Continued 24
Figure 13: Future Geometry 29
Figure 14: Future Geometry Continued 30
Figure 15: Build Lane Geometry With Improvements 31
Figure 16: Build Lane Geometry With Improvements Continued 32
Figure 17: Build-Out Traffic Volumes 33
Figure 18: Build-Out Traffic Volumes Continued 34

List of Tables

Table 1: Study Segments 1
Table 2: Study Intersections 2
Table 3: Summary of Development 4
Table 4: Required Intersection Improvements 6
Table 5: Existing Conditions Capacity Analysis 16
Table 6: Existing Conditions with Required Improvements Capacity Analysis 17
Table 7: No-Build Capacity Analysis 25
Table 8: No-Build Capacity Analysis with Improvements 26
Table 9: Build-Out Capacity Analysis 35
Table 10: Build-Out Capacity Analysis with Improvements 36
Table 11: Build-Out Driveway Analysis 38
Table 12: Segment Analysis 39
Table 13: Summary of Land Uses, Site Accesses, and Improvements 40
Table 14: Required Intersection Improvements 41

List of Appendixes

Appendix A: Synchro Output Files

1 Introduction and Executive Summary

This document is prepared as an addendum to DRI #2558. The analysis contained herein reflects all of the same assumptions and calculation methods as that document, including the processes and values for trip generation, pass-bys, internal capture, alternate modes, distribution, assignment, and capacity analysis processes. Please refer to a copy of the original document for any details not provided in this supplement, including existing 2015 conditions, and calculation of project trips.

This addendum is provided to address improvements needed to determine improvements necessary to bring level of service (LOS) to acceptable standards for the existing, no build and build scenarios. The original report made assumptions that certain roadway improvements would be too extensive and not feasible and hence those improvements were not modeled. This addendum makes no such assumption and includes all necessary improvements no matter how extensive they are.

1.1 Site Description

The Decatur Crossing development is located in DeKalb County, GA to the north of the City of Decatur. The development is located to the northeast of the 6-legged intersection between Scott Blvd, Medlock Rd, and N Decatur Rd. The site has frontage and accesses along Scott Blvd and N Decatur Rd with additional frontage and access along Church St to the east.

Decatur Crossing is a mixed-use development that consists of three separate phases. The first two phases are under construction at the time of this DRI review; however, the addition of the third phase of development has triggered the review for the whole site as a DRI. All three phases consist of different ownership. For the purposes of this analysis, the development will be analyzed as a whole with an emphasis on Phase 3. The third phase of development is expected to be completed in early 2018.

1.2 Study Area

The study area includes Scott Blvd from N Decatur Rd to DeKalb Industrial Way, N Decatur Rd from Superior Ave to Church St, and Church St from Scott Blvd to N Decatur Rd. The study area includes all major intersections along the roadway segments as well as all site access points. The summarized study segments are located in Table 1 with the study intersections in Table 2.

Table 1: Study Segments

Segment	Roadway	From	To
1	Scott Blvd	N Decatur Rd	Blackmon Dr
2	Scott Blvd	Blackmon Dr	Church St
3	Scott Blvd	Church St	DeKalb Industrial Way
4	N Decatur Rd	Superior Ave	Scott Blvd
5	N Decatur Rd	Scott Blvd	Blackmon Dr
6	N Decatur Rd	Blackmon Dr	Church St
7	Church St	N Decatur Rd	Sycamore Dr
8	Church St	Scott Blvd	N Decatur Rd

Table 2: Study Intersections

Intersections	
1	Scott Blvd at Medlock Rd at N Decatur Rd
2	Scott Blvd at Blackmon Dr
3	Scott Blvd at Church St
4	Scott Blvd at DeKalb Industrial Way
5	N Decatur Rd at Superior Ave
6	N Decatur Rd at Blackmon Dr
7	N Decatur Rd at Church St

1.3 Methodology

The intersections identified within the study network were analyzed during the weekday AM, and PM peak hours for (1) existing conditions, (2) future "no-build" or background conditions, and (3) future build-out conditions. Trip generation was completed using ITE Trip Generation Manual 9th Edition, and standard reductions are taken for internal capture or mixed-use, and pass-by trips. A 5% reduction was applied for alternative modes and a 1% background traffic growth rate was used for all roadways to develop the traffic volume scenarios. Capacity analysis for intersections and segments was completed using Synchro 9.0 and HCM 2010 calculations unless otherwise noted.

The level of service (LOS) standard will be LOS D for all roadways, unless the existing conditions have LOS E or F, in which case the future LOS standard will be the measured LOS for that segment and time period. Per the technical guidelines and letter of understanding, specific "required improvements" will be identified to bring the no-build and build LOS for every segment up to the applicable LOS standard. If the existing LOS for the segment or intersection is LOS F, then the future no-build and future build LOS standard will be LOSE E.

1.4 Mitigation Measures Summary

Mitigation measures for the DRI pertain primarily to improving existing, background no-build, and build conditions to an acceptable level of service (LOS).

The site plan has incorporated the following enhancements at the site accesses for Phase 1 and Phase 2 of the development:

- Relocation of Blackmon Dr to align with Walmart Driveway at N Decatur Road
- Right and left-turn lanes at Blackmon Drive on N Decatur Road and signalization
- Right and left-turn lanes at Blackmon Dr on Scott Blvd and signalization with converting Blackmon Dr southbound to right-out only
- Right-turn lanes at both the right-in right-out driveways along Scott Blvd

Several intersections were identified as needing improvements in the existing, background, and build conditions.

Scott Blvd at N Decatur at Medlock Rd

The intersection is currently over its capacity. Due to heavy volumes and unique geometry and phasing, significant capacity improvements are necessary. In order to bring the capacity to the LOS Standard of D/E the following changes were made.

- N Decatur Rd Eastbound
  - Additional one (1) through lane, one (1) right-turn lane, two (2) left-turn lanes
- Scott Blvd Northeast Bound
  - Additional one (1) right turn-lane
- N Decatur Rd Westbound
  - Additional one (1) through lane, two (2) left-turn lanes, one (1) right-turn lane
- Scott Blvd Southwest Bound
  - Additional one (1) right-turn lane

Additionally minor adjustments to signal timing were performed as needed. Approaches with added right-turns changed any existing through-right movements to through only.

The improvements needed for the intersection in the form of lane additions is excessive and unrealistic. In many cases the improvements are based on delay and not traffic volumes. The delay is primarily caused due to the phasing configuration of the signal combined with a long cycle length. It is recommended that in lieu of the lane additions a complete reconstruction of the intersection could service the volumes better. Some alternatives such as Michigan lefts or closure of Medlock Rd at the intersection could be considered. While these alternatives would be better, for the purposes of this report lane additions were used for analysis.

Scott Blvd at DeKalb Industrial Way

Under existing conditions the intersection experiences significant delay. The following changes are recommended to improve the LOS to acceptable levels.

- Driveway on northern side of Scott Blvd
  - This driveway previously serviced a site that used the intersection as the primary entrance and exit. However the site was recently changed to a utility lot with minimal vehicular traffic. The second development accessing the driveway has several driveways to the southwest and while they are restricted to a right-in / right-out access, the counted existing traffic utilizing the driveway is minimal. In order to greatly improve the intersection it is recommended that the driveway be closed and phasing for this access be removed.
- DeKalb Industrial North bound
  - The through/ left lane should be converted to a left only lane.
- Scott Blvd Southwest bound
  - An additional left-turn lane, in addition to the existing dual left-turn lane, will be necessary to improve LOS from F to E.

Although improvements seem major to the intersection, the negative impact will be minor with a large benefit to the operation of the intersection and surrounding roadway segments. In theory, an additional left turn lane on southwest bound Scott Blvd will bring the LOS to

standard; however the other improvements will greatly improve the LOS to a low F without the addition of the turn lane.

N Decatur Rd at Church St

The intersection suffers delays due to the left-turning movement being serviced by a protected phase in spite of having single left turn lanes in each direction. The protected phase has been installed due to a vertical sight distance problems causing potential safety concerns. If the vertical sight distance is improved, a protected permissive phase can be installed which will eliminate the safety and LOS concerns

Table 3 summarizes land uses, accesses, and recommended development related improvements to the study network per phase of the project; these improvements will be performed as part of the development. Table 4 tabulates the required improvements based on LOS standards these improvements are additional to those in Table 3 and many of which will be unfeasible and extensive for the roadway network.

Table 3: Summary of Development

Phase	Land Uses	Site Accesses	Improvements Necessary
1	• Apartments • Specialty Retail Center	• Full Access (Scott Blvd @ Barton Way) • RIRO (N Decatur Rd @ Apartment Driveway)	• Close Barton Way intersection at N Decatur Rd to only serve apartment residents • New RIRO driveway at N Decatur Rd to the west of the existing Barton Way
2	• Specialty Retail Center • Drive-In Bank • Apartment • Coffee/Doughnut Shop with Drive-Through Window • High Turnover/Sit Down Restaurant • High Turnover/Sit Down Restaurant (No Dinner)	• Restricted Access* (Scott Blvd @ Blackmon Dr) • Full Access (N Decatur Rd @ Blackmon Dr) • RIRO (Scott Blvd @ Driveway 1)	• Realignment of the southern portion of Blackmon Dr to match Walmart Driveway to the south at N Decatur Rd and northern section of Blackmon Dr at Scott Blvd • Traffic signal at Blackmon Dr and Scott Blvd and at Blackmon Dr at N Decatur Rd • Right and left turn lanes added to the signalized intersection of Blackmon Dr at Scott Blvd • Right and left turn lanes added to the signalized intersection of Blackmon Dr at N Decatur Rd • Right turn lane added to RIRO driveway 1 • Converting the portion of Blackmon Dr to the north of Scott Blvd to a right-out only access • Signal timing improvements • Right turn lanes added to RIRO driveway 2

3	• Fast Food Restaurant with Drive-Through Window • Supermarket • Apartments • Senior Adult Housing – Attached • Mini-Warehouse	• RIRO (Scott Blvd @ Driveway 1) • RIRO (Scott Blvd @ Driveway 2) • Restricted Access (Church St @ Emergency Access) • Full Access(Church St @ Driveway 3)	• Signal timing improvements

*The existing southbound Blackmon Dr will be converted to a right-out only, and will not provide a through movement for northbound to southbound Blackmon Dr.

With improvements to the existing system, and the proposed lane configurations and traffic signals, the development will not significantly impact the traffic operations of the roadway network.

Table 4: Required Intersection Improvements

Intersection	Control	Required Improvements for Existing / No Build
Superior Ave @ Scott Blvd	Traffic Signal	Will require updating signal timing otherwise no changes are needed
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	**N Decatur Rd Eastbound** o Additional one (1) through lane, one (1) right-turn lane, two (2) left-turn lanes **Scott Blvd Northeast Bound** o Additional one (1) right turn-lane **N Decatur Rd Westbound** o Additional one (1) through lane, two (2) left-turn lanes, one (1) right-turn lane **Scott Blvd Southwest Bound** o Additional one (1) right-turn lane Adjustments to signal timing as needed Approaches with added right-turns changed any existing through-right movements to through only
Scott Blvd @ Church St	Traffic Signal	Adjustments to signal timing as needed otherwise no changes are necessary
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	**Driveway on northern side of Scott Blvd** o This driveway previously serviced a site that used the intersection as the primary entrance and exit. However the site was recently changed to a utility lot with minor vehicle traffic. The second development accessing the site has several driveways to the south and while they are restricted to right-in / right-out the counted existing traffic utilizing the driveway is minimal. In order to greatly improve the intersection it is recommended that the driveway be closed and phasing removed from the traffic signal. **DeKalb Industrial Way North Bound** o The through/ left lane should be converted to a left only lane. **Scott Blvd Southwest Bound** o An additional left turn lane will be necessary to improve LOS from F to E.
Church St @ N Decatur Rd	Traffic Signal	Currently left turns are protected due to verical sight distance issues. Improve site distance to allow eastbound and westbound left turns on N Decatur Rd to run protected and permissive
Intersection	**Control**	**Required Improvements for Build**
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	Adjust signal cycle length or add additional right turn lane for traffic traveling southwest from Scott Blvd to N Decatur Rd

The required improvements are what is required to bring the LOS to standard, however not all improvements are feasible or realistic. There are no significant capacity improvements that are triggered by the development to the existing transportation system as it is already over capacity, and additional traffic volumes from the development will not make a significant LOS impact. Improvements for the development should be limited to site driveway accesses and the signalized intersections of Blackmon Dr at Scott Blvd and Blackmon Dr at N Decatur Rd.

2 Traffic Analysis

2.1 Existing Conditions

The existing traffic volumes, lane geometry, and lane geometry with improvements are shown in Figure 1 through Figure 6. The existing in-field traffic signal timings were obtained from GDOT and DeKalb County DOT. Scott Blvd (SR 8) is part of the Regional Traffic Operations Program (RTOP) corridors and hence timings are monitored on a regular basis; the latest installed signal timings used can be found in the DR#2558 review report appendix. The traffic signal at Superior Ave and N Decatur Rd runs free, so clearance times were calculated and the cycle length was assumed to be 140 seconds (matching N Decatur Rd at Church St). Existing conditions capacity analysis is tabulated in Table 5 and existing conditions capacity analysis results with required improvements are shown in Table 6. Full Synchro Outputs are included in Appendix A.

2.1.1 Existing Conditions Capacity Analysis

2.1.1.1 Scott Blvd at Superior Ave

Superior Ave at Scott Blvd runs free with an assumed cycle length of 140 seconds. The Superior Ave volumes are relatively low compared to the Scott Blvd volumes. Every approach operates at an acceptable LOS with the exception of the northbound left turning movement operating at a LOS E.

2.1.1.2 Scott Blvd at Medlock Rd at N Decatur Rd

The six legged intersection of Scott Blvd at Medlock Rd at N Decatur Rd is located within an RTOP corridor and experiences heavy delay. The delay is primarily due to the uniqueness of the intersection geometry, heavy volumes, and limits of signal phasing. During the methodology meeting for this report it was discussed that this intersection is a known problem and improvements will require significant geometric, operational and capacity improvements.

2.1.1.3 Scott Blvd at Church St

Scott Blvd at Church St operates under an acceptable level of service for all approaches except the north east through (Scott Blvd) during the PM peak hour.

2.1.1.4 Scott Blvd at DeKalb Industrial Way

Scott Blvd at DeKalb Industrial Way experiences significant delay during both the AM and PM peak hours. This is due in large part to the side-street split phase nature of the intersection and very large traffic volumes utilizing the intersection with conflicting movements. Particularly south-westbound lefts from Scott Blvd to DeKalb Industrial Way and the opposite northbound right from DeKalb Industrial Way.

2.1.1.5 N Decatur Rd at Church St

N Decatur Rd shows some LOS issues with the left turning movements during all peak hours. The left-turns are protected-only movements which makes it difficult to clear the volume of vehicles.

Additionally, the southbound through movement experiences a LOS of E during the AM peak hour.

2.1.2 Existing Conditions Required Improvements

Due to the nature of the roadway corridors along site frontage, it can be assumed that traffic signal timings will be adjusted by GDOT and DeKalb County on a regular basis. For the purposes of this analysis, signal timing changes were kept as minimal as possible in order to keep the corridors operating as intended by the State and County engineers. No cycle lengths changes were made and main line green times were kept as close as possible to their original splits. Additional capacity was added to the intersections and modeled, keeping in mind the standard LOS, volumes, delays, and construction feasibility / right-of-way constraints.,

2.1.2.1 Scott Blvd at Superior Ave

The signal was left as is, all approach movements operate at a LOS of D or better with the exception of the northbound left-turn which operates at its adjusted LOS standard of E during the AM peak period.

2.1.2.2 Scott Blvd at Medlock Rd at N Decatur Rd

The intersection is currently over its capacity. Due to heavy volumes and unique geometry and phasing, significant capacity improvements are necessary. In order to bring the capacity to the LOS Standard of D/E the following changes were made.

- N Decatur Rd Eastbound
  - Additional one (1) through lane, one (1) right-turn lane, two (2) left-turn lanes
- Scott Blvd Northeast Bound
  - Additional one (1) right turn-lane
- N Decatur Rd Westbound
  - Additional one (1) through lane, two (2) left-turn lanes, one (1) right-turn lane
- Scott Blvd Southwest Bound
  - Additional one (1) right-turn lane

Additionally minor adjustments to signal timing were performed as needed. Approaches with added right-turns changed any existing through-right movements to through only.

The improvements needed for the intersection in the form of lane additions is excessive and unrealistic. In many cases the improvements are based on delay and not traffic volumes. The delay is primarily caused due to the phasing configuration of the signal combined with a long cycle length. It is recommended that in lieu of the lane additions a complete reconstruction of the intersection could service the volumes better. Some alternatives such as Michigan lefts or closure of Medlock Rd at the intersection could be considered. While these alternatives would be better, for the purposes of this report lane additions were used for analysis.

2.1.2.3 Scott Blvd at Church St

Delays were fixed by adjusting the signal timing and adding green time to phase 4; as adjustments were minor no geometric improvements were necessary.

2.1.2.4 Scott Blvd at DeKalb Industrial Way

Under existing conditions the intersection experiences significant delay. The following changes are recommended to improve the LOS to acceptable levels.

- Driveway on northern side of Scott Blvd
  - This driveway previously serviced a site that used the intersection as the primary entrance and exit. However the site was recently changed to a utility lot with minimal vehicular traffic. The second development accessing the driveway has several driveways to the southwest and while they are restricted to a right-in / right-out access, the counted existing traffic utilizing the driveway is minimal. In order to greatly improve the intersection it is recommended that the driveway be closed and phasing for this access be removed.
- DeKalb Industrial North bound
  - The through/ left lane should be converted to a left only lane.
- Scott Blvd Southwest bound
  - An additional left-turn lane, in addition to the existing dual left-turn lane, will be necessary to improve LOS from F to E.

Although improvements seem major to the intersection, the negative impact will be minor with a large benefit to the operation of the intersection and surrounding roadway segments. In theory, an additional left turn lane on southwest bound Scott Blvd will bring the LOS to standard; however the other improvements will greatly improve the LOS to a low F without the addition of the turn lane.

2.1.2.5 N Decatur Rd at Church St

The intersection suffers delays due to the left-turning movement being serviced by a protected phase in spite of having single left turn lanes in each direction. The protected phase has been installed due to a vertical sight distance problems causing potential safety concerns. If the vertical sight distance is improved, a protected permissive phase can be installed which will eliminate the safety and LOS concerns

Figure 1: Existing Lane Geometry

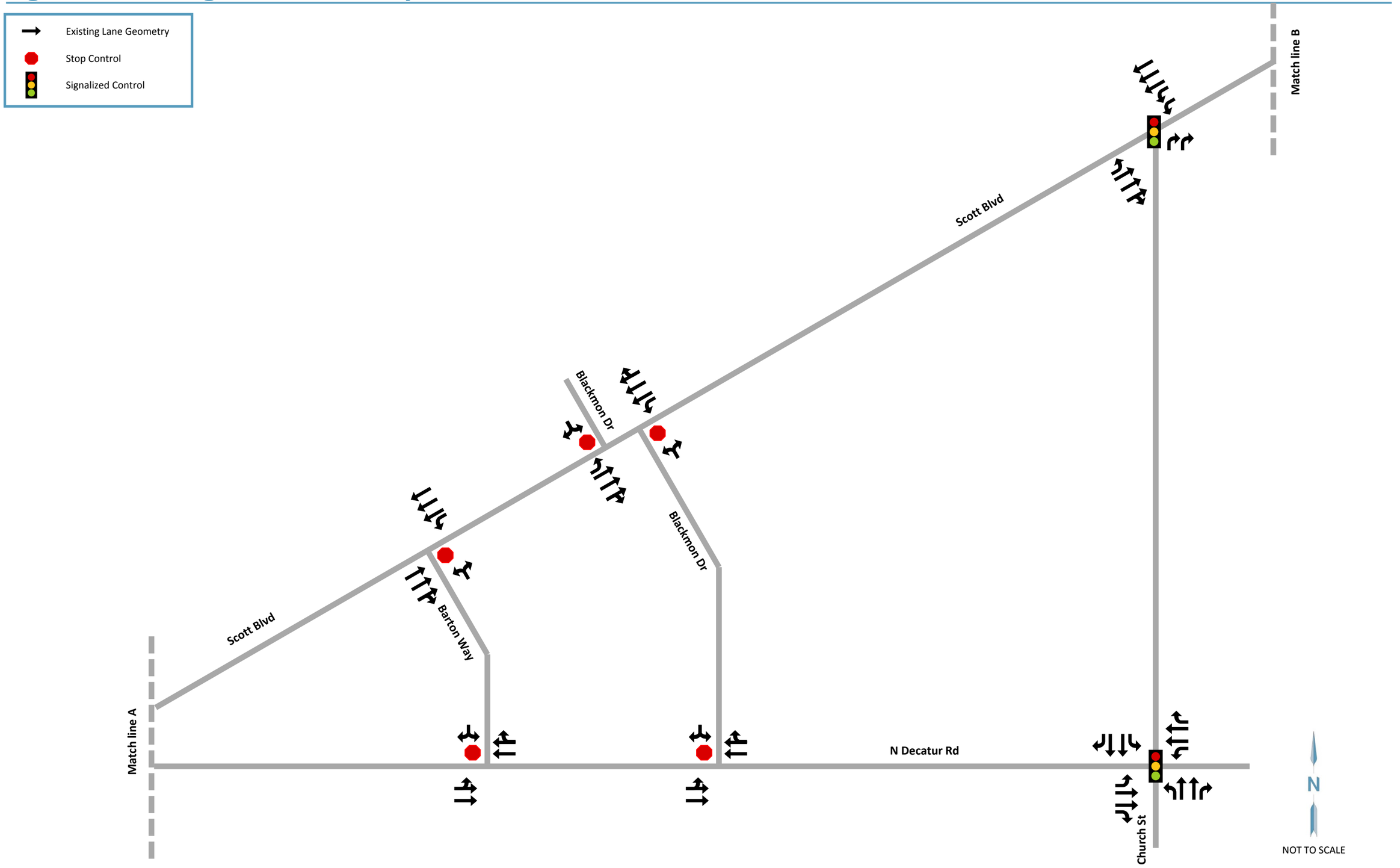

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Figure 2: Existing Lane Geometry Continued

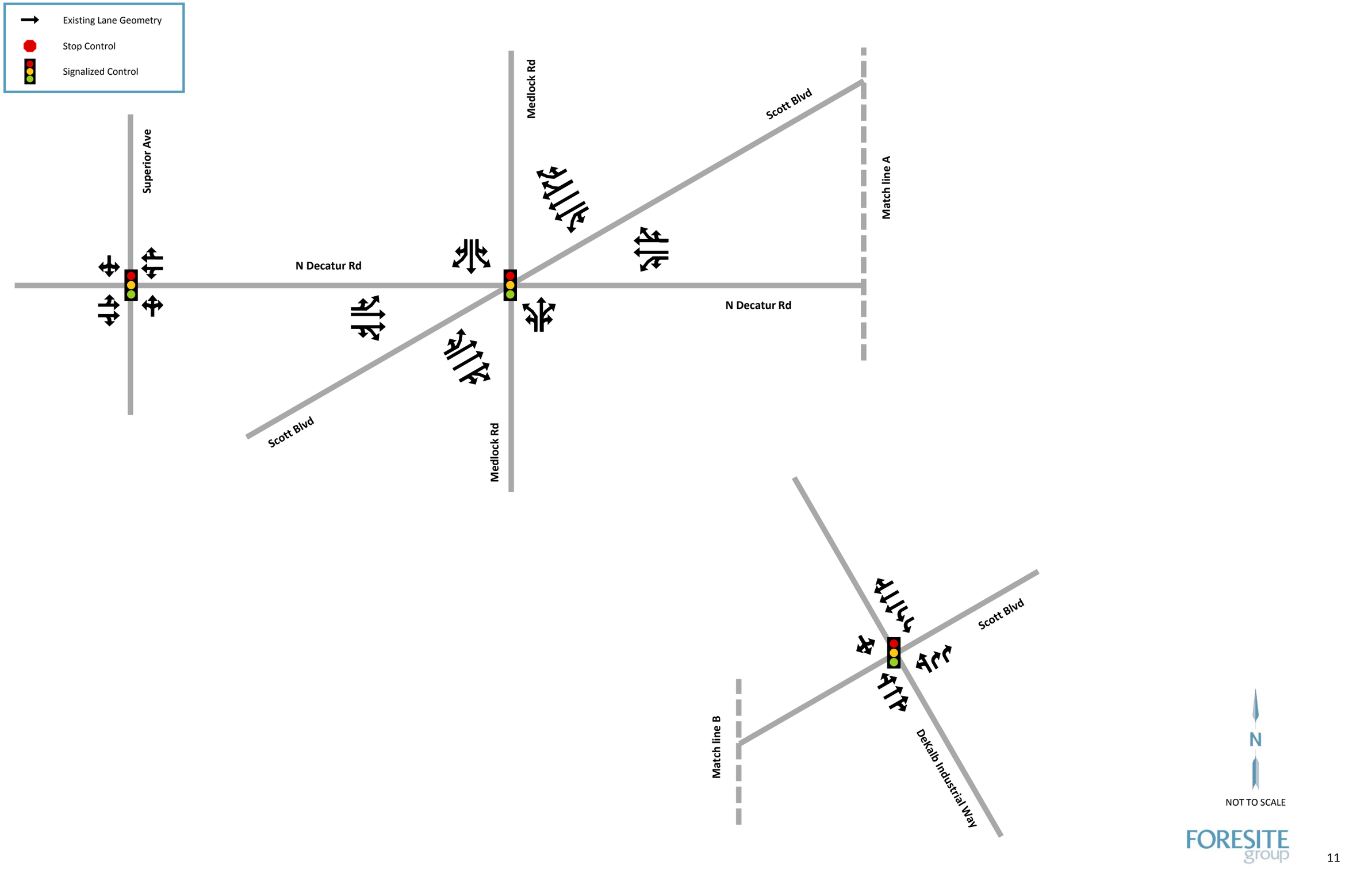

Figure 3: Existing Lane Geometry With Improvements

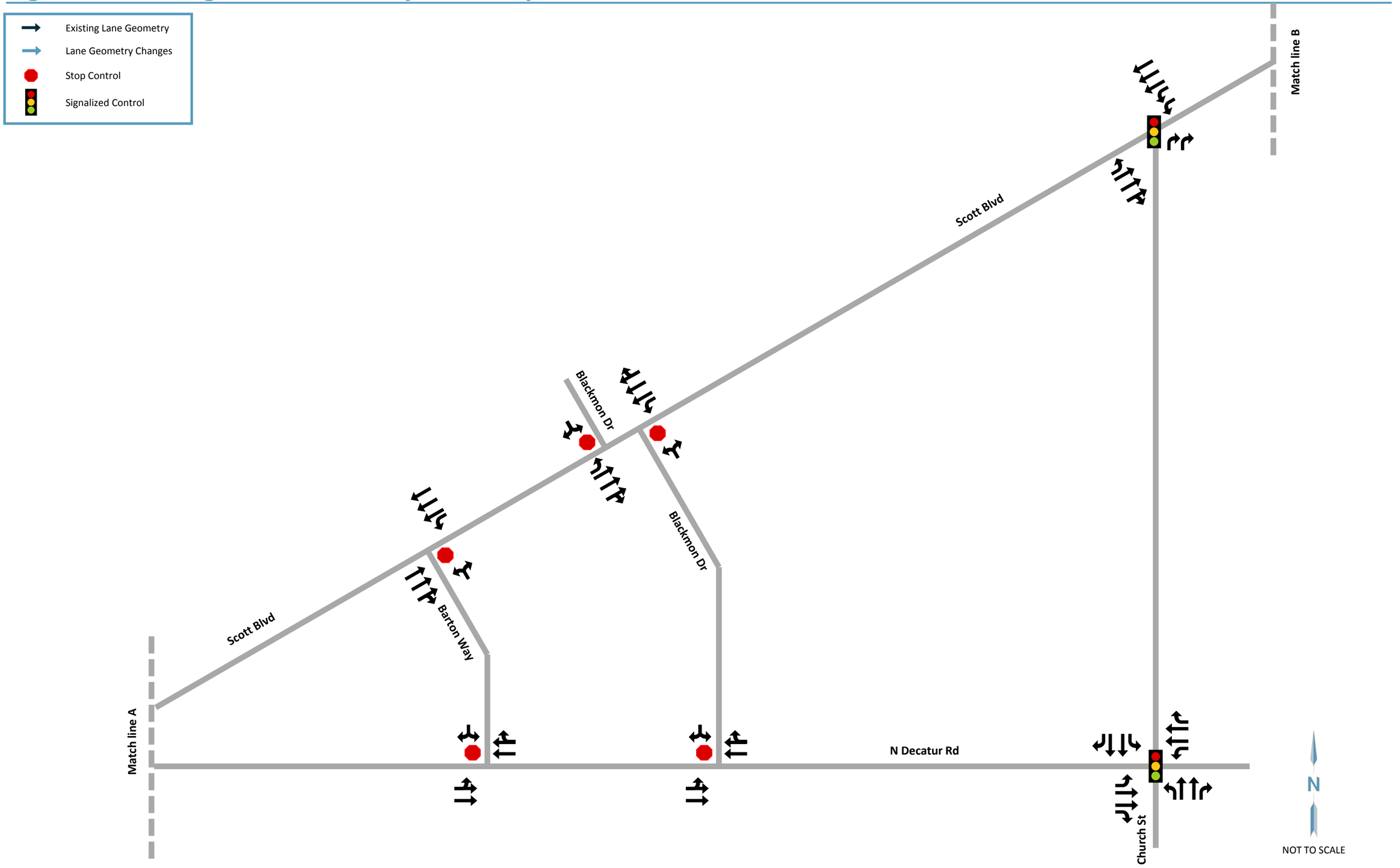

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Figure 4: Existing Lane Geometry With Improvements

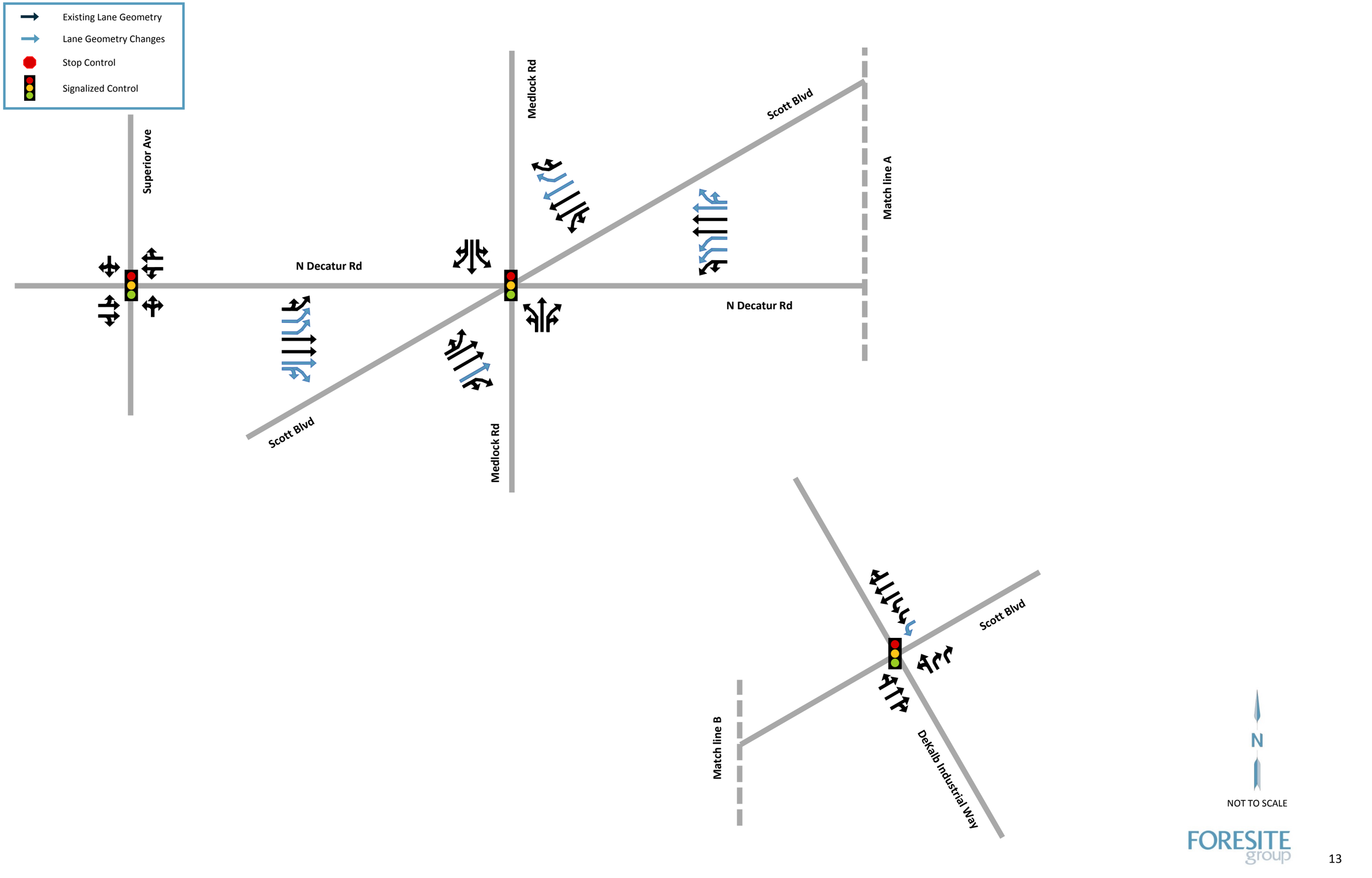

Figure 5: Existing Traffic Volumes

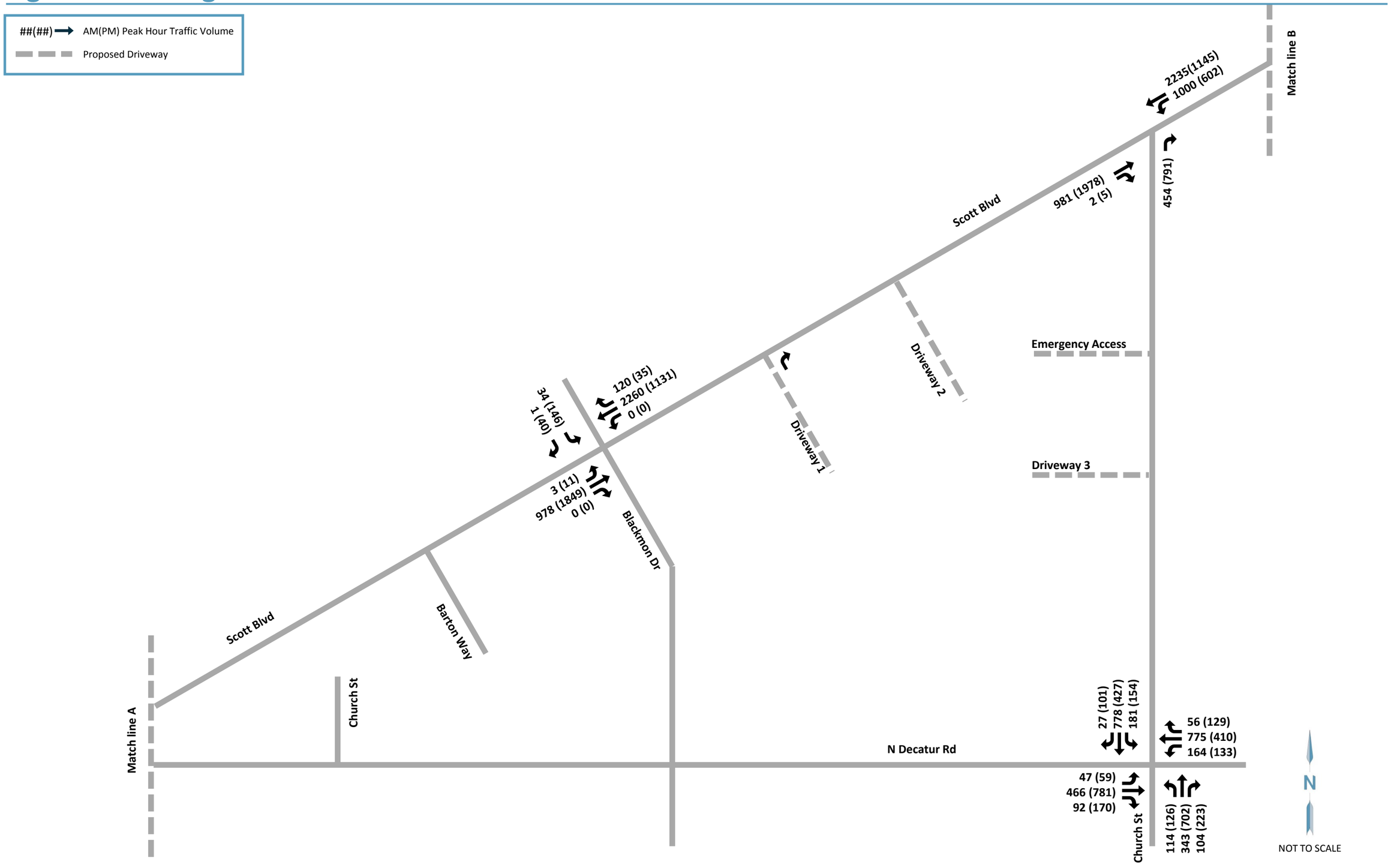

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Figure 6: Existing Traffic Volumes Continued

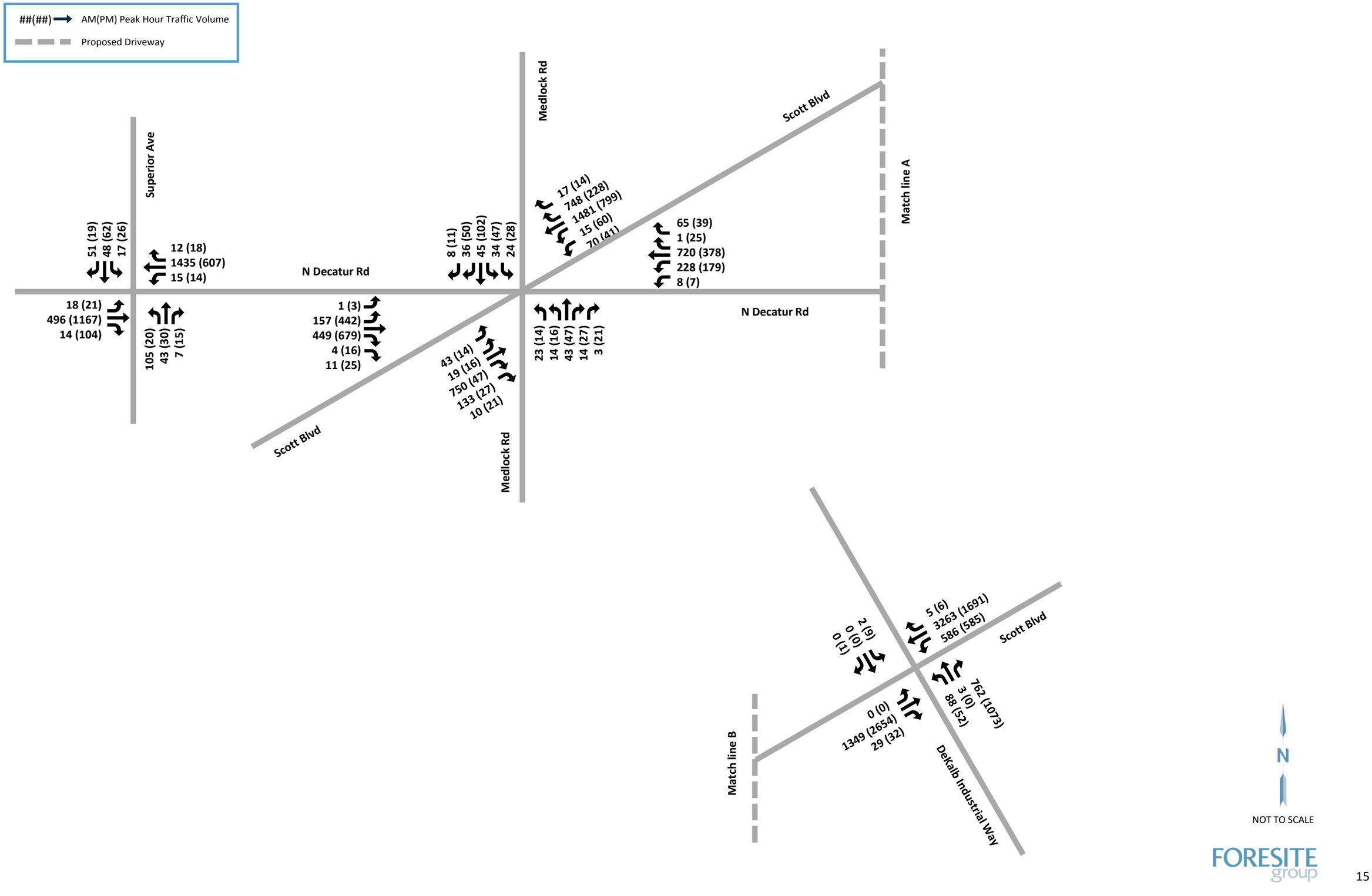

Table 5: Existing Conditions Capacity Analysis

Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Superior Ave @ Scott Blvd	Traffic Signal	EBL	6.9	A	4.8	A
		EBT	0.0	A	0.0	A
		EBR	6.9	A	5.0	A
		WBL	11.6	B	3.2	A
		WBT	0.0	A	0.0	A
		WBR	12.0	B	3.3	A
		NBL	56.1	E	47.8	D
		NBT	0.0	A	0.0	A
		NBR	0.0	A	0.0	A
		SBL	48.4	D	51.4	D
		SBT	0.0	A	0.0	A
		SBR	0.0	A	0.0	A
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	EBL	342.6	F	162.4	F
		EBTR	73.4	E	92.0	F
		WBL	190.6	F	147.3	F
		WBTR	133.2	F	158.5	F
		NBL	68.9	E	68.1	E
		NBTR	70.8	E	85.8	F
		SBL	87.4	F	172.6	F
		SBT	67.3	E	76.8	E
		SBR	64.1	E	62.7	E
		NEL	45.5	D	35.7	D
		NETR	41.3	D	98.1	F
		SWL	20.1	C	116.9	F
		SWT	112.2	F	37.8	D
		SWR	38.6	D	74.5	E
Scott Blvd @ Church St	Traffic Signal	NBR	16.6	B	21.2	C
		NETR	28.7	C	99.2	F
		SWL	8.5	A	17.9	B
		SWT	0.1	A	0.1	A
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	NBL	62.3	E	62.7	E
		NBT	0.0	A	0.0	A
		NBR	715.6	F	1304.1	F
		SBLTR	68.6	E	70.0	E
		NETLR	0.0	A	0.0	A
		SWL	69.6	E	560.3	F
		SWT	30.0	C	9.9	A
		SWR	35.6	D	10.5	B
Church St @ N Decatur Rd	Traffic Signal	EBL	72.6	E	68.1	E
		EBT	31.2	C	34.8	C
		EBR	0.0	A	0.0	A
		WBL	81.4	F	78.5	E
		WBT	27.2	C	25.6	C
		WBR	0.0	A	0.0	A
		NBL	42.9	D	34.4	C
		NBT	44.6	D	52.3	D
		NBR	43.0	D	45.3	D
		SBL	38.9	D	43.0	D
		SBT	65.9	E	42.1	D
		SBR	39.0	D	39.2	D

Table 6: Existing Conditions with Required Improvements Capacity Analysis

Intersection	Control	Lane Group Movement	AM Peak Hour			PM Peak Hour		
			Delay (s)	LOS	Req'd LOS	Delay (s)	LOS	Req'd LOS
Superior Ave @ Scott Blvd	Traffic Signal	EBL	6.9	A	D	4.8	A	D
		EBT	0.0	A	D	0.0	A	D
		EBR	6.9	A	D	5.0	A	D
		WBL	11.6	B	D	3.2	A	D
		WBT	0.0	A	D	0.0	A	D
		WBR	12.0	B	D	3.3	A	D
		NBL	56.1	E	E	47.8	D	D
		NBT	0.0	A	D	0.0	A	D
		NBR	0.0	A	D	0.0	A	D
		SBL	48.4	D	D	51.4	D	D
		SBT	0.0	A	D	0.0	A	D
		SBR	0.0	A	D	0.0	A	D
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	EBL	75.7	E	E	71.6	E	E
		EBT	63.5	E	E	71.6	E	E
		EBR	55.2	E	E	52.5	D	E
		WBL	70.5	E	E	72.3	E	E
		WBT	79.4	E	E	68.0	E	E
		WBR	53.0	D	E	59.3	E	E
		NBL	67.9	E	E	64.9	E	E
		NBT	66.6	E	E	63.4	E	E
		NBR	63.3	E	E	60.9	E	E
		SBL	79.9	E	E	74.9	E	E
		SBT	66.5	E	E	69.0	E	E
		SBR	63.5	E	E	60.9	E	E
		NEL	35.6	D	D	27.6	C	D
		NET	34.5	C	D*	46.9	D	E
		NER	29.7	C	D*	35.8	D	E*
		SWL	18.4	B	D	34.5	C	E
		SWT	34.1	C	E	32.9	C	D
		SWR	33.6	C	D	38.3	D	E
Scott Blvd @ Church St	Traffic Signal	NBR	16.6	B	D	27.7	C	D
		NETR	28.3	C	D	33.6	C	E
		SWL	15.7	B	D	23.2	C	D
		SWT	0.2	A	D	0.1	A	D
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	NBL	62.1	E	E	64.1	E	E
		NBR	7.4	A	D	8.2	A	D
		NET	39.6	D	D	53.6	D	D
		SWL	63.6	E	E	66.4	E	E
		SWT	10.6	B	D	4.2	A	D
Church St @ N Decatur Rd	Traffic Signal	EBL	21.7	C	E	21.3	C	E
		EBT	27.0	C	D	32.2	C	D
		EBR	0.0	A	D	0.0	A	D
		WBL	19.7	B	E	23.9	C	E
		WBT	27.2	C	D	25.6	C	D
		WBR	0.0	A	D	0.0	A	D
		NBL	42.9	D	D	34.4	C	D
		NBT	44.6	D	D	52.3	D	D
		NBR	43.0	D	D	45.3	D	D
		SBL	38.9	D	D	42.9	D	D
		SBT	65.9	E	E	42.0	D	D
		SBR	39.0	D	D	39.2	D	D

*When approach does not exist before improvement the LOS standard is based on shared approach LOS

2.2 Background 2018 ("No-Build") Conditions

2.2.1 Background Traffic

The background traffic consists of the existing 2015 traffic volume, plus the additional traffic generated by the 1% per year growth rate until the build-out year of 2018. Additionally, the Suburban Plaza traffic volumes were included because the development was completed after traffic counts were collected for this DRI analysis. Background traffic volumes are shown in Figure 7 through Figure 12. Full Synchro Outputs are included in Appendix A.

2.3 Background Conditions Capacity Analysis

For the capacity analysis signal timings and geometry were left the same. Tabulated capacity analysis is shown in Table 7 and analyses with capacity improvements are shown in Table 8. No-build lane geometry, no build lane geometry with improvements, and no-build traffic volumes are shown in Figure 7 through Figure 12.

Across the study network, delays stay consistent with the delays observed during the existing conditions with no improvements, with the exception of the two following intersections:

2.3.1.1 N Decatur Rd at Church St

Delays increased for the left turning movements along N Decatur Rd and changed LOS from E to F.

2.3.1.2 N Decatur Rd at Blackmon Dr

The intersection of N Decatur Rd at Blackmon Dr (Walmart Driveway) was added. The T-intersection was assumed to operate at a half cycle length (70 seconds) and the Suburban Plaza traffic volumes were added to the system. The signal is expected to operate at an acceptable LOS, and will serve as a connection point to the re-aligned Blackmon Dr in the Build Conditions.

2.4 Background Conditions Recommended Improvements

All recommend improvements for existing conditions were incorporated into the background conditions capacity analysis. With minor changes to signal timing, the No-Build LOS will remain within acceptable LOS.

Figure 7: No Build Lane Geometry

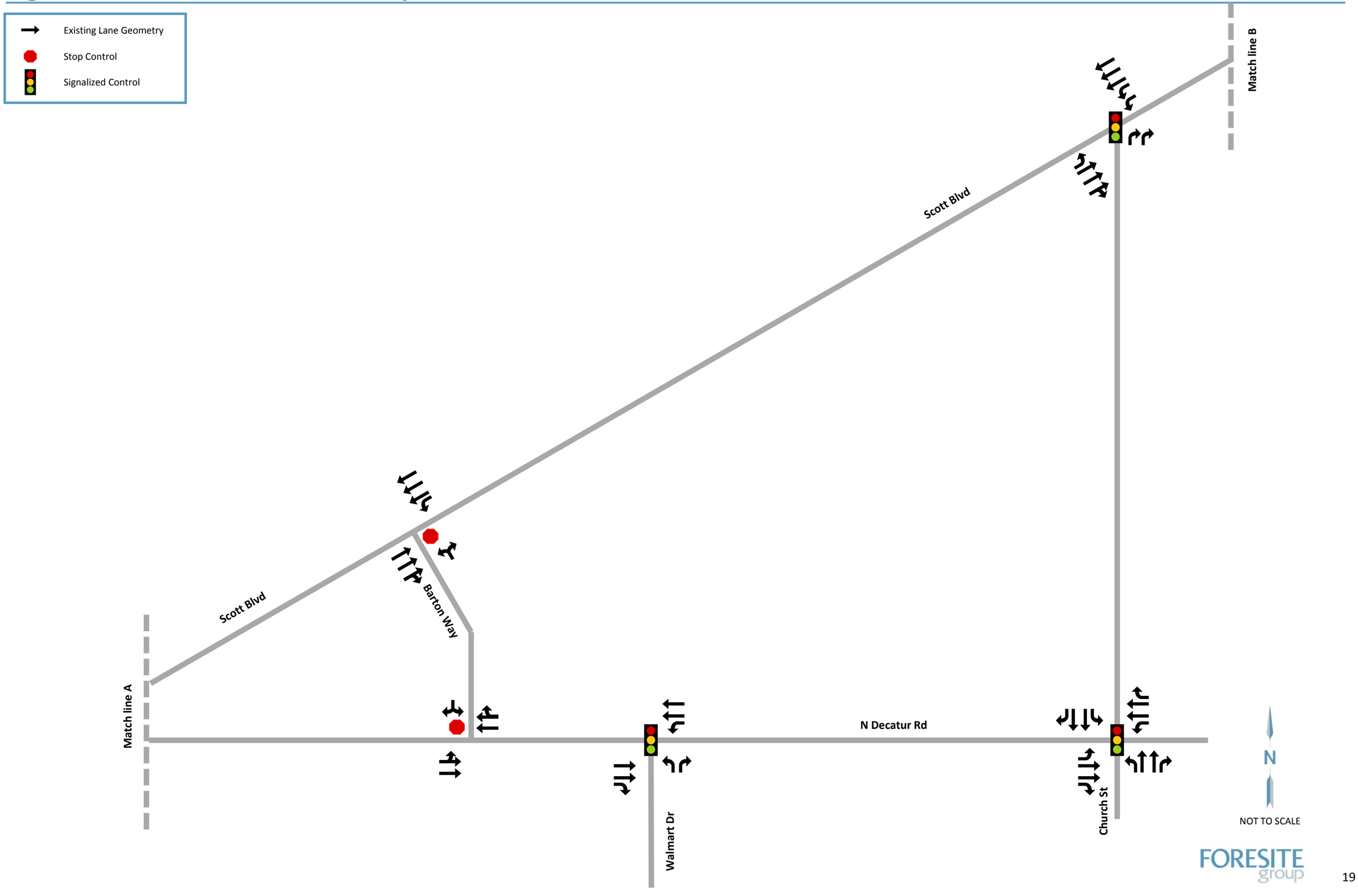

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Figure 8: No Build Lane Geometry Continued

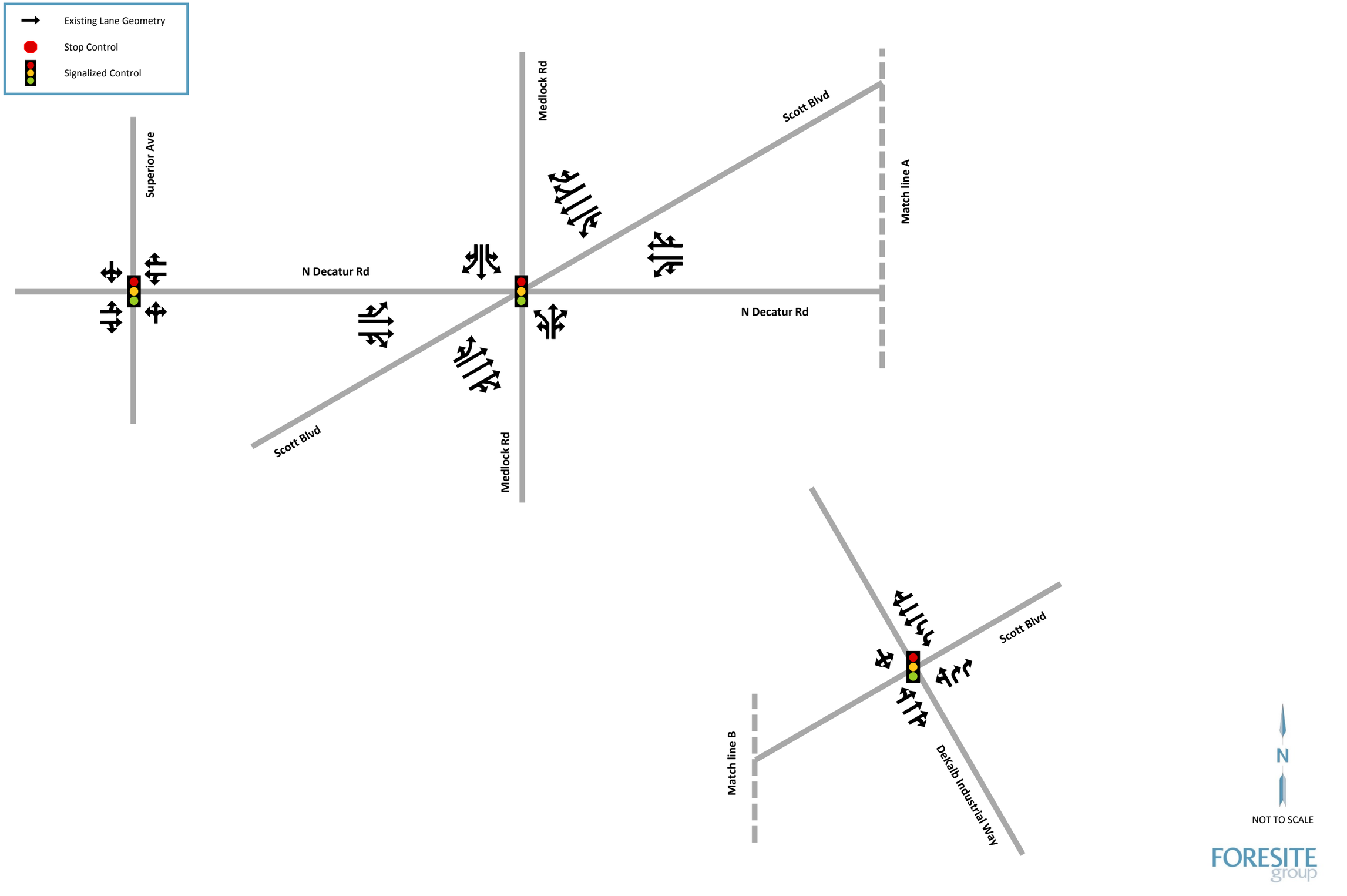

Figure 9: No Build Lane Geometry With Improvements

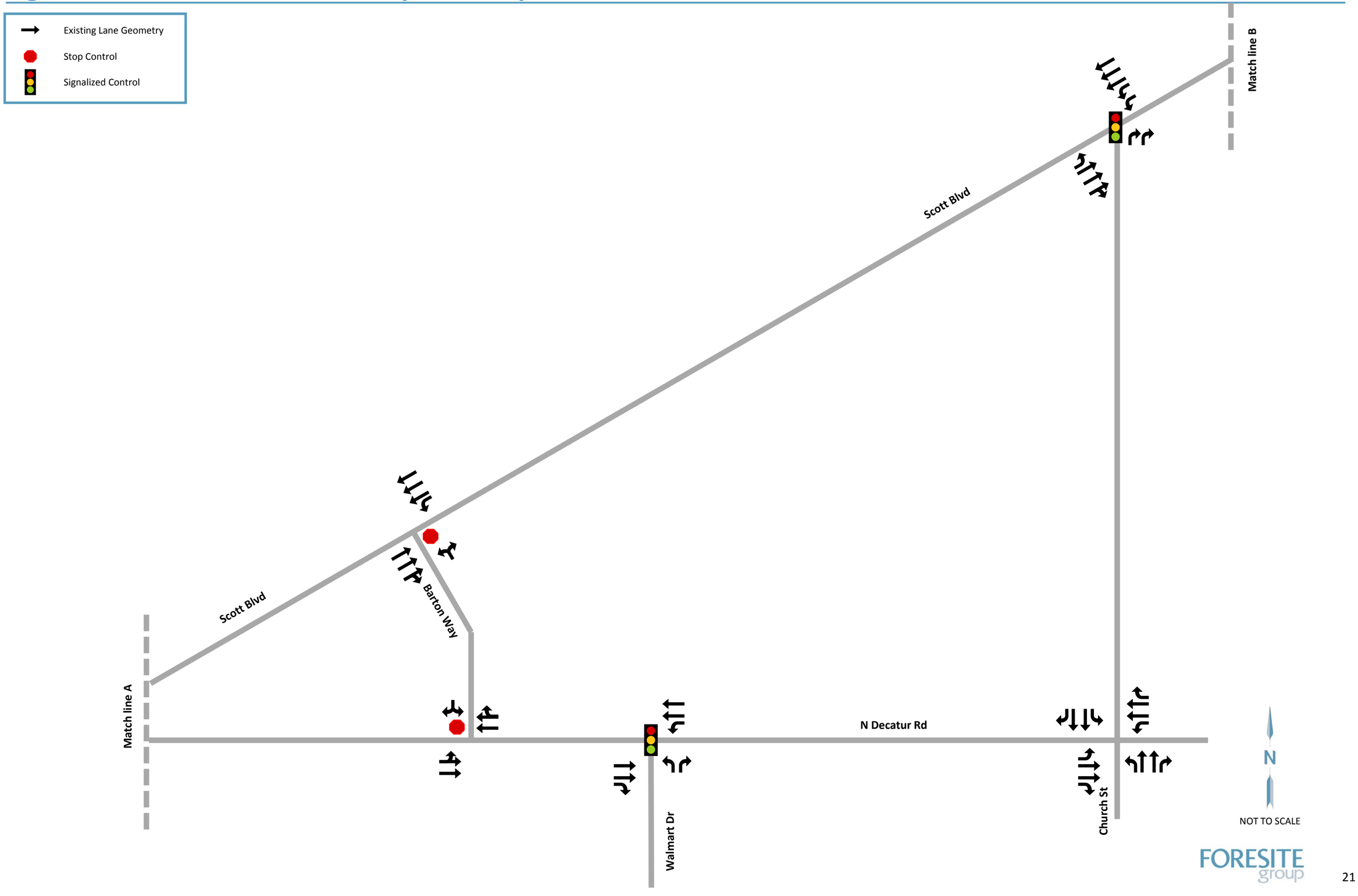

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Figure 10: No Build Lane Geometry With Improvements Continued

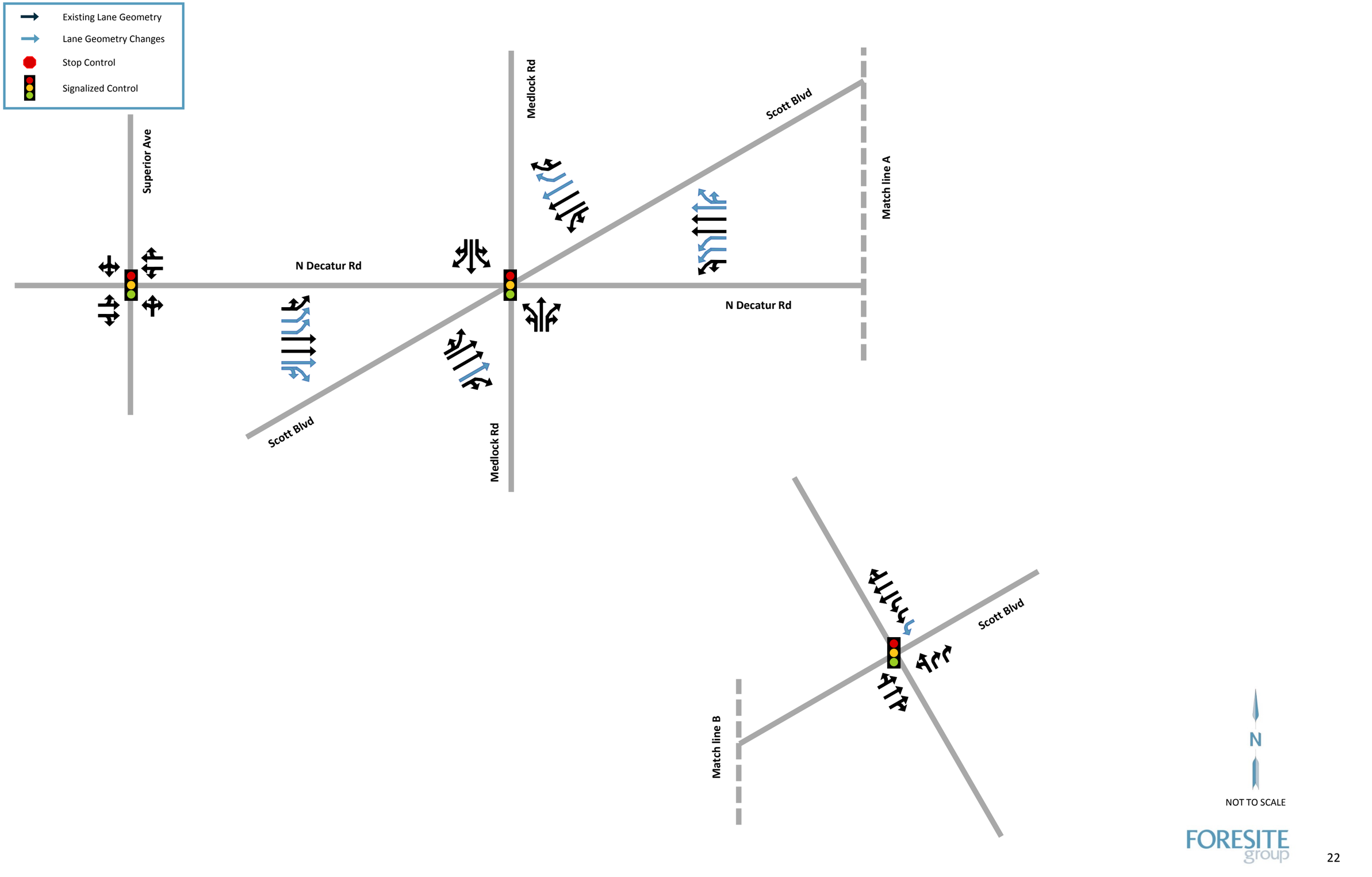

Figure 11: No-Build 2018 Traffic Volumes

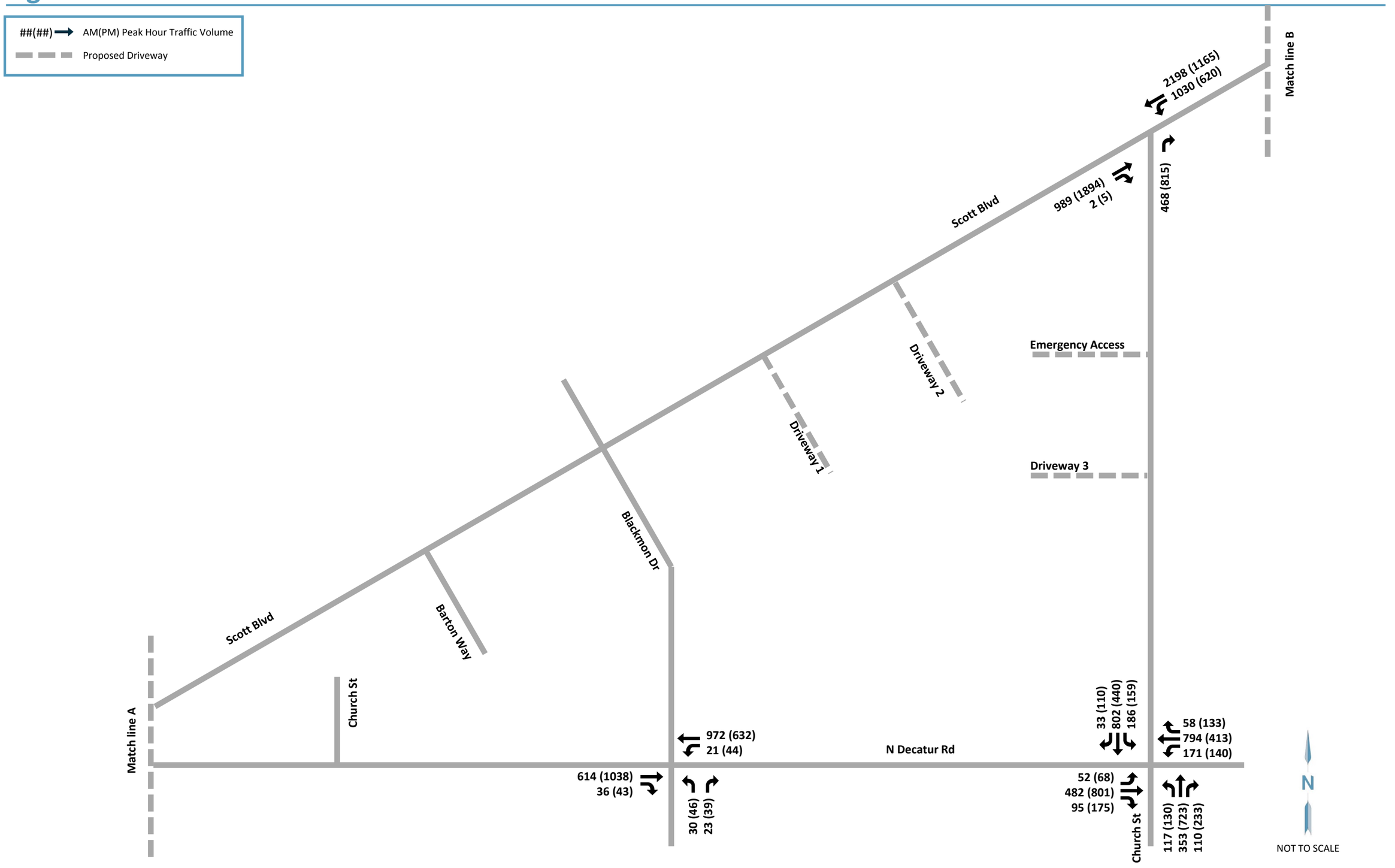

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Figure 12: No-Build 2018 Traffic Volumes Continued

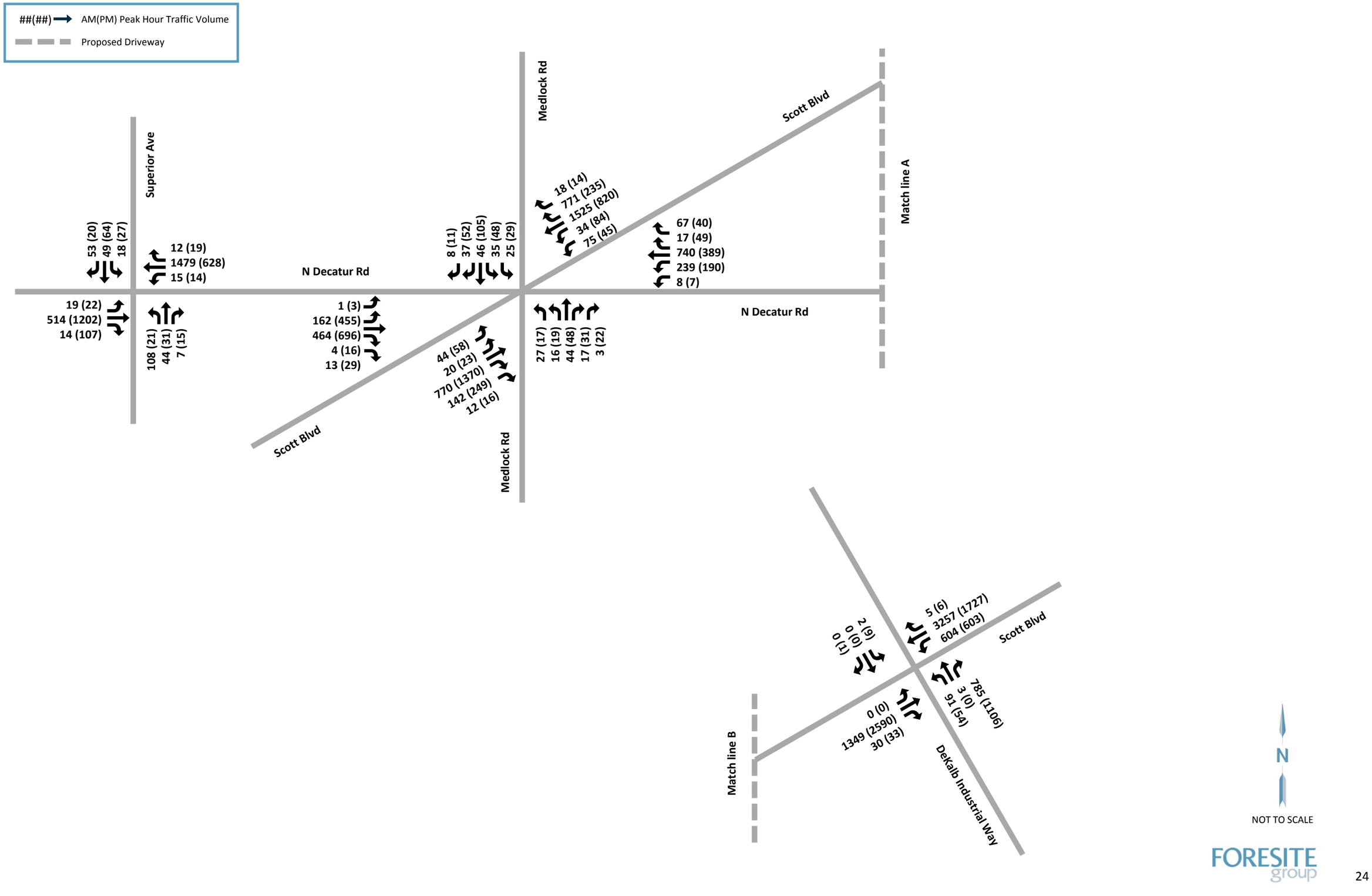

Table 7: No-Build Capacity Analysis

Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Superior Ave @ Scott Blvd	Traffic Signal	EBL	7.6	A	5.0	A
		EBT	0.0	A	0.0	A
		EBR	7.3	A	5.3	A
		WBL	12.6	B	3.4	A
		WBT	0.0	A	0.0	A
		WBR	13.1	B	3.4	A
		NBL	56.3	E	47.6	D
		NBT	0.0	A	0.0	A
		NBR	0.0	A	0.0	A
		SBL	48.2	D	51.4	D
		SBT	0.0	A	0.0	A
		SBR	0.0	A	0.0	A
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	EBL	346.0	F	176.2	F
		EBTR	78.3	E	101.5	F
		WBL	215.1	F	171.5	F
		WBTR	155.5	F	199.6	F
		NBL	69.9	E	71.3	E
		NBTR	72.1	E	94.5	F
		SBL	89.1	F	217.8	F
		SBT	67.1	E	78.5	E
		SBR	63.9	E	62.8	E
		NEL	47.5	D	36.9	D
		NETR	42.4	D	108.5	F
		SWL	32.0	C	204.7	F
		SWT	128.7	F	38.3	D
		SWR	45.0	D	68.9	E
Scott Blvd @ Church St	Traffic Signal	NBR	17.2	B	21.6	C
		NETR	25.7	C	74.3	E
		SWL	9.1	A	18.0	B
		SWT	0.1	A	0.1	A
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	NBL	62.5	E	62.8	E
		NBT	0.0	A	0.0	A
		NBR	747.6	F	1356.2	F
		SBLTR	68.6	E	70.0	E
		NETLR	0.0	A	0.0	A
		SWL	69.9	E	587.8	F
		SWT	29.8	C	10.0	B
		SWR	35.3	D	10.6	B
Church St @ N Decatur Rd	Traffic Signal	EBL	80.4	F	81.6	F
		EBT	12.1	B	38.1	D
		EBR	0.0	A	0.0	A
		WBL	82.8	F	80.2	F
		WBT	27.9	C	26.8	C
		WBR	0.0	A	0.0	A
		NBL	43.3	D	34.1	C
		NBT	44.4	D	52.9	D
		NBR	42.9	D	45.5	D
		SBL	39.5	D	44.6	D
		SBT	70.0	E	41.8	D
		SBR	39.0	D	39.0	D
Blackmon Dr @ N Decatur	Traffic Signal	EBT	4.4	A	7.9	A
		EBR	3.5	A	5.3	A
		WBL	2.8	A	5.2	A
		WBT	2.5	A	2.8	A
		NBL	35.1	D	24.4	C
		NBR	31.3	C	20.6	C

Table 8: No-Build Capacity Analysis with Improvements

Intersection	Control	Lane Group Movement	AM Peak Hour			PM Peak Hour		
			Delay (s)	LOS	Req'd LOS	Delay (s)	LOS	Req'd LOS
Superior Ave @ Scott Blvd	Traffic Signal	EBL	7.6	A	D	5.0	A	D
		EBT	0.0	A	D	0.0	A	D
		EBR	7.3	A	D	5.3	A	D
		WBL	12.6	B	D	3.4	A	D
		WBT	0.0	A	D	0.0	A	D
		WBR	13.1	B	D	3.4	A	D
		NBL	56.3	E	E	47.6	D	D
		NBT	0.0	A	D	0.0	A	D
		NBR	0.0	A	D	0.0	A	D
		SBL	48.2	D	D	51.4	D	D
		SBT	0.0	A	D	0.0	A	D
		SBR	0.0	A	D	0.0	A	D
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	EBL	77.0	E	E	72.0	E	E
		EBT	64.2	E	E	75.9	E	E
		EBR	55.2	E	E	52.8	D	E
		WBL	70.0	E	E	76.5	E	E
		WBT	79.2	E	E	72.2	E	E
		WBR	52.6	D	E	60.4	E	E
		NBL	68.0	E	E	67.2	E	E
		NBT	65.8	E	E	64.1	E	E
		NBR	62.7	E	E	61.4	E	E
		SBL	78.0	E	E	79.4	E	E
		SBT	65.7	E	E	71.4	E	E
		SBR	62.9	E	E	61.4	E	E
		NEL	37.9	D	D	28.3	C	D
		NET	37.2	D	D*	46.5	D	E
		NER	32.1	C	D*	34.9	C	E*
		SWL	20.1	C	D	56.8	E	E
		SWT	37.1	D	E	41.3	D	D
		SWR	37.3	D	D	53.8	D	E
Scott Blvd @ Church St	Traffic Signal	NBR	17.2	B	D	28.3	C	D
		NETR	27.0	C	D	36.9	D	E
		SWL	16.6	B	D	23.4	C	D
		SWT	0.2	A	D	0.1	A	D
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	NBL	62.3	E	E	64.2	E	E
		NBR	7.8	A	D	8.5	A	D
		NET	40.1	D	D	54.4	D	D
		SWL	63.2	E	E	66.5	E	E
		SWT	10.6	B	D	4.3	A	D
Church St @ N Decatur Rd	Traffic Signal	EBL	23.0	C	E	22.0	C	E
		EBT	43.6	D	D	33.4	C	D
		EBR	0.0	A	D	0.0	A	D
		WBL	21.1	C	E	25.0	C	E
		WBT	27.9	C	D	26.3	C	D
		WBR	0.0	A	D	0.0	A	D
		NBL	43.3	D	D	34.1	C	D
		NBT	44.4	D	D	52.9	D	D
		NBR	42.9	D	D	45.5	D	D
		SBL	39.5	D	D	44.4	D	D
		SBT	70.0	E	E	41.8	D	D
		SBR	39.0	D	D	39.0	D	D
Blackmon Dr @ N Decatur	Traffic Signal	EBT	4.4	A	D	7.9	A	D
		EBR	3.5	A	D	5.3	A	D
		WBL	2.8	A	D	5.2	A	D
		WBT	2.5	A	D	2.8	A	D
		NBL	35.1	D	D	24.4	C	D
		NBR	31.3	C	D	20.6	C	D

*When approach does not exist before improvement the LOS standard is based on shared approach LOS

2.5 Future Build-Out Conditions

2.5.1 Future Build-Out Traffic

The future build-out traffic consists of the background 2018 volume, plus the additional net total project traffic for each intersection. Future lane geometry, lane geometry with improvements, and traffic volumes are shown graphically in Figure 13 through Figure 18. Full Synchro Outputs are included in Appendix A.

2.5.2 Future Build-Out Capacity Analysis

Due to the assignment of traffic volume and the improvements to the roadway network incorporated the site plans design of site access points. The overall impact of the development will be minimal to the existing network, after improvements required in existing and no build conditions.

Across the study network delays stay consistent with the LOS observed during the Build-out no improvement conditions, with the exception of two intersections.

2.5.2.1 N Decatur Rd at Blackmon Dr

The intersection was expanded to a four-legged intersection with re-alignment of Blackmon Drive. The improvement included the addition of the traffic signal and dedicated left turn and right turn lanes on N Decatur Rd. The intersection will include a dedicated southbound left-turn lane in order to accommodate the heavy left-turning volume. The signal timing was kept at the systems half-cycle length of 70 seconds and operates at acceptable LOS.

2.5.2.2 Scott Blvd at Blackmon Dr

The re-aligned Blackmon Dr is to be aligned with existing Scott Blvd at Blackmon Drive (north of Scott Blvd). The northern approach of Blackmon Dr will be closed to through traffic and only provide a right-out exit. Left and right-turning lanes will be added to Scott Blvd at the intersection in addition to left and right-turning lanes exiting the development. The cycle length was analyzed as a 75 second half cycle, and the LOS is acceptable for all peak hours and movements.

2.5.2.3 Scott Blvd at Barton Way

This intersection will serve as a full-access side-street stop controlled intersection into the Phase 1 development. The driveway operates at an acceptable LOS for all peak hours and approaches except the exiting traffic, and the left turning movement from Scott Blvd, during the PM peak period. Although the LOS is F for the entering trips, there are only 16 anticipated vehicles during the peak hour and with a dedicated left turn deceleration lane, the main line traffic will not see an impact due to queued vehicles.

As part of the Build-Out analysis, site driveways are included in Table 11. All site driveways with the exception of Scott Blvd at Barton Way operate at an acceptable level of service. Driveways accessing Phase 2 and Phase 3 of the development along Scott Blvd will provide right-turn deceleration lanes into the development.

2.5.3 Future Build-Out Capacity Analysis with Improvements

All recommend improvements for existing conditions were incorporated into the build-out conditions capacity analysis. With minor changes to signal timing the Build LOS will remain within acceptable LOS or equal to the LOS of the background (no build) conditions. With the exception of the six-legged intersection of Scott Blvd at Medlock Rd at N Decatur Rd

Under build conditions an additional right turn lane on Scott Blvd Southwest Bound would be necessary to improve the LOS, however the LOS without improvement is LOS E and improvements to the signal cycle length could improve the movement LOS.

Due to the proposed nature and geometry of the site driveways, and the left turning vehicles extensively using the proposed signalized intersections with Blackmon Drive it will not be necessary to make improvements to the surrounding area based on the addition of project volumes.

Figure 13: Future Lane Geometry

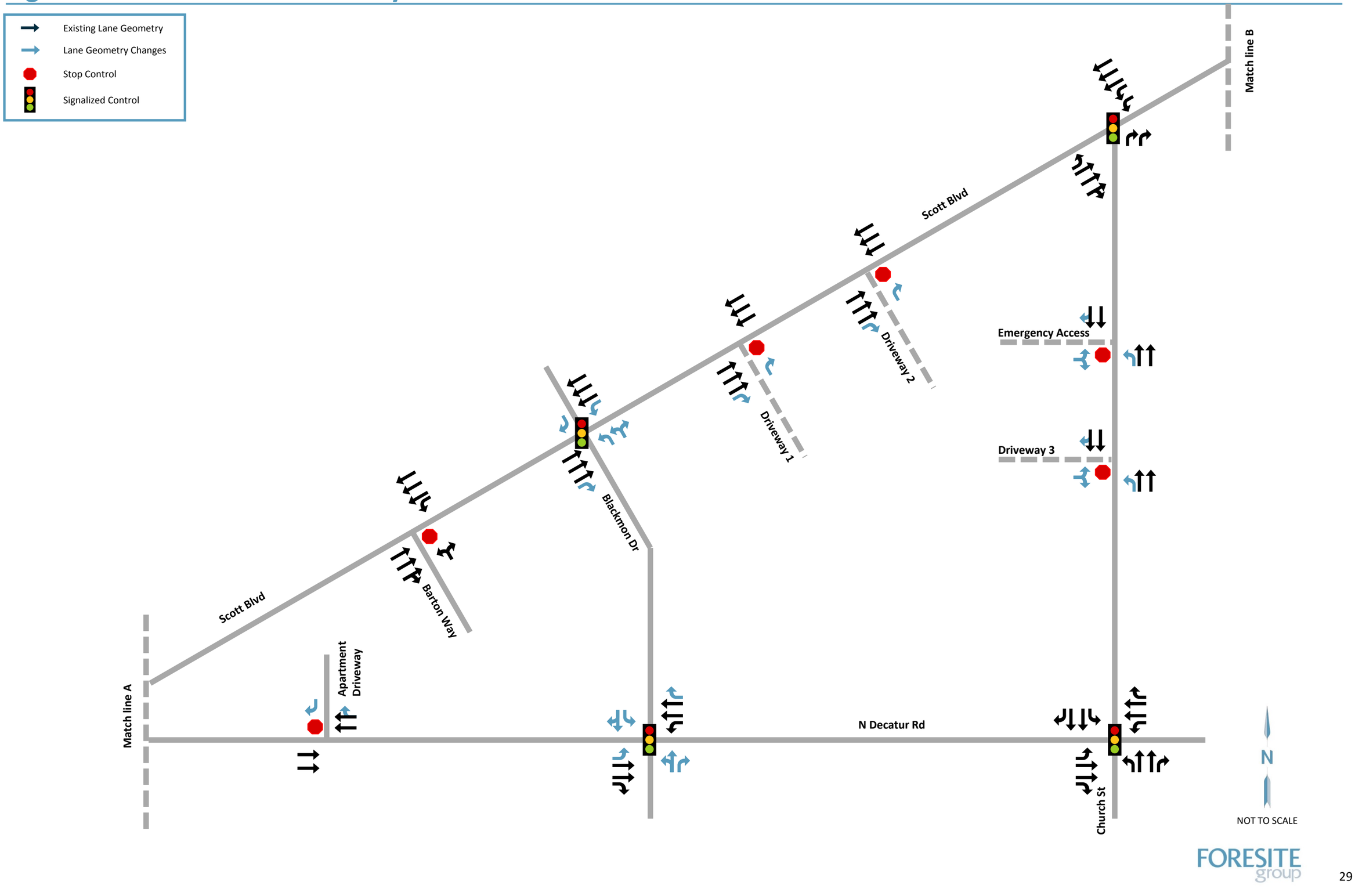

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Figure 14: Future Lane Geometry Continued

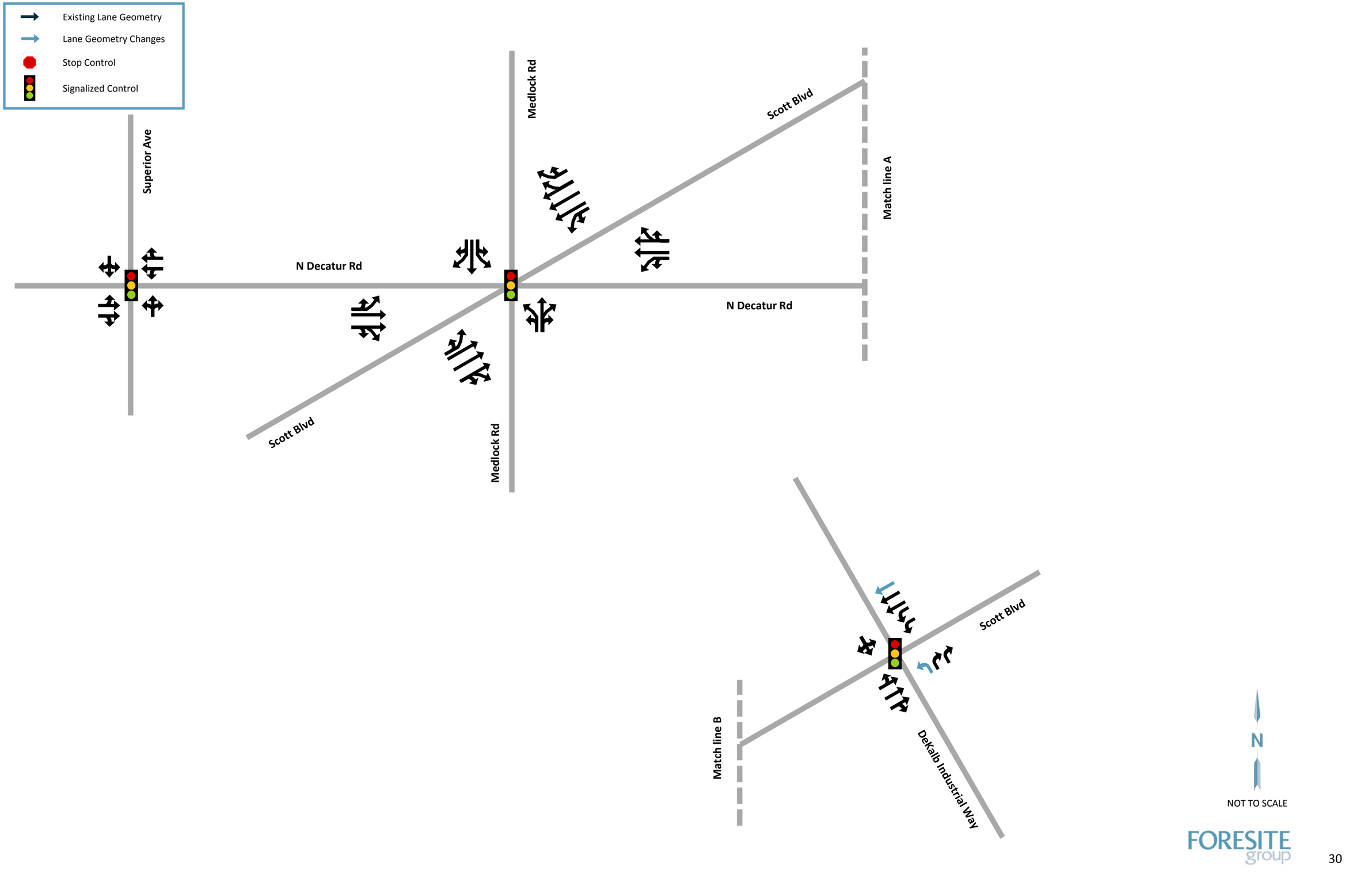

Figure 15: Build Lane Geometry With Improvements

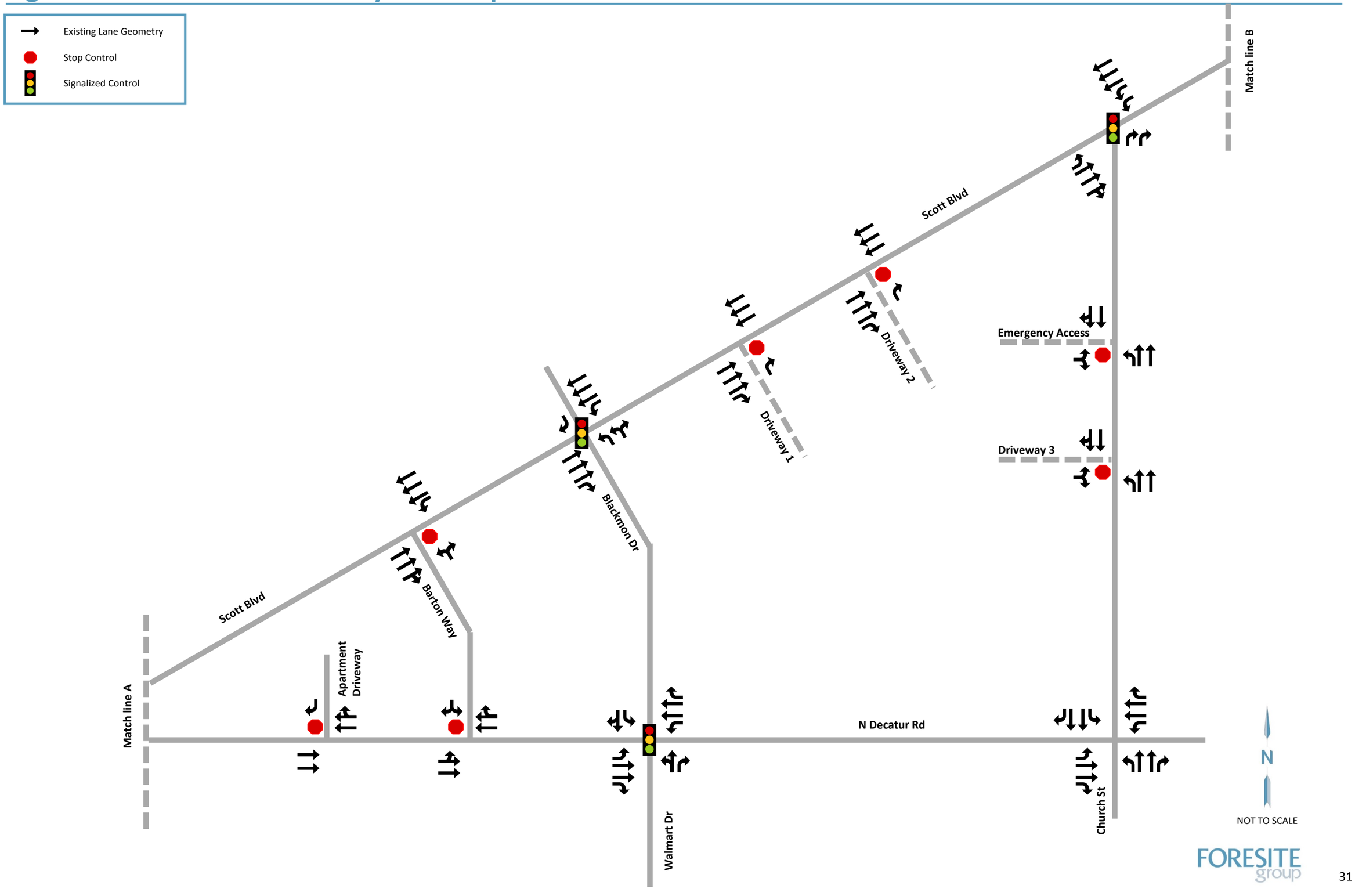

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Figure 16: Build Lane Geometry With Improvements Continued

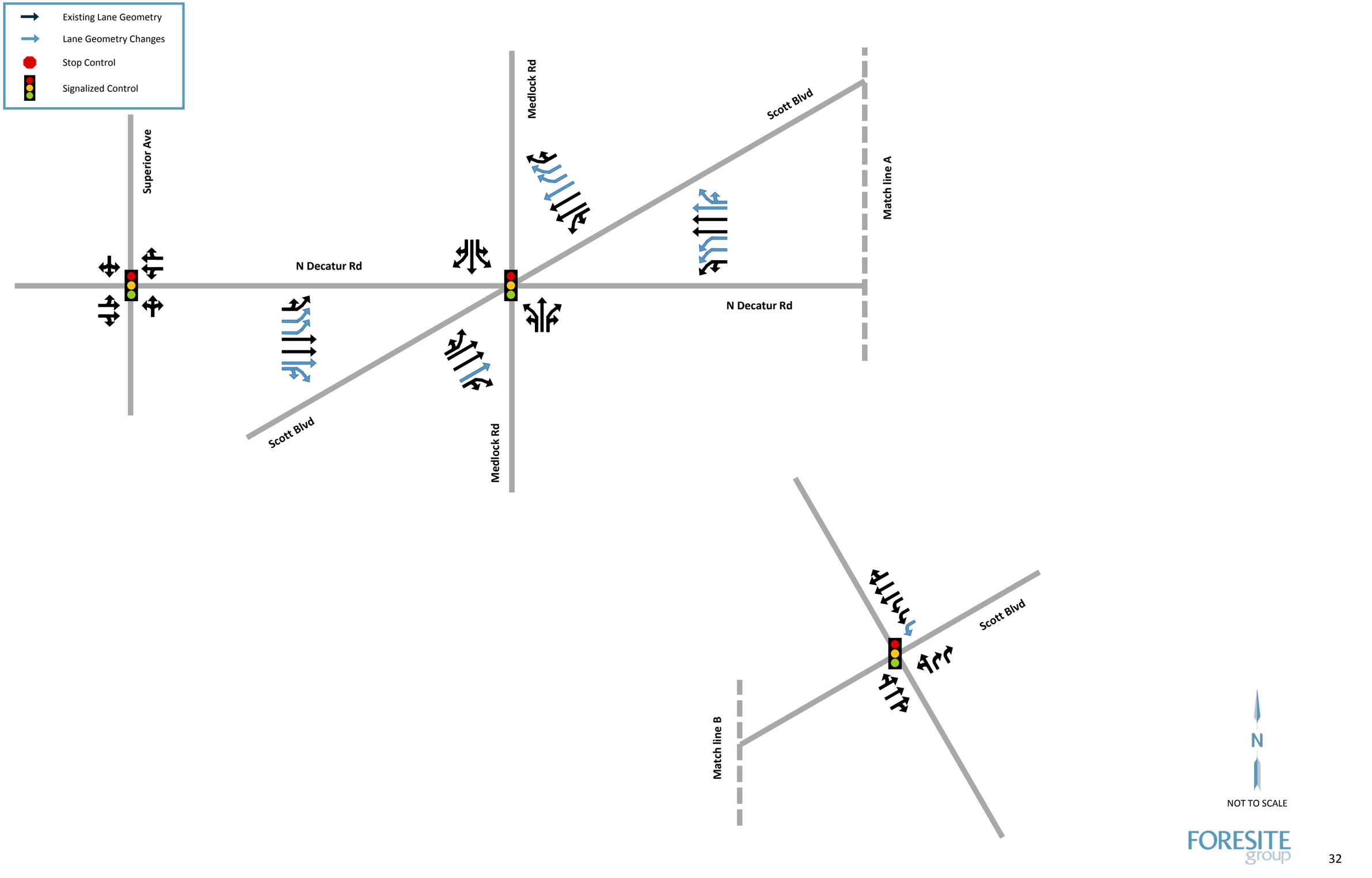


Figure 17: Build-Out Traffic Volumes

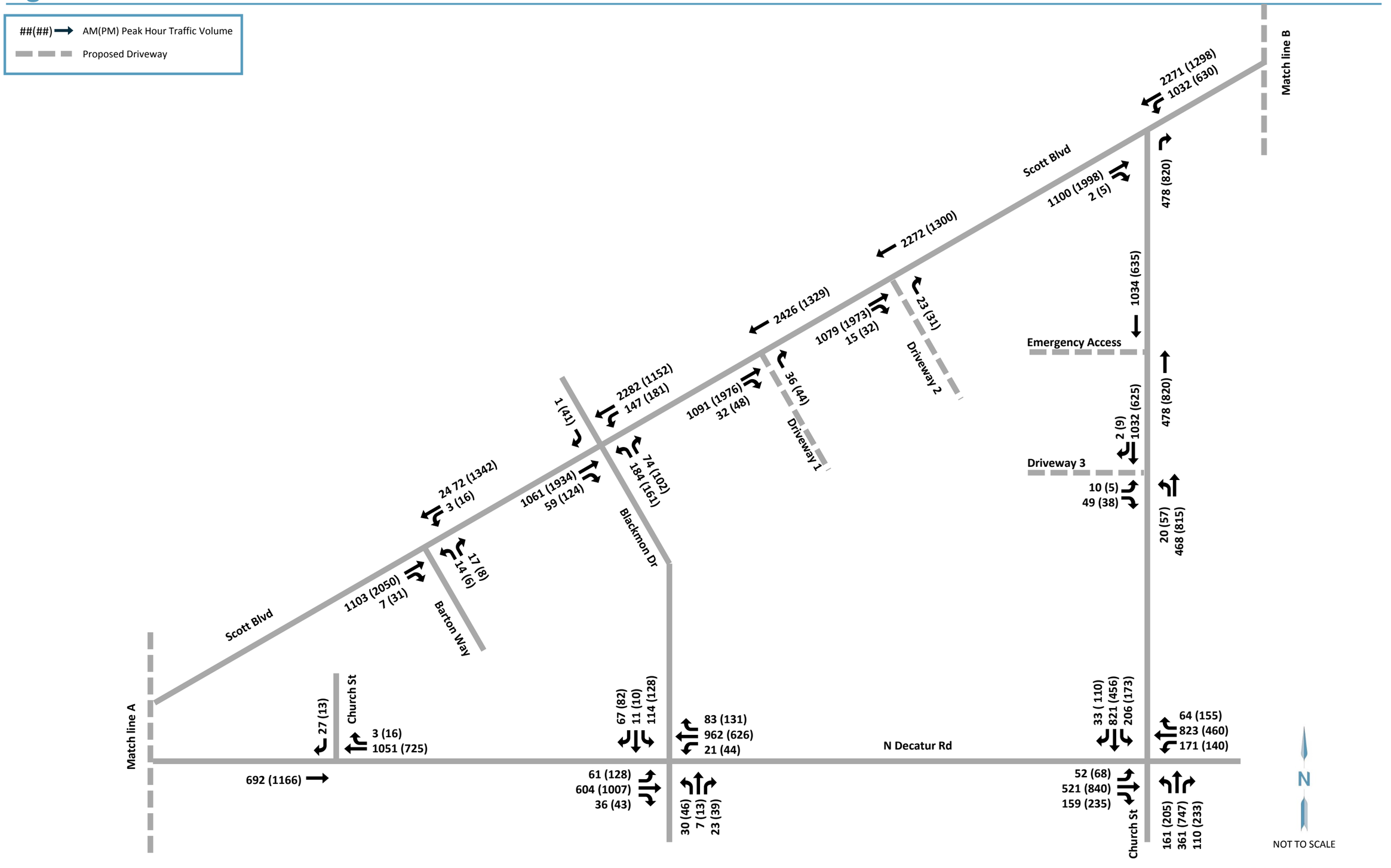


Figure 18: Build-Out Traffic Volumes Continued

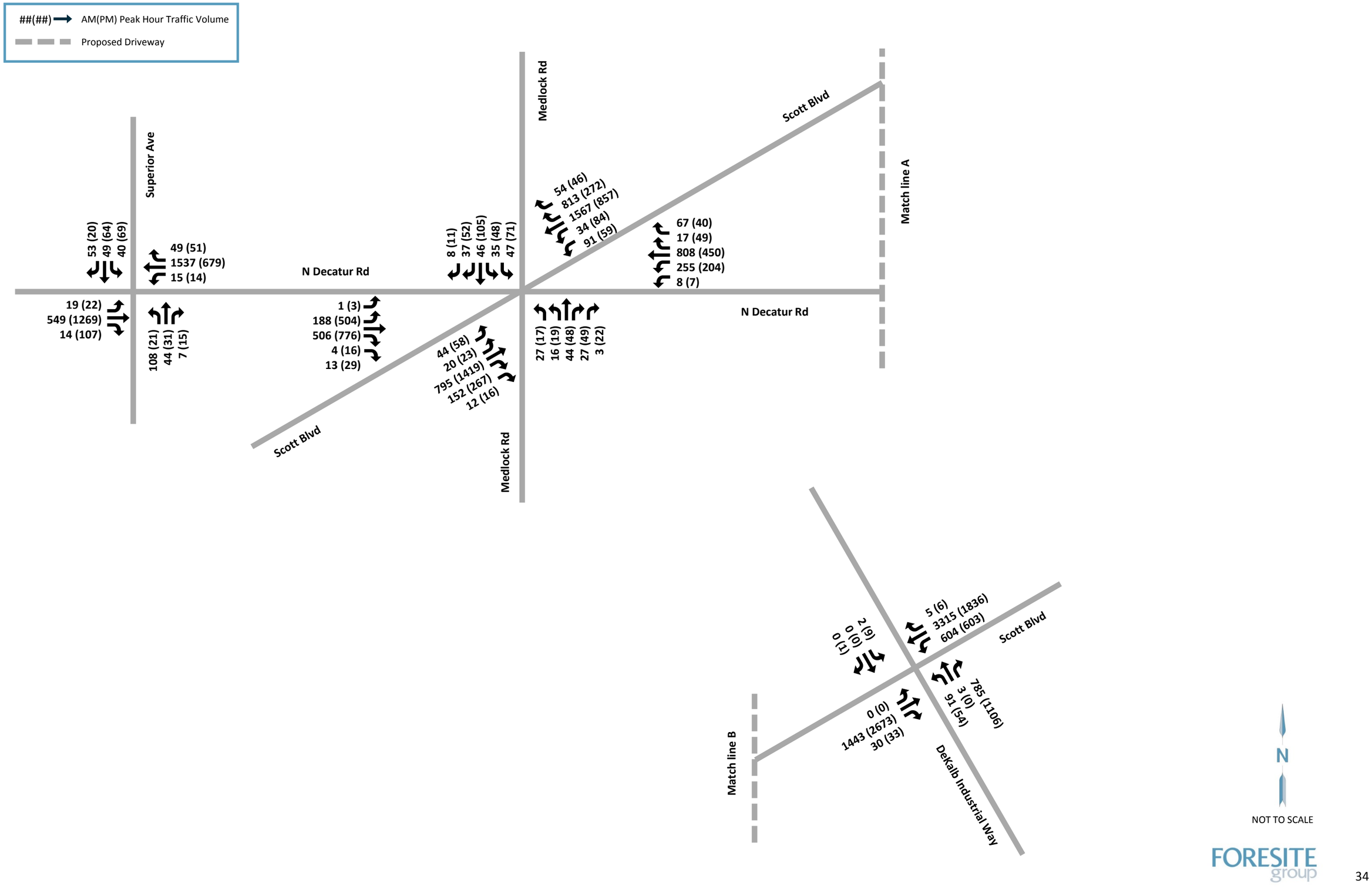


Table 9: Build-Out Capacity Analysis

Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Superior Ave @ Scott Blvd	Traffic Signal	EBL	8.8	A	6.8	A
		EBT	0.0	A	0.0	A
		EBR	7.9	A	7.2	A
		WBL	14.5	B	4.6	A
		WBT	0.0	A	0.0	A
		WBR	15.3	B	4.7	A
		NBL	55.9	E	44.9	D
		NBT	0.0	A	0.0	A
		NBR	0.0	A	0.0	A
		SBL	49.8	D	51.6	D
		SBT	0.0	A	0.0	A
		SBR	0.0	A	0.0	A
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	EBL	820.9	F	331.0	F
		EBTR	94.1	F	14.1	F
		WBL	418.9	F	333.0	F
		WBTR	195.6	F	265.9	F
		NBL	67.7	E	71.3	E
		NBTR	72.4	E	137.0	F
		SBL	149.0	F	680.5	F
		SBT	65.5	E	78.5	E
		SBR	62.7	E	62.8	E
		NEL	291.2	F	257.4	F
		NETR	43.6	D	127.2	F
		SWL	593.0	F	734.4	F
		SWT	165.7	F	46.5	D
		SWR	64.1	E	40.2	D
Scott Blvd @ Church St	Traffic Signal	NBR	21.2	C	21.6	C
		NETR	24.3	C	128.3	F
		SWL	13.8	B	12.4	B
		SWT	0.1	A	0.1	A
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	NBL	62.5	E	62.8	E
		NBT	0.0	A	0.0	A
		NBR	747.6	F	1356.2	F
		SBLTR	68.6	E	70.0	E
		NETLR	0.0	A	0.0	A
		SWL	69.9	E	587.8	F
		SWT	32.6	C	10.5	B
		SWR	38.6	D	11.2	B
Church St @ N Decatur RD	Traffic Signal	EBL	79.9	E	81.2	F
		EBT	14.9	B	48.9	D
		EBR	0.0	A	0.0	A
		WBL	82.8	F	80.2	F
		WBT	30.6	C	28.8	C
		WBR	0.0	A	0.0	A
		NBL	46.9	D	35.2	D
		NBT	42.2	D	52.3	D
		NBR	40.7	D	44.3	D
		SBL	40.9	D	47.9	D
		SBT	78.7	E	44.4	D
		SBR	39.0	D	41.2	D

Table 9B: Build-Out Capacity Analysis Continued

Blackmon Dr @ N Decatur	Traffic Signal	EBL	8.3	A	8.8	A
		EBT	9.2	A	14.8	B
		EBR	7.3	A	9.6	A
		WBL	7.3	A	9.9	A
		WBT	12.9	B	13.7	B
		WBR	0.0	A	0.0	A
		NBL	26.4	C	24.8	C
		NBT	0.0	A	0.0	A
		NBR	22.4	C	19.0	B
		SBL	32.1	C	30.9	C
		SBT	0.0	A	0.0	A
		SBR	26.0	C	23.6	C
Scott Blvd @ Blackmon Dr	Traffic Signal	NWLR	31.4	C	31.1	C
		NET	10.6	B	15.0	B
		NER	16.3	B	8.9	A
		SWL	6.5	A	13.4	B
		SWT	8.6	A	4.4	A

Table 10: Build-Out Capacity Analysis with Improvements

Intersection	Control	Lane Group Movement	AM Peak Hour			PM Peak Hour		
			Delay (s)	LOS	Req'd LOS	Delay (s)	LOS	Req'd LOS
Superior Ave @ Scott Blvd	Traffic Signal	EBL	8.8	A	D	6.8	A	D
		EBT	0.0	A	D	0.0	A	D
		EBR	7.9	A	D	7.2	A	D
		WBL	14.5	B	D	4.6	A	D
		WBT	0.0	A	D	0.0	A	D
		WBR	15.3	B	D	4.7	A	D
		NBL	55.9	E	E	44.9	D	D
		NBT	0.0	A	D	0.0	A	D
		NBR	0.0	A	D	0.0	A	D
		SBL	49.8	D	D	51.6	D	D
		SBT	0.0	A	D	0.0	A	D
		SBR	0.0	A	D	0.0	A	D
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	EBL	78.4	E	E	78.5	E	E
		EBT	62.1	E	E	73.4	E	E
		EBR	53.2	D	E	50.6	D	E
		WBL	70.0	E	E	77.7	E	E
		WBT	79.9	E	E	70.5	E	E
		WBR	51.1	D	E	58.4	E	E
		NBL	63.3	E	E	60.1	E	E
		NBT	61.9	E	E	58.7	E	E
		NBR	59.5	E	E	56.9	E	E
		SBL	78.8	E	E	79.4	E	E
		SBT	61.8	E	E	61.3	E	E
		SBR	59.7	E	E	56.7	E	E
		NEL	42.5	D	D	34.6	C	D
		NET	44.5	D	D*	74.9	E	E
		NER	36.9	D	D*	42.7	D	E*
		SWL	29.6	C	D	59.9	E	E
		SWT	46.4	D	E	39.5	D	D
		SWR	34.6	C	D	34.7	C	E
Scott Blvd @ Church St	Traffic Signal	NBR	21.2	C	D	28.4	C	D
		NETR	34.4	C	D	62.1	E	E
		SWL	21.3	C	D	23.5	C	D
		SWT	0.2	A	D	0.1	A	D

Table 10B: Build-Out Capacity Analysis with Improvements Continued

Scott Blvd @ DeKalb Industrial Way	Traffic Signal	NBL	62.3	E	E	64.2	E	E
		NBR	7.6	A	D	8.5	A	D
		NET	41.1	D	D	54.3	D	D
		SWL	63.2	E	E	66.5	E	E
		SWT	10.8	B	D	4.5	A	D
Church St @ N Decatur Rd	Traffic Signal	EBL	24.5	C	E	23.6	C	E
		EBT	30.5	C	D	36.2	D	D
		EBR	0.0	A	D	0.0	A	D
		WBL	21.9	C	E	27.2	C	E
		WBT	30.6	C	D	28.3	C	D
		WBR	0.0	A	D	0.0	A	D
		NBL	46.9	D	D	35.2	D	D
		NBT	42.2	D	D	52.3	D	D
		NBR	40.7	D	D	44.3	D	D
		SBL	40.9	D	D	47.9	D	D
		SBT	78.7	E	E	44.4	D	D
		SBR	39.0	D	D	41.2	D	D
Blackmon Dr @ N Decatur	Traffic Signal	EBL	7.8	A	D	8.4	A	D
		EBT	8.8	A	D	13.3	B	D
		EBR	7.0	A	D	9.0	A	D
		WBL	6.7	A	D	9.6	A	D
		WBT	11.0	B	D	11.6	B	D
		WBR	0.0	A	D	0.0	A	D
		NBL	33.0	C	D	23.1	C	D
		NBT	0.0	A	D	0.0	A	D
		NBR	28.5	C	D	18.6	B	D
		SBL	39.9	D	D	28.8	C	D
		SBT	0.0	A	D	0.0	A	D
		SBR	32.0	C	D	22.1	C	D
Scott Blvd @ Blackmon Dr	Traffic Signal	NWLR	31.4	C	D	31.1	C	D
		NET	9.7	A	D	15.0	B	D
		NER	14.3	B	D	8.9	A	D
		SWL	5.8	A	D	13.4	B	D
		SWT	7.9	A	D	3.0	A	D

*When approach does not exist before improvement the LOS standard is based on shared approach LOS

Table 11: Build-Out Driveway Analysis

Intersection	Control	Lane Group Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Scott Blvd @ Barton Way	Side-Street Stop	NETR	0.0	A	0.0	A
		NER	0.0	A	0.0	A
		NEWLR	26.9	D	78.0	F
		SWL	16.7	C	53.0	F
		SWT	0.0	A	0.0	A
Scott Blvd @ Driveway 1	Side-Street Stop	NETR	0.0	A	0.0	A
		NER	0.0	A	0.0	A
		NWR	15.4	C	31.1	D
		SWT	0.0	A	0.0	A
Scott Blvd @ Driveway 2	Side-Street Stop	NETR	0.0	A	0.0	A
		NER	0.0	A	0.0	A
		NWR	14.9	B	28.6	D
		SWT	0.0	A	0.0	A
Church St @ Driveway 3	Side-Street Stop	NBL	11.0	B	9.3	A
		NBT	0.0	A	0.0	A
		EBLR	15.9	C	11.9	B
		SBT	0.0	A	0.0	A
		SBR	0.0	A	0.0	A
N Decatur @ Apartment Driveway	Side-Street Stop	EBT	0.0	A	0.0	A
		WBT	0.0	A	0.0	A
		WBR	0.0	A	0.0	A
		SBR	13.3	B	11.2	B

2.6 Segment Analysis

Segment analysis for the study segments is tabulated in Table 12. All segments see improvements into the acceptable LOS range between non-improved and improved conditions.

Table 12: Segment Analysis

Segment	NB/ EB		SB/ WB	
	AM	PM	AM	PM
Existing				
Church St	C	D	D	D
N Decatur Rd	E	E	E	E
Scott Blvd	D	E	F	C
Existing with Improvements				
Church St	C	D	D	D
N Decatur Rd	E	D	E	E
Scott Blvd	D	C	D	C
Background/ No Build				
Church St	C	D	D	D
N Decatur Rd	E	E	E	F
Scott Blvd	D	E	E	C
Background/ No Build with Improvements				
Church St	C	E	D	D
N Decatur Rd	E	E	E	D
Scott Blvd	D	C	D	C
Build				
Church St	D	D	D	D
N Decatur Rd	E	E	F	F
Scott Blvd	E	F	F	D
Build with Improvements				
Church St	D	E	D	D
N Decatur Rd	E	E	E	D
Scott Blvd	E	D	E	C

3 Conclusions/Recommendations

A mixed-use development is proposed at the eastern quadrant of the six-legged intersection between N Decatur Rd, Scott Blvd, and Medlock Rd in Decatur, GA. This development triggered GRTA's DRI Review due to the total square footage of the buildings, which met the minimum threshold. The three-phase development is expected to be built by 2018, with construction currently underway for the first two phases. An intersection and segment capacity analysis was conducted in order to determine the impact that this development will have in the surrounding roadways and intersections in addition to potential improvements necessary to meet the minimum required LOS. Table 13 summarizes land uses, site

accesses and improvements by phases. The improvements will be performed as part of the development.

Table 13: Summary of Land Uses, Site Accesses, and Improvements

Phase	Land Uses	Site Accesses	Improvements Necessary
1	• Apartments • Specialty Retail Center	• Full Access (Scott Blvd @ Barton Way) • RIRO (N Decatur Rd @ Apartment Driveway)	• Close Barton Way intersection at N Decatur Rd to only serve apartment residents • New RIRO driveway at N Decatur Rd to the west of the existing Barton Way
2	• Specialty Retail Center • Drive-In Bank • Apartment • Coffee/Doughnut Shop with Drive-Through Window • High Turnover/Sit Down Restaurant • High Turnover/Sit Down Restaurant (No Dinner)	• Restricted Access* (Scott Blvd @ Blackmon Dr) • Full Access (N Decatur Rd @ Blackmon Dr) • RIRO (Scott Blvd @ Driveway 1)	• Realignment of the southern portion of Blackmon Dr to match Walmart Driveway to the south at N Decatur Rd and northern section of Blackmon Dr at Scott Blvd • Traffic signal at Blackmon Dr and Scott Blvd and at Blackmon Dr at N Decatur Rd • Right and left turn lanes added to the signalized intersection of Blackmon Dr at Scott Blvd • Right and left turn lanes added to the signalized intersection of Blackmon Dr at N Decatur Rd • Right turn lane added to RIRO driveway 1 • Converting the portion of Blackmon Dr to the north of Scott Blvd to a right-out only access • Signal timing improvements • Right turn lanes added to RIRO driveway 2
3	• Fast Food Restaurant with Drive-Through Window • Supermarket • Apartments • Senior Adult Housing – Attached • Mini-Warehouse	• RIRO (Scott Blvd @ Driveway 1) • RIRO (Scott Blvd @ Driveway 2) • Restricted Access (Church St @ Emergency Access) • Full Access(Church St @ Driveway 3)	• Signal timing improvements

*The existing southbound Blackmon Dr will be converted to a right-out only, and will not provide a through movement for northbound to southbound Blackmon Dr.

Improvements are required at the study intersections to bring them to LOS standard based on the agreed upon methodology. The summary of all improvements are summarized in Table 14.

Table 14: Required Intersection Improvements

Intersection	Control	Required Improvements for Existing / No Build
Superior Ave @ Scott Blvd	Traffic Signal	Will require updating signal timing otherwise no changes are needed
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	**N Decatur Rd Eastbound** o Additional one (1) through lane, one (1) right-turn lane, two (2) left-turn lanes **Scott Blvd Northeast Bound** o Additional one (1) right turn-lane **N Decatur Rd Westbound** o Additional one (1) through lane, two (2) left-turn lanes, one (1) right-turn lane **Scott Blvd Southwest Bound** o Additional one (1) right-turn lane Adjustments to signal timing as needed Approaches with added right-turns changed any existing through-right movements to through only
Scott Blvd @ Church St	Traffic Signal	Adjustments to signal timing as needed otherwise no changes are necessary
Scott Blvd @ DeKalb Industrial Way	Traffic Signal	**Driveway on northern side of Scott Blvd** o This driveway previously serviced a site that used the intersection as the primary entrance and exit. However the site was recently changed to a utility lot with minor vehicle traffic. The second development accessing the site has several driveways to the south and while they are restricted to right-in / right-out the counted existing traffic utilizing the driveway is minimal. In order to greatly improve the intersection it is recommended that the driveway be closed and phasing removed from the traffic signal. **DeKalb Industrial Way North Bound** o The through/ left lane should be converted to a left only lane. **Scott Blvd Southwest Bound** o An additional left turn lane will be necessary to improve LOS from F to E.
Church St @ N Decatur Rd	Traffic Signal	Currently left turns are protected due to verical sight distance issues. Improve site distance to allow eastbound and westbound left turns on N Decatur Rd to run protected and permissive
Intersection	**Control**	**Required Improvements for Build**
Scott Blvd @ Medlock Rd @ N Decatur Rd	Traffic Signal	Adjust signal cycle length or add additional right turn lane for traffic traveling southwest from Scott Blvd to N Decatur Rd

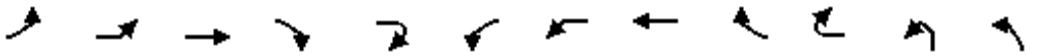
The required improvements are what is required to bring the LOS to standard, however not all improvements are feasible or realistic. There are no significant improvements that should be required by the development to the existing traffic signals as they are already over capacity, and additional traffic volumes from the development will not make a significant LOS impact. Improvements for the development should be limited to site driveway accesses and the signalized intersections of Blackmon Dr at Scott Blvd and Blackmon Dr at N Decatur Rd.

Appendix A:
Synchro Outputs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	496	14	15	1435	12	105	43	7	17	48	51
Future Volume (veh/h)	18	496	14	15	1435	12	105	43	7	17	48	51
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	21	577	16	17	1594	13	122	50	8	25	72	76
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	2120	60	41	2498	20	197	73	10	63	157	147
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	66	2958	84	17	3485	28	768	376	53	156	809	756
Grp Volume(v), veh/h	293	0	321	848	0	776	180	0	0	173	0	0
Grp Sat Flow(s),veh/h/ln	1427	0	1680	1841	0	1690	1198	0	0	1721	0	0
Q Serve(g_s), s	1.5	0.0	8.5	0.0	0.0	30.6	7.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	32.1	0.0	8.5	30.2	0.0	30.6	19.1	0.0	0.0	11.4	0.0	0.0
Prop In Lane	0.07		0.05	0.02		0.02	0.68		0.04	0.14		0.44
Lane Grp Cap(c), veh/h	1053	0	1204	1348	0	1211	280	0	0	367	0	0
V/C Ratio(X)	0.28	0.00	0.27	0.63	0.00	0.64	0.64	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	1053	0	1204	1348	0	1211	527	0	0	661	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.2	0.0	6.3	9.4	0.0	9.4	49.6	0.0	0.0	45.9	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.5	2.2	0.0	2.6	6.6	0.0	0.0	2.6	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(50%),veh/ln	3.6	0.0	4.1	16.2	0.0	14.9	6.6	0.0	0.0	5.7	0.0	0.0
LnGrp Delay(d),s/veh	6.9	0.0	6.9	11.6	0.0	12.0	56.1	0.0	0.0	48.4	0.0	0.0
LnGrp LOS	A		A	B		B	E			D		
Approach Vol, veh/h		614			1624			180			173	
Approach Delay, s/veh		6.9			11.8			56.1			48.4	
Approach LOS		A			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		30.3		97.0		30.3
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		91.2		47.5		91.2		47.5
Max Q Clear Time (g_c+I1), s		34.1		13.4		32.6		21.1
Green Ext Time (p_c), s		54.4		3.9		55.7		3.6

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B



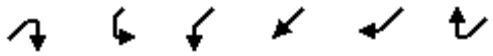
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	1	157	449	4	11	8	228	720	1	65	23	14
Future Volume (vph)	1	157	449	4	11	8	228	720	1	65	23	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.1	6.5				7.1	6.8				6.8
Lane Util. Factor		1.00	0.95				1.00	0.95				1.00
Frt		1.00	0.99				1.00	0.98				1.00
Flt Protected		0.95	1.00				0.95	1.00				0.95
Satd. Flow (prot)		1770	3517				1770	3482				1770
Flt Permitted		0.16	1.00				0.13	1.00				0.72
Satd. Flow (perm)		292	3517				247	3482				1345
Peak-hour factor, PHF	0.90	0.60	0.90	0.90	0.60	0.92	0.70	0.92	0.92	0.70	0.78	0.88
Adj. Flow (vph)	1	262	499	4	18	9	326	783	1	93	29	16
RTOR Reduction (vph)	0	0	2	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	263	519	0	0	0	335	871	0	0	0	45
Turn Type	pm+pt	pm+pt	NA			pm+pt	pm+pt	NA			Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases	4	4				8	8				10	10
Actuated Green, G (s)		35.4	25.5				50.2	33.2				11.7
Effective Green, g (s)		35.4	25.5				50.2	33.2				11.7
Actuated g/C Ratio		0.24	0.17				0.33	0.22				0.08
Clearance Time (s)		7.1	6.5				7.1	6.8				6.8
Vehicle Extension (s)		3.0	2.5				3.0	3.5				3.0
Lane Grp Cap (vph)		166	597				264	770				104
v/s Ratio Prot		0.10	0.15				c0.15	c0.25				
v/s Ratio Perm		c0.27					0.27					0.03
v/c Ratio		1.58	0.87				1.27	1.13				0.43
Uniform Delay, d1		53.0	60.6				43.2	58.4				66.0
Progression Factor		1.00	1.00				1.00	1.00				1.00
Incremental Delay, d2		289.6	12.7				147.4	74.8				2.9
Delay (s)		342.6	73.4				190.6	133.2				68.9
Level of Service		F	E				F	F				E
Approach Delay (s)			163.7					149.1				
Approach LOS			F					F				

Intersection Summary			
HCM 2000 Control Delay	102.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.6
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	43	14	3	24	34	45	36	8	43	19	750	133
Future Volume (vph)	43	14	3	24	34	45	36	8	43	19	750	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Lane Util. Factor	1.00				1.00	1.00	1.00			1.00	0.91	
Frt	0.96				1.00	1.00	0.85			1.00	0.97	
Flt Protected	1.00				0.95	1.00	1.00			0.95	1.00	
Satd. Flow (prot)	1786				1770	1863	1583			1770	4953	
Flt Permitted	1.00				0.71	1.00	1.00			0.07	1.00	
Satd. Flow (perm)	1786				1318	1863	1583			138	4953	
Peak-hour factor, PHF	0.78	0.78	0.88	0.75	0.84	0.84	0.75	0.84	0.74	0.82	0.82	0.74
Adj. Flow (vph)	55	18	3	32	40	54	48	10	58	23	915	180
RTOR Reduction (vph)	1	0	0	0	0	0	53	0	0	0	1	0
Lane Group Flow (vph)	75	0	0	0	72	54	5	0	0	81	1106	0
Turn Type	NA			Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	
Protected Phases	10					9			5	5	2	
Permitted Phases				9	9		9		2	2		
Actuated Green, G (s)	11.7				11.7	11.7	11.7			60.5	53.9	
Effective Green, g (s)	11.7				11.7	11.7	11.7			60.5	53.9	
Actuated g/C Ratio	0.08				0.08	0.08	0.08			0.40	0.36	
Clearance Time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Vehicle Extension (s)	3.0				3.0	3.0	3.0			2.5	5.3	
Lane Grp Cap (vph)	139				102	145	123			127	1779	
v/s Ratio Prot	0.04					0.03				c0.03	0.22	
v/s Ratio Perm					c0.05		0.00			0.23		
v/c Ratio	0.54				0.71	0.37	0.04			0.64	0.62	
Uniform Delay, d1	66.6				67.5	65.7	63.9			36.7	39.6	
Progression Factor	1.00				1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	4.2				19.9	1.6	0.1			8.9	1.6	
Delay (s)	70.8				87.4	67.3	64.1			45.5	41.3	
Level of Service	E				F	E	E			D	D	
Approach Delay (s)	70.1					74.1					41.6	
Approach LOS	E					E					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	10	70	15	1481	748	17
Future Volume (vph)	10	70	15	1481	748	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.86	0.86	
Frt			1.00	0.97	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	4665	1362	
Flt Permitted			0.15	1.00	1.00	
Satd. Flow (perm)			281	4665	1362	
Peak-hour factor, PHF	0.82	0.80	0.94	0.94	0.80	0.94
Adj. Flow (vph)	12	88	16	1576	935	18
RTOR Reduction (vph)	0	0	0	0	147	0
Lane Group Flow (vph)	0	0	104	1959	423	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			61.1	54.4	54.4	
Effective Green, g (s)			61.1	54.4	54.4	
Actuated g/C Ratio			0.41	0.36	0.36	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			180	1691	493	
v/s Ratio Prot			0.03	c0.42		
v/s Ratio Perm			0.21		0.31	
v/c Ratio			0.58	1.16	0.86	
Uniform Delay, d1			29.9	47.8	44.2	
Progression Factor			0.56	0.72	0.54	
Incremental Delay, d2			3.4	77.9	14.5	
Delay (s)			20.1	112.2	38.6	
Level of Service			C	F	D	
Approach Delay (s)				92.7		
Approach LOS				F		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	454	981	2	1000	2235
Future Volume (vph)	0	454	981	2	1000	2235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		7.4	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5084		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5084		3433	5085
Peak-hour factor, PHF	0.96	0.96	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	473	1154	2	1053	2353
RTOR Reduction (vph)	0	43	0	0	0	0
Lane Group Flow (vph)	0	430	1156	0	1053	2353
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		85.9	53.6		82.5	150.0
Effective Green, g (s)		85.9	53.6		82.5	150.0
Actuated g/C Ratio		0.57	0.36		0.55	1.00
Clearance Time (s)		4.0	6.5		7.4	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1596	1816		1888	5085
v/s Ratio Prot		0.15	c0.23		c0.31	0.46
v/s Ratio Perm						
v/c Ratio		0.27	0.64		0.56	0.46
Uniform Delay, d1		16.2	40.1		21.9	0.0
Progression Factor		1.00	0.63		0.37	1.00
Incremental Delay, d2		0.4	0.5		0.4	0.1
Delay (s)		16.6	25.6		8.5	0.1
Level of Service		B	C		A	A
Approach Delay (s)	16.6		25.6			2.7
Approach LOS	B		C			A

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	88	3	762	2	0	0	0	1349	29	586	3263	5
Future Volume (veh/h)	88	3	762	2	0	0	0	1349	29	586	3263	5
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	1900	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	98	3	847	4	0	0	0	1551	33	623	3471	5
Adj No. of Lanes	0	1	2	0	1	0	0	3	0	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	7	349	83	0	0	24	1358	46	693	3660	5
Arrive On Green	0.13	0.13	0.13	0.05	0.00	0.00	0.00	0.15	0.15	0.20	0.70	0.70
Sat Flow, veh/h	1724	53	2787	1774	0	0	0	5292	109	3442	5244	8
Grp Volume(v), veh/h	101	0	847	4	0	0	0	1026	558	623	2243	1233
Grp Sat Flow(s),veh/h/ln	1777	0	1393	1774	0	0	0	1695	1844	1721	1695	1861
Q Serve(g_s), s	7.9	0.0	18.8	0.3	0.0	0.0	0.0	75.0	36.4	26.5	88.6	88.8
Cycle Q Clear(g_c), s	7.9	0.0	18.8	0.3	0.0	0.0	0.0	75.0	36.4	26.5	88.6	88.8
Prop In Lane	0.97		1.00	1.00		0.00	0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	223	0	349	83	0	0	0	0	0	693	2366	1299
V/C Ratio(X)	0.45	0.00	2.43	0.05	0.00	0.00	0.00	0.00	0.00	0.90	0.95	0.95
Avail Cap(c_a), veh/h	223	0	349	109	0	0	0	0	0	835	2366	1299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	0.0	65.6	68.3	0.0	0.0	0.0	0.0	0.0	58.4	20.2	20.2
Incr Delay (d2), s/veh	1.4	0.0	650.0	0.2	0.0	0.0	0.0	0.0	0.0	11.1	9.8	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	38.8	0.2	0.0	0.0	0.0	0.0	0.0	13.7	44.3	50.7
LnGrp Delay(d),s/veh	62.3	0.0	715.6	68.6	0.0	0.0	0.0	0.0	0.0	69.6	30.0	35.6
LnGrp LOS	E		F	E						E	C	D
Approach Vol, veh/h		948			4			1584			4099	
Approach Delay, s/veh		646.0			68.6			0.0			37.7	
Approach LOS		F			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		111.2		13.8	36.8	74.4		25.0
Change Period (Y+Rc), s		* 6.5		* 6.8	6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1E2		* 9.2	36.4	* 60		18.8
Max Q Clear Time (g_c+I1), s		90.8		2.3	28.5	77.0		20.8
Green Ext Time (p_c), s		12.0		0.0	1.7	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	115.6
HCM 2010 LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	466	92	164	775	56	114	343	104	181	778	27
Future Volume (veh/h)	47	466	92	164	775	56	114	343	104	181	778	27
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	55	542	0	189	891	0	124	373	113	203	874	30
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	1376	616	214	1646	736	181	875	391	338	924	414
Arrive On Green	0.04	0.39	0.00	0.12	0.47	0.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	55	542	0	189	891	0	124	373	113	203	874	30
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.3	15.5	0.0	14.7	25.2	0.0	7.2	12.4	8.1	11.3	33.9	2.0
Cycle Q Clear(g_c), s	4.3	15.5	0.0	14.7	25.2	0.0	7.2	12.4	8.1	11.3	33.9	2.0
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	78	1376	616	214	1646	736	181	875	391	338	924	414
V/C Ratio(X)	0.70	0.39	0.00	0.88	0.54	0.00	0.68	0.43	0.29	0.60	0.95	0.07
Avail Cap(c_a), veh/h	191	1376	616	280	1646	736	333	1183	529	338	930	416
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)	0.41	0.41	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	66.0	30.9	0.0	60.6	26.8	0.0	39.6	44.3	42.7	37.2	50.7	38.9
Incr Delay (d2), s/veh	6.6	0.4	0.0	20.8	0.5	0.0	3.4	0.2	0.3	1.7	15.2	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(50%),veh/ln	2.3	7.6	0.0	8.4	12.4	0.0	3.7	6.1	3.6	1.5	18.6	0.9
LnGrp Delay(d),s/veh	72.6	31.2	0.0	81.4	27.2	0.0	42.9	44.6	43.0	38.9	65.9	39.0
LnGrp LOS	E	C		F	C		D	D	D	D	E	D
Approach Vol, veh/h		597			1080			610			1107	
Approach Delay, s/veh		35.0			36.7			44.0			60.2	
Approach LOS		D			D			D			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	21.8	60.4	15.0	42.8	11.1	71.1	17.0	40.8
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 22	37.0	* 21	36.8	* 15	44.0	* 11	46.8
Max Q Clear Time (g_c+I1), s	16.7	17.5	9.2	35.9	6.3	27.2	13.3	14.4
Green Ext Time (p_c), s	0.2	14.7	0.2	0.6	0.1	13.0	0.0	9.4

Intersection Summary	
HCM 2010 Ctrl Delay	45.4
HCM 2010 LOS	D

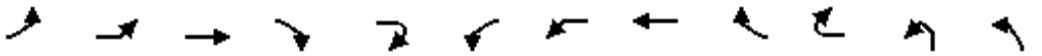
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1167	104	14	607	18	20	30	15	26	62	19
Future Volume (veh/h)	21	1167	104	14	607	18	20	30	15	26	62	19
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	22	1203	107	15	632	19	25	37	19	28	67	21
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2505	221	67	2585	77	81	97	41	72	114	32
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	28	3163	279	40	3264	97	364	958	405	293	1117	312
Grp Volume(v), veh/h	700	0	632	339	0	327	81	0	0	116	0	0
Grp Sat Flow(s),veh/h/ln	1824	0	1646	1723	0	1678	1727	0	0	1722	0	0
Q Serve(g_s), s	0.0	0.0	13.8	0.0	0.0	5.4	0.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	13.3	0.0	13.8	4.9	0.0	5.4	4.5	0.0	0.0	6.7	0.0	0.0
Prop In Lane	0.03		0.17	0.04		0.06	0.31		0.23	0.24		0.18
Lane Grp Cap(c), veh/h	1479	0	1304	1400	0	1329	220	0	0	217	0	0
V/C Ratio(X)	0.47	0.00	0.48	0.24	0.00	0.25	0.37	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	1479	0	1304	1400	0	1329	872	0	0	897	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.7	0.0	3.7	2.8	0.0	2.9	44.9	0.0	0.0	45.9	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.3	0.4	0.0	0.4	2.8	0.0	0.0	5.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	6.6	2.6	0.0	2.6	2.4	0.0	0.0	3.6	0.0	0.0
LnGrp Delay(d),s/veh	4.8	0.0	5.0	3.2	0.0	3.3	47.8	0.0	0.0	51.4	0.0	0.0
LnGrp LOS	A		A	A		A	D			D		
Approach Vol, veh/h		1332			666			81			116	
Approach Delay, s/veh		4.9			3.3			47.8			51.4	
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		90.0		16.3		90.0		16.3
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		84.2		54.5		84.2		54.5
Max Q Clear Time (g_c+I1), s		15.8		8.7		7.4		6.5
Green Ext Time (p_c), s		60.6		2.1		67.1		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A



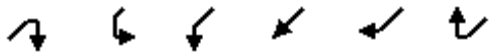
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	3	442	679	16	25	7	179	378	25	39	14	16
Future Volume (vph)	3	442	679	16	25	7	179	378	25	39	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5				6.8	6.8				6.8
Lane Util. Factor		1.00	0.95				1.00	0.95				1.00
Frt		1.00	0.99				1.00	0.98				1.00
Flt Protected		0.95	1.00				0.95	1.00				0.95
Satd. Flow (prot)		1770	3495				1770	3455				1770
Flt Permitted		0.16	1.00				0.22	1.00				0.58
Satd. Flow (perm)		295	3495				409	3455				1074
Peak-hour factor, PHF	0.50	0.91	0.91	0.91	0.50	0.92	0.77	0.92	0.92	0.77	0.82	0.67
Adj. Flow (vph)	6	486	746	18	50	8	232	411	27	51	17	24
RTOR Reduction (vph)	0	0	3	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	492	811	0	0	0	240	483	0	0	0	41
Turn Type	pm+pt	pm+pt	NA			pm+pt	pm+pt	NA			Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases	4	4				8	8				10	10
Actuated Green, G (s)		55.5	34.5				32.4	18.2				13.2
Effective Green, g (s)		55.5	34.5				32.4	18.2				13.2
Actuated g/C Ratio		0.37	0.23				0.22	0.12				0.09
Clearance Time (s)		6.8	6.5				6.8	6.8				6.8
Vehicle Extension (s)		3.0	2.5				3.0	3.5				3.0
Lane Grp Cap (vph)		406	803				217	419				94
v/s Ratio Prot		c0.24	0.23				0.10	0.14				
v/s Ratio Perm		c0.20					0.13					0.04
v/c Ratio		1.21	1.01				1.11	1.15				0.44
Uniform Delay, d1		46.2	57.8				54.9	65.9				64.9
Progression Factor		1.00	1.00				1.00	1.00				1.00
Incremental Delay, d2		116.1	34.2				92.4	92.6				3.2
Delay (s)		162.4	92.0				147.3	158.5				68.1
Level of Service		F	F				F	F				E
Approach Delay (s)			118.5					154.8				
Approach LOS			F					F				

Intersection Summary			
HCM 2000 Control Delay	98.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	113.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	47	27	21	28	47	102	50	11	56	22	1348	236
Future Volume (vph)	47	27	21	28	47	102	50	11	56	22	1348	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Lane Util. Factor	1.00				1.00	1.00	1.00			1.00	0.91	
Frt	0.92				1.00	1.00	0.85			1.00	0.97	
Flt Protected	1.00				0.95	1.00	1.00			0.95	1.00	
Satd. Flow (prot)	1715				1770	1863	1583			1770	4957	
Flt Permitted	1.00				0.52	1.00	1.00			0.17	1.00	
Satd. Flow (perm)	1715				972	1863	1583			308	4957	
Peak-hour factor, PHF	0.82	0.82	0.67	0.93	0.82	0.93	0.93	0.82	0.86	0.95	0.95	0.86
Adj. Flow (vph)	57	33	31	30	57	110	54	13	65	23	1419	274
RTOR Reduction (vph)	8	0	0	0	0	0	61	0	0	0	1	0
Lane Group Flow (vph)	113	0	0	0	87	110	6	0	0	88	1706	0
Turn Type	NA			Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	
Protected Phases	10					9			5	5	2	
Permitted Phases				9	9		9		2	2		
Actuated Green, G (s)	13.2				13.2	13.2	13.2			54.1	47.9	
Effective Green, g (s)	13.2				13.2	13.2	13.2			54.1	47.9	
Actuated g/C Ratio	0.09				0.09	0.09	0.09			0.36	0.32	
Clearance Time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Vehicle Extension (s)	3.0				3.0	3.0	3.0			2.5	5.3	
Lane Grp Cap (vph)	150				85	163	139			171	1582	
v/s Ratio Prot	0.07					0.06				0.02	c0.34	
v/s Ratio Perm					c0.09		0.00			0.16		
v/c Ratio	0.75				1.02	0.67	0.04			0.51	1.08	
Uniform Delay, d1	66.8				68.4	66.3	62.6			33.7	51.0	
Progression Factor	1.00				1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	19.0				104.2	10.5	0.1			1.9	47.1	
Delay (s)	85.8				172.6	76.8	62.7			35.7	98.1	
Level of Service	F				F	E	E			D	F	
Approach Delay (s)	81.3					104.8					95.1	
Approach LOS	F					F					F	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	13	41	60	799	228	14
Future Volume (vph)	13	41	60	799	228	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.86	0.86	
Frt			1.00	0.99	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	4758	1362	
Flt Permitted			0.08	1.00	1.00	
Satd. Flow (perm)			154	4758	1362	
Peak-hour factor, PHF	0.95	0.72	0.91	0.91	0.72	0.91
Adj. Flow (vph)	14	57	66	878	317	15
RTOR Reduction (vph)	0	0	0	0	153	0
Lane Group Flow (vph)	0	0	123	941	116	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			54.5	48.3	48.3	
Effective Green, g (s)			54.5	48.3	48.3	
Actuated g/C Ratio			0.36	0.32	0.32	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			122	1532	438	
v/s Ratio Prot			c0.04	0.20		
v/s Ratio Perm			0.32		0.09	
v/c Ratio			1.01	0.61	0.27	
Uniform Delay, d1			43.4	43.0	37.7	
Progression Factor			0.78	0.85	1.95	
Incremental Delay, d2			82.9	1.2	0.8	
Delay (s)			116.9	37.8	74.5	
Level of Service			F	D	E	
Approach Delay (s)				52.5		
Approach LOS				D		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	791	1978	2	602	1145
Future Volume (vph)	0	791	1978	2	602	1145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		5.7	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5085		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5085		3433	5085
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.87	0.87
Adj. Flow (vph)	0	869	2082	2	692	1316
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	869	2084	0	692	1316
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		86.0	53.5		84.3	150.0
Effective Green, g (s)		86.0	53.5		84.3	150.0
Actuated g/C Ratio		0.57	0.36		0.56	1.00
Clearance Time (s)		4.0	6.5		5.7	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1597	1813		1929	5085
v/s Ratio Prot		c0.31	c0.41		0.20	0.26
v/s Ratio Perm						
v/c Ratio		0.54	1.15		0.36	0.26
Uniform Delay, d1		19.8	48.2		18.0	0.0
Progression Factor		1.00	0.65		0.97	1.00
Incremental Delay, d2		1.3	67.9		0.5	0.1
Delay (s)		21.2	99.2		17.9	0.1
Level of Service		C	F		B	A
Approach Delay (s)	21.2		99.2			6.2
Approach LOS	C		F			A

Intersection Summary			
HCM 2000 Control Delay	47.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	52	0	1073	9	0	1	0	2654	32	585	1691	5
Future Volume (veh/h)	52	0	1073	9	0	1	0	2654	32	585	1691	5
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	1900	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	0	1095	14	0	2	0	2708	33	636	1838	5
Adj No. of Lanes	0	1	2	0	1	0	0	3	0	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.63	0.63	0.63	0.98	0.98	0.98	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	0	294	71	0	10	24	3081	39	307	3760	10
Arrive On Green	0.11	0.00	0.11	0.05	0.00	0.05	0.00	0.19	0.19	0.09	0.72	0.72
Sat Flow, veh/h	1774	0	2787	1529	0	218	0	5347	63	3442	5236	14
Grp Volume(v), veh/h	53	0	1095	16	0	0	0	1770	971	636	1190	653
Grp Sat Flow(s),veh/h/ln	1774	0	1393	1748	0	0	0	1695	1852	1721	1695	1860
Q Serve(g_s), s	4.1	0.0	15.8	1.3	0.0	0.0	0.0	65.3	61.9	13.4	22.9	22.9
Cycle Q Clear(g_c), s	4.1	0.0	15.8	1.3	0.0	0.0	0.0	65.3	61.9	13.4	22.9	22.9
Prop In Lane	1.00		1.00	0.87		0.12	0.00		0.03	1.00		0.01
Lane Grp Cap(c), veh/h	187	0	294	82	0	0	0	0	0	307	2434	1336
V/C Ratio(X)	0.28	0.00	3.73	0.20	0.00	0.00	0.00	0.00	0.00	2.07	0.49	0.49
Avail Cap(c_a), veh/h	187	0	294	96	0	0	0	0	0	307	2434	1336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.16	0.16	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.9	0.0	67.1	68.8	0.0	0.0	0.0	0.0	0.0	68.3	9.2	9.2
Incr Delay (d2), s/veh	0.8	0.0	1237.0	1.2	0.0	0.0	0.0	0.0	0.0	492.0	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	56.5	0.7	0.0	0.0	0.0	0.0	0.0	27.4	10.8	12.1
LnGrp Delay(d),s/veh	62.7	0.0	1304.1	70.0	0.0	0.0	0.0	0.0	0.0	560.3	9.9	10.5
LnGrp LOS	E		F	E						F	A	B
Approach Vol, veh/h		1148			16			2741			2479	
Approach Delay, s/veh		1246.8			70.0			0.0			151.2	
Approach LOS		F			E			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		114.2		13.8	20.0	94.2		22.0
Change Period (Y+Rc), s		* 6.5		* 6.8	6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.1E2		* 8.2	13.4	* 87		15.8
Max Q Clear Time (g_c+I1), s		24.9		3.3	15.4	67.3		17.8
Green Ext Time (p_c), s		81.5		0.0	0.0	19.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	283.1
HCM 2010 LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	781	170	133	410	129	126	702	223	154	427	101
Future Volume (veh/h)	59	781	170	133	410	129	126	702	223	154	427	101
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	62	822	0	153	471	0	142	789	251	169	469	111
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1360	608	178	1553	695	322	957	428	231	992	444
Arrive On Green	0.05	0.38	0.00	0.10	0.44	0.00	0.07	0.27	0.27	0.08	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	62	822	0	153	471	0	142	789	251	169	469	111
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.8	26.1	0.0	11.9	12.1	0.0	8.0	29.3	19.2	9.5	15.4	7.6
Cycle Q Clear(g_c), s	4.8	26.1	0.0	11.9	12.1	0.0	8.0	29.3	19.2	9.5	15.4	7.6
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	81	1360	608	178	1553	695	322	957	428	231	992	444
V/C Ratio(X)	0.77	0.60	0.00	0.86	0.30	0.00	0.44	0.82	0.59	0.73	0.47	0.25
Avail Cap(c_a), veh/h	255	1360	608	255	1553	695	437	1107	495	266	992	444
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	66.1	34.6	0.0	62.0	25.4	0.0	33.7	48.0	44.3	36.7	41.8	39.0
Incr Delay (d2), s/veh	2.0	0.2	0.0	16.4	0.2	0.0	0.7	4.3	1.0	6.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	12.8	0.0	6.6	5.9	0.0	4.0	14.9	8.6	5.1	7.6	3.3
LnGrp Delay(d),s/veh	68.1	34.8	0.0	78.5	25.6	0.0	34.4	52.3	45.3	43.0	42.1	39.2
LnGrp LOS	E	C		E	C		C	D	D	D	D	D
Approach Vol, veh/h		884			624			1182			749	
Approach Delay, s/veh		37.1			38.6			48.7			41.8	
Approach LOS		D			D			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	18.9	59.8	15.9	45.4	11.3	67.4	17.3	44.0
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 20	39.0	* 19	38.8	* 20	39.0	* 14	43.8
Max Q Clear Time (g_c+I1), s	10.3	28.1	10.0	17.4	6.8	14.1	11.5	31.3
Green Ext Time (p_c), s	0.2	8.5	0.2	9.1	0.2	16.3	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.4
HCM 2010 LOS	D

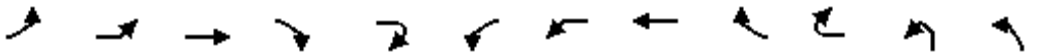
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	514	14	15	1479	12	108	44	7	18	49	53
Future Volume (veh/h)	19	514	14	15	1479	12	108	44	7	18	49	53
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	22	598	16	17	1643	13	126	51	8	27	73	79
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	2058	57	41	2478	20	201	74	10	66	160	153
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	63	2896	80	17	3486	28	765	366	51	167	793	758
Grp Volume(v), veh/h	301	0	335	874	0	799	185	0	0	179	0	0
Grp Sat Flow(s),veh/h/ln	1358	0	1681	1840	0	1690	1182	0	0	1718	0	0
Q Serve(g_s), s	2.5	0.0	9.3	0.0	0.0	33.3	8.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	35.8	0.0	9.3	32.8	0.0	33.3	20.1	0.0	0.0	11.8	0.0	0.0
Prop In Lane	0.07		0.05	0.02		0.02	0.68		0.04	0.15		0.44
Lane Grp Cap(c), veh/h	995	0	1195	1337	0	1201	285	0	0	378	0	0
V/C Ratio(X)	0.30	0.00	0.28	0.65	0.00	0.66	0.65	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	995	0	1195	1337	0	1201	517	0	0	655	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	0.0	6.7	10.1	0.0	10.2	49.6	0.0	0.0	45.7	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.6	2.5	0.0	2.9	6.7	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.5	17.7	0.0	16.3	6.8	0.0	0.0	5.9	0.0	0.0
LnGrp Delay(d),s/veh	7.6	0.0	7.3	12.6	0.0	13.1	56.3	0.0	0.0	48.2	0.0	0.0
LnGrp LOS	A		A	B		B	E			D		
Approach Vol, veh/h		636			1673			185			179	
Approach Delay, s/veh		7.4			12.8			56.3			48.2	
Approach LOS		A			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		31.3		97.0		31.3
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		91.2		47.5		91.2		47.5
Max Q Clear Time (g_c+I1), s		37.8		13.8		35.3		22.1
Green Ext Time (p_c), s		51.4		4.0		53.8		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B



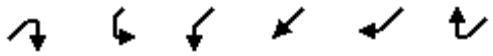
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	1	162	464	4	13	8	239	740	17	67	27	16
Future Volume (vph)	1	162	464	4	13	8	239	740	17	67	27	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5				6.8	6.8				6.8
Lane Util. Factor		1.00	0.95				1.00	0.95				1.00
Frt		1.00	0.99				1.00	0.98				1.00
Flt Protected		0.95	1.00				0.95	1.00				0.95
Satd. Flow (prot)		1770	3514				1770	3473				1770
Flt Permitted		0.16	1.00				0.12	1.00				0.72
Satd. Flow (perm)		292	3514				233	3473				1343
Peak-hour factor, PHF	0.90	0.60	0.90	0.90	0.60	0.92	0.70	0.92	0.92	0.70	0.78	0.88
Adj. Flow (vph)	1	270	516	4	22	9	341	804	18	96	35	18
RTOR Reduction (vph)	0	0	2	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	271	540	0	0	0	350	912	0	0	0	53
Turn Type	pm+pt	pm+pt	NA			pm+pt	pm+pt	NA			Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases	4	4				8	8				10	10
Actuated Green, G (s)		35.7	25.5				50.2	33.2				11.9
Effective Green, g (s)		35.7	25.5				50.2	33.2				11.9
Actuated g/C Ratio		0.24	0.17				0.33	0.22				0.08
Clearance Time (s)		6.8	6.5				6.8	6.8				6.8
Vehicle Extension (s)		3.0	2.5				3.0	3.5				3.0
Lane Grp Cap (vph)		170	597				264	768				106
v/s Ratio Prot		0.11	0.15				c0.16	c0.26				
v/s Ratio Perm		c0.27					0.28					0.04
v/c Ratio		1.59	0.91				1.33	1.19				0.50
Uniform Delay, d1		52.8	61.1				44.6	58.4				66.2
Progression Factor		1.00	1.00				1.00	1.00				1.00
Incremental Delay, d2		293.3	17.2				170.5	97.1				3.7
Delay (s)		346.0	78.3				215.1	155.5				69.9
Level of Service		F	E				F	F				E
Approach Delay (s)			167.5					172.0				
Approach LOS			F					F				

Intersection Summary			
HCM 2000 Control Delay	113.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	113.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	44	17	3	25	35	46	37	8	44	20	770	142
Future Volume (vph)	44	17	3	25	35	46	37	8	44	20	770	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Lane Util. Factor	1.00				1.00	1.00	1.00			1.00	0.91	
Frt	0.95				1.00	1.00	0.85			1.00	0.97	
Flt Protected	1.00				0.95	1.00	1.00			0.95	1.00	
Satd. Flow (prot)	1777				1770	1863	1583			1770	4948	
Flt Permitted	1.00				0.70	1.00	1.00			0.07	1.00	
Satd. Flow (perm)	1777				1312	1863	1583			140	4948	
Peak-hour factor, PHF	0.78	0.78	0.88	0.75	0.84	0.84	0.75	0.84	0.74	0.82	0.82	0.74
Adj. Flow (vph)	56	22	3	33	42	55	49	10	59	24	939	192
RTOR Reduction (vph)	1	0	0	0	0	0	54	0	0	0	1	0
Lane Group Flow (vph)	80	0	0	0	75	55	5	0	0	83	1145	0
Turn Type	NA			Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	
Protected Phases	10					9			5	5	2	
Permitted Phases				9	9		9		2	2		
Actuated Green, G (s)	11.9				11.9	11.9	11.9			59.9	53.4	
Effective Green, g (s)	11.9				11.9	11.9	11.9			59.9	53.4	
Actuated g/C Ratio	0.08				0.08	0.08	0.08			0.40	0.36	
Clearance Time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Vehicle Extension (s)	3.0				3.0	3.0	3.0			2.5	5.3	
Lane Grp Cap (vph)	140				104	147	125			126	1761	
v/s Ratio Prot	0.05					0.03				0.03	0.23	
v/s Ratio Perm					c0.06		0.00			0.23		
v/c Ratio	0.57				0.72	0.37	0.04			0.66	0.65	
Uniform Delay, d1	66.6				67.4	65.5	63.8			36.9	40.5	
Progression Factor	1.00				1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	5.5				21.7	1.6	0.1			10.6	1.9	
Delay (s)	72.1				89.1	67.1	63.9			47.5	42.4	
Level of Service	E				F	E	E			D	D	
Approach Delay (s)	71.2					74.8					42.7	
Approach LOS	E					E					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	12	75	34	1525	771	18
Future Volume (vph)	12	75	34	1525	771	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.86	0.86	
Frt			1.00	0.97	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	4665	1362	
Flt Permitted			0.14	1.00	1.00	
Satd. Flow (perm)			255	4665	1362	
Peak-hour factor, PHF	0.82	0.80	0.94	0.94	0.80	0.94
Adj. Flow (vph)	15	94	36	1622	964	19
RTOR Reduction (vph)	0	0	0	0	144	0
Lane Group Flow (vph)	0	0	130	2017	444	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			61.3	54.3	54.3	
Effective Green, g (s)			61.3	54.3	54.3	
Actuated g/C Ratio			0.41	0.36	0.36	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			174	1688	493	
v/s Ratio Prot			c0.03	c0.43		
v/s Ratio Perm			0.27		0.33	
v/c Ratio			0.75	1.19	0.90	
Uniform Delay, d1			30.9	47.9	45.3	
Progression Factor			0.57	0.74	0.55	
Incremental Delay, d2			14.4	93.5	20.0	
Delay (s)			32.0	128.7	45.0	
Level of Service			C	F	D	
Approach Delay (s)				106.1		
Approach LOS				F		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	468	989	2	1030	2198
Future Volume (vph)	0	468	989	2	1030	2198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		7.4	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5084		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5084		3433	5085
Peak-hour factor, PHF	0.96	0.96	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	488	1164	2	1084	2314
RTOR Reduction (vph)	0	42	0	0	0	0
Lane Group Flow (vph)	0	446	1166	0	1084	2314
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		85.1	54.4		81.7	150.0
Effective Green, g (s)		85.1	54.4		81.7	150.0
Actuated g/C Ratio		0.57	0.36		0.54	1.00
Clearance Time (s)		4.0	6.5		7.4	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1581	1843		1869	5085
v/s Ratio Prot		0.16	c0.23		c0.32	0.46
v/s Ratio Perm						
v/c Ratio		0.28	0.63		0.58	0.46
Uniform Delay, d1		16.7	39.5		22.7	0.0
Progression Factor		1.00	0.64		0.38	1.00
Incremental Delay, d2		0.4	0.4		0.5	0.1
Delay (s)		17.2	25.7		9.1	0.1
Level of Service		B	C		A	A
Approach Delay (s)	17.2		25.7			3.0
Approach LOS	B		C			A

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	91	3	785	2	0	0	0	1349	30	604	3257	5
Future Volume (veh/h)	91	3	785	2	0	0	0	1349	30	604	3257	5
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	1900	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	101	3	872	4	0	0	0	1551	34	643	3465	5
Adj No. of Lanes	0	1	2	0	1	0	0	3	0	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	6	349	83	0	0	24	1356	47	712	3660	5
Arrive On Green	0.13	0.13	0.13	0.05	0.00	0.00	0.00	0.15	0.15	0.21	0.70	0.70
Sat Flow, veh/h	1725	51	2787	1774	0	0	0	5289	112	3442	5244	8
Grp Volume(v), veh/h	104	0	872	4	0	0	0	1027	558	643	2240	1230
Grp Sat Flow(s),veh/h/ln	1776	0	1393	1774	0	0	0	1695	1843	1721	1695	1861
Q Serve(g_s), s	8.2	0.0	18.8	0.3	0.0	0.0	0.0	75.2	36.4	27.3	88.2	88.4
Cycle Q Clear(g_c), s	8.2	0.0	18.8	0.3	0.0	0.0	0.0	75.2	36.4	27.3	88.2	88.4
Prop In Lane	0.97		1.00	1.00		0.00	0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	223	0	349	83	0	0	0	0	0	712	2366	1299
V/C Ratio(X)	0.47	0.00	2.50	0.05	0.00	0.00	0.00	0.00	0.00	0.90	0.95	0.95
Avail Cap(c_a), veh/h	223	0	349	109	0	0	0	0	0	835	2366	1299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	0.0	65.6	68.3	0.0	0.0	0.0	0.0	0.0	58.0	20.2	20.2
Incr Delay (d2), s/veh	1.5	0.0	682.0	0.2	0.0	0.0	0.0	0.0	0.0	11.9	9.6	15.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	40.3	0.2	0.0	0.0	0.0	0.0	0.0	14.2	43.9	50.2
LnGrp Delay(d),s/veh	62.5	0.0	747.6	68.6	0.0	0.0	0.0	0.0	0.0	69.9	29.8	35.3
LnGrp LOS	E		F	E						E	C	D
Approach Vol, veh/h		976			4			1585			4113	
Approach Delay, s/veh		674.6			68.6			0.0			37.7	
Approach LOS		F			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		111.2		13.8	37.6	73.6		25.0
Change Period (Y+Rc), s		* 6.5		* 6.8	6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1E2		* 9.2	36.4	* 60		18.8
Max Q Clear Time (g_c+I1), s		90.4		2.3	29.3	77.2		20.8
Green Ext Time (p_c), s		12.4		0.0	1.7	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	121.9
HCM 2010 LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	482	95	171	794	58	117	353	110	186	802	33
Future Volume (veh/h)	52	482	95	171	794	58	117	353	110	186	802	33
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	560	0	197	913	0	127	384	120	209	901	37
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1350	604	222	1633	730	178	885	396	336	930	416
Arrive On Green	0.09	0.76	0.00	0.12	0.46	0.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	60	560	0	197	913	0	127	384	120	209	901	37
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.6	7.7	0.0	15.3	26.2	0.0	7.4	12.8	8.6	11.3	35.2	2.5
Cycle Q Clear(g_c), s	4.6	7.7	0.0	15.3	26.2	0.0	7.4	12.8	8.6	11.3	35.2	2.5
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	80	1350	604	222	1633	730	178	885	396	336	930	416
V/C Ratio(X)	0.75	0.41	0.00	0.89	0.56	0.00	0.71	0.43	0.30	0.62	0.97	0.09
Avail Cap(c_a), veh/h	191	1350	604	280	1633	730	328	1183	529	336	930	416
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)	0.98	0.98	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	62.9	11.2	0.0	60.3	27.4	0.0	39.4	44.2	42.6	37.4	51.0	38.9
Incr Delay (d2), s/veh	17.5	0.9	0.0	22.5	0.5	0.0	3.9	0.2	0.3	2.1	19.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.7	0.0	8.9	12.9	0.0	3.8	6.3	3.8	1.8	19.7	1.1
LnGrp Delay(d),s/veh	80.4	12.1	0.0	82.8	27.9	0.0	43.3	44.4	42.9	39.5	70.0	39.0
LnGrp LOS	F	B		F	C		D	D	D	D	E	D
Approach Vol, veh/h		620			1110			631			1147	
Approach Delay, s/veh		18.7			37.7			43.9			63.5	
Approach LOS		B			D			D			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	22.4	59.4	15.2	43.0	11.2	70.6	17.0	41.2
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 22	37.0	* 21	36.8	* 15	44.0	* 11	46.8
Max Q Clear Time (g_c+I1), s	17.3	9.7	9.4	37.2	6.6	28.2	13.3	14.8
Green Ext Time (p_c), s	0.2	19.4	0.2	0.0	0.1	12.5	0.0	9.8

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Notes

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

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	614	36	21	972	30	23
Future Volume (veh/h)	614	36	21	972	30	23
Number	6	16	5	2	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	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	714	42	24	1117	33	25
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.86	0.86	0.87	0.87	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2435	1089	580	2802	86	119
Arrive On Green	0.69	0.69	0.03	0.79	0.05	0.05
Sat Flow, veh/h	3632	1583	1774	3632	1774	1583
Grp Volume(v), veh/h	714	42	24	1117	33	25
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1774	1583
Q Serve(g_s), s	5.5	0.6	0.2	6.7	1.3	1.0
Cycle Q Clear(g_c), s	5.5	0.6	0.2	6.7	1.3	1.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2435	1089	580	2802	86	119
V/C Ratio(X)	0.29	0.04	0.04	0.40	0.39	0.21
Avail Cap(c_a), veh/h	2435	1089	750	2802	228	246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.35	0.73	0.73	1.00	1.00
Uniform Delay (d), s/veh	4.3	3.5	2.8	2.2	32.3	30.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	2.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.3	0.1	3.2	0.7	1.0
LnGrp Delay(d),s/veh	4.4	3.5	2.8	2.5	35.1	31.3
LnGrp LOS	A	A	A	A	D	C
Approach Vol, veh/h	756			1141	58	
Approach Delay, s/veh	4.3			2.5	33.5	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		61.6		8.4	7.3	54.4		
Change Period (Y+Rc), s		* 6.2		5.0	* 5.4	* 6.2		
Max Green Setting (Gmax), s		* 50		9.0	* 8.6	* 36		
Max Q Clear Time (g_c+I1), s		8.7		3.3	2.2	7.5		
Green Ext Time (p_c), s		32.0		0.1	0.0	23.6		

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A

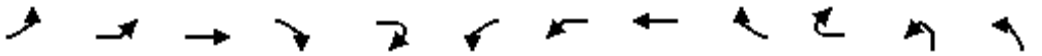
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1202	107	14	628	19	21	31	15	27	64	20
Future Volume (veh/h)	22	1202	107	14	628	19	21	31	15	27	64	20
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	23	1239	110	15	654	20	26	38	19	29	70	22
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	2493	219	65	2576	78	83	101	42	72	117	33
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	29	3160	278	38	3265	99	371	961	396	292	1117	313
Grp Volume(v), veh/h	720	0	652	350	0	339	83	0	0	121	0	0
Grp Sat Flow(s),veh/h/ln	1821	0	1646	1724	0	1678	1728	0	0	1722	0	0
Q Serve(g_s), s	0.0	0.0	14.7	0.0	0.0	5.7	0.0	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	14.2	0.0	14.7	5.2	0.0	5.7	4.6	0.0	0.0	7.0	0.0	0.0
Prop In Lane	0.03		0.17	0.04		0.06	0.31		0.23	0.24		0.18
Lane Grp Cap(c), veh/h	1471	0	1299	1396	0	1324	226	0	0	223	0	0
V/C Ratio(X)	0.49	0.00	0.50	0.25	0.00	0.26	0.37	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	1471	0	1299	1396	0	1324	868	0	0	894	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.9	0.0	3.9	2.9	0.0	3.0	44.8	0.0	0.0	45.8	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	1.4	0.4	0.0	0.5	2.7	0.0	0.0	5.6	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(50%),veh/ln	7.7	0.0	7.0	2.8	0.0	2.8	2.5	0.0	0.0	3.8	0.0	0.0
LnGrp Delay(d),s/veh	5.0	0.0	5.3	3.4	0.0	3.4	47.6	0.0	0.0	51.4	0.0	0.0
LnGrp LOS	A		A	A		A	D			D		
Approach Vol, veh/h		1372			689			83			121	
Approach Delay, s/veh		5.2			3.4			47.6			51.4	
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		90.0		16.7		90.0		16.7
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		84.2		54.5		84.2		54.5
Max Q Clear Time (g_c+I1), s		16.7		9.0		7.7		6.6
Green Ext Time (p_c), s		60.9		2.2		68.2		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A



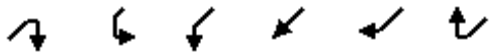
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	3	455	696	16	29	7	190	389	49	40	17	19
Future Volume (vph)	3	455	696	16	29	7	190	389	49	40	17	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5				6.8	6.8				6.8
Lane Util. Factor		1.00	0.95				1.00	0.95				1.00
Frt		1.00	0.99				1.00	0.97				1.00
Flt Protected		0.95	1.00				0.95	1.00				0.95
Satd. Flow (prot)		1770	3491				1770	3434				1770
Flt Permitted		0.16	1.00				0.22	1.00				0.56
Satd. Flow (perm)		295	3491				409	3434				1046
Peak-hour factor, PHF	0.50	0.91	0.91	0.91	0.50	0.92	0.77	0.92	0.92	0.77	0.82	0.67
Adj. Flow (vph)	6	500	765	18	58	8	247	423	53	52	21	28
RTOR Reduction (vph)	0	0	4	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	506	837	0	0	0	255	523	0	0	0	49
Turn Type	pm+pt	pm+pt	NA			pm+pt	pm+pt	NA			Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases	4	4				8	8				10	10
Actuated Green, G (s)		55.5	34.5				32.4	18.2				13.2
Effective Green, g (s)		55.5	34.5				32.4	18.2				13.2
Actuated g/C Ratio		0.37	0.23				0.22	0.12				0.09
Clearance Time (s)		6.8	6.5				6.8	6.8				6.8
Vehicle Extension (s)		3.0	2.5				3.0	3.5				3.0
Lane Grp Cap (vph)		406	802				217	416				92
v/s Ratio Prot		c0.25	0.24				0.11	0.15				
v/s Ratio Perm		c0.21					0.14					0.05
v/c Ratio		1.25	1.04				1.18	1.26				0.53
Uniform Delay, d1		46.2	57.8				55.0	65.9				65.4
Progression Factor		1.00	1.00				1.00	1.00				1.00
Incremental Delay, d2		130.0	43.8				116.5	133.7				5.8
Delay (s)		176.2	101.5				171.5	199.6				71.3
Level of Service		F	F				F	F				E
Approach Delay (s)			129.6					190.5				
Approach LOS			F					F				

Intersection Summary			
HCM 2000 Control Delay	112.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	48	31	22	29	48	105	52	11	58	23	1370	249
Future Volume (vph)	48	31	22	29	48	105	52	11	58	23	1370	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Lane Util. Factor	1.00				1.00	1.00	1.00			1.00	0.91	
Frt	0.92				1.00	1.00	0.85			1.00	0.97	
Flt Protected	1.00				0.95	1.00	1.00			0.95	1.00	
Satd. Flow (prot)	1710				1770	1863	1583			1770	4951	
Flt Permitted	1.00				0.48	1.00	1.00			0.16	1.00	
Satd. Flow (perm)	1710				889	1863	1583			291	4951	
Peak-hour factor, PHF	0.82	0.82	0.67	0.93	0.82	0.93	0.93	0.82	0.86	0.95	0.95	0.86
Adj. Flow (vph)	59	38	33	31	59	113	56	13	67	24	1442	290
RTOR Reduction (vph)	8	0	0	0	0	0	63	0	0	0	1	0
Lane Group Flow (vph)	122	0	0	0	90	113	6	0	0	91	1748	0
Turn Type	NA			Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	
Protected Phases	10					9			5	5	2	
Permitted Phases				9	9		9		2	2		
Actuated Green, G (s)	13.2				13.2	13.2	13.2			54.1	47.9	
Effective Green, g (s)	13.2				13.2	13.2	13.2			54.1	47.9	
Actuated g/C Ratio	0.09				0.09	0.09	0.09			0.36	0.32	
Clearance Time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Vehicle Extension (s)	3.0				3.0	3.0	3.0			2.5	5.3	
Lane Grp Cap (vph)	150				78	163	139			166	1581	
v/s Ratio Prot	0.07					0.06				0.02	0.35	
v/s Ratio Perm					c0.10		0.00			0.18		
v/c Ratio	0.81				1.15	0.69	0.04			0.55	1.11	
Uniform Delay, d1	67.2				68.4	66.4	62.6			34.0	51.0	
Progression Factor	1.00				1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	27.3				149.4	12.0	0.1			2.9	57.5	
Delay (s)	94.5				217.8	78.5	62.8			36.9	108.5	
Level of Service	F				F	E	E			D	F	
Approach Delay (s)	88.1					120.6					105.0	
Approach LOS	F					F					F	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	16	45	84	820	235	14
Future Volume (vph)	16	45	84	820	235	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.86	0.86	
Frt			1.00	0.99	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	4757	1362	
Flt Permitted			0.08	1.00	1.00	
Satd. Flow (perm)			154	4757	1362	
Peak-hour factor, PHF	0.95	0.72	0.91	0.91	0.72	0.91
Adj. Flow (vph)	17	62	92	901	326	15
RTOR Reduction (vph)	0	0	0	0	153	0
Lane Group Flow (vph)	0	0	155	966	123	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			54.5	48.3	48.3	
Effective Green, g (s)			54.5	48.3	48.3	
Actuated g/C Ratio			0.36	0.32	0.32	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			122	1531	438	
v/s Ratio Prot			c0.05	0.20		
v/s Ratio Perm			c0.41		0.09	
v/c Ratio			1.27	0.63	0.28	
Uniform Delay, d1			43.4	43.3	37.9	
Progression Factor			0.79	0.86	1.79	
Incremental Delay, d2			170.3	1.3	0.9	
Delay (s)			204.7	38.3	68.9	
Level of Service			F	D	E	
Approach Delay (s)				62.8		
Approach LOS				E		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	815	1894	5	620	1165
Future Volume (vph)	0	815	1894	5	620	1165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		5.7	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5083		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5083		3433	5085
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.87	0.87
Adj. Flow (vph)	0	896	1994	5	713	1339
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	896	1999	0	713	1339
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		86.0	53.5		84.3	150.0
Effective Green, g (s)		86.0	53.5		84.3	150.0
Actuated g/C Ratio		0.57	0.36		0.56	1.00
Clearance Time (s)		4.0	6.5		5.7	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1597	1812		1929	5085
v/s Ratio Prot		c0.32	c0.39		0.21	0.26
v/s Ratio Perm						
v/c Ratio		0.56	1.10		0.37	0.26
Uniform Delay, d1		20.1	48.2		18.2	0.0
Progression Factor		1.00	0.63		0.96	1.00
Incremental Delay, d2		1.4	47.4		0.5	0.1
Delay (s)		21.6	78.0		18.0	0.1
Level of Service		C	E		B	A
Approach Delay (s)	21.6		78.0			6.3
Approach LOS	C		E			A

Intersection Summary			
HCM 2000 Control Delay	38.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	54	0	1106	9	0	1	0	2590	33	603	1727	6
Future Volume (veh/h)	54	0	1106	9	0	1	0	2590	33	603	1727	6
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	1900	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	0	1129	14	0	2	0	2643	34	655	1877	7
Adj No. of Lanes	0	1	2	0	1	0	0	3	0	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.63	0.63	0.63	0.98	0.98	0.98	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	0	294	71	0	10	24	3078	41	307	3755	14
Arrive On Green	0.11	0.00	0.11	0.05	0.00	0.05	0.00	0.19	0.19	0.09	0.72	0.72
Sat Flow, veh/h	1774	0	2787	1529	0	218	0	5342	66	3442	5230	20
Grp Volume(v), veh/h	55	0	1129	16	0	0	0	1729	948	655	1217	667
Grp Sat Flow(s),veh/h/ln	1774	0	1393	1748	0	0	0	1695	1851	1721	1695	1859
Q Serve(g_s), s	4.3	0.0	15.8	1.3	0.0	0.0	0.0	62.3	59.1	13.4	23.7	23.7
Cycle Q Clear(g_c), s	4.3	0.0	15.8	1.3	0.0	0.0	0.0	62.3	59.1	13.4	23.7	23.7
Prop In Lane	1.00		1.00	0.87		0.12	0.00		0.04	1.00		0.01
Lane Grp Cap(c), veh/h	187	0	294	82	0	0	0	0	0	307	2434	1335
V/C Ratio(X)	0.29	0.00	3.85	0.20	0.00	0.00	0.00	0.00	0.00	2.13	0.50	0.50
Avail Cap(c_a), veh/h	187	0	294	96	0	0	0	0	0	307	2434	1335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.24	0.24	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.0	0.0	67.1	68.8	0.0	0.0	0.0	0.0	0.0	68.3	9.3	9.3
Incr Delay (d2), s/veh	0.9	0.0	1289.1	1.2	0.0	0.0	0.0	0.0	0.0	519.5	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	58.6	0.7	0.0	0.0	0.0	0.0	0.0	28.5	11.2	12.5
LnGrp Delay(d),s/veh	62.8	0.0	1356.2	70.0	0.0	0.0	0.0	0.0	0.0	587.8	10.0	10.6
LnGrp LOS	E		F	E						F	B	B
Approach Vol, veh/h		1184			16			2677			2539	
Approach Delay, s/veh		1296.1			70.0			0.0			159.2	
Approach LOS		F			E			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		114.2		13.8	20.0	94.2		22.0
Change Period (Y+Rc), s		* 6.5		* 6.8	6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.1E2		* 8.2	13.4	* 87		15.8
Max Q Clear Time (g_c+I1), s		25.7		3.3	15.4	64.3		17.8
Green Ext Time (p_c), s		80.7		0.0	0.0	22.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	302.4
HCM 2010 LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	801	175	140	413	133	130	723	233	159	440	110
Future Volume (veh/h)	68	801	175	140	413	133	130	723	233	159	440	110
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	72	843	0	161	475	0	146	812	262	175	484	121
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1324	592	186	1509	675	322	969	434	232	1007	450
Arrive On Green	0.05	0.37	0.00	0.10	0.43	0.00	0.07	0.27	0.27	0.08	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	72	843	0	161	475	0	146	812	262	175	484	121
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.6	27.4	0.0	12.5	12.4	0.0	8.2	30.3	20.2	9.8	15.9	8.3
Cycle Q Clear(g_c), s	5.6	27.4	0.0	12.5	12.4	0.0	8.2	30.3	20.2	9.8	15.9	8.3
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	93	1324	592	186	1509	675	322	969	434	232	1007	450
V/C Ratio(X)	0.78	0.64	0.00	0.87	0.31	0.00	0.45	0.84	0.60	0.76	0.48	0.27
Avail Cap(c_a), veh/h	255	1324	592	255	1509	675	435	1107	495	263	1007	450
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)	0.90	0.90	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	65.5	36.0	0.0	61.7	26.6	0.0	33.3	47.9	44.2	36.5	41.5	38.8
Incr Delay (d2), s/veh	16.1	2.1	0.0	18.5	0.2	0.0	0.7	5.0	1.3	8.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	13.7	0.0	7.1	6.1	0.0	4.0	15.4	8.9	5.3	7.8	3.7
LnGrp Delay(d),s/veh	81.6	38.1	0.0	80.2	26.8	0.0	34.1	52.9	45.5	44.6	41.8	39.0
LnGrp LOS	F	D		F	C		C	D	D	D	D	D
Approach Vol, veh/h		915			636			1220			780	
Approach Delay, s/veh		41.5			40.3			49.0			42.0	
Approach LOS		D			D			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	19.5	58.4	16.1	46.0	12.2	65.7	17.5	44.5
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 20	39.0	* 19	38.8	* 20	39.0	* 14	43.8
Max Q Clear Time (g_c+I1), s	14.5	29.4	10.2	17.9	7.6	14.4	11.8	32.3
Green Ext Time (p_c), s	0.2	7.7	0.2	9.4	0.2	16.4	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Notes

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

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1038	43	44	632	46	39
Future Volume (veh/h)	1038	43	44	632	46	39
Number	6	16	5	2	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	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1093	45	51	726	50	42
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.87	0.87	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1945	870	404	2502	127	194
Arrive On Green	0.55	0.55	0.05	0.71	0.07	0.07
Sat Flow, veh/h	3632	1583	1774	3632	1774	1583
Grp Volume(v), veh/h	1093	45	51	726	50	42
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1774	1583
Q Serve(g_s), s	10.2	0.7	0.5	3.8	1.4	1.2
Cycle Q Clear(g_c), s	10.2	0.7	0.5	3.8	1.4	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1945	870	404	2502	127	194
V/C Ratio(X)	0.56	0.05	0.13	0.29	0.39	0.22
Avail Cap(c_a), veh/h	2014	901	650	3064	526	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	5.3	5.0	2.7	22.4	20.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.1	2.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.3	0.3	1.8	0.7	1.1
LnGrp Delay(d),s/veh	7.9	5.3	5.2	2.8	24.4	20.6
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	1138			777	92	
Approach Delay, s/veh	7.8			3.0	22.7	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.0		8.6	8.0	34.0		
Change Period (Y+Rc), s		* 6.2		5.0	* 5.4	* 6.2		
Max Green Setting (Gmax), s		* 44		15.0	* 9.6	* 29		
Max Q Clear Time (g_c+I1), s		5.8		3.4	2.5	12.2		
Green Ext Time (p_c), s		29.9		0.2	0.0	14.7		

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

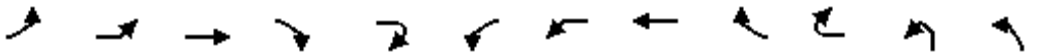
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	549	14	15	1537	49	108	44	7	40	49	53
Future Volume (veh/h)	19	549	14	15	1537	49	108	44	7	40	49	53
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	22	638	16	17	1708	54	126	51	8	60	73	79
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1995	53	40	2388	75	201	75	10	115	137	129
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	52	2835	75	16	3394	107	740	360	50	381	654	615
Grp Volume(v), veh/h	317	0	359	931	0	848	185	0	0	212	0	0
Grp Sat Flow(s),veh/h/ln	1280	0	1682	1840	0	1676	1149	0	0	1651	0	0
Q Serve(g_s), s	4.2	0.0	10.4	0.0	0.0	39.3	6.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	43.5	0.0	10.4	38.4	0.0	39.3	21.1	0.0	0.0	14.8	0.0	0.0
Prop In Lane	0.07		0.04	0.02		0.06	0.68		0.04	0.28		0.37
Lane Grp Cap(c), veh/h	930	0	1184	1323	0	1180	287	0	0	381	0	0
V/C Ratio(X)	0.34	0.00	0.30	0.70	0.00	0.72	0.64	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	930	0	1184	1323	0	1180	503	0	0	630	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.8	0.0	7.2	11.4	0.0	11.5	49.4	0.0	0.0	46.3	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.7	3.2	0.0	3.8	6.5	0.0	0.0	3.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	5.0	20.8	0.0	19.1	6.8	0.0	0.0	7.3	0.0	0.0
LnGrp Delay(d),s/veh	8.8	0.0	7.9	14.5	0.0	15.3	55.9	0.0	0.0	49.8	0.0	0.0
LnGrp LOS	A		A	B		B	E			D		
Approach Vol, veh/h		676			1779			185			212	
Approach Delay, s/veh		8.3			14.9			55.9			49.8	
Approach LOS		A			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		32.6		97.0		32.6
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		91.2		47.5		91.2		47.5
Max Q Clear Time (g_c+I1), s		45.5		16.8		41.3		23.1
Green Ext Time (p_c), s		44.7		4.3		48.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B



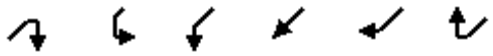
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	1	188	506	4	13	8	255	808	17	67	27	16
Future Volume (vph)	1	188	506	4	13	8	255	808	17	67	27	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5				6.8	6.8				6.8
Lane Util. Factor		1.00	0.95				1.00	0.95				1.00
Frt		1.00	0.99				1.00	0.98				1.00
Flt Protected		0.95	1.00				0.95	1.00				0.95
Satd. Flow (prot)		1770	3516				1770	3478				1770
Flt Permitted		0.16	1.00				0.12	1.00				0.72
Satd. Flow (perm)		292	3516				233	3478				1343
Peak-hour factor, PHF	0.90	0.60	0.90	0.90	0.60	0.92	0.70	0.92	0.92	0.70	0.78	0.88
Adj. Flow (vph)	1	313	562	4	22	9	364	878	18	96	35	18
RTOR Reduction (vph)	0	0	2	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	314	586	0	0	0	373	987	0	0	0	53
Turn Type	pm+pt	pm+pt	NA			pm+pt	pm+pt	NA			Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases	4	4				8	8				10	10
Actuated Green, G (s)		35.7	25.5				50.2	33.2				13.2
Effective Green, g (s)		35.7	25.5				50.2	33.2				13.2
Actuated g/C Ratio		0.24	0.17				0.33	0.22				0.09
Clearance Time (s)		6.8	6.5				6.8	6.8				6.8
Vehicle Extension (s)		3.0	2.5				3.0	3.5				3.0
Lane Grp Cap (vph)		170	597				264	769				118
v/s Ratio Prot		0.13	0.17				c0.17	c0.28				
v/s Ratio Perm		c0.31					0.30					0.04
v/c Ratio		1.85	0.98				1.41	1.28				0.45
Uniform Delay, d1		52.8	62.0				44.8	58.4				64.9
Progression Factor		1.00	1.00				1.00	1.00				1.00
Incremental Delay, d2		403.0	32.1				206.8	137.2				2.7
Delay (s)		455.8	94.1				251.6	195.6				67.7
Level of Service		F	F				F	F				E
Approach Delay (s)			220.0					210.9				
Approach LOS			F					F				

Intersection Summary			
HCM 2000 Control Delay	143.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	44	27	3	47	35	46	37	8	44	20	795	152
Future Volume (vph)	44	27	3	47	35	46	37	8	44	20	795	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Lane Util. Factor	1.00				1.00	1.00	1.00			1.00	0.91	
Frt	0.94				1.00	1.00	0.85			1.00	0.97	
Flt Protected	1.00				0.95	1.00	1.00			0.95	1.00	
Satd. Flow (prot)	1750				1770	1863	1583			1770	4944	
Flt Permitted	1.00				0.66	1.00	1.00			0.08	1.00	
Satd. Flow (perm)	1750				1224	1863	1583			141	4944	
Peak-hour factor, PHF	0.78	0.78	0.88	0.75	0.84	0.84	0.75	0.84	0.74	0.82	0.82	0.74
Adj. Flow (vph)	56	35	3	63	42	55	49	10	59	24	970	205
RTOR Reduction (vph)	1	0	0	0	0	0	54	0	0	0	1	0
Lane Group Flow (vph)	93	0	0	0	105	55	5	0	0	83	1189	0
Turn Type	NA			Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	
Protected Phases	10					9			5	5	2	
Permitted Phases				9	9		9		2	2		
Actuated Green, G (s)	13.2				13.2	13.2	13.2			59.1	52.9	
Effective Green, g (s)	13.2				13.2	13.2	13.2			59.1	52.9	
Actuated g/C Ratio	0.09				0.09	0.09	0.09			0.39	0.35	
Clearance Time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Vehicle Extension (s)	3.0				3.0	3.0	3.0			2.5	5.3	
Lane Grp Cap (vph)	154				107	163	139			122	1743	
v/s Ratio Prot	0.05					0.03				0.03	0.24	
v/s Ratio Perm					c0.09		0.00			0.24		
v/c Ratio	0.60				0.98	0.34	0.04			0.68	0.68	
Uniform Delay, d1	65.9				68.3	64.3	62.6			37.2	41.4	
Progression Factor	1.00				1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	6.5				80.7	1.2	0.1			13.3	2.2	
Delay (s)	72.4				149.0	65.5	62.7			50.6	43.6	
Level of Service	E				F	E	E			D	D	
Approach Delay (s)	70.7					104.8					44.0	
Approach LOS	E					F					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	12	91	34	1567	813	54
Future Volume (vph)	12	91	34	1567	813	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.86	0.86	
Frt			1.00	0.97	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	4653	1362	
Flt Permitted			0.12	1.00	1.00	
Satd. Flow (perm)			231	4653	1362	
Peak-hour factor, PHF	0.82	0.80	0.94	0.94	0.80	0.94
Adj. Flow (vph)	15	114	36	1667	1016	57
RTOR Reduction (vph)	0	0	0	0	145	0
Lane Group Flow (vph)	0	0	150	2114	481	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			59.5	53.3	53.3	
Effective Green, g (s)			59.5	53.3	53.3	
Actuated g/C Ratio			0.40	0.36	0.36	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			155	1653	483	
v/s Ratio Prot			c0.04	c0.45		
v/s Ratio Perm			0.34		0.35	
v/c Ratio			0.97	1.28	1.00	
Uniform Delay, d1			39.5	48.4	48.2	
Progression Factor			0.77	0.70	0.54	
Incremental Delay, d2			55.7	129.5	36.1	
Delay (s)			86.2	163.2	61.9	
Level of Service			F	F	E	
Approach Delay (s)				137.2		
Approach LOS				F		

Intersection Summary

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	184	74	1061	59	147	2282
Future Volume (vph)	184	74	1061	59	147	2282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		6.0	6.0	5.4	6.0
Lane Util. Factor	0.97		0.91	1.00	1.00	0.91
Frt	0.96		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3340		5085	1583	1770	5085
Flt Permitted	0.97		1.00	1.00	0.16	1.00
Satd. Flow (perm)	3340		5085	1583	304	5085
Peak-hour factor, PHF	0.92	0.92	0.85	0.85	0.95	0.95
Adj. Flow (vph)	200	80	1248	69	155	2402
RTOR Reduction (vph)	62	0	0	31	0	0
Lane Group Flow (vph)	218	0	1248	38	155	2402
Turn Type	Perm		NA	Perm	pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	8			6	2	
Actuated Green, G (s)	9.7		41.6	41.6	54.8	54.8
Effective Green, g (s)	9.7		41.6	41.6	54.8	54.8
Actuated g/C Ratio	0.13		0.55	0.55	0.73	0.73
Clearance Time (s)	4.5		6.0	6.0	5.4	6.0
Vehicle Extension (s)	3.0		4.0	4.0	3.0	4.0
Lane Grp Cap (vph)	431		2820	878	374	3715
v/s Ratio Prot			0.25		0.04	c0.47
v/s Ratio Perm	c0.07			0.02	0.26	
v/c Ratio	0.51		0.44	0.04	0.41	0.65
Uniform Delay, d1	30.4		9.9	7.6	4.3	5.2
Progression Factor	1.00		1.14	2.16	1.37	1.51
Incremental Delay, d2	0.9		0.2	0.0	0.7	0.8
Delay (s)	31.4		11.5	16.5	6.5	8.6
Level of Service	C		B	B	A	A
Approach Delay (s)	31.4		11.8			8.5
Approach LOS	C		B			A

Intersection Summary				
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.68			
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	15.9	
Intersection Capacity Utilization	60.4%	ICU Level of Service	B	
Analysis Period (min)	15			

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	478	1100	2	1032	2271
Future Volume (vph)	0	478	1100	2	1032	2271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		7.4	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5084		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5084		3433	5085
Peak-hour factor, PHF	0.96	0.96	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	498	1294	2	1086	2391
RTOR Reduction (vph)	0	33	0	0	0	0
Lane Group Flow (vph)	0	465	1296	0	1086	2391
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		78.2	61.3		74.8	150.0
Effective Green, g (s)		78.2	61.3		74.8	150.0
Actuated g/C Ratio		0.52	0.41		0.50	1.00
Clearance Time (s)		4.0	6.5		7.4	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1452	2077		1711	5085
v/s Ratio Prot		0.17	c0.25		c0.32	0.47
v/s Ratio Perm						
v/c Ratio		0.32	0.62		0.63	0.47
Uniform Delay, d1		20.6	35.2		27.6	0.0
Progression Factor		1.00	1.23		0.48	1.00
Incremental Delay, d2		0.6	0.7		0.6	0.1
Delay (s)		21.2	44.0		13.8	0.1
Level of Service		C	D		B	A
Approach Delay (s)	21.2		44.0			4.4
Approach LOS	C		D			A

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	91	3	785	2	0	0	0	1443	30	604	3315	5
Future Volume (veh/h)	91	3	785	2	0	0	0	1443	30	604	3315	5
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	1900	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	101	3	872	4	0	0	0	1659	34	643	3527	5
Adj No. of Lanes	0	1	2	0	1	0	0	3	0	2	3	0
Peak Hour Factor	0.90	0.90	0.90	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	6	349	83	0	0	24	1359	44	712	3660	5
Arrive On Green	0.13	0.13	0.13	0.05	0.00	0.00	0.00	0.15	0.15	0.21	0.70	0.70
Sat Flow, veh/h	1725	51	2787	1774	0	0	0	5297	105	3442	5244	7
Grp Volume(v), veh/h	104	0	872	4	0	0	0	1096	597	643	2280	1252
Grp Sat Flow(s),veh/h/ln	1776	0	1393	1774	0	0	0	1695	1844	1721	1695	1861
Q Serve(g_s), s	8.2	0.0	18.8	0.3	0.0	0.0	0.0	84.9	39.9	27.3	93.0	93.2
Cycle Q Clear(g_c), s	8.2	0.0	18.8	0.3	0.0	0.0	0.0	84.9	39.9	27.3	93.0	93.2
Prop In Lane	0.97		1.00	1.00		0.00	0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	223	0	349	83	0	0	0	0	0	712	2366	1299
V/C Ratio(X)	0.47	0.00	2.50	0.05	0.00	0.00	0.00	0.00	0.00	0.90	0.96	0.96
Avail Cap(c_a), veh/h	223	0	349	109	0	0	0	0	0	835	2366	1299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	0.0	65.6	68.3	0.0	0.0	0.0	0.0	0.0	58.0	20.9	20.9
Incr Delay (d2), s/veh	1.5	0.0	682.0	0.2	0.0	0.0	0.0	0.0	0.0	11.9	11.7	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	40.3	0.2	0.0	0.0	0.0	0.0	0.0	14.2	46.9	53.7
LnGrp Delay(d),s/veh	62.5	0.0	747.6	68.6	0.0	0.0	0.0	0.0	0.0	69.9	32.6	38.6
LnGrp LOS	E		F	E						E	C	D
Approach Vol, veh/h		976			4			1693			4175	
Approach Delay, s/veh		674.6			68.6			0.0			40.1	
Approach LOS		F			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		111.2		13.8	37.6	73.6		25.0
Change Period (Y+Rc), s		* 6.5		* 6.8	6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1E2		* 9.2	36.4	* 60		18.8
Max Q Clear Time (g_c+I1), s		95.2		2.3	29.3	86.9		20.8
Green Ext Time (p_c), s		7.6		0.0	1.7	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	120.7
HCM 2010 LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	521	159	171	823	64	161	361	110	206	821	33
Future Volume (veh/h)	52	521	159	171	823	64	161	361	110	206	821	33
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	606	0	197	946	0	175	392	120	231	922	37
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1281	573	222	1564	700	208	954	427	352	930	416
Arrive On Green	0.09	0.72	0.00	0.12	0.44	0.00	0.09	0.27	0.27	0.08	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	60	606	0	197	946	0	175	392	120	231	922	37
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.6	10.1	0.0	15.3	28.5	0.0	10.0	12.7	8.4	11.3	36.4	2.5
Cycle Q Clear(g_c), s	4.6	10.1	0.0	15.3	28.5	0.0	10.0	12.7	8.4	11.3	36.4	2.5
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	80	1281	573	222	1564	700	208	954	427	352	930	416
V/C Ratio(X)	0.75	0.47	0.00	0.89	0.60	0.00	0.84	0.41	0.28	0.66	0.99	0.09
Avail Cap(c_a), veh/h	191	1281	573	280	1564	700	323	1183	529	352	930	416
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	13.7	0.0	60.3	29.8	0.0	37.6	42.0	40.4	37.4	51.4	38.9
Incr Delay (d2), s/veh	17.0	1.2	0.0	22.5	0.8	0.0	9.3	0.2	0.3	3.5	27.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.9	0.0	8.9	14.1	0.0	5.4	6.2	3.7	2.7	21.3	1.1
LnGrp Delay(d),s/veh	79.9	14.9	0.0	82.8	30.6	0.0	46.9	42.2	40.7	40.9	78.7	39.0
LnGrp LOS	E	B		F	C		D	D	D	D	E	D
Approach Vol, veh/h		666			1143			687			1190	
Approach Delay, s/veh		20.7			39.6			43.2			70.1	
Approach LOS		C			D			D			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	22.4	56.7	17.9	43.0	11.2	67.9	17.0	43.9
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 22	37.0	* 21	36.8	* 15	44.0	* 11	46.8
Max Q Clear Time (g_c+I1), s	17.3	12.1	12.0	38.4	6.6	30.5	13.3	14.7
Green Ext Time (p_c), s	0.2	18.9	0.3	0.0	0.1	11.2	0.0	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	604	36	21	962	83	30	7	23	114	11	67
Future Volume (veh/h)	61	604	36	21	962	83	30	7	23	114	11	67
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	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	71	702	42	24	1106	0	33	8	25	124	12	73
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	1	1	0
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	1961	877	486	1828	818	233	47	330	251	39	238
Arrive On Green	0.07	0.55	0.55	0.04	0.52	0.00	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	818	273	1583	1370	228	1389
Grp Volume(v), veh/h	71	702	42	24	1106	0	41	0	25	124	0	85
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1091	0	1583	1370	0	1618
Q Serve(g_s), s	1.2	7.7	0.9	0.4	15.4	0.0	1.2	0.0	0.9	6.2	0.0	3.2
Cycle Q Clear(g_c), s	1.2	7.7	0.9	0.4	15.4	0.0	4.4	0.0	0.9	10.6	0.0	3.2
Prop In Lane	1.00		1.00	1.00		1.00	0.80		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	386	1961	877	486	1828	818	280	0	330	251	0	277
V/C Ratio(X)	0.18	0.36	0.05	0.05	0.60	0.00	0.15	0.00	0.08	0.49	0.00	0.31
Avail Cap(c_a), veh/h	471	1961	877	637	1828	818	280	0	330	251	0	277
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	0.66	0.66	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.1	8.7	7.1	7.3	11.9	0.0	26.2	0.0	22.3	30.6	0.0	25.4
Incr Delay (d2), s/veh	0.2	0.5	0.1	0.0	1.0	0.0	0.2	0.0	0.1	1.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.8	0.4	0.2	7.6	0.0	0.7	0.0	0.4	2.4	0.0	1.5
LnGrp Delay(d),s/veh	8.3	9.2	7.3	7.3	12.9	0.0	26.4	0.0	22.4	32.1	0.0	26.0
LnGrp LOS	A	A	A	A	B		C		C	C		C
Approach Vol, veh/h		815			1130			66			209	
Approach Delay, s/veh		9.0			12.8			24.9			29.6	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.6	42.4		17.0	8.0	45.0		17.0
Change Period (Y+Rc), s	* 5.4	* 6.2		5.0	* 5.4	* 6.2		5.0
Max Green Setting (Gmax), s	* 8.6	* 33		12.0	* 8.6	* 33		12.0
Max Q Clear Time (g_c+I1), s	3.2	17.4		6.4	2.4	9.7		12.6
Green Ext Time (p_c), s	0.1	13.7		0.5	0.0	19.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

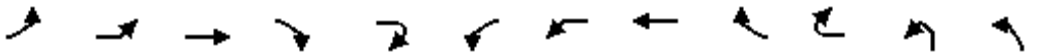
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1269	107	14	679	51	21	31	15	69	64	20
Future Volume (veh/h)	22	1269	107	14	679	51	21	31	15	69	64	20
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	23	1308	110	15	707	53	26	38	19	75	70	22
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	2411	201	58	2379	177	93	126	52	137	106	30
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	28	3172	264	31	3129	232	367	911	380	651	770	216
Grp Volume(v), veh/h	755	0	686	398	0	377	83	0	0	167	0	0
Grp Sat Flow(s),veh/h/ln	1816	0	1648	1739	0	1654	1658	0	0	1637	0	0
Q Serve(g_s), s	0.0	0.0	18.9	0.0	0.0	7.9	0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	18.1	0.0	18.9	7.2	0.0	7.9	4.7	0.0	0.0	10.6	0.0	0.0
Prop In Lane	0.03		0.16	0.04		0.14	0.31		0.23	0.45		0.13
Lane Grp Cap(c), veh/h	1414	0	1253	1356	0	1257	271	0	0	273	0	0
V/C Ratio(X)	0.53	0.00	0.55	0.29	0.00	0.30	0.31	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	1414	0	1253	1356	0	1257	832	0	0	823	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.4	0.0	5.5	4.1	0.0	4.1	43.2	0.0	0.0	45.5	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	1.7	0.6	0.0	0.6	1.7	0.0	0.0	6.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	9.0	3.9	0.0	3.8	2.4	0.0	0.0	5.3	0.0	0.0
LnGrp Delay(d),s/veh	6.8	0.0	7.2	4.6	0.0	4.7	44.9	0.0	0.0	51.6	0.0	0.0
LnGrp LOS	A		A	A		A	D			D		
Approach Vol, veh/h		1441			775			83			167	
Approach Delay, s/veh		7.0			4.7			44.9			51.6	
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		90.0		20.8		90.0		20.8
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		84.2		54.5		84.2		54.5
Max Q Clear Time (g_c+I1), s		20.9		12.6		9.9		6.7
Green Ext Time (p_c), s		59.2		2.7		68.9		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B



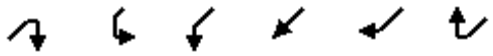
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	3	504	776	16	29	7	190	450	49	40	17	19
Future Volume (vph)	3	504	776	16	29	7	190	450	49	40	17	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5				6.8	6.8				6.8
Lane Util. Factor		1.00	0.95				1.00	0.95				1.00
Frt		1.00	0.99				1.00	0.97				1.00
Flt Protected		0.95	1.00				0.95	1.00				0.95
Satd. Flow (prot)		1770	3496				1770	3445				1770
Flt Permitted		0.16	1.00				0.22	1.00				0.56
Satd. Flow (perm)		295	3496				409	3445				1046
Peak-hour factor, PHF	0.50	0.91	0.91	0.91	0.50	0.92	0.77	0.92	0.92	0.77	0.82	0.67
Adj. Flow (vph)	6	554	853	18	58	8	247	489	53	52	21	28
RTOR Reduction (vph)	0	0	3	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	560	926	0	0	0	255	590	0	0	0	49
Turn Type	pm+pt	pm+pt	NA			pm+pt	pm+pt	NA			Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases	4	4				8	8				10	10
Actuated Green, G (s)		55.5	34.5				32.4	18.2				13.2
Effective Green, g (s)		55.5	34.5				32.4	18.2				13.2
Actuated g/C Ratio		0.37	0.23				0.22	0.12				0.09
Clearance Time (s)		6.8	6.5				6.8	6.8				6.8
Vehicle Extension (s)		3.0	2.5				3.0	3.5				3.0
Lane Grp Cap (vph)		406	804				217	417				92
v/s Ratio Prot		c0.28	0.26				0.11	0.17				
v/s Ratio Perm		c0.23					0.14					0.05
v/c Ratio		1.38	1.15				1.18	1.41				0.53
Uniform Delay, d1		46.2	57.8				55.0	65.9				65.4
Progression Factor		1.00	1.00				1.00	1.00				1.00
Incremental Delay, d2		185.5	82.3				116.5	200.0				5.8
Delay (s)		231.8	140.1				171.5	265.9				71.3
Level of Service		F	F				F	F				E
Approach Delay (s)			174.6					237.5				
Approach LOS			F					F				

Intersection Summary			
HCM 2000 Control Delay	148.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.54		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	126.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	48	49	22	71	48	105	52	11	58	23	1419	267
Future Volume (vph)	48	49	22	71	48	105	52	11	58	23	1419	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Lane Util. Factor	1.00				1.00	1.00	1.00			1.00	0.91	
Frt	0.91				1.00	1.00	0.85			1.00	0.97	
Flt Protected	1.00				0.95	1.00	1.00			0.95	1.00	
Satd. Flow (prot)	1692				1770	1863	1583			1770	4948	
Flt Permitted	1.00				0.37	1.00	1.00			0.12	1.00	
Satd. Flow (perm)	1692				688	1863	1583			229	4948	
Peak-hour factor, PHF	0.82	0.82	0.67	0.93	0.82	0.93	0.93	0.82	0.86	0.95	0.95	0.86
Adj. Flow (vph)	59	60	33	76	59	113	56	13	67	24	1494	310
RTOR Reduction (vph)	6	0	0	0	0	0	63	0	0	0	1	0
Lane Group Flow (vph)	146	0	0	0	135	113	6	0	0	91	1820	0
Turn Type	NA			Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	
Protected Phases	10					9			5	5	2	
Permitted Phases				9	9		9		2	2		
Actuated Green, G (s)	13.2				13.2	13.2	13.2			54.1	47.9	
Effective Green, g (s)	13.2				13.2	13.2	13.2			54.1	47.9	
Actuated g/C Ratio	0.09				0.09	0.09	0.09			0.36	0.32	
Clearance Time (s)	6.8				6.8	6.8	6.8			6.8	7.1	
Vehicle Extension (s)	3.0				3.0	3.0	3.0			2.5	5.3	
Lane Grp Cap (vph)	148				60	163	139			146	1580	
v/s Ratio Prot	0.09					0.06				0.03	0.37	
v/s Ratio Perm					c0.20		0.00			0.20		
v/c Ratio	0.98				2.25	0.69	0.04			0.62	1.15	
Uniform Delay, d1	68.3				68.4	66.4	62.6			34.6	51.0	
Progression Factor	1.00				1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	68.7				612.1	12.0	0.1			7.0	76.2	
Delay (s)	137.0				680.5	78.5	62.8			41.6	127.2	
Level of Service	F				F	E	E			D	F	
Approach Delay (s)	120.9					331.4					123.2	
Approach LOS	F					F					F	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	16	59	84	857	272	46
Future Volume (vph)	16	59	84	857	272	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.86	0.86	
Frt			1.00	0.98	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	4724	1362	
Flt Permitted			0.08	1.00	1.00	
Satd. Flow (perm)			154	4724	1362	
Peak-hour factor, PHF	0.95	0.72	0.91	0.91	0.72	0.91
Adj. Flow (vph)	17	82	92	942	378	51
RTOR Reduction (vph)	0	0	0	0	153	0
Lane Group Flow (vph)	0	0	174	1063	155	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			54.5	48.3	48.3	
Effective Green, g (s)			54.5	48.3	48.3	
Actuated g/C Ratio			0.36	0.32	0.32	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			122	1521	438	
v/s Ratio Prot			c0.06	0.23		
v/s Ratio Perm			c0.46		0.11	
v/c Ratio			1.43	0.70	0.35	
Uniform Delay, d1			43.4	44.5	38.9	
Progression Factor			1.00	1.00	1.00	
Incremental Delay, d2			232.5	2.0	1.3	
Delay (s)			275.9	46.5	40.2	
Level of Service			F	D	D	
Approach Delay (s)				71.1		
Approach LOS				E		

Intersection Summary

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	161	102	1934	124	181	1152
Future Volume (vph)	161	102	1934	124	181	1152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		6.0	6.0	6.0	5.0
Lane Util. Factor	0.97		0.91	1.00	1.00	0.91
Frt	0.94		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3302		5085	1583	1770	5085
Flt Permitted	0.97		1.00	1.00	0.09	1.00
Satd. Flow (perm)	3302		5085	1583	166	5085
Peak-hour factor, PHF	0.92	0.92	0.98	0.98	0.98	0.98
Adj. Flow (vph)	175	111	1973	127	185	1176
RTOR Reduction (vph)	98	0	0	61	0	0
Lane Group Flow (vph)	188	0	1973	66	185	1176
Turn Type	Perm		NA	Perm	pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	8			6	2	
Actuated Green, G (s)	8.6		38.0	38.0	55.0	55.0
Effective Green, g (s)	8.6		38.0	38.0	55.0	55.0
Actuated g/C Ratio	0.12		0.52	0.52	0.75	0.75
Clearance Time (s)	4.5		6.0	6.0	6.0	5.0
Vehicle Extension (s)	3.0		4.0	4.0	3.0	4.0
Lane Grp Cap (vph)	388		2643	822	344	3825
v/s Ratio Prot			c0.39		c0.07	0.23
v/s Ratio Perm	c0.06			0.04	0.33	
v/c Ratio	0.48		0.75	0.08	0.54	0.31
Uniform Delay, d1	30.2		13.8	8.8	11.8	2.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0		1.3	0.1	1.6	0.1
Delay (s)	31.1		15.0	8.9	13.4	3.0
Level of Service	C		B	A	B	A
Approach Delay (s)	31.1		14.7			4.4
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	73.1	Sum of lost time (s)	16.5
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	820	1998	5	630	1298
Future Volume (vph)	0	820	1998	5	630	1298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		5.7	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5083		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5083		3433	5085
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.87	0.87
Adj. Flow (vph)	0	901	2103	5	724	1492
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	901	2108	0	724	1492
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		86.0	53.5		84.3	150.0
Effective Green, g (s)		86.0	53.5		84.3	150.0
Actuated g/C Ratio		0.57	0.36		0.56	1.00
Clearance Time (s)		4.0	6.5		5.7	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1597	1812		1929	5085
v/s Ratio Prot		c0.32	c0.41		0.21	0.29
v/s Ratio Perm						
v/c Ratio		0.56	1.16		0.38	0.29
Uniform Delay, d1		20.2	48.2		18.2	0.0
Progression Factor		1.00	1.00		0.65	1.00
Incremental Delay, d2		1.4	80.0		0.5	0.1
Delay (s)		21.6	128.3		12.4	0.1
Level of Service		C	F		B	A
Approach Delay (s)	21.6		128.3			4.1
Approach LOS	C		F			A

Intersection Summary			
HCM 2000 Control Delay	57.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	54	0	1106	9	0	1	0	2673	33	603	1836	6
Future Volume (veh/h)	54	0	1106	9	0	1	0	2673	33	603	1836	6
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	1900	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	0	1129	14	0	2	0	2728	34	655	1996	7
Adj No. of Lanes	0	1	2	0	1	0	0	3	0	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.63	0.63	0.63	0.98	0.98	0.98	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	0	294	71	0	10	24	3080	39	307	3756	13
Arrive On Green	0.11	0.00	0.11	0.05	0.00	0.05	0.00	0.19	0.19	0.09	0.72	0.72
Sat Flow, veh/h	1774	0	2787	1529	0	218	0	5345	64	3442	5231	18
Grp Volume(v), veh/h	55	0	1129	16	0	0	0	1783	979	655	1293	710
Grp Sat Flow(s),veh/h/ln	1774	0	1393	1748	0	0	0	1695	1851	1721	1695	1860
Q Serve(g_s), s	4.3	0.0	15.8	1.3	0.0	0.0	0.0	66.3	62.9	13.4	26.1	26.1
Cycle Q Clear(g_c), s	4.3	0.0	15.8	1.3	0.0	0.0	0.0	66.3	62.9	13.4	26.1	26.1
Prop In Lane	1.00		1.00	0.87		0.12	0.00		0.03	1.00		0.01
Lane Grp Cap(c), veh/h	187	0	294	82	0	0	0	0	0	307	2434	1335
V/C Ratio(X)	0.29	0.00	3.85	0.20	0.00	0.00	0.00	0.00	0.00	2.13	0.53	0.53
Avail Cap(c_a), veh/h	187	0	294	96	0	0	0	0	0	307	2434	1335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.13	0.13	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.0	0.0	67.1	68.8	0.0	0.0	0.0	0.0	0.0	68.3	9.6	9.6
Incr Delay (d2), s/veh	0.9	0.0	1289.1	1.2	0.0	0.0	0.0	0.0	0.0	519.5	0.8	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(50%),veh/ln	2.2	0.0	58.6	0.7	0.0	0.0	0.0	0.0	0.0	28.5	12.3	13.8
LnGrp Delay(d),s/veh	62.8	0.0	1356.2	70.0	0.0	0.0	0.0	0.0	0.0	587.8	10.5	11.2
LnGrp LOS	E		F	E						F	B	B
Approach Vol, veh/h		1184			16			2762			2658	
Approach Delay, s/veh		1296.1			70.0			0.0			152.9	
Approach LOS		F			E			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		114.2		13.8	20.0	94.2		22.0
Change Period (Y+Rc), s		* 6.5		* 6.8	6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.1E2		* 8.2	13.4	* 87		15.8
Max Q Clear Time (g_c+I1), s		28.1		3.3	15.4	68.3		17.8
Green Ext Time (p_c), s		78.3		0.0	0.0	18.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	293.4
HCM 2010 LOS	F

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	840	235	140	460	155	205	747	233	173	456	110
Future Volume (veh/h)	68	840	235	140	460	155	205	747	233	173	456	110
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	72	884	0	161	529	0	230	839	262	190	501	121
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1267	567	186	1452	650	360	1001	448	244	939	420
Arrive On Green	0.04	0.24	0.00	0.10	0.41	0.00	0.11	0.28	0.28	0.09	0.27	0.27
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	72	884	0	161	529	0	230	839	262	190	501	121
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.6	31.9	0.0	12.5	14.5	0.0	13.0	31.2	19.9	10.8	17.0	8.5
Cycle Q Clear(g_c), s	5.6	31.9	0.0	12.5	14.5	0.0	13.0	31.2	19.9	10.8	17.0	8.5
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	93	1267	567	186	1452	650	360	1001	448	244	939	420
V/C Ratio(X)	0.77	0.70	0.00	0.87	0.36	0.00	0.64	0.84	0.58	0.78	0.53	0.29
Avail Cap(c_a), veh/h	255	1267	567	255	1452	650	411	1107	495	263	981	439
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	46.3	0.0	61.7	28.6	0.0	32.9	47.2	43.1	36.7	44.0	40.9
Incr Delay (d2), s/veh	14.4	2.6	0.0	18.5	0.2	0.0	2.3	5.2	1.2	11.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	16.1	0.0	7.1	7.1	0.0	6.6	16.0	8.8	6.0	8.3	3.8
LnGrp Delay(d),s/veh	81.2	48.9	0.0	80.2	28.8	0.0	35.2	52.3	44.3	47.9	44.4	41.2
LnGrp LOS	F	D		F	C		D	D	D	D	D	D
Approach Vol, veh/h		956			690			1331			812	
Approach Delay, s/veh		51.3			40.8			47.8			44.8	
Approach LOS		D			D			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	19.5	56.1	21.0	43.3	12.2	63.4	18.5	45.8
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 20	39.0	* 19	38.8	* 20	39.0	* 14	43.8
Max Q Clear Time (g_c+I1), s	14.5	33.9	15.0	19.0	7.6	16.5	12.8	33.2
Green Ext Time (p_c), s	0.2	4.4	0.2	9.4	0.2	16.2	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	46.8
HCM 2010 LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	1007	43	44	626	131	46	13	39	128	10	82
Future Volume (veh/h)	128	1007	43	44	626	131	46	13	39	128	10	82
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	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	135	1060	45	51	720	0	50	14	42	139	11	89
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	500	1725	771	351	1619	724	265	63	436	279	38	305
Arrive On Green	0.09	0.49	0.49	0.06	0.46	0.00	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	815	298	1583	1342	177	1433
Grp Volume(v), veh/h	135	1060	45	51	720	0	64	0	42	139	0	100
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1114	0	1583	1342	0	1610
Q Serve(g_s), s	2.6	15.3	1.0	1.0	9.7	0.0	2.1	0.0	1.4	7.0	0.0	3.7
Cycle Q Clear(g_c), s	2.6	15.3	1.0	1.0	9.7	0.0	5.7	0.0	1.4	12.7	0.0	3.7
Prop In Lane	1.00		1.00	1.00		1.00	0.78		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	500	1725	771	351	1619	724	328	0	436	279	0	342
V/C Ratio(X)	0.27	0.61	0.06	0.15	0.44	0.00	0.19	0.00	0.10	0.50	0.00	0.29
Avail Cap(c_a), veh/h	528	1725	771	432	1619	724	350	0	462	300	0	368
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	0.91	0.91	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.5	13.1	9.5	9.7	12.9	0.0	24.5	0.0	18.9	29.5	0.0	23.1
Incr Delay (d2), s/veh	0.3	1.6	0.1	0.2	0.8	0.0	0.3	0.0	0.1	1.4	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(50%),veh/ln	1.3	7.8	0.5	0.5	4.9	0.0	1.1	0.0	0.6	2.7	0.0	1.7
LnGrp Delay(d),s/veh	8.8	14.8	9.6	9.9	13.7	0.0	24.8	0.0	19.0	30.9	0.0	23.6
LnGrp LOS	A	B	A	A	B		C		B	C		C
Approach Vol, veh/h		1240			771			106			239	
Approach Delay, s/veh		13.9			13.5			22.5			27.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	38.2		19.9	9.8	40.3		19.9
Change Period (Y+Rc), s	* 5.4	* 6.2		5.0	* 5.4	* 6.2		5.0
Max Green Setting (Gmax), s	* 7.6	* 30		16.0	* 7.6	* 30		16.0
Max Q Clear Time (g_c+I1), s	4.6	11.7		7.7	3.0	17.3		14.7
Green Ext Time (p_c), s	0.1	14.2		0.8	0.0	10.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

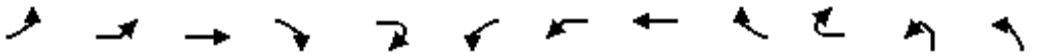
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	496	14	15	1435	12	105	43	7	17	48	51
Future Volume (veh/h)	18	496	14	15	1435	12	105	43	7	17	48	51
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	21	577	16	17	1594	13	122	50	8	25	72	76
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	2120	60	41	2498	20	197	73	10	63	157	147
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	66	2958	84	17	3485	28	768	376	53	156	809	756
Grp Volume(v), veh/h	293	0	321	848	0	776	180	0	0	173	0	0
Grp Sat Flow(s),veh/h/ln	1427	0	1680	1841	0	1690	1198	0	0	1721	0	0
Q Serve(g_s), s	1.5	0.0	8.5	0.0	0.0	30.6	7.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	32.1	0.0	8.5	30.2	0.0	30.6	19.1	0.0	0.0	11.4	0.0	0.0
Prop In Lane	0.07		0.05	0.02		0.02	0.68		0.04	0.14		0.44
Lane Grp Cap(c), veh/h	1053	0	1204	1348	0	1211	280	0	0	367	0	0
V/C Ratio(X)	0.28	0.00	0.27	0.63	0.00	0.64	0.64	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	1053	0	1204	1348	0	1211	527	0	0	661	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.2	0.0	6.3	9.4	0.0	9.4	49.6	0.0	0.0	45.9	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.5	2.2	0.0	2.6	6.6	0.0	0.0	2.6	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(50%),veh/ln	3.6	0.0	4.1	16.2	0.0	14.9	6.6	0.0	0.0	5.7	0.0	0.0
LnGrp Delay(d),s/veh	6.9	0.0	6.9	11.6	0.0	12.0	56.1	0.0	0.0	48.4	0.0	0.0
LnGrp LOS	A		A	B		B	E			D		
Approach Vol, veh/h		614			1624			180			173	
Approach Delay, s/veh		6.9			11.8			56.1			48.4	
Approach LOS		A			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		30.3		97.0		30.3
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		91.2		47.5		91.2		47.5
Max Q Clear Time (g_c+I1), s		34.1		13.4		32.6		21.1
Green Ext Time (p_c), s		54.4		3.9		55.7		3.6

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B



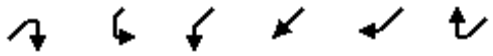
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	1	157	449	4	11	8	228	720	1	65	23	14
Future Volume (vph)	1	157	449	4	11	8	228	720	1	65	23	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.1	6.5	6.5			7.1	6.8	6.8			6.8
Lane Util. Factor		0.94	0.91	1.00			0.94	0.91	1.00			1.00
Frt		1.00	1.00	0.85			1.00	1.00	0.85			1.00
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00			0.95
Satd. Flow (prot)		4990	5085	1583			4990	5085	1583			1770
Flt Permitted		0.95	1.00	1.00			0.95	1.00	1.00			0.72
Satd. Flow (perm)		4990	5085	1583			4990	5085	1583			1345
Peak-hour factor, PHF	0.90	0.60	0.90	0.90	0.60	0.92	0.70	0.92	0.92	0.70	0.78	0.88
Adj. Flow (vph)	1	262	499	4	18	9	326	783	1	93	29	16
RTOR Reduction (vph)	0	0	0	19	0	0	0	0	79	0	0	0
Lane Group Flow (vph)	0	263	499	3	0	0	335	783	15	0	0	45
Turn Type	Prot	Prot	NA	Perm		Prot	Prot	NA	Perm		Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases				4					8		10	10
Actuated Green, G (s)		10.8	21.5	21.5			14.3	24.7	24.7			12.3
Effective Green, g (s)		10.8	21.5	21.5			14.3	24.7	24.7			12.3
Actuated g/C Ratio		0.07	0.14	0.14			0.10	0.16	0.16			0.08
Clearance Time (s)		7.1	6.5	6.5			7.1	6.8	6.8			6.8
Vehicle Extension (s)		3.0	2.5	2.5			3.0	3.5	3.5			3.0
Lane Grp Cap (vph)		359	728	226			475	837	260			110
v/s Ratio Prot		0.05	0.10				c0.07	c0.15				
v/s Ratio Perm				0.00					0.01			0.03
v/c Ratio		0.73	0.69	0.01			0.71	0.94	0.06			0.41
Uniform Delay, d1		68.2	61.0	55.2			65.8	61.9	52.9			65.4
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00			1.00
Incremental Delay, d2		7.5	2.5	0.0			4.7	17.5	0.1			2.5
Delay (s)		75.7	63.5	55.2			70.5	79.4	53.0			67.9
Level of Service		E	E	E			E	E	D			E
Approach Delay (s)			67.4					74.9				
Approach LOS			E					E				

Intersection Summary			
HCM 2000 Control Delay	47.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.6
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	43	14	3	24	34	45	36	8	43	19	750	133
Future Volume (vph)	43	14	3	24	34	45	36	8	43	19	750	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8			6.8	6.8	6.8			6.8	7.1	7.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00			1.00	0.91	1.00
Frt	1.00	0.85			1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1863	1583			1770	1863	1583			1770	5085	1583
Flt Permitted	1.00	1.00			0.72	1.00	1.00			0.07	1.00	1.00
Satd. Flow (perm)	1863	1583			1343	1863	1583			127	5085	1583
Peak-hour factor, PHF	0.78	0.78	0.88	0.75	0.84	0.84	0.75	0.84	0.74	0.82	0.82	0.74
Adj. Flow (vph)	55	18	3	32	40	54	48	10	58	23	915	180
RTOR Reduction (vph)	0	19	0	0	0	0	53	0	0	0	0	108
Lane Group Flow (vph)	55	2	0	0	72	54	5	0	0	81	915	84
Turn Type	NA	Perm		Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	Perm
Protected Phases	10					9			5	5	2	
Permitted Phases		10		9	9		9		2	2		2
Actuated Green, G (s)	12.3	12.3			12.3	12.3	12.3			66.2	58.9	58.9
Effective Green, g (s)	12.3	12.3			12.3	12.3	12.3			66.2	58.9	58.9
Actuated g/C Ratio	0.08	0.08			0.08	0.08	0.08			0.44	0.39	0.39
Clearance Time (s)	6.8	6.8			6.8	6.8	6.8			6.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0			2.5	5.3	5.3
Lane Grp Cap (vph)	152	129			110	152	129			136	1996	621
v/s Ratio Prot	0.03					0.03				c0.03	0.18	
v/s Ratio Perm		0.00			c0.05		0.00			0.23		0.05
v/c Ratio	0.36	0.01			0.65	0.36	0.04			0.60	0.46	0.14
Uniform Delay, d1	65.1	63.3			66.8	65.1	63.4			29.8	33.7	29.2
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	1.5	0.0			13.1	1.4	0.1			5.7	0.8	0.5
Delay (s)	66.6	63.3			79.9	66.5	63.5			35.6	34.5	29.7
Level of Service	E	E			E	E	E			D	C	C
Approach Delay (s)	66.5					70.8					33.8	
Approach LOS	E					E					C	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	10	70	15	1481	748	17
Future Volume (vph)	10	70	15	1481	748	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.91	0.88	
Frt			1.00	1.00	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	5085	2787	
Flt Permitted			0.22	1.00	1.00	
Satd. Flow (perm)			419	5085	2787	
Peak-hour factor, PHF	0.82	0.80	0.94	0.94	0.80	0.94
Adj. Flow (vph)	12	88	16	1576	935	18
RTOR Reduction (vph)	0	0	0	0	106	0
Lane Group Flow (vph)	0	0	104	1576	847	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			69.4	60.7	60.7	
Effective Green, g (s)			69.4	60.7	60.7	
Actuated g/C Ratio			0.46	0.40	0.40	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			272	2057	1127	
v/s Ratio Prot			0.02	c0.31		
v/s Ratio Perm			0.15		0.30	
v/c Ratio			0.38	0.77	0.75	
Uniform Delay, d1			23.9	38.5	38.2	
Progression Factor			0.74	0.83	0.79	
Incremental Delay, d2			0.6	2.0	3.4	
Delay (s)			18.4	34.1	33.6	
Level of Service			B	C	C	
Approach Delay (s)				33.3		
Approach LOS				C		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	454	981	2	1000	2235
Future Volume (vph)	0	454	981	2	1000	2235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		7.4	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5084		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5084		3433	5085
Peak-hour factor, PHF	0.96	0.96	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	473	1154	2	1053	2353
RTOR Reduction (vph)	0	43	0	0	0	0
Lane Group Flow (vph)	0	430	1156	0	1053	2353
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		85.9	53.6		82.5	150.0
Effective Green, g (s)		85.9	53.6		82.5	150.0
Actuated g/C Ratio		0.57	0.36		0.55	1.00
Clearance Time (s)		4.0	6.5		7.4	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1596	1816		1888	5085
v/s Ratio Prot		0.15	c0.23		c0.31	0.46
v/s Ratio Perm						
v/c Ratio		0.27	0.64		0.56	0.46
Uniform Delay, d1		16.2	40.1		21.9	0.0
Progression Factor		1.00	0.69		0.69	1.00
Incremental Delay, d2		0.4	0.8		0.6	0.2
Delay (s)		16.6	28.3		15.7	0.2
Level of Service		B	C		B	A
Approach Delay (s)	16.6		28.3			5.0
Approach LOS	B		C			A

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	88	762	1349	29	586	3263
Future Volume (veh/h)	88	762	1349	29	586	3263
Number	3	18	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	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	98	847	1551	33	623	3471
Adj No. of Lanes	1	2	3	0	3	3
Peak Hour Factor	0.90	0.90	0.87	0.87	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	222	2063	3151	67	765	4129
Arrive On Green	0.13	0.13	0.20	0.20	0.15	0.81
Sat Flow, veh/h	1774	2787	5292	109	5003	5253
Grp Volume(v), veh/h	98	847	1026	558	623	3471
Grp Sat Flow(s),veh/h/ln	1774	1393	1695	1844	1668	1695
Q Serve(g_s), s	7.7	17.0	40.2	40.2	18.1	60.7
Cycle Q Clear(g_c), s	7.7	17.0	40.2	40.2	18.1	60.7
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	222	2063	2085	1134	765	4129
V/C Ratio(X)	0.44	0.41	0.49	0.49	0.81	0.84
Avail Cap(c_a), veh/h	222	2063	2085	1134	2081	4129
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	60.7	7.3	39.0	39.0	61.5	8.4
Incr Delay (d2), s/veh	1.4	0.1	0.3	0.6	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	17.6	19.0	20.7	8.5	28.5
LnGrp Delay(d),s/veh	62.1	7.4	39.4	39.6	63.6	10.6
LnGrp LOS	E	A	D	D	E	B
Approach Vol, veh/h	945		1584			4094
Approach Delay, s/veh	13.1		39.5			18.7
Approach LOS	B		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		128.3			29.5	98.8		25.0
Change Period (Y+Rc), s		* 6.5			6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.2E2			62.4	* 50		18.8
Max Q Clear Time (g_c+I1), s		62.7			20.1	42.2		19.0
Green Ext Time (p_c), s		55.9			2.9	7.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	466	92	164	775	56	114	343	104	181	778	27
Future Volume (veh/h)	47	466	92	164	775	56	114	343	104	181	778	27
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	55	542	0	189	891	0	124	373	113	203	874	30
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1540	689	469	1646	736	181	875	391	338	924	414
Arrive On Green	0.04	0.44	0.00	0.07	0.47	0.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	55	542	0	189	891	0	124	373	113	203	874	30
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.3	14.3	0.0	8.0	25.2	0.0	7.2	12.4	8.1	11.3	33.9	2.0
Cycle Q Clear(g_c), s	2.3	14.3	0.0	8.0	25.2	0.0	7.2	12.4	8.1	11.3	33.9	2.0
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	307	1540	689	469	1646	736	181	875	391	338	924	414
V/C Ratio(X)	0.18	0.35	0.00	0.40	0.54	0.00	0.68	0.43	0.29	0.60	0.95	0.07
Avail Cap(c_a), veh/h	420	1540	689	643	1646	736	333	1183	529	338	930	416
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	21.3	26.4	0.0	19.3	26.8	0.0	39.6	44.3	42.7	37.2	50.7	38.9
Incr Delay (d2), s/veh	0.4	0.6	0.0	0.4	0.5	0.0	3.4	0.2	0.3	1.7	15.2	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(50%),veh/ln	1.2	7.1	0.0	3.9	12.4	0.0	3.7	6.1	3.6	1.5	18.6	0.9
LnGrp Delay(d),s/veh	21.7	27.0	0.0	19.7	27.2	0.0	42.9	44.6	43.0	38.9	65.9	39.0
LnGrp LOS	C	C		B	C		D	D	D	D	E	D
Approach Vol, veh/h		597			1080			610			1107	
Approach Delay, s/veh		26.5			25.9			44.0			60.2	
Approach LOS		C			C			D			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	15.3	66.9	15.0	42.8	11.1	71.1	17.0	40.8
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 24	35.0	* 21	36.8	* 15	44.0	* 11	46.8
Max Q Clear Time (g_c+I1), s	10.0	16.3	9.2	35.9	4.3	27.2	13.3	14.4
Green Ext Time (p_c), s	0.4	14.2	0.2	0.6	0.1	12.6	0.0	9.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D

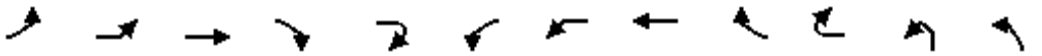
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1167	104	14	607	18	20	30	15	26	62	19
Future Volume (veh/h)	21	1167	104	14	607	18	20	30	15	26	62	19
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	22	1203	107	15	632	19	25	37	19	28	67	21
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2505	221	67	2585	77	81	97	41	72	114	32
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	28	3163	279	40	3264	97	364	958	405	293	1117	312
Grp Volume(v), veh/h	700	0	632	339	0	327	81	0	0	116	0	0
Grp Sat Flow(s),veh/h/ln	1824	0	1646	1723	0	1678	1727	0	0	1722	0	0
Q Serve(g_s), s	0.0	0.0	13.8	0.0	0.0	5.4	0.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	13.3	0.0	13.8	4.9	0.0	5.4	4.5	0.0	0.0	6.7	0.0	0.0
Prop In Lane	0.03		0.17	0.04		0.06	0.31		0.23	0.24		0.18
Lane Grp Cap(c), veh/h	1479	0	1304	1400	0	1329	220	0	0	217	0	0
V/C Ratio(X)	0.47	0.00	0.48	0.24	0.00	0.25	0.37	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	1479	0	1304	1400	0	1329	872	0	0	897	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.7	0.0	3.7	2.8	0.0	2.9	44.9	0.0	0.0	45.9	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.3	0.4	0.0	0.4	2.8	0.0	0.0	5.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	6.6	2.6	0.0	2.6	2.4	0.0	0.0	3.6	0.0	0.0
LnGrp Delay(d),s/veh	4.8	0.0	5.0	3.2	0.0	3.3	47.8	0.0	0.0	51.4	0.0	0.0
LnGrp LOS	A		A	A		A	D			D		
Approach Vol, veh/h		1332			666			81			116	
Approach Delay, s/veh		4.9			3.3			47.8			51.4	
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		90.0		16.3		90.0		16.3
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		84.2		54.5		84.2		54.5
Max Q Clear Time (g_c+I1), s		15.8		8.7		7.4		6.5
Green Ext Time (p_c), s		60.6		2.1		67.1		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A



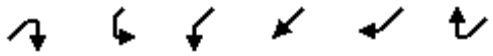
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	3	442	679	16	25	7	179	378	25	39	14	16
Future Volume (vph)	3	442	679	16	25	7	179	378	25	39	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5	6.5			6.8	6.8	6.8			6.8
Lane Util. Factor		0.94	0.91	1.00			0.94	0.91	1.00			1.00
Frt		1.00	1.00	0.85			1.00	1.00	0.85			1.00
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00			0.95
Satd. Flow (prot)		4990	5085	1583			4990	5085	1583			1770
Flt Permitted		0.95	1.00	1.00			0.95	1.00	1.00			0.60
Satd. Flow (perm)		4990	5085	1583			4990	5085	1583			1112
Peak-hour factor, PHF	0.50	0.91	0.91	0.91	0.50	0.92	0.77	0.92	0.92	0.77	0.82	0.67
Adj. Flow (vph)	6	486	746	18	50	8	232	411	27	51	17	24
RTOR Reduction (vph)	0	0	0	57	0	0	0	0	69	0	0	0
Lane Group Flow (vph)	0	492	746	11	0	0	240	411	9	0	0	41
Turn Type	Prot	Prot	NA	Perm		Prot	Prot	NA	Perm		Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases				4					8		10	10
Actuated Green, G (s)		18.4	25.0	25.0			10.9	17.2	17.2			15.2
Effective Green, g (s)		18.4	25.0	25.0			10.9	17.2	17.2			15.2
Actuated g/C Ratio		0.12	0.17	0.17			0.07	0.11	0.11			0.10
Clearance Time (s)		6.8	6.5	6.5			6.8	6.8	6.8			6.8
Vehicle Extension (s)		3.0	2.5	2.5			3.0	3.5	3.5			3.0
Lane Grp Cap (vph)		612	847	263			362	583	181			112
v/s Ratio Prot		c0.10	c0.15				0.05	0.08				
v/s Ratio Perm				0.01					0.01			0.04
v/c Ratio		0.80	0.88	0.04			0.66	0.70	0.05			0.37
Uniform Delay, d1		64.0	61.0	52.5			67.8	64.0	59.1			62.9
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00			1.00
Incremental Delay, d2		7.6	10.5	0.0			4.5	4.0	0.1			2.0
Delay (s)		71.6	71.6	52.5			72.3	68.0	59.3			64.9
Level of Service		E	E	D			E	E	E			E
Approach Delay (s)			70.6					68.5				
Approach LOS			E					E				

Intersection Summary			
HCM 2000 Control Delay	52.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	47	27	21	28	47	102	50	11	56	22	1348	236
Future Volume (vph)	47	27	21	28	47	102	50	11	56	22	1348	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8			6.8	6.8	6.8			4.5	7.1	7.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00			1.00	0.91	1.00
Frt	1.00	0.85			1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1863	1583			1770	1863	1583			1770	5085	1583
Flt Permitted	1.00	1.00			0.72	1.00	1.00			0.26	1.00	1.00
Satd. Flow (perm)	1863	1583			1341	1863	1583			481	5085	1583
Peak-hour factor, PHF	0.82	0.82	0.67	0.93	0.82	0.93	0.93	0.82	0.86	0.95	0.95	0.86
Adj. Flow (vph)	57	33	31	30	57	110	54	13	65	23	1419	274
RTOR Reduction (vph)	0	58	0	0	0	0	60	0	0	0	0	135
Lane Group Flow (vph)	57	6	0	0	87	110	7	0	0	88	1419	153
Turn Type	NA	Perm		Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	Perm
Protected Phases	10					9			5	5	2	
Permitted Phases		10		9	9		9		2	2		2
Actuated Green, G (s)	15.2	15.2			15.2	15.2	15.2			62.9	53.2	53.2
Effective Green, g (s)	15.2	15.2			15.2	15.2	15.2			62.9	53.2	53.2
Actuated g/C Ratio	0.10	0.10			0.10	0.10	0.10			0.42	0.35	0.35
Clearance Time (s)	6.8	6.8			6.8	6.8	6.8			4.5	7.1	7.1
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0			3.0	5.3	5.3
Lane Grp Cap (vph)	188	160			135	188	160			285	1803	561
v/s Ratio Prot	0.03					0.06				0.02	c0.28	
v/s Ratio Perm		0.00			c0.06		0.00			0.11		0.10
v/c Ratio	0.30	0.04			0.64	0.59	0.04			0.31	0.79	0.27
Uniform Delay, d1	62.5	60.8			64.8	64.4	60.8			26.9	43.3	34.6
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1			10.1	4.6	0.1			0.6	3.6	1.2
Delay (s)	63.4	60.9			74.9	69.0	60.9			27.6	46.9	35.8
Level of Service	E	E			E	E	E			C	D	D
Approach Delay (s)	62.8					68.9					44.2	
Approach LOS	E					E					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	13	41	60	799	228	14
Future Volume (vph)	13	41	60	799	228	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.91	0.88	
Frt			1.00	1.00	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	5085	2787	
Flt Permitted			0.07	1.00	1.00	
Satd. Flow (perm)			129	5085	2787	
Peak-hour factor, PHF	0.95	0.72	0.91	0.91	0.72	0.91
Adj. Flow (vph)	14	57	66	878	317	15
RTOR Reduction (vph)	0	0	0	0	128	0
Lane Group Flow (vph)	0	0	123	878	204	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			69.6	57.9	57.9	
Effective Green, g (s)			69.6	57.9	57.9	
Actuated g/C Ratio			0.46	0.39	0.39	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			187	1962	1075	
v/s Ratio Prot			c0.05	0.17		
v/s Ratio Perm			c0.25		0.07	
v/c Ratio			0.66	0.45	0.19	
Uniform Delay, d1			30.0	34.2	30.5	
Progression Factor			0.91	0.95	1.25	
Incremental Delay, d2			7.1	0.4	0.2	
Delay (s)			34.5	32.9	38.3	
Level of Service			C	C	D	
Approach Delay (s)				34.4		
Approach LOS				C		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	791	1978	2	602	1145
Future Volume (vph)	0	791	1978	2	602	1145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		5.7	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5085		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5085		3433	5085
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.87	0.87
Adj. Flow (vph)	0	869	2082	2	692	1316
RTOR Reduction (vph)	0	1	0	0	0	0
Lane Group Flow (vph)	0	868	2084	0	692	1316
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		77.0	62.5		75.3	150.0
Effective Green, g (s)		77.0	62.5		75.3	150.0
Actuated g/C Ratio		0.51	0.42		0.50	1.00
Clearance Time (s)		4.0	6.5		5.7	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1430	2118		1723	5085
v/s Ratio Prot		c0.31	c0.41		0.20	0.26
v/s Ratio Perm						
v/c Ratio		0.61	0.98		0.40	0.26
Uniform Delay, d1		25.8	43.3		23.3	0.0
Progression Factor		1.00	0.49		0.97	1.00
Incremental Delay, d2		1.9	12.5		0.6	0.1
Delay (s)		27.7	33.6		23.2	0.1
Level of Service		C	C		C	A
Approach Delay (s)	27.7		33.6			8.1
Approach LOS	C		C			A

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	52	1073	2654	32	585	1691
Future Volume (veh/h)	52	1073	2654	32	585	1691
Number	3	18	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	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	53	1095	2708	33	636	1838
Adj No. of Lanes	1	2	3	0	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	2007	3229	39	757	4163
Arrive On Green	0.10	0.10	0.21	0.21	0.15	0.82
Sat Flow, veh/h	1774	2787	5347	63	5003	5253
Grp Volume(v), veh/h	53	1095	1770	971	636	1838
Grp Sat Flow(s),veh/h/ln	1774	1393	1695	1852	1668	1695
Q Serve(g_s), s	4.2	14.5	75.1	75.6	18.5	15.4
Cycle Q Clear(g_c), s	4.2	14.5	75.1	75.6	18.5	15.4
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	171	2007	2113	1154	757	4163
V/C Ratio(X)	0.31	0.55	0.84	0.84	0.84	0.44
Avail Cap(c_a), veh/h	171	2007	2113	1154	1047	4173
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.37	0.37	1.00	1.00
Uniform Delay (d), s/veh	63.1	7.9	52.3	52.4	61.9	3.9
Incr Delay (d2), s/veh	1.0	0.3	1.3	2.4	4.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	22.7	35.7	39.6	8.9	7.3
LnGrp Delay(d),s/veh	64.1	8.2	53.6	54.9	66.4	4.2
LnGrp LOS	E	A	D	D	E	A
Approach Vol, veh/h	1148		2741			2474
Approach Delay, s/veh	10.8		54.0			20.2
Approach LOS	B		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		129.3			29.3	100.0		20.7
Change Period (Y+Rc), s		* 6.5			6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.2E2			31.4	* 85		14.5
Max Q Clear Time (g_c+I1), s		17.4			20.5	77.6		16.5
Green Ext Time (p_c), s		105.0			2.1	7.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	781	170	133	410	129	126	702	223	154	427	101
Future Volume (veh/h)	59	781	170	133	410	129	126	702	223	154	427	101
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	62	822	0	153	471	0	142	789	251	169	469	111
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	456	1486	665	328	1553	695	322	957	428	231	992	444
Arrive On Green	0.05	0.42	0.00	0.06	0.44	0.00	0.07	0.27	0.27	0.08	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	62	822	0	153	471	0	142	789	251	169	469	111
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.7	24.6	0.0	6.8	12.1	0.0	8.0	29.3	19.2	9.5	15.4	7.6
Cycle Q Clear(g_c), s	2.7	24.6	0.0	6.8	12.1	0.0	8.0	29.3	19.2	9.5	15.4	7.6
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	456	1486	665	328	1553	695	322	957	428	231	992	444
V/C Ratio(X)	0.14	0.55	0.00	0.47	0.30	0.00	0.44	0.82	0.59	0.73	0.47	0.25
Avail Cap(c_a), veh/h	630	1486	665	468	1553	695	437	1107	495	266	992	444
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	21.1	30.7	0.0	23.2	25.4	0.0	33.7	48.0	44.3	36.7	41.8	39.0
Incr Delay (d2), s/veh	0.2	1.5	0.0	0.8	0.2	0.0	0.7	4.3	1.0	6.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	12.3	0.0	3.4	5.9	0.0	4.0	14.9	8.6	5.0	7.6	3.3
LnGrp Delay(d),s/veh	21.3	32.2	0.0	23.9	25.6	0.0	34.4	52.3	45.3	42.9	42.0	39.2
LnGrp LOS	C	C		C	C		C	D	D	D	D	D
Approach Vol, veh/h		884			624			1182			749	
Approach Delay, s/veh		31.4			25.2			48.7			41.8	
Approach LOS		C			C			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	13.9	64.8	15.9	45.4	11.3	67.4	17.3	44.0
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 20	39.0	* 19	38.8	* 20	39.0	* 14	43.8
Max Q Clear Time (g_c+I1), s	8.8	26.6	10.0	17.4	4.7	14.1	11.5	31.3
Green Ext Time (p_c), s	0.2	9.5	0.2	9.1	0.2	16.3	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

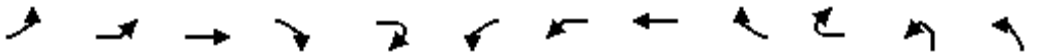
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	549	14	15	1537	49	108	44	7	40	49	53
Future Volume (veh/h)	19	549	14	15	1537	49	108	44	7	40	49	53
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	22	638	16	17	1708	54	126	51	8	60	73	79
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1995	53	40	2388	75	201	75	10	115	137	129
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	52	2835	75	16	3394	107	740	360	50	381	654	615
Grp Volume(v), veh/h	317	0	359	931	0	848	185	0	0	212	0	0
Grp Sat Flow(s),veh/h/ln	1280	0	1682	1840	0	1676	1149	0	0	1651	0	0
Q Serve(g_s), s	4.2	0.0	10.4	0.0	0.0	39.3	6.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	43.5	0.0	10.4	38.4	0.0	39.3	21.1	0.0	0.0	14.8	0.0	0.0
Prop In Lane	0.07		0.04	0.02		0.06	0.68		0.04	0.28		0.37
Lane Grp Cap(c), veh/h	930	0	1184	1323	0	1180	287	0	0	381	0	0
V/C Ratio(X)	0.34	0.00	0.30	0.70	0.00	0.72	0.64	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	930	0	1184	1323	0	1180	503	0	0	630	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.8	0.0	7.2	11.4	0.0	11.5	49.4	0.0	0.0	46.3	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.7	3.2	0.0	3.8	6.5	0.0	0.0	3.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	5.0	20.8	0.0	19.1	6.8	0.0	0.0	7.3	0.0	0.0
LnGrp Delay(d),s/veh	8.8	0.0	7.9	14.5	0.0	15.3	55.9	0.0	0.0	49.8	0.0	0.0
LnGrp LOS	A		A	B		B	E			D		
Approach Vol, veh/h		676			1779			185			212	
Approach Delay, s/veh		8.3			14.9			55.9			49.8	
Approach LOS		A			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		32.6		97.0		32.6
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		91.2		47.5		91.2		47.5
Max Q Clear Time (g_c+I1), s		45.5		16.8		41.3		23.1
Green Ext Time (p_c), s		44.7		4.3		48.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B



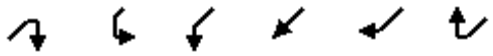
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	1	188	506	4	13	8	255	808	17	67	27	16
Future Volume (vph)	1	188	506	4	13	8	255	808	17	67	27	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.1	6.5	6.5			7.1	6.8	6.8			6.8
Lane Util. Factor		0.94	0.91	1.00			0.94	0.91	1.00			1.00
Frt		1.00	1.00	0.85			1.00	1.00	0.85			1.00
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00			0.95
Satd. Flow (prot)		4990	5085	1583			4990	5085	1583			1770
Flt Permitted		0.95	1.00	1.00			0.95	1.00	1.00			0.72
Satd. Flow (perm)		4990	5085	1583			4990	5085	1583			1343
Peak-hour factor, PHF	0.90	0.60	0.90	0.90	0.60	0.92	0.70	0.92	0.92	0.70	0.78	0.88
Adj. Flow (vph)	1	313	562	4	22	9	364	878	18	96	35	18
RTOR Reduction (vph)	0	0	0	22	0	0	0	0	93	0	0	0
Lane Group Flow (vph)	0	314	562	4	0	0	373	878	21	0	0	53
Turn Type	Prot	Prot	NA	Perm		Prot	Prot	NA	Perm		Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases				4					8		10	10
Actuated Green, G (s)		11.9	23.8	23.8			15.6	27.2	27.2			16.6
Effective Green, g (s)		11.9	23.8	23.8			15.6	27.2	27.2			16.6
Actuated g/C Ratio		0.08	0.16	0.16			0.10	0.18	0.18			0.11
Clearance Time (s)		7.1	6.5	6.5			7.1	6.8	6.8			6.8
Vehicle Extension (s)		3.0	2.5	2.5			3.0	3.5	3.5			3.0
Lane Grp Cap (vph)		395	806	251			518	922	287			148
v/s Ratio Prot		0.06	0.11				c0.07	c0.17				
v/s Ratio Perm				0.00					0.01			0.04
v/c Ratio		0.79	0.70	0.02			0.72	0.95	0.07			0.36
Uniform Delay, d1		67.9	59.7	53.2			65.1	60.8	50.9			61.8
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00			1.00
Incremental Delay, d2		10.6	2.4	0.0			4.9	19.2	0.1			1.5
Delay (s)		78.4	62.1	53.2			70.0	79.9	51.1			63.3
Level of Service		E	E	D			E	E	D			E
Approach Delay (s)			67.5					74.8				
Approach LOS			E					E				

Intersection Summary			
HCM 2000 Control Delay	53.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.6
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	44	27	3	47	35	46	37	8	44	20	795	152
Future Volume (vph)	44	27	3	47	35	46	37	8	44	20	795	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8			6.8	6.8	6.8			6.8	7.1	7.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00			1.00	0.91	1.00
Frt	1.00	0.85			1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1863	1583			1770	1863	1583			1770	5085	1583
Flt Permitted	1.00	1.00			0.72	1.00	1.00			0.08	1.00	1.00
Satd. Flow (perm)	1863	1583			1342	1863	1583			155	5085	1583
Peak-hour factor, PHF	0.78	0.78	0.88	0.75	0.84	0.84	0.75	0.84	0.74	0.82	0.82	0.74
Adj. Flow (vph)	56	35	3	63	42	55	49	10	59	24	970	205
RTOR Reduction (vph)	0	34	0	0	0	0	52	0	0	0	0	150
Lane Group Flow (vph)	56	4	0	0	105	55	7	0	0	83	970	70
Turn Type	NA	Perm		Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	Perm
Protected Phases	10					9			5	5	2	
Permitted Phases		10		9	9		9		2	2		2
Actuated Green, G (s)	16.6	16.6			16.6	16.6	16.6			55.6	48.0	48.0
Effective Green, g (s)	16.6	16.6			16.6	16.6	16.6			55.6	48.0	48.0
Actuated g/C Ratio	0.11	0.11			0.11	0.11	0.11			0.37	0.32	0.32
Clearance Time (s)	6.8	6.8			6.8	6.8	6.8			6.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0			2.5	5.3	5.3
Lane Grp Cap (vph)	206	175			148	206	175			139	1627	506
v/s Ratio Prot	0.03					0.03				0.03	0.19	
v/s Ratio Perm		0.00			c0.08		0.00			0.19		0.04
v/c Ratio	0.27	0.02			0.71	0.27	0.04			0.60	0.60	0.14
Uniform Delay, d1	61.2	59.5			64.4	61.1	59.6			36.9	42.9	36.3
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1			14.4	0.7	0.1			5.7	1.6	0.6
Delay (s)	61.9	59.5			78.8	61.8	59.7			42.5	44.5	36.9
Level of Service	E	E			E	E	E			D	D	D
Approach Delay (s)	61.8					69.4					43.0	
Approach LOS	E					E					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	12	91	34	1567	813	54
Future Volume (vph)	12	91	34	1567	813	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.91	0.76	
Frt			1.00	1.00	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	5085	3610	
Flt Permitted			0.16	1.00	1.00	
Satd. Flow (perm)			305	5085	3610	
Peak-hour factor, PHF	0.82	0.80	0.94	0.94	0.80	0.94
Adj. Flow (vph)	15	114	36	1667	1016	57
RTOR Reduction (vph)	0	0	0	0	116	0
Lane Group Flow (vph)	0	0	150	1667	957	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			64.2	52.5	52.5	
Effective Green, g (s)			64.2	52.5	52.5	
Actuated g/C Ratio			0.43	0.35	0.35	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			244	1779	1263	
v/s Ratio Prot			c0.05	c0.33		
v/s Ratio Perm			0.21		0.27	
v/c Ratio			0.61	0.94	0.76	
Uniform Delay, d1			29.1	47.2	43.1	
Progression Factor			0.91	0.79	0.74	
Incremental Delay, d2			3.2	9.0	2.8	
Delay (s)			29.6	46.4	34.6	
Level of Service			C	D	C	
Approach Delay (s)				41.1		
Approach LOS				D		

Intersection Summary

Intersection	
Int Delay, s/veh	0.2

Movement	NWL	NWR	NET	NER	SWL	SWT
Traffic Vol, veh/h	14	17	1103	7	3	2472
Future Vol, veh/h	14	17	1103	7	3	2472
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	18	1199	8	3	2687

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2284	603	0	0	1207	0
Stage 1	1203	-	-	-	-	-
Stage 2	1081	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	66	379	-	-	311	-
Stage 1	181	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	65	379	-	-	311	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	256	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	26.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	198	311	-
HCM Lane V/C Ratio	-	-	0.17	0.01	-
HCM Control Delay (s)	-	-	26.9	16.7	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	184	74	1061	59	147	2282
Future Volume (vph)	184	74	1061	59	147	2282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		6.0	6.0	5.4	6.0
Lane Util. Factor	0.97		0.91	1.00	1.00	0.91
Frt	0.96		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3340		5085	1583	1770	5085
Flt Permitted	0.97		1.00	1.00	0.16	1.00
Satd. Flow (perm)	3340		5085	1583	304	5085
Peak-hour factor, PHF	0.92	0.92	0.85	0.85	0.95	0.95
Adj. Flow (vph)	200	80	1248	69	155	2402
RTOR Reduction (vph)	62	0	0	31	0	0
Lane Group Flow (vph)	218	0	1248	38	155	2402
Turn Type	Perm		NA	Perm	pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	8			6	2	
Actuated Green, G (s)	9.7		41.6	41.6	54.8	54.8
Effective Green, g (s)	9.7		41.6	41.6	54.8	54.8
Actuated g/C Ratio	0.13		0.55	0.55	0.73	0.73
Clearance Time (s)	4.5		6.0	6.0	5.4	6.0
Vehicle Extension (s)	3.0		4.0	4.0	3.0	4.0
Lane Grp Cap (vph)	431		2820	878	374	3715
v/s Ratio Prot			0.25		0.04	c0.47
v/s Ratio Perm	c0.07			0.02	0.26	
v/c Ratio	0.51		0.44	0.04	0.41	0.65
Uniform Delay, d1	30.4		9.9	7.6	4.3	5.2
Progression Factor	1.00		0.94	1.86	1.21	1.37
Incremental Delay, d2	0.9		0.4	0.1	0.7	0.8
Delay (s)	31.4		9.7	14.3	5.8	7.9
Level of Service	C		A	B	A	A
Approach Delay (s)	31.4		9.9			7.8
Approach LOS	C		A			A

Intersection Summary				
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.68			
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	15.9	
Intersection Capacity Utilization	60.4%	ICU Level of Service	B	
Analysis Period (min)	15			

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.2

Movement	NWL	NWR	NET	NER	SWL	SWT
Traffic Vol, veh/h	0	36	1091	32	0	2426
Future Vol, veh/h	0	36	1091	32	0	2426
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	39	1186	35	0	2637

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2241	593	0	0	1186	0
Stage 1	1186	-	-	-	-	-
Stage 2	1055	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	69	385	-	-	318	-
Stage 1	186	-	-	-	-	-
Stage 2	267	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	69	385	-	-	318	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	186	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	15.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	385	318	-
HCM Lane V/C Ratio	-	-	0.102	-	-
HCM Control Delay (s)	-	-	15.4	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	NWL	NWR	NET	NER	SWL	SWT
Traffic Vol, veh/h	0	23	1079	15	0	2272
Future Vol, veh/h	0	23	1079	15	0	2272
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	1173	16	0	2470

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2161	586	0	0	1173	0
Stage 1	1173	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	77	389	-	-	323	-
Stage 1	189	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	77	389	-	-	323	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	189	-	-	-	-	-
Stage 2	290	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	389	323	-
HCM Lane V/C Ratio	-	-	0.064	-	-
HCM Control Delay (s)	-	-	14.9	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	478	1100	2	1032	2271
Future Volume (vph)	0	478	1100	2	1032	2271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		7.4	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5084		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5084		3433	5085
Peak-hour factor, PHF	0.96	0.96	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	498	1294	2	1086	2391
RTOR Reduction (vph)	0	33	0	0	0	0
Lane Group Flow (vph)	0	465	1296	0	1086	2391
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		78.2	61.3		74.8	150.0
Effective Green, g (s)		78.2	61.3		74.8	150.0
Actuated g/C Ratio		0.52	0.41		0.50	1.00
Clearance Time (s)		4.0	6.5		7.4	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1452	2077		1711	5085
v/s Ratio Prot		0.17	c0.25		c0.32	0.47
v/s Ratio Perm						
v/c Ratio		0.32	0.62		0.63	0.47
Uniform Delay, d1		20.6	35.2		27.6	0.0
Progression Factor		1.00	0.96		0.74	1.00
Incremental Delay, d2		0.6	0.7		0.9	0.2
Delay (s)		21.2	34.4		21.3	0.2
Level of Service		C	C		C	A
Approach Delay (s)	21.2		34.4			6.8
Approach LOS	C		C			A

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	91	785	1443	30	604	3315
Future Volume (veh/h)	91	785	1443	30	604	3315
Number	3	18	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	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	101	872	1659	34	643	3527
Adj No. of Lanes	1	2	3	0	3	3
Peak Hour Factor	0.90	0.90	0.87	0.87	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	222	2060	3148	65	787	4145
Arrive On Green	0.13	0.13	0.20	0.20	0.16	0.82
Sat Flow, veh/h	1774	2787	5297	105	5003	5253
Grp Volume(v), veh/h	101	872	1096	597	643	3527
Grp Sat Flow(s),veh/h/ln	1774	1393	1695	1844	1668	1695
Q Serve(g_s), s	7.9	17.8	43.3	43.3	18.6	62.8
Cycle Q Clear(g_c), s	7.9	17.8	43.3	43.3	18.6	62.8
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	222	2060	2081	1132	787	4145
V/C Ratio(X)	0.45	0.42	0.53	0.53	0.82	0.85
Avail Cap(c_a), veh/h	222	2060	2081	1132	2081	4145
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.82	0.82	1.00	1.00
Uniform Delay (d), s/veh	60.8	7.4	40.4	40.4	61.1	8.4
Incr Delay (d2), s/veh	1.4	0.1	0.4	0.7	2.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	18.1	20.5	22.4	8.7	29.7
LnGrp Delay(d),s/veh	62.3	7.6	40.8	41.1	63.2	10.8
LnGrp LOS	E	A	D	D	E	B
Approach Vol, veh/h	973		1693			4170
Approach Delay, s/veh	13.2		40.9			18.9
Approach LOS	B		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		128.9			30.2	98.6		25.0
Change Period (Y+Rc), s		* 6.5			6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.2E2			62.4	* 50		18.8
Max Q Clear Time (g_c+I1), s		64.8			20.6	45.3		19.8
Green Ext Time (p_c), s		53.8			3.0	4.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	10	49	20	468	1032	2
Future Vol, veh/h	10	49	20	468	1032	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	53	22	509	1122	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1421	562	1124	0	-	0
Stage 1	1123	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	127	470	617	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	470	617	-	-	-
Mov Cap-2 Maneuver	221	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.9	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	617	-	395	-	-
HCM Lane V/C Ratio	0.035	-	0.162	-	-
HCM Control Delay (s)	11	-	15.9	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	521	159	171	823	64	161	361	110	206	821	33
Future Volume (veh/h)	52	521	159	171	823	64	161	361	110	206	821	33
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	606	0	197	946	0	175	392	120	231	922	37
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	1443	646	423	1564	700	208	954	427	352	930	416
Arrive On Green	0.05	0.41	0.00	0.08	0.44	0.00	0.09	0.27	0.27	0.08	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	60	606	0	197	946	0	175	392	120	231	922	37
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.7	17.1	0.0	8.7	28.5	0.0	10.0	12.7	8.4	11.3	36.4	2.5
Cycle Q Clear(g_c), s	2.7	17.1	0.0	8.7	28.5	0.0	10.0	12.7	8.4	11.3	36.4	2.5
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	272	1443	646	423	1564	700	208	954	427	352	930	416
V/C Ratio(X)	0.22	0.42	0.00	0.47	0.60	0.00	0.84	0.41	0.28	0.66	0.99	0.09
Avail Cap(c_a), veh/h	383	1443	646	588	1564	700	323	1183	529	352	930	416
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)	0.95	0.95	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	29.6	0.0	21.4	29.8	0.0	37.6	42.0	40.4	37.4	51.4	38.9
Incr Delay (d2), s/veh	0.5	0.9	0.0	0.6	0.8	0.0	9.3	0.2	0.3	3.5	27.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	8.5	0.0	4.3	14.1	0.0	5.4	6.2	3.7	2.7	21.3	1.1
LnGrp Delay(d),s/veh	24.5	30.5	0.0	21.9	30.6	0.0	46.9	42.2	40.7	40.9	78.7	39.0
LnGrp LOS	C	C		C	C		D	D	D	D	E	D
Approach Vol, veh/h		666			1143			687			1190	
Approach Delay, s/veh		29.9			29.1			43.2			70.1	
Approach LOS		C			C			D			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	16.0	63.1	17.9	43.0	11.2	67.9	17.0	43.9
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 24	35.0	* 21	36.8	* 15	44.0	* 11	46.8
Max Q Clear Time (g_c+I1), s	10.7	19.1	12.0	38.4	4.7	30.5	13.3	14.7
Green Ext Time (p_c), s	0.4	13.0	0.3	0.0	0.1	10.5	0.0	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	45.1
HCM 2010 LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	604	36	21	962	83	30	7	23	114	11	67
Future Volume (veh/h)	61	604	36	21	962	83	30	7	23	114	11	67
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	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	71	702	42	24	1106	0	33	8	25	124	12	73
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	1	1	0
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	2155	964	492	2115	946	221	46	321	236	40	246
Arrive On Green	0.05	0.61	0.61	0.03	0.60	0.00	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	829	259	1583	1370	228	1389
Grp Volume(v), veh/h	71	702	42	24	1106	0	41	0	25	124	0	85
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1088	0	1583	1370	0	1618
Q Serve(g_s), s	1.3	8.5	0.9	0.5	16.1	0.0	1.7	0.0	1.1	7.8	0.0	4.0
Cycle Q Clear(g_c), s	1.3	8.5	0.9	0.5	16.1	0.0	5.7	0.0	1.1	13.5	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	0.80		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	375	2155	964	492	2115	946	267	0	321	236	0	287
V/C Ratio(X)	0.19	0.33	0.04	0.05	0.52	0.00	0.15	0.00	0.08	0.52	0.00	0.30
Avail Cap(c_a), veh/h	393	2155	964	621	2115	946	267	0	321	274	0	331
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	0.68	0.68	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.5	8.4	6.9	6.7	10.4	0.0	32.7	0.0	28.4	38.1	0.0	31.4
Incr Delay (d2), s/veh	0.2	0.4	0.1	0.0	0.6	0.0	0.3	0.0	0.1	1.8	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	0.4	0.2	8.0	0.0	0.9	0.0	0.5	3.0	0.0	1.8
LnGrp Delay(d),s/veh	7.8	8.8	7.0	6.7	11.0	0.0	33.0	0.0	28.5	39.9	0.0	32.0
LnGrp LOS	A	A	A	A	B		C		C	D		C
Approach Vol, veh/h		815			1130			66			209	
Approach Delay, s/veh		8.6			10.9			31.3			36.7	
Approach LOS		A			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	58.8		20.6	7.6	59.8		20.6
Change Period (Y+Rc), s	4.5	* 6.2		5.0	* 5.4	* 6.2		* 5
Max Green Setting (Gmax), s	5.0	* 50		9.0	* 8.6	* 36		* 18
Max Q Clear Time (g_c+I1), s	3.3	18.1		7.7	2.5	10.5		15.5
Green Ext Time (p_c), s	0.0	25.7		0.1	0.0	21.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Notes

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	692	1051	3	0	27
Future Vol, veh/h	0	692	1051	3	0	27
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	752	1142	3	0	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1146	0	-	0	1520	573
Stage 1	-	-	-	-	1144	-
Stage 2	-	-	-	-	376	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	605	-	-	-	109	463
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	605	-	-	-	109	463
Mov Cap-2 Maneuver	-	-	-	-	109	-
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	664	-

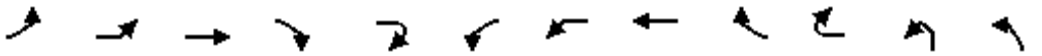
Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	605	-	-	-	463
HCM Lane V/C Ratio	-	-	-	-	0.063
HCM Control Delay (s)	0	-	-	-	13.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1269	107	14	679	51	21	31	15	69	64	20
Future Volume (veh/h)	22	1269	107	14	679	51	21	31	15	69	64	20
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	23	1308	110	15	707	53	26	38	19	75	70	22
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	2411	201	58	2379	177	93	126	52	137	106	30
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	28	3172	264	31	3129	232	367	911	380	651	770	216
Grp Volume(v), veh/h	755	0	686	398	0	377	83	0	0	167	0	0
Grp Sat Flow(s),veh/h/ln	1816	0	1648	1739	0	1654	1658	0	0	1637	0	0
Q Serve(g_s), s	0.0	0.0	18.9	0.0	0.0	7.9	0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	18.1	0.0	18.9	7.2	0.0	7.9	4.7	0.0	0.0	10.6	0.0	0.0
Prop In Lane	0.03		0.16	0.04		0.14	0.31		0.23	0.45		0.13
Lane Grp Cap(c), veh/h	1414	0	1253	1356	0	1257	271	0	0	273	0	0
V/C Ratio(X)	0.53	0.00	0.55	0.29	0.00	0.30	0.31	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	1414	0	1253	1356	0	1257	832	0	0	823	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.4	0.0	5.5	4.1	0.0	4.1	43.2	0.0	0.0	45.5	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	1.7	0.6	0.0	0.6	1.7	0.0	0.0	6.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	9.0	3.9	0.0	3.8	2.4	0.0	0.0	5.3	0.0	0.0
LnGrp Delay(d),s/veh	6.8	0.0	7.2	4.6	0.0	4.7	44.9	0.0	0.0	51.6	0.0	0.0
LnGrp LOS	A		A	A		A	D			D		
Approach Vol, veh/h		1441			775			83			167	
Approach Delay, s/veh		7.0			4.7			44.9			51.6	
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		90.0		20.8		90.0		20.8
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		84.2		54.5		84.2		54.5
Max Q Clear Time (g_c+I1), s		20.9		12.6		9.9		6.7
Green Ext Time (p_c), s		59.2		2.7		68.9		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B



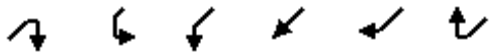
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	3	504	776	16	29	7	190	450	49	40	17	19
Future Volume (vph)	3	504	776	16	29	7	190	450	49	40	17	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5	6.5			6.8	6.8	6.8			6.8
Lane Util. Factor		0.94	0.91	1.00			0.94	0.91	1.00			1.00
Frt		1.00	1.00	0.85			1.00	1.00	0.85			1.00
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00			0.95
Satd. Flow (prot)		4990	5085	1583			4990	5085	1583			1770
Flt Permitted		0.95	1.00	1.00			0.95	1.00	1.00			0.62
Satd. Flow (perm)		4990	5085	1583			4990	5085	1583			1153
Peak-hour factor, PHF	0.50	0.91	0.91	0.91	0.50	0.92	0.77	0.92	0.92	0.77	0.82	0.67
Adj. Flow (vph)	6	554	853	18	58	8	247	489	53	52	21	28
RTOR Reduction (vph)	0	0	0	62	0	0	0	0	92	0	0	0
Lane Group Flow (vph)	0	560	853	14	0	0	255	489	13	0	0	49
Turn Type	Prot	Prot	NA	Perm		Prot	Prot	NA	Perm		Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases				4					8		10	10
Actuated Green, G (s)		19.0	27.5	27.5			10.2	18.4	18.4			20.0
Effective Green, g (s)		19.0	27.5	27.5			10.2	18.4	18.4			20.0
Actuated g/C Ratio		0.13	0.18	0.18			0.07	0.12	0.12			0.13
Clearance Time (s)		6.8	6.5	6.5			6.8	6.8	6.8			6.8
Vehicle Extension (s)		3.0	2.5	2.5			3.0	3.5	3.5			3.0
Lane Grp Cap (vph)		632	932	290			339	623	194			153
v/s Ratio Prot		c0.11	c0.17				0.05	0.10				
v/s Ratio Perm				0.01					0.01			0.04
v/c Ratio		0.89	0.92	0.05			0.75	0.78	0.07			0.32
Uniform Delay, d1		64.4	60.1	50.5			68.7	63.9	58.2			58.8
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00			1.00
Incremental Delay, d2		14.0	13.2	0.1			9.1	6.6	0.2			1.2
Delay (s)		78.5	73.4	50.5			77.7	70.5	58.4			60.1
Level of Service		E	E	D			E	E	E			E
Approach Delay (s)			74.1					71.2				
Approach LOS			E					E				

Intersection Summary			
HCM 2000 Control Delay	62.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	48	49	22	71	48	105	52	11	58	23	1419	267
Future Volume (vph)	48	49	22	71	48	105	52	11	58	23	1419	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8			6.8	6.8	6.8			4.5	7.1	7.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00			1.00	0.91	1.00
Frt	1.00	0.85			1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1863	1583			1770	1863	1583			1770	5085	1583
Flt Permitted	1.00	1.00			0.72	1.00	1.00			0.23	1.00	1.00
Satd. Flow (perm)	1863	1583			1338	1863	1583			437	5085	1583
Peak-hour factor, PHF	0.82	0.82	0.67	0.93	0.82	0.93	0.93	0.82	0.86	0.95	0.95	0.86
Adj. Flow (vph)	59	60	33	76	59	113	56	13	67	24	1494	310
RTOR Reduction (vph)	0	81	0	0	0	0	60	0	0	0	0	182
Lane Group Flow (vph)	59	12	0	0	135	113	9	0	0	91	1494	145
Turn Type	NA	Perm		Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	Perm
Protected Phases	10					9			5	5	2	
Permitted Phases		10		9	9		9		2	2		2
Actuated Green, G (s)	20.0	20.0			20.0	20.0	20.0			52.8	44.3	44.3
Effective Green, g (s)	20.0	20.0			20.0	20.0	20.0			52.8	44.3	44.3
Actuated g/C Ratio	0.13	0.13			0.13	0.13	0.13			0.35	0.30	0.30
Clearance Time (s)	6.8	6.8			6.8	6.8	6.8			4.5	7.1	7.1
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0			3.0	5.3	5.3
Lane Grp Cap (vph)	248	211			178	248	211			229	1501	467
v/s Ratio Prot	0.03					0.06				0.02	c0.29	
v/s Ratio Perm		0.01			c0.10		0.01			0.12		0.09
v/c Ratio	0.24	0.06			0.76	0.46	0.04			0.40	1.00	0.31
Uniform Delay, d1	58.2	56.8			62.7	60.0	56.7			33.5	52.7	41.0
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1			16.8	1.3	0.1			1.1	22.2	1.7
Delay (s)	58.7	56.9			79.4	61.3	56.7			34.6	74.9	42.7
Level of Service	E	E			E	E	E			C	E	D
Approach Delay (s)	58.2					68.0					67.5	
Approach LOS	E					E					E	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	16	59	84	857	272	46
Future Volume (vph)	16	59	84	857	272	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.91	0.76	
Frt			1.00	1.00	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	5085	3610	
Flt Permitted			0.08	1.00	1.00	
Satd. Flow (perm)			145	5085	3610	
Peak-hour factor, PHF	0.95	0.72	0.91	0.91	0.72	0.91
Adj. Flow (vph)	17	82	92	942	378	51
RTOR Reduction (vph)	0	0	0	0	136	0
Lane Group Flow (vph)	0	0	174	942	293	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			65.5	52.5	52.5	
Effective Green, g (s)			65.5	52.5	52.5	
Actuated g/C Ratio			0.44	0.35	0.35	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			214	1779	1263	
v/s Ratio Prot			c0.08	0.19		
v/s Ratio Perm			0.28		0.08	
v/c Ratio			0.81	0.53	0.23	
Uniform Delay, d1			39.9	38.9	34.5	
Progression Factor			1.00	1.00	1.00	
Incremental Delay, d2			20.0	0.6	0.2	
Delay (s)			59.9	39.5	34.7	
Level of Service			E	D	C	
Approach Delay (s)				40.5		
Approach LOS				D		

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	NWL	NWR	NET	NER	SWL	SWT
Traffic Vol, veh/h	6	8	2050	31	16	1342
Future Vol, veh/h	6	8	2050	31	16	1342
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	9	2228	34	17	1459

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2863	1131	0	0	2262	0
Stage 1	2245	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	31	169	-	-	92	-
Stage 1	39	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	25	169	-	-	92	-
Mov Cap-2 Maneuver	35	-	-	-	-	-
Stage 1	39	-	-	-	-	-
Stage 2	372	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	78	0	0.6
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	64	92	-
HCM Lane V/C Ratio	-	-	0.238	0.189	-
HCM Control Delay (s)	-	-	78	53	-
HCM Lane LOS	-	-	F	F	-
HCM 95th %tile Q(veh)	-	-	0.8	0.7	-

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	161	102	1934	124	181	1152
Future Volume (vph)	161	102	1934	124	181	1152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		6.0	6.0	6.0	5.0
Lane Util. Factor	0.97		0.91	1.00	1.00	0.91
Frt	0.94		1.00	0.85	1.00	1.00
Flt Protected	0.97		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3302		5085	1583	1770	5085
Flt Permitted	0.97		1.00	1.00	0.09	1.00
Satd. Flow (perm)	3302		5085	1583	166	5085
Peak-hour factor, PHF	0.92	0.92	0.98	0.98	0.98	0.98
Adj. Flow (vph)	175	111	1973	127	185	1176
RTOR Reduction (vph)	98	0	0	61	0	0
Lane Group Flow (vph)	188	0	1973	66	185	1176
Turn Type	Perm		NA	Perm	pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	8			6	2	
Actuated Green, G (s)	8.6		38.0	38.0	55.0	55.0
Effective Green, g (s)	8.6		38.0	38.0	55.0	55.0
Actuated g/C Ratio	0.12		0.52	0.52	0.75	0.75
Clearance Time (s)	4.5		6.0	6.0	6.0	5.0
Vehicle Extension (s)	3.0		4.0	4.0	3.0	4.0
Lane Grp Cap (vph)	388		2643	822	344	3825
v/s Ratio Prot			c0.39		c0.07	0.23
v/s Ratio Perm	c0.06			0.04	0.33	
v/c Ratio	0.48		0.75	0.08	0.54	0.31
Uniform Delay, d1	30.2		13.8	8.8	11.8	2.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0		1.3	0.1	1.6	0.1
Delay (s)	31.1		15.0	8.9	13.4	3.0
Level of Service	C		B	A	B	A
Approach Delay (s)	31.1		14.7			4.4
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	73.1	Sum of lost time (s)	16.5
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.4

Movement	NWL	NWR	NET	NER	SWL	SWT
Traffic Vol, veh/h	0	44	1976	48	0	1329
Future Vol, veh/h	0	44	1976	48	0	1329
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	48	2148	52	0	1445

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2726	1074	0	0	2148	0
Stage 1	2148	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	37	185	-	-	105	-
Stage 1	46	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	37	185	-	-	105	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	46	-	-	-	-	-
Stage 2	478	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	31.1	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	185	105	-
HCM Lane V/C Ratio	-	-	0.259	-	-
HCM Control Delay (s)	-	-	31.1	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	NWL	NWR	NET	NER	SWL	SWT
Traffic Vol, veh/h	0	31	1973	32	0	1300
Future Vol, veh/h	0	31	1973	32	0	1300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	2145	35	0	1413

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2710	1072	0	0	2145	0
Stage 1	2145	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	38	186	-	-	105	-
Stage 1	46	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	38	186	-	-	105	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	46	-	-	-	-	-
Stage 2	486	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	28.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	186	105	-
HCM Lane V/C Ratio	-	-	0.181	-	-
HCM Control Delay (s)	-	-	28.6	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	820	1998	5	630	1298
Future Volume (vph)	0	820	1998	5	630	1298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		5.7	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5083		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5083		3433	5085
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.87	0.87
Adj. Flow (vph)	0	901	2103	5	724	1492
RTOR Reduction (vph)	0	1	0	0	0	0
Lane Group Flow (vph)	0	900	2108	0	724	1492
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		77.0	62.5		75.3	150.0
Effective Green, g (s)		77.0	62.5		75.3	150.0
Actuated g/C Ratio		0.51	0.42		0.50	1.00
Clearance Time (s)		4.0	6.5		5.7	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1430	2117		1723	5085
v/s Ratio Prot		c0.32	c0.41		0.21	0.29
v/s Ratio Perm						
v/c Ratio		0.63	1.00		0.42	0.29
Uniform Delay, d1		26.2	43.6		23.6	0.0
Progression Factor		1.00	1.00		0.97	1.00
Incremental Delay, d2		2.1	18.5		0.7	0.1
Delay (s)		28.4	62.1		23.5	0.1
Level of Service		C	E		C	A
Approach Delay (s)	28.4		62.1			7.8
Approach LOS	C		E			A

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	54	1106	2673	33	603	1836
Future Volume (veh/h)	54	1106	2673	33	603	1836
Number	3	18	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	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	55	1129	2728	34	655	1996
Adj No. of Lanes	1	2	3	0	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	1996	3208	40	776	4163
Arrive On Green	0.10	0.10	0.20	0.20	0.16	0.82
Sat Flow, veh/h	1774	2787	5345	64	5003	5253
Grp Volume(v), veh/h	55	1129	1783	979	655	1996
Grp Sat Flow(s),veh/h/ln	1774	1393	1695	1851	1668	1695
Q Serve(g_s), s	4.3	14.5	76.0	76.4	19.1	17.6
Cycle Q Clear(g_c), s	4.3	14.5	76.0	76.4	19.1	17.6
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	171	1996	2101	1147	776	4163
V/C Ratio(X)	0.32	0.57	0.85	0.85	0.84	0.48
Avail Cap(c_a), veh/h	171	1996	2101	1147	1047	4173
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.34	0.34	1.00	1.00
Uniform Delay (d), s/veh	63.2	8.1	52.9	53.1	61.6	4.1
Incr Delay (d2), s/veh	1.1	0.4	1.4	2.5	4.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	23.5	36.1	40.1	9.1	8.3
LnGrp Delay(d),s/veh	64.2	8.5	54.3	55.6	66.5	4.5
LnGrp LOS	E	A	D	E	E	A
Approach Vol, veh/h	1184		2762			2651
Approach Delay, s/veh	11.1		54.7			19.8
Approach LOS	B		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		129.3			29.9	99.4		20.7
Change Period (Y+Rc), s		* 6.5			6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.2E2			31.4	* 85		14.5
Max Q Clear Time (g_c+I1), s		19.6			21.1	78.4		16.5
Green Ext Time (p_c), s		102.8			2.2	6.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	5	38	57	815	625	9
Future Vol, veh/h	5	38	57	815	625	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	41	62	886	679	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1251	345	689	0	-	0
Stage 1	684	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	165	651	901	-	-	-
Stage 1	462	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	154	651	901	-	-	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	462	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	901	-	568	-	-
HCM Lane V/C Ratio	0.069	-	0.082	-	-
HCM Control Delay (s)	9.3	-	11.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	840	235	140	460	155	205	747	233	173	456	110
Future Volume (veh/h)	68	840	235	140	460	155	205	747	233	173	456	110
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	72	884	0	161	529	0	230	839	262	190	501	121
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	407	1392	623	294	1471	658	360	1001	448	244	939	420
Arrive On Green	0.05	0.39	0.00	0.07	0.42	0.00	0.11	0.28	0.28	0.09	0.27	0.27
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	72	884	0	161	529	0	230	839	262	190	501	121
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.3	28.3	0.0	7.5	14.4	0.0	13.0	31.2	19.9	10.8	17.0	8.5
Cycle Q Clear(g_c), s	3.3	28.3	0.0	7.5	14.4	0.0	13.0	31.2	19.9	10.8	17.0	8.5
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	407	1392	623	294	1471	658	360	1001	448	244	939	420
V/C Ratio(X)	0.18	0.64	0.00	0.55	0.36	0.00	0.64	0.84	0.58	0.78	0.53	0.29
Avail Cap(c_a), veh/h	579	1392	623	426	1471	658	411	1107	495	263	981	439
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)	0.84	0.84	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	34.3	0.0	26.0	28.1	0.0	32.9	47.2	43.1	36.7	44.0	40.9
Incr Delay (d2), s/veh	0.2	1.9	0.0	1.2	0.2	0.0	2.3	5.2	1.2	11.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	14.1	0.0	3.7	7.0	0.0	6.6	16.0	8.8	6.0	8.3	3.8
LnGrp Delay(d),s/veh	23.6	36.2	0.0	27.2	28.3	0.0	35.2	52.3	44.3	47.9	44.4	41.2
LnGrp LOS	C	D		C	C		D	D	D	D	D	D
Approach Vol, veh/h		956			690			1331			812	
Approach Delay, s/veh		35.3			28.0			47.8			44.8	
Approach LOS		D			C			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	14.6	61.1	21.0	43.3	11.5	64.2	18.5	45.8
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 20	39.0	* 19	38.8	* 20	39.0	* 14	43.8
Max Q Clear Time (g_c+I1), s	9.5	30.3	15.0	19.0	5.3	16.4	12.8	33.2
Green Ext Time (p_c), s	0.3	7.3	0.2	9.4	0.2	16.3	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	1007	43	44	626	131	46	13	39	128	10	82
Future Volume (veh/h)	128	1007	43	44	626	131	46	13	39	128	10	82
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	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	135	1060	45	51	720	0	50	14	42	139	11	89
Adj No. of Lanes	1	2	1	1	2	1	0	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	482	1722	770	326	1688	755	275	66	417	292	38	311
Arrive On Green	0.07	0.49	0.49	0.05	0.48	0.00	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	822	303	1583	1342	177	1433
Grp Volume(v), veh/h	135	1060	45	51	720	0	64	0	42	139	0	100
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1125	0	1583	1342	0	1610
Q Serve(g_s), s	2.5	14.6	1.0	0.9	8.9	0.0	1.9	0.0	1.3	6.6	0.0	3.4
Cycle Q Clear(g_c), s	2.5	14.6	1.0	0.9	8.9	0.0	5.3	0.0	1.3	11.9	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	0.78		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	482	1722	770	326	1688	755	341	0	417	292	0	350
V/C Ratio(X)	0.28	0.62	0.06	0.16	0.43	0.00	0.19	0.00	0.10	0.48	0.00	0.29
Avail Cap(c_a), veh/h	493	1722	770	501	2337	1045	353	0	431	365	0	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.1	12.5	9.0	9.4	11.4	0.0	22.9	0.0	18.5	27.6	0.0	21.7
Incr Delay (d2), s/veh	0.3	0.8	0.0	0.2	0.2	0.0	0.3	0.0	0.1	1.2	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(50%),veh/ln	1.2	7.3	0.4	0.5	4.4	0.0	1.0	0.0	0.6	2.5	0.0	1.6
LnGrp Delay(d),s/veh	8.4	13.3	9.0	9.6	11.6	0.0	23.1	0.0	18.6	28.8	0.0	22.1
LnGrp LOS	A	B	A	A	B		C		B	C		C
Approach Vol, veh/h		1240			771			106			239	
Approach Delay, s/veh		12.6			11.5			21.3			26.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.1	37.8		19.4	8.4	38.5		19.4
Change Period (Y+Rc), s	4.5	* 6.2		5.0	* 5.4	* 6.2		* 5
Max Green Setting (Gmax), s	5.0	* 44		15.0	* 9.6	* 29		* 18
Max Q Clear Time (g_c+I1), s	4.5	10.9		7.3	2.9	16.6		13.9
Green Ext Time (p_c), s	0.0	20.8		0.8	0.0	11.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Notes

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	1166	725	16	0	13
Future Vol, veh/h	0	1166	725	16	0	13
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1267	788	17	0	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	805	0	-	0	1431	403
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	815	-	-	-	125	597
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	815	-	-	-	125	597
Mov Cap-2 Maneuver	-	-	-	-	125	-
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	491	-

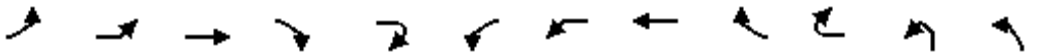
Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	815	-	-	-	597
HCM Lane V/C Ratio	-	-	-	-	0.024
HCM Control Delay (s)	0	-	-	-	11.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	514	14	15	1479	12	108	44	7	18	49	53
Future Volume (veh/h)	19	514	14	15	1479	12	108	44	7	18	49	53
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	22	598	16	17	1643	13	126	51	8	27	73	79
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	2058	57	41	2478	20	201	74	10	66	160	153
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	63	2896	80	17	3486	28	765	366	51	167	793	758
Grp Volume(v), veh/h	301	0	335	874	0	799	185	0	0	179	0	0
Grp Sat Flow(s),veh/h/ln	1358	0	1681	1840	0	1690	1182	0	0	1718	0	0
Q Serve(g_s), s	2.5	0.0	9.3	0.0	0.0	33.3	8.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	35.8	0.0	9.3	32.8	0.0	33.3	20.1	0.0	0.0	11.8	0.0	0.0
Prop In Lane	0.07		0.05	0.02		0.02	0.68		0.04	0.15		0.44
Lane Grp Cap(c), veh/h	995	0	1195	1337	0	1201	285	0	0	378	0	0
V/C Ratio(X)	0.30	0.00	0.28	0.65	0.00	0.66	0.65	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	995	0	1195	1337	0	1201	517	0	0	655	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	0.0	6.7	10.1	0.0	10.2	49.6	0.0	0.0	45.7	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.6	2.5	0.0	2.9	6.7	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.5	17.7	0.0	16.3	6.8	0.0	0.0	5.9	0.0	0.0
LnGrp Delay(d),s/veh	7.6	0.0	7.3	12.6	0.0	13.1	56.3	0.0	0.0	48.2	0.0	0.0
LnGrp LOS	A		A	B		B	E			D		
Approach Vol, veh/h		636			1673			185			179	
Approach Delay, s/veh		7.4			12.8			56.3			48.2	
Approach LOS		A			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		31.3		97.0		31.3
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		91.2		47.5		91.2		47.5
Max Q Clear Time (g_c+I1), s		37.8		13.8		35.3		22.1
Green Ext Time (p_c), s		51.4		4.0		53.8		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B



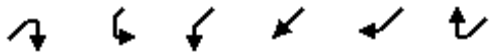
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	1	162	464	4	13	8	239	740	17	67	27	16
Future Volume (vph)	1	162	464	4	13	8	239	740	17	67	27	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.1	6.5	6.5			7.1	6.8	6.8			6.8
Lane Util. Factor		0.94	0.91	1.00			0.94	0.91	1.00			1.00
Frt		1.00	1.00	0.85			1.00	1.00	0.85			1.00
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00			0.95
Satd. Flow (prot)		4990	5085	1583			4990	5085	1583			1770
Flt Permitted		0.95	1.00	1.00			0.95	1.00	1.00			0.72
Satd. Flow (perm)		4990	5085	1583			4990	5085	1583			1343
Peak-hour factor, PHF	0.90	0.60	0.90	0.90	0.60	0.92	0.70	0.92	0.92	0.70	0.78	0.88
Adj. Flow (vph)	1	270	516	4	22	9	341	804	18	96	35	18
RTOR Reduction (vph)	0	0	0	22	0	0	0	0	95	0	0	0
Lane Group Flow (vph)	0	271	516	4	0	0	350	804	19	0	0	53
Turn Type	Prot	Prot	NA	Perm		Prot	Prot	NA	Perm		Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases				4					8		10	10
Actuated Green, G (s)		10.8	21.5	21.5			14.9	25.3	25.3			13.0
Effective Green, g (s)		10.8	21.5	21.5			14.9	25.3	25.3			13.0
Actuated g/C Ratio		0.07	0.14	0.14			0.10	0.17	0.17			0.09
Clearance Time (s)		7.1	6.5	6.5			7.1	6.8	6.8			6.8
Vehicle Extension (s)		3.0	2.5	2.5			3.0	3.5	3.5			3.0
Lane Grp Cap (vph)		359	728	226			495	857	266			116
v/s Ratio Prot		0.05	0.10				c0.07	c0.16				
v/s Ratio Perm				0.00					0.01			0.04
v/c Ratio		0.75	0.71	0.02			0.71	0.94	0.07			0.46
Uniform Delay, d1		68.3	61.3	55.2			65.4	61.6	52.5			65.1
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00			1.00
Incremental Delay, d2		8.7	2.9	0.0			4.6	17.6	0.1			2.8
Delay (s)		77.0	64.2	55.2			70.0	79.2	52.6			68.0
Level of Service		E	E	E			E	E	D			E
Approach Delay (s)			68.2					74.3				
Approach LOS			E					E				

Intersection Summary			
HCM 2000 Control Delay	49.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.6
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	44	17	3	25	35	46	37	8	44	20	770	142
Future Volume (vph)	44	17	3	25	35	46	37	8	44	20	770	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8			6.8	6.8	6.8			6.8	7.1	7.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00			1.00	0.91	1.00
Frt	1.00	0.85			1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1863	1583			1770	1863	1583			1770	5085	1583
Flt Permitted	1.00	1.00			0.72	1.00	1.00			0.07	1.00	1.00
Satd. Flow (perm)	1863	1583			1342	1863	1583			134	5085	1583
Peak-hour factor, PHF	0.78	0.78	0.88	0.75	0.84	0.84	0.75	0.84	0.74	0.82	0.82	0.74
Adj. Flow (vph)	56	22	3	33	42	55	49	10	59	24	939	192
RTOR Reduction (vph)	0	23	0	0	0	0	54	0	0	0	0	112
Lane Group Flow (vph)	56	2	0	0	75	55	5	0	0	83	939	95
Turn Type	NA	Perm		Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	Perm
Protected Phases	10					9			5	5	2	
Permitted Phases		10		9	9		9		2	2		2
Actuated Green, G (s)	13.0	13.0			13.0	13.0	13.0			63.2	55.8	55.8
Effective Green, g (s)	13.0	13.0			13.0	13.0	13.0			63.2	55.8	55.8
Actuated g/C Ratio	0.09	0.09			0.09	0.09	0.09			0.42	0.37	0.37
Clearance Time (s)	6.8	6.8			6.8	6.8	6.8			6.8	7.1	7.1
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0			2.5	5.3	5.3
Lane Grp Cap (vph)	161	137			116	161	137			137	1891	588
v/s Ratio Prot	0.03					0.03				0.03	0.18	
v/s Ratio Perm		0.00			c0.06		0.00			0.23		0.06
v/c Ratio	0.35	0.02			0.65	0.34	0.04			0.61	0.50	0.16
Uniform Delay, d1	64.5	62.6			66.3	64.5	62.8			31.6	36.3	31.5
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	1.3	0.0			11.7	1.3	0.1			6.2	0.9	0.6
Delay (s)	65.8	62.7			78.0	65.7	62.9			37.9	37.2	32.1
Level of Service	E	E			E	E	E			D	D	C
Approach Delay (s)	66.1					69.7					36.4	
Approach LOS	E					E					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	12	75	34	1525	771	18
Future Volume (vph)	12	75	34	1525	771	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.91	0.88	
Frt			1.00	1.00	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	5085	2787	
Flt Permitted			0.20	1.00	1.00	
Satd. Flow (perm)			377	5085	2787	
Peak-hour factor, PHF	0.82	0.80	0.94	0.94	0.80	0.94
Adj. Flow (vph)	15	94	36	1622	964	19
RTOR Reduction (vph)	0	0	0	0	108	0
Lane Group Flow (vph)	0	0	130	1622	875	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			69.8	59.3	59.3	
Effective Green, g (s)			69.8	59.3	59.3	
Actuated g/C Ratio			0.47	0.40	0.40	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			272	2010	1101	
v/s Ratio Prot			c0.03	c0.32		
v/s Ratio Perm			0.19		0.31	
v/c Ratio			0.48	0.81	0.80	
Uniform Delay, d1			24.6	40.3	40.0	
Progression Factor			0.78	0.85	0.82	
Incremental Delay, d2			0.9	2.7	4.5	
Delay (s)			20.1	37.1	37.3	
Level of Service			C	D	D	
Approach Delay (s)				36.4		
Approach LOS				D		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	468	989	2	1030	2198
Future Volume (vph)	0	468	989	2	1030	2198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		7.4	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5084		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5084		3433	5085
Peak-hour factor, PHF	0.96	0.96	0.85	0.85	0.95	0.95
Adj. Flow (vph)	0	488	1164	2	1084	2314
RTOR Reduction (vph)	0	42	0	0	0	0
Lane Group Flow (vph)	0	446	1166	0	1084	2314
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		85.1	54.4		81.7	150.0
Effective Green, g (s)		85.1	54.4		81.7	150.0
Actuated g/C Ratio		0.57	0.36		0.54	1.00
Clearance Time (s)		4.0	6.5		7.4	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1581	1843		1869	5085
v/s Ratio Prot		0.16	c0.23		c0.32	0.46
v/s Ratio Perm						
v/c Ratio		0.28	0.63		0.58	0.46
Uniform Delay, d1		16.7	39.5		22.7	0.0
Progression Factor		1.00	0.66		0.70	1.00
Incremental Delay, d2		0.4	0.8		0.7	0.2
Delay (s)		17.2	27.0		16.6	0.2
Level of Service		B	C		B	A
Approach Delay (s)	17.2		27.0			5.4
Approach LOS	B		C			A

Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.9
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	91	785	1349	30	604	3257
Future Volume (veh/h)	91	785	1349	30	604	3257
Number	3	18	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	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	101	872	1551	34	643	3465
Adj No. of Lanes	1	2	3	0	3	3
Peak Hour Factor	0.90	0.90	0.87	0.87	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	222	2049	3124	68	787	4126
Arrive On Green	0.13	0.13	0.20	0.20	0.16	0.81
Sat Flow, veh/h	1774	2787	5289	112	5003	5253
Grp Volume(v), veh/h	101	872	1027	558	643	3465
Grp Sat Flow(s),veh/h/ln	1774	1393	1695	1843	1668	1695
Q Serve(g_s), s	7.9	18.1	40.3	40.3	18.6	60.5
Cycle Q Clear(g_c), s	7.9	18.1	40.3	40.3	18.6	60.5
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	222	2049	2068	1124	787	4126
V/C Ratio(X)	0.45	0.43	0.50	0.50	0.82	0.84
Avail Cap(c_a), veh/h	222	2049	2068	1124	2081	4126
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	60.8	7.6	39.5	39.5	61.1	8.4
Incr Delay (d2), s/veh	1.4	0.1	0.3	0.6	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	18.1	19.0	20.8	8.7	28.4
LnGrp Delay(d),s/veh	62.3	7.8	39.8	40.1	63.2	10.6
LnGrp LOS	E	A	D	D	E	B
Approach Vol, veh/h	973		1585			4108
Approach Delay, s/veh	13.4		39.9			18.8
Approach LOS	B		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		128.3			30.2	98.1		25.0
Change Period (Y+Rc), s		* 6.5			6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.2E2			62.4	* 50		18.8
Max Q Clear Time (g_c+I1), s		62.5			20.6	42.3		20.1
Green Ext Time (p_c), s		56.1			3.0	7.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	482	95	171	794	58	117	353	110	186	802	33
Future Volume (veh/h)	52	482	95	171	794	58	117	353	110	186	802	33
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	560	0	197	913	0	127	384	120	209	901	37
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	1519	680	430	1633	730	178	885	396	336	930	416
Arrive On Green	0.01	0.14	0.00	0.08	0.46	0.00	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	60	560	0	197	913	0	127	384	120	209	901	37
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.6	20.1	0.0	8.4	26.2	0.0	7.4	12.8	8.6	11.3	35.2	2.5
Cycle Q Clear(g_c), s	2.6	20.1	0.0	8.4	26.2	0.0	7.4	12.8	8.6	11.3	35.2	2.5
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	298	1519	680	430	1633	730	178	885	396	336	930	416
V/C Ratio(X)	0.20	0.37	0.00	0.46	0.56	0.00	0.71	0.43	0.30	0.62	0.97	0.09
Avail Cap(c_a), veh/h	410	1519	680	599	1633	730	328	1183	529	336	930	416
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	22.6	42.9	0.0	20.5	27.4	0.0	39.4	44.2	42.6	37.4	51.0	38.9
Incr Delay (d2), s/veh	0.5	0.7	0.0	0.6	0.5	0.0	3.9	0.2	0.3	2.1	19.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	10.0	0.0	4.2	12.9	0.0	3.8	6.3	3.8	1.8	19.7	1.1
LnGrp Delay(d),s/veh	23.0	43.6	0.0	21.1	27.9	0.0	43.3	44.4	42.9	39.5	70.0	39.0
LnGrp LOS	C	D		C	C		D	D	D	D	E	D
Approach Vol, veh/h		620			1110			631			1147	
Approach Delay, s/veh		41.6			26.7			43.9			63.5	
Approach LOS		D			C			D			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	15.7	66.1	15.2	43.0	11.2	70.6	17.0	41.2
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 11	35.0	* 21	36.8	* 15	44.0	* 11	46.8
Max Q Clear Time (g_c+I1), s	10.4	22.1	9.4	37.2	4.6	28.2	13.3	14.8
Green Ext Time (p_c), s	0.4	10.5	0.2	0.0	0.1	12.0	0.0	9.8

Intersection Summary	
HCM 2010 Ctrl Delay	44.4
HCM 2010 LOS	D

Notes

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

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	614	36	21	972	30	23
Future Volume (veh/h)	614	36	21	972	30	23
Number	6	16	5	2	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	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	714	42	24	1117	33	25
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.86	0.86	0.87	0.87	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2435	1089	580	2802	86	119
Arrive On Green	0.69	0.69	0.03	0.79	0.05	0.05
Sat Flow, veh/h	3632	1583	1774	3632	1774	1583
Grp Volume(v), veh/h	714	42	24	1117	33	25
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1774	1583
Q Serve(g_s), s	5.5	0.6	0.2	6.7	1.3	1.0
Cycle Q Clear(g_c), s	5.5	0.6	0.2	6.7	1.3	1.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2435	1089	580	2802	86	119
V/C Ratio(X)	0.29	0.04	0.04	0.40	0.39	0.21
Avail Cap(c_a), veh/h	2435	1089	750	2802	228	246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.75	0.75	1.00	1.00
Uniform Delay (d), s/veh	4.3	3.5	2.8	2.2	32.3	30.4
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.3	2.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.3	0.1	3.2	0.7	1.0
LnGrp Delay(d),s/veh	4.5	3.6	2.8	2.5	35.1	31.3
LnGrp LOS	A	A	A	A	D	C
Approach Vol, veh/h	756			1141	58	
Approach Delay, s/veh	4.5			2.5	33.5	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		61.6		8.4	7.3	54.4		
Change Period (Y+Rc), s		* 6.2		5.0	* 5.4	* 6.2		
Max Green Setting (Gmax), s		* 50		9.0	* 8.6	* 36		
Max Q Clear Time (g_c+I1), s		8.7		3.3	2.2	7.5		
Green Ext Time (p_c), s		32.0		0.1	0.0	23.6		

Intersection Summary	
HCM 2010 Ctrl Delay	4.2
HCM 2010 LOS	A

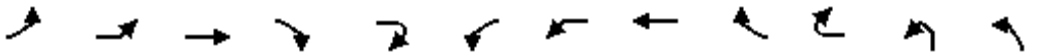
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1202	107	14	628	19	21	31	15	27	64	20
Future Volume (veh/h)	22	1202	107	14	628	19	21	31	15	27	64	20
Number	5	2	12	1	6	16	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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	23	1239	110	15	654	20	26	38	19	29	70	22
Adj No. of Lanes	0	2	0	0	2	0	0	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	2493	219	65	2576	78	83	101	42	72	117	33
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	29	3160	278	38	3265	99	371	961	396	292	1117	313
Grp Volume(v), veh/h	720	0	652	350	0	339	83	0	0	121	0	0
Grp Sat Flow(s),veh/h/ln	1821	0	1646	1724	0	1678	1728	0	0	1722	0	0
Q Serve(g_s), s	0.0	0.0	14.7	0.0	0.0	5.7	0.0	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	14.2	0.0	14.7	5.2	0.0	5.7	4.6	0.0	0.0	7.0	0.0	0.0
Prop In Lane	0.03		0.17	0.04		0.06	0.31		0.23	0.24		0.18
Lane Grp Cap(c), veh/h	1471	0	1299	1396	0	1324	226	0	0	223	0	0
V/C Ratio(X)	0.49	0.00	0.50	0.25	0.00	0.26	0.37	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	1471	0	1299	1396	0	1324	868	0	0	894	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.9	0.0	3.9	2.9	0.0	3.0	44.8	0.0	0.0	45.8	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	1.4	0.4	0.0	0.5	2.7	0.0	0.0	5.6	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(50%),veh/ln	7.7	0.0	7.0	2.8	0.0	2.8	2.5	0.0	0.0	3.8	0.0	0.0
LnGrp Delay(d),s/veh	5.0	0.0	5.3	3.4	0.0	3.4	47.6	0.0	0.0	51.4	0.0	0.0
LnGrp LOS	A		A	A		A	D			D		
Approach Vol, veh/h		1372			689			83			121	
Approach Delay, s/veh		5.2			3.4			47.6			51.4	
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		90.0		16.7		90.0		16.7
Change Period (Y+Rc), s		5.8		5.5		5.8		5.5
Max Green Setting (Gmax), s		84.2		54.5		84.2		54.5
Max Q Clear Time (g_c+I1), s		16.7		9.0		7.7		6.6
Green Ext Time (p_c), s		60.9		2.2		68.2		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A



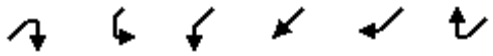
Movement	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Traffic Volume (vph)	3	455	696	16	29	7	190	389	49	40	17	19
Future Volume (vph)	3	455	696	16	29	7	190	389	49	40	17	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.5	6.5			6.8	6.8	6.8			6.8
Lane Util. Factor		0.94	0.91	1.00			0.94	0.91	1.00			1.00
Frt		1.00	1.00	0.85			1.00	1.00	0.85			1.00
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00			0.95
Satd. Flow (prot)		4990	5085	1583			4990	5085	1583			1770
Flt Permitted		0.95	1.00	1.00			0.95	1.00	1.00			0.58
Satd. Flow (perm)		4990	5085	1583			4990	5085	1583			1078
Peak-hour factor, PHF	0.50	0.91	0.91	0.91	0.50	0.92	0.77	0.92	0.92	0.77	0.82	0.67
Adj. Flow (vph)	6	500	765	18	58	8	247	423	53	52	21	28
RTOR Reduction (vph)	0	0	0	63	0	0	0	0	94	0	0	0
Lane Group Flow (vph)	0	506	765	13	0	0	255	423	11	0	0	49
Turn Type	Prot	Prot	NA	Perm		Prot	Prot	NA	Perm		Perm	Perm
Protected Phases	7	7	4			3	3	8				
Permitted Phases				4					8		10	10
Actuated Green, G (s)		18.7	24.7	24.7			10.4	16.1	16.1			14.7
Effective Green, g (s)		18.7	24.7	24.7			10.4	16.1	16.1			14.7
Actuated g/C Ratio		0.12	0.16	0.16			0.07	0.11	0.11			0.10
Clearance Time (s)		6.8	6.5	6.5			6.8	6.8	6.8			6.8
Vehicle Extension (s)		3.0	2.5	2.5			3.0	3.5	3.5			3.0
Lane Grp Cap (vph)		622	837	260			345	545	169			105
v/s Ratio Prot		c0.10	c0.15				0.05	0.08				
v/s Ratio Perm				0.01					0.01			0.05
v/c Ratio		0.81	0.91	0.05			0.74	0.78	0.07			0.47
Uniform Delay, d1		64.0	61.6	52.8			68.5	65.2	60.2			63.9
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00			1.00
Incremental Delay, d2		8.0	14.3	0.1			8.1	7.0	0.2			3.3
Delay (s)		72.0	75.9	52.8			76.5	72.2	60.4			67.2
Level of Service		E	E	D			E	E	E			E
Approach Delay (s)			73.1					72.0				
Approach LOS			E					E				

Intersection Summary			
HCM 2000 Control Delay	56.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	34.3
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	48	31	22	29	48	105	52	11	58	23	1370	249
Future Volume (vph)	48	31	22	29	48	105	52	11	58	23	1370	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8			6.8	6.8	6.8			4.5	7.1	7.1
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00			1.00	0.91	1.00
Frt	1.00	0.85			1.00	1.00	0.85			1.00	1.00	0.85
Flt Protected	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1863	1583			1770	1863	1583			1770	5085	1583
Flt Permitted	1.00	1.00			0.72	1.00	1.00			0.27	1.00	1.00
Satd. Flow (perm)	1863	1583			1338	1863	1583			498	5085	1583
Peak-hour factor, PHF	0.82	0.82	0.67	0.93	0.82	0.93	0.93	0.82	0.86	0.95	0.95	0.86
Adj. Flow (vph)	59	38	33	31	59	113	56	13	67	24	1442	290
RTOR Reduction (vph)	0	64	0	0	0	0	62	0	0	0	0	165
Lane Group Flow (vph)	59	7	0	0	90	113	7	0	0	91	1442	142
Turn Type	NA	Perm		Perm	Perm	NA	Perm		pm+pt	pm+pt	NA	Perm
Protected Phases	10					9			5	5	2	
Permitted Phases		10		9	9		9		2	2		2
Actuated Green, G (s)	14.7	14.7			14.7	14.7	14.7			61.7	53.9	53.9
Effective Green, g (s)	14.7	14.7			14.7	14.7	14.7			61.7	53.9	53.9
Actuated g/C Ratio	0.10	0.10			0.10	0.10	0.10			0.41	0.36	0.36
Clearance Time (s)	6.8	6.8			6.8	6.8	6.8			4.5	7.1	7.1
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0			3.0	5.3	5.3
Lane Grp Cap (vph)	182	155			131	182	155			270	1827	568
v/s Ratio Prot	0.03					0.06				0.02	0.28	
v/s Ratio Perm		0.00			c0.07		0.00			0.12		0.09
v/c Ratio	0.32	0.04			0.69	0.62	0.04			0.34	0.79	0.25
Uniform Delay, d1	63.0	61.3			65.4	65.0	61.3			27.6	43.0	33.8
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	1.0	0.1			13.9	6.4	0.1			0.7	3.6	1.1
Delay (s)	64.1	61.4			79.4	71.4	61.4			28.3	46.5	34.9
Level of Service	E	E			E	E	E			C	D	C
Approach Delay (s)	63.9					71.5					43.7	
Approach LOS	E					E					D	

Intersection Summary



Movement	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Traffic Volume (vph)	16	45	84	820	235	14
Future Volume (vph)	16	45	84	820	235	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.8	6.7	6.7	
Lane Util. Factor			1.00	0.91	0.88	
Frt			1.00	1.00	0.85	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			1770	5085	2787	
Flt Permitted			0.07	1.00	1.00	
Satd. Flow (perm)			122	5085	2787	
Peak-hour factor, PHF	0.95	0.72	0.91	0.91	0.72	0.91
Adj. Flow (vph)	17	62	92	901	326	15
RTOR Reduction (vph)	0	0	0	0	124	0
Lane Group Flow (vph)	0	0	155	901	217	0
Turn Type		pm+pt	pm+pt	NA	Perm	
Protected Phases		1	1	6		
Permitted Phases		6	6		6	
Actuated Green, G (s)			73.4	61.1	61.1	
Effective Green, g (s)			73.4	61.1	61.1	
Actuated g/C Ratio			0.49	0.41	0.41	
Clearance Time (s)			6.8	6.7	6.7	
Vehicle Extension (s)			2.5	5.6	5.6	
Lane Grp Cap (vph)			194	2071	1135	
v/s Ratio Prot			c0.07	0.18		
v/s Ratio Perm			c0.32		0.08	
v/c Ratio			0.80	0.44	0.19	
Uniform Delay, d1			37.8	32.0	28.6	
Progression Factor			0.99	1.28	1.87	
Incremental Delay, d2			19.2	0.4	0.2	
Delay (s)			56.8	41.3	53.8	
Level of Service			E	D	D	
Approach Delay (s)				46.1		
Approach LOS				D		

Intersection Summary

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	815	1894	5	620	1165
Future Volume (vph)	0	815	1894	5	620	1165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	6.5		5.7	4.0
Lane Util. Factor		0.88	0.91		0.97	0.91
Frt		0.85	1.00		1.00	1.00
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2787	5083		3433	5085
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2787	5083		3433	5085
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.87	0.87
Adj. Flow (vph)	0	896	1994	5	713	1339
RTOR Reduction (vph)	0	1	0	0	0	0
Lane Group Flow (vph)	0	895	1999	0	713	1339
Turn Type		Prot	NA		Prot	NA
Protected Phases		2	4		6	Free
Permitted Phases						
Actuated Green, G (s)		77.0	62.5		75.3	150.0
Effective Green, g (s)		77.0	62.5		75.3	150.0
Actuated g/C Ratio		0.51	0.42		0.50	1.00
Clearance Time (s)		4.0	6.5		5.7	
Vehicle Extension (s)		5.4	4.5		5.4	
Lane Grp Cap (vph)		1430	2117		1723	5085
v/s Ratio Prot		c0.32	c0.39		0.21	0.26
v/s Ratio Perm						
v/c Ratio		0.63	0.94		0.41	0.26
Uniform Delay, d1		26.2	42.1		23.5	0.0
Progression Factor		1.00	0.72		0.97	1.00
Incremental Delay, d2		2.1	6.7		0.7	0.1
Delay (s)		28.3	36.9		23.4	0.1
Level of Service		C	D		C	A
Approach Delay (s)	28.3		36.9			8.2
Approach LOS	C		D			A

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	54	1106	2590	33	603	1727
Future Volume (veh/h)	54	1106	2590	33	603	1727
Number	3	18	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	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	55	1129	2643	34	655	1877
Adj No. of Lanes	1	2	3	0	3	3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	1996	3206	41	776	4163
Arrive On Green	0.10	0.10	0.20	0.20	0.16	0.82
Sat Flow, veh/h	1774	2787	5342	66	5003	5253
Grp Volume(v), veh/h	55	1129	1729	948	655	1877
Grp Sat Flow(s),veh/h/ln	1774	1393	1695	1851	1668	1695
Q Serve(g_s), s	4.3	14.5	73.2	73.6	19.1	15.9
Cycle Q Clear(g_c), s	4.3	14.5	73.2	73.6	19.1	15.9
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	171	1996	2101	1147	776	4163
V/C Ratio(X)	0.32	0.57	0.82	0.83	0.84	0.45
Avail Cap(c_a), veh/h	171	1996	2101	1147	1047	4173
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.42	0.42	1.00	1.00
Uniform Delay (d), s/veh	63.2	8.1	51.8	52.0	61.6	3.9
Incr Delay (d2), s/veh	1.1	0.4	1.3	2.5	4.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	23.5	34.8	38.6	9.1	7.4
LnGrp Delay(d),s/veh	64.2	8.5	53.1	54.4	66.5	4.3
LnGrp LOS	E	A	D	D	E	A
Approach Vol, veh/h	1184		2677			2532
Approach Delay, s/veh	11.1		53.6			20.4
Approach LOS	B		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		129.3			29.9	99.4		20.7
Change Period (Y+Rc), s		* 6.5			6.6	* 6.5		6.2
Max Green Setting (Gmax), s		* 1.2E2			31.4	* 85		14.5
Max Q Clear Time (g_c+I1), s		17.9			21.1	75.6		16.5
Green Ext Time (p_c), s		104.5			2.2	9.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	801	175	140	413	133	130	723	233	159	440	110
Future Volume (veh/h)	68	801	175	140	413	133	130	723	233	159	440	110
Number	5	2	12	1	6	16	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	72	843	0	161	475	0	146	812	262	175	484	121
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	1454	650	319	1528	684	322	969	434	232	1007	450
Arrive On Green	0.05	0.41	0.00	0.07	0.43	0.00	0.07	0.27	0.27	0.08	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	72	843	0	161	475	0	146	812	262	175	484	121
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.2	25.8	0.0	7.3	12.3	0.0	8.2	30.3	20.2	9.8	15.9	8.3
Cycle Q Clear(g_c), s	3.2	25.8	0.0	7.3	12.3	0.0	8.2	30.3	20.2	9.8	15.9	8.3
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	449	1454	650	319	1528	684	322	969	434	232	1007	450
V/C Ratio(X)	0.16	0.58	0.00	0.50	0.31	0.00	0.45	0.84	0.60	0.76	0.48	0.27
Avail Cap(c_a), veh/h	621	1454	650	453	1528	684	435	1107	495	263	1007	450
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)	0.90	0.90	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	21.8	31.9	0.0	24.1	26.1	0.0	33.3	47.9	44.2	36.5	41.5	38.8
Incr Delay (d2), s/veh	0.2	1.5	0.0	0.9	0.2	0.0	0.7	5.0	1.3	7.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	12.8	0.0	3.6	6.0	0.0	4.0	15.4	8.9	5.3	7.8	3.7
LnGrp Delay(d),s/veh	22.0	33.4	0.0	25.0	26.3	0.0	34.1	52.9	45.5	44.4	41.8	39.0
LnGrp LOS	C	C		C	C		C	D	D	D	D	D
Approach Vol, veh/h		915			636			1220			780	
Approach Delay, s/veh		32.5			25.9			49.0			41.9	
Approach LOS		C			C			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	14.4	63.5	16.1	46.0	11.5	66.4	17.5	44.5
Change Period (Y+Rc), s	* 4.9	6.0	* 5.7	6.2	* 4.9	6.0	* 5.7	6.2
Max Green Setting (Gmax), s	* 20	39.0	* 19	38.8	* 20	39.0	* 14	43.8
Max Q Clear Time (g_c+I1), s	9.3	27.8	10.2	17.9	5.2	14.3	11.8	32.3
Green Ext Time (p_c), s	0.3	8.8	0.2	9.4	0.2	16.4	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.1
HCM 2010 LOS	D

Notes

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

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1038	43	44	632	46	39
Future Volume (veh/h)	1038	43	44	632	46	39
Number	6	16	5	2	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	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1093	45	51	726	50	42
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.87	0.87	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1945	870	404	2502	127	194
Arrive On Green	0.55	0.55	0.05	0.71	0.07	0.07
Sat Flow, veh/h	3632	1583	1774	3632	1774	1583
Grp Volume(v), veh/h	1093	45	51	726	50	42
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1770	1774	1583
Q Serve(g_s), s	10.2	0.7	0.5	3.8	1.4	1.2
Cycle Q Clear(g_c), s	10.2	0.7	0.5	3.8	1.4	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1945	870	404	2502	127	194
V/C Ratio(X)	0.56	0.05	0.13	0.29	0.39	0.22
Avail Cap(c_a), veh/h	2014	901	650	3064	526	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	5.3	5.0	2.7	22.4	20.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.1	2.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.3	0.3	1.8	0.7	1.1
LnGrp Delay(d),s/veh	7.9	5.3	5.2	2.8	24.4	20.6
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	1138			777	92	
Approach Delay, s/veh	7.8			3.0	22.7	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.0		8.6	8.0	34.0		
Change Period (Y+Rc), s		* 6.2		5.0	* 5.4	* 6.2		
Max Green Setting (Gmax), s		* 44		15.0	* 9.6	* 29		
Max Q Clear Time (g_c+I1), s		5.8		3.4	2.5	12.2		
Green Ext Time (p_c), s		29.9		0.2	0.0	14.7		

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Notes

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

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	39.8	61.9	0.18	10.7	E
Scott Blvd	III	35	59.4	14.2	73.6	0.49	24.2	B
Total	III		81.5	54.0	135.5	0.68	18.0	C

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	55.1	114.5	0.49	15.6	D
Total	III		59.4	55.1	114.5	0.49	15.6	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	8.4	27.7	0.18	23.0	C
Scott Blvd	II	34	57.7	76.2	133.9	0.54	14.5	E
Church St	II	45	29.2	40.5	69.7	0.29	15.2	E
Total	II		106.2	125.1	231.3	1.01	15.8	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	37.8	72.5	0.36	18.0	D
Scott Blvd	II	45	29.2	125.0	154.2	0.29	6.9	F
Superior Ave	II	45	43.3	14.2	57.5	0.54	33.9	B
Total	II		107.2	177.0	284.2	1.20	15.2	E

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	41.7	75.0	0.35	16.6	E
Church St	II	45	47.6	25.6	73.2	0.60	29.3	B
Dekalb Industrial Wa	II	45	12.9	47.1	60.0	0.12	7.1	F
Total	II		93.8	114.4	208.2	1.06	18.3	D

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Medlock Rd	II	45	47.6	110.7	158.3	0.60	13.5	E
Total	II		60.5	110.8	171.3	0.71	15.0	E

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	55.1	77.2	0.18	8.6	F
Scott Blvd	III	35	59.4	21.4	80.8	0.49	22.0	C
Total	III		81.5	76.5	158.0	0.68	15.5	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	43.6	103.0	0.49	17.3	D
Total	III		59.4	43.6	103.0	0.49	17.3	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	6.6	25.9	0.18	24.6	C
Scott Blvd	II	34	57.7	90.4	148.1	0.54	13.2	E
Church St	II	45	29.2	42.5	71.7	0.29	14.8	E
Total	II		106.2	139.5	245.7	1.01	14.8	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	31.4	66.1	0.36	19.7	D
Scott Blvd	II	45	29.2	147.1	176.3	0.29	6.0	F
Superior Ave	II	45	43.3	4.6	47.9	0.54	40.7	A
Total	II		107.2	183.1	290.3	1.20	14.9	E

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	94.7	128.0	0.35	9.8	F
Church St	II	45	47.6	98.4	146.0	0.60	14.7	E
Dekalb Industrial Wa	II	45	12.9	19.2	32.1	0.12	13.3	E
Total	II		93.8	212.3	306.1	1.06	12.5	F

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Medlock Rd	II	45	47.6	38.6	86.2	0.60	24.9	C
Total	II		60.5	38.7	99.2	0.71	25.9	C

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	38.7	60.8	0.18	10.9	E
Scott Blvd	III	35	59.4	14.8	74.2	0.49	24.0	B
Total	III		81.5	53.5	135.0	0.68	18.1	C

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	54.3	113.7	0.49	15.7	D
Total	III		59.4	54.3	113.7	0.49	15.7	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	8.9	28.2	0.18	22.6	C
Scott Blvd	II	34	57.7	80.3	138.0	0.54	14.1	E
Walmart Dr	II	45	18.6	5.3	23.9	0.17	25.6	C
Church St	II	45	13.6	37.9	51.5	0.12	8.7	F
Total	II		109.2	132.4	241.6	1.01	15.1	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	39.7	74.4	0.36	17.5	D
Walmart Dr	II	45	13.6	0.9	14.5	0.12	31.0	B
Scott Blvd	II	45	18.6	145.5	164.1	0.17	3.7	F
Superior Ave	II	45	43.3	15.5	58.8	0.54	33.1	B
Total	II		110.2	201.6	311.8	1.20	13.8	E

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	42.7	76.0	0.35	16.4	E
Church St	II	45	47.6	25.7	73.3	0.60	29.2	B
Dekalb Industrial Wa	II	45	12.9	46.7	59.6	0.12	7.1	F
Total	II		93.8	115.1	208.9	1.06	18.3	D

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Medlock Rd	II	45	47.6	126.6	174.2	0.60	12.3	F
Total	II		60.5	126.7	187.2	0.71	13.7	E

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	54.7	76.8	0.18	8.6	F
Scott Blvd	III	35	59.4	21.8	81.2	0.49	21.9	C
Total	III		81.5	76.5	158.0	0.68	15.5	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	43.0	102.4	0.49	17.4	D
Total	III		59.4	43.0	102.4	0.49	17.4	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	6.9	26.2	0.18	24.3	C
Scott Blvd	II	34	57.7	98.2	155.9	0.54	12.5	F
Walmart Dr	II	45	18.6	9.9	28.5	0.17	21.5	D
Church St	II	45	13.6	44.6	58.2	0.12	7.7	F
Total	II		109.2	159.6	268.8	1.01	13.6	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	32.8	67.5	0.36	19.3	D
Walmart Dr	II	45	13.6	3.1	16.7	0.12	26.9	C
Scott Blvd	II	45	18.6	183.4	202.0	0.17	3.0	F
Superior Ave	II	45	43.3	4.7	48.0	0.54	40.6	A
Total	II		110.2	224.0	334.2	1.20	12.9	F

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	104.1	137.4	0.35	9.1	F
Church St	II	45	47.6	77.4	125.0	0.60	17.1	D
Dekalb Industrial Wa	II	45	12.9	17.4	30.3	0.12	14.1	E
Total	II		93.8	198.9	292.7	1.06	13.0	E

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Medlock Rd	II	45	47.6	39.2	86.8	0.60	24.7	C
Total	II		60.5	39.3	99.8	0.71	25.7	C

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	37.4	59.5	0.18	11.1	E
Scott Blvd	III	35	60.5	19.7	80.2	0.50	22.6	C
Total	III		82.6	57.1	139.7	0.69	17.8	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	60.5	57.9	118.4	0.50	15.3	D
Total	III		60.5	57.9	118.4	0.50	15.3	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	9.3	28.6	0.18	22.2	C
Scott Blvd	II	34	57.7	93.6	151.3	0.54	12.9	F
Walmart Dr	II	45	18.6	9.2	27.8	0.17	22.0	C
Church St	II	45	13.6	39.9	53.5	0.12	8.4	F
Total	II		109.2	152.0	261.2	1.01	14.0	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	42.4	77.1	0.36	16.9	E
Blackmon Dr	II	45	13.6	7.1	20.7	0.12	21.7	D
Scott Blvd	II	45	18.6	181.4	200.0	0.17	3.1	F
Superior Ave	II	45	43.3	17.5	60.8	0.54	32.0	B
Total	II		110.2	248.4	358.6	1.20	12.0	F

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	43.8	77.1	0.35	16.2	E
Blackmon Dr	II	45	23.0	11.9	34.9	0.21	21.8	D
Church St	II	45	36.2	44.0	80.2	0.38	17.3	D
Dekalb Industrial Wa	II	45	12.9	51.4	64.3	0.12	6.6	F
Total	II		105.4	151.1	256.5	1.06	14.9	E

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Blackmon Dr	II	45	36.2	9.0	45.2	0.38	30.7	B
Medlock Rd	II	45	23.0	160.3	183.3	0.21	4.2	F
Total	II		72.1	169.4	241.5	0.71	10.7	F

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	55.1	77.2	0.18	8.6	F
Scott Blvd	III	35	60.5	21.9	82.4	0.50	22.0	C
Total	III		82.6	77.0	159.6	0.69	15.5	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	60.5	46.8	107.3	0.50	16.9	D
Total	III		60.5	46.8	107.3	0.50	16.9	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	9.5	28.8	0.18	22.1	C
Scott Blvd	II	34	57.7	132.1	189.8	0.54	10.3	F
Walmart Dr	II	45	18.6	14.6	33.2	0.17	18.5	D
Church St	II	45	13.6	54.9	68.5	0.12	6.6	F
Total	II		109.2	211.1	320.3	1.01	11.4	F

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	34.0	68.7	0.36	19.0	D
Blackmon Dr	II	45	13.6	17.9	31.5	0.12	14.3	E
Scott Blvd	II	45	18.6	242.3	260.9	0.17	2.3	F
Superior Ave	II	45	43.3	6.5	49.8	0.54	39.1	A
Total	II		110.2	300.7	410.9	1.20	10.5	F

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	121.6	154.9	0.35	8.1	F
Blackmon Dr	II	45	23.0	16.3	39.3	0.21	19.4	D
Church St	II	45	36.2	122.6	158.8	0.38	8.7	F
Dekalb Industrial Wa	II	45	12.9	55.0	67.9	0.12	6.3	F
Total	II		105.4	315.5	420.9	1.06	9.1	F

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Blackmon Dr	II	45	36.2	3.2	39.4	0.38	35.2	A
Medlock Rd	II	45	23.0	47.5	70.5	0.21	10.8	F
Total	II		72.1	50.8	122.9	0.71	20.9	D

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	39.9	62.0	0.18	10.7	E
Scott Blvd	III	35	59.4	14.2	73.6	0.49	24.2	B
Total	III		81.5	54.1	135.6	0.68	18.0	C

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	55.1	114.5	0.49	15.6	D
Total	III		59.4	55.1	114.5	0.49	15.6	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	8.4	27.7	0.18	23.0	C
Scott Blvd	II	34	57.7	66.8	124.5	0.54	15.6	E
Church St	II	45	29.2	36.0	65.2	0.30	16.3	E
Total	II		106.2	111.2	217.4	1.01	16.8	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	35.8	70.5	0.36	18.5	D
Scott Blvd	II	45	29.2	80.3	109.5	0.30	9.7	F
Superior Ave	II	45	43.3	14.2	57.5	0.54	33.9	B
Total	II		107.2	130.3	237.5	1.20	18.2	D

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	35.1	68.4	0.35	18.3	D
Church St	II	45	47.6	28.6	76.2	0.60	28.1	B
Dekalb Industrial Wa	II	45	12.9	55.8	68.7	0.12	6.2	F
Total	II		93.8	119.5	213.3	1.06	17.9	D

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.2	13.1	0.12	32.5	B
Medlock Rd	II	45	47.6	35.3	82.9	0.60	25.9	C
Total	II		60.5	35.5	96.0	0.71	26.8	C

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	55.1	77.2	0.18	8.6	F
Scott Blvd	III	35	59.4	28.0	87.4	0.49	20.4	C
Total	III		81.5	83.1	164.6	0.68	14.9	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	43.5	102.9	0.49	17.3	D
Total	III		59.4	43.5	102.9	0.49	17.3	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	6.6	25.9	0.18	24.6	C
Scott Blvd	II	34	57.7	73.7	131.4	0.54	14.8	E
Church St	II	45	29.2	39.0	68.2	0.29	15.6	E
Total	II		106.2	119.3	225.5	1.01	16.2	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	29.6	64.3	0.36	20.3	D
Scott Blvd	II	45	29.2	71.2	100.4	0.29	10.6	F
Superior Ave	II	45	43.3	4.6	47.9	0.54	40.7	A
Total	II		107.2	105.4	212.6	1.20	20.3	D

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	47.9	81.2	0.35	15.4	E
Church St	II	45	47.6	34.7	82.3	0.60	26.0	C
Dekalb Industrial Wa	II	45	12.9	24.4	37.3	0.12	11.4	F
Total	II		93.8	107.0	200.8	1.06	19.0	D

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Medlock Rd	II	45	47.6	34.5	82.1	0.60	26.1	C
Total	II		60.5	34.6	95.1	0.71	27.0	C

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	38.8	60.9	0.18	10.9	E
Scott Blvd	III	35	59.4	14.8	74.2	0.49	24.0	B
Total	III		81.5	53.6	135.1	0.68	18.1	C

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	54.3	113.7	0.49	15.7	D
Total	III		59.4	54.3	113.7	0.49	15.7	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	8.9	28.2	0.18	22.6	C
Scott Blvd	II	34	57.7	67.4	125.1	0.54	15.6	E
Walmart Dr	II	45	18.6	5.3	23.9	0.17	25.6	C
Church St	II	45	13.6	33.2	46.8	0.12	9.6	F
Total	II		109.2	114.8	224.0	1.01	16.3	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	37.5	72.2	0.36	18.0	D
Walmart Dr	II	45	13.6	1.3	14.9	0.12	30.2	B
Scott Blvd	II	45	18.6	80.3	98.9	0.17	6.2	F
Superior Ave	II	45	43.3	15.5	58.8	0.54	33.1	B
Total	II		110.2	134.6	244.8	1.20	17.6	D

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	38.1	71.4	0.35	17.5	D
Church St	II	45	47.6	27.3	74.9	0.60	28.6	B
Dekalb Industrial Wa	II	45	12.9	56.8	69.7	0.12	6.1	F
Total	II		93.8	122.2	216.0	1.06	17.7	D

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.2	13.1	0.12	32.5	B
Medlock Rd	II	45	47.6	38.5	86.1	0.60	24.9	C
Total	II		60.5	38.7	99.2	0.71	25.9	C

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	54.7	76.8	0.18	8.6	F
Scott Blvd	III	35	59.4	28.5	87.9	0.49	20.3	C
Total	III		81.5	83.2	164.7	0.68	14.8	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	59.4	43.0	102.4	0.49	17.4	D
Total	III		59.4	43.0	102.4	0.49	17.4	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	6.9	26.2	0.18	24.3	C
Scott Blvd	II	34	57.7	77.5	135.2	0.54	14.4	E
Walmart Dr	II	45	18.6	9.9	28.5	0.17	21.5	D
Church St	II	45	13.6	41.4	55.0	0.12	8.2	F
Total	II		109.2	135.7	244.9	1.01	14.9	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	30.8	65.5	0.36	19.9	D
Walmart Dr	II	45	13.6	3.1	16.7	0.12	26.9	C
Scott Blvd	II	45	18.6	75.6	94.2	0.17	6.5	F
Superior Ave	II	45	43.3	4.7	48.0	0.54	40.6	A
Total	II		110.2	114.2	224.4	1.20	19.2	D

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	47.6	80.9	0.35	15.4	E
Church St	II	45	47.6	37.6	85.2	0.60	25.2	C
Dekalb Industrial Wa	II	45	12.9	24.0	36.9	0.12	11.5	F
Total	II		93.8	109.2	203.0	1.06	18.8	D

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Medlock Rd	II	45	47.6	42.5	90.1	0.60	23.8	C
Total	II		60.5	42.6	103.1	0.71	24.9	C

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	37.4	59.5	0.18	11.1	E
Scott Blvd	III	35	60.5	19.7	80.2	0.50	22.6	C
Total	III		82.6	57.1	139.7	0.69	17.8	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	60.5	57.9	118.4	0.50	15.3	D
Total	III		60.5	57.9	118.4	0.50	15.3	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	9.3	28.6	0.18	22.2	C
Scott Blvd	II	34	57.7	65.2	122.9	0.54	15.8	E
Walmart Dr	II	45	18.6	8.6	27.2	0.17	22.5	C
Church St	II	45	13.6	40.2	53.8	0.12	8.4	F
Total	II		109.2	123.3	232.5	1.01	15.7	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	40.1	74.8	0.36	17.4	D
Blackmon Dr	II	45	13.6	10.7	24.3	0.12	18.5	D
Scott Blvd	II	45	18.6	80.2	98.8	0.17	6.2	F
Superior Ave	II	45	43.3	17.5	60.8	0.54	32.0	B
Total	II		110.2	148.5	258.7	1.20	16.7	E

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	45.7	79.0	0.35	15.8	E
Blackmon Dr	II	45	23.0	10.0	33.0	0.21	23.1	C
Church St	II	45	36.2	34.5	70.7	0.38	19.6	D
Dekalb Industrial Wa	II	45	12.9	60.3	73.2	0.12	5.8	F
Total	II		105.4	150.5	255.9	1.06	14.9	E

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.2	13.1	0.12	32.5	B
Blackmon Dr	II	45	36.2	8.2	44.4	0.38	31.2	B
Medlock Rd	II	45	23.0	47.4	70.4	0.21	10.8	F
Total	II		72.1	55.8	127.9	0.71	20.1	D

Arterial Level of Service: NB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	22.1	55.1	77.2	0.18	8.6	F
Scott Blvd	III	35	60.5	28.7	89.2	0.50	20.4	C
Total	III		82.6	83.8	166.4	0.69	14.9	D

Arterial Level of Service: SB Church St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Decatur Rd	III	35	60.5	46.8	107.3	0.50	16.9	D
Total	III		60.5	46.8	107.3	0.50	16.9	D

Arterial Level of Service: EB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Superior Ave	II	45	19.3	9.5	28.8	0.18	22.1	C
Scott Blvd	II	34	57.7	75.2	132.9	0.54	14.7	E
Walmart Dr	II	45	18.6	14.3	32.9	0.17	18.6	D
Church St	II	45	13.6	42.9	56.5	0.12	8.0	F
Total	II		109.2	141.9	251.1	1.01	14.5	E

Arterial Level of Service: WB N Decatur Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	34.7	31.9	66.6	0.36	19.6	D
Blackmon Dr	II	45	13.6	10.6	24.2	0.12	18.6	D
Scott Blvd	II	45	18.6	73.8	92.4	0.17	6.6	F
Superior Ave	II	45	43.3	6.5	49.8	0.54	39.1	A
Total	II		110.2	122.8	233.0	1.20	18.5	D

Arterial Level of Service: NE Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Medlock Rd	II	45	33.3	73.6	106.9	0.35	11.7	F
Blackmon Dr	II	45	23.0	16.3	39.3	0.21	19.4	D
Church St	II	45	36.2	61.7	97.9	0.38	14.2	E
Dekalb Industrial Wa	II	45	12.9	25.3	38.2	0.12	11.2	F
Total	II		105.4	176.9	282.3	1.06	13.5	E

Arterial Level of Service: SW Scott Blvd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Church St	II	45	12.9	0.1	13.0	0.12	32.8	B
Blackmon Dr	II	45	36.2	3.2	39.4	0.38	35.2	A
Medlock Rd	II	45	23.0	41.1	64.1	0.21	11.9	F
Total	II		72.1	44.4	116.5	0.71	22.1	C

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	191	177	243	258	228	118
Average Queue (ft)	70	49	120	143	107	60
95th Queue (ft)	166	129	225	248	173	111
Link Distance (ft)	876	876	1817	1817	509	711
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB	NE
Directions Served	<L	T	TR>	<L	T	TR>	<L	TR>	<L	T	R>	<L
Maximum Queue (ft)	215	324	347	175	1129	1144	85	340	432	79	97	154
Average Queue (ft)	130	189	215	162	798	783	50	102	346	33	30	67
95th Queue (ft)	226	296	316	222	1150	1158	89	257	436	69	81	159
Link Distance (ft)		817	817		1410	1410		803	633	633	633	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	190			150			60					130
Storage Blk Time (%)	2	14		52	62		34	20				0
Queuing Penalty (veh)	4	22		188	146		21	8				0

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	T	T	TR>	<L	T	T	TR	R>
Maximum Queue (ft)	263	282	268	184	1674	1893	1978	185
Average Queue (ft)	180	156	150	91	1103	1254	1407	182
95th Queue (ft)	254	236	238	200	1696	1863	2035	195
Link Distance (ft)	1729	1729	1729		2893	2893	2893	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				160				160
Storage Blk Time (%)	21				59		57	50
Queuing Penalty (veh)	13				51		225	430

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	193	186	321	342	367	429	437
Average Queue (ft)	76	83	190	194	201	182	196
95th Queue (ft)	162	168	308	323	335	369	378
Link Distance (ft)	2384	2384	2893	2893	2893		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)						0	1
Queuing Penalty (veh)						0	9

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	SB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	LT	R	R	LTR	LT	T	TR	L	L	T	T	TR
Maximum Queue (ft)	116	262	254	14	526	542	524	302	291	2188	2175	2175
Average Queue (ft)	50	129	116	1	296	342	348	185	206	905	670	410
95th Queue (ft)	103	238	222	9	549	567	567	265	282	2352	1969	1222
Link Distance (ft)	1566	1566	1566	372	507	507	507			2160	2160	2160
Upstream Blk Time (%)					1	1	2			3	1	0
Queuing Penalty (veh)					4	6	8			0	0	0
Storage Bay Dist (ft)								800	800			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	92	178	217	230	441	280	123	184	174	74	299	365
Average Queue (ft)	35	91	104	153	205	186	70	124	92	37	138	234
95th Queue (ft)	79	168	187	237	322	266	113	183	164	61	288	390
Link Distance (ft)		1410	1410		1857	1857		920	920			2384
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)				2	13			4			0	17
Queuing Penalty (veh)				10	22			4			1	31

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	382	48
Average Queue (ft)	253	11
95th Queue (ft)	398	35
Link Distance (ft)	2384	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	21	
Queuing Penalty (veh)	6	

Network Summary

Network wide Queuing Penalty: 1207

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	215	185	128	136	119	122
Average Queue (ft)	114	81	41	44	38	60
95th Queue (ft)	186	159	100	108	89	113
Link Distance (ft)	876	876	1817	1817	509	711
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	B18	B18	WB	WB	WB	NB	NB	SB	SB
Directions Served	<L	T	TR>	T	T	<L	T	TR>	<L	TR>	<L	T
Maximum Queue (ft)	215	900	886	1854	1837	175	1442	1432	85	818	432	189
Average Queue (ft)	214	857	754	753	645	149	1305	1305	70	749	178	100
95th Queue (ft)	215	1000	1035	1846	1801	230	1712	1708	85	955	346	177
Link Distance (ft)		817	817	1817	1817		1410	1410		803	633	633
Upstream Blk Time (%)		74	26	2	1		40	38		74		
Queuing Penalty (veh)		447	157	10	4		128	121		0		
Storage Bay Dist (ft)	190					150			60			
Storage Blk Time (%)	75	37				20	84		92	19		
Queuing Penalty (veh)	255	164				38	155		87	6		

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	SB	NE	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	R>	<L	T	T	TR>	<L	T	T	TR	R>
Maximum Queue (ft)	118	154	1744	1691	1681	185	286	299	358	185
Average Queue (ft)	30	70	1206	1174	1099	82	116	163	176	104
95th Queue (ft)	91	170	1828	1777	1663	163	214	254	266	216
Link Distance (ft)	633		1729	1729	1729		2893	2893	2893	
Upstream Blk Time (%)			2							
Queuing Penalty (veh)			0							
Storage Bay Dist (ft)		130				160				160
Storage Blk Time (%)		0	69			0	3		10	2
Queuing Penalty (veh)		0	53			1	3		12	6

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	598	605	1955	1970	2015	231	264
Average Queue (ft)	257	269	1303	1334	1339	140	163
95th Queue (ft)	463	482	1996	2015	2027	234	262
Link Distance (ft)	2384	2384	2893	2893	2893		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	SB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	LT	R	R	LTR	LT	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1742	1779	1790	38	504	518	526	812	825	2581	2557	2557
Average Queue (ft)	975	1377	1332	5	203	220	240	736	756	1977	1881	1470
95th Queue (ft)	1907	2019	1961	22	346	365	383	945	981	3497	3508	3135
Link Distance (ft)	1727	1727	1727	370	505	505	505			2542	2542	2542
Upstream Blk Time (%)	14	22	19		0	1	2			58	22	2
Queuing Penalty (veh)	0	0	0		1	9	16			0	0	0
Storage Bay Dist (ft)								800	800			
Storage Blk Time (%)								6	35	16		
Queuing Penalty (veh)								33	198	95		

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (ft)	112	306	383	230	1841	1754	450	250	558	525	328	244
Average Queue (ft)	49	188	192	144	740	709	256	143	281	239	78	88
95th Queue (ft)	103	312	313	284	1606	1584	623	274	453	389	172	176
Link Distance (ft)		1410	1410		1857	1857			920	920		
Upstream Blk Time (%)					0							
Queuing Penalty (veh)					0							
Storage Bay Dist (ft)	235			180			350	150			235	200
Storage Blk Time (%)		5	1	0	63	57		22	32	4		2
Queuing Penalty (veh)		3	1	0	84	74		76	41	8		5

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	240	274	252
Average Queue (ft)	117	139	88
95th Queue (ft)	218	255	196
Link Distance (ft)	2384	2384	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)	3	5	5
Queuing Penalty (veh)	4	5	11

Network Summary

Network wide Queuing Penalty: 2312

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	210	163	213	249	186	162
Average Queue (ft)	93	58	113	128	114	55
95th Queue (ft)	184	145	207	221	184	98
Link Distance (ft)	876	876	1817	1817	509	711
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB	NE
Directions Served	<L	T	TR>	<L	T	TR>	<L	TR>	<L	T	R>	<L
Maximum Queue (ft)	215	478	400	175	815	803	85	252	342	102	68	154
Average Queue (ft)	201	322	259	164	764	760	66	130	140	37	20	84
95th Queue (ft)	244	496	394	208	875	882	97	236	283	89	53	171
Link Distance (ft)		817	817		782	782		804	633	633	633	
Upstream Blk Time (%)					32	31						
Queuing Penalty (veh)					158	153						
Storage Bay Dist (ft)	190			150			60					130
Storage Blk Time (%)	66	11		47	63		70	35				2
Queuing Penalty (veh)	153	18		173	156		45	15				6

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	T	T	TR>	<L	T	T	TR	R>
Maximum Queue (ft)	289	265	307	185	2012	2218	2278	185
Average Queue (ft)	196	174	153	126	1628	1709	1832	183
95th Queue (ft)	272	259	243	228	2305	2402	2461	189
Link Distance (ft)	1729	1729	1729		2897	2897	2897	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				160				160
Storage Blk Time (%)	20			6	57		60	47
Queuing Penalty (veh)	13			31	62		241	418

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW	SW
Directions Served	R	R	T	T	TR	L	L	T
Maximum Queue (ft)	202	222	380	385	381	430	479	548
Average Queue (ft)	94	103	217	228	228	197	214	38
95th Queue (ft)	185	195	366	392	392	396	422	267
Link Distance (ft)	2384	2384	2897	2897	2897			506
Upstream Blk Time (%)								0
Queuing Penalty (veh)								5
Storage Bay Dist (ft)						380	380	
Storage Blk Time (%)						2	2	
Queuing Penalty (veh)						12	12	

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	SB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	LT	R	R	LTR	LT	T	TR	L	L	T	T	TR
Maximum Queue (ft)	227	262	236	13	519	526	549	264	259	2097	2097	2094
Average Queue (ft)	73	116	118	0	318	344	356	175	194	837	535	351
95th Queue (ft)	147	201	206	4	567	586	593	245	254	2141	1587	916
Link Distance (ft)	2216	2216	2216	371	506	506	506			2082	2082	2082
Upstream Blk Time (%)					1	1	3			3	1	0
Queuing Penalty (veh)					7	7	16			0	0	0
Storage Bay Dist (ft)								800	800			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	116	227	289	230	353	289	173	248	199	92	300	508
Average Queue (ft)	54	115	135	149	208	184	75	134	89	35	148	247
95th Queue (ft)	115	203	225	242	310	257	133	212	173	70	324	468
Link Distance (ft)		574	574		1857	1857		921	921			2384
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		0		9	14		2	5			1	18
Queuing Penalty (veh)		0		38	24		3	6			5	33

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	482	48
Average Queue (ft)	256	10
95th Queue (ft)	457	32
Link Distance (ft)	2384	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	21	
Queuing Penalty (veh)	7	

Intersection: 12: Walmart Dr & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	112	135	125	334	596	591	68	43
Average Queue (ft)	25	30	8	65	275	275	25	15
95th Queue (ft)	83	93	49	273	651	639	52	33
Link Distance (ft)	782	782			574	574	457	457
Upstream Blk Time (%)					4	2		
Queuing Penalty (veh)					17	8		
Storage Bay Dist (ft)			100	235				
Storage Blk Time (%)		1			33			
Queuing Penalty (veh)		0			7			

Network Summary

Network wide Queuing Penalty: 1848

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	779	705	128	134	138	165
Average Queue (ft)	206	168	22	40	44	71
95th Queue (ft)	430	411	72	92	104	142
Link Distance (ft)	876	876	1817	1817	509	711
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	B18	B18	WB	WB	WB	NB	NB	SB	SB
Directions Served	<L	T	TR>	T	T	<L	T	TR>	<L	TR>	<L	T
Maximum Queue (ft)	215	896	891	1854	1869	175	812	823	85	819	277	294
Average Queue (ft)	214	878	704	1055	989	174	756	753	72	774	113	115
95th Queue (ft)	217	887	1057	2138	2174	175	921	920	83	914	222	223
Link Distance (ft)		817	817	1817	1817		782	782		804	633	633
Upstream Blk Time (%)		84	34	9	7		57	57		82		
Queuing Penalty (veh)		524	211	55	42		193	194		0		
Storage Bay Dist (ft)	190					150			60			
Storage Blk Time (%)	75	25				41	69		100	23		
Queuing Penalty (veh)	261	114				80	136		101	8		

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	SB	NE	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	R>	<L	T	T	TR>	<L	T	T	TR	R>
Maximum Queue (ft)	136	154	1744	1744	1781	185	285	348	411	185
Average Queue (ft)	58	86	1087	1064	1031	119	109	129	144	82
95th Queue (ft)	123	197	1865	1850	1796	215	231	250	278	158
Link Distance (ft)	633		1729	1729	1729		2897	2897	2897	
Upstream Blk Time (%)			10	11	12					
Queuing Penalty (veh)			0	0	0					
Storage Bay Dist (ft)		130				160				160
Storage Blk Time (%)		0	69			16	2		6	0
Queuing Penalty (veh)		0	56			43	3		8	2

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	380	416	490	542	524	309	289
Average Queue (ft)	222	239	362	381	388	147	165
95th Queue (ft)	369	404	512	531	530	271	268
Link Distance (ft)	2384	2384	2897	2897	2897		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	SB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	LT	R	R	LTR	LT	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1569	1556	1580	14	498	510	529	812	825	1694	1646	1632
Average Queue (ft)	1081	1350	1329	6	198	210	236	772	803	1610	1477	732
95th Queue (ft)	2095	1826	1829	17	349	358	377	860	897	1885	2049	1835
Link Distance (ft)	1517	1517	1517	372	504	504	504			1631	1631	1631
Upstream Blk Time (%)	39	54	49		0	1	2			71	10	0
Queuing Penalty (veh)	0	0	0		0	6	14			0	0	0
Storage Bay Dist (ft)								800	800			
Storage Blk Time (%)								2	25	39		
Queuing Penalty (veh)								13	145	233		

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (ft)	139	329	311	230	1620	1566	450	250	973	951	335	209
Average Queue (ft)	55	220	223	158	410	373	96	172	453	414	111	79
95th Queue (ft)	114	343	337	281	941	900	401	309	951	921	256	161
Link Distance (ft)		574	574		1857	1857			921	921		
Upstream Blk Time (%)									13	4		
Queuing Penalty (veh)									0	0		
Storage Bay Dist (ft)	235			180			350	150			235	200
Storage Blk Time (%)		9		11	59	34		45	21	7	0	1
Queuing Penalty (veh)		6		22	83	46		161	28	15	1	3

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	695	735	300
Average Queue (ft)	188	233	109
95th Queue (ft)	547	633	274
Link Distance (ft)	2384	2384	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)	1	8	17
Queuing Penalty (veh)	2	9	37

Intersection: 12: Walmart Dr & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	229	246	119	335	594	603	112	69
Average Queue (ft)	52	66	12	138	457	454	39	21
95th Queue (ft)	152	158	65	399	813	809	80	48
Link Distance (ft)	782	782			574	574	457	457
Upstream Blk Time (%)					36	36		
Queuing Penalty (veh)					119	119		
Storage Bay Dist (ft)			100	235				
Storage Blk Time (%)		2	0		77			
Queuing Penalty (veh)		1	0		34			

Network Summary

Network wide Queuing Penalty: 3129

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	243	246	241	266	185	186
Average Queue (ft)	111	66	113	132	107	87
95th Queue (ft)	218	167	221	234	178	151
Link Distance (ft)	876	876	1817	1817	509	711
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB	NE
Directions Served	<L	T	TR>	<L	T	TR>	<L	TR>	<L	T	R>	<L
Maximum Queue (ft)	215	748	739	175	334	345	84	251	454	80	98	154
Average Queue (ft)	214	573	288	152	309	313	46	76	262	31	29	70
95th Queue (ft)	216	760	560	227	322	330	89	200	397	66	71	156
Link Distance (ft)		817	817		303	303		804	636	636	636	
Upstream Blk Time (%)					67	67						
Queuing Penalty (veh)					362	363						
Storage Bay Dist (ft)	190			150			60					130
Storage Blk Time (%)	87	14		31	69		24	18				0
Queuing Penalty (veh)	221	26		124	181		18	8				0

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	T	T	TR>	<L	T	T	TR	R>
Maximum Queue (ft)	402	284	260	184	665	696	715	185
Average Queue (ft)	197	178	170	116	645	648	656	177
95th Queue (ft)	292	258	254	200	693	701	686	210
Link Distance (ft)	1729	1729	1729		645	645	645	
Upstream Blk Time (%)					34	31	44	
Queuing Penalty (veh)					279	257	361	
Storage Bay Dist (ft)				160				160
Storage Blk Time (%)	22			7	56		58	42
Queuing Penalty (veh)	14			36	70		265	391

Intersection: 3: Scott Blvd & Barton Way

Movement	NW	SW	SW	SW
Directions Served	LR	T	T	T
Maximum Queue (ft)	395	336	337	323
Average Queue (ft)	183	287	294	296
95th Queue (ft)	417	382	384	375
Link Distance (ft)	390	295	295	295
Upstream Blk Time (%)	13	20	29	37
Queuing Penalty (veh)	0	161	236	307
Storage Bay Dist (ft)				
Storage Blk Time (%)		44		
Queuing Penalty (veh)		1		

Intersection: 4: Scott Blvd & Blackmon Dr

Movement	NW	NW	NE	NE	NE	NE	SW	SW	SW	SW
Directions Served	L	LR	T	T	T	R	L	T	T	T
Maximum Queue (ft)	196	215	219	219	220	55	260	413	410	408
Average Queue (ft)	70	115	100	114	90	23	157	359	366	372
95th Queue (ft)	136	193	169	174	162	53	331	475	455	422
Link Distance (ft)	526	526	295	295	295			366	366	366
Upstream Blk Time (%)								26	43	49
Queuing Penalty (veh)								214	350	394
Storage Bay Dist (ft)						175	235			
Storage Blk Time (%)					1		0	47		
Queuing Penalty (veh)					0		0	69		

Intersection: 5: Scott Blvd & Driveway 1

Movement	SW	SW	SW
Directions Served	T	T	T
Maximum Queue (ft)	462	466	460
Average Queue (ft)	334	352	359
95th Queue (ft)	600	607	594
Link Distance (ft)	419	419	419
Upstream Blk Time (%)	21	29	36
Queuing Penalty (veh)	156	218	274
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Scott Blvd & Driveway 2

Movement	SW	SW	SW
Directions Served	T	T	T
Maximum Queue (ft)	546	634	658
Average Queue (ft)	192	230	246
95th Queue (ft)	460	546	582
Link Distance (ft)	1035	1035	1035
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	268	288	294	327	332	254	304
Average Queue (ft)	119	124	159	186	197	130	149
95th Queue (ft)	230	245	257	296	309	234	270
Link Distance (ft)	954	954	1035	1035	1035		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	SB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	LT	R	R	LTR	LT	T	TR	L	L	T	T	TR
Maximum Queue (ft)	140	185	179	14	504	506	519	308	325	2106	2086	2076
Average Queue (ft)	51	134	119	1	316	341	357	186	206	1008	673	403
95th Queue (ft)	116	195	188	7	458	478	492	273	284	2423	1887	1133
Link Distance (ft)	1802	1802	1802	371	504	504	504			2071	2071	2071
Upstream Blk Time (%)					0	0	0			3	1	0
Queuing Penalty (veh)					1	1	2			0	0	0
Storage Bay Dist (ft)								800	800			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Church St & Driveway 3

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	71	53
Average Queue (ft)	26	10
95th Queue (ft)	52	35
Link Distance (ft)	378	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (ft)	116	207	226	230	1865	1864	450	250	763	700	94	300
Average Queue (ft)	42	123	134	180	1050	1031	160	179	338	271	34	165
95th Queue (ft)	95	199	205	302	2118	2122	515	305	713	652	69	335
Link Distance (ft)		564	564		1849	1849			921	921		
Upstream Blk Time (%)					28	21						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	235			180			350	150			235	200
Storage Blk Time (%)				12	69	60		50	3			3
Queuing Penalty (veh)				51	118	39		90	5			13

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	406	459	300
Average Queue (ft)	253	272	40
95th Queue (ft)	410	423	189
Link Distance (ft)	1441	1441	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)	19	25	
Queuing Penalty (veh)	38	8	

Intersection: 12: Walmart Dr/Blackmon Dr & N Decatur Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	138	192	225	125	335	586	581	275	109	44	118	186
Average Queue (ft)	33	42	52	13	98	558	556	157	35	11	69	76
95th Queue (ft)	88	122	135	66	345	610	619	381	79	32	112	147
Link Distance (ft)		412	412			564	564		458	458	453	453
Upstream Blk Time (%)						28	31					
Queuing Penalty (veh)						142	158					
Storage Bay Dist (ft)	235			100	235			175				
Storage Blk Time (%)			1	0		82	85					
Queuing Penalty (veh)			0	0		17	70					

Intersection: 13: N Decatur Rd & Apartment Driveway

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	433	428	339
Average Queue (ft)	420	420	321
95th Queue (ft)	427	427	395
Link Distance (ft)	412	412	324
Upstream Blk Time (%)	52	51	86
Queuing Penalty (veh)	274	272	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 6657

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	914	928	107	119	79	362
Average Queue (ft)	383	352	46	52	33	125
95th Queue (ft)	918	910	106	107	73	248
Link Distance (ft)	876	876	1817	1817	509	711
Upstream Blk Time (%)	23	23				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	B18	B18	WB	WB	WB	NB	NB	SB	SB
Directions Served	<L	T	TR>	T	T	<L	T	TR>	<L	TR>	<L	T
Maximum Queue (ft)	215	924	891	1865	1877	175	339	318	85	291	676	652
Average Queue (ft)	214	882	710	1443	1403	145	307	308	49	147	639	195
95th Queue (ft)	215	902	1013	2284	2339	237	321	316	106	257	673	661
Link Distance (ft)		817	817	1817	1817		301	301		804	636	636
Upstream Blk Time (%)		85	16	26	21		80	82			89	12
Queuing Penalty (veh)		578	109	173	143		294	304			0	0
Storage Bay Dist (ft)	190					150			60			
Storage Blk Time (%)	72	17				17	85		21	54		
Queuing Penalty (veh)	280	84				39	168		25	19		

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	SB	NE	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	R>	<L	T	T	TR>	<L	T	T	TR	R>
Maximum Queue (ft)	97	154	1764	1763	1781	185	676	645	395	185
Average Queue (ft)	14	81	1363	1358	1353	185	522	387	259	146
95th Queue (ft)	57	181	2158	2145	2132	185	682	666	393	235
Link Distance (ft)	636		1729	1729	1729		645	645	645	
Upstream Blk Time (%)			28	40	46		8	0		
Queuing Penalty (veh)			0	0	0		36	1		
Storage Bay Dist (ft)		130				160				160
Storage Blk Time (%)		0	69			99	3		24	5
Queuing Penalty (veh)		0	56			281	4		44	20

Intersection: 3: Scott Blvd & Barton Way

Movement	NW	NE	NE	NE	SW	SW
Directions Served	LR	T	T	TR	L	T
Maximum Queue (ft)	31	99	140	210	31	72
Average Queue (ft)	13	7	10	15	5	7
95th Queue (ft)	37	46	69	100	24	37
Link Distance (ft)	390	645	645	645		295
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					100	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Scott Blvd & Blackmon Dr

Movement	NW	NW	NE	NE	NE	NE	SW	SW	SW	SW
Directions Served	L	LR	T	T	T	R	L	T	T	T
Maximum Queue (ft)	133	175	295	305	296	272	135	55	76	142
Average Queue (ft)	54	68	106	122	130	29	62	17	32	52
95th Queue (ft)	105	132	222	234	245	110	116	49	74	115
Link Distance (ft)	526	526	295	295	295			366	366	366
Upstream Blk Time (%)			1	1	1					
Queuing Penalty (veh)			7	9	8					
Storage Bay Dist (ft)						175	235			
Storage Blk Time (%)					3					
Queuing Penalty (veh)					4					

Intersection: 5: Scott Blvd & Driveway 1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: Scott Blvd & Driveway 2

Movement	NE	NE	NE
Directions Served	T	T	T
Maximum Queue (ft)	227	243	223
Average Queue (ft)	13	19	20
95th Queue (ft)	75	94	107
Link Distance (ft)	419	419	419
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			1
Queuing Penalty (veh)			0

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	424	421	1047	1066	1082	118	134
Average Queue (ft)	217	219	765	794	811	54	60
95th Queue (ft)	413	411	1142	1165	1184	125	139
Link Distance (ft)	684	684	1037	1037	1037		
Upstream Blk Time (%)			2	4	7		
Queuing Penalty (veh)			15	27	49		
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	SB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	LT	R	R	LTR	LT	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1264	1708	1624	35	504	564	557	812	825	2177	2152	2120
Average Queue (ft)	561	1194	1147	3	488	501	510	703	735	1740	1595	1327
95th Queue (ft)	1214	1777	1677	16	515	539	539	961	997	2996	3052	2702
Link Distance (ft)	1693	1693	1693	370	504	504	504			2114	2114	2114
Upstream Blk Time (%)		1			1	3	9			59	17	4
Queuing Penalty (veh)		0			11	31	84			0	0	0
Storage Bay Dist (ft)								800	800			
Storage Blk Time (%)								2	26	22		
Queuing Penalty (veh)								11	162	134		

Intersection: 9: Church St & Emergency Access

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Church St & Driveway 3

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	28	72	35
Average Queue (ft)	21	13	1
95th Queue (ft)	40	40	12
Link Distance (ft)	378		213
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	T	T	R	L	T	T	R	L
Maximum Queue (ft)	335	408	395	230	1888	1864	450	250	936	936	335	162
Average Queue (ft)	74	198	212	133	1274	1271	177	221	696	541	110	81
95th Queue (ft)	207	324	337	293	2503	2509	539	311	1165	1109	295	148
Link Distance (ft)		564	564		1849	1849			921	921		
Upstream Blk Time (%)					50	52			38	6		
Queuing Penalty (veh)					0	0			0	0		
Storage Bay Dist (ft)	235			180			350	150			235	200
Storage Blk Time (%)		6	1	8	75	71		78	19	13		
Queuing Penalty (veh)		4	3	18	105	110		292	39	30		

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	486	500	300
Average Queue (ft)	180	247	168
95th Queue (ft)	399	484	344
Link Distance (ft)	1441	1441	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)	1	15	36
Queuing Penalty (veh)	2	16	82

Intersection: 12: Walmart Dr/Blackmon Dr & N Decatur Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	128	203	203	125	335	585	590	275	473	473	143	268
Average Queue (ft)	46	82	91	12	115	512	512	196	297	44	69	138
95th Queue (ft)	92	177	190	56	365	738	740	400	549	241	127	247
Link Distance (ft)		414	414			564	564		458	458	453	453
Upstream Blk Time (%)						53	59		19	4		
Queuing Penalty (veh)						205	228		0	0		
Storage Bay Dist (ft)	235			100	235			175				
Storage Blk Time (%)			4	0		85	89					
Queuing Penalty (veh)			2	0		38	116					

Intersection: 13: N Decatur Rd & Apartment Driveway

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	459	427	180
Average Queue (ft)	419	417	119
95th Queue (ft)	450	440	186
Link Distance (ft)	414	414	308
Upstream Blk Time (%)	63	69	
Queuing Penalty (veh)	236	262	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 4998

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	252	195	265	281	251	144
Average Queue (ft)	100	63	148	162	116	65
95th Queue (ft)	198	160	264	264	201	118
Link Distance (ft)	876	876	1804	1804	511	710
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	<L	L	L	T	T	T	R>	<L	L	L	T	T
Maximum Queue (ft)	87	130	214	290	270	237	50	139	165	175	665	624
Average Queue (ft)	13	48	99	163	181	97	11	61	99	160	497	484
95th Queue (ft)	57	109	200	245	267	208	32	132	171	207	585	591
Link Distance (ft)				772	772	772	772				623	623
Upstream Blk Time (%)											1	0
Queuing Penalty (veh)											3	1
Storage Bay Dist (ft)	190	190	190					150	150	150		
Storage Blk Time (%)			0	3				0	1	7	73	
Queuing Penalty (veh)			0	4				0	3	17	173	

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	NE	NE	NE	NE
Directions Served	T	R>	<L	T	R>	<L	T	R>	<L	T	T	T
Maximum Queue (ft)	611	175	84	102	60	129	175	85	154	209	202	190
Average Queue (ft)	441	89	29	28	9	65	34	26	27	134	123	55
95th Queue (ft)	555	229	66	73	34	120	102	66	93	200	203	133
Link Distance (ft)	623			792	792		620	620		1678	1678	1678
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)		150	60			105			130			
Storage Blk Time (%)	70	0	4	6		11				8		
Queuing Penalty (veh)	46	0	2	2		5				5		

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	SW	SW	SW	SW	SW	SW
Directions Served	R>	<L	T	T	T	R	R>
Maximum Queue (ft)	118	185	1488	1573	1712	185	172
Average Queue (ft)	26	67	353	918	1218	185	172
95th Queue (ft)	82	183	734	1601	1807	185	173
Link Distance (ft)	1678		2842	2842	2842		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160				160	160
Storage Blk Time (%)			22		3	57	17
Queuing Penalty (veh)			19		19	282	83

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW	SW	SW
Directions Served	R	R	T	T	TR	L	L	T	T
Maximum Queue (ft)	255	219	354	378	393	430	479	545	19
Average Queue (ft)	93	99	162	174	193	255	274	71	0
95th Queue (ft)	199	198	303	320	347	453	484	360	0
Link Distance (ft)	2381	2381	2842	2842	2842			488	488
Upstream Blk Time (%)							2	2	
Queuing Penalty (veh)							0	26	
Storage Bay Dist (ft)						380	380		
Storage Blk Time (%)						4	6		
Queuing Penalty (veh)						28	44		

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	L	R	R	T	T	TR	L	L	L	T	T	T
Maximum Queue (ft)	152	261	249	500	511	527	234	287	258	2255	2255	2252
Average Queue (ft)	56	110	89	287	307	330	87	163	188	759	718	213
95th Queue (ft)	119	188	188	497	519	529	205	238	254	2253	2309	868
Link Distance (ft)		1551	1551	488	488	488				2240	2240	2240
Upstream Blk Time (%)				3	4	5				1	1	0
Queuing Penalty (veh)				16	18	25				0	0	0
Storage Bay Dist (ft)	175						800	800	800			
Storage Blk Time (%)		2										
Queuing Penalty (veh)		1										

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	69	219	237	230	320	348	172	264	229	57	300	529
Average Queue (ft)	25	85	107	97	195	174	58	105	70	23	136	259
95th Queue (ft)	57	185	201	209	287	275	115	186	144	43	281	406
Link Distance (ft)		703	703		1857	1857		924	924			2381
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		0		0	10	0	0	3	0		0	16
Queuing Penalty (veh)		0		0	17	0	1	3	0		2	29

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	532	300
Average Queue (ft)	281	23
95th Queue (ft)	428	115
Link Distance (ft)	2381	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	20	
Queuing Penalty (veh)	5	

Network Summary

Network wide Queuing Penalty: 879

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	216	196	193	178	117	144
Average Queue (ft)	109	79	58	63	53	67
95th Queue (ft)	207	168	147	156	96	118
Link Distance (ft)	876	876	1804	1804	511	710
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	EB	EB	EB	EB	B18	B18	WB	WB	WB
Directions Served	<L	L	L	T	T	T	R>	T	T	<L	L	L
Maximum Queue (ft)	176	206	215	851	765	730	67	317	164	100	154	175
Average Queue (ft)	148	202	214	761	476	392	24	71	11	34	80	101
95th Queue (ft)	192	217	215	947	763	667	59	236	71	90	149	184
Link Distance (ft)				772	772	772	772	1804	1804			
Upstream Blk Time (%)				37	0							
Queuing Penalty (veh)				113	0							
Storage Bay Dist (ft)	190	190	190							150	150	150
Storage Blk Time (%)	0	22	67	24							0	0
Queuing Penalty (veh)	1	50	151	107							0	1

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	NE	NE
Directions Served	T	T	T	R>	<L	T	R>	<L	T	R>	<L	T
Maximum Queue (ft)	314	269	242	174	85	121	122	130	251	140	155	1712
Average Queue (ft)	134	146	91	33	26	32	30	70	98	39	89	1282
95th Queue (ft)	223	223	172	99	61	75	80	138	201	95	194	1923
Link Distance (ft)	641	641	641			792	792		620	620		1678
Upstream Blk Time (%)												11
Queuing Penalty (veh)												0
Storage Bay Dist (ft)				150	60			105			130	
Storage Blk Time (%)	7		1	0	0	4		5	11		6	77
Queuing Penalty (veh)	13		0	0	0	1		5	8		29	60

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	T	T	R>	<L	T	T	T	R	R>
Maximum Queue (ft)	1693	1712	1693	184	271	290	312	185	169
Average Queue (ft)	1234	1175	403	84	140	162	176	116	11
95th Queue (ft)	1873	1789	1236	153	225	252	269	219	40
Link Distance (ft)	1678	1678	1678		2845	2845	2845		
Upstream Blk Time (%)	6	6	2						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)				160				160	160
Storage Blk Time (%)				0	5		10	0	0
Queuing Penalty (veh)				0	5		24	0	0

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	653	693	707	686	648	200	246
Average Queue (ft)	463	479	384	390	396	112	137
95th Queue (ft)	639	660	669	682	681	176	208
Link Distance (ft)	2382	2382	2845	2845	2845		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	L	R	R	T	T	TR	L	L	L	T	T	T
Maximum Queue (ft)	200	673	694	208	273	289	254	286	302	209	175	135
Average Queue (ft)	101	468	457	173	180	200	123	193	211	89	59	64
95th Queue (ft)	253	655	644	211	237	249	238	269	287	153	109	109
Link Distance (ft)		1551	1551	488	488	488				2240	2240	2240
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	175						800	800	800			
Storage Blk Time (%)	0	61										
Queuing Penalty (veh)	0	32										

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	112	389	396	134	203	168	250	437	386	335	158	202
Average Queue (ft)	33	208	213	61	118	88	84	237	207	101	90	92
95th Queue (ft)	77	356	352	128	189	159	198	369	329	229	144	178
Link Distance (ft)		687	687		1857	1857		920	920			2382
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		11	2		1		2	29	3	0		1
Queuing Penalty (veh)		6	4		1		7	36	7	0		1

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	226	74
Average Queue (ft)	114	37
95th Queue (ft)	198	69
Link Distance (ft)	2382	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	1	
Queuing Penalty (veh)	1	

Network Summary

Network wide Queuing Penalty: 667

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	B18	NB	SB
Directions Served	LT	TR	LT	TR	T	LTR	LTR
Maximum Queue (ft)	211	179	262	278	723	221	143
Average Queue (ft)	87	52	123	132	26	106	73
95th Queue (ft)	178	131	237	245	247	178	130
Link Distance (ft)	876	876	1804	1804	772	511	710
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	<L	L	L	T	T	T	R>	<L	L	L	T	T
Maximum Queue (ft)	90	157	215	414	391	345	49	141	166	175	791	785
Average Queue (ft)	28	65	129	202	209	186	5	57	100	165	513	514
95th Queue (ft)	86	138	237	337	325	287	21	141	178	210	789	778
Link Distance (ft)				772	772	772	772				762	762
Upstream Blk Time (%)											3	1
Queuing Penalty (veh)											11	3
Storage Bay Dist (ft)	190	190	190					150	150	150		
Storage Blk Time (%)			0	21				0	2	9	73	
Queuing Penalty (veh)			0	34				0	6	23	179	

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	NE	NE	NE	NE
Directions Served	T	R>	<L	T	R>	<L	T	R>	<L	T	T	T
Maximum Queue (ft)	761	175	84	146	35	125	109	80	154	212	206	185
Average Queue (ft)	461	71	45	46	8	59	40	27	40	151	124	76
95th Queue (ft)	757	193	87	114	25	114	94	68	115	210	192	155
Link Distance (ft)	762			792	792		620	620		1678	1678	1678
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)		150	60			105			130			
Storage Blk Time (%)	44	0	16	15		5	3		0	14		
Queuing Penalty (veh)	37	0	7	6		2	2		0	9		

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	SW	SW	SW	SW	SW	SW
Directions Served	R>	<L	T	T	T	R	R>
Maximum Queue (ft)	122	185	1801	2259	2362	185	172
Average Queue (ft)	27	103	602	1733	1887	185	172
95th Queue (ft)	77	209	1439	2575	2667	185	174
Link Distance (ft)	1678		2854	2854	2854		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160				160	160
Storage Blk Time (%)		0	33		11	59	20
Queuing Penalty (veh)		0	36		89	302	100

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	R	R	T	T	TR	L	L	T	T	T
Maximum Queue (ft)	244	271	362	400	418	430	480	539	110	133
Average Queue (ft)	121	125	151	190	195	284	302	38	4	15
95th Queue (ft)	233	240	306	339	353	483	503	262	38	72
Link Distance (ft)	2384	2384	2854	2854	2854			487	487	487
Upstream Blk Time (%)							0	1		
Queuing Penalty (veh)							0	9		
Storage Bay Dist (ft)						380	380			
Storage Blk Time (%)						4	7			
Queuing Penalty (veh)						30	50			

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	L	R	R	T	T	TR	L	L	L	T	T	T
Maximum Queue (ft)	200	281	293	498	508	506	191	236	252	2278	2271	233
Average Queue (ft)	81	122	116	329	358	367	81	156	181	520	511	157
95th Queue (ft)	168	235	227	513	543	567	202	227	237	1783	1861	253
Link Distance (ft)		2201	2201	487	487	487				2256	2256	2256
Upstream Blk Time (%)				2	3	4				1	0	
Queuing Penalty (veh)				12	13	18				0	0	
Storage Bay Dist (ft)	175						800	800	800			
Storage Blk Time (%)	1	4										
Queuing Penalty (veh)	5	4										

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	74	221	232	229	403	359	117	178	145	53	300	535
Average Queue (ft)	29	111	124	91	219	193	70	100	69	32	145	249
95th Queue (ft)	61	207	214	183	351	296	116	171	138	48	306	425
Link Distance (ft)		575	575		1857	1857		920	920			2384
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		0			13	0		2			4	18
Queuing Penalty (veh)		0			22	0		3			17	33

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	546	300
Average Queue (ft)	274	46
95th Queue (ft)	433	198
Link Distance (ft)	2384	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	24	
Queuing Penalty (veh)	8	

Intersection: 12: Walmart Dr & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	197	205	31	53	175	142	67	40
Average Queue (ft)	35	33	2	17	33	34	22	18
95th Queue (ft)	119	113	15	45	109	104	53	31
Link Distance (ft)	762	762			575	575	445	445
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	235				
Storage Blk Time (%)		1						
Queuing Penalty (veh)		0						

Network Summary

Network wide Queuing Penalty: 1069

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	300	281	129	160	160	119
Average Queue (ft)	137	101	49	67	57	57
95th Queue (ft)	260	219	114	143	114	112
Link Distance (ft)	876	876	1804	1804	511	710
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	EB	EB	EB	EB	B18	B18	B18	B18	WB
Directions Served	<L	L	L	T	T	T	R>	T	T	T	T	<L
Maximum Queue (ft)	176	206	215	874	860	869	822	1831	1797	1688	1670	133
Average Queue (ft)	104	164	212	833	814	802	483	1116	1083	929	815	58
95th Queue (ft)	173	254	232	956	948	940	1099	2103	2076	1842	1677	128
Link Distance (ft)				772	772	772	772	1804	1804	1804	1804	
Upstream Blk Time (%)				89	87	86	30	1	0			
Queuing Penalty (veh)				276	271	267	95	3	0			
Storage Bay Dist (ft)	190	190	190									150
Storage Blk Time (%)	0	5	19	74								0
Queuing Penalty (veh)	0	13	45	339								0

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	WB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	T	T	T	R>	<L	T	R>	<L	T	R>
Maximum Queue (ft)	165	175	313	291	291	175	84	222	100	127	172	141
Average Queue (ft)	96	131	167	168	114	64	40	42	17	62	87	50
95th Queue (ft)	188	205	274	257	236	152	79	136	52	124	151	114
Link Distance (ft)			762	762	762			792	792		620	620
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150	150				150	60			105		
Storage Blk Time (%)	1	5	14		2	1	26	9		12	3	
Queuing Penalty (veh)	1	6	27		1	2	12	3		12	2	

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	NE	NE	NE	NE	SW	SW	SW	SW	SW	SW	
Directions Served	<L	T	T	T	R>	<L	T	T	T	R	R>	
Maximum Queue (ft)	155	639	638	593	205	185	248	246	306	185	159	
Average Queue (ft)	73	361	343	296	104	110	145	165	186	128	31	
95th Queue (ft)	176	526	526	473	209	193	230	227	283	232	90	
Link Distance (ft)		1678	1678	1678	1678		2854	2854	2854			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	130					160				160	160	
Storage Blk Time (%)	0	49				3	5		11	0	0	
Queuing Penalty (veh)	0	39				8	7		27	0	0	

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	614	659	569	568	576	300	306
Average Queue (ft)	329	341	358	379	392	151	171
95th Queue (ft)	586	607	494	517	531	238	260
Link Distance (ft)	2384	2384	2854	2854	2854		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	L	R	R	T	T	TR	L	L	L	T	T	T
Maximum Queue (ft)	200	1032	1018	217	243	245	195	288	301	1644	138	143
Average Queue (ft)	86	730	703	180	180	195	81	187	213	153	49	52
95th Queue (ft)	228	1068	1047	225	236	238	188	257	272	633	95	102
Link Distance (ft)		1502	1502	484	484	484				1657	1657	1657
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	175						800	800	800			
Storage Blk Time (%)	0	74										
Queuing Penalty (veh)	0	40										

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	112	266	287	229	246	193	250	375	288	157	272	280
Average Queue (ft)	40	163	180	78	117	96	108	223	192	66	104	104
95th Queue (ft)	89	254	276	160	200	177	221	318	278	127	195	197
Link Distance (ft)		575	575		1857	1857		920	920			2384
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		2		0	2		4	26	3		1	2
Queuing Penalty (veh)		1		0	3		16	34	6		3	3

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	277	94
Average Queue (ft)	130	41
95th Queue (ft)	223	86
Link Distance (ft)	2384	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	3	
Queuing Penalty (veh)	4	

Intersection: 12: Walmart Dr & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	118	150	29	53	113	116	66	44
Average Queue (ft)	36	47	1	20	19	17	18	16
95th Queue (ft)	89	110	10	51	63	59	48	35
Link Distance (ft)	762	762			575	575	445	445
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	235				
Storage Blk Time (%)		1						
Queuing Penalty (veh)		0						

Network Summary

Network wide Queuing Penalty: 1569

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	300	258	372	369	245	164
Average Queue (ft)	104	74	173	190	131	90
95th Queue (ft)	237	191	313	334	220	164
Link Distance (ft)	876	876	1804	1804	511	710
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	<L	L	L	T	T	T	R>	<L	L	L	T	T
Maximum Queue (ft)	90	168	215	626	622	606	23	146	164	175	335	328
Average Queue (ft)	29	58	139	291	267	261	8	67	96	160	292	300
95th Queue (ft)	82	137	255	551	503	464	25	130	171	220	310	319
Link Distance (ft)				772	772	772	772				281	281
Upstream Blk Time (%)											64	56
Queuing Penalty (veh)											228	200
Storage Bay Dist (ft)	190	190	190					150	150	150		
Storage Blk Time (%)			0	35				0	2	5	74	
Queuing Penalty (veh)			0	66				0	5	15	194	

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	NE	NE	NE	NE
Directions Served	T	R>	<L	T	R>	<L	T	R>	<L	T	T	T
Maximum Queue (ft)	307	175	84	126	77	127	100	94	155	335	321	209
Average Queue (ft)	278	60	25	29	14	67	31	17	90	165	130	96
95th Queue (ft)	300	181	64	79	47	120	84	52	174	262	224	177
Link Distance (ft)	281			791	791		608	608		1678	1678	1678
Upstream Blk Time (%)	17											
Queuing Penalty (veh)	60											
Storage Bay Dist (ft)		150	60			105			130			
Storage Blk Time (%)	43	0	3	6		10	1		17	13		
Queuing Penalty (veh)	36	0	1	3		5	1		45	8		

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	SW	SW	SW	SW	SW	SW	SW
Directions Served	R>	<L	T	T	T	R	R	R>
Maximum Queue (ft)	185	185	624	628	626	185	176	161
Average Queue (ft)	61	108	586	603	610	185	170	101
95th Queue (ft)	155	218	685	644	621	186	179	159
Link Distance (ft)	1678		601	601	601			
Upstream Blk Time (%)			31	31	39			
Queuing Penalty (veh)			259	260	320			
Storage Bay Dist (ft)		160				160	160	160
Storage Blk Time (%)			59		47	39	16	0
Queuing Penalty (veh)			74		405	202	83	1

Intersection: 3: Scott Blvd & Barton Way

Movement	NW	SW	SW	SW	SW
Directions Served	LR	L	T	T	T
Maximum Queue (ft)	292	124	334	318	319
Average Queue (ft)	75	8	240	265	288
95th Queue (ft)	217	48	426	398	348
Link Distance (ft)	390		295	295	295
Upstream Blk Time (%)			17	18	30
Queuing Penalty (veh)			142	148	246
Storage Bay Dist (ft)		100			
Storage Blk Time (%)			39		
Queuing Penalty (veh)			1		

Intersection: 4: Scott Blvd & Blackmon Dr

Movement	NW	NW	NE	NE	NE	NE	SW	SW	SW	SW
Directions Served	L	LR	T	T	T	R	L	T	T	T
Maximum Queue (ft)	153	226	207	190	155	79	260	385	395	385
Average Queue (ft)	77	111	81	86	75	16	128	273	299	352
95th Queue (ft)	142	199	161	165	145	47	302	469	468	458
Link Distance (ft)	526	526	295	295	295			366	366	366
Upstream Blk Time (%)								8	9	41
Queuing Penalty (veh)								61	71	330
Storage Bay Dist (ft)						175	235			
Storage Blk Time (%)							0	25		
Queuing Penalty (veh)							0	37		

Intersection: 5: Scott Blvd & Driveway 1

Movement	SW	SW	SW
Directions Served	T	T	T
Maximum Queue (ft)	418	443	464
Average Queue (ft)	149	262	325
95th Queue (ft)	429	536	601
Link Distance (ft)	419	419	419
Upstream Blk Time (%)	0	5	32
Queuing Penalty (veh)	0	34	242
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Scott Blvd & Driveway 2

Movement	SW	SW	SW
Directions Served	T	T	T
Maximum Queue (ft)	1034	1040	1050
Average Queue (ft)	229	287	341
95th Queue (ft)	840	930	994
Link Distance (ft)	1035	1035	1035
Upstream Blk Time (%)	0	0	8
Queuing Penalty (veh)	0	1	64
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW
Directions Served	R	R	T	T	TR	L	L	T	T	T
Maximum Queue (ft)	329	360	394	424	418	385	469	480	514	500
Average Queue (ft)	151	157	187	215	219	220	236	17	61	66
95th Queue (ft)	280	293	354	397	395	367	388	164	297	314
Link Distance (ft)	954	954	1035	1035	1035			484	484	484
Upstream Blk Time (%)							0	0	1	2
Queuing Penalty (veh)							0	1	8	22
Storage Bay Dist (ft)						380	380			
Storage Blk Time (%)						0				
Queuing Penalty (veh)						1				

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	L	R	R	T	T	TR	L	L	L	T	T	T
Maximum Queue (ft)	200	285	279	497	489	497	195	257	270	2115	2115	2111
Average Queue (ft)	56	143	131	352	375	387	70	156	183	758	508	207
95th Queue (ft)	134	236	224	517	535	541	183	222	245	2153	1726	826
Link Distance (ft)		1787	1787	484	484	484				2100	2100	2100
Upstream Blk Time (%)				2	4	6				1	0	0
Queuing Penalty (veh)				11	20	31				0	0	0
Storage Bay Dist (ft)	175						800	800	800			
Storage Blk Time (%)		4										
Queuing Penalty (veh)		4										

Intersection: 10: Church St & Driveway 3

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	71	50
Average Queue (ft)	30	11
95th Queue (ft)	58	35
Link Distance (ft)	378	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	97	224	243	230	372	366	226	221	204	109	299	393
Average Queue (ft)	33	131	131	121	228	214	98	123	91	38	116	219
95th Queue (ft)	71	191	203	241	347	325	172	200	185	76	242	381
Link Distance (ft)		564	564		1849	1849		921	921			1441
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		0			16	0	2	6			1	12
Queuing Penalty (veh)		0			27	0	4	10			4	25

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	433	300
Average Queue (ft)	237	30
95th Queue (ft)	401	155
Link Distance (ft)	1441	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	18	
Queuing Penalty (veh)	6	

Intersection: 12: Walmart Dr/Blackmon Dr & N Decatur Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	109	112	165	40	335	601	564	275	66	41	132	153
Average Queue (ft)	32	33	53	8	52	366	369	149	27	14	61	72
95th Queue (ft)	76	90	119	27	242	656	642	372	54	35	116	137
Link Distance (ft)		411	411			564	564		457	457	452	452
Upstream Blk Time (%)						2	1					
Queuing Penalty (veh)						10	4					
Storage Bay Dist (ft)	235			100	235			175				
Storage Blk Time (%)			2			43	49					
Queuing Penalty (veh)			1			9	40					

Intersection: 13: N Decatur Rd & Apartment Driveway

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	442	435	317
Average Queue (ft)	399	396	160
95th Queue (ft)	472	480	360
Link Distance (ft)	411	411	302
Upstream Blk Time (%)	34	33	30
Queuing Penalty (veh)	180	174	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 4442

Intersection: 1: Superior Ave & N Decatur Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	902	910	277	228	244	726
Average Queue (ft)	540	512	76	91	62	316
95th Queue (ft)	1113	1126	168	195	155	750
Link Distance (ft)	876	876	1804	1804	511	710
Upstream Blk Time (%)	42	32				25
Queuing Penalty (veh)	0	0				0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	EB	EB	EB	EB	EB	EB	EB	B18	B18	B18	B18	WB
Directions Served	<L	L	L	T	T	T	R>	T	T	T	T	<L
Maximum Queue (ft)	162	206	215	888	878	851	822	1839	1862	1894	1388	151
Average Queue (ft)	86	136	209	821	781	771	410	1247	1210	834	403	51
95th Queue (ft)	148	215	235	955	1033	1015	1017	2490	2453	1912	944	127
Link Distance (ft)				772	772	772	772	1804	1804	1804	1804	
Upstream Blk Time (%)				80	80	80	14	48	16	0		
Queuing Penalty (veh)				270	271	271	49	163	55	0		
Storage Bay Dist (ft)	190	190	190									150
Storage Blk Time (%)		1	11	77								0
Queuing Penalty (veh)		4	28	389								0

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	WB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	T	T	T	R>	<L	T	R>	<L	T	R>
Maximum Queue (ft)	167	175	294	314	313	175	85	104	76	130	575	93
Average Queue (ft)	108	133	190	199	157	78	39	35	25	92	205	30
95th Queue (ft)	177	204	298	297	289	180	79	89	64	155	495	72
Link Distance (ft)			279	279	279			791	791		608	608
Upstream Blk Time (%)			6	2	3							
Queuing Penalty (veh)			16	5	8							
Storage Bay Dist (ft)	150	150				150	60			105		
Storage Blk Time (%)	1	4	26		5	1	9	6		26	18	
Queuing Penalty (veh)	2	6	51		5	2	4	2		27	22	

Intersection: 2: Scott Blvd & Medlock Rd & N Decatur Rd

Movement	NE	NE	NE	NE	NE	SW	SW	SW	SW	SW	SW	SW
Directions Served	<L	T	T	T	R>	<L	T	T	T	R	R	R>
Maximum Queue (ft)	154	1717	1712	1729	1693	184	220	249	304	185	175	89
Average Queue (ft)	98	1366	1339	1296	770	105	144	173	217	164	76	10
95th Queue (ft)	205	2022	2013	1991	1981	185	206	246	293	232	166	47
Link Distance (ft)		1678	1678	1678	1678		601	601	601			
Upstream Blk Time (%)		30	29	35	29							
Queuing Penalty (veh)		0	0	0	0							
Storage Bay Dist (ft)	130					160				160	160	160
Storage Blk Time (%)		76				2	5		14	3	1	
Queuing Penalty (veh)		61				5	7		44	9	1	

Intersection: 3: Scott Blvd & Barton Way

Movement	NW	NE	NE	SW
Directions Served	LR	T	TR	L
Maximum Queue (ft)	31	31	27	48
Average Queue (ft)	6	1	2	13
95th Queue (ft)	27	11	12	39
Link Distance (ft)	390	601	601	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Scott Blvd & Blackmon Dr

Movement	NW	NW	NE	NE	NE	NE	SW	SW	SW	SW
Directions Served	L	LR	T	T	T	R	L	T	T	T
Maximum Queue (ft)	114	135	245	262	267	272	193	76	97	133
Average Queue (ft)	66	63	119	135	138	34	74	27	36	52
95th Queue (ft)	109	114	230	244	248	115	141	68	74	99
Link Distance (ft)	526	526	295	295	295			366	366	366
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)						175	235			
Storage Blk Time (%)					3					
Queuing Penalty (veh)					4					

Intersection: 5: Scott Blvd & Driveway 1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: Scott Blvd & Driveway 2

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 7: Scott Blvd & Church St

Movement	NB	NB	NE	NE	NE	SW	SW
Directions Served	R	R	T	T	TR	L	L
Maximum Queue (ft)	412	424	543	522	493	227	240
Average Queue (ft)	235	246	300	325	330	141	163
95th Queue (ft)	381	400	464	490	482	201	219
Link Distance (ft)	684	684	1037	1037	1037		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)						380	380
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Scott Blvd/Lawrenceville Hwy & Dekalb Industrial Way

Movement	NB	NB	NB	NE	NE	NE	SW	SW	SW	SW	SW	SW
Directions Served	L	R	R	T	T	TR	L	L	L	T	T	T
Maximum Queue (ft)	200	882	845	274	323	294	220	324	329	2174	97	96
Average Queue (ft)	135	642	630	200	205	222	134	204	224	179	43	53
95th Queue (ft)	265	861	838	272	304	299	229	286	298	816	96	98
Link Distance (ft)		1678	1678	483	483	483				2159	2159	2159
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	175						800	800	800			
Storage Blk Time (%)	0	72										
Queuing Penalty (veh)	0	39										

Intersection: 9: Church St & Emergency Access

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Church St & Driveway 3

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	71	53	22
Average Queue (ft)	18	19	1
95th Queue (ft)	47	48	7
Link Distance (ft)	378		213
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Church St & N Decatur Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	L	T	T	R	L	T
Maximum Queue (ft)	116	382	313	134	221	226	250	401	308	115	218	211
Average Queue (ft)	40	173	184	64	125	103	146	236	196	59	105	108
95th Queue (ft)	86	316	303	118	208	176	257	343	292	106	186	193
Link Distance (ft)		564	564		1849	1849		921	921			1441
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			180			150			235	200	
Storage Blk Time (%)		5			2		4	26	2		2	0
Queuing Penalty (veh)		3			3		15	54	6		4	1

Intersection: 11: Church St & N Decatur Rd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	206	61
Average Queue (ft)	127	23
95th Queue (ft)	195	54
Link Distance (ft)	1441	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)	1	
Queuing Penalty (veh)	1	

Intersection: 12: Walmart Dr/Blackmon Dr & N Decatur Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	73	200	205	25	90	238	208	56	86	42	153	74
Average Queue (ft)	34	66	84	2	26	73	70	9	34	18	59	38
95th Queue (ft)	67	147	170	13	62	150	148	41	66	40	106	63
Link Distance (ft)		413	413			564	564		457	457	452	452
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	235			100	235			175				
Storage Blk Time (%)			3			0	0					
Queuing Penalty (veh)			1			0	0					

Intersection: 13: N Decatur Rd & Apartment Driveway

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	145	112	29
Average Queue (ft)	17	17	6
95th Queue (ft)	79	76	25
Link Distance (ft)	413	413	284
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 1906