TRAFFIC IMPACT STUDY

LAKESIDE VILLAGE PLAZA
5353 LAKESHORE ROAD
CITY OF BURLINGTON
REGION OF HALTON

PREPARED FOR:

GLANELM PROPERTY MANAGEMENT

PREPARED BY:

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CROZIER
CONSULTING ENGINEERS

Revision Number	Date	Comments
Rev.0	April 2018	Issued for Coordination
Rev.1	April 2018	Issued for First Submission

1.0 Executive Summary

C.F. Crozier & Associates Inc. (Crozier) was retained by Glanelm Property Management to undertake a Traffic Impact Study (TIS) in support of applications for Official Plan Amendment and Zoning By-Law Amendment for a proposed mixed-use redevelopment located at 5353 Lakeshore Road in the City of Burlington. Correspondence between Nawfal Kammah (Crozier), Dan Ozimkovic (City of Burlington), and John Zaloznik (City of Burlington) determined the scope of work of this TIS.

The proposed redevelopment includes residential, retail, and office space. The proposed redevelopment has a total of 900 residential units, 11,395 m^2 GFA of retail space, 560 m^2 GFA of restaurant, and 2,700 m^2 GFA of office space. A total of 1350 parking spaces, consisting of 1150 underground parking spaces and 200 surface parking spaces are proposed for the site. The existing site accesses to Kenwood Avenue, Lakeshore Road and Hampton Heath Road will be maintained, with a proposed additional full-moves access to Kenwood Avenue. The analysis assessed conditions at boundary road intersections.

Under 2017 existing conditions, all the study intersections operate at a level of service "C" or better for all turning movements during all peak hours studied. The maximum "average delay per vehicle" for a turning movement at any of the study intersections is 20.8 seconds and the maximum volume-to-capacity ratio is 0.57 under existing conditions.

The study intersections are all projected to operate below capacity with levels of service "B" or better for all turning movements at each of the intersections under 2025, 2030, and 2035 future background volumes (excluding site generated trips). It is noted that during the p.m. peak period, high through traffic volumes along Lakeshore Road are expected to result in the southbound left traffic exiting the southern site access to experience a level of service "F".

The proposed redevelopment is expected to generate 690, 818, and 814 primary trips during the weekday a.m., weekday p.m., and Saturday peak hours respectively.

Analysis of the 2025, 2030 and 2035 total traffic volumes (includes site generated trips), indicates the study intersections are projected to operate below capacity with levels of service "B" or better for all turning movements, similar to the 2025, 2030 and 2035 future background (excludes site generated trips). Again, similar to the future background conditions, the southbound left traffic at the intersection of Lakeshore Road and the Southerly Site Access is projected to operate at a level of service "F". However, this is due to background traffic, as the proposed redevelopment does not add any additional trips to this turning movement during the peak hours studied herein. It is expected that, the southbound left turn trips will divert to the other four accesses during the peak hours, and operations will return to acceptable levels during off peak hours.

No issues regarding sightlines, clear throat lengths, access widths, access radii, and access conflicts were identified for the four existing site accesses and the proposed full-moves site access.

The analysis undertaken herein was based on the most recent concept plan, dated 21st March, 2018, and phasing plans prepared by Cynthia Zahoruk Architects. Any minor changes to the site statistics will not materially affect the conclusions contained within this report.

The Official Plan Amendment and Zoning By-Law Amendment applications are supported from a traffic operations perspective as the boundary road system can accommodate the increase in traffic volumes attributable to the proposed redevelopment.

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2.0 Introduction

C.F. Crozier & Associates Inc. (Crozier) was retained by Glanelm Property Management to undertake a Traffic Impact Study (TIS) in support of applications for Official Plan Amendment and Zoning By-Law Amendment for a proposed development located at 5353 Lakeshore Road, in the City of Burlington. The purpose of the study is to assess the impacts of the proposed redevelopment on the boundary road network and to recommend required mitigation measures, if warranted.

Correspondence between Nawfal Kammah (Crozier), Aaron Wignall (Crozier), Dan Ozimkovic (City of Burlington) and John Zaloznik (City of Burlington) provided guidance regarding the terms of reference for this Traffic Impact Study and has been included in **Appendix A**.

3.0 Existing Conditions

3.1 Study Area

The subject lands currently contain a commercial plaza, and are zoned by the City of Burlington Zoning By-Law 2020 as a Neighbourhood Commercial Zone – CN1-63. Relevant zoning map excerpts have been included in the **Appendix B**.

The subject lands are bounded by Lakeshore Road to the south, Kenwood Avenue to the west, Hampton Heath Road to the east and Skyway Park to the north.

Per consultation with the City of Burlington, the following study intersections were analyzed:

- Lakeshore Road at Kenwood Avenue/Private Access
- Lakeshore Road at Hampton Heath Road
- Lakeshore Road at the Southerly Site Access/Private Access
- Hampton Heath Road at Stratton Road
- Hampton Heath Road at Spruce Avenue
- Kenwood Avenue at Spruce Avenue
- Kenwood Avenue at the Westerly Site Access/Banting Court
- Hampton Heath Road at the Northern Easterly Site Access
- Hampton Heath Road at the Southern Easterly Site Access/ Private Access

Refer to **Figure 1** for the site location.

3.2 Boundary Road Network

Lakeshore Road is an east-west roadway with a three-lane cross-section at the site frontage, consisting of one lane in each direction and a two-way left-turn through the median lane. Lakeshore Road is under the jurisdiction of the City of Burlington and is defined as a minor arterialroadway according to "Schedule J" of the City of Burlington Official Plan. Lakeshore Road has a posted speed limit of 50 km/h at the site frontage. Sidewalks are located on both sides of the roadway, separated from the roadway by a boulevard strip.

Kenwood Avenue is a north-south roadway with a two-lane cross-section, one lane in each direction. Kenwood Avenue is under the jurisdiction of the City of Burlington and is identified as a collector roadway according to "Schedule J" of the City of Burlington Official Plan, with a posted speed limit of 40 km/h. Sidewalks are located on both sides of the roadway, separated from the roadway by a boulevard strip.

Hampton Heath Road is a north-south roadway with a two-lane cross-section, one lane in each direction. Hampton Heath Road is under the jurisdiction of the City of Burlington and is identified as a collector roadway according to "Schedule J" of the City of Burlington Official Plan, with a posted speed limit of 50 km/h at the site frontage. Sidewalks are located on both sides of the roadway, separated from the roadway by a boulevard strip.

Stratton Road is an east-west roadway with a two-lane cross-section, one lane in each direction. Stratton Road is under the jurisdiction of the City of Burlington and is identified as a local roadway according to "Schedule J" of the City of Burlington Official Plan, with an assumed speed limit of 50 km/h per municipal regulation. No pedestrian facilities are located along the roadway.

Spruce Avenue is an east-west roadway with a two-lane cross-section, one lane in each direction. Spruce Avenue is under the jurisdiction of the City of Burlington and is identified as a collector roadway according to "Schedule J" of the City of Burlington Official Plan, with a posted speed limit of 40 km/h. Sidewalks are located on both sides of the roadway, separated from the roadway by a boulevard strip.

The four-legged intersection of Lakeshore Road at Kenwood Avenue/Private Access is signalized. The eastbound and westbound approaches (Lakeshore Road) both consist of an exclusive left-turn lane and a shared through/right-turn lane. The southbound approach (Kenwood Avenue) consists of an exclusive left-turn lane and a shared through/right-turn lane. The northbound approach (Private Access) consists of a shared left/through/right-turn lane.

The three-legged intersection of Lakeshore Road at Hampton Heath Road is one-way stop controlled. The eastbound approach (Lakeshore Road) is under free flow conditions and consists of an exclusive left-turn lane and a through lane. The westbound approach (Lakeshore Road) is under free flow conditions and consists of an exclusive right-turn lane a through lane. The southbound approach (Hampton Heath Road) is stop-controlled and consists of an exclusive left-turn lane and an exclusive right-turn lane.

The three-legged intersection of Hampton Heath Road at Stratton Road is one-way stop controlled. The southbound approach (Hampton Heath Road) is under free flow conditions and consists of an exclusive left-turn lane and a through lane. The northbound approach (Hampton Heath Road) is under free flow conditions and consists of a shared through/right-turn lane. The westbound approach (Stratton Road) is stop-controlled and consists of a shared left/right-turn lane.

The four-legged intersection of Hampton Heath Road at Spruce Avenue is four-way stop-controlled. All approaches consist of a shared left/through/right-turn lane.

The three-legged intersection of Kenwood at Spruce Avenue is one-way stop controlled. The eastbound approach (Spruce Avenue) is under free-flow conditions and consists of a shared through/right-turn lane. The westbound approach (Spruce Avenue) is under free-flow conditions and consists of a shared through/left-turn lane. The northbound approach (Kenwood Avenue) is stop-controlled and consists of a shared left/right-turn lane.

The four-legged intersection of Kenwood Avenue at the Westerly Site Access/Banting Court is two-way stop controlled. Banting Court and the Westerly Site Access are offset by approximately ten metres, however the intersection was analyzed as a four-way intersection for the purpose of conservative analysis. The northbound approach (Kenwood Avenue) is under free flow conditions and consists of a shared left/through/right-turn lane. The southbound approach (Kenwood Avenue) is under free flow conditions and consists of a shared left/through/right-turn lane. The westbound approach (Westerly Site Access) is stop controlled and consists of a shared left/through/right-turn lane. The eastbound approach (Banting Court) is stop-controlled and consists of a shared left/through/right-turn lane.

The four-legged intersection of Lakeshore Road at the Southerly Site Access/Private Access is two-way stop controlled. The Southerly Site Access and the Private Access are offset by approximately ten metres, however the intersection was analyzed as a four-way intersection for the purpose of conservative analysis. The eastbound approach (Lakeshore Road) is under free flow conditions and consists of an exclusive left-turn lane and a shared through/right-turn lane. The westbound approach (Lakeshore Road) is under free flow conditions and consists of an exclusive left-turn lane and a shared through/right-turn lane. The southbound approach (Southerly Site Access) is stop-controlled and consists of a shared left/through/right-turn lane. The northbound approach (Private Access) is stop-controlled and consists of a shared left/through/right-turn lane.

The three-legged intersection of Hampton Heath Road at the Northern Easterly Site Access is one-way stop controlled. The northbound approach (Hampton Heath Road) is under free flow conditions and consists of a shared through/left-turn lane. The southbound approach (Hampton Heath Road) is under free flow conditions and consists of a shared through/right-turn lane. The eastbound approach (Northern Easterly Site Access) is stop-controlled and consists of a shared left/right-turn lane.

The four-legged intersection of Hampton Heath Road at the Southern Easterly Site Access/Private Access is two-way stop controlled. The Easterly Southern Site Access and the Private Access are offset by approximately ten metres; however, the intersection was analyzed as a four-way intersection for the purpose of conservative analysis. The northbound approach (Hampton Heath Road) is under free flow conditions and consists of a shared left/through/right-turn lane. The southbound approach (Hampton Heath Road) is under free flow conditions and consists of a shared left/through/right-turn lane. The eastbound approach (Southern Easterly Site Access) is stop-controlled and consists of a shared left/through/right-turn lane. The westbound approach (Private Access) is stop-controlled and consists of a shared left/through/right-turn lane.

Refer to **Figure 3** for the lane configuration of the study intersections.

3.3 Traffic Data

Turning movement counts at the intersections of Lakeshore Road and Kenwood Avenue/Private Access, Lakeshore Road and Hampton Heath Road, Hampton Heath Road and Stratton Road, Hampton Heath Road and Spruce Avenue, Kenwood Avenue and Spruce Avenue, as well as at the existing plaza accesses were conducted by Spectrum Traffic Data Inc. The counts were on the Thursday February 2nd, 2017, between 7 a.m. and 10 a.m. and between 3 p.m. and 7 p.m., as well as on Saturday February 4th, 2017, between 10 a.m. and 3 p.m.

As requested by the City of Burlington Staff, the traffic volumes surveyed at the study intersections were balanced, based on the weekday a.m., p.m. and Saturday peak hours of the Lakeshore Road at Kenwood Avenue intersection. The peak hours occurred between 8 a.m. and 9 a.m., 4:30 p.m. and 5:30 p.m. and 2 pm. and 3 p.m., for the weekday a.m., p.m., and Saturday peaks, respectively. A peak hour factor of 0.92 was applied to all balanced volumes, as a Synchro standard of analysis. The percentages of heavy vehicles surveyed at the study intersections were applied to the balanced volumes for the purpose of conservative analysis.

Traffic data contained in **Appendix C** provides a summary of the turning movement counts. Refer to **figure 3** for the balanced existing traffic volumes.

3.4 Cycling Routes

Lakeshore Road has bicycle lanes located on both sides of the roadway, as well as a multi-use path, per the Long-Term Cycling Master Plan Map. Additionally, Kenwood Avenue and Spruce Avenue are both considered bicycle priority streets per the Long-Term Cycling Master Plan Map. Relevant map excerpts are included in **Appendix B**.

3.5 Public Transit

At the site frontage, Lakeshore Road is classified as a secondary bus service roadway per the Long-Term Transit Service Network Map. Additionally, Hampton Heath Road and Spruce Avenue west of Hampton Heath Road are both classified as primary bus service roadways.

Multiple Burlington transit routes currently operate in the immediate surroundings of the proposed development. Route 20 (Burloak–Lakeshore) operates from Monday to Sunday, with a headway of approximately 20 minutes during the weekday peak hours and approximately 30 minutes during the weekend. It has a stop at the intersection of Lakeshore Road and Kenwood Avenue. Route 40 (Pinedale–Hampton Heath) operates from Monday to Friday during the weekday peak hours with a headway of approximately 30 minutes. It has a stop at the intersection of Hampton Heath Road and the Southern Easterly Site Access. Route 50 (Burlington South) operates from Monday to Saturday during the late night/early morning hours, with a headway of approximately one hour. It has a stop at the intersection of Lakeshore Road and the Southerly Site Access. Route 301 (Pinedale) operates from Monday to Friday during the mid-day hours with a headway of approximately one hour. It has a stop at the intersection of Lakeshore Road at the Southerly Site Access. Relevant maps have been included in **Appendix B**.

3.6 Traffic Modeling

The assessment of intersections is based on the method outlined in the "Highway Capacity Manual, 2010". Using Synchro 9 modeling software, intersections were assessed using a Level of Service metric assigned a letter from "A" to "F" based on ranges of average vehicle delay. For stop-controlled intersections, a Level of Service "A" or "B" would typically be measured during off-peak hours when lesser traffic volumes are on the roadways. Levels of Service "C" through "F" would typically be measured in the commuter peak hours when greater vehicle volumes cause longer travel times. The Level of Service (LOS) definitions for signalized and stop controlled intersections are included in **Appendix D**.

3.7 Intersection Operations

The traffic operations at the study intersections were analyzed on the basis of the balanced traffic volumes. The signal timing plans for the intersection of Lakeshore Road at Kenwood Avenue/Private Access were obtained from the City of Burlington and can be found in **Appendix C**. Detailed capacity analyses are included in **Appendix E**.

The operations of the critical intersections were analyzed on the basis of the traffic volumes illustrated in **Figure 3**. **Table 1** outlines the existing traffic Levels of Service.

Table 1: 2017 Existing Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	A	5.9	0.47 (EBT)	None
		Weekday P.M.	A	5.8	0.57 (WBT)	None
		Saturday	A	5.3	0.33 (WBT)	None
Lakeshore Road at Hampton Heath Road	One-Way Stop	Weekday A.M.	C	15.3	0.06 (SBL)	None
		Weekday P.M.	C	17.2	0.09 (SBL)	None
		Saturday	B	14.2	0.14 (SBL)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.2	0.02 (WB)	None
		Weekday P.M.	A	9.4	0.03 (WB)	None
		Saturday	A	9.2	0.02 (WB)	None
Hampton Heath Road at Spruce Avenue	All-Way Stop	Weekday A.M.	A	9.1	0.23 (EB)	None
		Weekday P.M.	A	8.3	0.18 (SB)	None
		Saturday	A	7.9	0.14 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	B	10.8	0.16 (NB)	None
		Weekday P.M.	A	9.8	0.10 (NB)	None
		Saturday	A	9.4	0.08 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were provided by the City of Burlington.

Table 1: 2017 Existing Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C Ratio (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/ Banting Court	Two-Way Stop	Weekday A.M.	A	9.4	0.04 (WB)	None
		Weekday P.M.	A	9.1	0.05 (WB)	None
		Saturday	A	9.3	0.04 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	C	17.0	0.22 (SB)	None
		Weekday P.M.	C	20.8	0.33 (SB)	None
		Saturday	B	13.8	0.21 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	8.9	0.01 (EB)	None
		Weekday P.M.	A	9.0	0.03 (EB)	None
		Saturday	A	9.0	0.03 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	A	9.7	0.05 (EB)	None
		Weekday P.M.	B	10.2	0.11 (EB)	None
		Saturday	A	9.8	0.11 (EB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection. The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach. The signal timing plans were provided by the City of Burlington.

As indicated in **Table 1**, the study intersections are all operating at a level of service "C" or better for all turning movements during the weekday a.m., p.m., and Saturday peak hours. The maximum "average delay per vehicle" for a turning movement at any of the study intersections is 20.8 seconds for the southbound left turn at the intersection of Lakeshore Road and the Southerly Site Access, occurring during the weekday p.m. peak hour. A maximum volume-to-capacity ratio of 0.57 is expected during the weekday p.m. peak hour for the westbound through movement.

Operational analyses of the existing traffic volumes indicate that a reserve capacity is available for future traffic volume growth on the boundary road network.

4.0 Development Proposal

The proposed redevelopment of the existing plaza includes mixed-use buildings comprised of residential, retail, offices, restaurant and a grocery store. The proposed redevelopment will be implemented in five phases, and it is projected for full-buildout in the year 2025.

As illustrated on the concept plan, dated 21st March, 2018, and phasing plans prepared by Cynthia Zahoruk Architects, the mixed-use development will be phased as follows:

- **Phase One:** Demolish 2,400 m^2 of the existing retail area and a redevelopment of a portion of the demolished area to contain Block B. Block B is a 6-storey (6,000 m^2 GFA) residential building consisting of 5 townhouse units and 46 apartment units.

- **Phase Two:** Demolish an additional 1,500 m^2 of the existing retail area and a redevelopment of the demolished area to contain Blocks A, E and F. Block A is a 1-storey (560 m^2 GFA) restaurant. Blocks E (14-storey) and F (18-storey) share a common 6-storey podium. The entire E and F have 336 apartment units and 2520 m^2 of retail space.

- **Phase Three:** Demolish an additional 4,270 m^2 of the existing retail/grocery store area and a redevelopment of the demolished area to contain Block-I and a 1-storey new grocery store (3,175 m^2 GFA). Block-I is 4-storeys and consist of offices (2,700 m^2 GFA) and retail (900 m^2 GFA).

- **Phase Four:** Demolish an additional 2,180 m^2 of the existing retail area and a redevelopment of the demolished area to contain Blocks C and D. Blocks C and D are both 11-storeys and share a common 4-storey podium. The entire building has 224 apartment units and 2,320 m^2 GFA of retail space.

- **Phase Five:** Redevelop a portion of the existing parking area to contain Blocks G and H. Blocks G (18-storey) and H (10-storey) share a common 6-storey podium. The building has 284 apartment units and 2480 m^2 GFA of retail space.

The existing site accesses to Kenwood Avenue, Lakeshore Road and Hampton Heath Road will be maintained, with a proposed additional access to Kenwood Avenue. Surface parking, as well as underground parking, will be available on-site. A total of 1350 parking spaces (1150 underground and 200 surface parking) will be provided on-site. Refer to **Figure 2** for the concept plan, dated 21st March, 2018, and phasing plans prepared by Cynthia Zahoruk Architects.

5.0 Future Background Conditions

5.1 Study Horizons

The proposed development has five phases, which is projected for full implementation by 2025. In order to assess the impacts of the proposed development on the boundary road network, a five and ten-year horizon from the assumed full-buildout year were considered for analysis. Therefore, traffic operations under 2017 existing volumes, 2025 assumed full-build, 2030 and 2035 future background /total traffic conditions were analyzed.

5.2 Traffic Growth Rates

Per the terms of reference agreed to with the City of Burlington Staff, an industry standard growth rate of two percent was applied to all movements along the public roadways at the study intersections.

5.3 Road Improvements

The stop-controlled intersection of Lakeshore Road at Hampton Heath is to become signalized in the future as advised by the City of Burlington staff. This is expected to result in an optimal usage to the intersection's capacity in the future, with less overall intersection delay to vehicles compared the existing one-way stop control.

5.4 Intersection Operations

Future background traffic operations at the study intersections were assessed with the grown volumes for 2025, 2030 and 2035 horizon years, the volumes are illustrated in **Figures 4, 5** and **6**, respectively. **Table 2, 3** and **4** outline the 2025, 2030 and 2035 future background Levels of Service, respectively. Detailed capacity analysis worksheets are included in **Appendix E.**

Optimized signal timing plans were applied to the signalized intersections (including Lakeshore Road at Hampton Heath) under the 2025, 2030 and 2035 future background operations.

Table 2: 2025 Future Background Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	A	8.5	0.67 (EBT)	None
		Weekday P.M.	A	6.6	0.65 (WBT)	None
		Saturday	A	5.8	0.39 (WBT)	None
Lakeshore Road at Hampton Heath Road	Signal	Weekday A.M.	A	5.1	0.62 (EBT)	None
		Weekday P.M.	A	7.0	0.65 (WBT)	None
		Saturday	A	7.1	0.39 (WBT)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.3	0.03 (WB)	None
		Weekday P.M.	A	9.7	0.03 (WB)	None
		Saturday	A	9.3	0.03 (WB)	None
Hampton Heath Road at Spruce Avenue	Four-Way Stop	Weekday A.M.	A	9.7	0.28 (EB)	None
		Weekday P.M.	A	8.7	0.22 (SB)	None
		Saturday	A	8.1	0.17 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	B	11.4	0.20 (NB)	None
		Weekday P.M.	B	10.5	0.16 (NB)	None
		Saturday	A	9.7	0.10 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were Optimized.

Table 2: 2025 Future Background Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/Banting Court	Two-Way Stop	Weekday A.M.	A	9.6	0.04 (WB)	None
		Weekday P.M.	A	9.5	0.06 (WB)	None
		Saturday	A	9.4	0.05 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	C	23.2	0.29 (SB)	None
		Weekday P.M.	D	28.9	0.47 (SB)	None
		Saturday	C	15.5	0.27 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	9.0	0.01 (EB)	None
		Weekday P.M.	A	9.1	0.03 (EB)	None
		Saturday	A	9.2	0.02 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	B	10.2	0.07 (EB)	None
		Weekday P.M.	B	10.2	0.14 (EB)	None
		Saturday	B	10.2	0.14 (EB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were Optimized.

Table 3: 2030 Future Background Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	A	9.1	0.72 (EBT)	None
		Weekday P.M.	A	8.2	0.72 (WBT)	None
		Saturday	A	6.9	0.46 (WBT)	None
Lakeshore Road at Hampton Heath Road	Signal	Weekday A.M.	A	7.4	0.72 (EBT)	None
		Weekday P.M.	A	7.6	0.70 (WBT)	None
		Saturday	A	7.2	0.42 (WBT)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.4	0.03 (WB)	None
		Weekday P.M.	A	9.8	0.04 (WB)	None
		Saturday	A	9.4	0.04 (WB)	None
Hampton Heath Road at Spruce Avenue	Four-Way Stop	Weekday A.M.	B	10.2	0.31 (EB)	None
		Weekday P.M.	A	9.3	0.26 (SB)	None
		Saturday	A	8.3	0.19 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	B	12.0	0.23 (NB)	None
		Weekday P.M.	B	10.9	0.18 (NB)	None
		Saturday	A	9.9	0.11 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were Optimized.

Table 3: 2030 Future Background Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/Banting Court	Two-Way Stop	Weekday A.M.	A	9.7	0.05 (WB)	None
		Weekday P.M.	A	9.5	0.07 (WB)	None
		Saturday	A	9.5	0.05 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	D	28.1	0.38 (SB)	None
		Weekday P.M.	E	38.5	0.58 (SB)	None
		Saturday	C	17.5	0.33 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	9.0	0.02 (EB)	None
		Weekday P.M.	A	9.2	0.03 (EB)	None
		Saturday	A	9.3	0.03 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	B	10.1	0.08 (EB)	None
		Weekday P.M.	B	10.4	0.15 (EB)	None
		Saturday	B	10.4	0.16 (EB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were Optimized.

Table 4: 2035 Future Background Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	B	11.1	0.79 (EBT)	None
		Weekday P.M.	B	10.9	0.82 (WBT)	None
		Saturday	A	7.5	0.51 (WBT)	None
Lakeshore Road at Hampton Heath Road	Signal	Weekday A.M.	A	8.9	0.78 (EBT)	None
		Weekday P.M.	B	10.0	0.80 (WBT)	None
		Saturday	A	8.2	0.49 (WBT)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.5	0.04 (WB)	None
		Weekday P.M.	A	9.9	0.04 (WB)	None
		Saturday	A	9.5	0.04 (WB)	None
Hampton Heath Road at Spruce Avenue	Four-Way Stop	Weekday A.M.	B	10.8	0.35 (EB)	None
		Weekday P.M.	A	9.4	0.28 (SB)	None
		Saturday	A	8.5	0.21 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	B	12.8	0.27 (NB)	None
		Weekday P.M.	B	11.3	0.21 (NB)	None
		Saturday	B	10.1	0.12 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were Optimized.

Table 4: 2035 Future Background Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/Banting Court	Two-Way Stop	Weekday A.M.	A	9.8	0.06 (WB)	None
		Weekday P.M.	A	9.6	0.08 (WB)	None
		Saturday	A	9.6	0.06 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	E	39.5	0.51 (SB)	None
		Weekday P.M.	F	100.7	0.78 (SB)	None
		Saturday	C	20.7	0.40 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	9.1	0.02 (EB)	None
		Weekday P.M.	A	9.1	0.04 (EB)	None
		Saturday	A	9.1	0.03 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	B	10.4	0.09 (EB)	None
		Weekday P.M.	B	10.8	0.18 (EB)	None
		Saturday	B	10.6	0.18 (EB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The signal timing plans were Optimized.

As indicated in **Tables 2 to 4**, under 2025, 2030 and 2035 future background conditions, the study intersections are all projected to operate below capacity with levels of service "B" or better with the exception of the intersection of Lakeshore Road at the Southerly Site Access.

The intersection of Lakeshore Road at the Southerly Site Access is projected to operate at a level of service "E", "F" and "C" during the a.m., p.m., and Saturday peak periods, respectively. This is due to high through traffic volumes along Lakeshore Road, resulting in delays to the southbound left turn traffic. The maximum "average delay per vehicle" for a turning movement at any of the intersections is 100.7 seconds for the southbound left turn at the intersection of Lakeshore Road and the Southerly Site Access, occurring during the weekday p.m. peak hour. A maximum volume-to-capacity ratio of 0.82 is expected during the weekday p.m. peak hour for the westbound through movement at the intersection of Lakeshore Road at Kenwood Avenue/ Private Access.

5.5 Sensitivity Analysis

In order to improve the operations of the intersection of Lakeshore Road at the Southerly Site Access, consideration was given to implementing an exclusive right-turn lane for the southbound approach and a shared left-through lane. The operations were observed to remain the same as presented in **Table 4**.

Additionally, signalization of the intersection of Lakeshore Road at the Southerly Site Access was considered. However, the "Ontario Traffic Manual (March 2012)" requires a minimum of 215 m spacing between signalized intersections to ensure smooth traffic operation and avoid backflows between signalized intersections. This requirement is not satisfied, as the signalized intersection of Lakeshore at Kenwood Avenue and the proposed future signalized intersection Lakeshore at Hampton Heath Road are both less than 215 m from the intersection of Lakeshore Road at the Southerly Site Access.

6.0 Site Generated Traffic

The proposed development will result in a replacement of the trips to the existing commercial plaza with trips for the proposed mixed-use residential/ commercial development. Consequently, the trips entering and exiting the current plaza will be removed from the boundary road network and replaced with trips generated by the proposed redevelopment.

6.1 Trip Reduction

In order to avoid double counting the commercial trips, the existing site trips were removed from the boundary road network. The trips were removed based on the existing travel patterns. **Figure 7** has been provided to illustrate the trip reductions.

6.2 ITE Trip Generation

In order to complete the trip generation for the proposed redevelopment, the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, was used. The trips generated by the 895 apartment dwellings and 5 townhouse units were calculated using the Land Use Category (LUC) 220 "Apartment" and LUC 230 "Residential Condominium/ Townhouse", respectively. The trips generated by the retail spaces including the restaurant were calculated using LUC 820 "Shopping Center". The trips generated by the office space were calculated using LUC 710 "General Office building" and the trips generated by the Grocery store were calculated using LUC 850 "Supermarket". The trips generated by the redevelopment are detailed in **Table 5**.

Table 5: ITE Trip Generation

Type of Use	Number of Dwelling Units	Peak Hour	Trip Rate	Number of Trips		
				Inbound (%)	Outbound (%)	Total
Apartments (LUC: 220)	895 Dwelling Units	Weekday A.M	0.51 trips per dwelling unit	91 (20%)	365 (80%)	456
		Weekday P.M.	0.62 trips per dwelling unit	361 (65%)	194 (35%)	555
		Saturday*	0.52 trips per dwelling unit	302 (65%)	163 (35%)	465
Townhouse (LUC: 230)	5 Dwelling Units	Weekday A.M	0.44 trips per dwelling unit	0 (17%)	2 (83%)	2
		Weekday P.M.	0.52 trips per dwelling unit	2 (67%)	1 (33%)	3
		Saturday*	0.47 trips per dwelling unit	1 (54%)	1 (46%)	2
Type of Use	**GFA (ft^2)**	**Peak Hour**	**Trip Rate**	**Inbound (%)**	**Outbound (%)**	**Total**
Retail (Shopping Center – LUC: 820)	94,507 (8,780 m^2)	Weekday A.M	0.96 trips per 1,000 ft^2	56 (62%)	35 (38%)	91
		Weekday P.M.	3.71 trips per 1,000 ft^2	168 (48%)	182 (52%)	350
		Saturday	4.82 trips per 1,000 ft^2	237 (52%)	219 (48%)	456
Grocery Store (LUC 850: Supermarket)	34,175 (3,175 m^2)	Weekday A.M	3.40 trips per 1,000 ft^2	72 (62%)	44 (38%)	116
		Weekday P.M.	9.48 trips per 1,000 ft^2	165 (51%)	159 (49%)	324
		Saturday	10.65 trips per 1,000 ft^2	186 (51%)	178 (49%)	364
Office (LUC: 710)	29,063 (2,700 m^2)	Weekday A.M	1.56 trips per 1,000 ft^2	40 (88%)	5 (12%)	45
		Weekday P.M.	1.49 trips per 1,000 ft^2	7 (17%)	36 (83%)	43
		Saturday	0.43 trips per 1,000 ft^2	7 (54%)	6 (46%)	13
TOTAL		**Weekday A.M**		**259**	**451**	**710**
		Weekday P.M.		**703**	**572**	**1275**
		Saturday		**733**	**567**	**1300**

**Note: The Saturday peak hour directional distribution is not available. Therefore, the weekday p.m. peak hour distribution was used.*

6.3 Internal Trip Capture

As with many multiuse integrated sites, internal interaction between the facilities is expected to occur. Internal trips which circulate between the restaurant and commercial land uses were calculated and reduced from the trip generation.

Table 7.1 of the ITE Trip Generation Handbook (3rd Edition) outlines trip capture rates for trip origins within a mixed-use development, while Table 7.2 outlines trip capture rates for trip destinations within a mixed-use development.

The ITE Trip Generation Handbook does not distinguish between residential or retail types when providing internal trip capture rates. Therefore, the apartments and townhouses were combined as residential, similarly, the retail and grocery store from **Table 5** were combined as retail.

Table 6 below outlines the forecasted internal and external trips for the proposed development.

Table 6: Internal and External Trips

Subject Property Use	Trip Type	Peak Hour	Trips Generated		
			Inbound	Outbound	Total
Residential	Internal	A.M.	2	5	7
		P.M.	90	37	127
		SAT.*	103	46	149
	External	**A.M.**	**89**	**362**	**451**
		P.M.	**273**	**158**	**431**
		SAT.	**200**	**118**	**318**
Retail	Internal	A.M.	5	4	9
		P.M.	40	91	131
		SAT. *	43	105	148
	External	**A.M.**	**123**	**75**	**198**
		P.M.	**293**	**250**	**543**
		SAT.	**380**	**292**	**672**
Office	Internal	A.M.	3	1	4
		P.M.	6	8	**14**
		SAT. *	6	1	**7**
	External	**A.M.**	**37**	**4**	**41**
		P.M.	**1**	**28**	**29**
		SAT.	**1**	**5**	**6**
Total	Internal	A.M.	10	10	20
		P.M.	136	136	272
		SAT.*	152	152	304
	External	**A.M.**	**249**	**441**	**690**
		P.M.	**567**	**436**	**1003**
		SAT.	**581**	**415**	**996**

**The weekday p.m. internal trip capture rates were also used for the Saturday as no rates are provided.*

6.4 Pass-By Trips

As defined by the ITE Trip Generation Handbook, 3rd Edition, primary trips are made for the specific purpose of visiting the generator. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Accordingly, these vehicles do not increase the volume of vehicles on the roadway.

The pass-by trip percentage of the shopping centre was forecasted using the rates provided by the ITE Trip Generation Handbook, 3rd Edition. Land Use Category 820 "Shopping Centre" was used to forecast a pass-by trip percentage of 34 percent for the weekday p.m. peak hours. This value was derived from Table F.9. Similarly, a pass-by trip percentage of 26 percent for the Saturday peak hour was used as per Table F.10. No pass-by percentage is provided by the Manual for the a.m. peak.

The forecasted primary and pass-by trips for the site are summarized in **Table 7**.

Table 7: Primary and Pass-By Trips

Subject Property Use	Trip Type	Peak Hour	Trips Generated		
			Inbound	Outbound	Total
Retail (Shopping Center – LUC: 820)	Primary	A.M.	123 (100%)	75 (100%)	198
		P.M.	193 (66%)	165 (66%)	37
		SAT.	277 (73%)	213 (73%)	53
	Pass-By	A.M.	0 (0%)	0 (0%)	0
		P.M.	100 (34%)	85 (34%)	185
		SAT.	103 (26%)	79 (26%)	182
All other Uses (No pass-By)	Primary	A.M.	126	366	492
		P.M.	274	186	460
		SAT.	201	123	324
Total	**Primary**	**A.M.**	**249**	**441**	**690**
		P.M.	**467**	**351**	**818**
		SAT.	**478**	**336**	**814**
	Pass-By	**A.M.**	**0**	**0**	**0**
		P.M.	**100**	**85**	**185**
		SAT.	**103**	**79**	**182**

6.5 Trip Distribution and Assignment

The trips generated by the residential portion of the proposed development were distributed to the boundary road network based on Transportation Tomorrow Survey Data and the existing travel pattern along the boundary road network. The primary and pass-by trips generated by the retail/commercial portion of the proposed development were distributed to the boundary road network using the trip distribution of the existing plaza.

The primary and pass-by trip distributions were used to assign the generated trips to the boundary road network. The primary/ pass-by trip distributions and trip assignments, as well as the total trip assignment are illustrated in **Figures 9 to 13**.

7.0 Total Traffic Conditions

7.1 Intersection Operations

Traffic operations at the study intersections were analyzed with the addition of the site generated traffic. The total traffic volumes for the 2025, 2030 and 2035 horizon years are illustrated in **Figures 14, 15** and **16** respectively. **Tables 8, 9,** and **10** outline the 2025, 2030, and 2035 Total traffic Levels of Service respectively. Detailed capacity analysis worksheets are included in **Appendix E.**

Table 8: 2025 Total Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	A	8.4	0.68 (EBT)	None
		Weekday P.M.	A	7.6	0.71 (WBT)	None
		Saturday	A	6.2	0.44 (WBT)	None
Lakeshore Road at Hampton Heath Road	Signal	Weekday A.M.	A	5.4	0.62 (EBT)	None
		Weekday P.M.	A	4.9	0.60 (WBT)	None
		Saturday	A	3.0	0.30 (WBT)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.4	0.02 (WB)	None
		Weekday P.M.	A	9.7	0.03 (WB)	None
		Saturday	A	9.3	0.03 (WB)	None
Hampton Heath Road at Spruce Avenue	All-way Stop	Weekday A.M.	B	10.1	0.29 (EB)	None
		Weekday P.M.	A	9.8	0.31 (SB)	None
		Saturday	A	8.8	0.21 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	B	14.1	0.39 (NB)	None
		Weekday P.M.	B	11.6	0.25 (NB)	None
		Saturday	B	10.5	0.18 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The same signal timing plan as in the 2025 future background was used.

Table 8: 2025 Total Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/Banting Court	Two-Way Stop	Weekday A.M.	B	10.1	0.12 (WB)	None
		Weekday P.M.	B	10.2	0.09 (WB)	None
		Saturday	A	9.9	0.09 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	C	19.3	0.37 (SB)	None
		Weekday P.M.	F	51.9	0.75 (SB)	None
		Saturday	C	19.1	0.42 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	9.6	0.03 (EB)	None
		Weekday P.M.	B	9.9	0.06 (EB)	None
		Saturday	A	9.8	0.06 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	A	9.9	0.13 (EB)	None
		Weekday P.M.	B	10.1	0.14 (EB)	None
		Saturday	B	10	0.14 (EB)	None
Kenwood Avenue at New Site Access/ Adjacent Commercial Access	Two-Way Stop	Weekday A.M.	B	11	0.12 (WB)	None
		Weekday P.M.	B	11.4	0.12 (WB)	None
		Saturday	B	10.8	0.11 (WB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay per vehicle.
The Level of Service of a stop-controlled intersection is based on the average delay of the minor intersection.
The same signal timing plan as in the 2025 future background was used.

Table 9: 2030 Total Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	A	8.9	0.72 (EBT)	None
		Weekday P.M.	A	9.8	0.78 (WBT)	None
		Saturday	A	7.1	0.48 (WBT)	None
Lakeshore Road at Hampton Heath Road	Signal	Weekday A.M.	A	6.4	0.68 (EBT)	None
		Weekday P.M.	A	6.7	0.69 (WBT)	None
		Saturday	A	4.6	0.36 (WBT)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.5	0.02 (WB)	None
		Weekday P.M.	A	9.8	0.03 (WB)	None
		Saturday	A	9.4	0.03 (WB)	None
Hampton Heath Road at Spruce Avenue	All-Way Stop	Weekday A.M.	B	10.9	0.33 (EB)	None
		Weekday P.M.	B	10.6	0.35 (SB)	None
		Saturday	A	9.5	0.26 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	C	15.3	0.44 (NB)	None
		Weekday P.M.	B	12.1	0.27 (NB)	None
		Saturday	B	10.7	0.19 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection. The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach. The same signal timing plan as in the 2030 future background was used.

Table 9: 2030 Total Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/Banting Court	Two-Way Stop	Weekday A.M.	B	10.2	0.12 (WB)	None
		Weekday P.M.	B	10.3	0.10 (WB)	None
		Saturday	B	10	0.10 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	C	23	0.46 (SB)	None
		Weekday P.M.	F	94.5	0.95 (SB)	None
		Saturday	C	22.7	0.49 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	9.7	0.03 (NB)	None
		Weekday P.M.	B	10	0.06 (EB)	None
		Saturday	B	10	0.06 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	B	10	0.15 (EB)	None
		Weekday P.M.	B	10.3	0.16 (EB)	None
		Saturday	B	10.3	0.15 (EB)	None
Kenwood Avenue at New Site Access/ Adjacent Commercial Access	Two-Way Stop	Weekday A.M.	B	10.7	0.12 (WB)	None
		Weekday P.M.	B	11.6	0.12 (WB)	None
		Saturday	B	12.1	0.13 (WB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection. The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach. The same signal timing plan as in the 2030 future background was used.

Table 10: 2035 Total Levels of Service

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Lakeshore Road at Kenwood Avenue/ Private Access	Signal	Weekday A.M.	B	11.1	0.80 (EBT)	None
		Weekday P.M.	B	11.3	0.84 (WBT)	None
		Saturday	A	7.7	0.53 (WBT)	None
Lakeshore Road at Hampton Heath Road	Signal	Weekday A.M.	A	9.0	0.77 (EBT)	None
		Weekday P.M.	A	8.0	0.75 (WBT)	None
		Saturday	A	4.8	0.39 (WBT)	None
Hampton Heath Road at Stratton Road	One-Way Stop	Weekday A.M.	A	9.5	0.03 (WB)	None
		Weekday P.M.	A	9.9	0.03 (WB)	None
		Saturday	A	9.4	0.03 (WB)	None
Hampton Heath Road at Spruce Avenue	All-Way Stop	Weekday A.M.	B	11.9	0.38 (EB)	None
		Weekday P.M.	B	11.0	0.38 (SB)	None
		Saturday	A	9.3	0.28 (SB)	None
Kenwood Avenue at Spruce Avenue	One-Way Stop	Weekday A.M.	C	16.8	0.48 (NB)	None
		Weekday P.M.	B	12.7	0.30 (NB)	None
		Saturday	B	11.0	0.21 (NB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The same signal timing plan as in the 2035 future background was used.

Table 10: 2035 Total Levels of Service (Continued)

Intersection	Control	Peak Hour	Level of Service	Average Delay per Vehicle(s)	Max V/C & V/C Ratio > 0.85 (Approach)	95th %ile Queues > Storage Length
Kenwood Avenue at the Westerly Site Access/Banting Court	Two-Way Stop	Weekday A.M.	B	10.4	0.13 (WB)	None
		Weekday P.M.	B	10.4	0.11 (WB)	None
		Saturday	B	10.1	0.10 (WB)	None
Lakeshore Road at the Southerly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	D	30.2	0.58 (SB)	None
		Weekday P.M.	F	184.8	1.21 (SB)	None
		Saturday	D	26.4	0.55 (SB)	None
Hampton Heath Road at the Northern Easterly Site Access	One-Way Stop	Weekday A.M.	A	9.7	0.04 (EB)	None
		Weekday P.M.	B	10.2	0.07 (EB)	None
		Saturday	B	10.1	0.06 (EB)	None
Hampton Heath Road at the Southern Easterly Site Access/ Private Access	Two-Way Stop	Weekday A.M.	B	10.1	0.16 (EB)	None
		Weekday P.M.	B	10.6	0.18 (EB)	None
		Saturday	B	10.5	0.174 (EB)	None
Kenwood Avenue at New Site Access/ Adjacent Commercial Access	Two-Way Stop	Weekday A.M.	B	10.9	0.13 (WB)	None
		Weekday P.M.	B	11.7	0.13 (WB)	None
		Saturday	B	12.3	0.13 (WB)	None

Note: The Level of Service of a signalized intersection is based on the average control delay at the intersection.
The Level of Service of a stop-controlled intersection is based on the average delay of the critical approach.
The same signal timing plan as in the 2035 future background was used.

As indicated in **Tables 8 to 10**, under 2025, 2030 and 2035 total traffic volumes, with the exception of Lakeshore Road and the Southerly Site Access, all of the study intersections are projected to operate below capacity with levels of service "B" or better for all turning movements at each of the intersections (the same as the future background conditions). The a.m. peak at the intersection of Kenwood Avenue at Spruce Avenue is forecast to fall from level of service "B" to "C" (in 2030 and 2035) due to a maximum increment of 4.0 seconds in average vehicle delay at the intersection.

The southbound traffic at the intersection of Lakeshore Road and the Southerly Site Access is projected to operate at a level of service "D", "F", and "D" at the worst during the a.m., p.m. and Saturday peak periods, respectively. The operation can be attributed to the existing high through traffic volumes in either directions along Lakeshore Road, resulting in compounded delays to the southbound left turn.

It is noted that, this operation is due to background traffic as the proposed redevelopment adds no additional primary trips to the southbound left-turn during any of the three peak periods studied herein. Operations are projected to return to acceptable levels for the southbound left-turn movement during off-peak periods. A maximum volume-to-capacity ratio of 1.21 is expected during the weekday p.m. peak hour for the southbound left movement at the intersection of Lakeshore Road and the Southerly Site Access. As explained in section 5.4, implementation of a right-turn lane is not expected to improve operations neither is signalization warranted at the location. It is forecasted that, the southbound left turn trips will divert from this access to use the other four site accesses during the peak hours, while operations are forecast to return to acceptable levels during off peaks.

The LOS for the 2035 total operations a.m. peak improves from "E" to "D" due to a decrease of 6 trips for the southbound left turn from future background to total traffic operations. The proposed new site access at Kenwood Avenue is projected to operate at a level of service "B" during all peak periods.

7.2 Site Access and Circulation

The proposed redevelopment will maintain the existing four site accesses and an additional full-moves site access to Kenwood Road opposite the access to Hampton Heath Road (southwest access). Given these accesses already exist, the site accesses are forecasted to effectively and safely serve the proposed development. Additionally, no issues related with sightlines, corner clearances, access conflicts, heavy truck movements and transit operational conflicts were identified.

The proposed concept plan shows pedestrian sidewalk connections from the proposed buildings to the existing pedestrian sidewalks surrounding the subject property on Lakeshore Road, Hampton Heath Road and Kenwood Avenue. Where the pedestrian connection crosses a portion of the site travelled by vehicles, clearly delineated crosswalk markings are proposed to identify pedestrian cross pathway. **Figure 2** illustrates the site connectivity for walking. A pedestrian mews between block-I and block D provides a safe pedestrian walkway to skyway park located north of the site.

Therefore, the site accesses and internal circulation plan for the redevelopment are projected to safely and effectively serve vehicles and pedestrians.

8.0 Travel Demand Management Plans

There are some low impact opportunities for the development to promote Travel Demand Management (TDM) measures in support of reduced automobile use.

8.1 Transit Proximity

Multiple Burlington Transit routes operate in the immediate surroundings of the proposed redevelopment. Route 20 (Burloak–Lakeshore) and Route 40 (Pinedale–Hampton Heath) both allow

access from the proposed redevelopment to the Appleby Mall as well as the Appleby GO Station. Route 50 – Burlington South allows access from the proposed development to the west of the City of Burlington, with a stop at the Burlington GO Station, the downtown of Burlington, and other city attractions such as the Appleby Mall and the Mapleview Mall. Finally Route 301 – Pinedale allows access from the proposed redevelopment to the Appleby Mall and the Eastway Plaza. Therefore, the site is accessible via transit. Relevant maps are included in **Appendix D**.

8.2 Cycling Facilities

Lakeshore Road has bicycle lanes located on both sides of the roadway, as well as a multi-use path, per the Long-Term Cycling Master Plan Map. Additionally, Kenwood Avenue and Spruce Avenue are both considered bicycle priority streets per the Long-Term Cycling Master Plan Map. These cycling infrastructures ae connected to the City of Burlington cycling network through the road network. Therefore, the site is accessible via cycling facilities. Relevant maps are included in **Appendix D**.

8.3 Proposed TDM Measures

The provision of trail and cycling route maps within the lobby of each floor of the high-rise apartment buildings will increase awareness of nearby pedestrian and cycling routes, and provide incentive for residents and visitors to utilize the existing non-auto network. Prior to occupancy, future residents can be informed of the active transportation and TDM opportunities of the proposed development.

Furthermore, upon occupancy, a TDM information package comprising of active transportation network maps, transit maps/schedules and a loadable PRESTO card can be provided to residents. Information on Smart Commute and Car share opportunities may also be beneficial to educate residents of alternative transportation modes for their existing and future areas of employment.

9.0 Conclusion & Recommendations

This study has analyzed the boundary road network of the proposed redevelopment of the property located at 5353 Lakeshore Road, in the City of Burlington. The boundary road network analyzed herein includes 9 intersections which were established in consultation with the City of Burlington.

Under 2017 existing conditions, all the study intersections are shown to operate below capacity with levels of service "C" or better for all turning movements at each of the intersections. The maximum "average vehicle delay" for a turning movement at any of the study intersections is 20.8 seconds and the maximum volume-to-capacity ratio is 0.57 under existing conditions.

The study intersections are all projected to operate below capacity with levels of service "B" or better for all turning movements at each of the intersections under 2025, 2030, and 2035 future background volumes (excluding site generated trips). It is noted that during the p.m. peak period, high through traffic volumes along Lakeshore Road are expected to result in the southbound left traffic exiting the southern site access to experience a level of service "F".

The proposed redevelopment is expected to generate 690, 818, and 814 primary trips during the weekday a.m., weekday p.m., and Saturday peak hours respectively.

Analysis of the 2025, 2030 and 2035 total traffic volumes (includes site generated trips), indicates the study intersections are projected to operate below capacity with levels of service "B" or better for all turning movements, similar to the 2025, 2030 and 2035 future background volumes (excludes site generated trips). Again, similar to the future background conditions, the southbound left traffic at the intersection of Lakeshore Road and the Southerly Site Access is projected to operate at a level of service "F". However, this is due to background traffic, as the proposed redevelopment does not add any additional trips to this turning movement during the peak hours studied herein. It is expected that, the southbound left turn trips will divert to the other four accesses during the peak hours, and operations will return to acceptable levels during off peak hours.

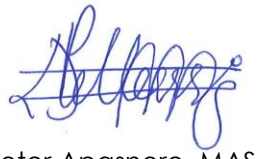
No issues regarding sightlines, clear throat lengths, access widths, access radii, and access conflicts were identified for the four existing site accesses and the proposed full-moves site access at Kenwood Road.

It is recommended that, Halton Region and the City of Burlington continue to monitor the signal timing plans and traffic control types at the study intersections in the future to determine if changes are warranted for optimal performance of the intersections.

The concept plan Application can be supported from a traffic operations perspective as the boundary road system can accommodate the increase in traffic volumes attributable to the proposed development.

Respectfully submitted by,

C.F. CROZIER & ASSOCIATES INC.



Peter Apasnore, MASc., E.I.T.
Transportation

C.F. CROZIER & ASSOCIATES INC.



R. Aaron Wignall
Project Manager, Transportation

I:\1200\1281-Glenelm Property Mgmt\4451-5353 Lakeshore Rd\Reports\TIS\2018.04.19-Lakeshore plaza TIS.docx

FIGURES



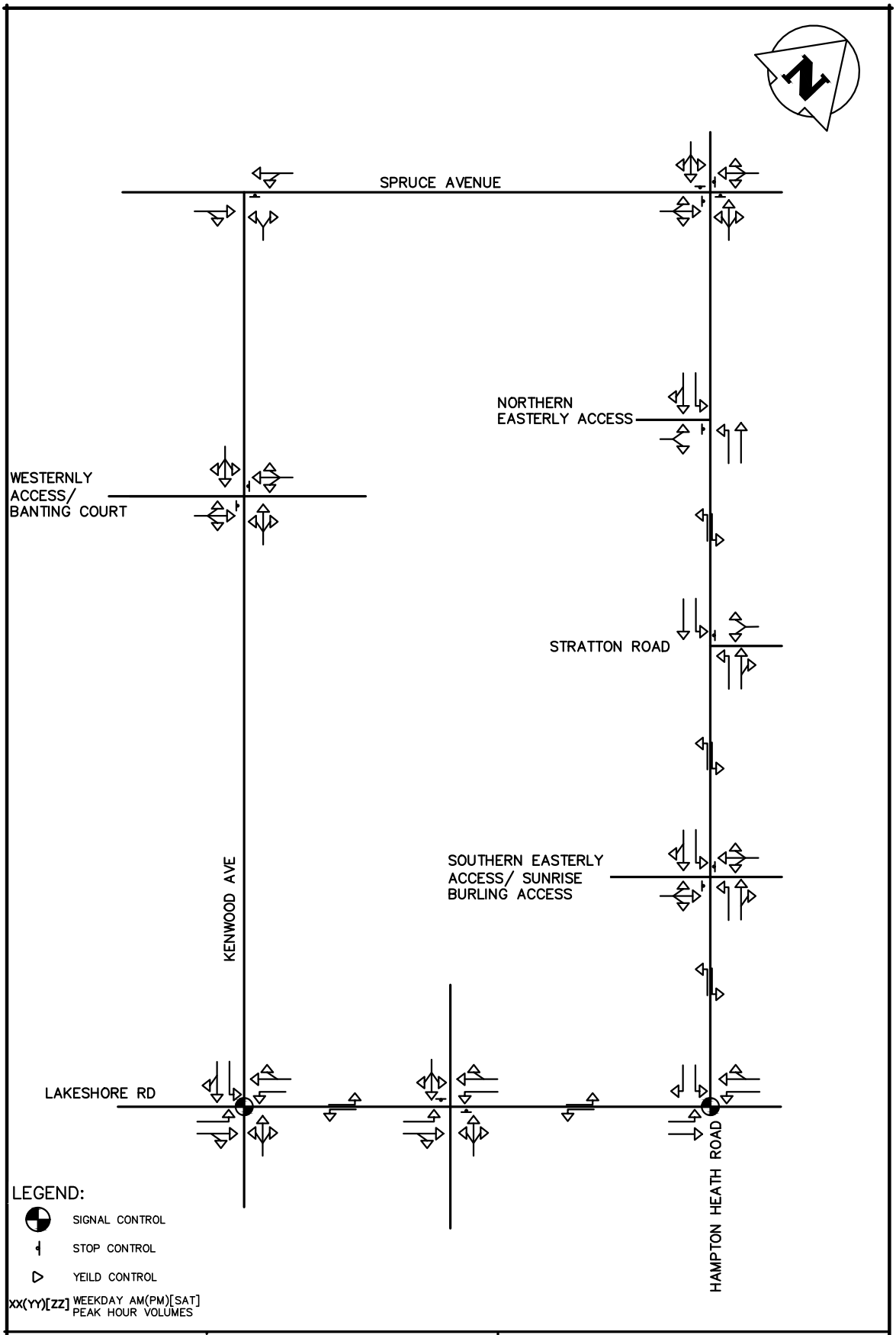
LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

SITE LOCATION

CROZIER & ASSOCIATES
Consulting Engineers

2800 High Point Drive
Suite 100
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905 875-0026 T
905 875-4915 F
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Drawn	Design	Project No.	
R.G.			1281–4451
Check	**Check**	**Scale**	**Dwg.**
P.A.	P.A.	N.T.S	FIG. 01

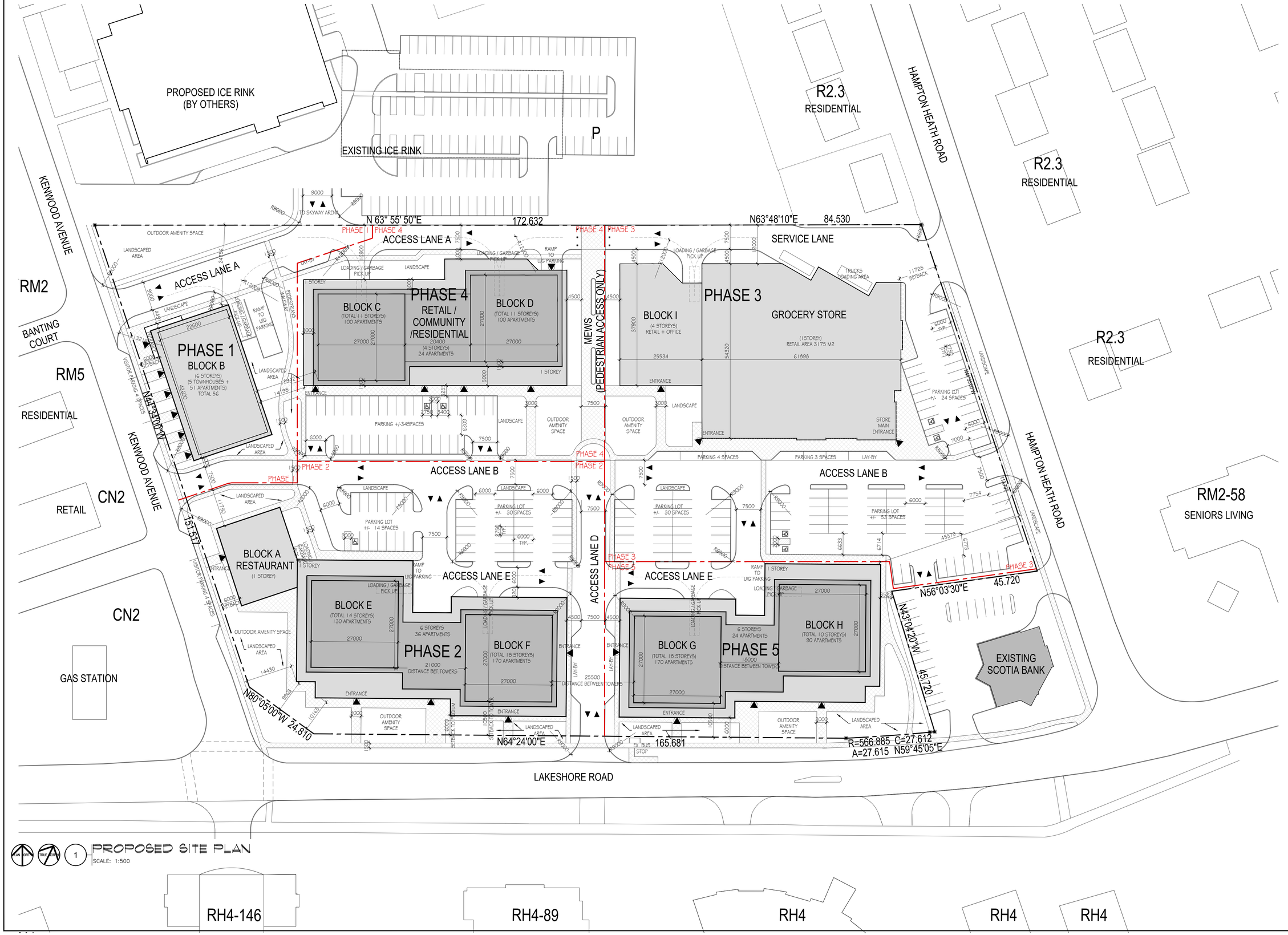


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

LANE CONFIGURATION FOR STUDY INTERSECTIONS

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Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 02



1 PROPOSED SITE PLAN
SCALE: 1:500

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NOTES:
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DD/MM/YY	REVISION
21/3/2018	ISSUED FOR PLANNERS REVIEW

SCALE: 1 : 500
DRAWN BY: N.S.
PRINT DATE: 04/08/2017

LAKESIDE VILLAGE

MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED SITE PLAN

A 1.0

	PHASE 1
	BLOCK B - RESIDENTIAL
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.
NEW FLOOR AREA	6,000 SQ.M.
EX. PARKING TO REMAIN	534 SPACES
NEW SURFACE PARKING	4 SPACES
NEW U/G PARKING	90 SPACES
TOTAL PROPOSED PARKING	628 SPACES

NOTES:

- PHASING STRATEGY HAS TAKEN INTO CONSIDERATION THE FOLLOWING PARAMETERS:
- MOST EFFICIENT SERVICING SEQUENCE
- TRAFFIC AND PARKING PERSPECTIVE
- EXISTING TENANTS RELOCATION

-THIS PHASING STRATEGY IS SUBJECT TO CHANGE AND UPDATES BASED ON DEVELOPERS AND MARKET NEEDS.

-LOCATION OF PHASE LINES IS SUBJECT TO CHANGE BASED ON STRUCTURAL REVIEW FOR THE EXISTING BUILDING AND DETERMINATION OF THE MOST SUITABLE LOCATION.



PLAN NORTH | TRUE NORTH | 1 PHASE 1
SCALE: 1:500

LEGEND:
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE DEMOLISHED
- NEW BUILDING

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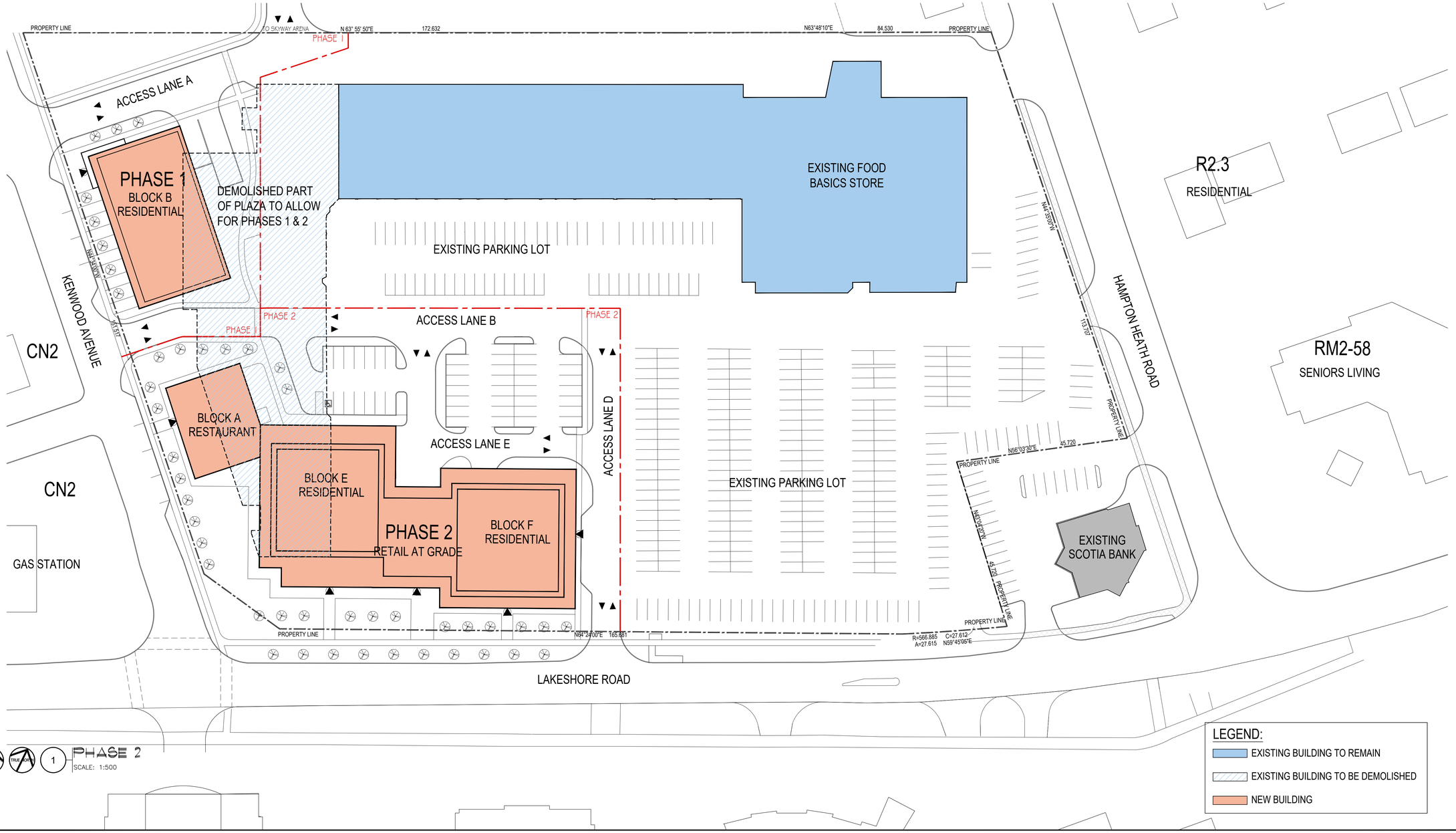
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PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 1

PH 1.0

	PHASE 1	PHASE 2	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	3,900 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	6,450 SQ.M.
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	36,100 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	320 SPACES
NEW SURFACE PARKING	4 SPACES	48 SPACES	52 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	390 SPACES
TOTAL PROPOSED PARKING			762 SPACES



1 PHASE 2
SCALE: 1:500

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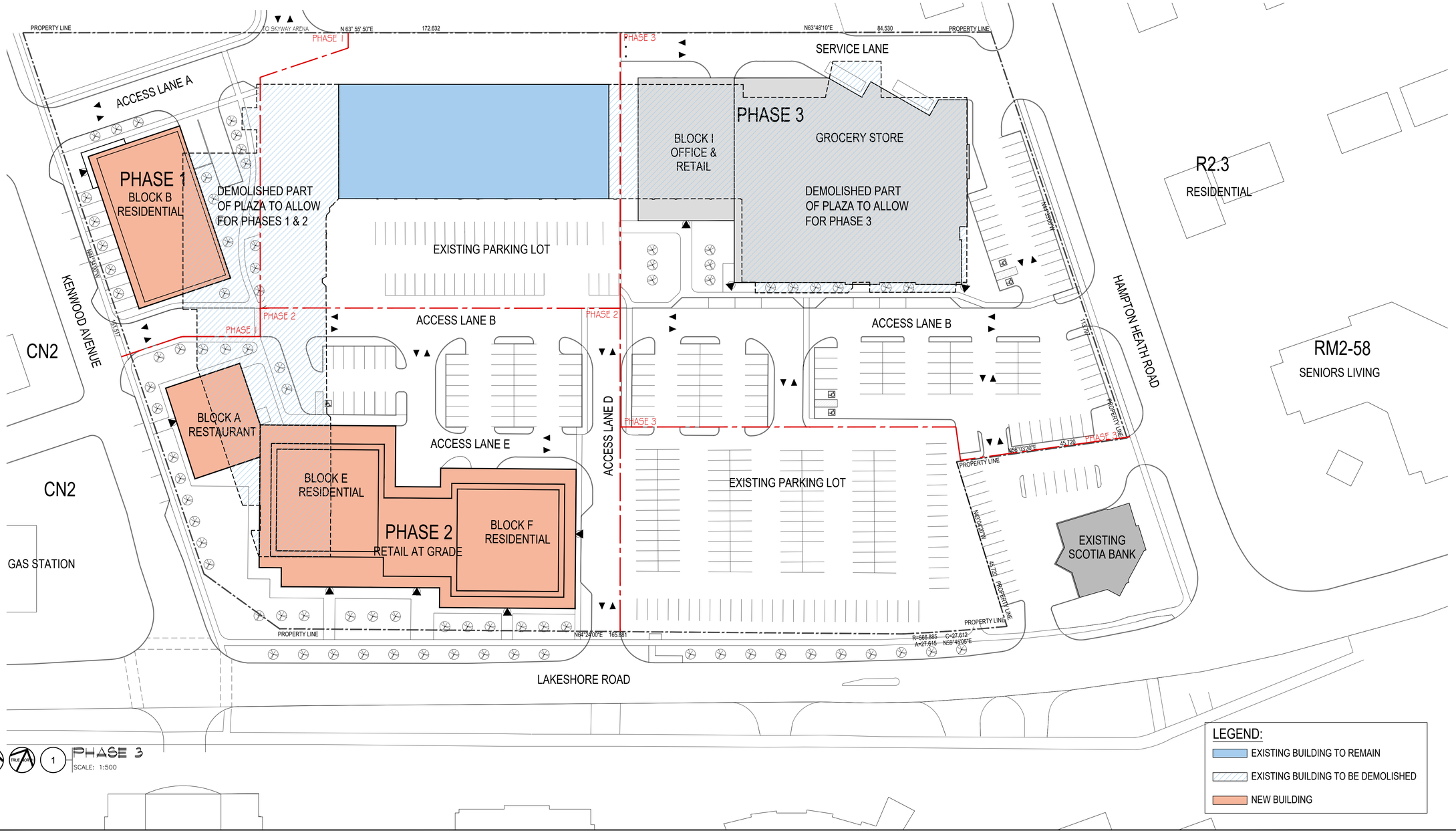
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LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 2

PH 2.0

	PHASE 1	PHASE 2	PHASE 3	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	BLOCKS I & GROCERY STORE - RETAIL & OFFICES	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	8,170 SQ.M.	8,170 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	2,180 SQ.M.	2,180 SQ.M.
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	6,775 SQ.M.	42,870 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	178 SPACES	178 SPACES
NEW SURFACE PARKING	4 SPACES	48 SPACES	114 SPACES	166 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	--	390 SPACES
TOTAL PROPOSED PARKING				734 SPACES



1 PHASE 3
SCALE: 1:500

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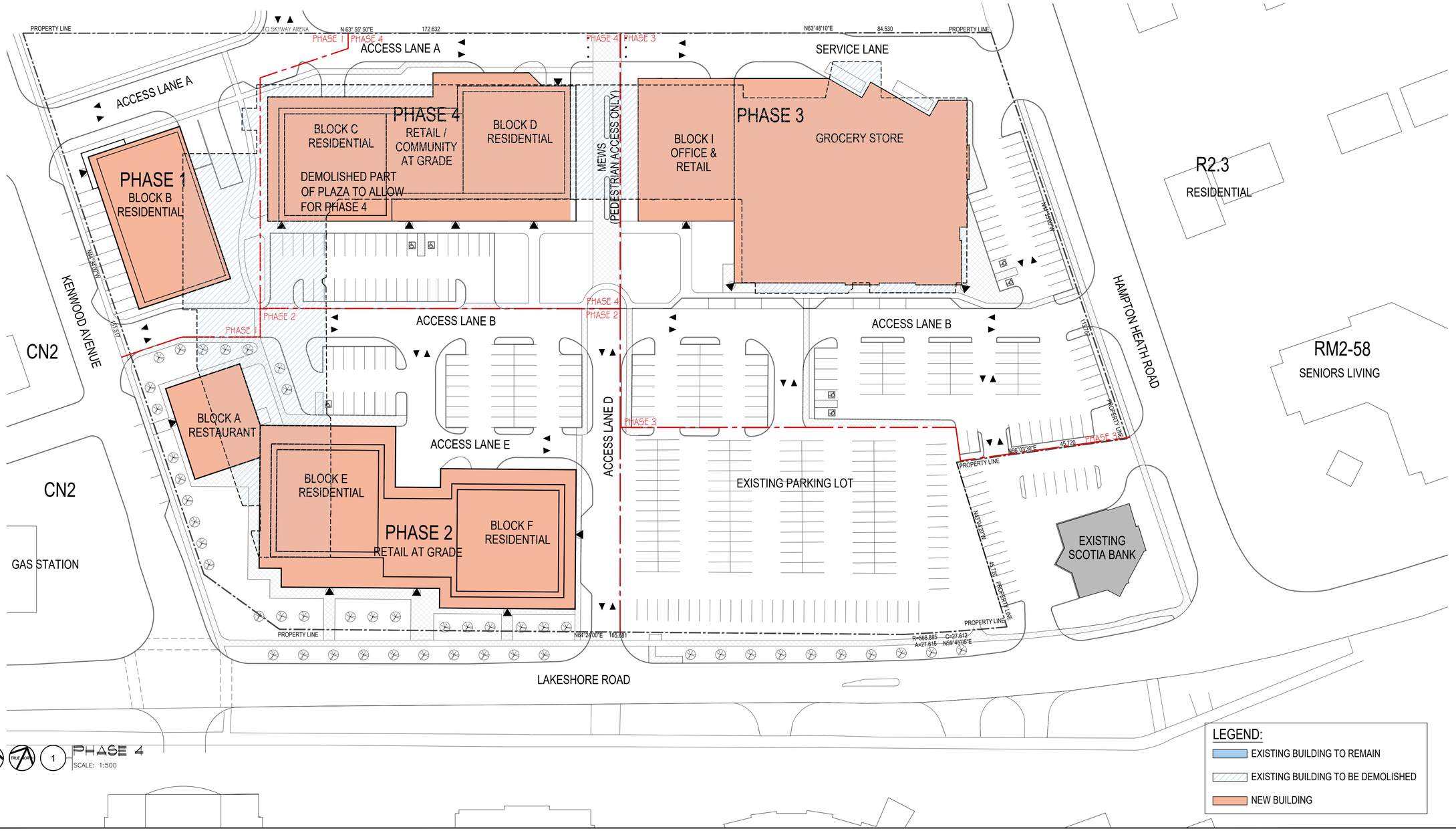
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PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 3

PH 3.0

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	BLOCKS I & GROCERY STORE - RETAIL & OFFICES	BLOCKS C & D-RETAIL & OFFICES AT GRADE-RES.	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	8,170 SQ.M.	10,350 SQ.M.	10,350 SQ.M.
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	2,180 SQ.M.	--	--
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	6,775 SQ.M.	21,720 SQ.M.	64,590 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	178 SPACES	138 SPACES	138 SPACES
NEW SURFACE PARKING	4 SPACES	48 SPACES	114 SPACES	34 SPACES	200 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	--	550 SPACES	940 SPACES
TOTAL PROPOSED PARKING					1278 SPACES



1 PHASE 4
SCALE: 1:500

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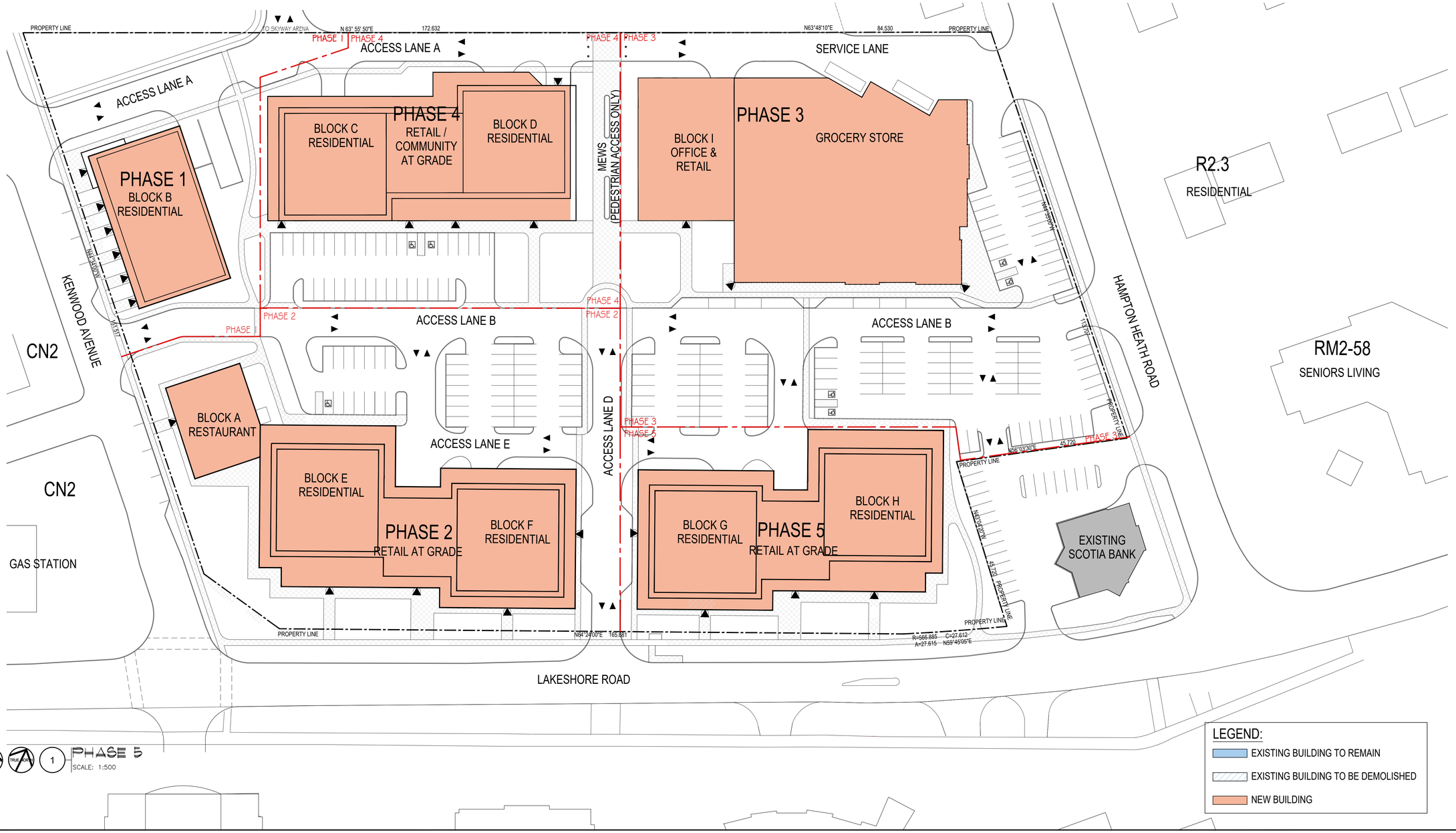
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PRINT DATE: 04/08/2017

LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 4

PH 4.0

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	OVERALL SITE
	BLOCK B - RESIDENTIAL	BLOCKS A - E - F - RETAIL AT GRADE - RESIDENTIAL	BLOCKS I & GROCERY STORE - RETAIL & OFFICES	BLOCKS C & D-RETAIL & OFFICES AT GRADE-RES.	BLOCKS G & H - RETAIL AT GRADE - RESIDENTIAL	
EX. AREA TO BE DEMOLISHED	2,400 SQ.M.	3,900 SQ.M.	8,170 SQ.M.	10,350 SQ.M.	--	--
EXISTING AREA TO REMAIN	7,950 SQ.M.	6,450 SQ.M.	2,180 SQ.M.	--	--	--
NEW FLOOR AREA	6,000 SQ.M.	30,100 SQ.M.	6,775 SQ.M.	21,720 SQ.M.	26,200 SQ.M.	90,790 SQ.M.
EX. PARKING TO REMAIN	534 SPACES	320 SPACES	178 SPACES	138 SPACES	--	--
NEW SURFACE PARKING	4 SPACES	48 SPACES	114 SPACES	34 SPACES	--	200 SPACES
NEW U/G PARKING	90 SPACES	300 SPACES	--	550 SPACES	210 SPACES	1150 SPACES
TOTAL PROPOSED PARKING						1350 SPACES



PLAN NORTH
TRUE NORTH
1 PHASE 5
SCALE: 1:500

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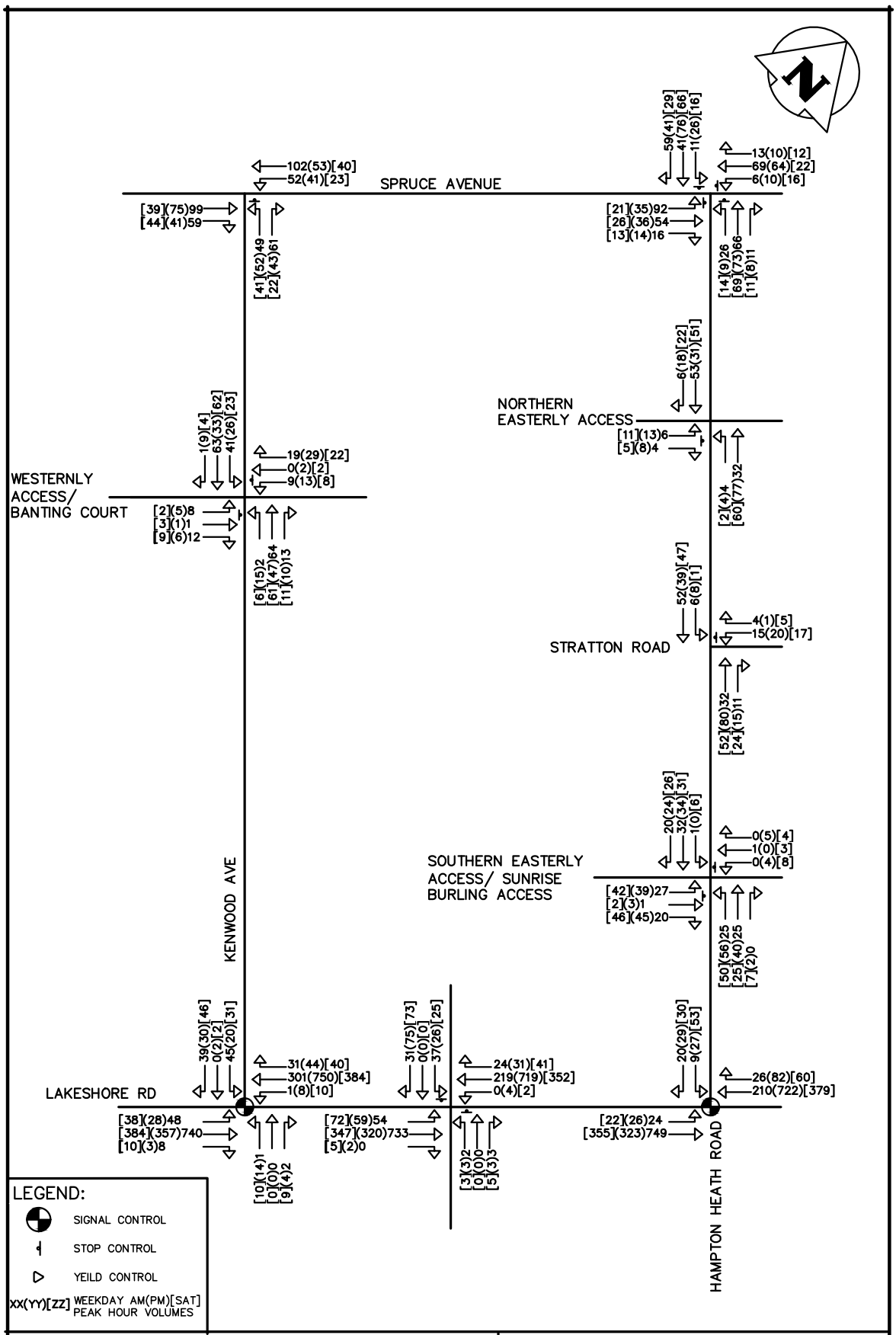
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LAKESIDE VILLAGE
MIXED USE DEVELOPMENT
5353 LAKESHORE ROAD, BURLINGTON, ON

PROPOSED PHASING PLAN - PHASE 5

PH 5.0

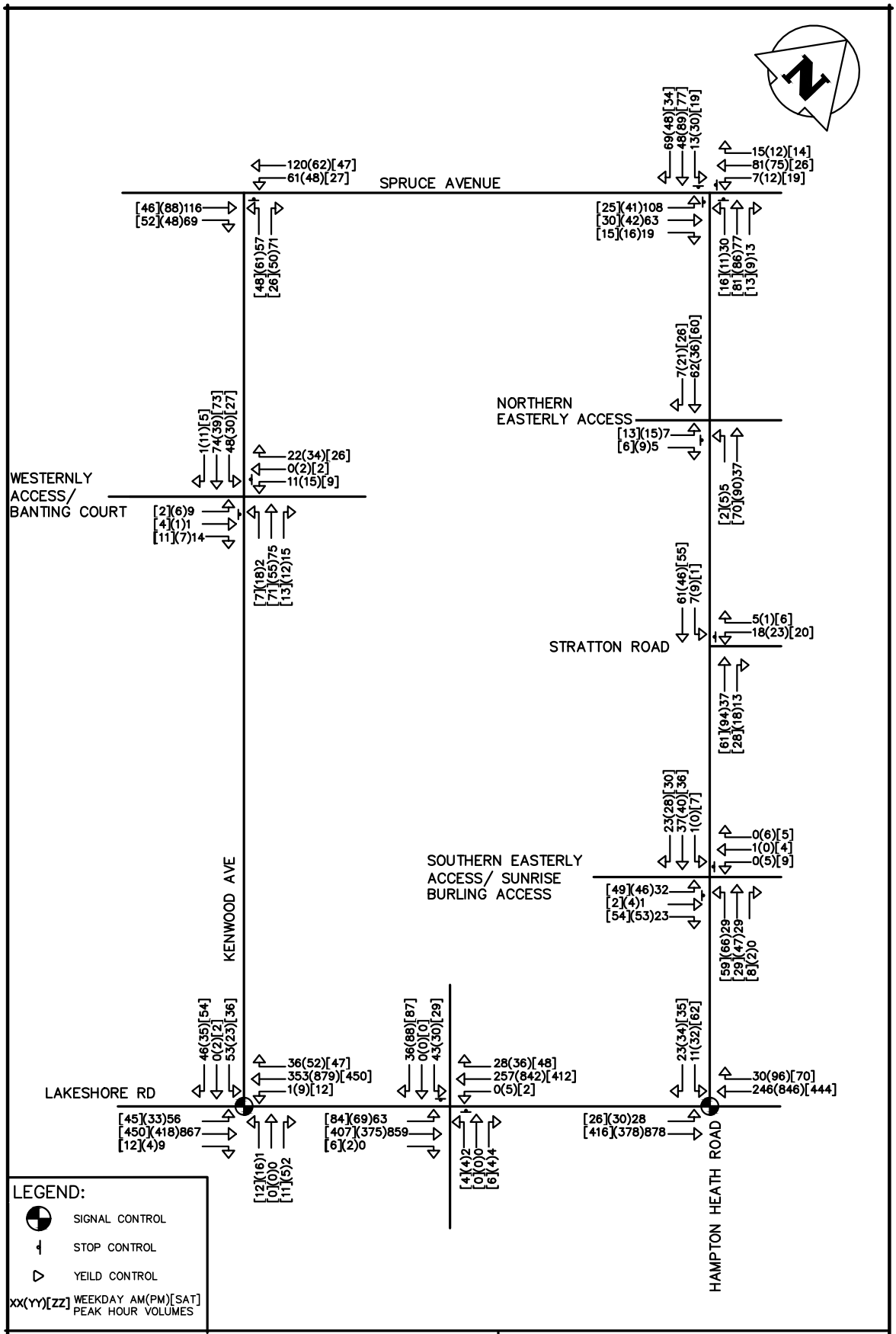


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2017 EXISTING TRAFFIC VOLUMES

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Drawn	Design	Project No.	
R.G.			1281-4451
Check	Check	Scale	Dwg.
P.A.	P.A.	N.T.S	FIG. 04

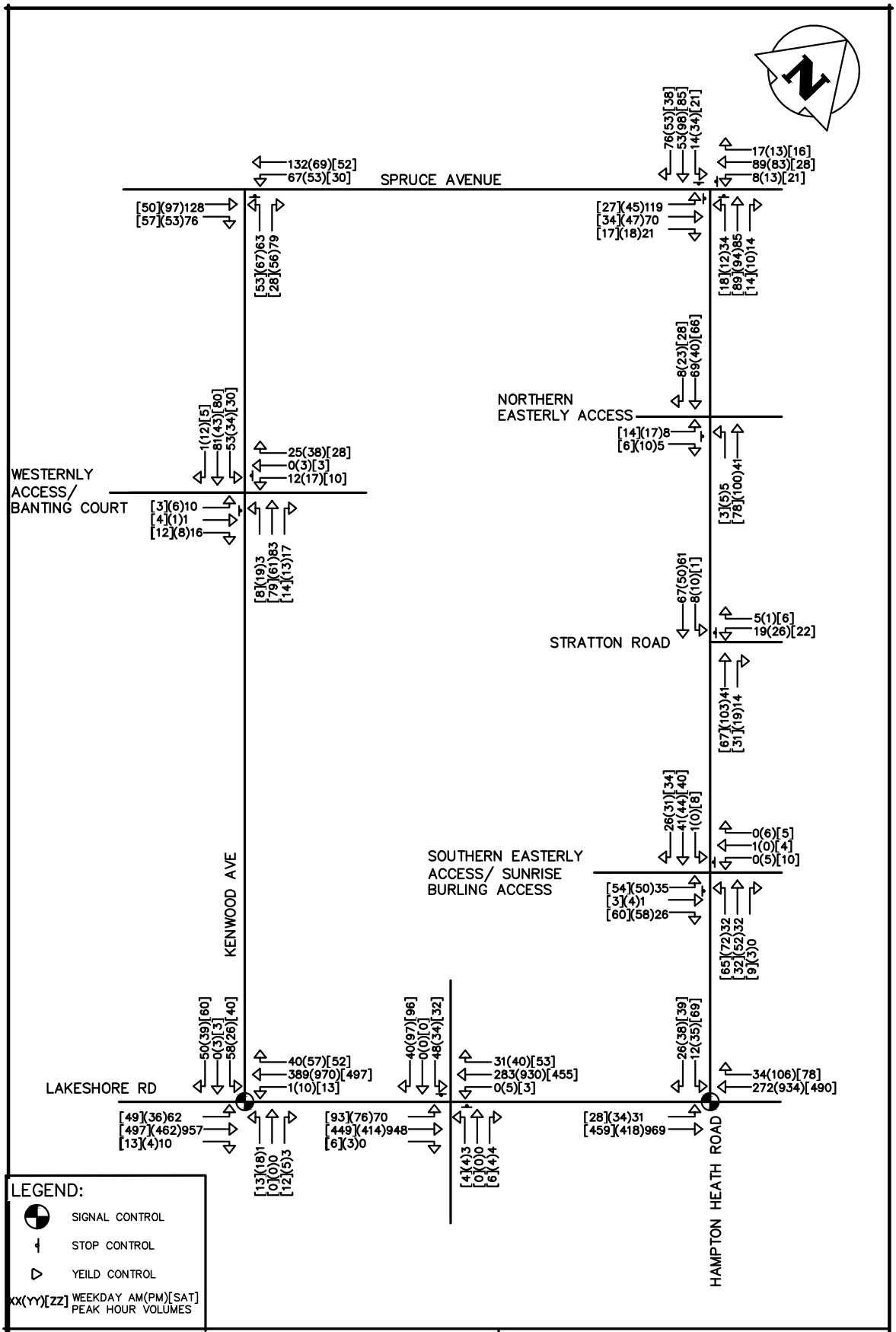


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2025 FUTURE BACKGROUND VOLUMES

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Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 05

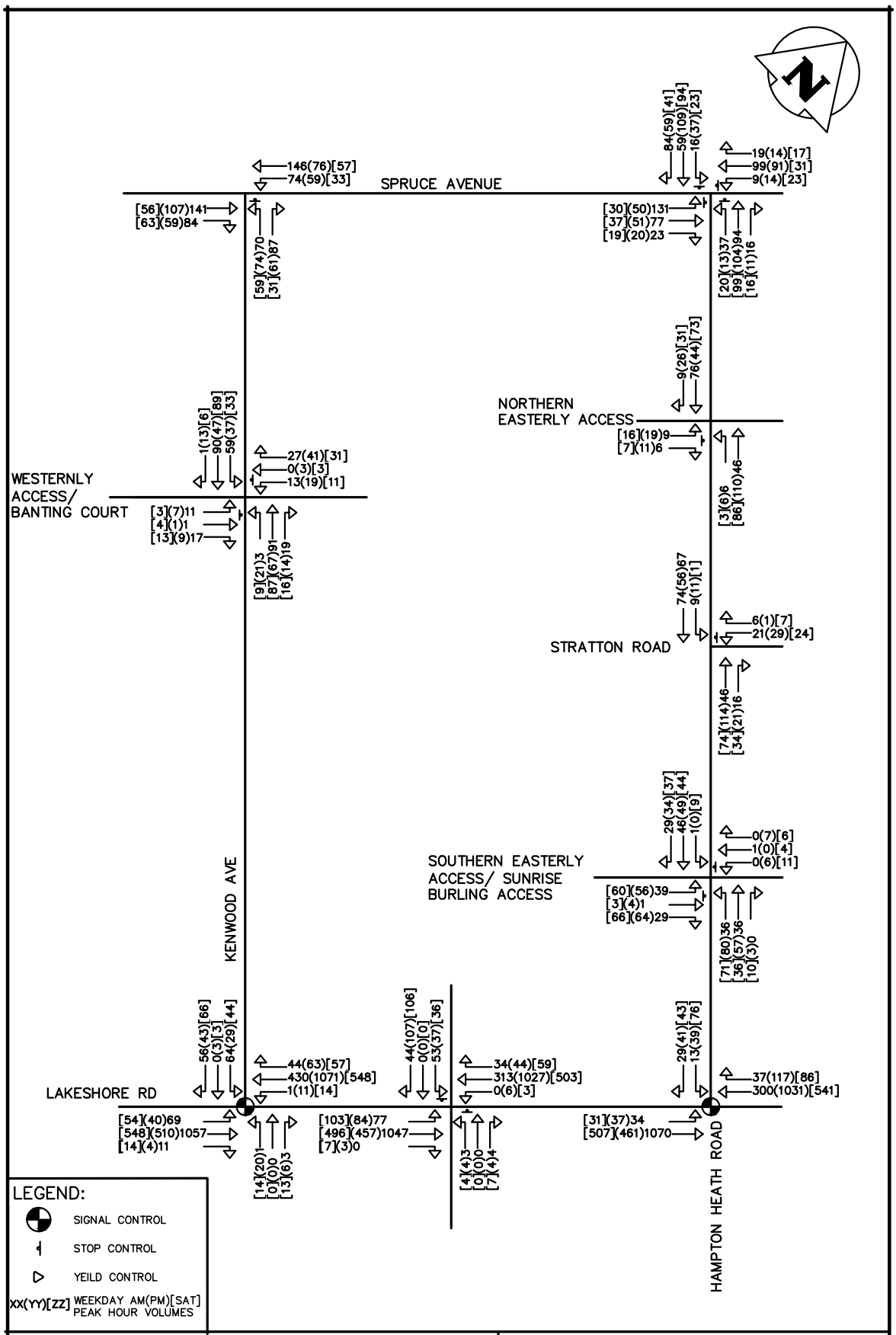


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2030 FUTURE BACKGROUND VOLUMES

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905 875-4915 F
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Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 06

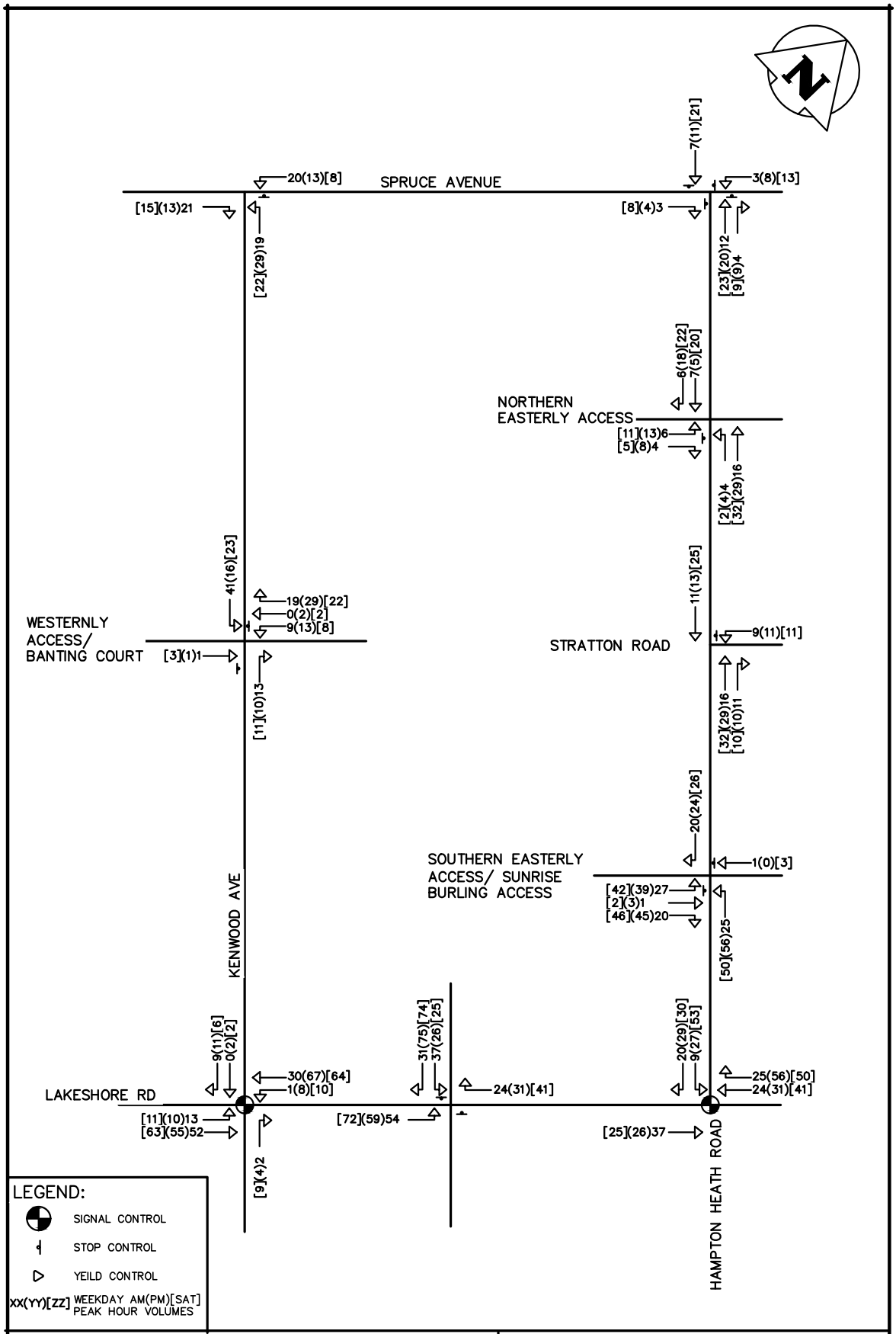


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2035 FUTURE BACKGROUND VOLUMES

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2800 High Point Drive
Suite 100
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www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 07



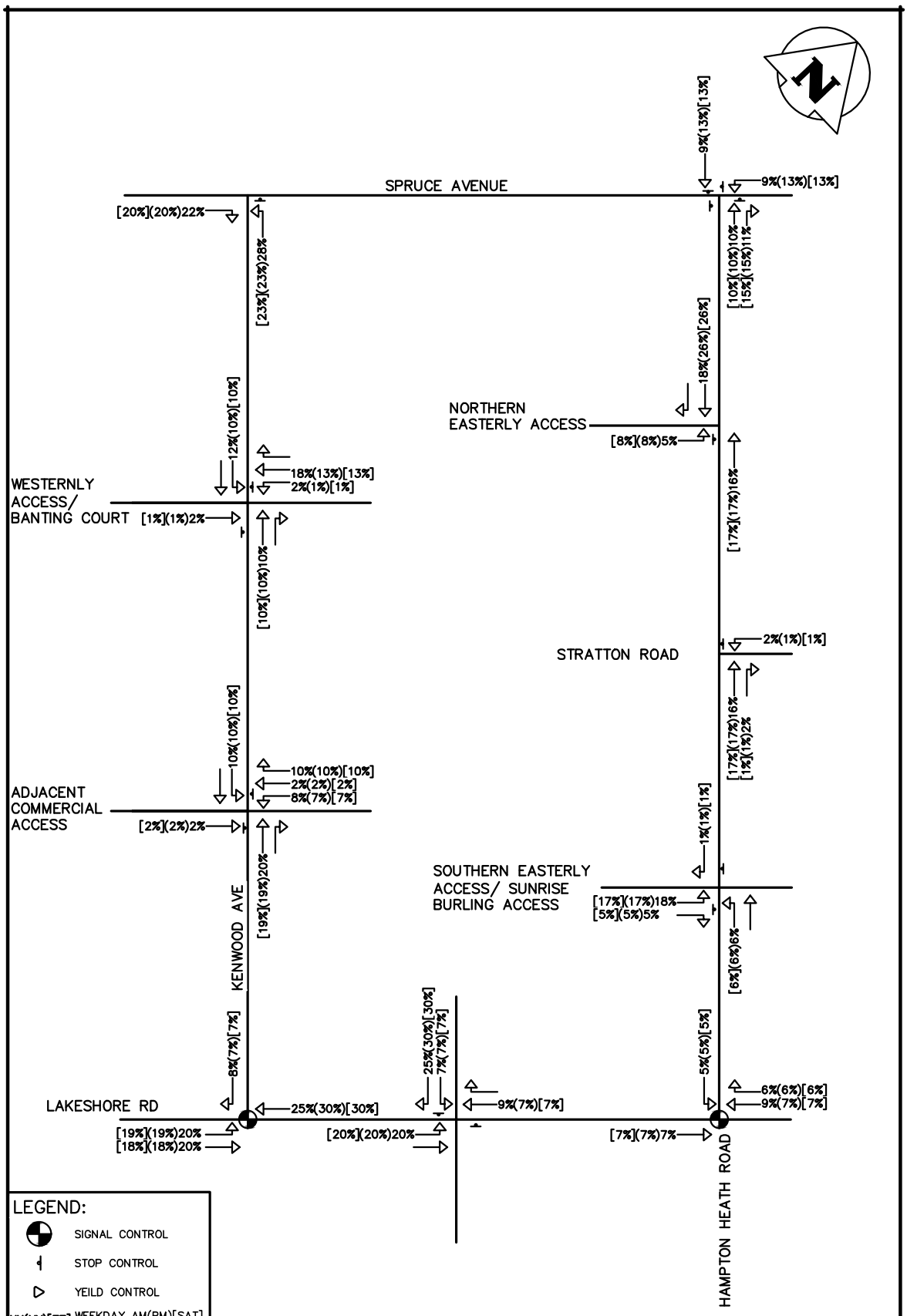
LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

TRIP REDUCTION

CROZIER & ASSOCIATES
Consulting Engineers

2800 High Point Drive
Suite 100
Milton, ON L9T 6P4
905 875-0026 T
905 875-4915 F
www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 08

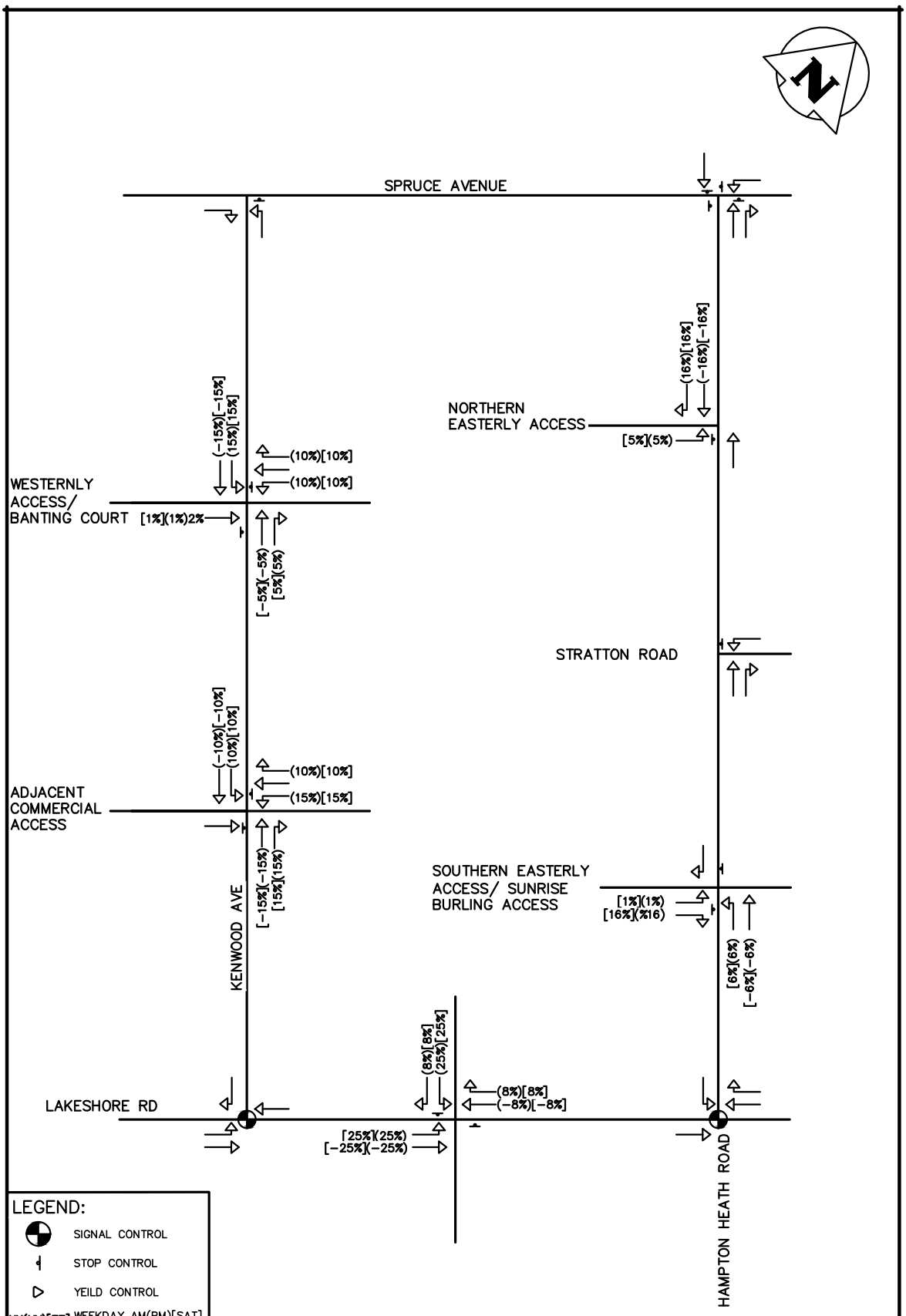


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

PRIMARY TRIP DISTRIBUTION

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905 875-4915 F
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Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 09

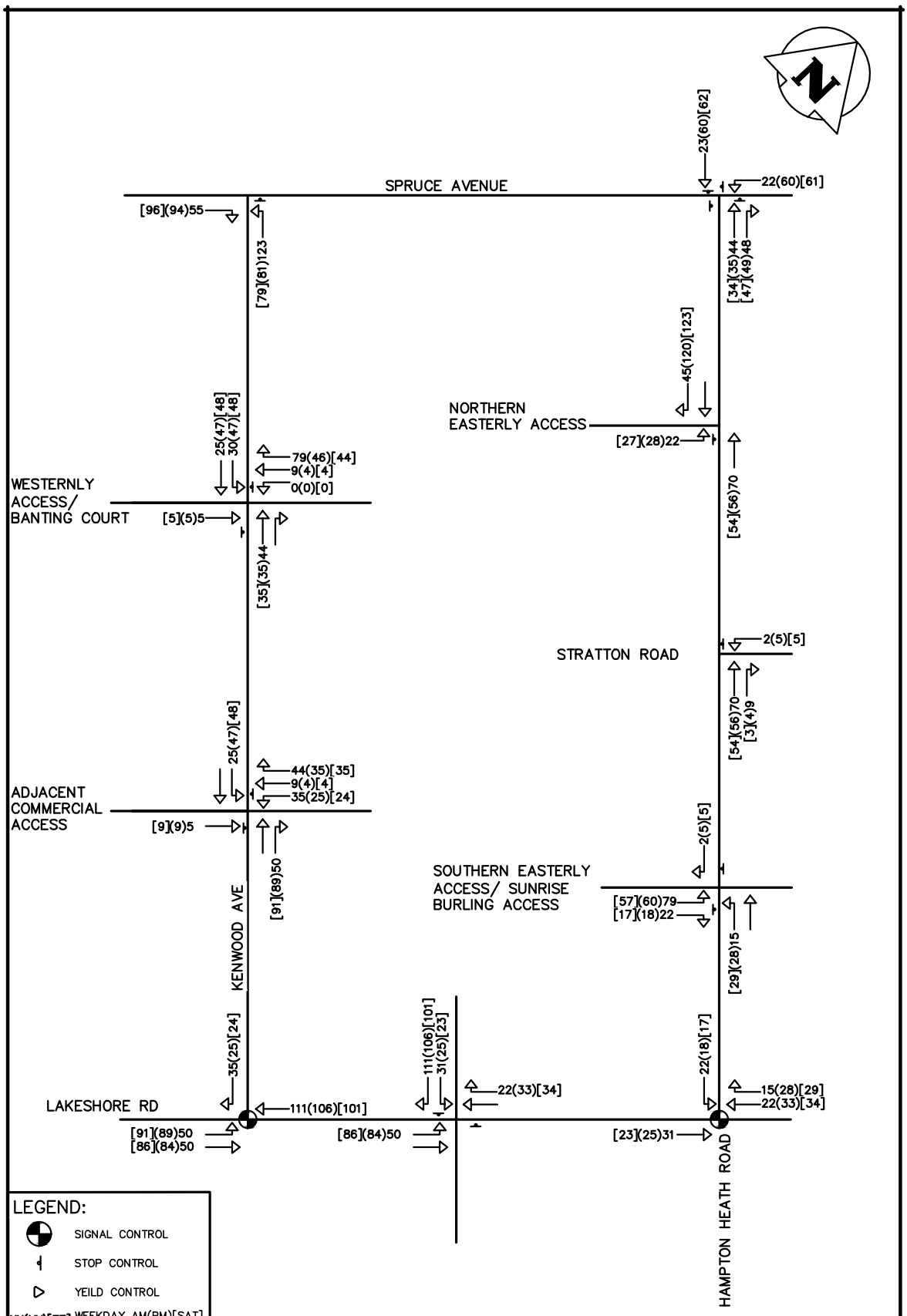


LAKESIDE VILLAGE PLAZA
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PASS-BY TRIP DISTRIBUTION

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Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 10

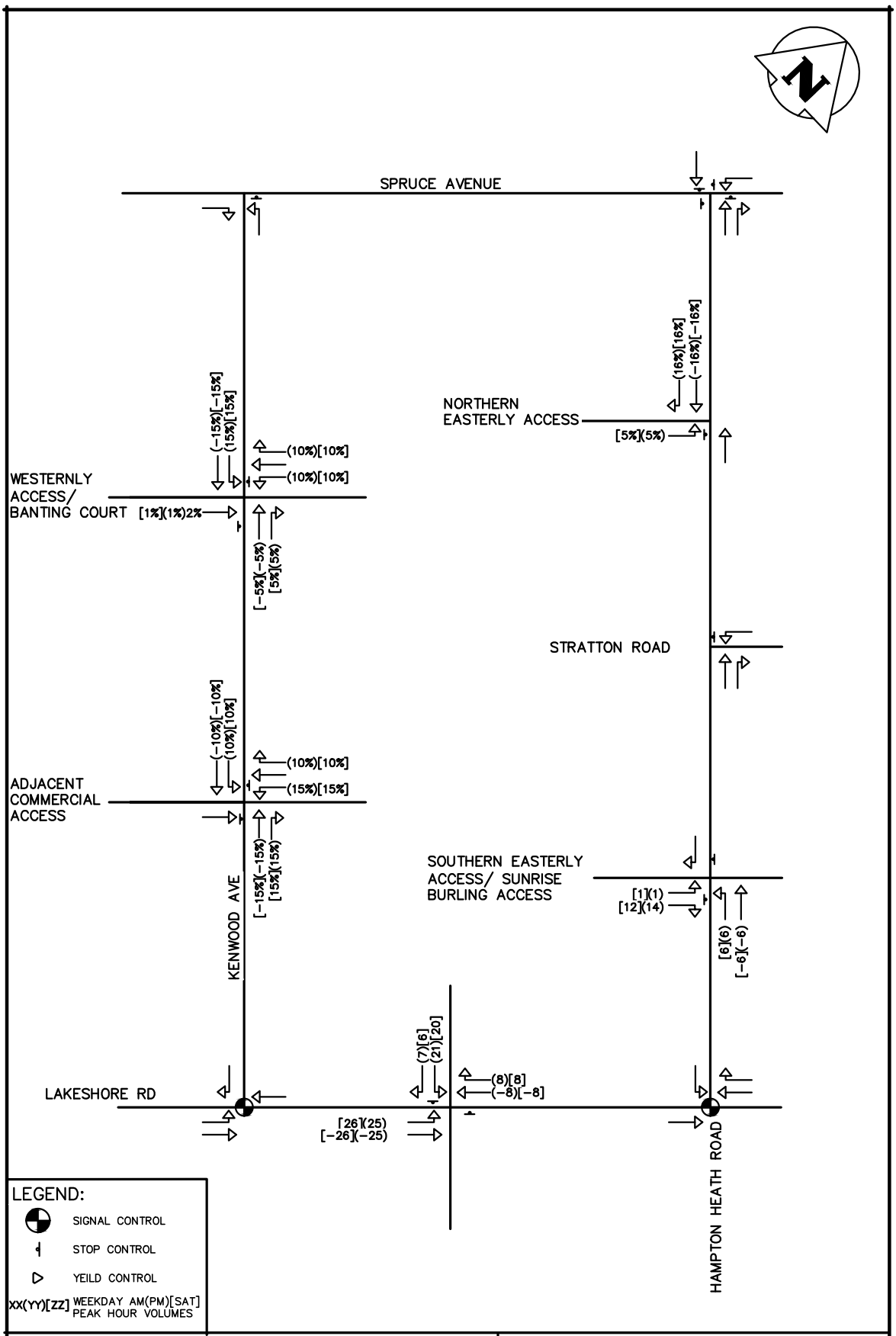


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

PRIMARY TRIP ASSIGNMENT

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Milton, ON L9T 6P4
905 875-0026 T
905 875-4915 F
www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281-4451
Check	Check	Scale	Dwg.
P.A.	P.A.	N.T.S	FIG. 11

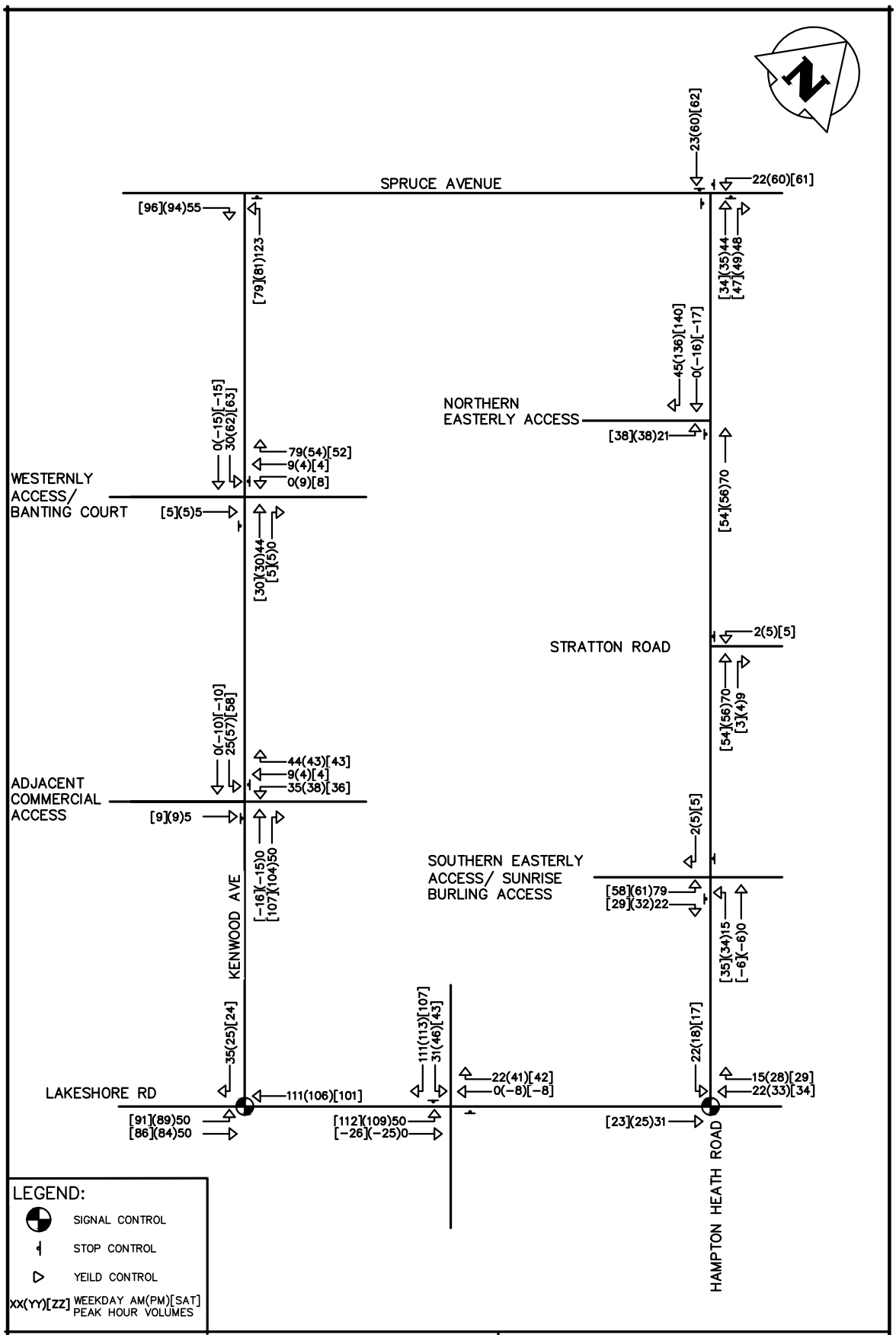


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

PASS-BY TRIP ASSIGNMENT

CROZIER & ASSOCIATES Consulting Engineers
2800 High Point Drive
Suite 100
Milton, ON L9T 6P4
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Drawn	Design	Project No.	
R.G.			1281-4451
Check	Check	Scale	Dwg.
P.A.	P.A.	N.T.S	FIG. 12

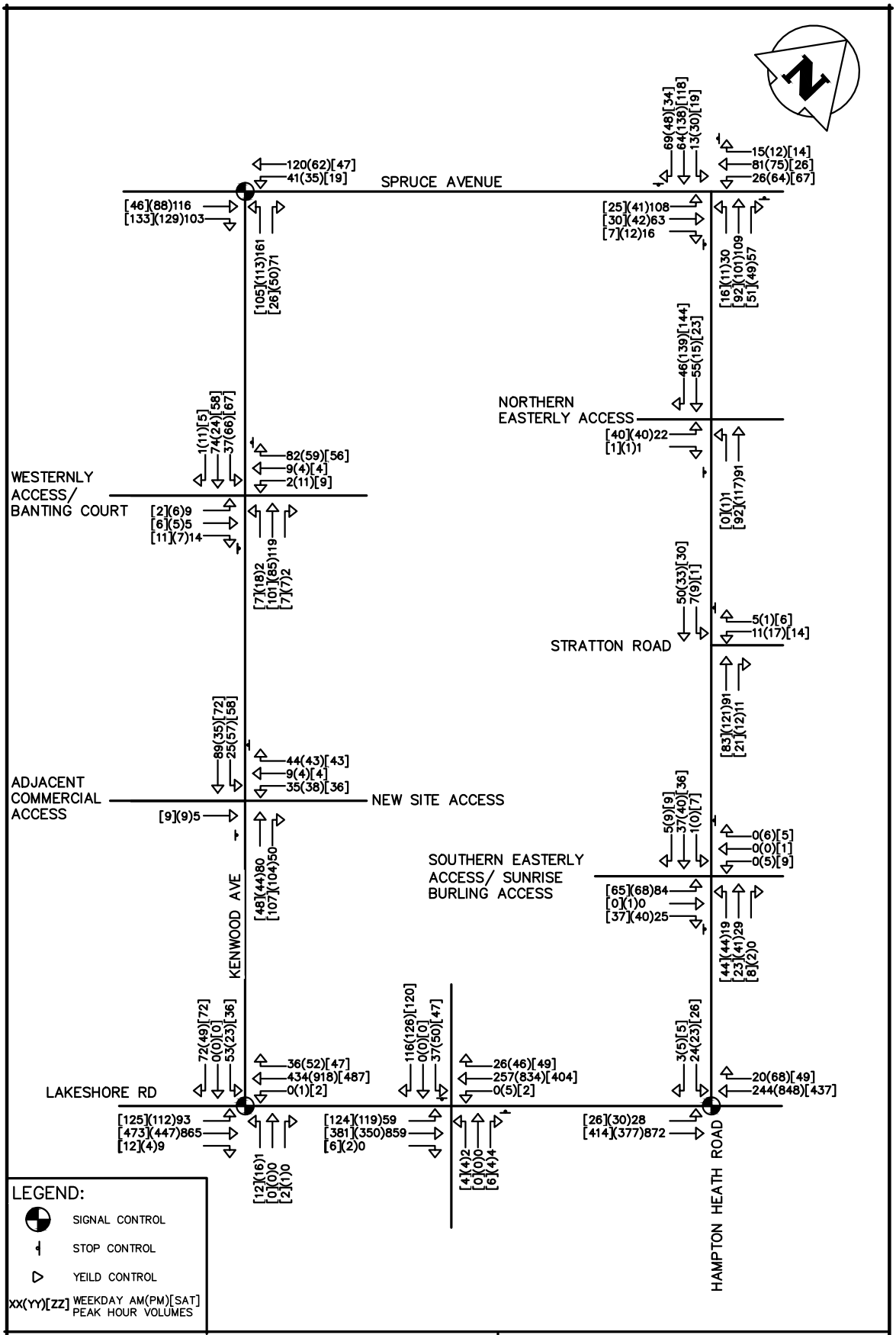


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

TOTAL TRIP ASSIGNMENT

CROZIER & ASSOCIATES
Consulting Engineers
2800 High Point Drive
Suite 100
Milton, ON L9T 6P4
905 875-0026 T
905 875-4915 F
www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281-4451
Check	Check	Scale	Dwg.
P.A.	P.A.	N.T.S	FIG. 13

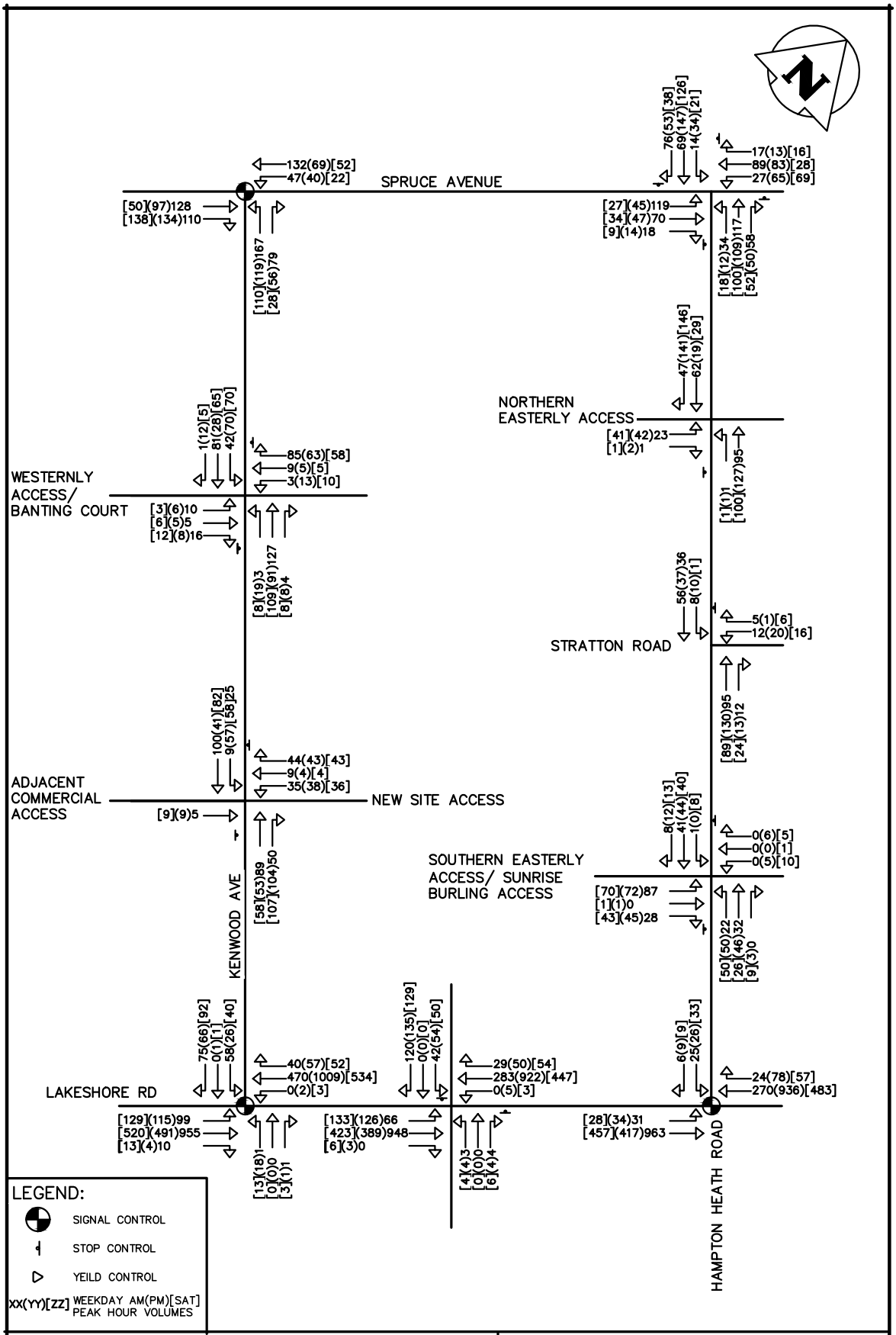


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2025 TOTAL TRAFFIC VOLUMES

CROZIER & ASSOCIATES Consulting Engineers
2800 High Point Drive
Suite 100
Milton, ON L9T 6P4
905 875-0026 T
905 875-4915 F
www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 14

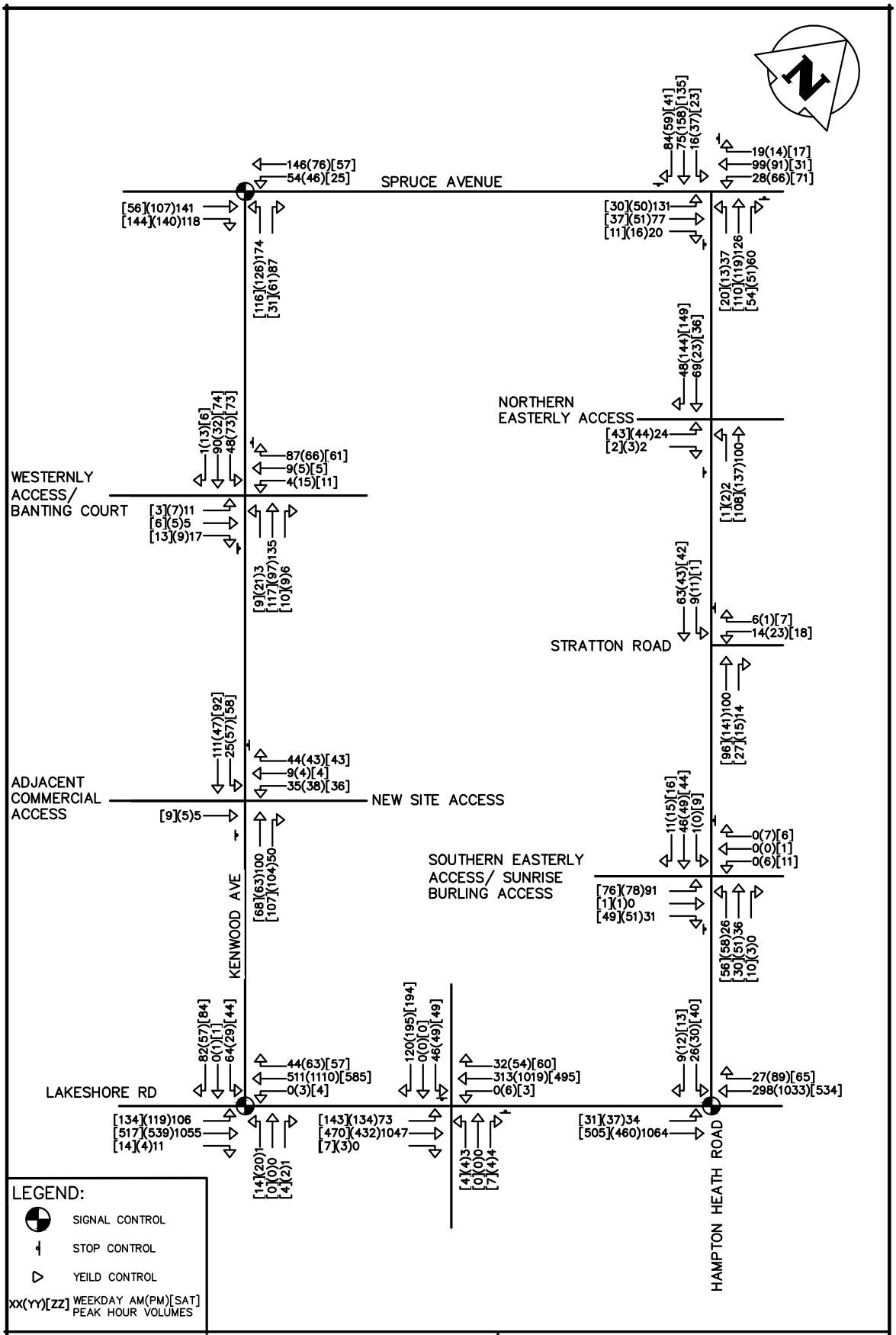


LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2030 TOTAL TRAFFIC VOLUMES

CROZIER & ASSOCIATES Consulting Engineers
2800 High Point Drive
Suite 100
Milton, ON L9T 6P4
905 875-0026 T
905 875-4915 F
www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281–4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 15



LAKESIDE VILLAGE PLAZA
CITY OF BURLINGTON

2035 TOTAL TRAFFIC VOLUMES

CROZIER & ASSOCIATES Consulting Engineers
2800 High Point Drive
Suite 100
Milton, ON L9T 6P4
905 875-0026 T
905 875-4915 F
www.cfcrozier.ca

Drawn	Design	Project No.	
R.G.			1281-4451
Check P.A.	Check P.A.	Scale N.T.S	Dwg. FIG. 16

APPENDIX A

Correspondence

Peter Apasnore

From: Aaron Wignall
Sent: Friday, April 20, 2018 10:43 AM
To: Peter Apasnore
Subject: FW: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

| **AARON WIGNALL** | PROJECT MANAGER, TRANSPORTATION | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | awignall@cfcrozier.ca | tel 905 875 0026



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From: Nawfal Kammah
Sent: Monday, April 10, 2017 2:39 PM
To: John JZ. Zaloznik <john.zaloznik@burlington.ca>
Cc: Ansari, Mohammed <Mohammed.Ansari@burlington.ca>; Aaron Wignall <awignall@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

Thank you very much for your help with this matter.

Mohammed, I look forward to receiving the preliminary signal timing plans so we can input them into our analysis.

Regards,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026



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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Monday, April 10, 2017 2:36 PM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Cc: Ansari, Mohammed <Mohammed.Ansari@burlington.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,

I spoke with one of our Traffic Signal System Analysts and he informed me that Mohammed Ansari (cc'd on this email) is working on the design and should be able to provide you with the timings once they've been developed.

Thanks,

John Zaloznik B.E.S.
Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca




Please consider the environment before printing this e-mail.

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Monday, April 10, 2017 11:36 AM
To: Zaloznik, John
Cc: Aaron Wignall
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

I hope my email finds you well. We have met with City Staff regarding the proposed mixed-use development located at 5353 Lakeshore Road.

During the meeting, it was brought up to our attention that a signalization of the Lakeshore Road at Hampton Heath Road intersection is planned. Would you happen to know if the City has any preliminary signal timings plans that we could use within our design?

Thank you for your help on this file.

Regards,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Tuesday, March 28, 2017 1:19 PM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,
The development located at 2220 Marine Drive in Oakville is adequate.
Thanks,

John Zaloznik B.E.S.
Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca

City of Burlington

Please consider the environment before printing this e-mail.

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Tuesday, March 28, 2017 9:52 AM
To: Zaloznik, John
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

I hope my email finds you well. We have received confirmation to obtain parking data for a third site to be used as surrogate site data within the Parking Study for the proposed 5353 Lakeshore Road development.

Could you confirm that the development located at 2220 Marine Drive, in Oakville, is adequate?

Once you have confirmed the validity is this site will have data from all three residential surrogate sites, as requested.

We thank you for your feedback.

Regards,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4

| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026



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From: Nawfal Kammah
Sent: Wednesday, March 22, 2017 1:14 PM
To: 'Zaloznik, John' <John.Zaloznik@burlington.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

Thank you for your feedback. As soon as we find a third surrogate site we will confirm it with you. Unless you think two sites are enough?

Regarding the retail aspect of the development, we are going to survey the existing plaza as the proposed development is expecting to keep the same uses.

Thank you,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026



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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Wednesday, March 22, 2017 12:02 PM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,
We're okay with the two proxy sites identified by Crozier (5340 Lakeshore Road, Burlington and 6550 Glen Erin Drive, Mississauga) for the purpose of the Parking Justification Study. Are you planning on surveying any retail/office uses, as these uses are proposed on the Preliminary Site Plan?
Thanks,

John Zaloznik B.E.S.
Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca

Please consider the environment before printing this e-mail.

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Wednesday, March 22, 2017 10:41 AM
To: Zaloznik, John
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

I hope your day is going well.

I am emailing you about the two surrogate sites we proposed for the 5353 Lakeshore Road development. I know you are busy and could not get back to us yesterday, but I would like to know if you have approved on any of the two sites we provided before we start searching for more.

Thank you for your help with this file.

Regards,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Tuesday, March 21, 2017 10:57 AM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,
We'll have an answer for you by end of day today. We do ask that you provide a 3rd proxy site.
Thanks,

John

John Zaloznik B.E.S.
Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca

Please consider the environment before printing this e-mail.

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Tuesday, March 21, 2017 10:21 AM
To: Zaloznik, John
Cc: Aaron Wignall
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

I am following up with you regarding the new proposed surrogate sites. One possible srurrogate site was discussed by email (see below). And additional site, 6550 Glen Erin Drive (City of Mississauga), was discussed over the phone.

Would you be able to give an approximate timeline for your review of the sites? We have a meeting with the client soon and we would like to know where we stand, if possible.

Thank you very much,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

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From: Nawfal Kammah
Sent: Friday, March 17, 2017 9:24 AM
To: 'Zaloznik, John' <John.Zaloznik@burlington.ca>
Cc: Aaron Wignall <awignall@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

In our correspondence below we had originally listed three possible developments that we had chosen as possible surrogate sites, however we did not receive access to any of the three.

In continuing our search for surrogate sites, we have received access to the 5340 Lakeshore Road development, located across from the proposed site. We would like to confirm with you that this development will be adequate to use as a surrogate site before ordering the survey.

Thank you for your feedback,

| **NAWFAL KAMMAH** TRANSPORTATION E.I.T. | C.F. CROZIER & ASSOCIATES
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| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Friday, March 17, 2017 9:19 AM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,
As per our conversation, can you confirm which sites you were not given permission to access?
Thanks,

John

From: Zaloznik, John
Sent: Friday, February 24, 2017 11:53 AM
To: 'Nawfal Kammah'
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,
We're okay with Crozier using the three proxy sites identified below, as well as the survey details provided.
Thanks,

John Zaloznik B.E.S.
Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca

Please consider the environment before printing this e-mail.

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Friday, February 24, 2017 10:43 AM
To: Zaloznik, John
Cc: Aaron Wignall
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

I hope my email finds you well.

We have made a selection regarding the possible surrogate sites to be used in the Parking Justification Study for the proposed mixed-use development located at 5353 Lakeshore Road, and we would like your feedback.

Considering that the retail and office developments within the proposed site are to be the same as the ones currently in place in the 5353 Lakeshore Road Plaza, a survey of the existing plaza will be completed. The survey of the existing plaza will be completed on a weekday between 7 a.m. and 7 p.m. , as well as on a Saturday between 10 a.m. and 3 p.m. The existing plaza survey will be used to determine the required parking supply for the retail/office portion of the proposed development.

Regarding the required parking supply of the residential portion of the development, possible surrogate sites are listed below. We would like your feedback before inquiring access with property owners.

- The residential developments located at 5170 and 5166 Lakeshore Road, in the City of Burlington.
- The residential developments located at 1270 and 1276 Maple Crossing Boulevard, in the City of Burlington.
- The residential developments located at 5070/5080/5090 Pinedale Avenue, in the City of Burlington.

The residential surveys will consist of two spot counts between 12 a.m. and 5 a.m. on a weekday, which corresponds to the peak parking period for residential developments.

All counts will be completed at 15 minute intervals.

Thank you for providing us your feedback. Please do not hesitate to contact me if you require any additional information.

Regards,

| **NAWFAL KAMMAH** E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Wednesday, February 22, 2017 10:28 AM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,
Apologies for the delayed response on the Parking Justification Study Terms of Reference. Please see my comments below, shown in red.
Thanks,

John Zaloznik B.E.S.
Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca




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From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Monday, February 13, 2017 4:59 PM
To: Zaloznik, John
Cc: Aaron Wignall; Ozimkovic , Danijel
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

The Terms of Reference I forwarded to you only applies to the TIS indeed. Regarding the Parking Justification study, we have written the following Terms of Reference for your review.

In order to complete the Parking Justification Study, we will:

- Compare the number of parking spaces required by the City of Burlington Zoning By-Law with the proposed number of parking spaces to quantify the deficiency.

- Calculate a parking demand for the proposed development based on Institute of Transportation Engineers (ITE) Data and determine if the proposed parking supply if sufficient the meet the demand.

- Commission a parking survey at a surrogate site with a similar use and characteristics in order to generate a parking rate and determine if there is a sufficient parking supply to accommodate the proposed parking rate for the site. Transportation Planning staff would like Crozier to provide the addresses of the proxy sites for staff review and endorsement, prior to undertaking the study.

- Calculate a vehicle ownership rate based on Transportation Tomorrow Survey (TTS) Data and apply said rate to the proposed total number of dwelling units to quantify the number of required residential parking spaces based on TTS Data.

- Identify available public parking, public transit and Transportation Demand Management opportunities in the area as a rational for a reduced parking supply on-site if required.

- Crozier should consult with Transportation Planning staff prior to finalizing Transportation Demand Management assumptions and parking recommendations.

We appreciate any feedback you may have on this approach to the Parking Justification Study, and kindly request your review and approval of these proposed Terms of Reference.

Please feel free to contact me if you have any questions.

Regards,

| **NAWFAL KAMMAH** E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026



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From: Zaloznik, John [mailto:John.Zaloznik@burlington.ca]
Sent: Monday, February 13, 2017 3:10 PM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Cc: Aaron Wignall <awignall@cfcrozier.ca>; Ozimkovic , Danijel <Danijel.Ozimkovic@burlington.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi Nawfal,

Can you confirm that the terms of reference are only for the TIS and are not related to the Parking Justification Report requested by Transportation staff?

The study assumptions look good to me. As Dan mentioned, an annual growth rate of 2% should be applied, as well as analyzing the intersections of Kenwood/Spruce and Hampton
Heath/Spruce. The collected data as part of this Traffic Impact Study should be balanced in order to reflect a consistent peak hour. Please consult with Transportation Planning staff prior to finalizing the Transportation Demand Management assumptions.

Thanks,

John Zaloznik B.E.S.

Transportation Planning Technologist
Transportation Services Department, City of Burlington
426 Brant Street, Burlington, Ontario L7R 3Z6

tel. 905-335-7600 ext. 7691
john.zaloznik@burlington.ca

Please consider the environment before printing this e-mail.

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Monday, February 13, 2017 2:27 PM
To: Zaloznik, John
Cc: Aaron Wignall
Subject: FW: Terms of Reference: 5353 Lakeshore Road, Burlington (cfc#1281-4451)

Hi John,

I send you this email on behalf of Aaron Wignall, regarding the proposed mixed-use Lakeside Plaza development located at 5353 Lakeshore Road, in the City of Burlington.

If you see below, I have forwarded to you my correspondence with Dan Ozimkovic, C.E.T, Transportation Planning Technologist at the City of Burlington. Dan provided us with his feedback regarding our Terms of Reference. Would you be able to confirm the study assumptions as well?

I have attached the Terms of Reference, Site Plan, and Phase plan to this email for your convenience.

Please let us know your feedback whenever you can.

Regards,

| **NAWFAL KAMMAH** E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

CROZIER & ASSOCIATES Consulting Engineers
Land development engineering, from the ground up.
Water Resources · Transportation · Structural · Mechanical · Electrical · Building Science

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From: Nawfal Kammah
Sent: Tuesday, January 17, 2017 4:04 PM
To: 'Ozimkovic , Danijel' <Danijel.Ozimkovic@burlington.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington cfc#1281-4451)

Hi Dan,

Thank you for the information.

Regards,

| **NAWFAL KAMMAH** E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026



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From: Ozimkovic , Danijel [mailto:Danijel.Ozimkovic@burlington.ca]
Sent: Tuesday, January 17, 2017 4:05 PM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington cfc#1281-4451)

Hi Nawfal,
For traffic growth rate, please use 2%.
As for signal timing plans, please contact Steve Vrakela steve.vrakela@burlington.ca

Thanks,
Dan Ozimkovic, C.E.T
Transportation Planning Technologist
Transportation Services
City of Burlington
(905) 335-7671 ext. 7485
danijel.ozimkovic@burlington.ca

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Tuesday, January 17, 2017 4:03 PM
To: Ozimkovic , Danijel
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington cfc#1281-4451)

Hi Dan,

Thank you for your answer to our Terms of Reference.

Would you happen to know who I should contact within the City of Burlington to obtain the information listed below:

- signal timing plans for the study intersection of Lakeshore Road and Kenwood Avenue;

-traffic growth rates for Lakeshore Road, Kenwood Avenue, Hampton Heath Road, Stratton Road and Spruce Avenue. We are analyzing a 5, 10 and 15 year study horizon.

Thank you again for your help on this file.

Regards,

Nawfal.

| **NAWFAL KAMMAH** E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

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From: Ozimkovic , Danijel [mailto:Danijel.Ozimkovic@burlington.ca]
Sent: Monday, January 16, 2017 3:24 PM
To: Nawfal Kammah <nkammah@cfcrozier.ca>
Cc: Aaron Wignall <awignall@cfcrozier.ca>
Subject: RE: Terms of Reference: 5353 Lakeshore Road, Burlington cfc#1281-4451)

Hi Nawfal,
Thanks for sharing scope of work with me. It looks good but I would also like you to add 2 more intersections:

- Kenwood at Spruce
- Hampton Heath at Spruce

Thank you,
Dan Ozimkovic, C.E.T
Transportation Planning Technologist
Transportation Services
City of Burlington
(905) 335-7671 ext. 7485
danijel.ozimkovic@burlington.ca

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Friday, January 13, 2017 2:20 PM
To: Ozimkovic , Danijel
Cc: Aaron Wignall
Subject: Terms of Reference: 5353 Lakeshore Road, Burlington cfc#1281-4451)

Hi Dan,

It was a pleasure speaking to your earlier today. As I mentioned on the phone, Crozier & Associates has been retained to undertake a Traffic Impact Study in support of the redevelopment of the 5353 Lakeshore Road Plaza, in the City of Burlington.

The proposed development consists of approximately 906 residential units in the form of apartments and townhomes, in addition to commercial and office developments located at the ground floor. The existing underground commercial space will be converted to underground parking for the commercial properties and residential units. The existing site accesses to Kenwood Avenue, Lakeshore Road and Hampton Heath Road will be maintained.

Attached to this email is a site plan, a phase plan, as well as a Terms of Reference detailing our study assumptions for the Traffic Impact Study. Would you be able to review the file and confirm our study plan?

Please note that our client would like to keep this proposed development strictly confidential.

Thank you for your time.

Regards,

| **NAWFAL KAMMAH** E.I.T. | C.F. CROZIER & ASSOCIATES
| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4
| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026

CROZIER & ASSOCIATES
Consulting Engineers

Land development engineering, from the ground up.

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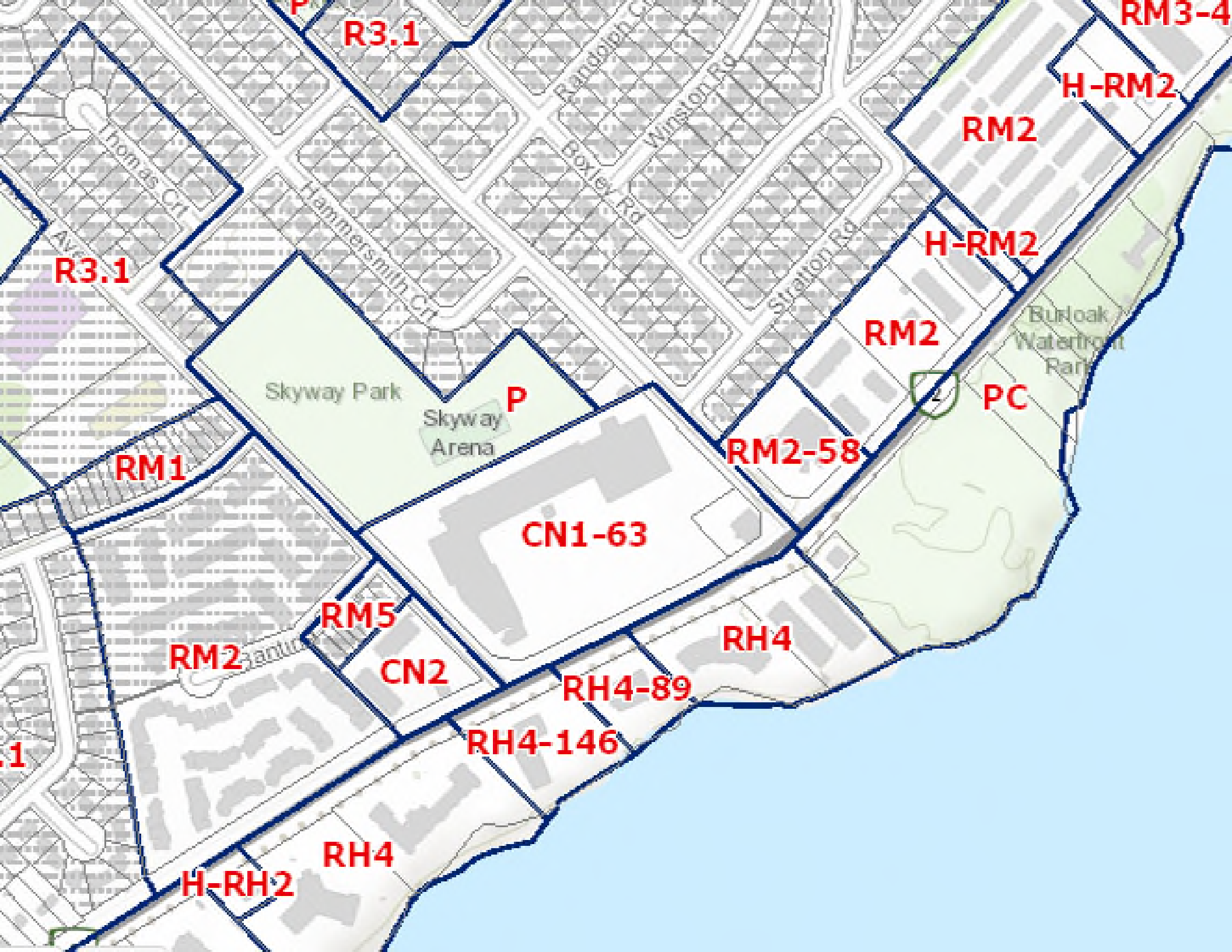
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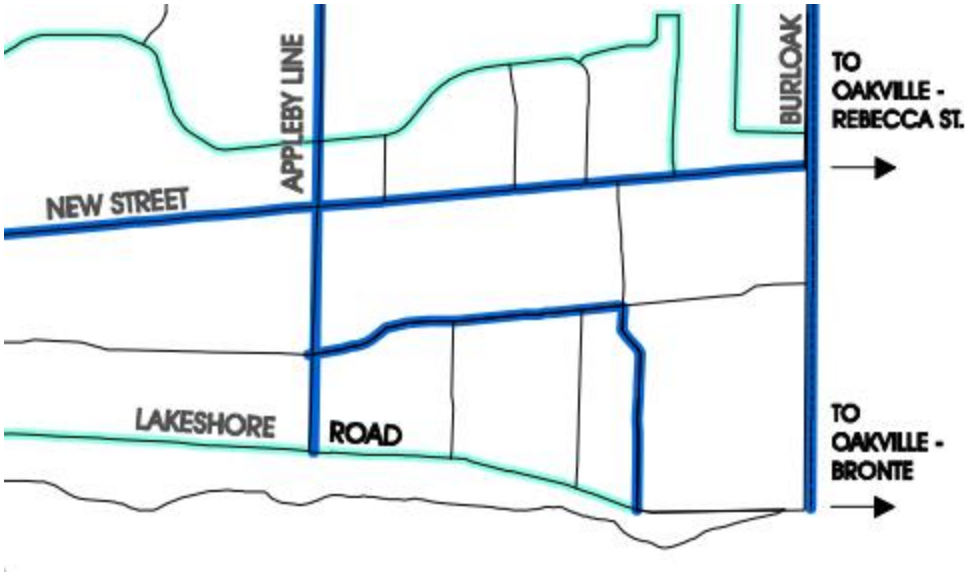
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APPENDIX B

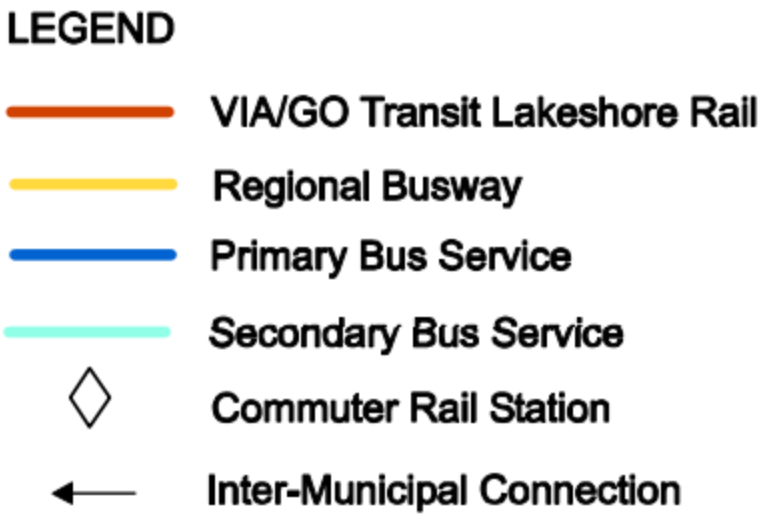
City of Burlington Zoning By-Law Excerpts and Relevant Maps


R3.1
Randolph Cr
Winston Rd
Boxley Rd
Stratton Rd
Hammersmith Cr
Thomas Cr
Avenue
R3.1
RM3-4
H-RM2
RM2
H-RM2
RM2
Burloak Waterfront Park
PC
Skyway Park
P
Skyway Arena
RM2-58
RM1
CN1-63
RM5
RM2
CN2
RH4
RH4-89
RH4-146
RH4
H-RH2

Long-Term Transit Service Network Map



Legend



Burlington Transit Maps

- Routes 20 and 40



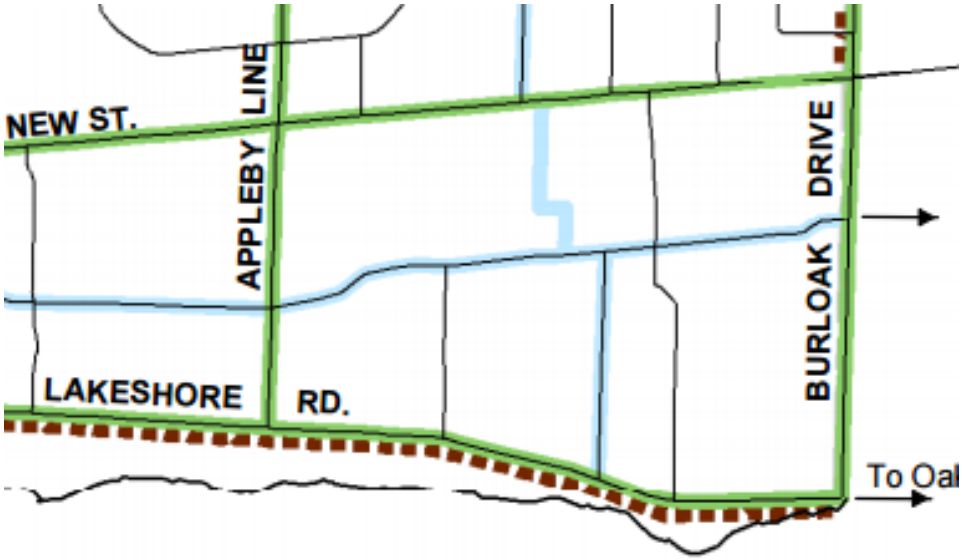
- Route 50


Thomas Alton Bl
Tim Dobbie Dr
Dundas-Walmart Plaza
Haber
Dundas St
Cavendish Dr
Coventry Way
Headon Forest Dr
Headon Rd
Headon Forest
Appleby-Dundas Plaza
51
Sutton Dr
Brant Hills
Upper Brant Plaza
Brant St
Angela Coughlan
Burlington Supercentre
Walker Place
Upper Middle Rd
Tansley Woods
52
Burlington Heights Centre
Power Centre
Guelph Line
Mainway Business Centre
Mainway
Walkers Line
Appleby Line
Burloak Dr
Davidson Plaza
Ontario Court of Justice
Queensway Dr
Westgate Plaza
Plains Rd E
Burlington
51
Harvester Rd
Brant Plaza
Burlington Mall
Woodview Place
Maple Mews
Mapleview Mall
Prospect St
Fairview St
Velocity - A Place for Youth
50
Burlington Square
52
Rotary Youth
Maple Av
Brant Plaza
Central YMCA
Music Centre
Eastway Plaza
Nelson
Appleby Mall
Centennial
City Hall
Roseland Plaza
New St
50
James St
North Shore Bl E
John St
Burlington Seniors'
Central
Joseph Brant Memorial
Downtown
Lakeshore Rd
Skyway Arena
Lakeside Plaza

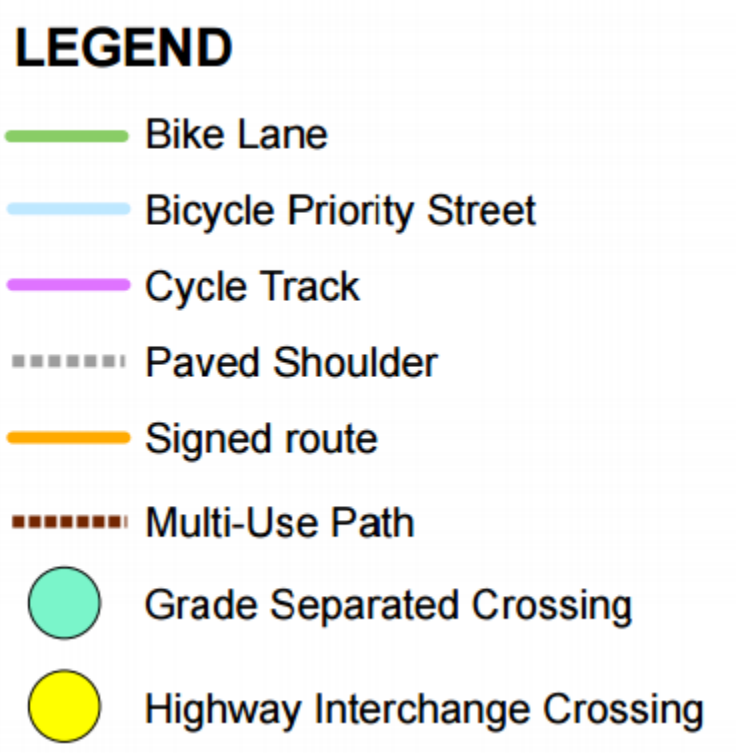
- Route 301


Lasalle Park Rd
Townsend Av
Shadeland Av
Plains Rd W
Aldershot
King Rd
Burlington Bay
300
Mapleview Mall
Maple Ave
Maple Mews
Joseph Brant Memorial
Ontario St
City Hall
John St
James St
Pine St
Elizabeth St
Lake Ontario
Brant St
Burlington Seniors' Central
Central
Rotary Youth
New St
302
Guelph Line
Burlington Mall
301
Eastway Plaza
Longmoor Dr
Walkers Line
Burlington Supercentre
Burlington Heights Centre
Walker Place
Tansley Woods
Itabashi Way
Upper Middle Rd
Lakeshore Rd
Appleby Mall
Appleby Line
Pinedale Av
Lakeside Plaza
Centennial
Hampton Heath Rd
New St

Except from the Long-Term Cycling Masterplan



Legend



APPENDIX C

Traffic Data, Signal Timing Plans and Traffic Growth Rates

Turning Movement Count (8 . HAMPTON HEATH RD & NORTH EAST ACCESS)

Start Time	N Approach HAMPTON HEATH RD					S Approach HAMPTON HEATH RD					W Approach NORTH EAST ACCESS					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	U-Turn N:N	Peds N:	Approach Total	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	0	5	0	0	5	1	0	0	0	1	1	0	0	0	1	7	
07:15:00	1	4	0	0	5	8	0	0	0	8	0	0	0	0	0	13	
07:30:00	1	9	0	0	10	8	0	0	0	8	0	0	0	0	0	18	
07:45:00	0	16	0	0	16	6	0	0	1	6	0	1	0	1	1	23	61
08:00:00	1	11	0	0	12	6	1	0	0	7	0	3	0	1	3	22	76
08:15:00	2	13	0	0	15	6	1	0	0	7	1	1	0	2	2	24	87
08:30:00	1	15	0	0	16	10	1	0	1	11	2	2	0	0	4	31	100
08:45:00	2	14	0	0	16	10	1	0	0	11	1	0	0	0	1	28	105
09:00:00	1	7	0	0	8	5	1	0	0	6	1	0	0	0	1	15	98
09:15:00	1	9	0	0	10	7	3	0	0	10	2	2	0	0	4	24	98
09:30:00	1	8	0	0	9	13	2	0	0	15	1	0	0	1	1	25	92
09:45:00	1	6	0	0	7	10	0	0	1	10	0	2	0	0	2	19	83
BREAK																	
15:00:00	4	14	0	0	18	11	3	0	0	14	1	2	0	1	3	35	
15:15:00	7	18	0	0	25	13	0	0	0	13	2	3	0	2	5	43	
15:30:00	1	17	0	0	18	15	0	0	1	15	2	4	0	3	6	39	
15:45:00	2	11	0	0	13	17	0	0	2	17	0	2	0	0	2	32	149
16:00:00	3	5	0	0	8	15	0	0	0	15	4	1	0	0	5	28	142
16:15:00	5	10	0	0	15	15	1	0	4	16	2	0	0	1	2	33	132
16:30:00	4	11	0	0	15	18	1	0	0	19	2	2	0	4	4	38	131
16:45:00	4	12	0	0	16	16	0	0	3	16	4	3	0	6	7	39	138
17:00:00	6	5	0	0	11	22	0	0	0	22	1	5	0	1	6	39	149
17:15:00	5	4	0	0	9	19	0	0	0	19	2	2	0	3	4	32	148
17:30:00	3	10	0	0	13	20	4	0	0	24	1	3	0	1	4	41	151

17:45:00	5	12	0	0	17	11	0	0	0	11	4	2	0	2	6	34	146
18:00:00	4	13	0	0	17	12	0	0	0	12	1	0	0	4	1	30	137
18:15:00	4	8	0	0	12	8	0	0	2	8	0	0	0	3	0	20	125
18:30:00	2	10	0	0	12	14	0	0	0	14	0	5	0	0	5	31	115
18:45:00	1	9	0	0	10	13	1	0	0	14	1	1	0	0	2	26	107
Grand Total	72	286	0	0	358	329	20	0	15	349	36	46	0	36	82	**789**	-
Approach%	20.1%	79.9%	0%		-	94.3%	5.7%	0%		-	43.9%	56.1%	0%		-	**-**	-
Totals %	9.1%	36.2%	0%		45.4%	41.7%	2.5%	0%		44.2%	4.6%	5.8%	0%		10.4%	**-**	-
Heavy	0	15	0		-	7	5	0		-	1	1	0		-	**-**	-
Heavy %	0%	5.2%	0%		-	2.1%	25%	0%		-	2.8%	2.2%	0%		-	**-**	-
Bicycles	0	0	0		-	1	1	0		-	0	1	0		-	**-**	-
Bicycle %	0%	0%	0%		-	0.3%	5%	0%		-	0%	2.2%	0%		-	**-**	-

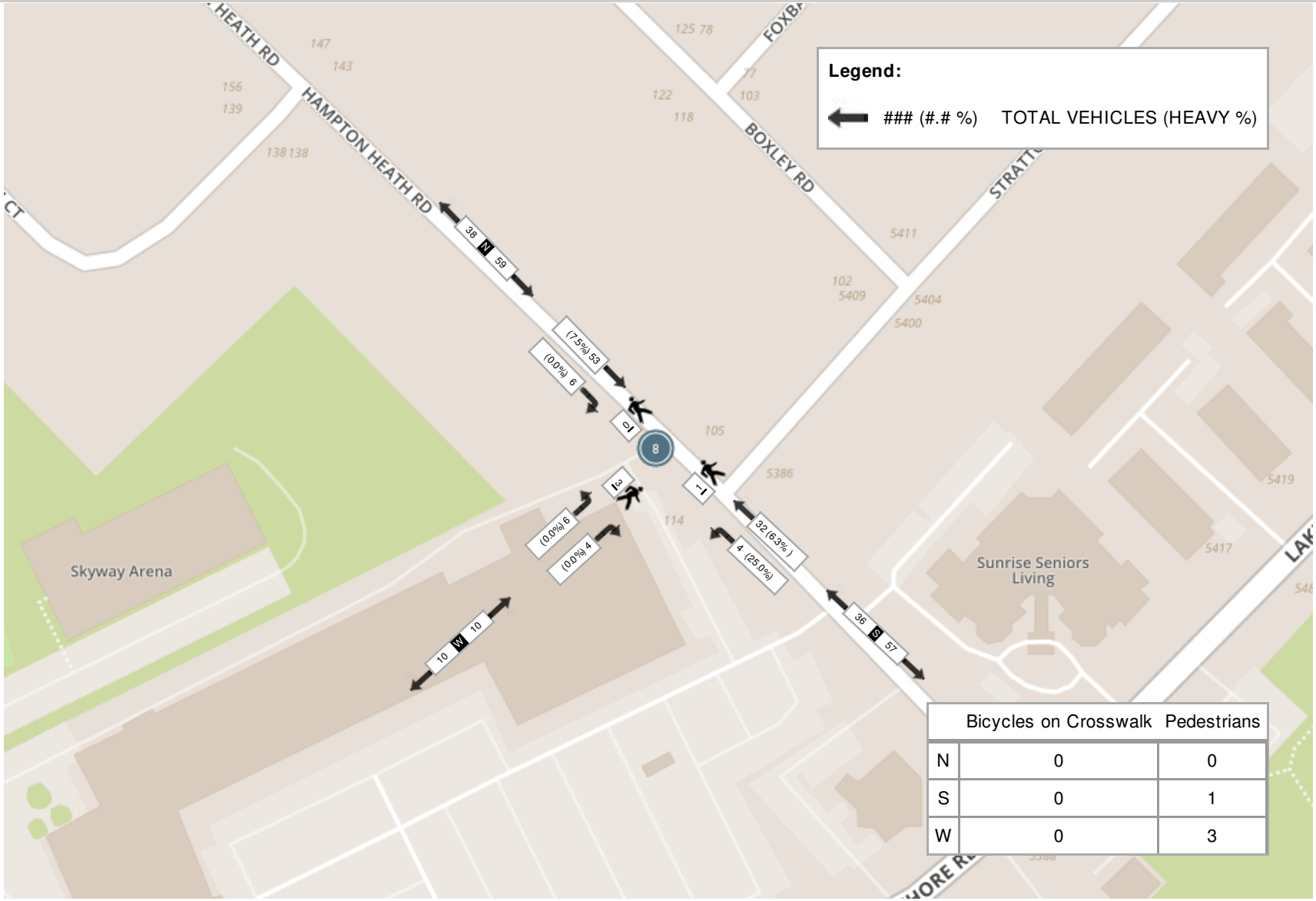
Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach HAMPTON HEATH RD					S Approach HAMPTON HEATH RD					W Approach NORTH EAST ACCESS					Int. Total (15 min)
	Right	Thru	U-Turn	Peds	Approach Total	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	
08:00:00	1	11	0	0	12	6	1	0	0	7	0	3	0	1	3	22
08:15:00	2	13	0	0	15	6	1	0	0	7	1	1	0	2	2	24
08:30:00	1	15	0	0	16	10	1	0	1	11	2	2	0	0	4	31
08:45:00	2	14	0	0	16	10	1	0	0	11	1	0	0	0	1	28
Grand Total	6	53	0	0	59	32	4	0	1	36	4	6	0	3	10	**105**
Approach%	10.2%	89.8%	0%		-	88.9%	11.1%	0%		-	40%	60%	0%		-	-
Totals %	5.7%	50.5%	0%		56.2%	30.5%	3.8%	0%		34.3%	3.8%	5.7%	0%		9.5%	-
PHF	0.75	0.88	0		0.92	0.8	1	0		0.82	0.5	0.5	0		0.63	-
Heavy	0	4	0		4	2	1	0		3	0	0	0		0	-
Heavy %	0%	7.5%	0%		6.8%	6.3%	25%	0%		8.3%	0%	0%	0%		0%	-
Lights	6	49	0		55	30	3	0		33	4	6	0		10	-
Lights %	100%	92.5%	0%		93.2%	93.8%	75%	0%		91.7%	100%	100%	0%		100%	-
Single-Unit Trucks	0	2	0		2	1	0	0		1	0	0	0		0	-
Single-Unit Trucks %	0%	3.8%	0%		3.4%	3.1%	0%	0%		2.8%	0%	0%	0%		0%	-
Buses	0	2	0		2	1	0	0		1	0	0	0		0	-
Buses %	0%	3.8%	0%		3.4%	3.1%	0%	0%		2.8%	0%	0%	0%		0%	-
Articulated Trucks	0	0	0		0	0	1	0		1	0	0	0		0	-
Articulated Trucks %	0%	0%	0%		0%	0%	25%	0%		2.8%	0%	0%	0%		0%	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	3	-	-
Pedestrians%	-	-	-	0%		-	-	-	25%		-	-	-	75%		-
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 04:45 PM - 05:45 PM Weather: Mostly Cloudy (-4.2 °C)

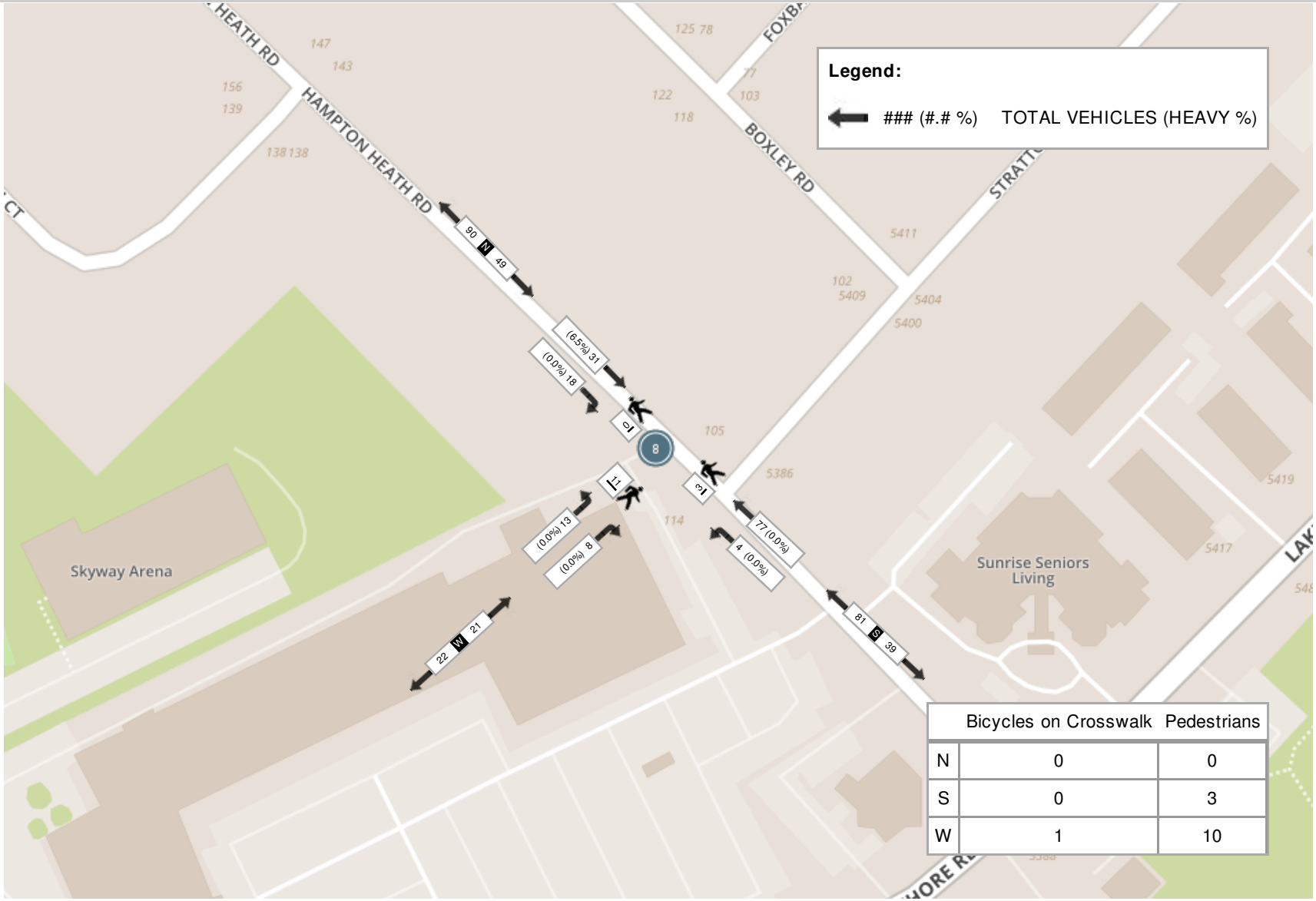
Start Time	N Approach HAMPTON HEATH RD					S Approach HAMPTON HEATH RD					W Approach NORTH EAST ACCESS					Int. Total (15 min)
	Right	Thru	U-Turn	Peds	Approach Total	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	
16:45:00	4	12	0	0	16	16	0	0	3	16	4	3	0	6	7	39
17:00:00	6	5	0	0	11	22	0	0	0	22	1	5	0	1	6	39
17:15:00	5	4	0	0	9	19	0	0	0	19	2	2	0	3	4	32
17:30:00	3	10	0	0	13	20	4	0	0	24	1	3	0	1	4	41
Grand Total	18	31	0	0	49	77	4	0	3	81	8	13	0	11	21	**151**
Approach%	36.7%	63.3%	0%		-	95.1%	4.9%	0%		-	38.1%	61.9%	0%		-	-
Totals %	11.9%	20.5%	0%		32.5%	51%	2.6%	0%		53.6%	5.3%	8.6%	0%		13.9%	-
PHF	0.75	0.65	0		0.77	0.88	0.25	0		0.84	0.5	0.65	0		0.75	-
Heavy	0	2	0		2	0	0	0		0	0	0	0		0	-
Heavy %	0%	6.5%	0%		4.1%	0%	0%	0%		0%	0%	0%	0%		0%	-
Lights	18	29	0		47	77	4	0		81	8	13	0		21	-
Lights %	100%	93.5%	0%		95.9%	100%	100%	0%		100%	100%	100%	0%		100%	-
Single-Unit Trucks	0	0	0		0	0	0	0		0	0	0	0		0	-
Single-Unit Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
Buses	0	2	0		2	0	0	0		0	0	0	0		0	-
Buses %	0%	6.5%	0%		4.1%	0%	0%	0%		0%	0%	0%	0%		0%	-
Articulated Trucks	0	0	0		0	0	0	0		0	0	0	0		0	-
Articulated Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	0	-	-	-	-	3	-	-	-	-	10	-	-
Pedestrians%	-	-	-	0%		-	-	-	21.4%		-	-	-	71.4%		-
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
Bicycles on Crosswalk%	-	-	-	0%		-	-	-	0%		-	-	-	7.1%		-
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	1
W	0	3

Peak Hour: 04:45 PM - 05:45 PM Weather: Mostly Cloudy (-4.2 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	3
W	1	10

Turning Movement Count (8 . HAMPTON HEATH RD & NORTH EAST ACCESS)

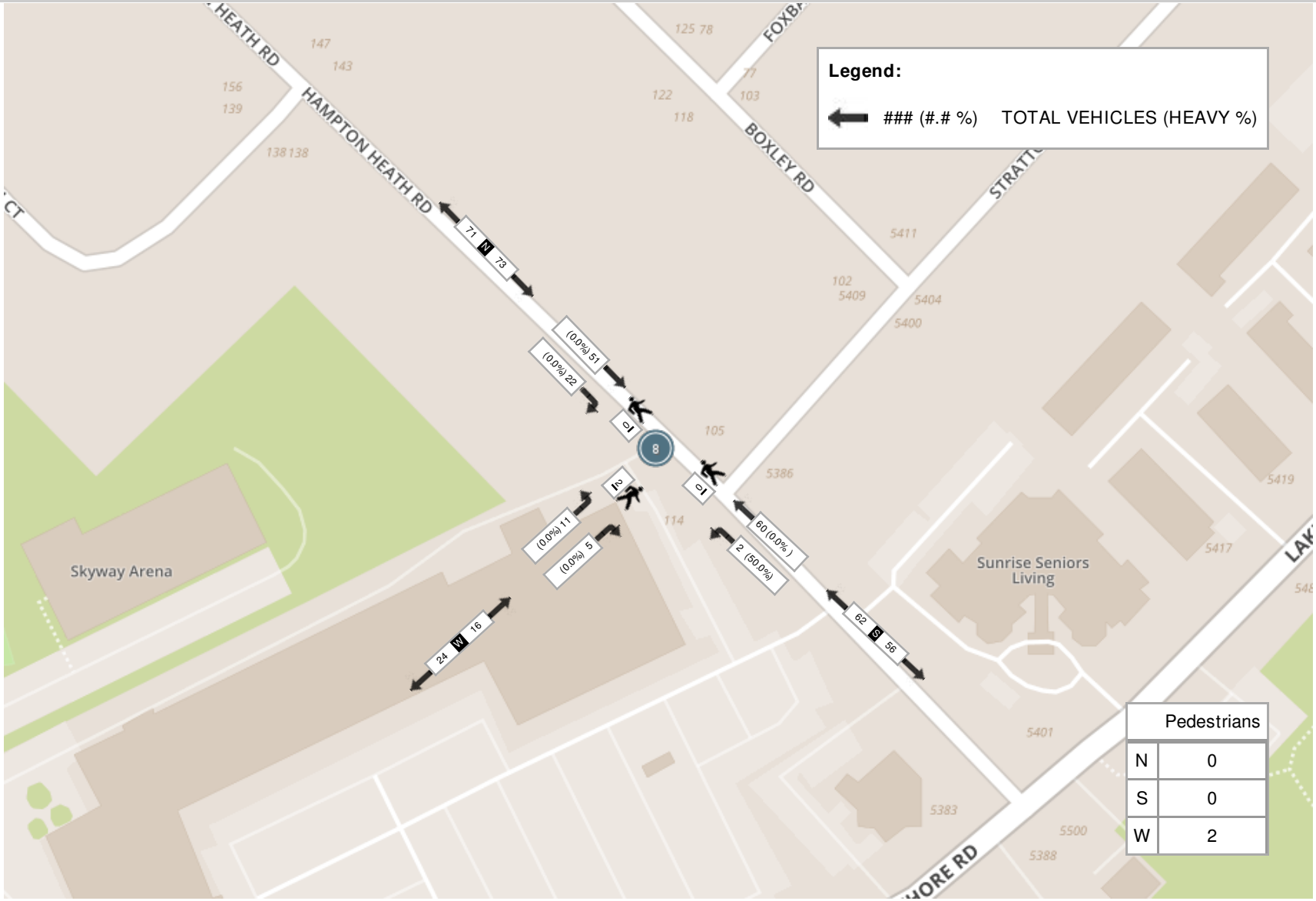
Start Time	N Approach HAMPTON HEATH RD					S Approach HAMPTON HEATH RD					W Approach NORTH EAST ACCESS					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	U-Turn N:N	Peds N:	Approach Total	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	4	12	0	0	16	12	2	0	1	14	3	1	0	0	4	34	
10:15:00	4	11	0	0	15	9	2	0	1	11	6	4	0	4	10	36	
10:30:00	9	12	0	1	21	7	1	0	0	8	0	2	0	0	2	31	
10:45:00	6	12	0	0	18	8	0	0	0	8	2	1	0	0	3	29	130
11:00:00	2	9	0	0	11	15	1	0	0	16	2	1	0	0	3	30	126
11:15:00	5	9	0	0	14	10	2	0	0	12	1	3	0	0	4	30	120
11:30:00	5	16	0	0	21	13	1	0	0	14	1	3	0	0	4	39	128
11:45:00	7	15	0	0	22	17	0	0	0	17	2	1	0	0	3	42	141
12:00:00	5	6	0	0	11	19	0	0	0	19	2	5	0	0	7	37	148
12:15:00	5	14	0	0	19	11	1	0	0	12	0	2	0	2	2	33	151
12:30:00	6	13	0	0	19	11	1	0	0	12	1	3	0	1	4	35	147
12:45:00	7	15	0	0	22	14	1	0	0	15	3	1	0	1	4	41	146
13:00:00	5	5	0	0	10	18	0	0	0	18	3	6	0	0	9	37	146
13:15:00	5	9	0	0	14	10	2	0	0	12	4	3	0	1	7	33	146
13:30:00	2	10	0	0	12	15	0	0	0	15	1	0	0	0	1	28	139
13:45:00	3	17	0	0	20	12	3	0	0	15	3	5	0	0	8	43	141
14:00:00	6	13	0	0	19	10	1	0	0	11	3	2	0	1	5	35	139
14:15:00	4	8	0	0	12	14	3	0	0	17	1	2	0	0	3	32	138
14:30:00	5	11	0	0	16	12	1	0	0	13	2	5	0	0	7	36	146
14:45:00	6	13	0	0	19	9	0	0	1	9	2	4	0	0	6	34	137
Grand Total	101	230	0	1	331	246	22	0	3	268	42	54	0	10	96	**695**	-
Approach%	30.5%	69.5%	0%		-	91.8%	8.2%	0%		-	43.8%	56.3%	0%		-	**-**	-
Totals %	14.5%	33.1%	0%		47.6%	35.4%	3.2%	0%		38.6%	6%	7.8%	0%		13.8%	**-**	-
Heavy	0	0	0		-	1	2	0		-	0	0	0		-	**-**	-

Heavy %	0%	0%	0%	-	0.4%	9.1%	0%	-	0%	0%	0%	-	-	-
Bicycles	0	0	0	-	0	1	0	-	0	0	0	-	-	-
Bicycle %	0%	0%	0%	-	0%	4.5%	0%	-	0%	0%	0%	-	-	-

Peak Hour: 11:30 AM - 12:30 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach HAMPTON HEATH RD					S Approach HAMPTON HEATH RD					W Approach NORTH EAST ACCESS					Int. Total (15 min)
	Right	Thru	U-Turn	Peds	Approach Total	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	
11:30:00	5	16	0	0	21	13	1	0	0	14	1	3	0	0	4	39
11:45:00	7	15	0	0	22	17	0	0	0	17	2	1	0	0	3	42
12:00:00	5	6	0	0	11	19	0	0	0	19	2	5	0	0	7	37
12:15:00	5	14	0	0	19	11	1	0	0	12	0	2	0	2	2	33
Grand Total	22	51	0	0	73	60	2	0	0	62	5	11	0	2	16	**151**
Approach%	30.1%	69.9%	0%		-	96.8%	3.2%	0%		-	31.3%	68.8%	0%		-	-
Totals %	14.6%	33.8%	0%		48.3%	39.7%	1.3%	0%		41.1%	3.3%	7.3%	0%		10.6%	-
PHF	0.79	0.8	0		0.83	0.79	0.5	0		0.82	0.63	0.55	0		0.57	-
Heavy	0	0	0		0	0	1	0		1	0	0	0		0	-
Heavy %	0%	0%	0%		0%	0%	50%	0%		1.6%	0%	0%	0%		0%	-
Lights	22	51	0		73	60	1	0		61	5	11	0		16	-
Lights %	100%	100%	0%		100%	100%	50%	0%		98.4%	100%	100%	0%		100%	-
Buses	0	0	0		0	0	0	0		0	0	0	0		0	-
Buses %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
Articulated Trucks	0	0	0		0	0	1	0		1	0	0	0		0	-
Articulated Trucks %	0%	0%	0%		0%	0%	50%	0%		1.6%	0%	0%	0%		0%	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	100%		-
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 11:30 AM - 12:30 PM Weather: Partly Cloudy (-4.4 °C)



Turning Movement Count (9 . HAMPTON HEATH RD & SOUTH EAST ACCESS)

Start Time	N Approach HAMPTON HEATH RD						E Approach DRIVEWAY						S Approach HAMPTON HEATH RD						W Approach SOUTH EAST ACCESS						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	2	5	0	0	0	7	0	0	0	0	0	0	1	0	1	0	0	2	3	0	1	0	0	4	13	
07:15:00	5	4	0	0	0	9	0	0	0	0	0	0	0	4	2	0	0	6	1	0	3	0	0	4	19	
07:30:00	5	6	1	0	0	12	0	1	0	0	0	1	1	5	0	0	0	6	0	0	3	0	0	3	22	
07:45:00	10	6	0	0	0	16	0	0	0	0	0	0	1	2	1	0	0	4	1	0	5	0	0	6	26	80
08:00:00	7	4	0	0	0	11	0	0	0	0	0	0	1	3	2	0	0	6	3	0	3	0	0	6	23	90
08:15:00	6	12	0	0	1	18	0	0	0	0	0	0	1	1	5	0	0	7	4	0	7	0	0	11	36	107
08:30:00	10	11	0	0	0	21	0	0	1	0	0	1	0	3	1	0	0	4	6	0	9	0	0	15	41	126
08:45:00	5	8	1	0	0	14	0	1	0	0	0	1	0	6	6	0	1	12	3	0	8	0	0	11	38	138
09:00:00	3	10	0	0	0	13	0	0	0	0	0	0	0	4	8	0	2	12	6	0	5	0	0	11	36	151
09:15:00	8	5	0	0	0	13	0	0	0	0	0	0	0	6	4	0	2	10	3	1	7	0	0	11	34	149
09:30:00	4	9	0	0	0	13	0	0	0	0	0	0	0	9	7	0	0	16	8	0	7	0	1	15	44	152
09:45:00	3	2	1	0	0	6	0	0	0	0	0	0	0	9	7	0	1	16	3	0	0	0	0	3	25	139
BREAK																										
15:00:00	11	4	1	0	1	16	1	0	2	0	0	3	0	5	10	0	1	15	20	0	10	0	1	30	64	
15:15:00	12	7	0	0	0	19	2	0	0	0	0	2	2	7	15	0	0	24	9	0	10	0	1	19	64	
15:30:00	4	13	0	0	1	17	1	0	2	0	1	3	0	14	13	0	0	27	10	0	9	0	2	19	66	
15:45:00	5	7	0	0	2	12	2	0	1	0	0	3	0	6	13	0	3	19	10	1	12	0	0	23	57	251
16:00:00	3	7	0	0	0	10	0	0	1	0	0	1	0	13	15	0	2	28	16	2	8	0	0	26	65	252
16:15:00	7	10	0	0	1	17	1	0	0	0	0	1	0	13	10	0	0	23	17	0	5	0	0	22	63	251
16:30:00	11	6	0	0	1	17	0	0	1	0	0	1	0	7	10	0	0	17	5	0	14	0	0	19	54	239
16:45:00	10	8	1	0	0	19	0	1	0	0	0	1	1	13	16	0	0	30	11	0	8	0	0	19	69	251
17:00:00	3	3	0	0	2	6	0	0	2	0	0	2	0	13	11	0	4	24	8	0	15	0	1	23	55	241
17:15:00	6	2	0	0	2	8	0	1	1	0	0	2	0	5	7	0	0	12	10	0	15	0	1	25	47	225
17:30:00	7	7	0	0	0	14	0	0	0	0	0	0	0	10	12	0	1	22	16	0	13	0	3	29	65	236
17:45:00	7	7	0	0	0	14	0	0	1	0	0	1	2	9	11	0	1	22	8	1	10	0	1	19	56	223
18:00:00	4	8	0	0	0	12	2	0	1	0	0	3	0	3	7	0	0	10	13	0	10	0	1	23	48	216
18:15:00	6	6	0	0	1	12	0	0	0	0	0	0	1	7	8	0	0	16	5	0	9	0	0	14	42	211
18:30:00	3	9	0	0	0	12	0	0	2	0	0	2	0	10	8	0	0	18	7	0	7	0	0	14	46	192
18:45:00	6	7	1	0	0	14	0	0	1	0	0	1	0	7	11	0	1	18	9	0	8	0	0	17	50	186
Grand Total	173	193	6	0	12	372	9	4	16	0	1	29	11	194	221	0	19	426	215	5	221	0	12	441	**1268**	-
Approach%	46.5%	51.9%	1.6%	0%		-	31%	13.8%	55.2%	0%		-	2.6%	45.5%	51.9%	0%		-	48.8%	1.1%	50.1%	0%		-	-	-

Totals %	13.6%	15.2%	0.5%	0%	29.3%	0.7%	0.3%	1.3%	0%	2.3%	0.9%	15.3%	17.4%	0%	33.6%	17%	0.4%	17.4%	0%	34.8%	-	-
Heavy	1	16	0	0	-	0	0	0	0	-	0	13	2	0	-	2	0	0	0	-	-	-
Heavy %	0.6%	8.3%	0%	0%	-	0%	0%	0%	0%	-	0%	6.7%	0.9%	0%	-	0.9%	0%	0%	0%	-	-	-
Bicycles	0	0	0	0	-	0	2	0	0	-	0	1	0	0	-	1	0	0	0	-	-	-
Bicycle %	0%	0%	0%	0%	-	0%	50%	0%	0%	-	0%	0.5%	0%	0%	-	0.5%	0%	0%	0%	-	-	-

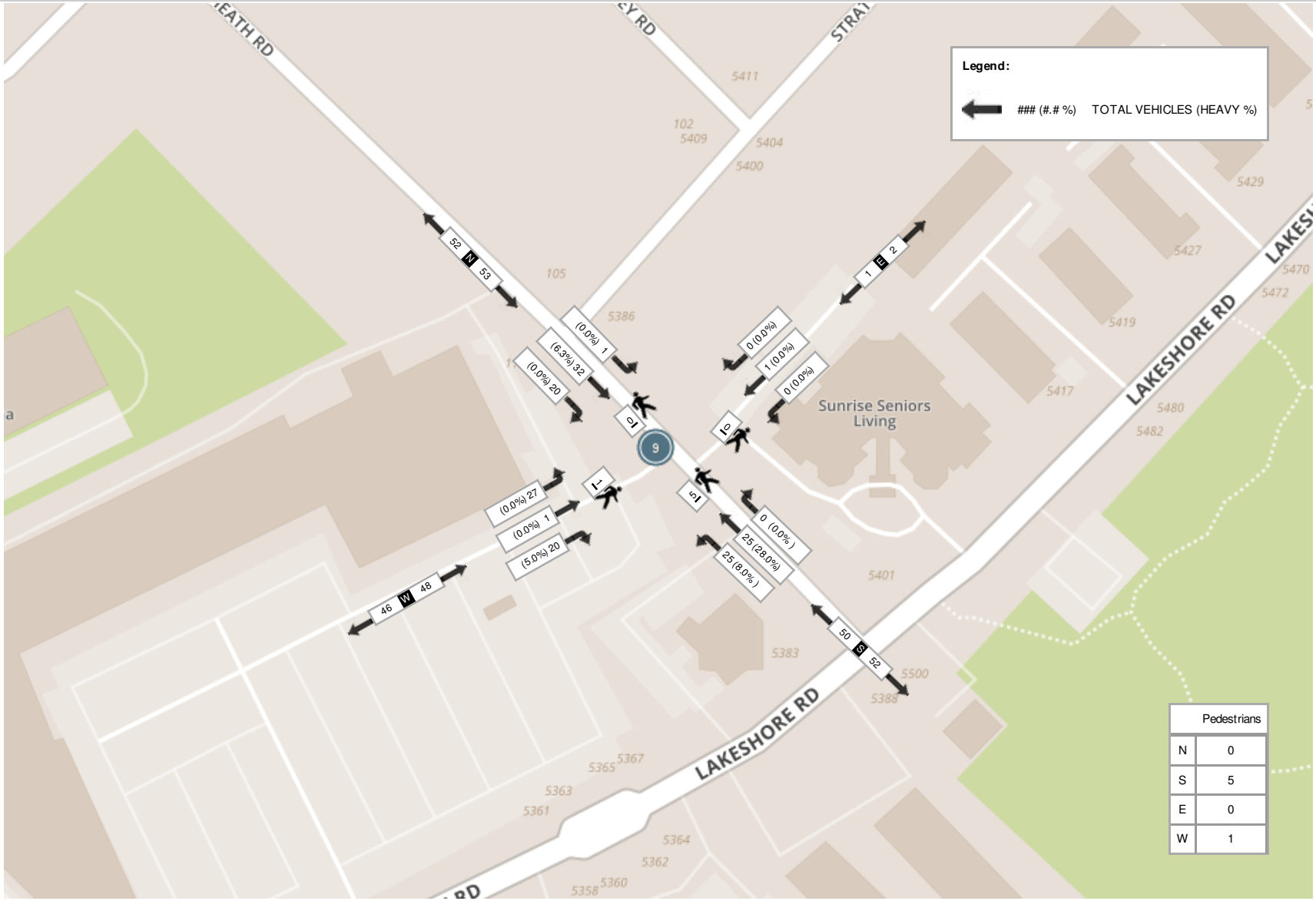
Peak Hour: 08:45 AM - 09:45 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach DRIVEWAY						S Approach HAMPTON HEATH RD						W Approach SOUTH EAST ACCESS						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
08:45:00	5	8	1	0	0	14	0	1	0	0	0	1	0	6	6	0	1	12	3	0	8	0	0	11	38
09:00:00	3	10	0	0	0	13	0	0	0	0	0	0	0	4	8	0	2	12	6	0	5	0	0	11	36
09:15:00	8	5	0	0	0	13	0	0	0	0	0	0	0	6	4	0	2	10	3	1	7	0	0	11	34
09:30:00	4	9	0	0	0	13	0	0	0	0	0	0	0	9	7	0	0	16	8	0	7	0	1	15	44
Grand Total	20	32	1	0	0	53	0	1	0	0	0	1	0	25	25	0	5	50	20	1	27	0	1	48	**152**
Approach%	37.7%	60.4%	1.9%	0%		-	0%	100%	0%	0%		-	0%	50%	50%	0%		-	41.7%	2.1%	56.3%	0%		-	-
Totals %	13.2%	21.1%	0.7%	0%		34.9%	0%	0.7%	0%	0%		0.7%	0%	16.4%	16.4%	0%		32.9%	13.2%	0.7%	17.8%	0%		31.6%	-
PHF	0.63	0.8	0.25	0		0.95	0	0.25	0	0		0.25	0	0.69	0.78	0		0.78	0.63	0.25	0.84	0		0.8	-
Heavy	0	2	0	0		2	0	0	0	0		0	0	7	2	0		9	1	0	0	0		1	-
Heavy %	0%	6.3%	0%	0%		3.8%	0%	0%	0%	0%		0%	0%	28%	8%	0%		18%	5%	0%	0%	0%		2.1%	-
Lights	20	30	1	0		51	0	1	0	0		1	0	18	23	0		41	19	1	27	0		47	-
Lights %	100%	93.8%	100%	0%		96.2%	0%	100%	0%	0%		100%	0%	72%	92%	0%		82%	95%	100%	100%	0%		97.9%	-
Single-Unit Trucks	0	1	0	0		1	0	0	0	0		0	0	4	1	0		5	0	0	0	0		0	-
Single-Unit Trucks %	0%	3.1%	0%	0%		1.9%	0%	0%	0%	0%		0%	0%	16%	4%	0%		10%	0%	0%	0%	0%		0%	-
Buses	0	1	0	0		1	0	0	0	0		0	0	1	0	0		1	1	0	0	0		1	-
Buses %	0%	3.1%	0%	0%		1.9%	0%	0%	0%	0%		0%	0%	4%	0%	0%		2%	5%	0%	0%	0%		2.1%	-
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	2	1	0		3	0	0	0	0		0	-
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	8%	4%	0%		6%	0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	1	-	-
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	83.3%		-	-	-	-	16.7%		-
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	-
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

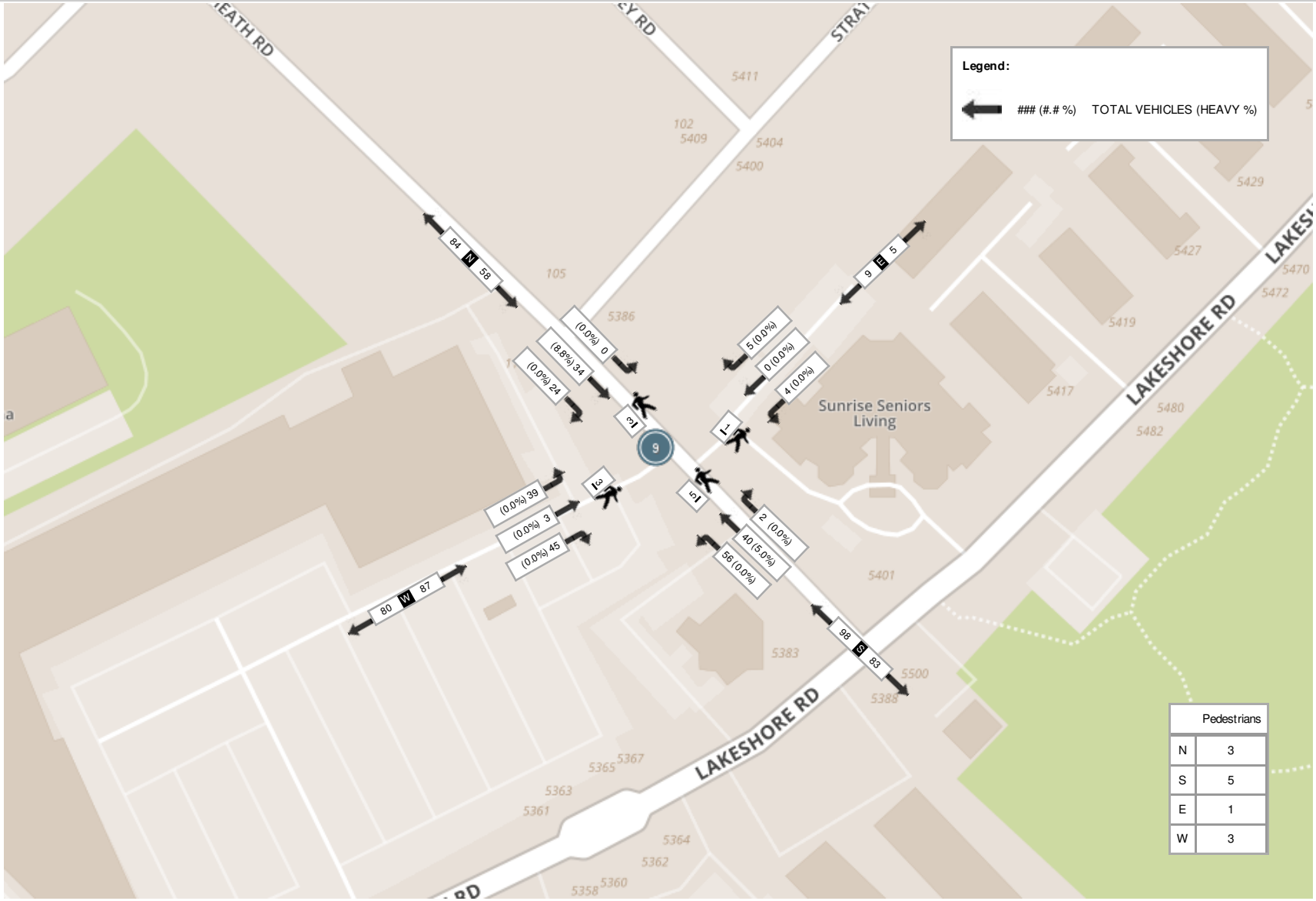
Peak Hour: 03:15 PM - 04:15 PM Weather: Mostly Cloudy (-4.2 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach DRIVEWAY						S Approach HAMPTON HEATH RD						W Approach SOUTH EAST ACCESS						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
15:15:00	12	7	0	0	0	19	2	0	0	0	0	2	2	7	15	0	0	24	9	0	10	0	1	19	64
15:30:00	4	13	0	0	1	17	1	0	2	0	1	3	0	14	13	0	0	27	10	0	9	0	2	19	66
15:45:00	5	7	0	0	2	12	2	0	1	0	0	3	0	6	13	0	3	19	10	1	12	0	0	23	57
16:00:00	3	7	0	0	0	10	0	0	1	0	0	1	0	13	15	0	2	28	16	2	8	0	0	26	65
Grand Total	24	34	0	0	3	58	5	0	4	0	1	9	2	40	56	0	5	98	45	3	39	0	3	87	**252**
Approach%	41.4%	58.6%	0%	0%		-	55.6%	0%	44.4%	0%		-	2%	40.8%	57.1%	0%		-	51.7%	3.4%	44.8%	0%		-	**-**
Totals %	9.5%	13.5%	0%	0%		23%	2%	0%	1.6%	0%		3.6%	0.8%	15.9%	22.2%	0%		38.9%	17.9%	1.2%	15.5%	0%		34.5%	**-**
PHF	0.5	0.65	0	0		0.76	0.63	0	0.5	0		0.75	0.25	0.71	0.93	0		0.88	0.7	0.38	0.81	0		0.84	**-**
Heavy	0	3	0	0		3	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	**-**
Heavy %	0%	8.8%	0%	0%		5.2%	0%	0%	0%	0%		0%	0%	5%	0%	0%		2%	0%	0%	0%	0%		0%	**-**
Lights	24	31	0	0		55	5	0	4	0		9	2	38	56	0		96	45	3	39	0		87	**-**
Lights %	100%	91.2%	0%	0%		94.8%	100%	0%	100%	0%		100%	100%	95%	100%	0%		98%	100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Buses	0	3	0	0		3	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	**-**
Buses %	0%	8.8%	0%	0%		5.2%	0%	0%	0%	0%		0%	0%	5%	0%	0%		2%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	3	-	**-**
Pedestrians%	-	-	-	-	25%		-	-	-	-	8.3%		-	-	-	-	41.7%		-	-	-	-	25%		**-**
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 08:45 AM - 09:45 AM Weather: Unknown (-4.3 °C)



Peak Hour: 03:15 PM - 04:15 PM Weather: Mostly Cloudy (-4.2 °C)



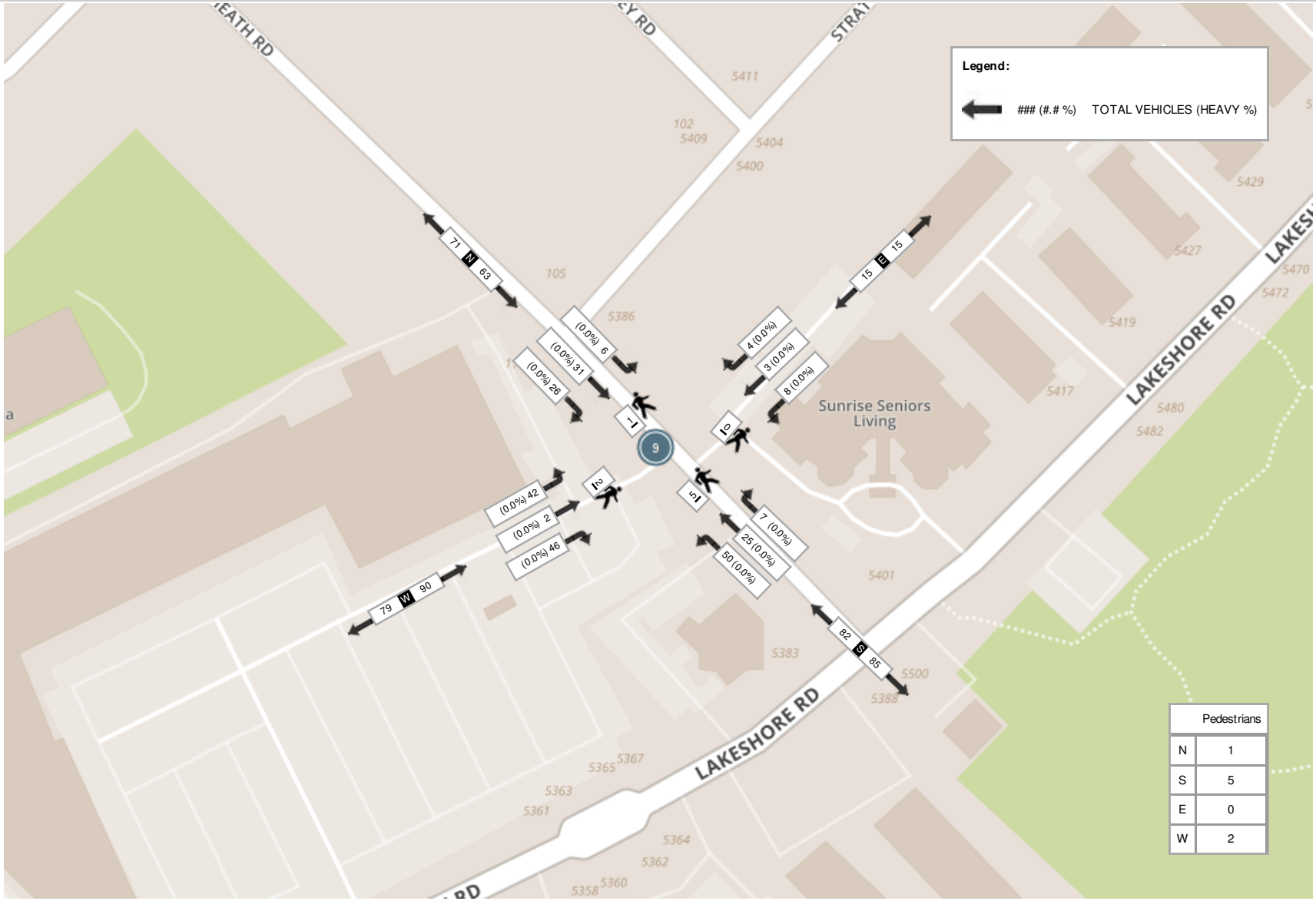
Turning Movement Count (9 . HAMPTON HEATH RD & SOUTH EAST ACCESS)

Start Time	N Approach HAMPTON HEATH RD						E Approach DRIVEWAY						S Approach HAMPTON HEATH RD						W Approach SOUTH EAST ACCESS						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	10	10	0	0	0	20	0	1	1	0	0	2	0	6	4	0	0	10	13	0	8	0	0	21	53	
10:15:00	7	12	0	0	1	19	0	1	0	0	1	1	2	4	10	0	1	16	18	0	7	0	4	25	61	
10:30:00	9	7	0	0	1	16	0	0	2	0	0	2	1	2	16	0	0	19	6	1	12	0	0	19	56	
10:45:00	8	7	0	0	2	15	0	0	0	0	0	0	2	2	8	0	0	12	14	0	12	0	1	26	53	223
11:00:00	4	10	0	0	0	14	0	0	0	0	0	0	0	7	20	0	0	27	16	0	10	0	0	26	67	237
11:15:00	10	4	0	0	1	14	0	0	0	0	0	0	2	8	7	0	2	17	10	0	7	0	0	17	48	224
11:30:00	11	8	1	0	0	20	0	0	0	0	0	0	0	8	14	0	1	22	15	0	8	0	1	23	65	233
11:45:00	10	7	1	0	1	18	0	0	2	0	0	2	1	10	10	0	1	21	12	0	11	0	0	23	64	244
12:00:00	4	7	0	0	0	11	3	0	3	0	0	6	0	4	10	0	2	14	17	0	17	0	0	34	65	242
12:15:00	6	12	0	0	2	18	0	0	0	0	0	0	0	8	7	0	0	15	13	0	4	0	6	17	50	244
12:30:00	10	6	0	0	0	16	0	0	0	0	0	0	0	8	7	0	0	15	9	0	10	0	0	19	50	229
12:45:00	9	9	0	0	2	18	0	0	1	0	0	1	0	8	15	0	0	23	11	0	13	0	1	24	66	231
13:00:00	1	8	0	0	0	9	0	0	0	0	0	0	2	11	14	0	3	27	17	0	10	0	1	27	63	229
13:15:00	7	7	0	0	0	14	0	0	0	0	0	0	1	8	14	0	0	23	9	0	7	0	0	16	53	232
13:30:00	4	9	1	0	0	14	0	0	1	0	0	1	0	6	9	0	0	15	10	1	15	0	0	26	56	238
13:45:00	7	9	3	0	0	19	1	2	1	0	0	4	3	5	18	0	3	26	12	0	9	0	0	21	70	242
14:00:00	8	9	2	0	1	19	1	1	3	0	0	5	1	6	12	0	1	19	14	1	9	0	2	24	67	246
14:15:00	7	4	0	0	0	11	2	0	3	0	0	5	3	8	11	0	1	22	10	0	9	0	0	19	57	250
14:30:00	9	5	0	0	6	14	1	0	3	0	0	4	2	1	9	0	2	12	10	0	13	0	0	23	53	247
14:45:00	9	8	0	0	6	17	0	0	3	0	2	3	0	4	7	0	2	11	14	0	7	0	1	21	52	229
Grand Total	150	158	8	0	23	316	8	5	23	0	3	36	20	124	222	0	19	366	250	3	198	0	17	451	**1169**	-
Approach%	47.5%	50%	2.5%	0%		-	22.2%	13.9%	63.9%	0%		-	5.5%	33.9%	60.7%	0%		-	55.4%	0.7%	43.9%	0%		-	-	-
Totals %	12.8%	13.5%	0.7%	0%		27%	0.7%	0.4%	2%	0%		3.1%	1.7%	10.6%	19%	0%		31.3%	21.4%	0.3%	16.9%	0%		38.6%	-	-
Heavy	0	0	0	0		-	0	0	0	0		-	0	3	0	0		-	0	0	0	0		-	-	-
Heavy %	0%	0%	0%	0%		-	0%	0%	0%	0%		-	0%	2.4%	0%	0%		-	0%	0%	0%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

Peak Hour: 01:30 PM - 02:30 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach DRIVEWAY						S Approach HAMPTON HEATH RD						W Approach SOUTH EAST ACCESS						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
13:30:00	4	9	1	0	0	14	0	0	1	0	0	1	0	6	9	0	0	15	10	1	15	0	0	26	56
13:45:00	7	9	3	0	0	19	1	2	1	0	0	4	3	5	18	0	3	26	12	0	9	0	0	21	70
14:00:00	8	9	2	0	1	19	1	1	3	0	0	5	1	6	12	0	1	19	14	1	9	0	2	24	67
14:15:00	7	4	0	0	0	11	2	0	3	0	0	5	3	8	11	0	1	22	10	0	9	0	0	19	57
Grand Total	26	31	6	0	1	63	4	3	8	0	0	15	7	25	50	0	5	82	46	2	42	0	2	90	**250**
Approach%	41.3%	49.2%	9.5%	0%		-	26.7%	20%	53.3%	0%		-	8.5%	30.5%	61%	0%		-	51.1%	2.2%	46.7%	0%		-	**-**
Totals %	10.4%	12.4%	2.4%	0%		25.2%	1.6%	1.2%	3.2%	0%		6%	2.8%	10%	20%	0%		32.8%	18.4%	0.8%	16.8%	0%		36%	**-**
PHF	0.81	0.86	0.5	0		0.83	0.5	0.38	0.67	0		0.75	0.58	0.78	0.69	0		0.79	0.82	0.5	0.7	0		0.87	**-**
Heavy	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Heavy %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Lights	26	31	6	0		63	4	3	8	0		15	7	25	50	0		82	46	2	42	0		90	**-**
Lights %	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	-	12.5%		-	-	-	-	0%		-	-	-	-	62.5%		-	-	-	-	25%		**-**

Peak Hour: 01:30 PM - 02:30 PM Weather: Partly Cloudy (-4.4 °C)



Turning Movement Count (6 . KENWOOD AVE & WEST ACCESS)

Start Time	N Approach KENWOOD AVE						E Approach WEST ACCESS						S Approach KENWOOD AVE						W Approach BANTING CT						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	1	4	4	0	0	9	1	0	1	0	0	2	3	2	1	0	0	6	0	0	4	0	0	4	21	
07:15:00	0	7	1	0	0	8	1	0	2	0	0	3	1	2	0	0	1	3	1	2	0	0	0	3	17	
07:30:00	0	8	4	0	0	12	2	0	5	0	1	7	1	8	0	0	0	9	2	2	1	0	0	5	33	
07:45:00	0	6	5	0	0	11	2	0	1	0	0	3	1	13	1	0	0	15	6	0	0	0	1	6	35	106
08:00:00	1	11	10	0	0	22	6	0	2	0	0	8	4	10	0	0	0	14	2	0	3	0	1	5	49	134
08:15:00	0	12	11	0	1	23	1	0	3	0	1	4	2	14	0	0	0	16	2	1	2	0	1	5	48	165
08:30:00	0	16	5	0	0	21	6	0	1	0	3	7	3	17	1	1	2	22	4	0	3	0	5	7	57	189
08:45:00	0	24	15	0	0	39	6	0	3	0	2	9	4	23	1	0	0	28	4	0	0	0	4	4	80	234
09:00:00	2	17	7	0	0	26	7	0	0	0	1	7	2	8	1	0	1	11	2	0	0	0	1	2	46	231
09:15:00	0	7	4	0	0	11	2	0	1	0	1	3	2	7	0	0	0	9	2	0	0	0	0	2	25	208
09:30:00	0	5	2	0	0	7	2	0	1	0	2	3	1	4	0	0	0	5	2	0	0	0	0	2	17	168
09:45:00	0	7	3	0	1	10	3	1	2	0	0	6	4	5	1	0	0	10	0	0	1	0	1	1	27	115
BREAK																										
15:00:00	0	13	5	0	0	18	5	0	7	0	2	12	3	13	3	0	0	19	1	0	1	0	0	2	51	
15:15:00	2	8	4	0	0	14	4	0	1	0	1	5	2	24	1	0	1	27	1	0	0	0	4	1	47	
15:30:00	2	22	5	0	0	29	2	1	2	0	1	5	1	15	3	0	0	19	2	0	1	0	0	3	56	
15:45:00	3	9	4	0	0	16	2	0	5	0	2	7	0	6	2	0	0	8	2	0	1	0	2	3	34	188
16:00:00	0	4	4	0	3	8	5	1	4	0	2	10	5	7	2	0	0	14	4	1	0	0	4	5	37	174
16:15:00	1	8	2	0	0	11	1	0	0	0	3	1	2	7	4	0	0	13	3	1	1	0	2	5	30	157
16:30:00	1	7	5	0	0	13	5	0	2	0	0	7	2	10	3	0	4	15	0	0	0	0	6	0	35	136
16:45:00	2	15	8	0	0	25	8	0	6	0	0	14	4	11	6	0	1	21	1	0	1	0	1	2	62	164
17:00:00	2	8	7	0	0	17	10	0	2	0	2	12	2	9	2	0	0	13	3	0	2	0	1	5	47	174
17:15:00	3	7	5	0	0	15	4	1	1	0	0	6	2	12	4	0	0	18	2	0	1	0	2	3	42	186
17:30:00	2	3	6	0	0	11	7	1	4	0	1	12	2	15	3	0	0	20	0	1	1	0	0	2	45	196
17:45:00	1	11	4	0	1	16	2	3	5	0	2	10	3	8	4	0	2	15	2	2	0	0	1	4	45	179
18:00:00	1	8	2	0	0	11	5	0	4	0	0	9	2	10	4	0	0	16	3	0	1	1	4	5	41	173
18:15:00	3	10	3	0	0	16	1	1	0	0	0	2	1	7	1	0	0	9	1	1	1	0	2	3	30	161
18:30:00	3	5	0	0	0	8	7	1	1	0	0	9	1	14	4	0	0	19	2	0	0	0	2	2	38	154
18:45:00	2	9	1	0	0	12	1	0	0	0	1	1	3	12	2	0	1	17	2	2	1	0	2	5	35	144
Grand Total	32	271	136	0	6	439	108	10	66	0	28	184	63	293	54	1	13	411	56	13	26	1	47	96	**1130**	-
Approach%	7.3%	61.7%	31%	0%		-	58.7%	5.4%	35.9%	0%		-	15.3%	71.3%	13.1%	0.2%		-	58.3%	13.5%	27.1%	1%		-	-	-

Totals %	2.8%	24%	12%	0%	38.8%	9.6%	0.9%	5.8%	0%	16.3%	5.6%	25.9%	4.8%	0.1%	36.4%	5%	1.2%	2.3%	0.1%	8.5%	-	-
Heavy	1	3	0	0	-	0	0	8	0	-	3	8	0	0	-	0	1	0	0	-	-	-
Heavy %	3.1%	1.1%	0%	0%	-	0%	0%	12.1%	0%	-	4.8%	2.7%	0%	0%	-	0%	7.7%	0%	0%	-	-	-
Bicycles	0	2	0	0	-	1	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-	-
Bicycle %	0%	0.7%	0%	0%	-	0.9%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	-

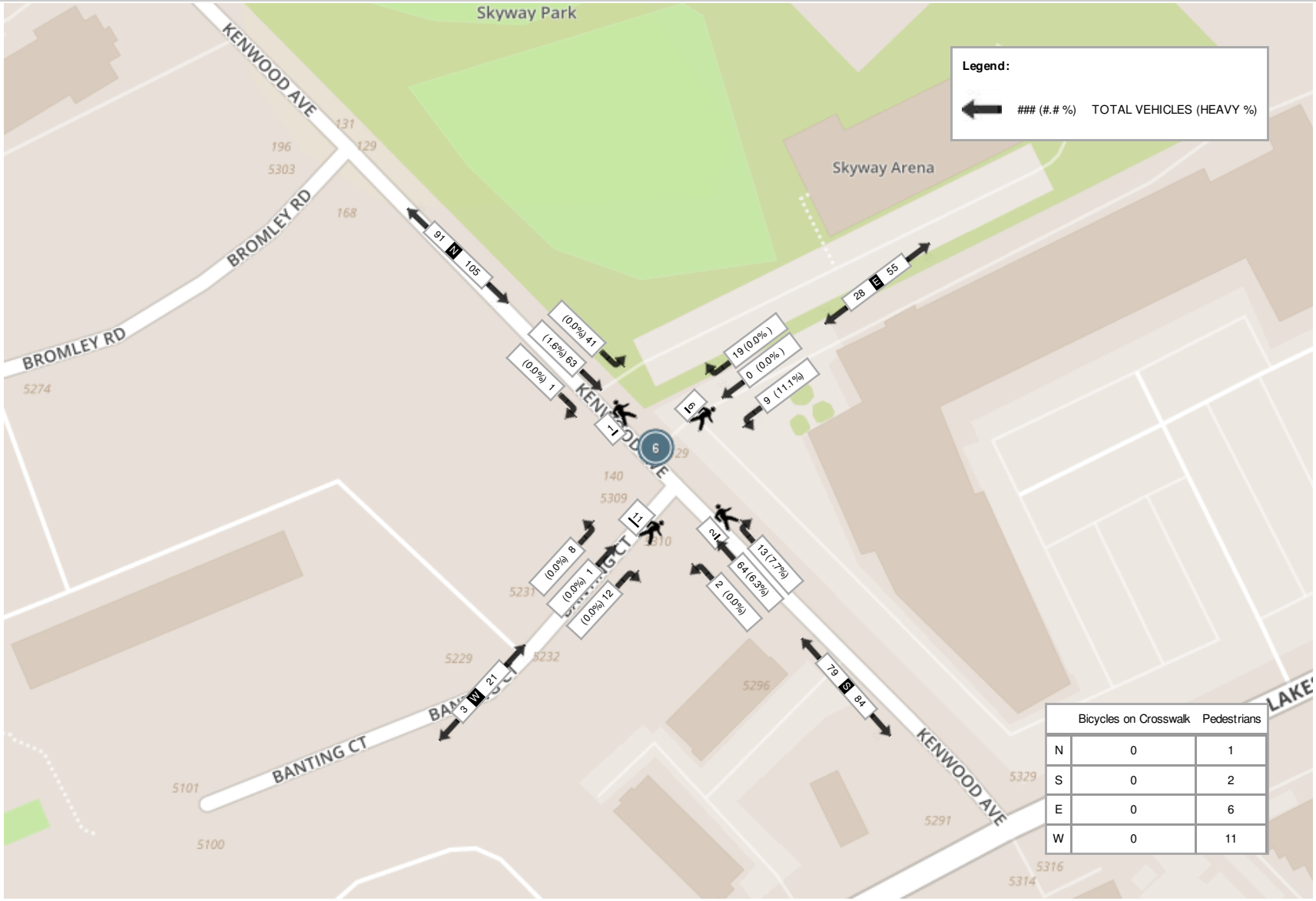
Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach KENWOOD AVE						E Approach WEST ACCESS						S Approach KENWOOD AVE						W Approach BANTING CT						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
08:00:00	1	11	10	0	0	22	6	0	2	0	0	8	4	10	0	0	0	14	2	0	3	0	1	5	49
08:15:00	0	12	11	0	1	23	1	0	3	0	1	4	2	14	0	0	0	16	2	1	2	0	1	5	48
08:30:00	0	16	5	0	0	21	6	0	1	0	3	7	3	17	1	1	2	22	4	0	3	0	5	7	57
08:45:00	0	24	15	0	0	39	6	0	3	0	2	9	4	23	1	0	0	28	4	0	0	0	4	4	80
Grand Total	1	63	41	0	1	105	19	0	9	0	6	28	13	64	2	1	2	80	12	1	8	0	11	21	**234**
Approach%	1%	60%	39%	0%		-	67.9%	0%	32.1%	0%		-	16.3%	80%	2.5%	1.3%		-	57.1%	4.8%	38.1%	0%		-	**-**
Totals %	0.4%	26.9%	17.5%	0%		44.9%	8.1%	0%	3.8%	0%		12%	5.6%	27.4%	0.9%	0.4%		34.2%	5.1%	0.4%	3.4%	0%		9%	**-**
PHF	0.25	0.66	0.68	0		0.67	0.79	0	0.75	0		0.78	0.81	0.7	0.5	0.25		0.71	0.75	0.25	0.67	0		0.75	**-**
Heavy	0	1	0	0		1	0	0	1	0		1	1	4	0	0		5	0	0	0	0		0	**-**
Heavy %	0%	1.6%	0%	0%		1%	0%	0%	11.1%	0%		3.6%	7.7%	6.3%	0%	0%		6.3%	0%	0%	0%	0%		0%	**-**
Lights	1	62	41	0		104	19	0	8	0		27	12	60	2	1		75	12	1	8	0		21	**-**
Lights %	100%	98.4%	100%	0%		99%	100%	0%	88.9%	0%		96.4%	92.3%	93.8%	100%	100%		93.8%	100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	0	1	0	0		1	0	0	0	0		0	1	0	0	0		1	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	1.6%	0%	0%		1%	0%	0%	0%	0%		0%	7.7%	0%	0%	0%		1.3%	0%	0%	0%	0%		0%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	4	0	0		4	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	6.3%	0%	0%		5%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	1	0		1	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	11.1%	0%		3.6%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	2	-	-	-	-	-	11	-	**-**
Pedestrians%	-	-	-	-	5%		-	-	-	-	30%		-	-	-	-	10%		-	-	-	-	55%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 04:45 PM - 05:45 PM Weather: Mostly Cloudy (-4.2 °C)

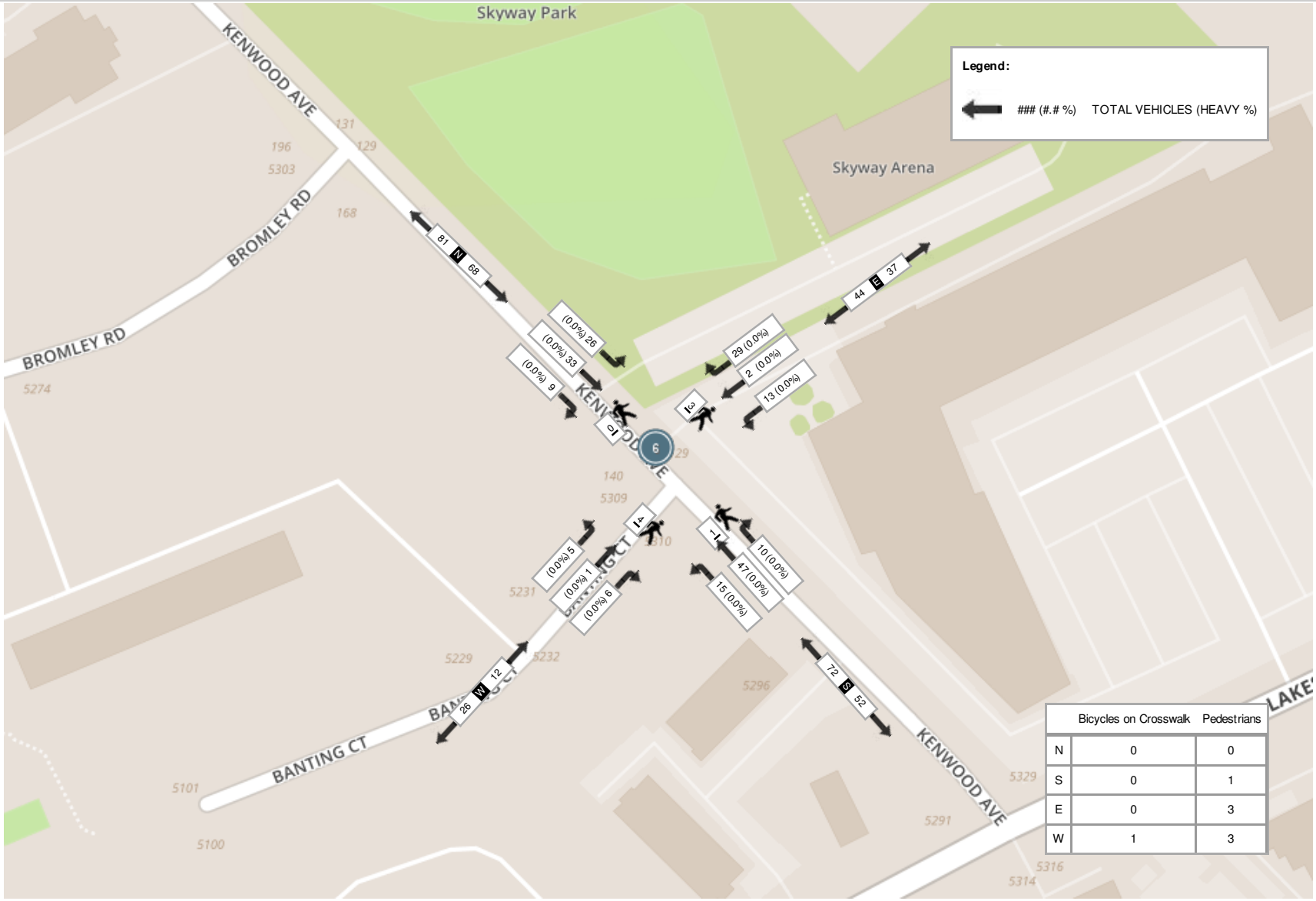
Start Time	N Approach KENWOOD AVE						E Approach WEST ACCESS						S Approach KENWOOD AVE						W Approach BANTING CT						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
16:45:00	2	15	8	0	0	25	8	0	6	0	0	14	4	11	6	0	1	21	1	0	1	0	1	2	62
17:00:00	2	8	7	0	0	17	10	0	2	0	2	12	2	9	2	0	0	13	3	0	2	0	1	5	47
17:15:00	3	7	5	0	0	15	4	1	1	0	0	6	2	12	4	0	0	18	2	0	1	0	2	3	42
17:30:00	2	3	6	0	0	11	7	1	4	0	1	12	2	15	3	0	0	20	0	1	1	0	0	2	45
Grand Total	9	33	26	0	0	68	29	2	13	0	3	44	10	47	15	0	1	72	6	1	5	0	4	12	**196**
Approach%	13.2%	48.5%	38.2%	0%		-	65.9%	4.5%	29.5%	0%		-	13.9%	65.3%	20.8%	0%		-	50%	8.3%	41.7%	0%		-	**-**
Totals %	4.6%	16.8%	13.3%	0%		34.7%	14.8%	1%	6.6%	0%		22.4%	5.1%	24%	7.7%	0%		36.7%	3.1%	0.5%	2.6%	0%		6.1%	**-**
PHF	0.75	0.55	0.81	0		0.68	0.73	0.5	0.54	0		0.79	0.63	0.78	0.63	0		0.86	0.5	0.25	0.63	0		0.6	**-**
Heavy	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Heavy %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Lights	9	33	26	0		68	29	2	13	0		44	10	47	15	0		72	6	1	5	0		12	**-**
Lights %	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	3	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	37.5%		-	-	-	-	12.5%		-	-	-	-	37.5%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	12.5%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	1
S	0	2
E	0	6
W	0	11

Peak Hour: 04:45 PM - 05:45 PM Weather: Mostly Cloudy (-4.2 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	1
E	0	3
W	1	3

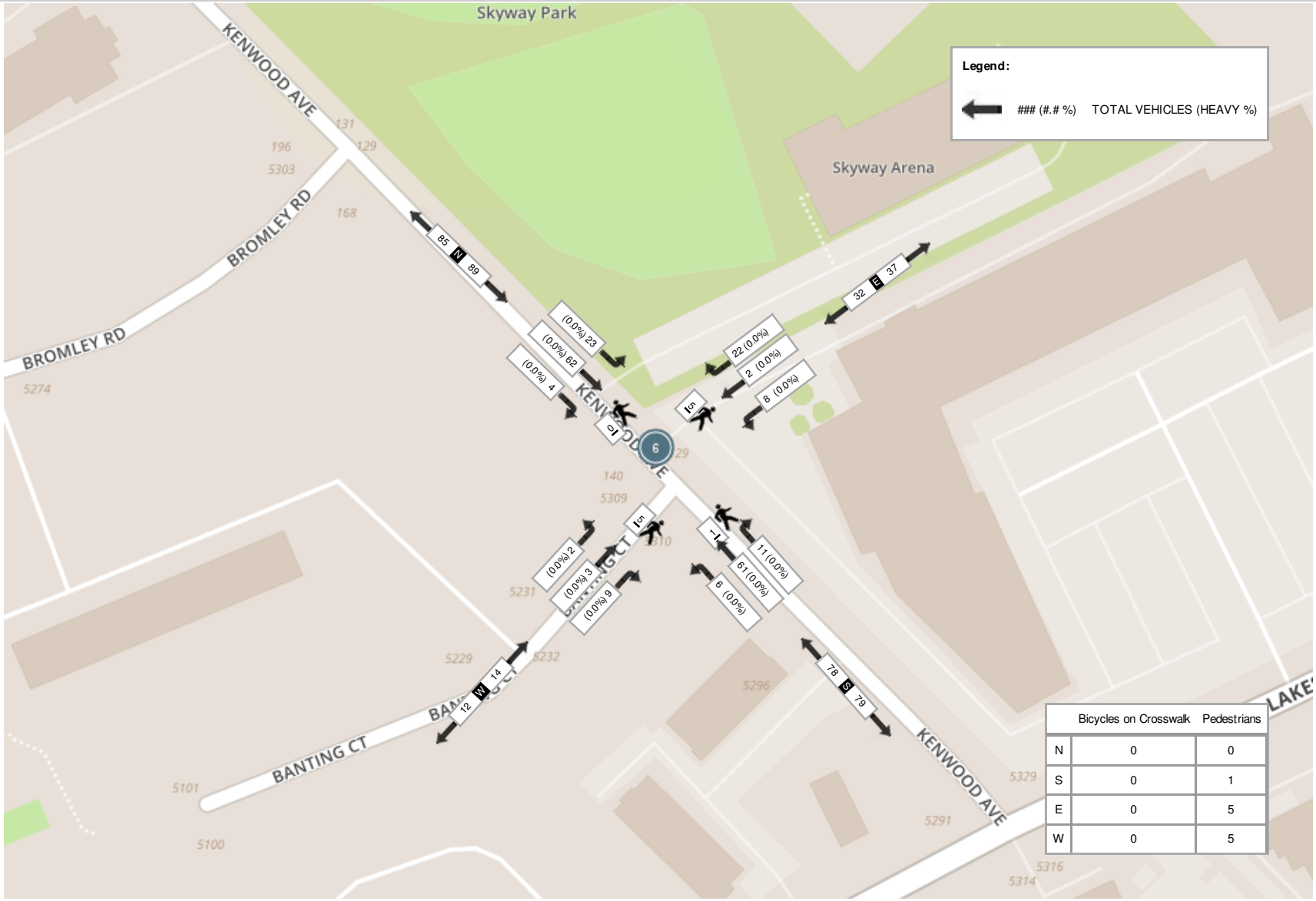
Turning Movement Count (6 . KENWOOD AVE & WEST ACCESS)

Start Time	N Approach KENWOOD AVE						E Approach WEST ACCESS						S Approach KENWOOD AVE						W Approach BANTING CT						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	1	25	7	0	0	33	7	0	2	0	0	9	2	11	2	0	1	15	0	1	1	0	2	2	59	
10:15:00	0	13	5	0	0	18	6	0	1	0	0	7	4	12	0	0	0	16	2	1	0	0	0	3	44	
10:30:00	0	15	6	0	1	21	6	1	3	0	0	10	2	19	2	0	0	23	3	0	1	0	0	4	58	
10:45:00	0	10	0	0	0	10	4	0	4	0	0	8	1	14	0	0	0	15	6	0	0	0	1	6	39	200
11:00:00	0	25	3	0	0	28	6	0	7	0	0	13	1	8	2	0	0	11	4	0	0	0	0	4	56	197
11:15:00	0	14	4	0	0	18	4	0	1	0	0	5	0	9	0	0	0	9	1	0	0	0	1	1	33	186
11:30:00	0	26	7	0	0	33	4	0	1	0	0	5	3	9	1	0	1	13	0	1	0	0	2	1	52	180
11:45:00	0	11	3	0	0	14	4	0	3	0	1	7	2	12	3	0	2	17	2	2	0	0	0	4	42	183
12:00:00	0	14	5	0	0	19	6	0	3	0	1	9	1	11	1	0	1	13	2	1	1	0	2	4	45	172
12:15:00	0	4	3	0	0	7	5	1	1	0	0	7	3	14	2	0	0	19	1	1	0	0	1	2	35	174
12:30:00	0	8	4	0	0	12	1	0	1	0	1	2	2	11	4	0	0	17	1	0	0	0	1	1	32	154
12:45:00	0	5	5	0	0	10	4	0	1	0	3	5	4	13	1	0	0	18	1	1	0	0	1	2	35	147
13:00:00	2	7	4	0	0	13	2	0	3	0	2	5	8	10	1	0	0	19	2	1	1	0	0	4	41	143
13:15:00	1	10	2	0	0	13	1	1	5	0	3	7	1	6	2	0	0	9	3	0	1	0	0	4	33	141
13:30:00	0	7	5	0	0	12	3	2	4	0	3	9	1	9	2	0	1	12	4	2	0	0	1	6	39	148
13:45:00	2	16	7	0	0	25	9	0	3	0	2	12	4	18	1	0	1	23	2	0	0	0	3	2	62	175
14:00:00	0	24	4	0	0	28	4	0	0	0	3	4	4	11	1	0	0	16	3	1	2	0	2	6	54	188
14:15:00	2	9	6	0	0	17	4	2	2	0	0	8	1	14	3	0	0	18	3	2	0	1	0	6	49	204
14:30:00	0	13	6	0	0	19	5	0	3	0	0	8	2	18	1	0	0	21	1	0	0	0	0	1	49	214
14:45:00	1	12	6	0	0	19	5	1	3	0	3	9	2	10	2	0	0	14	2	0	0	0	1	2	44	196
Grand Total	9	268	92	0	1	369	90	8	51	0	22	149	48	239	31	0	7	318	43	14	7	1	18	65	**901**	-
Approach%	2.4%	72.6%	24.9%	0%		-	60.4%	5.4%	34.2%	0%		-	15.1%	75.2%	9.7%	0%		-	66.2%	21.5%	10.8%	1.5%		-	**-**	-
Totals %	1%	29.7%	10.2%	0%		41%	10%	0.9%	5.7%	0%		16.5%	5.3%	26.5%	3.4%	0%		35.3%	4.8%	1.6%	0.8%	0.1%		7.2%	**-**	-
Heavy	0	0	0	0		-	0	0	3	0		-	2	0	0	0		-	0	0	0	0		-	**-**	-
Heavy %	0%	0%	0%	0%		-	0%	0%	5.9%	0%		-	4.2%	0%	0%	0%		-	0%	0%	0%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Peak Hour: 01:45 PM - 02:45 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach KENWOOD AVE						E Approach WEST ACCESS						S Approach KENWOOD AVE						W Approach BANTING CT						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
13:45:00	2	16	7	0	0	25	9	0	3	0	2	12	4	18	1	0	1	23	2	0	0	0	3	2	62
14:00:00	0	24	4	0	0	28	4	0	0	0	3	4	4	11	1	0	0	16	3	1	2	0	2	6	54
14:15:00	2	9	6	0	0	17	4	2	2	0	0	8	1	14	3	0	0	18	3	2	0	1	0	6	49
14:30:00	0	13	6	0	0	19	5	0	3	0	0	8	2	18	1	0	0	21	1	0	0	0	0	1	49
Grand Total	4	62	23	0	0	89	22	2	8	0	5	32	11	61	6	0	1	78	9	3	2	1	5	15	**214**
Approach%	4.5%	69.7%	25.8%	0%		-	68.8%	6.3%	25%	0%		-	14.1%	78.2%	7.7%	0%		-	60%	20%	13.3%	6.7%		-	**-**
Totals %	1.9%	29%	10.7%	0%		41.6%	10.3%	0.9%	3.7%	0%		15%	5.1%	28.5%	2.8%	0%		36.4%	4.2%	1.4%	0.9%	0.5%		7%	**-**
PHF	0.5	0.65	0.82	0		0.79	0.61	0.25	0.67	0		0.67	0.69	0.85	0.5	0		0.85	0.75	0.38	0.25	0.25		0.63	**-**
Heavy	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Heavy %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Lights	4	62	23	0		89	22	2	8	0		32	11	61	6	0		78	9	3	2	1		15	**-**
Lights %	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	100%		100%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	1	-	-	-	-	-	5	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	45.5%		-	-	-	-	9.1%		-	-	-	-	45.5%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 01:45 PM - 02:45 PM Weather: Partly Cloudy (-4.4 °C)



Turning Movement Count (2 . LAKESHORE RD & HAMPTON HEATH RD)

Start Time	N Approach HAMPTON HEATH RD					E Approach LAKESHORE RD					W Approach LAKESHORE RD					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	U-Turn E:E	Peds E:	Approach Total	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	2	5	0	1	7	3	25	0	0	28	137	1	0	0	138	173	
07:15:00	4	2	0	2	6	2	30	0	0	32	148	5	0	0	153	191	
07:30:00	6	0	0	0	6	3	43	0	0	46	214	3	0	0	217	269	
07:45:00	4	2	0	0	6	3	46	0	0	49	180	1	0	0	181	236	869
08:00:00	4	2	0	1	6	2	61	0	0	63	186	4	0	0	190	259	955
08:15:00	6	5	0	2	11	4	60	0	0	64	169	3	0	0	172	247	1011
08:30:00	9	9	0	4	18	3	85	0	0	88	141	1	0	0	142	248	990
08:45:00	8	2	0	2	10	7	66	0	0	73	132	4	0	0	136	219	973
09:00:00	9	5	0	0	14	10	62	0	0	72	119	3	0	0	122	208	922
09:15:00	5	3	0	0	8	8	42	0	1	50	87	5	0	0	92	150	825
09:30:00	8	5	0	1	13	8	67	0	0	75	74	7	0	0	81	169	746
09:45:00	0	3	1	3	4	11	75	0	0	86	70	5	0	0	75	165	692
BREAK																	
15:00:00	9	16	0	0	25	10	107	0	0	117	66	5	0	0	71	213	
15:15:00	8	9	0	1	17	18	124	0	0	142	65	8	0	0	73	232	
15:30:00	11	16	0	1	27	17	142	0	0	159	76	13	0	0	89	275	
15:45:00	8	8	0	0	16	12	155	0	0	167	69	4	0	0	73	256	976
16:00:00	9	12	0	0	21	19	146	0	0	165	67	9	0	0	76	262	1025
16:15:00	12	15	0	2	27	14	173	0	0	187	62	7	0	0	69	283	1076
16:30:00	9	3	0	0	12	13	169	0	0	182	74	4	0	0	78	272	1073
16:45:00	13	4	0	0	17	19	195	1	0	215	81	10	0	0	91	323	1140
17:00:00	5	9	0	1	14	20	165	0	0	185	76	3	0	0	79	278	1156
17:15:00	2	11	0	2	13	10	193	0	0	203	75	5	0	0	80	296	1169
17:30:00	9	12	0	0	21	15	144	0	0	159	62	5	0	0	67	247	1144

17:45:00	8	7	0	0	15	11	114	0	0	125	57	9	0	0	66	206	1027
18:00:00	6	11	0	0	17	10	119	0	0	129	57	3	0	0	60	206	955
18:15:00	5	7	0	2	12	11	101	0	0	112	48	5	0	0	53	177	836
18:30:00	11	7	0	2	18	12	89	0	0	101	41	6	0	0	47	166	755
18:45:00	6	9	0	0	15	13	56	0	0	69	43	4	0	0	47	131	680
Grand Total	196	199	1	27	396	288	2854	1	1	3143	2676	142	0	0	2818	**6357**	-
Approach%	49.5%	50.3%	0.3%		-	9.2%	90.8%	0%		-	95%	5%	0%		-	**-**	-
Totals %	3.1%	3.1%	0%		6.2%	4.5%	44.9%	0%		49.4%	42.1%	2.2%	0%		44.3%	**-**	-
Heavy	14	4	0		-	6	39	1		-	49	8	0		-	**-**	-
Heavy %	7.1%	2%	0%		-	2.1%	1.4%	100%		-	1.8%	5.6%	0%		-	**-**	-
Bicycles	1	0	0		-	0	2	0		-	1	0	0		-	**-**	-
Bicycle %	0.5%	0%	0%		-	0%	0.1%	0%		-	0%	0%	0%		-	**-**	-

Peak Hour: 07:30 AM - 08:30 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach HAMPTON HEATH RD					E Approach LAKESHORE RD					W Approach LAKESHORE RD					Int. Total (15 min)
	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	Thru	Left	U-Turn	Peds	Approach Total	
07:30:00	6	0	0	0	6	3	43	0	0	46	214	3	0	0	217	269
07:45:00	4	2	0	0	6	3	46	0	0	49	180	1	0	0	181	236
08:00:00	4	2	0	1	6	2	61	0	0	63	186	4	0	0	190	259
08:15:00	6	5	0	2	11	4	60	0	0	64	169	3	0	0	172	247
Grand Total	20	9	0	3	29	12	210	0	0	222	749	11	0	0	760	**1011**
Approach%	69%	31%	0%		-	5.4%	94.6%	0%		-	98.6%	1.4%	0%		-	**-**
Totals %	2%	0.9%	0%		2.9%	1.2%	20.8%	0%		22%	74.1%	1.1%	0%		75.2%	**-**
PHF	0.83	0.45	0		0.66	0.75	0.86	0		0.87	0.88	0.69	0		0.88	**-**
Heavy	2	0	0		2	0	3	0		3	12	0	0		12	**-**
Heavy %	10%	0%	0%		6.9%	0%	1.4%	0%		1.4%	1.6%	0%	0%		1.6%	**-**
Lights	18	9	0		27	12	207	0		219	737	11	0		748	**-**
Lights %	90%	100%	0%		93.1%	100%	98.6%	0%		98.6%	98.4%	100%	0%		98.4%	**-**
Single-Unit Trucks	0	0	0		0	0	2	0		2	4	0	0		4	**-**
Single-Unit Trucks %	0%	0%	0%		0%	0%	1%	0%		0.9%	0.5%	0%	0%		0.5%	**-**
Buses	2	0	0		2	0	1	0		1	7	0	0		7	**-**
Buses %	10%	0%	0%		6.9%	0%	0.5%	0%		0.5%	0.9%	0%	0%		0.9%	**-**
Articulated Trucks	0	0	0		0	0	0	0		0	1	0	0		1	**-**
Articulated Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0.1%	0%	0%		0.1%	**-**
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	100%		-	-	-	0%		-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	-	0	1	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 04:30 PM - 05:30 PM Weather: Mostly Cloudy (-4.2 °C)

Start Time	N Approach HAMPTON HEATH RD					E Approach LAKESHORE RD					W Approach LAKESHORE RD					Int. Total (15 min)
	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	Thru	Left	U-Turn	Peds	Approach Total	
16:30:00	9	3	0	0	12	13	169	0	0	182	74	4	0	0	78	272
16:45:00	13	4	0	0	17	19	195	1	0	215	81	10	0	0	91	323
17:00:00	5	9	0	1	14	20	165	0	0	185	76	3	0	0	79	278
17:15:00	2	11	0	2	13	10	193	0	0	203	75	5	0	0	80	296
Grand Total	29	27	0	3	56	62	722	1	0	785	306	22	0	0	328	**1169**
Approach%	51.8%	48.2%	0%		-	7.9%	92%	0.1%		-	93.3%	6.7%	0%		-	-
Totals %	2.5%	2.3%	0%		4.8%	5.3%	61.8%	0.1%		67.2%	26.2%	1.9%	0%		28.1%	-
PHF	0.56	0.61	0		0.82	0.78	0.93	0.25		0.91	0.94	0.55	0		0.9	-
Heavy	2	0	0		2	0	5	1		6	6	0	0		6	-
Heavy %	6.9%	0%	0%		3.6%	0%	0.7%	100%		0.8%	2%	0%	0%		1.8%	-
Lights	27	27	0		54	62	717	0		779	300	22	0		322	-
Lights %	93.1%	100%	0%		96.4%	100%	99.3%	0%		99.2%	98%	100%	0%		98.2%	-
Single-Unit Trucks	0	0	0		0	0	2	1		3	1	0	0		1	-
Single-Unit Trucks %	0%	0%	0%		0%	0%	0.3%	100%		0.4%	0.3%	0%	0%		0.3%	-
Buses	2	0	0		2	0	3	0		3	5	0	0		5	-
Buses %	6.9%	0%	0%		3.6%	0%	0.4%	0%		0.4%	1.6%	0%	0%		1.5%	-
Articulated Trucks	0	0	0		0	0	0	0		0	0	0	0		0	-
Articulated Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-	-
Pedestrians%	-	-	-	100%		-	-	-	0%		-	-	-	0%		-
Bicycles on Road	1	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 07:30 AM - 08:30 AM Weather: Unknown (-4.3 °C)



Peak Hour: 04:30 PM - 05:30 PM Weather: Mostly Cloudy (-4.2 °C)



Turning Movement Count (2 . LAKESHORE RD & HAMPTON HEATH RD)

Start Time	N Approach HAMPTON HEATH RD						E Approach LAKESHORE RD						S Approach Northbound Approach						W Approach LAKESHORE RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	9	0	12	0	2	21	7	66	0	0	0	73	0	0	1	0	0	1	0	62	7	0	0	69	164	
10:15:00	8	0	20	0	0	28	11	53	0	0	0	64	0	0	1	0	0	1	0	60	3	0	0	63	156	
10:30:00	5	0	8	0	3	13	18	68	0	0	0	86	0	0	1	0	0	1	0	56	2	0	0	58	158	
10:45:00	6	0	15	0	1	21	9	73	0	0	0	82	1	0	2	0	0	3	0	80	3	0	0	83	189	667
11:00:00	9	0	15	0	1	24	20	83	0	0	0	103	0	0	2	0	0	2	0	67	5	0	0	72	201	704
11:15:00	6	0	10	0	2	16	11	72	0	0	0	83	1	0	0	0	0	1	0	66	8	0	0	74	174	722
11:30:00	9	0	12	0	5	21	19	84	0	0	0	103	0	0	2	0	0	2	0	78	4	0	0	82	208	772
11:45:00	12	0	8	0	2	20	11	87	0	0	0	98	0	0	2	0	0	2	0	61	10	0	0	71	191	774
12:00:00	10	0	15	0	2	25	12	69	0	0	0	81	1	0	0	0	0	1	0	68	4	0	0	72	179	752
12:15:00	11	0	11	0	3	22	8	106	0	0	0	114	0	0	0	0	1	0	0	65	7	0	0	72	208	786
12:30:00	4	0	11	0	0	15	8	85	0	0	1	93	0	0	0	0	3	0	0	71	7	0	0	78	186	764
12:45:00	5	0	13	0	1	18	17	73	0	0	0	90	0	1	0	0	0	1	0	66	6	0	0	72	181	754
13:00:00	9	0	16	0	2	25	18	67	0	0	0	85	0	0	2	0	0	2	0	67	7	0	0	74	186	761
13:15:00	4	0	11	0	0	15	13	81	0	0	0	94	0	0	2	0	1	2	0	69	7	0	0	76	187	740
13:30:00	12	0	9	0	0	21	13	78	0	0	0	91	1	0	2	0	0	3	0	72	2	0	0	74	189	743
13:45:00	10	0	11	0	2	21	20	98	0	0	0	118	0	0	1	0	2	1	0	83	5	0	0	88	228	790
14:00:00	9	0	15	0	5	24	13	112	0	0	0	125	0	0	0	0	0	0	0	85	4	0	0	89	238	842
14:15:00	4	0	14	0	2	18	13	71	0	0	0	84	0	0	1	0	0	1	0	78	7	0	0	85	188	843
14:30:00	10	0	9	0	1	19	10	87	0	0	0	97	0	0	1	0	0	1	0	90	3	0	0	93	210	864
14:45:00	7	0	15	0	0	22	9	109	0	0	0	118	0	0	0	0	0	0	0	90	3	0	0	93	233	869
Grand Total	159	0	250	0	34	409	260	1622	0	0	1	1882	4	1	20	0	7	25	0	1434	104	0	0	1538	**3854**	-
Approach%	38.9%	0%	61.1%	0%		-	13.8%	86.2%	0%	0%		-	16%	4%	80%	0%		-	0%	93.2%	6.8%	0%		-	**-**	-
Totals %	4.1%	0%	6.5%	0%		10.6%	6.7%	42.1%	0%	0%		48.8%	0.1%	0%	0.5%	0%		0.6%	0%	37.2%	2.7%	0%		39.9%	**-**	-
Heavy	0	0	1	0		-	3	10	0	0		-	0	0	0	0		-	0	16	1	0		-	**-**	-
Heavy %	0%	0%	0.4%	0%		-	1.2%	0.6%	0%	0%		-	0%	0%	0%	0%		-	0%	1.1%	1%	0%		-	**-**	-
Bicycles	0	0	0	0		-	0	2	0	0		-	0	0	0	0		-	0	1	0	0		-	**-**	-
Bicycle %	0%	0%	0%	0%		-	0%	0.1%	0%	0%		-	0%	0%	0%	0%		-	0%	0.1%	0%	0%		-	**-**	-

Peak Hour: 02:00 PM - 03:00 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach LAKESHORE RD						S Approach Northbound Approach						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
14:00:00	9	0	15	0	5	24	13	112	0	0	0	125	0	0	0	0	0	0	0	85	4	0	0	89	238
14:15:00	4	0	14	0	2	18	13	71	0	0	0	84	0	0	1	0	0	1	0	78	7	0	0	85	188
14:30:00	10	0	9	0	1	19	10	87	0	0	0	97	0	0	1	0	0	1	0	90	3	0	0	93	210
14:45:00	7	0	15	0	0	22	9	109	0	0	0	118	0	0	0	0	0	0	0	90	3	0	0	93	233
Grand Total	30	0	53	0	8	83	45	379	0	0	0	424	0	0	2	0	0	2	0	343	17	0	0	360	**869**
Approach%	36.1%	0%	63.9%	0%		-	10.6%	89.4%	0%	0%		-	0%	0%	100%	0%		-	0%	95.3%	4.7%	0%		-	**-**
Totals %	3.5%	0%	6.1%	0%		9.6%	5.2%	43.6%	0%	0%		48.8%	0%	0%	0.2%	0%		0.2%	0%	39.5%	2%	0%		41.4%	**-**
PHF	0.75	0	0.88	0		0.86	0.87	0.85	0	0		0.85	0	0	0.5	0		0.5	0	0.95	0.61	0		0.97	**-**
Heavy	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	4	0	0		4	**-**
Heavy %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1.1%	**-**
Lights	30	0	53	0		83	45	379	0	0		424	0	0	2	0		2	0	339	17	0		356	**-**
Lights %	100%	0%	100%	0%		100%	100%	100%	0%	0%		100%	0%	0%	100%	0%		100%	0%	98.8%	100%	0%		98.9%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.3%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	2	0	0		2	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.6%	0%	0%		0.6%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.3%	**-**
Pedestrians	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	100%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 02:00 PM - 03:00 PM **Weather: Partly Cloudy (-4.4 °C)**



Turning Movement Count (1 . LAKESHORE RD & KENWOOD AVE)

Start Time	N Approach KENWOOD AVE						E Approach LAKESHORE RD						S Approach LAKESHORE PLACE DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	1	0	4	0	1	5	0	31	0	0	1	31	2	0	2	0	1	4	2	131	5	0	0	138	178	
07:15:00	4	0	3	0	0	7	1	34	2	0	1	37	2	0	2	0	1	4	3	149	1	0	0	153	201	
07:30:00	6	0	5	0	0	11	4	50	1	0	2	55	0	0	1	0	0	1	2	206	3	0	1	211	278	
07:45:00	7	0	5	0	0	12	2	47	1	0	2	50	0	1	0	0	2	1	1	178	9	0	1	188	251	908
08:00:00	5	0	11	0	1	16	6	67	0	0	2	73	0	0	0	0	2	0	1	180	7	0	1	188	277	1007
08:15:00	4	0	8	0	2	12	8	66	0	0	0	74	0	0	0	0	4	0	1	168	4	0	0	173	259	1065
08:30:00	7	0	13	0	1	20	7	88	0	0	4	95	1	0	0	0	3	1	2	143	11	0	1	156	272	1059
08:45:00	22	0	11	0	1	33	7	80	1	0	5	88	1	0	1	0	4	2	4	133	20	0	3	157	280	1088
09:00:00	12	1	3	0	0	16	6	68	3	0	3	77	0	0	1	0	1	1	1	128	6	0	0	135	229	1040
09:15:00	6	0	1	0	2	7	3	56	1	0	0	60	0	0	1	0	3	1	1	98	5	0	0	104	172	953
09:30:00	3	0	6	0	3	9	4	81	3	0	2	88	0	0	4	0	1	4	2	90	5	0	4	97	198	879
09:45:00	2	0	4	0	1	6	5	76	1	0	7	82	2	0	1	0	2	3	3	77	3	0	0	83	174	773
BREAK																										
15:00:00	8	0	9	0	1	17	9	123	2	0	3	134	4	0	4	0	1	8	1	75	5	0	2	81	240	
15:15:00	5	0	2	0	2	7	9	138	0	0	3	147	3	0	7	0	5	10	4	76	12	0	1	92	256	
15:30:00	12	1	13	0	2	26	8	154	1	0	1	163	1	0	0	0	1	1	1	88	8	0	1	97	287	
15:45:00	13	1	5	0	0	19	5	168	1	0	2	174	0	0	1	0	0	1	1	83	3	0	1	87	281	1064
16:00:00	8	0	3	0	0	11	8	168	1	0	6	177	1	1	7	0	6	9	5	80	4	0	1	89	286	1110
16:15:00	4	0	7	0	1	11	10	182	0	0	4	192	1	1	4	0	2	6	6	78	4	0	0	88	297	1151
16:30:00	4	0	4	0	1	8	3	178	5	0	2	186	1	0	3	0	1	4	0	88	7	0	1	95	293	1157
16:45:00	9	1	2	0	1	12	17	199	1	0	4	217	2	0	3	0	0	5	2	97	4	0	0	103	337	1213
17:00:00	9	0	5	0	0	14	6	168	2	0	1	176	1	0	4	0	0	5	1	76	4	0	3	81	276	1203
17:15:00	4	0	5	0	1	9	9	205	0	0	1	214	0	0	4	0	1	4	0	92	7	0	1	99	326	1232
17:30:00	2	1	4	0	0	7	9	151	1	0	2	161	0	0	0	0	2	0	0	70	5	0	1	75	243	1182
17:45:00	8	0	7	0	0	15	4	118	0	0	1	122	1	0	0	0	1	1	2	69	5	0	0	76	214	1059
18:00:00	11	1	6	0	1	18	4	130	1	0	3	135	1	1	0	0	1	2	0	58	7	0	2	65	220	1003
18:15:00	5	0	4	0	0	9	2	111	0	0	2	113	0	0	1	0	0	1	1	56	4	0	2	61	184	861
18:30:00	7	0	5	0	0	12	7	89	1	0	0	97	0	1	0	0	0	1	4	51	8	0	0	63	173	791
18:45:00	3	0	2	0	0	5	3	67	1	0	1	71	0	0	3	0	0	3	2	53	9	0	0	64	143	720
Grand Total	191	6	157	0	22	354	166	3093	30	0	65	3289	24	5	54	0	45	83	53	2871	175	0	27	3099	**6825**	-
Approach%	54%	1.7%	44.4%	0%		-	5%	94%	0.9%	0%		-	28.9%	6%	65.1%	0%		-	1.7%	92.6%	5.6%	0%		-	-	-

Totals %	2.8%	0.1%	2.3%	0%	5.2%	2.4%	45.3%	0.4%	0%	48.2%	0.4%	0.1%	0.8%	0%	1.2%	0.8%	42.1%	2.6%	0%	45.4%	-	-
Heavy	9	0	3	0	-	4	47	2	0	-	1	0	3	0	-	1	57	7	0	-	-	-
Heavy %	4.7%	0%	1.9%	0%	-	2.4%	1.5%	6.7%	0%	-	4.2%	0%	5.6%	0%	-	1.9%	2%	4%	0%	-	-	-
Bicycles	0	0	0	0	-	0	1	0	0	-	0	0	0	0	-	0	1	0	0	-	-	-
Bicycle %	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	-

Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach KENWOOD AVE						E Approach LAKESHORE RD						S Approach LAKESHORE PLACE DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
08:00:00	5	0	11	0	1	16	6	67	0	0	2	73	0	0	0	0	2	0	1	180	7	0	1	188	277
08:15:00	4	0	8	0	2	12	8	66	0	0	0	74	0	0	0	0	4	0	1	168	4	0	0	173	259
08:30:00	7	0	13	0	1	20	7	88	0	0	4	95	1	0	0	0	3	1	2	143	11	0	1	156	272
08:45:00	22	0	11	0	1	33	7	80	1	0	5	88	1	0	1	0	4	2	4	133	20	0	3	157	280
Grand Total	38	0	43	0	5	81	28	301	1	0	11	330	2	0	1	0	13	3	8	624	42	0	5	674	**1088**
Approach%	46.9%	0%	53.1%	0%		-	8.5%	91.2%	0.3%	0%		-	66.7%	0%	33.3%	0%		-	1.2%	92.6%	6.2%	0%		-	**-**
Totals %	3.5%	0%	4%	0%		7.4%	2.6%	27.7%	0.1%	0%		30.3%	0.2%	0%	0.1%	0%		0.3%	0.7%	57.4%	3.9%	0%		61.9%	**-**
PHF	0.43	0	0.83	0		0.61	0.88	0.86	0.25	0		0.87	0.5	0	0.25	0		0.38	0.5	0.87	0.53	0		0.9	**-**
Heavy	2	0	0	0		2	2	6	0	0		8	0	0	0	0		0	0	8	3	0		11	**-**
Heavy %	5.3%	0%	0%	0%		2.5%	7.1%	2%	0%	0%		2.4%	0%	0%	0%	0%		0%	0%	1.3%	7.1%	0%		1.6%	**-**
Lights	36	0	43	0		79	26	295	1	0		322	2	0	1	0		3	8	616	39	0		663	**-**
Lights %	94.7%	0%	100%	0%		97.5%	92.9%	98%	100%	0%		97.6%	100%	0%	100%	0%		100%	100%	98.7%	92.9%	0%		98.4%	**-**
Single-Unit Trucks	1	0	0	0		1	0	4	0	0		4	0	0	0	0		0	0	3	1	0		4	**-**
Single-Unit Trucks %	2.6%	0%	0%	0%		1.2%	0%	1.3%	0%	0%		1.2%	0%	0%	0%	0%		0%	0%	0.5%	2.4%	0%		0.6%	**-**
Buses	0	0	0	0		0	2	2	0	0		4	0	0	0	0		0	0	4	2	0		6	**-**
Buses %	0%	0%	0%	0%		0%	7.1%	0.7%	0%	0%		1.2%	0%	0%	0%	0%		0%	0%	0.6%	4.8%	0%		0.9%	**-**
Articulated Trucks	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Articulated Trucks %	2.6%	0%	0%	0%		1.2%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.2%	0%	0%		0.1%	**-**
Pedestrians	-	-	-	-	4	-	-	-	-	-	11	-	-	-	-	-	13	-	-	-	-	-	5	-	**-**
Pedestrians%	-	-	-	-	11.8%		-	-	-	-	32.4%		-	-	-	-	38.2%		-	-	-	-	14.7%		**-**
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	2.9%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 04:30 PM - 05:30 PM Weather: Mostly Cloudy (-4.2 °C)

Start Time	N Approach KENWOOD AVE						E Approach LAKESHORE RD						S Approach LAKESHORE PLACE DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
16:30:00	4	0	4	0	1	8	3	178	5	0	2	186	1	0	3	0	1	4	0	88	7	0	1	95	293
16:45:00	9	1	2	0	1	12	17	199	1	0	4	217	2	0	3	0	0	5	2	97	4	0	0	103	337
17:00:00	9	0	5	0	0	14	6	168	2	0	1	176	1	0	4	0	0	5	1	76	4	0	3	81	276
17:15:00	4	0	5	0	1	9	9	205	0	0	1	214	0	0	4	0	1	4	0	92	7	0	1	99	326
Grand Total	26	1	16	0	3	43	35	750	8	0	8	793	4	0	14	0	2	18	3	353	22	0	5	378	**1232**
Approach%	60.5%	2.3%	37.2%	0%		-	4.4%	94.6%	1%	0%		-	22.2%	0%	77.8%	0%		-	0.8%	93.4%	5.8%	0%		-	**-**
Totals %	2.1%	0.1%	1.3%	0%		3.5%	2.8%	60.9%	0.6%	0%		64.4%	0.3%	0%	1.1%	0%		1.5%	0.2%	28.7%	1.8%	0%		30.7%	**-**
PHF	0.72	0.25	0.8	0		0.77	0.51	0.91	0.4	0		0.91	0.5	0	0.88	0		0.9	0.38	0.91	0.79	0		0.92	**-**
Heavy	1	0	0	0		1	0	9	1	0		10	1	0	0	0		1	0	6	0	0		6	**-**
Heavy %	3.8%	0%	0%	0%		2.3%	0%	1.2%	12.5%	0%		1.3%	25%	0%	0%	0%		5.6%	0%	1.7%	0%	0%		1.6%	**-**
Lights	25	1	16	0		42	35	741	7	0		783	3	0	14	0		17	3	347	22	0		372	**-**
Lights %	96.2%	100%	100%	0%		97.7%	100%	98.8%	87.5%	0%		98.7%	75%	0%	100%	0%		94.4%	100%	98.3%	100%	0%		98.4%	**-**
Single-Unit Trucks	1	0	0	0		1	0	3	0	0		3	0	0	0	0		0	0	2	0	0		2	**-**
Single-Unit Trucks %	3.8%	0%	0%	0%		2.3%	0%	0.4%	0%	0%		0.4%	0%	0%	0%	0%		0%	0%	0.6%	0%	0%		0.5%	**-**
Buses	0	0	0	0		0	0	5	1	0		6	1	0	0	0		1	0	4	0	0		4	**-**
Buses %	0%	0%	0%	0%		0%	0%	0.7%	12.5%	0%		0.8%	25%	0%	0%	0%		5.6%	0%	1.1%	0%	0%		1.1%	**-**
Articulated Trucks	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.1%	0%	0%		0.1%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	3	-	-	-	-	-	8	-	-	-	-	-	2	-	-	-	-	-	5	-	**-**
Pedestrians%	-	-	-	-	16.7%		-	-	-	-	44.4%		-	-	-	-	11.1%		-	-	-	-	27.8%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)



	Bicycles on Crosswalk	Pedestrians
N	1	4
S	0	13
E	0	11
W	0	5

Peak Hour: 04:30 PM - 05:30 PM **Weather: Mostly Cloudy (-4.2 °C)**



	Bicycles on Crosswalk	Pedestrians
N	0	3
S	0	2
E	0	8
W	0	5

Turning Movement Count (1 . LAKESHORE RD & KENWOOD AVE)

Start Time	N Approach KENWOOD AVE						E Approach LAKESHORE RD						S Approach DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	14	0	6	0	2	20	6	71	0	0	1	77	0	0	1	0	2	1	2	70	8	0	0	80	178	
10:15:00	11	0	4	0	0	15	5	72	0	0	1	77	0	0	2	0	2	2	2	74	8	0	0	84	178	
10:30:00	10	0	3	0	3	13	5	72	2	0	4	79	1	0	0	0	1	1	1	65	13	0	0	79	172	
10:45:00	11	0	10	0	1	21	7	92	1	0	1	100	0	0	3	0	1	3	3	92	8	0	0	103	227	755
11:00:00	15	0	13	0	2	28	7	100	1	0	2	108	1	0	2	0	1	3	3	68	6	0	0	77	216	793
11:15:00	10	1	6	0	8	17	2	93	2	0	1	97	2	1	3	0	0	6	0	85	4	0	5	89	209	824
11:30:00	16	0	5	0	3	21	9	92	1	0	6	102	3	0	1	0	6	4	2	87	4	0	2	93	220	872
11:45:00	7	2	6	0	2	15	6	104	1	0	0	111	1	0	4	0	1	5	0	73	6	0	1	79	210	855
12:00:00	7	0	3	0	0	10	4	90	1	0	3	95	0	0	0	0	2	0	0	80	5	0	1	85	190	829
12:15:00	7	0	6	0	0	13	5	120	0	0	0	125	0	1	1	0	1	2	0	74	11	0	0	85	225	845
12:30:00	4	0	2	0	1	6	5	90	1	0	3	96	1	1	0	0	4	2	4	86	12	0	2	102	206	831
12:45:00	1	1	3	0	0	5	8	77	0	0	2	85	1	0	4	0	3	5	3	79	7	0	0	89	184	805
13:00:00	6	1	3	0	1	10	8	88	1	0	3	97	0	2	1	0	2	3	2	85	6	0	0	93	203	818
13:15:00	8	0	7	0	2	15	8	80	5	0	0	93	0	0	1	0	0	1	4	87	3	0	1	94	203	796
13:30:00	3	0	8	0	2	11	6	88	1	0	5	95	1	0	2	0	4	3	1	78	7	0	0	86	195	785
13:45:00	9	0	7	0	3	16	8	110	3	0	2	121	1	0	1	0	0	2	2	86	13	0	0	101	240	841
14:00:00	14	0	10	0	2	24	7	102	2	0	1	111	3	0	3	0	2	6	1	92	9	0	1	102	243	881
14:15:00	7	1	6	0	0	14	10	77	1	0	0	88	0	0	6	0	0	6	2	90	6	0	0	98	206	884
14:30:00	7	1	10	0	0	18	11	95	1	0	4	107	1	0	1	0	0	2	4	93	9	0	0	106	233	922
14:45:00	12	0	1	0	0	13	6	110	6	0	3	122	5	0	0	0	1	5	3	103	9	0	1	115	255	937
Grand Total	179	7	119	0	32	305	133	1823	30	0	42	1986	21	5	36	0	33	62	39	1647	154	0	14	1840	**4193**	-
Approach%	58.7%	2.3%	39%	0%		-	6.7%	91.8%	1.5%	0%		-	33.9%	8.1%	58.1%	0%		-	2.1%	89.5%	8.4%	0%		-	**-**	-
Totals %	4.3%	0.2%	2.8%	0%		7.3%	3.2%	43.5%	0.7%	0%		47.4%	0.5%	0.1%	0.9%	0%		1.5%	0.9%	39.3%	3.7%	0%		43.9%	**-**	-
Heavy	3	1	0	0		-	1	11	0	0		-	0	0	2	0		-	0	17	1	0		-	**-**	-
Heavy %	1.7%	14.3%	0%	0%		-	0.8%	0.6%	0%	0%		-	0%	0%	5.6%	0%		-	0%	1%	0.6%	0%		-	**-**	-
Bicycles	0	0	0	0		-	0	2	0	0		-	0	0	0	0		-	0	1	0	0		-	**-**	-
Bicycle %	0%	0%	0%	0%		-	0%	0.1%	0%	0%		-	0%	0%	0%	0%		-	0%	0.1%	0%	0%		-	**-**	-

Peak Hour: 02:00 PM - 03:00 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach KENWOOD AVE						E Approach LAKESHORE RD						S Approach DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
14:00:00	14	0	10	0	2	24	7	102	2	0	1	111	3	0	3	0	2	6	1	92	9	0	1	102	243
14:15:00	7	1	6	0	0	14	10	77	1	0	0	88	0	0	6	0	0	6	2	90	6	0	0	98	206
14:30:00	7	1	10	0	0	18	11	95	1	0	4	107	1	0	1	0	0	2	4	93	9	0	0	106	233
14:45:00	12	0	1	0	0	13	6	110	6	0	3	122	5	0	0	0	1	5	3	103	9	0	1	115	255
Grand Total	40	2	27	0	2	69	34	384	10	0	8	428	9	0	10	0	3	19	10	378	33	0	2	421	**937**
Approach%	58%	2.9%	39.1%	0%		-	7.9%	89.7%	2.3%	0%		-	47.4%	0%	52.6%	0%		-	2.4%	89.8%	7.8%	0%		-	**-**
Totals %	4.3%	0.2%	2.9%	0%		7.4%	3.6%	41%	1.1%	0%		45.7%	1%	0%	1.1%	0%		2%	1.1%	40.3%	3.5%	0%		44.9%	**-**
PHF	0.71	0.5	0.68	0		0.72	0.77	0.87	0.42	0		0.88	0.45	0	0.42	0		0.79	0.63	0.92	0.92	0		0.92	**-**
Heavy	0	1	0	0		1	0	0	0	0		0	0	0	1	0		1	0	4	0	0		4	**-**
Heavy %	0%	50%	0%	0%		1.4%	0%	0%	0%	0%		0%	0%	0%	10%	0%		5.3%	0%	1.1%	0%	0%		1%	**-**
Lights	40	1	27	0		68	34	384	10	0		428	9	0	9	0		18	10	374	33	0		417	**-**
Lights %	100%	50%	100%	0%		98.6%	100%	100%	100%	0%		100%	100%	0%	90%	0%		94.7%	100%	98.9%	100%	0%		99%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.2%	**-**
Buses	0	1	0	0		1	0	0	0	0		0	0	0	1	0		1	0	2	0	0		2	**-**
Buses %	0%	50%	0%	0%		1.4%	0%	0%	0%	0%		0%	0%	0%	10%	0%		5.3%	0%	0.5%	0%	0%		0.5%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.2%	**-**
Pedestrians	-	-	-	-	2	-	-	-	-	-	8	-	-	-	-	-	3	-	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	-	13.3%		-	-	-	-	53.3%		-	-	-	-	20%		-	-	-	-	13.3%		**-**
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 02:00 PM - 03:00 PM **Weather: Partly Cloudy (-4.4 °C)**



Turning Movement Count (7 . LAKESHORE RD & SOUTH ACCESS)

Start Time	N Approach SOUTH ACCESS						E Approach LAKESHORE RD						S Approach DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	7	0	3	0	0	10	5	25	0	0	0	30	2	0	0	0	1	2	0	129	8	0	0	137	179	
07:15:00	5	0	7	0	0	12	7	31	1	0	0	39	0	0	0	0	1	0	1	141	10	0	0	152	203	
07:30:00	7	0	10	0	0	17	4	48	0	0	0	52	1	0	0	0	0	1	0	203	11	0	0	214	284	
07:45:00	8	0	9	0	0	17	8	44	0	0	0	52	0	0	1	0	2	1	0	172	10	0	0	182	252	918
08:00:00	9	0	9	0	1	18	8	60	0	0	0	68	1	0	1	0	3	2	0	176	15	0	0	191	279	1018
08:15:00	7	0	9	0	1	16	4	67	0	0	0	71	1	0	0	0	6	1	0	159	18	0	1	177	265	1080
08:30:00	14	0	11	0	3	25	15	84	0	0	1	99	0	0	1	0	0	1	1	134	23	0	0	158	283	1079
08:45:00	18	0	6	0	3	24	11	65	0	0	0	76	0	0	1	0	2	1	1	128	16	0	0	145	246	1073
09:00:00	17	0	8	0	1	25	8	61	1	0	1	70	0	0	0	0	3	0	1	114	16	0	0	131	226	1020
09:15:00	12	0	4	0	0	16	2	46	0	0	0	48	1	0	4	0	3	5	2	86	12	0	0	100	169	924
09:30:00	18	0	1	0	1	19	10	68	1	0	0	79	0	1	1	0	1	2	0	82	13	0	0	95	195	836
09:45:00	19	0	5	0	1	24	10	66	0	0	0	76	1	0	2	0	0	3	0	65	18	0	0	83	186	776
BREAK																										
15:00:00	21	0	7	0	2	28	4	112	1	0	0	117	0	0	0	0	1	0	3	64	20	0	0	87	232	
15:15:00	25	0	5	0	5	30	8	124	0	0	1	132	1	0	2	0	0	3	2	66	13	0	0	81	246	
15:30:00	17	0	4	0	0	21	10	143	0	0	0	153	2	0	0	0	1	2	1	89	12	0	0	102	278	
15:45:00	22	0	8	0	0	30	13	153	2	0	0	168	0	0	0	0	2	0	0	66	23	0	0	89	287	1043
16:00:00	31	0	11	0	1	42	9	147	0	0	0	156	0	0	0	0	0	0	1	66	16	0	0	83	281	1092
16:15:00	20	0	4	0	3	24	11	171	0	0	0	182	0	0	1	0	0	1	0	62	23	0	0	85	292	1138
16:30:00	18	0	9	0	1	27	8	172	0	0	1	180	1	0	1	0	0	2	1	73	21	0	0	95	304	1164
16:45:00	18	0	7	0	1	25	11	194	2	0	1	207	2	0	0	0	0	2	1	86	12	0	1	99	333	1210
17:00:00	25	0	7	0	1	32	6	157	1	0	0	164	0	0	0	0	1	0	0	76	7	0	0	83	279	1208
17:15:00	14	0	3	0	5	17	6	196	1	0	1	203	0	0	2	0	1	2	0	78	19	0	0	97	319	1235
17:30:00	14	0	5	0	1	19	5	144	1	0	0	150	0	0	0	0	2	0	0	64	10	0	0	74	243	1174
17:45:00	10	0	5	0	1	15	10	110	4	0	0	124	0	0	1	0	1	1	1	68	8	0	0	77	217	1058
18:00:00	10	0	5	0	2	15	5	123	0	0	0	128	0	0	2	0	0	2	1	55	9	0	0	65	210	989
18:15:00	9	0	0	0	2	9	4	100	0	0	0	104	0	0	1	0	0	1	0	51	9	0	0	60	174	844
18:30:00	6	0	4	0	1	10	11	86	1	0	0	98	0	0	0	0	0	0	3	43	8	0	0	54	162	763
18:45:00	16	0	3	0	0	19	5	59	1	0	0	65	3	0	0	0	0	3	0	45	12	0	0	57	144	690
Grand Total	417	0	169	0	37	586	218	2856	17	0	6	3091	16	1	21	0	31	38	20	2641	392	0	2	3053	**6768**	-
Approach%	71.2%	0%	28.8%	0%		-	7.1%	92.4%	0.5%	0%		-	42.1%	2.6%	55.3%	0%		-	0.7%	86.5%	12.8%	0%		-	**-**	-

Totals %	6.2%	0%	2.5%	0%	8.7%	3.2%	42.2%	0.3%	0%	45.7%	0.2%	0%	0.3%	0%	0.6%	0.3%	39%	5.8%	0%	45.1%	-	-
Heavy	4	0	0	0	-	2	50	0	0	-	0	0	0	0	-	0	58	2	0	-	-	-
Heavy %	1%	0%	0%	0%	-	0.9%	1.8%	0%	0%	-	0%	0%	0%	0%	-	0%	2.2%	0.5%	0%	-	-	-
Bicycles	0	0	0	0	-	0	2	0	0	-	0	0	0	0	-	0	1	0	0	-	-	-
Bicycle %	0%	0%	0%	0%	-	0%	0.1%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	-

Peak Hour: 07:30 AM - 08:30 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach SOUTH ACCESS						E Approach LAKESHORE RD						S Approach DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
07:30:00	7	0	10	0	0	17	4	48	0	0	0	52	1	0	0	0	0	1	0	203	11	0	0	214	284
07:45:00	8	0	9	0	0	17	8	44	0	0	0	52	0	0	1	0	2	1	0	172	10	0	0	182	252
08:00:00	9	0	9	0	1	18	8	60	0	0	0	68	1	0	1	0	3	2	0	176	15	0	0	191	279
08:15:00	7	0	9	0	1	16	4	67	0	0	0	71	1	0	0	0	6	1	0	159	18	0	1	177	265
Grand Total	31	0	37	0	2	68	24	219	0	0	0	243	3	0	2	0	11	5	0	710	54	0	1	764	**1080**
Approach%	45.6%	0%	54.4%	0%		-	9.9%	90.1%	0%	0%		-	60%	0%	40%	0%		-	0%	92.9%	7.1%	0%		-	**-**
Totals %	2.9%	0%	3.4%	0%		6.3%	2.2%	20.3%	0%	0%		22.5%	0.3%	0%	0.2%	0%		0.5%	0%	65.7%	5%	0%		70.7%	**-**
PHF	0.86	0	0.93	0		0.94	0.75	0.82	0	0		0.86	0.75	0	0.5	0		0.63	0	0.87	0.75	0		0.89	**-**
Heavy	0	0	0	0		0	1	4	0	0		5	0	0	0	0		0	0	12	0	0		12	**-**
Heavy %	0%	0%	0%	0%		0%	4.2%	1.8%	0%	0%		2.1%	0%	0%	0%	0%		0%	0%	1.7%	0%	0%		1.6%	**-**
Lights	31	0	37	0		68	23	215	0	0		238	3	0	2	0		5	0	698	54	0		752	**-**
Lights %	100%	0%	100%	0%		100%	95.8%	98.2%	0%	0%		97.9%	100%	0%	100%	0%		100%	0%	98.3%	100%	0%		98.4%	**-**
Single-Unit Trucks	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	0	4	0	0		4	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0.9%	0%	0%		0.8%	0%	0%	0%	0%		0%	0%	0.6%	0%	0%		0.5%	**-**
Buses	0	0	0	0		0	1	2	0	0		3	0	0	0	0		0	0	7	0	0		7	**-**
Buses %	0%	0%	0%	0%		0%	4.2%	0.9%	0%	0%		1.2%	0%	0%	0%	0%		0%	0%	1%	0%	0%		0.9%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.1%	0%	0%		0.1%	**-**
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	11	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	14.3%		-	-	-	-	0%		-	-	-	-	78.6%		-	-	-	-	7.1%		**-**
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 04:30 PM - 05:30 PM Weather: Mostly Cloudy (-4.2 °C)

Start Time	N Approach SOUTH ACCESS						E Approach LAKESHORE RD						S Approach DRIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
16:30:00	18	0	9	0	1	27	8	172	0	0	1	180	1	0	1	0	0	2	1	73	21	0	0	95	304
16:45:00	18	0	7	0	1	25	11	194	2	0	1	207	2	0	0	0	0	2	1	86	12	0	1	99	333
17:00:00	25	0	7	0	1	32	6	157	1	0	0	164	0	0	0	0	1	0	0	76	7	0	0	83	279
17:15:00	14	0	3	0	5	17	6	196	1	0	1	203	0	0	2	0	1	2	0	78	19	0	0	97	319
Grand Total	75	0	26	0	8	101	31	719	4	0	3	754	3	0	3	0	2	6	2	313	59	0	1	374	**1235**
Approach%	74.3%	0%	25.7%	0%		-	4.1%	95.4%	0.5%	0%		-	50%	0%	50%	0%		-	0.5%	83.7%	15.8%	0%		-	**-**
Totals %	6.1%	0%	2.1%	0%		8.2%	2.5%	58.2%	0.3%	0%		61.1%	0.2%	0%	0.2%	0%		0.5%	0.2%	25.3%	4.8%	0%		30.3%	**-**
PHF	0.75	0	0.72	0		0.79	0.7	0.92	0.5	0		0.91	0.38	0	0.38	0		0.75	0.5	0.91	0.7	0		0.94	**-**
Heavy	0	0	0	0		0	0	9	0	0		9	0	0	0	0		0	0	6	0	0		6	**-**
Heavy %	0%	0%	0%	0%		0%	0%	1.3%	0%	0%		1.2%	0%	0%	0%	0%		0%	0%	1.9%	0%	0%		1.6%	**-**
Lights	75	0	26	0		101	31	710	4	0		745	3	0	3	0		6	2	307	59	0		368	**-**
Lights %	100%	0%	100%	0%		100%	100%	98.7%	100%	0%		98.8%	100%	0%	100%	0%		100%	100%	98.1%	100%	0%		98.4%	**-**
Single-Unit Trucks	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	0	1	0	0		1	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.3%	**-**
Buses	0	0	0	0		0	0	6	0	0		6	0	0	0	0		0	0	5	0	0		5	**-**
Buses %	0%	0%	0%	0%		0%	0%	0.8%	0%	0%		0.8%	0%	0%	0%	0%		0%	0%	1.6%	0%	0%		1.3%	**-**
Articulated Trucks	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.1%	0%	0%		0.1%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	8	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	57.1%		-	-	-	-	21.4%		-	-	-	-	14.3%		-	-	-	-	7.1%		**-**
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 07:30 AM - 08:30 AM Weather: Unknown (-4.3 °C)



Peak Hour: 04:30 PM - 05:30 PM Weather: Mostly Cloudy (-4.2 °C)



Turning Movement Count (7 . LAKESHORE RD & SOUTH ACCESS)

Start Time	N Approach SOUTH ACCESS						E Approach LAKESHORE RD						S Approach RIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	12	1	7	0	2	20	13	60	0	0	0	73	0	0	2	0	4	2	0	61	15	0	0	76	171	
10:15:00	17	0	5	0	6	22	10	60	0	0	0	70	0	0	0	0	3	0	1	58	19	0	0	78	170	
10:30:00	18	0	3	0	4	21	14	61	0	0	0	75	3	0	0	0	0	3	2	52	15	0	0	69	168	
10:45:00	22	1	5	0	0	28	13	76	0	0	0	89	0	0	1	0	3	1	0	81	21	0	0	102	220	729
11:00:00	20	0	2	0	1	22	1	90	1	0	0	92	0	0	1	0	0	1	0	70	12	0	0	82	197	755
11:15:00	19	0	1	0	0	20	4	77	0	0	0	81	0	0	1	0	0	1	2	72	20	0	0	94	196	781
11:30:00	21	0	6	0	2	27	15	78	1	0	1	94	1	0	0	0	2	1	0	76	23	0	0	99	221	834
11:45:00	29	0	7	0	5	36	12	84	1	0	0	97	2	0	1	0	3	3	2	61	18	0	0	81	217	831
12:00:00	18	0	10	0	1	28	10	73	0	0	0	83	0	1	1	0	1	2	0	68	15	0	0	83	196	830
12:15:00	16	0	4	0	1	20	12	108	0	0	0	120	1	0	1	0	2	2	2	67	11	0	0	80	222	856
12:30:00	14	0	4	0	1	18	11	81	2	0	0	94	0	0	0	0	3	0	0	72	16	0	0	88	200	835
12:45:00	14	0	7	0	0	21	6	74	1	0	0	81	1	1	0	0	0	2	1	65	19	0	0	85	189	807
13:00:00	20	0	5	0	2	25	6	74	1	0	0	81	0	0	2	0	0	2	0	75	11	0	0	86	194	805
13:15:00	17	0	5	0	1	22	8	76	0	0	0	84	1	0	0	0	0	1	0	76	18	0	0	94	201	784
13:30:00	19	1	4	0	2	24	13	75	0	0	0	88	1	0	1	0	1	2	0	70	19	0	0	89	203	787
13:45:00	22	0	12	0	2	34	9	102	0	0	0	111	0	0	0	0	0	0	1	78	15	0	0	94	239	837
14:00:00	22	0	6	0	5	28	14	87	0	0	0	101	0	0	0	0	1	0	0	88	18	0	0	106	235	878
14:15:00	14	0	6	0	1	20	6	75	1	0	0	82	3	0	1	0	0	4	2	81	13	0	0	96	202	879
14:30:00	18	0	4	0	0	22	11	88	1	0	0	100	2	0	0	0	0	2	1	86	15	0	0	102	226	902
14:45:00	20	0	9	0	0	29	10	102	0	0	0	112	0	0	2	0	1	2	2	83	26	0	0	111	254	917
Grand Total	372	3	112	0	36	487	198	1601	9	0	1	1808	15	2	14	0	24	31	16	1440	339	0	0	1795	**4121**	-
Approach%	76.4%	0.6%	23%	0%		-	11%	88.6%	0.5%	0%		-	48.4%	6.5%	45.2%	0%		-	0.9%	80.2%	18.9%	0%		-	**-**	-
Totals %	9%	0.1%	2.7%	0%		11.8%	4.8%	38.8%	0.2%	0%		43.9%	0.4%	0%	0.3%	0%		0.8%	0.4%	34.9%	8.2%	0%		43.6%	**-**	-
Heavy	2	0	0	0		-	2	10	0	0		-	0	0	0	0		-	0	17	0	0		-	**-**	-
Heavy %	0.5%	0%	0%	0%		-	1%	0.6%	0%	0%		-	0%	0%	0%	0%		-	0%	1.2%	0%	0%		-	**-**	-
Bicycles	0	0	0	0		-	0	2	0	0		-	0	0	0	0		-	0	1	0	0		-	**-**	-
Bicycle %	0%	0%	0%	0%		-	0%	0.1%	0%	0%		-	0%	0%	0%	0%		-	0%	0.1%	0%	0%		-	**-**	-

Peak Hour: 02:00 PM - 03:00 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach SOUTH ACCESS						E Approach LAKESHORE RD						S Approach RIVEWAY						W Approach LAKESHORE RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
14:00:00	22	0	6	0	5	28	14	87	0	0	0	101	0	0	0	0	1	0	0	88	18	0	0	106	235
14:15:00	14	0	6	0	1	20	6	75	1	0	0	82	3	0	1	0	0	4	2	81	13	0	0	96	202
14:30:00	18	0	4	0	0	22	11	88	1	0	0	100	2	0	0	0	0	2	1	86	15	0	0	102	226
14:45:00	20	0	9	0	0	29	10	102	0	0	0	112	0	0	2	0	1	2	2	83	26	0	0	111	254
Grand Total	74	0	25	0	6	99	41	352	2	0	0	395	5	0	3	0	2	8	5	338	72	0	0	415	**917**
Approach%	74.7%	0%	25.3%	0%		-	10.4%	89.1%	0.5%	0%		-	62.5%	0%	37.5%	0%		-	1.2%	81.4%	17.3%	0%		-	**-**
Totals %	8.1%	0%	2.7%	0%		10.8%	4.5%	38.4%	0.2%	0%		43.1%	0.5%	0%	0.3%	0%		0.9%	0.5%	36.9%	7.9%	0%		45.3%	**-**
PHF	0.84	0	0.69	0		0.85	0.73	0.86	0.5	0		0.88	0.42	0	0.38	0		0.5	0.63	0.96	0.69	0		0.93	**-**
Heavy	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	4	0	0		4	**-**
Heavy %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1%	**-**
Lights	74	0	25	0		99	41	352	2	0		395	5	0	3	0		8	5	334	72	0		411	**-**
Lights %	100%	0%	100%	0%		100%	100%	100%	100%	0%		100%	100%	0%	100%	0%		100%	100%	98.8%	100%	0%		99%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.2%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	2	0	0		2	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.6%	0%	0%		0.5%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.2%	**-**
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	75%		-	-	-	-	0%		-	-	-	-	25%		-	-	-	-	0%		**-**
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 02:00 PM - 03:00 PM **Weather: Partly Cloudy (-4.4 °C)**



Turning Movement Count (5 . SPRUCE AVE & HAMPTON HEATH RD)

Start Time	N Approach HAMPTON HEATH RD						E Approach SPRUCE AVE						S Approach HAMPTON HEATH RD						W Approach SPRUCE AVE						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
07:00:00	6	2	0	0	0	8	0	1	0	0	1	1	2	3	0	0	0	5	0	6	11	0	1	17	31	
07:15:00	1	6	1	0	0	8	3	3	1	0	0	7	0	8	1	0	0	9	0	5	13	0	0	18	42	
07:30:00	4	4	0	0	0	8	4	9	1	1	0	15	1	17	2	0	0	20	1	9	10	0	1	20	63	
07:45:00	9	14	1	0	0	24	2	8	4	0	2	14	3	11	0	0	0	14	1	10	15	0	1	26	78	214
08:00:00	6	9	3	0	10	18	2	12	0	0	5	14	0	16	5	0	9	21	0	9	12	0	1	21	74	257
08:15:00	16	8	1	0	0	25	3	28	3	0	1	34	2	12	10	0	14	24	5	9	29	0	6	43	126	341
08:30:00	19	8	4	0	0	31	3	13	2	0	0	18	4	16	6	0	3	26	6	20	17	0	0	43	118	396
08:45:00	18	16	3	0	0	37	5	16	1	0	3	22	5	22	5	0	3	32	5	16	34	0	0	55	146	464
09:00:00	6	4	0	0	0	10	1	5	0	0	0	6	3	9	4	0	0	16	3	13	11	0	2	27	59	449
09:15:00	4	11	1	0	1	16	5	5	0	0	0	10	1	10	1	0	0	12	0	2	9	0	0	11	49	372
09:30:00	4	8	1	0	0	13	0	1	0	0	0	1	2	7	1	0	2	10	2	4	5	0	0	11	35	289
09:45:00	4	8	1	0	0	13	2	1	1	0	1	4	0	11	2	0	0	13	0	5	5	0	0	10	40	183
BREAK																										
15:00:00	13	24	3	0	0	40	0	9	0	0	8	9	0	14	1	0	30	15	1	12	11	0	0	24	88	
15:15:00	15	25	1	0	0	41	3	14	5	0	0	22	0	24	1	0	16	25	5	16	11	0	3	32	120	
15:30:00	12	12	3	0	6	27	2	4	2	0	0	8	4	21	2	0	22	27	9	13	22	0	20	44	106	
15:45:00	8	16	4	0	0	28	4	10	0	0	0	14	2	16	2	0	1	20	0	8	5	0	0	13	75	389
16:00:00	11	12	0	0	0	23	2	12	0	0	1	14	3	12	1	0	0	16	1	8	8	0	1	17	70	371
16:15:00	8	19	3	0	0	30	3	12	0	0	0	15	3	15	3	0	1	21	1	6	7	0	1	14	80	331
16:30:00	8	23	3	0	0	34	1	14	4	0	0	19	3	15	1	0	2	19	2	10	4	0	1	16	88	313
16:45:00	11	23	7	0	2	41	1	19	4	0	5	24	2	14	3	0	8	19	5	10	14	0	0	29	113	351
17:00:00	9	14	4	0	3	27	3	11	3	0	2	17	1	20	1	0	0	22	4	8	11	0	0	23	89	370
17:15:00	13	21	5	0	1	39	4	19	3	0	1	26	3	19	3	0	0	25	1	5	8	0	1	14	104	394
17:30:00	8	18	10	0	1	36	2	15	0	0	1	17	2	20	2	0	0	24	4	13	2	0	1	19	96	402
17:45:00	13	23	5	0	0	41	2	8	0	0	1	10	4	16	1	0	3	21	2	7	7	0	0	16	88	377
18:00:00	4	11	5	0	0	20	4	6	6	0	0	16	4	12	1	0	0	17	3	3	6	0	2	12	65	353
18:15:00	7	22	3	0	0	32	4	8	2	0	2	14	2	14	3	0	2	19	4	5	5	0	0	14	79	328
18:30:00	12	18	4	0	0	34	0	4	3	0	0	7	4	17	4	0	0	25	2	7	4	0	0	13	79	311
18:45:00	4	20	4	0	0	28	2	8	2	0	1	12	2	26	1	0	2	29	2	6	2	0	1	10	79	302
Grand Total	253	399	80	0	24	732	67	275	47	1	35	390	62	417	67	0	118	546	69	245	298	0	43	612	**2280**	-
Approach%	34.6%	54.5%	10.9%	0%		-	17.2%	70.5%	12.1%	0.3%		-	11.4%	76.4%	12.3%	0%		-	11.3%	40%	48.7%	0%		-	**-**	-

Totals %	11.1%	17.5%	3.5%	0%	32.1%	2.9%	12.1%	2.1%	0%	17.1%	2.7%	18.3%	2.9%	0%	23.9%	3%	10.7%	13.1%	0%	26.8%	-	-
Heavy	8	14	2	0	-	0	11	0	0	-	0	9	3	0	-	1	7	5	0	-	-	-
Heavy %	3.2%	3.5%	2.5%	0%	-	0%	4%	0%	0%	-	0%	2.2%	4.5%	0%	-	1.4%	2.9%	1.7%	0%	-	-	-
Bicycles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycle %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

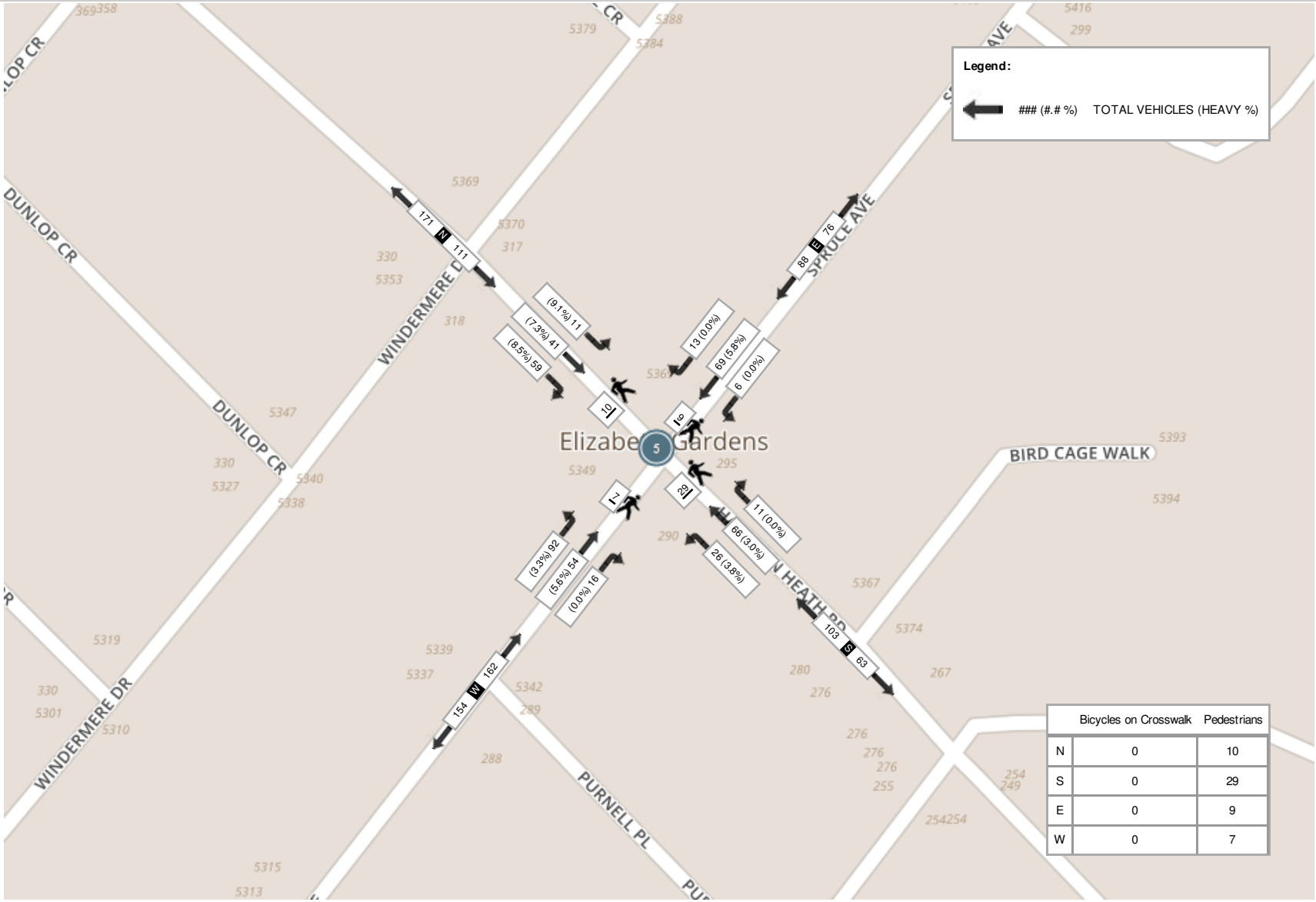
Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach SPRUCE AVE						S Approach HAMPTON HEATH RD						W Approach SPRUCE AVE						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
08:00:00	6	9	3	0	10	18	2	12	0	0	5	14	0	16	5	0	9	21	0	9	12	0	1	21	74
08:15:00	16	8	1	0	0	25	3	28	3	0	1	34	2	12	10	0	14	24	5	9	29	0	6	43	126
08:30:00	19	8	4	0	0	31	3	13	2	0	0	18	4	16	6	0	3	26	6	20	17	0	0	43	118
08:45:00	18	16	3	0	0	37	5	16	1	0	3	22	5	22	5	0	3	32	5	16	34	0	0	55	146
Grand Total	59	41	11	0	10	111	13	69	6	0	9	88	11	66	26	0	29	103	16	54	92	0	7	162	**464**
Approach%	53.2%	36.9%	9.9%	0%		-	14.8%	78.4%	6.8%	0%		-	10.7%	64.1%	25.2%	0%		-	9.9%	33.3%	56.8%	0%		-	**-**
Totals %	12.7%	8.8%	2.4%	0%		23.9%	2.8%	14.9%	1.3%	0%		19%	2.4%	14.2%	5.6%	0%		22.2%	3.4%	11.6%	19.8%	0%		34.9%	**-**
PHF	0.78	0.64	0.69	0		0.75	0.65	0.62	0.5	0		0.65	0.55	0.75	0.65	0		0.8	0.67	0.68	0.68	0		0.74	**-**
Heavy	5	3	1	0		9	0	4	0	0		4	0	2	1	0		3	0	3	3	0		6	**-**
Heavy %	8.5%	7.3%	9.1%	0%		8.1%	0%	5.8%	0%	0%		4.5%	0%	3%	3.8%	0%		2.9%	0%	5.6%	3.3%	0%		3.7%	**-**
Lights	54	38	10	0		102	13	65	6	0		84	11	64	25	0		100	16	51	89	0		156	**-**
Lights %	91.5%	92.7%	90.9%	0%		91.9%	100%	94.2%	100%	0%		95.5%	100%	97%	96.2%	0%		97.1%	100%	94.4%	96.7%	0%		96.3%	**-**
Single-Unit Trucks	3	1	1	0		5	0	0	0	0		0	0	1	0	0		1	0	1	0	0		1	**-**
Single-Unit Trucks %	5.1%	2.4%	9.1%	0%		4.5%	0%	0%	0%	0%		0%	0%	1.5%	0%	0%		1%	0%	1.9%	0%	0%		0.6%	**-**
Buses	2	2	0	0		4	0	4	0	0		4	0	1	1	0		2	0	2	3	0		5	**-**
Buses %	3.4%	4.9%	0%	0%		3.6%	0%	5.8%	0%	0%		4.5%	0%	1.5%	3.8%	0%		1.9%	0%	3.7%	3.3%	0%		3.1%	**-**
Pedestrians	-	-	-	-	10	-	-	-	-	-	9	-	-	-	-	-	29	-	-	-	-	-	7	-	**-**
Pedestrians%	-	-	-	-	18.2%		-	-	-	-	16.4%		-	-	-	-	52.7%		-	-	-	-	12.7%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

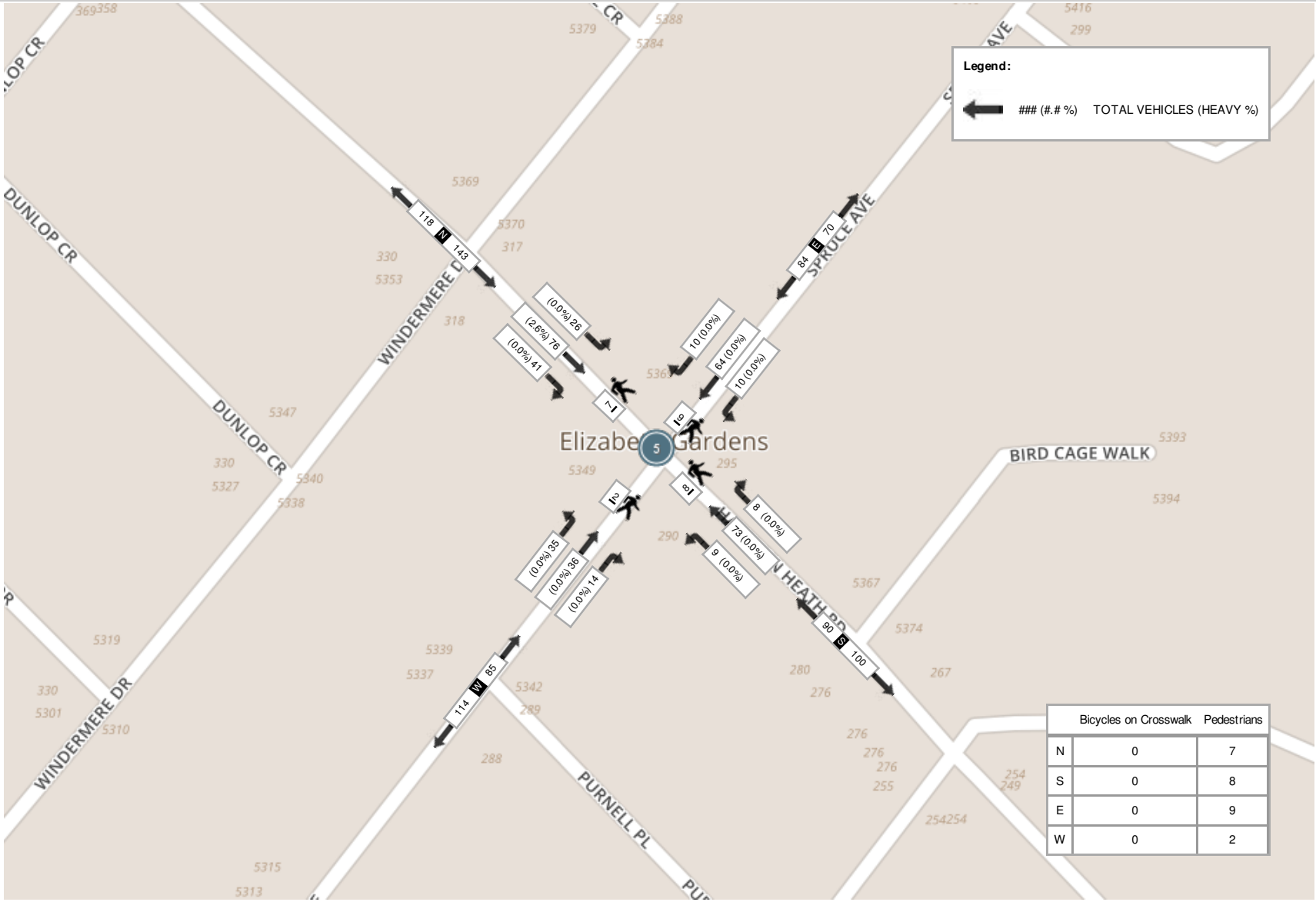
Peak Hour: 04:45 PM - 05:45 PM Weather: Mostly Cloudy (-4.2 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach SPRUCE AVE						S Approach HAMPTON HEATH RD						W Approach SPRUCE AVE						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
16:45:00	11	23	7	0	2	41	1	19	4	0	5	24	2	14	3	0	8	19	5	10	14	0	0	29	113
17:00:00	9	14	4	0	3	27	3	11	3	0	2	17	1	20	1	0	0	22	4	8	11	0	0	23	89
17:15:00	13	21	5	0	1	39	4	19	3	0	1	26	3	19	3	0	0	25	1	5	8	0	1	14	104
17:30:00	8	18	10	0	1	36	2	15	0	0	1	17	2	20	2	0	0	24	4	13	2	0	1	19	96
Grand Total	41	76	26	0	7	143	10	64	10	0	9	84	8	73	9	0	8	90	14	36	35	0	2	85	**402**
Approach%	28.7%	53.1%	18.2%	0%		-	11.9%	76.2%	11.9%	0%		-	8.9%	81.1%	10%	0%		-	16.5%	42.4%	41.2%	0%		-	**-**
Totals %	10.2%	18.9%	6.5%	0%		35.6%	2.5%	15.9%	2.5%	0%		20.9%	2%	18.2%	2.2%	0%		22.4%	3.5%	9%	8.7%	0%		21.1%	**-**
PHF	0.79	0.83	0.65	0		0.87	0.63	0.84	0.63	0		0.81	0.67	0.91	0.75	0		0.9	0.7	0.69	0.63	0		0.73	**-**
Heavy	0	2	0	0		2	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Heavy %	0%	2.6%	0%	0%		1.4%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Lights	41	74	26	0		141	10	64	10	0		84	8	73	9	0		90	14	36	35	0		85	**-**
Lights %	100%	97.4%	100%	0%		98.6%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Buses	0	2	0	0		2	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	2.6%	0%	0%		1.4%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	7	-	-	-	-	-	9	-	-	-	-	-	8	-	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	-	26.9%		-	-	-	-	34.6%		-	-	-	-	30.8%		-	-	-	-	7.7%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)



Peak Hour: 04:45 PM - 05:45 PM Weather: Mostly Cloudy (-4.2 °C)



	Bicycles on Crosswalk	Pedestrians
N	0	7
S	0	8
E	0	9
W	0	2

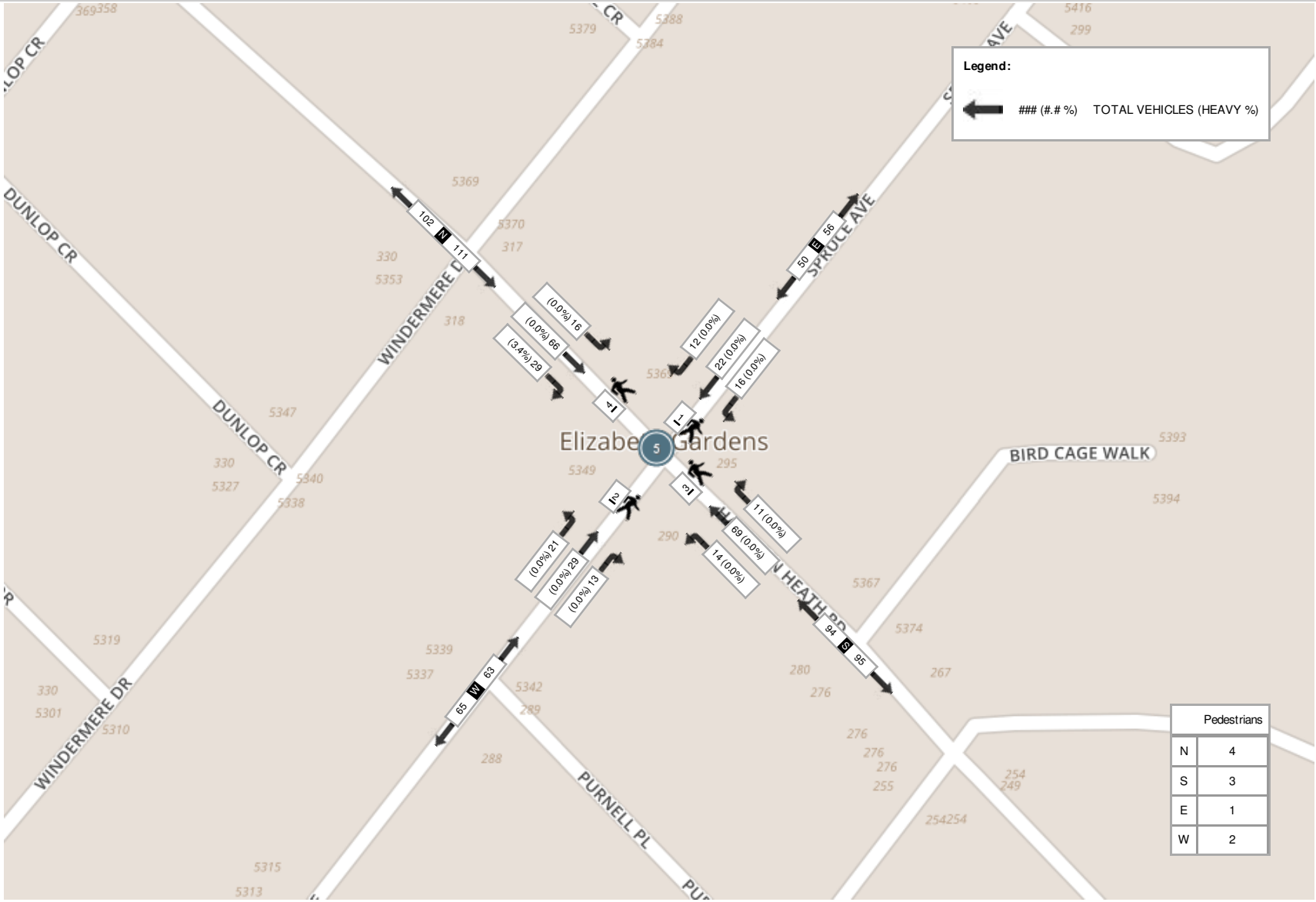
Turning Movement Count (5 . SPRUCE AVE & HAMPTON HEATH RD)

Start Time	N Approach HAMPTON HEATH RD						E Approach SPRUCE AVE						S Approach HAMPTON HEATH RD						W Approach SPRUCE AVE						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
10:00:00	4	12	3	0	1	19	0	4	2	0	0	6	0	13	2	0	0	15	2	7	2	0	0	11	51	
10:15:00	6	17	2	0	2	25	3	1	2	0	0	6	2	15	0	0	0	17	1	7	10	0	0	18	66	
10:30:00	5	22	6	0	0	33	5	7	0	0	0	12	2	13	0	0	1	15	2	0	5	0	1	7	67	
10:45:00	5	10	3	0	1	18	4	4	2	0	2	10	2	12	3	0	3	17	2	6	3	0	3	11	56	240
11:00:00	2	16	1	0	0	19	4	6	0	0	1	10	1	15	1	0	3	17	1	5	13	0	0	19	65	254
11:15:00	5	20	10	0	0	35	6	3	2	0	0	11	0	16	0	0	0	16	3	3	6	0	0	12	74	262
11:30:00	6	18	1	0	0	25	5	3	1	0	2	9	3	13	0	0	0	16	4	6	5	0	0	15	65	260
11:45:00	6	13	2	0	1	21	4	4	1	0	0	9	1	20	0	0	1	21	3	11	3	0	0	17	68	272
12:00:00	4	13	2	0	0	19	2	5	0	0	2	7	7	20	1	0	0	28	5	4	6	0	1	15	69	276
12:15:00	6	24	3	0	0	33	2	3	1	0	1	6	2	15	1	0	0	18	3	8	7	0	0	18	75	277
12:30:00	5	17	4	0	0	26	3	4	0	0	0	7	3	13	4	0	0	20	1	9	6	0	0	16	69	281
12:45:00	3	18	2	0	0	23	5	5	0	0	0	10	4	21	1	0	0	26	2	3	5	0	2	10	69	282
13:00:00	3	12	8	0	0	23	5	10	0	0	0	15	4	14	2	0	0	20	2	4	1	0	0	7	65	278
13:15:00	10	23	3	0	0	36	4	8	2	0	0	14	1	12	1	0	0	14	1	5	0	0	0	6	70	273
13:30:00	6	17	4	0	0	27	3	2	4	0	1	9	5	17	3	0	0	25	1	5	2	0	0	8	69	273
13:45:00	6	16	6	0	0	28	5	4	0	0	0	9	3	17	0	0	0	20	5	5	5	0	2	15	72	276
14:00:00	9	20	0	0	2	29	4	4	5	0	0	13	2	11	6	0	0	19	7	6	6	0	0	19	80	291
14:15:00	8	13	6	0	1	27	1	5	3	0	1	9	0	8	1	0	3	9	2	7	6	0	1	15	60	281
14:30:00	9	18	6	0	0	33	4	8	1	0	0	13	4	29	4	0	0	37	2	7	3	0	0	12	95	307
14:45:00	3	15	4	0	1	22	3	5	7	0	0	15	5	21	3	0	0	29	2	9	6	0	1	17	83	318
Grand Total	111	334	76	0	9	521	72	95	33	0	10	200	51	315	33	0	11	399	51	117	100	0	11	268	**1388**	-
Approach%	21.3%	64.1%	14.6%	0%		-	36%	47.5%	16.5%	0%		-	12.8%	78.9%	8.3%	0%		-	19%	43.7%	37.3%	0%		-	**-**	-
Totals %	8%	24.1%	5.5%	0%		37.5%	5.2%	6.8%	2.4%	0%		14.4%	3.7%	22.7%	2.4%	0%		28.7%	3.7%	8.4%	7.2%	0%		19.3%	**-**	-
Heavy	1	1	0	0		-	0	1	0	0		-	0	2	0	0		-	0	0	0	0		-	**-**	-
Heavy %	0.9%	0.3%	0%	0%		-	0%	1.1%	0%	0%		-	0%	0.6%	0%	0%		-	0%	0%	0%	0%		-	**-**	-
Bicycles	0	0	0	0		-	0	0	0	0		-	0	0	0	0		-	0	2	0	0		-	**-**	-
Bicycle %	0%	0%	0%	0%		-	0%	0%	0%	0%		-	0%	0%	0%	0%		-	0%	1.7%	0%	0%		-	**-**	-

Peak Hour: 02:00 PM - 03:00 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach HAMPTON HEATH RD						E Approach SPRUCE AVE						S Approach HAMPTON HEATH RD						W Approach SPRUCE AVE						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
14:00:00	9	20	0	0	2	29	4	4	5	0	0	13	2	11	6	0	0	19	7	6	6	0	0	19	80
14:15:00	8	13	6	0	1	27	1	5	3	0	1	9	0	8	1	0	3	9	2	7	6	0	1	15	60
14:30:00	9	18	6	0	0	33	4	8	1	0	0	13	4	29	4	0	0	37	2	7	3	0	0	12	95
14:45:00	3	15	4	0	1	22	3	5	7	0	0	15	5	21	3	0	0	29	2	9	6	0	1	17	83
Grand Total	29	66	16	0	4	111	12	22	16	0	1	50	11	69	14	0	3	94	13	29	21	0	2	63	**318**
Approach%	26.1%	59.5%	14.4%	0%		-	24%	44%	32%	0%		-	11.7%	73.4%	14.9%	0%		-	20.6%	46%	33.3%	0%		-	-
Totals %	9.1%	20.8%	5%	0%		34.9%	3.8%	6.9%	5%	0%		15.7%	3.5%	21.7%	4.4%	0%		29.6%	4.1%	9.1%	6.6%	0%		19.8%	-
PHF	0.81	0.83	0.67	0		0.84	0.75	0.69	0.57	0		0.83	0.55	0.59	0.58	0		0.64	0.46	0.81	0.88	0		0.83	-
Heavy	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Heavy %	3.4%	0%	0%	0%		0.9%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Lights	28	66	16	0		110	12	22	16	0		50	11	69	14	0		94	13	29	21	0		63	-
Lights %	96.6%	100%	100%	0%		99.1%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	100%	100%	100%	0%		100%	-
Single-Unit Trucks	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Buses	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Buses %	3.4%	0%	0%	0%		0.9%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	2	-	-
Pedestrians%	-	-	-	-	40%		-	-	-	-	10%		-	-	-	-	30%		-	-	-	-	20%		-
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	-
Bicycles on Road%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Peak Hour: 02:00 PM - 03:00 PM **Weather: Partly Cloudy (-4.4 °C)**



	Pedestrians
N	4
S	3
E	1
W	2

Turning Movement Count (4 . SPRUCE AVE & KENWOOD AVE)

Start Time	E Approach SPRUCE AVE					S Approach KENWOOD AVE					W Approach SPRUCE AVE					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	U-Turn W:W	Peds W:	Approach Total		
07:00:00	2	4	0	0	6	9	2	0	0	11	5	9	0	0	14	31	
07:15:00	3	2	0	0	5	8	2	0	0	10	4	7	0	0	11	26	
07:30:00	9	5	0	1	14	5	3	0	0	8	2	16	0	0	18	40	
07:45:00	10	10	0	0	20	12	8	0	0	20	12	13	0	0	25	65	162
08:00:00	18	4	0	0	22	13	6	0	6	19	13	9	0	0	22	63	194
08:15:00	45	8	0	0	53	8	8	0	20	16	9	30	0	0	39	108	276
08:30:00	21	17	0	0	38	16	6	0	3	22	12	27	1	2	40	100	336
08:45:00	18	23	1	0	42	24	29	0	1	53	25	33	0	0	58	153	424
09:00:00	9	8	0	0	17	15	16	0	2	31	3	9	0	0	12	60	421
09:15:00	6	4	0	0	10	4	3	0	0	7	6	4	0	0	10	27	340
09:30:00	4	2	0	0	6	3	3	0	1	6	6	7	0	0	13	25	265
09:45:00	6	2	0	0	8	4	5	0	1	9	5	7	0	0	12	29	141
BREAK																	
15:00:00	16	10	0	0	26	7	6	0	18	13	10	17	0	0	27	66	
15:15:00	14	17	0	0	31	11	14	0	8	25	17	26	0	0	43	99	
15:30:00	9	9	0	0	18	22	20	0	7	42	9	21	0	0	30	90	
15:45:00	14	5	0	0	19	3	12	0	0	15	5	11	0	0	16	50	305
16:00:00	15	8	0	0	23	10	4	0	0	14	8	6	0	0	14	51	290
16:15:00	15	8	0	0	23	8	7	0	1	15	6	7	0	0	13	51	242
16:30:00	11	11	0	0	22	11	8	0	2	19	14	8	0	0	22	63	215
16:45:00	24	10	0	1	34	9	13	0	7	22	14	18	0	0	32	88	253
17:00:00	12	11	0	0	23	10	9	0	3	19	11	14	0	0	25	67	269
17:15:00	25	12	0	0	37	7	6	0	1	13	8	8	0	0	16	66	284
17:30:00	14	10	0	2	24	9	8	0	0	17	12	10	0	0	22	63	284

17:45:00	14	7	0	0	21	6	7	0	0	13	4	12	0	0	16	50	246
18:00:00	6	5	0	0	11	7	9	0	0	16	6	6	0	0	12	39	218
18:15:00	10	8	0	0	18	6	1	0	0	7	10	9	0	0	19	44	196
18:30:00	9	9	0	0	18	6	12	0	0	18	6	7	0	0	13	49	182
18:45:00	9	6	0	0	15	5	7	0	2	12	9	3	0	0	12	39	171
Grand Total	368	235	1	4	604	258	234	0	83	492	251	354	1	2	606	**1702**	-
Approach%	60.9%	38.9%	0.2%		-	52.4%	47.6%	0%		-	41.4%	58.4%	0.2%		-	**-**	-
Totals %	21.6%	13.8%	0.1%		35.5%	15.2%	13.7%	0%		28.9%	14.7%	20.8%	0.1%		35.6%	**-**	-
Heavy	16	6	1		-	4	1	0		-	3	8	0		-	**-**	-
Heavy %	4.3%	2.6%	100%		-	1.6%	0.4%	0%		-	1.2%	2.3%	0%		-	**-**	-
Bicycles	0	0	0		-	0	0	0		-	1	0	0		-	**-**	-
Bicycle %	0%	0%	0%		-	0%	0%	0%		-	0.4%	0%	0%		-	**-**	-

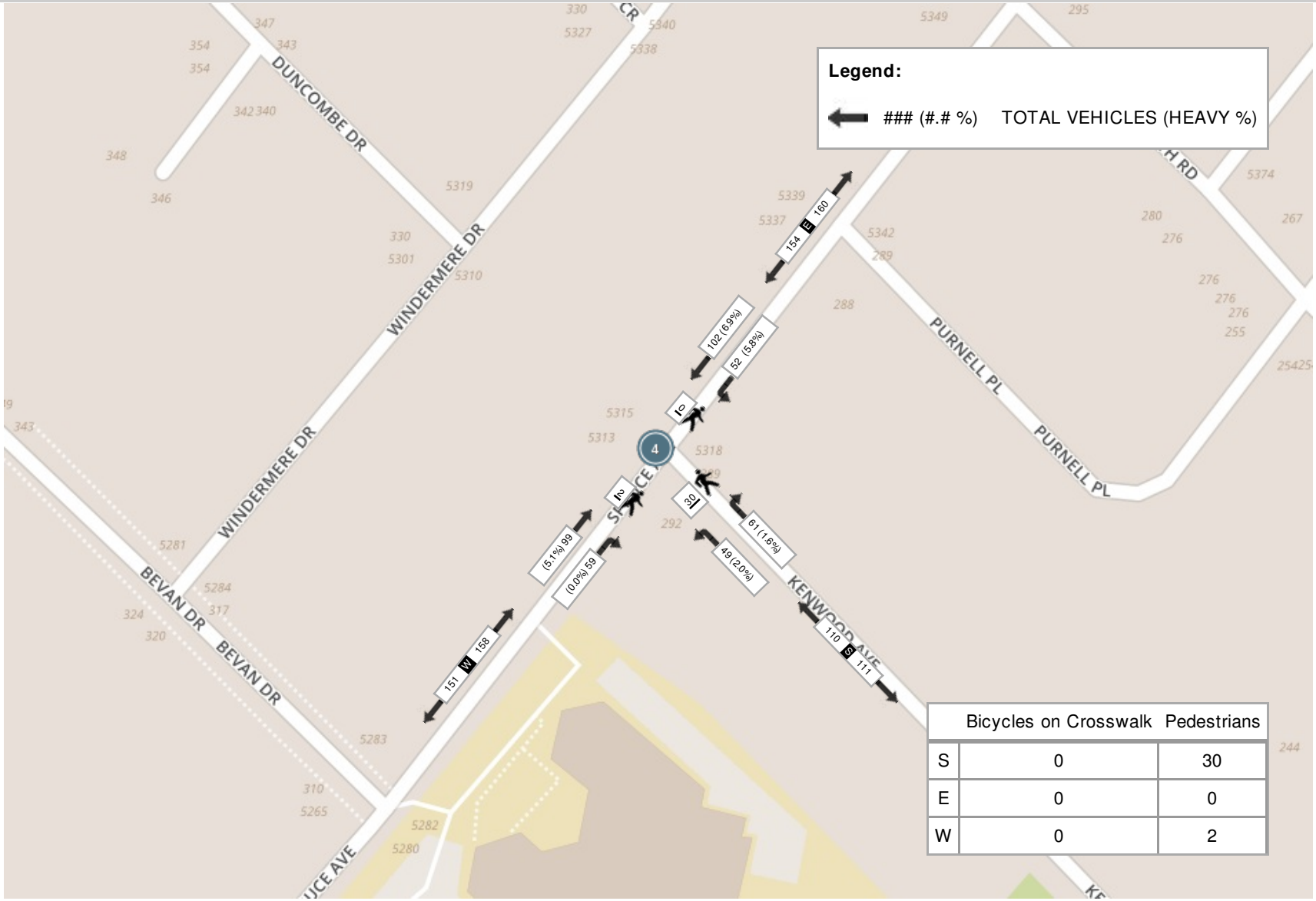
Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)

Start Time	E Approach SPRUCE AVE					S Approach KENWOOD AVE					W Approach SPRUCE AVE					Int. Total (15 min)
	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	
08:00:00	18	4	0	0	22	13	6	0	6	19	13	9	0	0	22	63
08:15:00	45	8	0	0	53	8	8	0	20	16	9	30	0	0	39	108
08:30:00	21	17	0	0	38	16	6	0	3	22	12	27	1	2	40	100
08:45:00	18	23	1	0	42	24	29	0	1	53	25	33	0	0	58	153
Grand Total	102	52	1	0	155	61	49	0	30	110	59	99	1	2	159	**424**
Approach%	65.8%	33.5%	0.6%		-	55.5%	44.5%	0%		-	37.1%	62.3%	0.6%		-	-
Totals %	24.1%	12.3%	0.2%		36.6%	14.4%	11.6%	0%		25.9%	13.9%	23.3%	0.2%		37.5%	-
PHF	0.57	0.57	0.25		0.73	0.64	0.42	0		0.52	0.59	0.75	0.25		0.69	-
Heavy	7	3	1		11	1	1	0		2	0	5	0		5	-
Heavy %	6.9%	5.8%	100%		7.1%	1.6%	2%	0%		1.8%	0%	5.1%	0%		3.1%	-
Lights	95	49	0		144	60	48	0		108	59	94	1		154	-
Lights %	93.1%	94.2%	0%		92.9%	98.4%	98%	0%		98.2%	100%	94.9%	100%		96.9%	-
Single-Unit Trucks	2	1	1		4	0	0	0		0	0	1	0		1	-
Single-Unit Trucks %	2%	1.9%	100%		2.6%	0%	0%	0%		0%	0%	1%	0%		0.6%	-
Buses	5	2	0		7	1	1	0		2	0	4	0		4	-
Buses %	4.9%	3.8%	0%		4.5%	1.6%	2%	0%		1.8%	0%	4%	0%		2.5%	-
Pedestrians	-	-	-	0	-	-	-	-	30	-	-	-	-	2	-	-
Pedestrians%	-	-	-	0%		-	-	-	93.8%		-	-	-	6.3%		-
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 03:00 PM - 04:00 PM Weather: Mostly Cloudy (-4.2 °C)

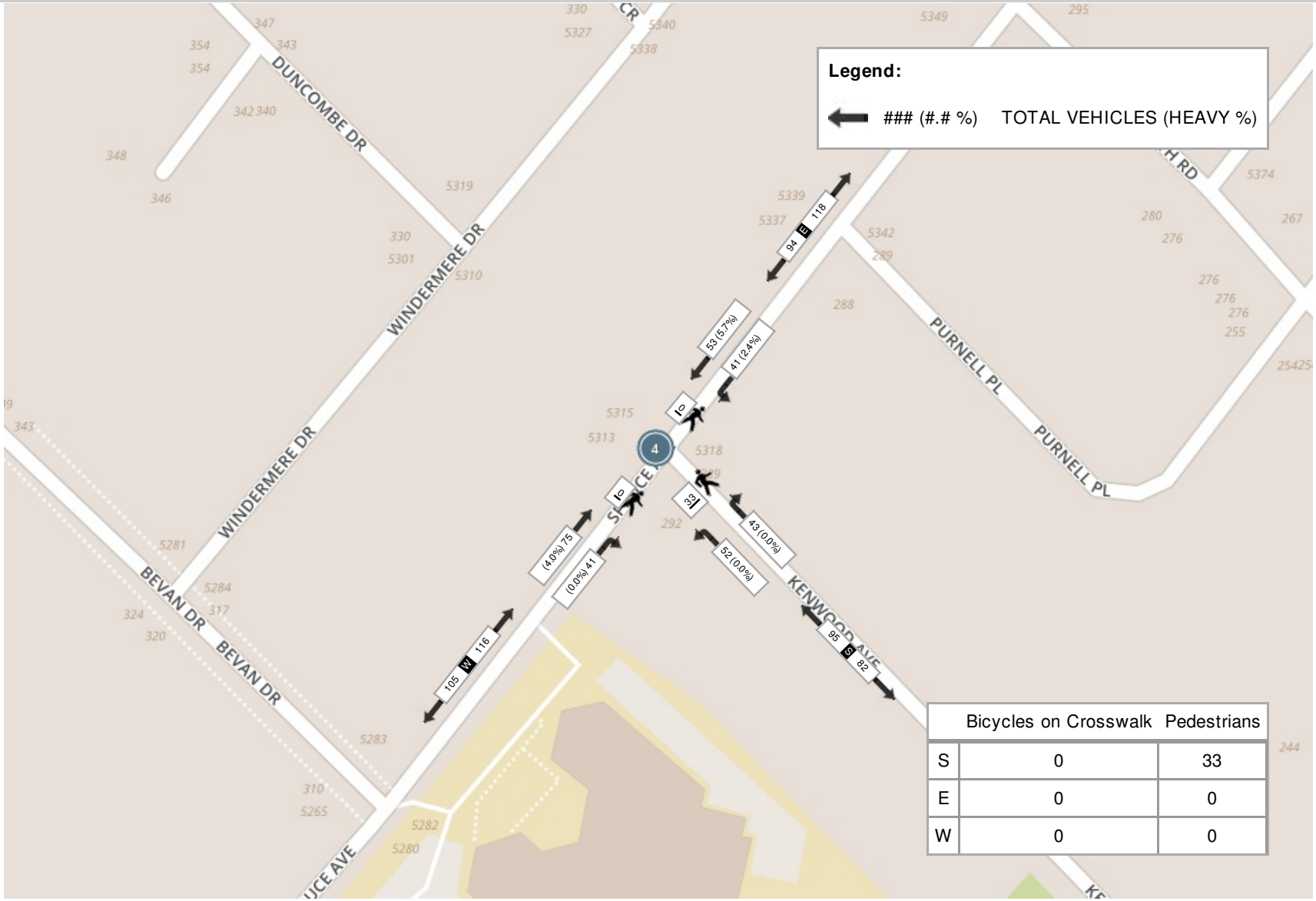
Start Time	E Approach SPRUCE AVE					S Approach KENWOOD AVE					W Approach SPRUCE AVE					Int. Total (15 min)
	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	
15:00:00	16	10	0	0	26	7	6	0	18	13	10	17	0	0	27	66
15:15:00	14	17	0	0	31	11	14	0	8	25	17	26	0	0	43	99
15:30:00	9	9	0	0	18	22	20	0	7	42	9	21	0	0	30	90
15:45:00	14	5	0	0	19	3	12	0	0	15	5	11	0	0	16	50
Grand Total	53	41	0	0	94	43	52	0	33	95	41	75	0	0	116	**305**
Approach%	56.4%	43.6%	0%		-	45.3%	54.7%	0%		-	35.3%	64.7%	0%		-	-
Totals %	17.4%	13.4%	0%		30.8%	14.1%	17%	0%		31.1%	13.4%	24.6%	0%		38%	-
PHF	0.83	0.6	0		0.76	0.49	0.65	0		0.57	0.6	0.72	0		0.67	-
Heavy	3	1	0		4	0	0	0		0	0	3	0		3	-
Heavy %	5.7%	2.4%	0%		4.3%	0%	0%	0%		0%	0%	4%	0%		2.6%	-
Lights	50	40	0		90	43	52	0		95	41	72	0		113	-
Lights %	94.3%	97.6%	0%		95.7%	100%	100%	0%		100%	100%	96%	0%		97.4%	-
Single-Unit Trucks	0	0	0		0	0	0	0		0	0	0	0		0	-
Single-Unit Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
Buses	3	1	0		4	0	0	0		0	0	3	0		3	-
Buses %	5.7%	2.4%	0%		4.3%	0%	0%	0%		0%	0%	4%	0%		2.6%	-
Pedestrians	-	-	-	0	-	-	-	-	33	-	-	-	-	0	-	-
Pedestrians%	-	-	-	0%		-	-	-	100%		-	-	-	0%		-
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 08:00 AM - 09:00 AM Weather: Unknown (-4.3 °C)



	Bicycles on Crosswalk	Pedestrians
S	0	30
E	0	0
W	0	2

Peak Hour: 03:00 PM - 04:00 PM Weather: Mostly Cloudy (-4.2 °C)



	Bicycles on Crosswalk	Pedestrians
S	0	33
E	0	0
W	0	0

Turning Movement Count (4 . SPRUCE AVE & KENWOOD AVE)

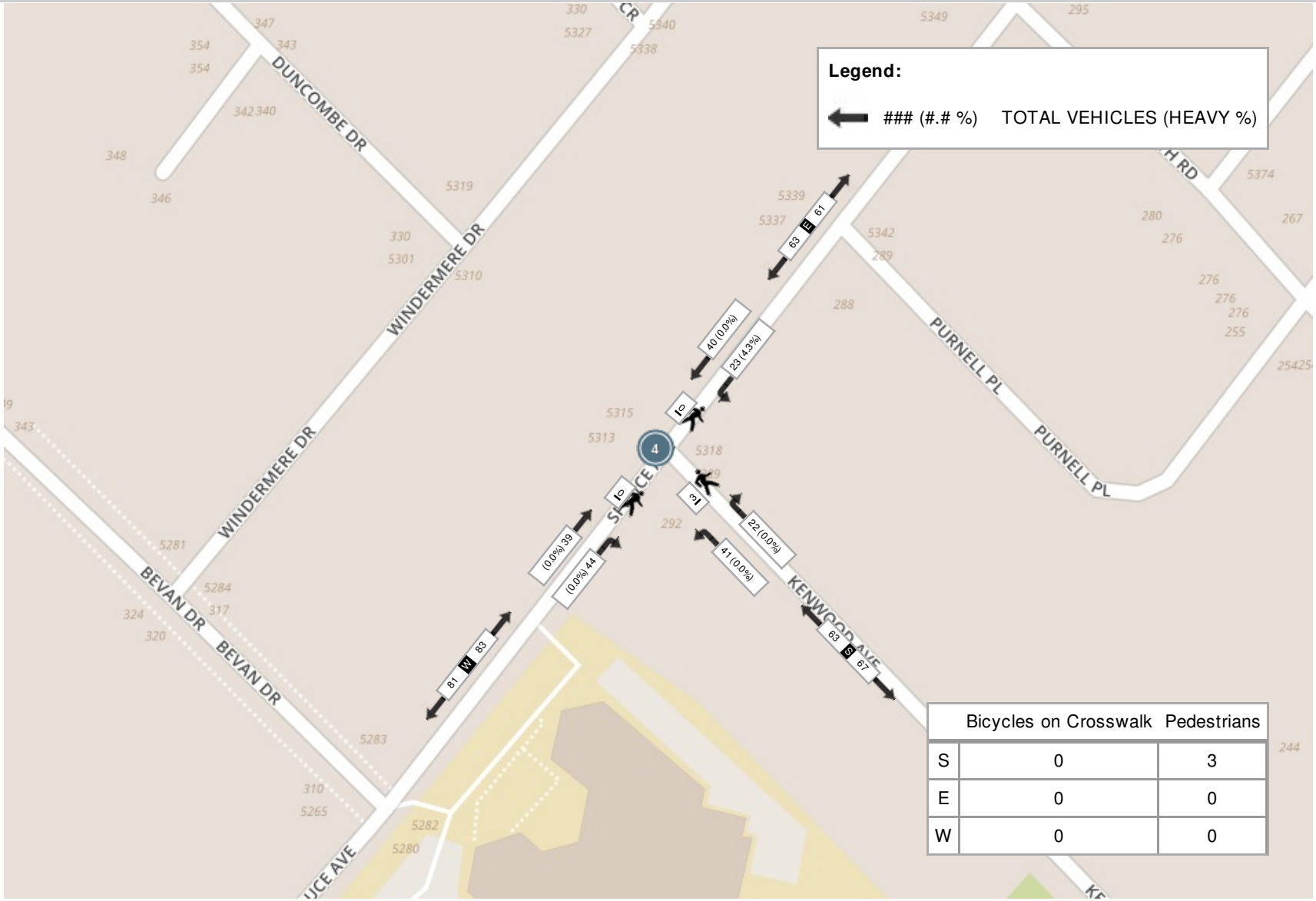
Start Time	E Approach SPRUCE AVE					S Approach KENWOOD AVE					W Approach SPRUCE AVE					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	U-Turn W:W	Peds W:	Approach Total		
10:00:00	6	5	0	0	11	2	6	0	3	8	9	9	0	0	18	37	
10:15:00	3	5	0	0	8	5	5	0	1	10	2	12	0	0	14	32	
10:30:00	9	3	0	0	12	2	11	0	0	13	9	6	0	0	15	40	
10:45:00	10	2	0	0	12	4	7	0	1	11	9	10	0	0	19	42	151
11:00:00	5	3	0	1	8	8	16	0	2	24	2	10	0	0	12	44	158
11:15:00	5	4	0	0	9	3	6	0	0	9	4	7	0	0	11	29	155
11:30:00	6	4	0	0	10	7	7	0	1	14	12	9	0	0	21	45	160
11:45:00	6	4	0	0	10	8	12	0	1	20	4	9	0	0	13	43	161
12:00:00	7	3	0	1	10	8	8	0	0	16	12	8	0	0	20	46	163
12:15:00	6	4	0	0	10	9	3	0	0	12	5	9	0	0	14	36	170
12:30:00	9	5	0	0	14	5	5	0	0	10	8	9	0	0	17	41	166
12:45:00	9	2	0	0	11	2	1	0	0	3	9	9	0	1	18	32	155
13:00:00	10	6	0	0	16	0	7	0	1	7	8	6	0	0	14	37	146
13:15:00	11	9	0	0	20	3	5	0	0	8	7	5	0	0	12	40	150
13:30:00	7	3	0	0	10	1	7	0	1	8	14	7	0	0	21	39	148
13:45:00	4	6	0	0	10	5	10	0	0	15	7	9	0	0	16	41	157
14:00:00	10	6	0	0	16	5	23	0	1	28	9	11	0	0	20	64	184
14:15:00	10	4	0	0	14	6	8	0	1	14	9	9	0	0	18	46	190
14:30:00	12	9	0	0	21	5	6	0	1	11	16	9	0	0	25	57	208
14:45:00	8	4	0	0	12	6	4	0	0	10	10	10	0	0	20	42	209
Grand Total	153	91	0	2	244	94	157	0	14	251	165	173	0	1	338	**833**	-
Approach%	62.7%	37.3%	0%		-	37.5%	62.5%	0%		-	48.8%	51.2%	0%		-	-	-
Totals %	18.4%	10.9%	0%		29.3%	11.3%	18.8%	0%		30.1%	19.8%	20.8%	0%		40.6%	-	-
Heavy	2	1	0		-	0	0	0		-	0	1	0		-	-	-

Heavy %	1.3%	1.1%	0%	-	0%	0%	0%	-	0%	0.6%	0%	-	-	-
Bicycles	0	0	0	-	0	0	0	-	0	2	0	-	-	-
Bicycle %	0%	0%	0%	-	0%	0%	0%	-	0%	1.2%	0%	-	-	-

Peak Hour: 02:00 PM - 03:00 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	E Approach SPRUCE AVE					S Approach KENWOOD AVE					W Approach SPRUCE AVE					Int. Total (15 min)
	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	
14:00:00	10	6	0	0	16	5	23	0	1	28	9	11	0	0	20	64
14:15:00	10	4	0	0	14	6	8	0	1	14	9	9	0	0	18	46
14:30:00	12	9	0	0	21	5	6	0	1	11	16	9	0	0	25	57
14:45:00	8	4	0	0	12	6	4	0	0	10	10	10	0	0	20	42
Grand Total	40	23	0	0	63	22	41	0	3	63	44	39	0	0	83	**209**
Approach%	63.5%	36.5%	0%		-	34.9%	65.1%	0%		-	53%	47%	0%		-	-
Totals %	19.1%	11%	0%		30.1%	10.5%	19.6%	0%		30.1%	21.1%	18.7%	0%		39.7%	-
PHF	0.83	0.64	0		0.75	0.92	0.45	0		0.56	0.69	0.89	0		0.83	-
Heavy	0	1	0		1	0	0	0		0	0	0	0		0	-
Heavy %	0%	4.3%	0%		1.6%	0%	0%	0%		0%	0%	0%	0%		0%	-
Lights	40	22	0		62	22	41	0		63	44	39	0		83	-
Lights %	100%	95.7%	0%		98.4%	100%	100%	0%		100%	100%	100%	0%		100%	-
Single-Unit Trucks	0	0	0		0	0	0	0		0	0	0	0		0	-
Single-Unit Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
Buses	0	1	0		1	0	0	0		0	0	0	0		0	-
Buses %	0%	4.3%	0%		1.6%	0%	0%	0%		0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	0	-	-	-	-	3	-	-	-	-	0	-	-
Pedestrians%	-	-	-	0%		-	-	-	100%		-	-	-	0%		-
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

Peak Hour: 02:00 PM - 03:00 PM Weather: Partly Cloudy (-4.4 °C)



	Bicycles on Crosswalk	Pedestrians
S	0	3
E	0	0
W	0	0

Turning Movement Count (3 . STRATTON RD & HAMPTON HEATH RD)

Start Time	N Approach HAMPTON HEATH RD					E Approach STRATTON RD					S Approach HAMPTON HEATH RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	U-Turn S:S	Peds S:	Approach Total		
07:00:00	6	0	0	0	6	0	2	0	0	2	1	1	0	0	2	10	
07:15:00	4	0	0	0	4	2	4	0	0	6	1	6	0	0	7	17	
07:30:00	9	0	0	0	9	0	3	0	0	3	0	8	0	0	8	20	
07:45:00	16	1	0	0	17	1	0	0	0	1	2	5	0	0	7	25	72
08:00:00	10	1	0	0	11	2	1	0	1	3	2	5	0	0	7	21	83
08:15:00	13	1	0	0	14	2	5	0	0	7	2	5	0	0	7	28	94
08:30:00	16	2	0	1	18	1	5	0	1	6	2	10	0	2	12	36	110
08:45:00	14	3	0	0	17	1	1	0	0	2	4	10	0	0	14	33	118
09:00:00	9	0	0	0	9	0	4	0	0	4	3	6	0	0	9	22	119
09:15:00	11	0	0	0	11	0	2	0	1	2	3	10	0	0	13	26	117
09:30:00	9	0	0	0	9	4	6	0	0	10	5	11	0	0	16	35	116
09:45:00	6	0	0	1	6	0	1	0	0	1	0	10	0	0	10	17	100
BREAK																	
15:00:00	12	3	0	0	15	3	1	0	0	4	4	12	0	0	16	35	
15:15:00	16	4	0	0	20	1	3	0	1	4	7	12	0	0	19	43	
15:30:00	19	0	0	1	19	1	1	0	0	2	10	14	0	0	24	45	
15:45:00	11	0	0	2	11	0	1	0	3	1	3	17	0	0	20	32	155
16:00:00	7	2	0	1	9	1	3	0	0	4	7	14	0	0	21	34	154
16:15:00	11	1	0	4	12	0	6	0	1	6	3	16	0	0	19	37	148
16:30:00	11	2	0	1	13	1	6	0	0	7	3	18	0	0	21	41	144
16:45:00	12	4	0	3	16	0	7	0	0	7	5	16	0	1	21	44	156
17:00:00	5	1	0	0	6	0	1	0	0	1	4	24	0	0	28	35	157
17:15:00	5	1	0	0	6	1	3	0	0	4	4	15	0	1	19	29	149
17:30:00	9	2	0	0	11	3	5	0	0	8	3	20	0	0	23	42	150

17:45:00	12	4	0	0	16	0	2	0	0	2	8	11	0	4	19	37	143
18:00:00	11	4	0	0	15	1	1	0	1	2	5	12	0	0	17	34	142
18:15:00	8	0	0	1	8	0	4	0	0	4	7	9	0	0	16	28	141
18:30:00	10	0	0	0	10	2	2	0	1	4	6	12	0	0	18	32	131
18:45:00	10	0	0	0	10	1	4	0	0	5	1	13	0	1	14	29	123
Grand Total	292	36	0	15	328	28	84	0	10	112	105	322	0	9	427	**867**	-
Approach%	89%	11%	0%		-	25%	75%	0%		-	24.6%	75.4%	0%		-	**-**	-
Totals %	33.7%	4.2%	0%		37.8%	3.2%	9.7%	0%		12.9%	12.1%	37.1%	0%		49.3%	**-**	-
Heavy	16	0	0		-	1	1	0		-	1	12	0		-	**-**	-
Heavy %	5.5%	0%	0%		-	3.6%	1.2%	0%		-	1%	3.7%	0%		-	**-**	-
Bicycles	0	0	0		-	1	0	0		-	0	1	0		-	**-**	-
Bicycle %	0%	0%	0%		-	3.6%	0%	0%		-	0%	0.3%	0%		-	**-**	-

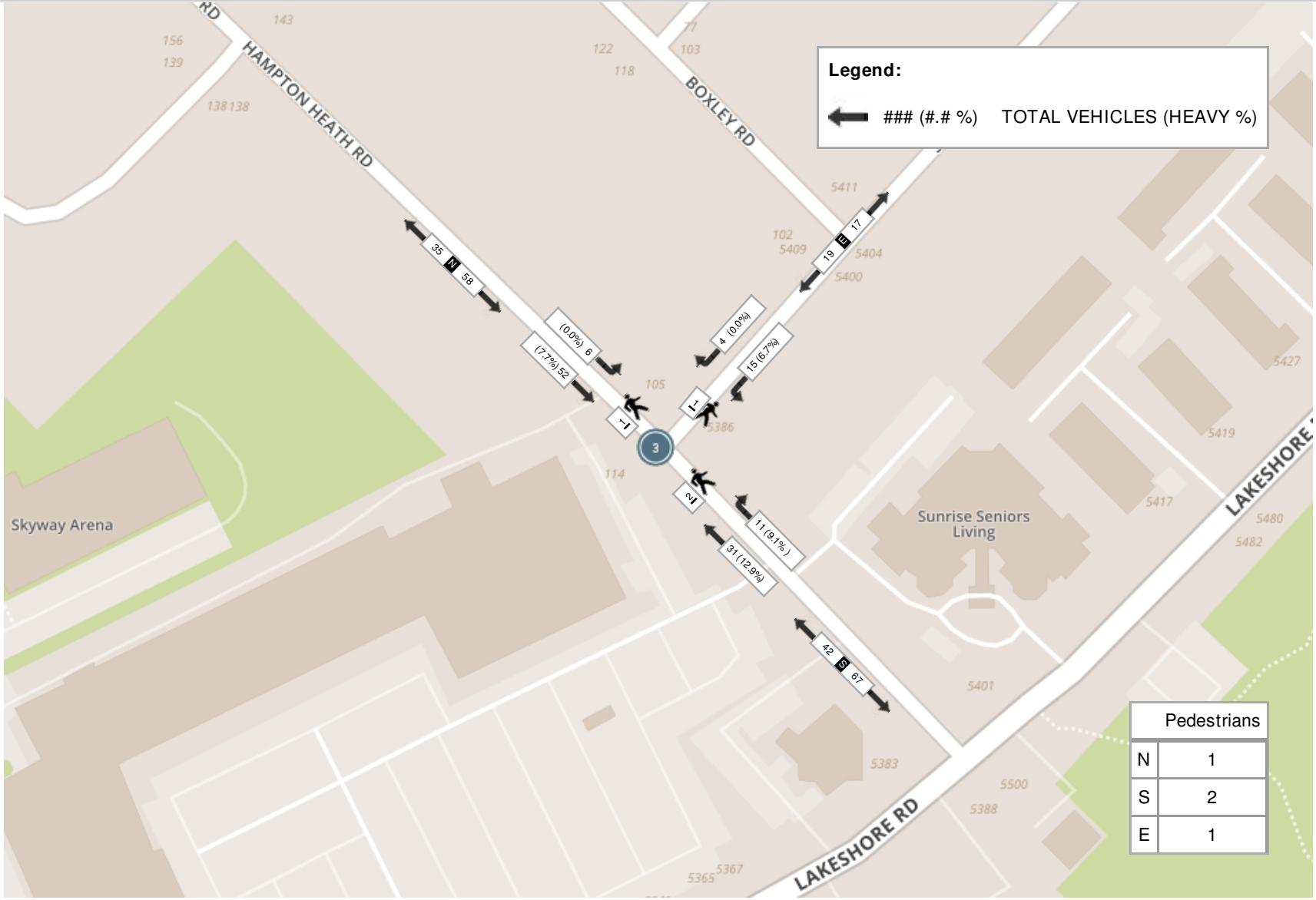
Peak Hour: 08:15 AM - 09:15 AM Weather: Unknown (-4.3 °C)

Start Time	N Approach HAMPTON HEATH RD					E Approach STRATTON RD					S Approach HAMPTON HEATH RD					Int. Total (15 min)
	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	
08:15:00	13	1	0	0	14	2	5	0	0	7	2	5	0	0	7	28
08:30:00	16	2	0	1	18	1	5	0	1	6	2	10	0	2	12	36
08:45:00	14	3	0	0	17	1	1	0	0	2	4	10	0	0	14	33
09:00:00	9	0	0	0	9	0	4	0	0	4	3	6	0	0	9	22
Grand Total	52	6	0	1	58	4	15	0	1	19	11	31	0	2	42	**119**
Approach%	89.7%	10.3%	0%		-	21.1%	78.9%	0%		-	26.2%	73.8%	0%		-	-
Totals %	43.7%	5%	0%		48.7%	3.4%	12.6%	0%		16%	9.2%	26.1%	0%		35.3%	-
PHF	0.81	0.5	0		0.81	0.5	0.75	0		0.68	0.69	0.78	0		0.75	-
Heavy	4	0	0		4	0	1	0		1	1	4	0		5	-
Heavy %	7.7%	0%	0%		6.9%	0%	6.7%	0%		5.3%	9.1%	12.9%	0%		11.9%	-
Lights	48	6	0		54	4	14	0		18	10	27	0		37	-
Lights %	92.3%	100%	0%		93.1%	100%	93.3%	0%		94.7%	90.9%	87.1%	0%		88.1%	-
Single-Unit Trucks	3	0	0		3	0	0	0		0	0	2	0		2	-
Single-Unit Trucks %	5.8%	0%	0%		5.2%	0%	0%	0%		0%	0%	6.5%	0%		4.8%	-
Buses	1	0	0		1	0	1	0		1	1	1	0		2	-
Buses %	1.9%	0%	0%		1.7%	0%	6.7%	0%		5.3%	9.1%	3.2%	0%		4.8%	-
Articulated Trucks	0	0	0		0	0	0	0		0	0	1	0		1	-
Articulated Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	3.2%	0%		2.4%	-
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	2	-	-
Pedestrians%	-	-	-	25%		-	-	-	25%		-	-	-	50%		-
Bicycles on Road	0	0	0	0	-	1	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

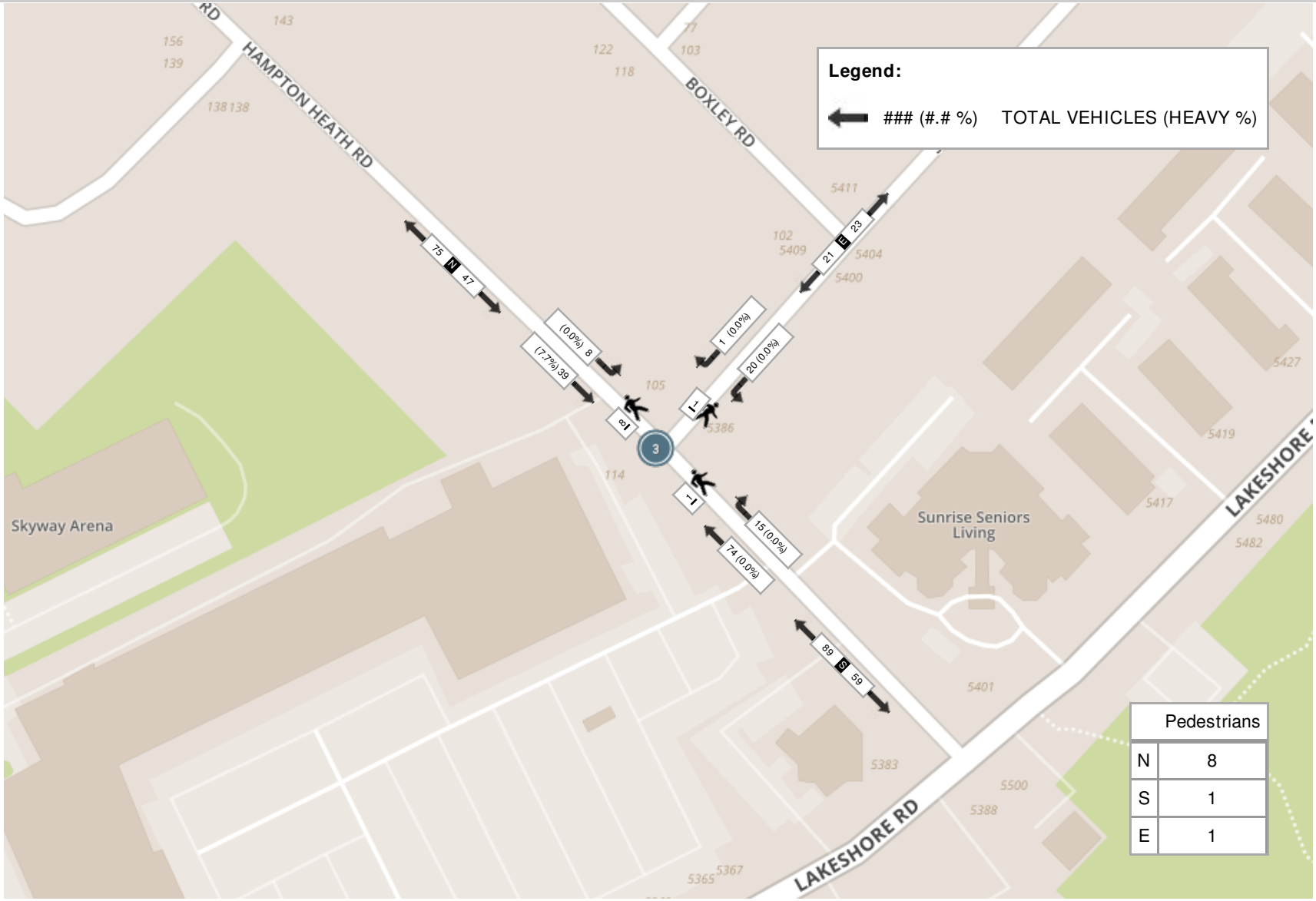
Peak Hour: 04:15 PM - 05:15 PM Weather: Mostly Cloudy (-4.2 °C)

Start Time	N Approach HAMPTON HEATH RD					E Approach STRATTON RD					S Approach HAMPTON HEATH RD					Int. Total (15 min)
	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	
16:15:00	11	1	0	4	12	0	6	0	1	6	3	16	0	0	19	37
16:30:00	11	2	0	1	13	1	6	0	0	7	3	18	0	0	21	41
16:45:00	12	4	0	3	16	0	7	0	0	7	5	16	0	1	21	44
17:00:00	5	1	0	0	6	0	1	0	0	1	4	24	0	0	28	35
Grand Total	39	8	0	8	47	1	20	0	1	21	15	74	0	1	89	**157**
Approach%	83%	17%	0%		-	4.8%	95.2%	0%		-	16.9%	83.1%	0%		-	**-**
Totals %	24.8%	5.1%	0%		29.9%	0.6%	12.7%	0%		13.4%	9.6%	47.1%	0%		56.7%	**-**
PHF	0.81	0.5	0		0.73	0.25	0.71	0		0.75	0.75	0.77	0		0.79	**-**
Heavy	3	0	0		3	0	0	0		0	0	0	0		0	**-**
Heavy %	7.7%	0%	0%		6.4%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Lights	36	8	0		44	1	20	0		21	15	74	0		89	**-**
Lights %	92.3%	100%	0%		93.6%	100%	100%	0%		100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	0	0	0		0	0	0	0		0	0	0	0		0	**-**
Single-Unit Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Buses	2	0	0		2	0	0	0		0	0	0	0		0	**-**
Buses %	5.1%	0%	0%		4.3%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Articulated Trucks	1	0	0		1	0	0	0		0	0	0	0		0	**-**
Articulated Trucks %	2.6%	0%	0%		2.1%	0%	0%	0%		0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	8	-	-	-	-	1	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	80%		-	-	-	10%		-	-	-	10%		**-**
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 08:15 AM - 09:15 AM Weather: Unknown (-4.3 °C)



Peak Hour: 04:15 PM - 05:15 PM Weather: Mostly Cloudy (-4.2 °C)



Turning Movement Count (3 . STRATTON RD & HAMPTON HEATH RD)

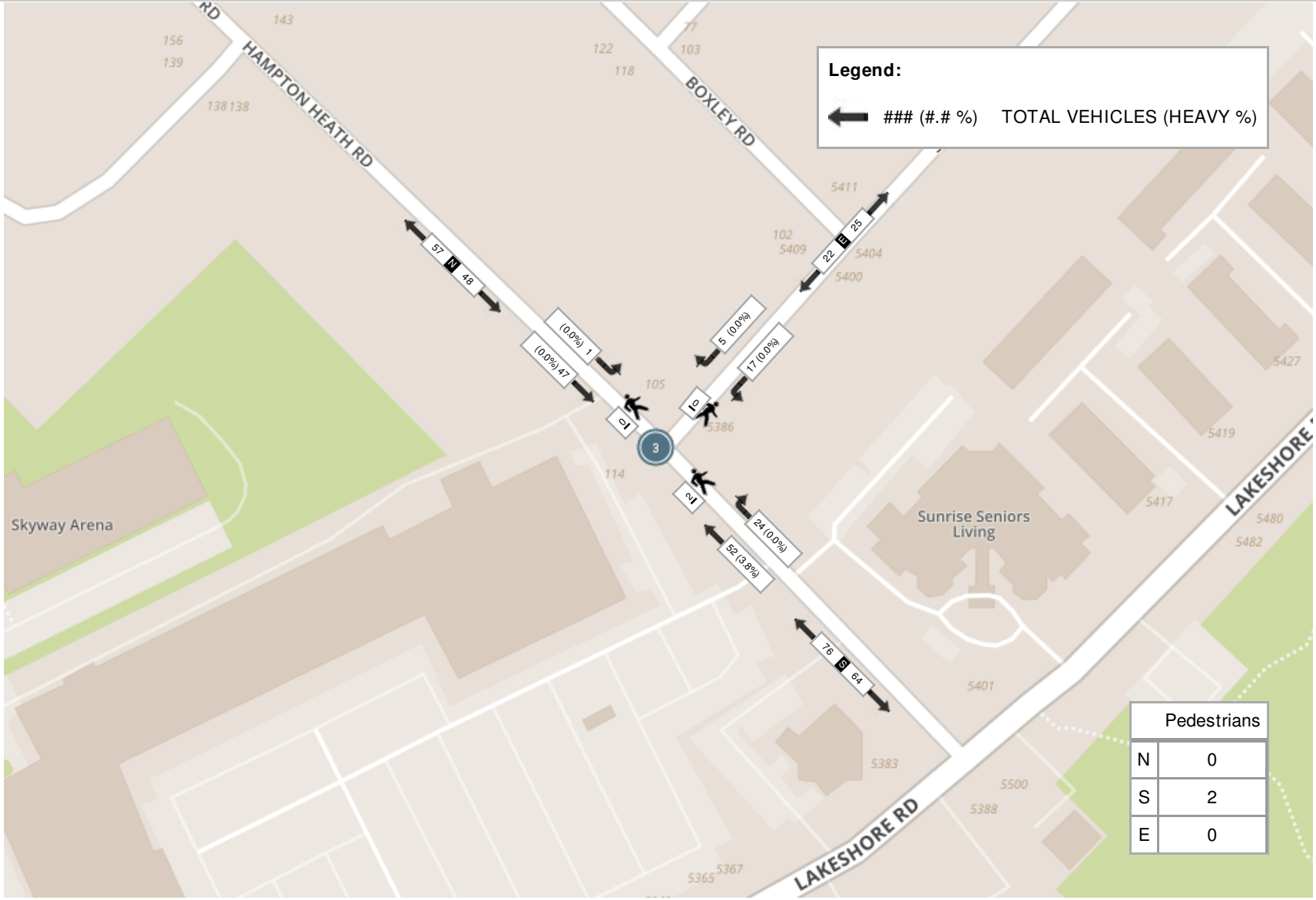
Start Time	N Approach HAMPTON HEATH RD					E Approach STRATTON RD					S Approach HAMPTON HEATH RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	U-Turn S:S	Peds S:	Approach Total		
10:00:00	14	1	0	1	15	2	6	0	0	8	2	12	0	0	14	37	
10:15:00	14	3	0	1	17	1	6	0	1	7	1	10	0	1	11	35	
10:30:00	12	0	0	1	12	1	3	0	2	4	7	7	0	1	14	30	
10:45:00	13	1	0	1	14	0	2	0	0	2	6	8	0	0	14	30	132
11:00:00	10	2	0	0	12	1	4	0	2	5	2	15	0	1	17	34	129
11:15:00	9	0	0	0	9	2	5	0	0	7	4	10	0	0	14	30	124
11:30:00	16	1	0	0	17	0	4	0	1	4	1	16	0	0	17	38	132
11:45:00	17	0	0	0	17	1	1	0	2	2	6	14	0	0	20	39	141
12:00:00	6	0	0	0	6	1	5	0	0	6	6	18	0	0	24	36	143
12:15:00	14	0	0	0	14	2	4	0	0	6	3	10	0	2	13	33	146
12:30:00	13	0	0	0	13	0	4	0	0	4	7	11	0	0	18	35	143
12:45:00	14	1	0	0	15	2	4	0	0	6	8	13	0	0	21	42	146
13:00:00	5	0	0	0	5	0	4	0	0	4	4	17	0	2	21	30	140
13:15:00	9	4	0	0	13	1	5	0	0	6	4	10	0	0	14	33	140
13:30:00	11	0	0	0	11	0	3	0	0	3	6	15	0	0	21	35	140
13:45:00	18	0	0	0	18	2	3	0	0	5	2	12	0	2	14	37	135
14:00:00	14	1	0	0	15	1	4	0	1	5	4	12	0	0	16	36	141
14:15:00	9	1	0	0	10	0	2	0	0	2	3	15	0	1	18	30	138
14:30:00	11	0	0	0	11	2	3	0	0	5	4	11	0	0	15	31	134
14:45:00	14	0	0	1	14	1	3	0	1	4	3	8	0	2	11	29	126
Grand Total	243	15	0	5	258	20	75	0	10	95	83	244	0	12	327	**680**	-
Approach%	94.2%	5.8%	0%		-	21.1%	78.9%	0%		-	25.4%	74.6%	0%		-	**-**	-
Totals %	35.7%	2.2%	0%		37.9%	2.9%	11%	0%		14%	12.2%	35.9%	0%		48.1%	**-**	-
Heavy	0	0	0		-	0	0	0		-	0	3	0		-	**-**	-

Heavy %	0%	0%	0%	-	0%	0%	0%	-	0%	1.2%	0%	-	-	-
Bicycles	0	0	0	-	0	0	0	-	0	0	0	-	-	-
Bicycle %	0%	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	-	-

Peak Hour: 12:00 PM - 01:00 PM Weather: Partly Cloudy (-4.4 °C)

Start Time	N Approach HAMPTON HEATH RD					E Approach STRATTON RD					S Approach HAMPTON HEATH RD					Int. Total (15 min)
	Thru	Left	U-Turn	Peds	Approach Total	Right	Left	U-Turn	Peds	Approach Total	Right	Thru	U-Turn	Peds	Approach Total	
12:00:00	6	0	0	0	6	1	5	0	0	6	6	18	0	0	24	36
12:15:00	14	0	0	0	14	2	4	0	0	6	3	10	0	2	13	33
12:30:00	13	0	0	0	13	0	4	0	0	4	7	11	0	0	18	35
12:45:00	14	1	0	0	15	2	4	0	0	6	8	13	0	0	21	42
Grand Total	47	1	0	0	48	5	17	0	0	22	24	52	0	2	76	**146**
Approach%	97.9%	2.1%	0%		-	22.7%	77.3%	0%		-	31.6%	68.4%	0%		-	**-**
Totals %	32.2%	0.7%	0%		32.9%	3.4%	11.6%	0%		15.1%	16.4%	35.6%	0%		52.1%	**-**
PHF	0.84	0.25	0		0.8	0.63	0.85	0		0.92	0.75	0.72	0		0.79	**-**
Heavy	0	0	0		0	0	0	0		0	0	2	0		2	**-**
Heavy %	0%	0%	0%		0%	0%	0%	0%		0%	0%	3.8%	0%		2.6%	**-**
Lights	47	1	0		48	5	17	0		22	24	50	0		74	**-**
Lights %	100%	100%	0%		100%	100%	100%	0%		100%	100%	96.2%	0%		97.4%	**-**
Buses	0	0	0		0	0	0	0		0	0	1	0		1	**-**
Buses %	0%	0%	0%		0%	0%	0%	0%		0%	0%	1.9%	0%		1.3%	**-**
Articulated Trucks	0	0	0		0	0	0	0		0	0	1	0		1	**-**
Articulated Trucks %	0%	0%	0%		0%	0%	0%	0%		0%	0%	1.9%	0%		1.3%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	100%		**-**
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 12:00 PM - 01:00 PM Weather: Partly Cloudy (-4.4 °C)



Intersection Name:	TS ID:	Line No:	IP address:
Lakeshore Road @ Kenwood Avenue	317	6	172.22.50.2

Controller Make:	Model:
Econolite	ACS/3

Type of Operation: 4 Phase Semi-Actuated

No	Date Y	M	D	Description	Prepared by BP
1	2015	4	21	Implement timings in Centracs	

*- Start from Main Manu

PHASE DESCRIPTION

Ph1		Ph5	
Ph2	EB / WB - Lakeshore Road	Ph6	
Ph3		Ph7	
Ph4	SB - Kenwood Avenue	Ph8	

CONFIGURATION (PHASE SEQ): PHASE IN USE/EXCLUSIVE PED (MM) *- 1 - 2

Phase:	1	2	3	4	5	6	7	8
Phase in Use :		X		X				
Exclusive PED :								

CONTROLLER TIMING DATA - VEHICLE TIMING * - 2 - 1

Timing Plan: 1

Phase:	1	2	3	4	5	6	7	8
Minimum Green :		8		8				
Walk :		18		15				
Ped. Clearance :		12		11				
Vehicle Extension :		3		3				
MAX 1 :		35		20				
MAX 2 :		35		20				
Yellow Change :		4		4				
Red Clearance :		2		2				

PHASE DATA - VEHICLE AND PEDESTRIAN RECALLS * - 2 - 8

Phase:	1	2	3	4	5	6	7	8
Lock Detector :		X						
Vehicle Recall :		X						
Pedestrian Recall :		X						
MAX Recall :		X						
Soft Recall :								

COORDINATION: COORDINATOR PATTERN, SPLIT PATTERN * - 3 - 2, - 3 - 3

Coordinator Pattern (CP)	Cycle Length	Offset (sec)	Timing Plan	Split Pattern	Phases (sec) 1	2	3	4	5	6	7	8
1	75	59	1	1		40		35				
3	85	29	1	3		50		35				
10	0	0	1	10		0		0				

Intersection Name:	TS ID:	Line No:	IP address:
Lakeshore Road @ Kenwood Avenue	317	6	172.22.50.2

Controller Make:	Model:
Econolite	ACS/3

CP # 1, 2, 10	Phase:	1	2	3	4	5	6	7	8
Coord Phase	:		X						
Vehicle Recall	:								
Pedestrian Recall *(3-3, 5-2)	:		X						
Recall to MAX Time	:								
Phase Omit	:								
Special Function Outputs	:								

Coordinator Pattern #	Prefer.	Phase							
		1	2	3	4	5	6	7	8
	1								
	2								

X - select "." deselect

TIME BASE: ACTION PLAN, DAY PLAN *** - 5 - 2, - 5 - 3, -5 - 4**

Day Plan	Sched. #	Action Plan	Time Period	Pattern	Timing Plan
1	1	1	07:00	1	1
1	1	10	09:00	254	1
1	1	3	15:30	3	1
1	1	10	19:00	254	1
2	2	1	10:00	1	1
2	2	10	18:30	254	1
3	3	1	11:30	1	1
3	3	10	18:30	254	1

Schedule 1 = Day Plan 1
Schedule 2 = Day Plan 2
Schedule 3 = Day Plan 3

Day Plan 1 (Weekday)
Day Plan 2 (Saturday)
Day Plan 3 (Sunday, Holidays)

Action Plan 10 = free (254)

TIME BASE DATA - TIME OF YEAR EVENTS *** - 5 - 5**

Events	Exception Day		MON/ MON	DOW/ DOW	WOM/ Year	Day Plan
New Year's Day	1	Fixed	1	1	0	3
Family Day	2	Float	2	2	3	3
Good Friday	3	Float	4	6	1	3
Victoria Day	4	Float	5	2	3	3
Canada Day	5	Fixed	7	1	0	3
Civic Day	6	Float	8	2	1	3
Labour Day	7	Float	9	2	1	3
Thanksgiving	8	Float	10	2	2	3
Christmas Day	9	Fixed	12	25	0	3

USER : Alexander Fleming - CF Crozier and Associates
DATE : Jan 23 2017 (11:24:49)
DATA : 2011 TTS V1.0 Trips
TABLE : gta06_dest (4075) AM Destination Zone
FILTER 1 : start_time => 700-1000
FILTER 2 : gta06_dest => 4075
ROW : pd_orig
COLUMN : mode_prime

	Auto driver	%
Oakville	160	26%
Burlington	425	70%
Niagara Falls	22	4%
Total	607	

USER : Alexander Fleming - CF Crozier and Associates
DATE : Jan 23 2017 (11:29:48)
DATA : 2011 TTS V1.0 Trips
TABLE : gta06_dest (4075) PM Destination Zone
FILTER 1 : start_time => 1500-1900
FILTER 2 : gta06_dest => 4075
ROW : pd_orig
COLUMN : mode_prime

	Auto driver	%
PD 1 of Toronto	0	0%
PD 2 of Toronto	11	1%
PD 7 of Toronto	34	2%
PD 8 of Toronto	22	1%
Vaughan	34	2%
Brampton	26	1%
Mississauga	149	7%
Milton	16	1%
Oakville	427	21%
Burlington	1084	53%
Ancaster	24	1%
Hamilton	222	11%
Total	2049	

USER : Alexander Fleming - CF Crozier and Associates
DATE : Jan 23 2017 (11:32:42)
DATA : 2011 TTS V1.0 Trips
TABLE : gta06_orig (4075) AM Origin Zone
FILTER 1 : start_time => 700-1000
FILTER 2 : gta06_orig => 4075
ROW : pd_dest
COLUMN : mode_prime

	Auto driver	%
PD 1 of Toronto	26	2%
PD 7 of Toronto	34	2%
Brampton	26	2%
Mississauga	74	5%
Halton Hills	16	1%
Oakville	292	20%
Burlington	671	47%
Hamilton	290	20%
Total	1429	

USER : Alexander Fleming - CF Crozier and Associates
DATE : Jan 23 2017 (11:36:11)
DATA : 2011 TTS V1.0 Trips
TABLE : gta06_orig (4075) PM Origin Zone
FILTER 1 : start_time => 1500-1900
FILTER 2 : gta06_orig => 4075
ROW : pd_dest
COLUMN : mode_prime

	Auto driver	%
Brampton	28	3%
Milton	32	3%
Oakville	273	25%
Burlington	728	66%
Stoney Creek	22	2%
Hamilton	26	2%
Total	1109	

APPENDIX D

Levels of Service Definitions

Level of Service Definitions

Two-Way Stop Controlled Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	EXCELLENT. Large and frequent gaps in traffic on the main roadway. Queuing on the minor street is rare.
B	> 10 and ≤ 15	VERY GOOD. Many gaps exist in traffic on the main roadway. Queuing on the minor street is minimal.
C	> 15 and ≤ 25	GOOD. Fewer gaps exist in traffic on the main roadway. Delay on minor approach becomes more noticeable.
D	> 25 and ≤ 35	FAIR. Infrequent and shorter gaps in traffic on the main roadway. Queue lengths develop on the minor street.
E	> 35 and ≤ 50	POOR. Very infrequent gaps in traffic on the main roadway. Queue lengths become noticeable.
F	> 50	UNSATISFACTORY. Very few gaps in traffic on the main roadway. Excessive delay with significant queue lengths on the minor street.

Adapted from Highway Capacity Manual 2000, Transportation Research Board

Level of Service Definitions

Signalized Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	EXCELLENT. Extremely favourable progression with most vehicles arriving during the green phase. Most vehicles do not stop and short cycle lengths may contribute to low delay.
B	> 10 and ≤ 20	VERY GOOD. Very good progression and/or short cycle lengths with slightly more vehicles stopping than LOS "A" causing slightly higher levels of average delay.
C	> 20 and ≤ 35	GOOD. Fair progression and longer cycle lengths lead to a greater number of vehicles stopping than LOS "B".
D	> 35 and ≤ 55	FAIR. Congestion becomes noticeable with higher average delays resulting from a combination of long cycle lengths, high volume-to-capacity ratios and unfavourable progression.
E	> 55 and ≤ 80	POOR. Lengthy delays values are indicative of poor progression, long cycle lengths and high volume-to-capacity ratios. Individual cycle failures are common with individual movement failures also common.
F	> 80	UNSATISFACTORY. Indicative of oversaturated conditions with vehicular demand greater than the capacity of the intersection.

Adapted from Highway Capacity Manual 2000, Transportation Research Board

APPENDIX E

Detailed Capacity Analysis

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	22.0	62.8	36.8	8.9	17.6	15.9
Average Queue (m)	5.5	23.6	12.0	0.5	7.4	6.9
95th Queue (m)	15.3	46.5	27.3	4.0	15.1	14.5
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	1			0	0
Queuing Penalty (veh)	0	0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	15.5	20.6
Average Queue (m)	2.6	11.1
95th Queue (m)	11.2	17.0
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	46.0	10.6	19.1
Average Queue (m)	8.3	1.5	10.4
95th Queue (m)	26.5	7.2	16.5
Link Distance (m)	93.6	53.4	60.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (m)	9.2	9.1	17.4
Average Queue (m)	1.1	3.8	5.2
95th Queue (m)	6.1	10.0	12.6
Link Distance (m)			67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)	40.0	50.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.3	12.3	12.5
Average Queue (m)	4.3	5.3	1.4
95th Queue (m)	11.6	12.8	7.3
Link Distance (m)	81.8	79.8	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.1	9.1	4.6	1.8
Average Queue (m)	7.5	0.4	0.2	0.1
95th Queue (m)	15.7	3.4	2.6	1.1
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB
Directions Served	LR
Maximum Queue (m)	18.1
Average Queue (m)	4.2
95th Queue (m)	12.7
Link Distance (m)	127.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.2	2.3
Average Queue (m)	2.0	0.1
95th Queue (m)	7.6	1.4
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	26.4	20.6	19.1	24.9
Average Queue (m)	12.6	10.2	10.6	11.9
95th Queue (m)	20.6	17.3	15.5	19.9
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

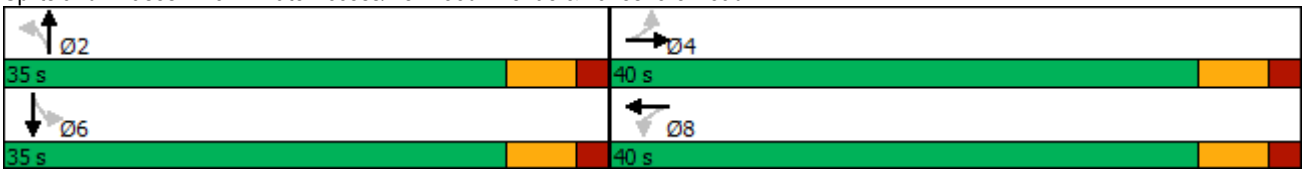
Network wide Queuing Penalty: 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	632	8	1	306	32	1	0	2	45	0	39
Future Volume (vph)	47	632	8	1	306	32	1	0	2	45	0	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.987			0.910			0.850	
Flt Protected	0.950							0.984		0.950		
Satd. Flow (prot)	1706	1899	0	0	1850	0	0	1720	0	1825	1555	0
Flt Permitted	0.542				0.999			0.872		0.784		
Satd. Flow (perm)	973	1899	0	0	1849	0	0	1524	0	1506	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			9			44			423	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	1%	0%	0%	2%	7%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	51	687	9	1	333	35	1	0	2	49	0	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	696	0	0	369	0	0	3	0	49	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	42.6	42.6			42.6			8.3		8.3	8.3	
Actuated g/C Ratio	0.78	0.78			0.78			0.15		0.15	0.15	
v/c Ratio	0.07	0.47			0.26			0.01		0.21	0.07	
Control Delay	4.2	6.1			4.3			0.0		22.8	0.2	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.2	6.1			4.3			0.0		22.8	0.2	
LOS	A	A			A			A		C	A	
Approach Delay		6.0			4.3						12.4	
Approach LOS		A			A						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 54.9			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 5.9		Intersection LOS: A	
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	99	59	52	102	49	61
Future Vol, veh/h	99	59	52	102	49	61
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, %	5	0	6	7	2	2
Mvmt Flow	108	64	57	111	53	66

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	172	0	365	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	225	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1381	-	635	908
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1381	-	607	908
Mov Cap-2 Maneuver	-	-	-	-	607	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	744	-	-	1381	-
HCM Lane V/C Ratio	0.161	-	-	0.041	-
HCM Control Delay (s)	10.8	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	605	2	0	288	38	3	0	2	35	0	48
Future Vol, veh/h	72	605	2	0	288	38	3	0	2	35	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	4	0	0	0	0	0	0
Mvmt Flow	78	658	2	0	313	41	3	0	2	38	0	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	660	0	0	1175	1169	659	1150	1150	334
Stage 1	-	-	-	-	-	-	815	815	-	334	334	-
Stage 2	-	-	-	-	-	-	360	354	-	816	816	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1216	-	-	938	-	-	170	195	467	177	200	712
Stage 1	-	-	-	-	-	-	374	394	-	684	647	-
Stage 2	-	-	-	-	-	-	662	634	-	374	393	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1216	-	-	938	-	-	145	175	467	162	180	712
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	271	-	262	280	-
Stage 1	-	-	-	-	-	-	336	354	-	615	647	-
Stage 2	-	-	-	-	-	-	613	634	-	335	353	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	17	16.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	1216	-	-	938	-	-	413
HCM Lane V/C Ratio	0.018	0.064	-	-	-	-	-	0.218
HCM Control Delay (s)	17	8.2	0	-	0	-	-	16.1
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	630	294	17	21	32
Future Vol, veh/h	12	630	294	17	21	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	400	-	-	0	500	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	1	0	0	10
Mvmt Flow	13	685	320	18	23	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	338	0	-	0	1031	320
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	711	-
Critical Hdwy	4.1	-	-	-	6.4	6.3
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.39
Pot Cap-1 Maneuver	1232	-	-	-	261	703
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1232	-	-	-	258	703
Mov Cap-2 Maneuver	-	-	-	-	372	-
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	490	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1232	-	-	-	372	703
HCM Lane V/C Ratio	0.011	-	-	-	0.061	0.049
HCM Control Delay (s)	8	-	-	-	15.3	10.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	1	12	9	0	19	2	64	13	41	63	1
Future Vol, veh/h	8	1	12	9	0	19	2	64	13	41	63	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	11	0	0	0	6	8	0	2	0
Mvmt Flow	9	1	13	10	0	21	2	70	14	45	68	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	251	247	69	247	240	77	69	0	0	84	0	0
Stage 1	159	159	-	81	81	-	-	-	-	-	-	-
Stage 2	92	88	-	166	159	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	707	659	1000	688	665	990	1545	-	-	1526	-	-
Stage 1	848	770	-	906	832	-	-	-	-	-	-	-
Stage 2	920	826	-	815	770	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	675	638	1000	662	644	990	1545	-	-	1526	-	-
Mov Cap-2 Maneuver	697	639	-	675	647	-	-	-	-	-	-	-
Stage 1	847	746	-	905	831	-	-	-	-	-	-	-
Stage 2	900	825	-	778	746	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.3	0.2	2.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1545	-	-	839	861	1526	-	-
HCM Lane V/C Ratio	0.001	-	-	0.027	0.035	0.029	-	-
HCM Control Delay (s)	7.3	0	-	9.4	9.3	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	0	16	1	1	0	14	13	2	1	36	28
Future Vol, veh/h	27	0	16	1	1	0	14	13	2	1	36	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0	8	28	0	0	6	0
Mvmt Flow	29	0	17	1	1	0	15	14	2	1	39	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	102	102	54	110	116	15	69	0	0	16	0	0
Stage 1	56	56	-	45	45	-	-	-	-	-	-	-
Stage 2	46	46	-	65	71	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	884	792	1005	873	778	1070	1495	-	-	1615	-	-
Stage 1	961	852	-	974	861	-	-	-	-	-	-	-
Stage 2	973	861	-	951	840	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	875	783	1005	850	769	1070	1495	-	-	1615	-	-
Mov Cap-2 Maneuver	836	746	-	815	732	-	-	-	-	-	-	-
Stage 1	951	851	-	964	852	-	-	-	-	-	-	-
Stage 2	962	852	-	934	839	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9.7	3.6	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1495	-	-	892	771	1615	-	-
HCM Lane V/C Ratio	0.01	-	-	0.052	0.003	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.3	9.7	7.2	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	6	30	10	7	53
Future Vol, veh/h	12	6	30	10	7	53
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	13	9	0	8
Mvmt Flow	13	7	33	11	8	58

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	113	39	0	0	44	0
Stage 1	39	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	872	1038	-	-	1577	-
Stage 1	971	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	868	1038	-	-	1577	-
Mov Cap-2 Maneuver	826	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	886	1577	-
HCM Lane V/C Ratio	-	-	0.022	0.005	-
HCM Control Delay (s)	-	-	9.2	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	4	4	32	56	6
Future Vol, veh/h	6	4	4	32	56	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	25	6	8	0
Mvmt Flow	7	4	4	35	61	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	108	65	68	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.35	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	894	1005	1399	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	891	1005	1399	-	-	-
Mov Cap-2 Maneuver	891	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1399	-	933	-	-
HCM Lane V/C Ratio	0.003	-	0.012	-	-
HCM Control Delay (s)	7.6	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	54	16	6	69	13	26	66	11	11	41	59
Future Vol, veh/h	92	54	16	6	69	13	26	66	11	11	41	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	6	0	0	6	0	4	3	0	9	7	8
Mvmt Flow	100	59	17	7	75	14	28	72	12	12	45	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	8.3	8.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	57%	7%	10%
Vol Thru, %	64%	33%	78%	37%
Vol Right, %	11%	10%	15%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	162	88	111
LT Vol	26	92	6	11
Through Vol	66	54	69	41
RT Vol	11	16	13	59
Lane Flow Rate	112	176	96	121
Geometry Grp	1	1	1	1
Degree of Util (X)	0.147	0.228	0.122	0.152
Departure Headway (Hd)	4.739	4.666	4.585	4.533
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	756	770	781	790
Service Time	2.775	2.697	2.62	2.568
HCM Lane V/C Ratio	0.148	0.229	0.123	0.153
HCM Control Delay	8.6	9.1	8.3	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.9	0.4	0.5

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	17.1	31.8	80.9	23.2	15.2	14.6
Average Queue (m)	5.2	11.8	33.8	4.2	5.0	6.0
95th Queue (m)	13.8	26.8	69.3	14.3	13.4	14.5
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)		0			0	0
Queuing Penalty (veh)		0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	11.0	16.6
Average Queue (m)	1.1	9.1
95th Queue (m)	6.4	15.4
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	44.7	18.7	9.1	33.4
Average Queue (m)	12.1	1.2	2.3	13.6
95th Queue (m)	29.9	8.7	8.6	25.6
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (m)	11.1	13.9	14.9
Average Queue (m)	3.7	4.8	4.0
95th Queue (m)	11.2	11.9	10.6
Link Distance (m)			67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)	40.0	50.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.9	10.9	4.6	6.0
Average Queue (m)	2.2	6.3	0.2	0.4
95th Queue (m)	8.7	13.1	2.6	3.9
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	14.8	9.2	6.9
Average Queue (m)	9.3	1.6	0.5
95th Queue (m)	13.6	7.4	3.8
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB	SB
Directions Served	LR	L	T
Maximum Queue (m)	10.9	6.6	5.8
Average Queue (m)	4.1	0.3	0.2
95th Queue (m)	11.7	3.1	3.7
Link Distance (m)	127.7	16.2	16.2
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	8.3
Average Queue (m)	4.1
95th Queue (m)	10.6
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

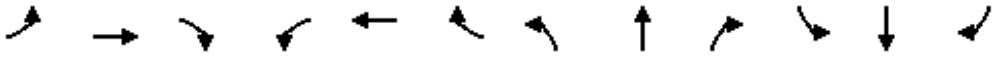
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.6	17.6	14.7	22.6
Average Queue (m)	9.1	9.8	8.7	11.1
95th Queue (m)	14.4	15.4	13.2	17.4
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

Network wide Queuing Penalty: 0

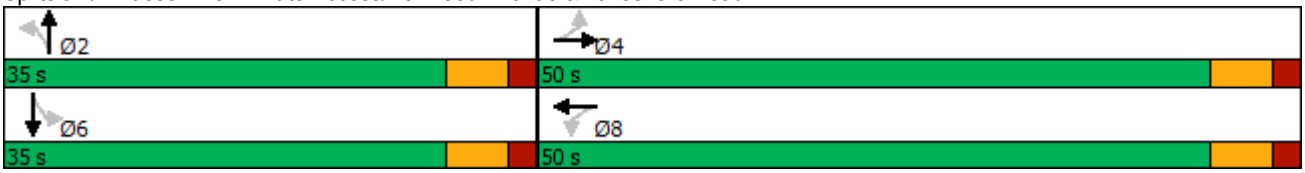


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	354	3	8	751	41	14	0	4	20	1	33
Future Volume (vph)	26	354	3	8	751	41	14	0	4	20	1	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.972			0.854	
Flt Protected	0.950				0.999			0.962		0.950		
Satd. Flow (prot)	1825	1882	0	0	1886	0	0	1707	0	1825	1579	0
Flt Permitted	0.357				0.996			0.746		0.833		
Satd. Flow (perm)	686	1882	0	0	1880	0	0	1323	0	1600	1579	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			39			36	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	28	385	3	9	816	45	15	0	4	22	1	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	388	0	0	870	0	0	19	0	22	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		35.0	35.0	
Total Split (%)	58.8%	58.8%		58.8%	58.8%		41.2%	41.2%		41.2%	41.2%	
Maximum Green (s)	44.0	44.0		44.0	44.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	53.6	53.6			53.6			8.0		8.0	8.0	
Actuated g/C Ratio	0.82	0.82			0.82			0.12		0.12	0.12	
v/c Ratio	0.05	0.25			0.57			0.10		0.11	0.17	
Control Delay	3.4	3.4			6.2			5.6		26.9	12.0	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.4	3.4			6.2			5.6		26.9	12.0	
LOS	A	A			A			A		C	B	
Approach Delay		3.4			6.2			5.6			17.6	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 65.6			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	48	48	44	72	37	36
Future Vol, veh/h	48	48	44	72	37	36
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, %	4	0	2	6	0	0
Mvmt Flow	52	52	48	78	40	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	252	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1488	-	741	988
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	861	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1488	-	716	988
Mov Cap-2 Maneuver	-	-	-	-	716	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	861	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	828	-	-	1488	-
HCM Lane V/C Ratio	0.096	-	-	0.032	-
HCM Control Delay (s)	9.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	59	317	2	4	722	31	3	0	3	26	0	75
Future Vol, veh/h	59	317	2	4	722	31	3	0	3	26	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	64	345	2	4	785	34	3	0	3	28	0	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	819	0	0	347	0	0	1325	1301	346	1286	1285	802
Stage 1	-	-	-	-	-	-	474	474	-	810	810	-
Stage 2	-	-	-	-	-	-	851	827	-	476	475	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	818	-	-	1223	-	-	134	162	702	143	166	387
Stage 1	-	-	-	-	-	-	575	561	-	377	396	-
Stage 2	-	-	-	-	-	-	358	389	-	574	561	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	818	-	-	1223	-	-	97	145	702	131	149	387
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	241	-	243	268	-
Stage 1	-	-	-	-	-	-	519	507	-	340	394	-
Stage 2	-	-	-	-	-	-	281	387	-	516	507	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	18.2	20.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	279	818	-	-	1223	-	-	336
HCM Lane V/C Ratio	0.023	0.078	-	-	0.004	-	-	0.327
HCM Control Delay (s)	18.2	9.8	0	-	8	0	-	20.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	1.4

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	324	727	62	28	30
Future Vol, veh/h	22	324	727	62	28	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	400	-	-	0	500	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	1	0	0	7
Mvmt Flow	24	352	790	67	30	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	857	0	-	0	1190	790
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	4.1	-	-	-	6.4	6.27
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.363
Pot Cap-1 Maneuver	792	-	-	-	209	382
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	792	-	-	-	203	382
Mov Cap-2 Maneuver	-	-	-	-	326	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	681	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	792	-	-	-	326	382
HCM Lane V/C Ratio	0.03	-	-	-	0.093	0.085
HCM Control Delay (s)	9.7	-	-	-	17.2	15.3
HCM Lane LOS	A	-	-	-	C	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.3

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	6	11	1	27	15	42	10	25	37	8
Future Vol, veh/h	4	0	6	11	1	27	15	42	10	25	37	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	0	7	12	1	29	16	46	11	27	40	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	198	188	45	186	187	52	49	0	0	57	0	0
Stage 1	99	99	-	84	84	-	-	-	-	-	-	-
Stage 2	99	89	-	102	103	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	765	710	1031	779	711	1021	1571	-	-	1560	-	-
Stage 1	912	817	-	929	829	-	-	-	-	-	-	-
Stage 2	912	825	-	909	814	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	726	689	1031	757	690	1021	1571	-	-	1560	-	-
Mov Cap-2 Maneuver	729	677	-	752	679	-	-	-	-	-	-	-
Stage 1	902	802	-	919	820	-	-	-	-	-	-	-
Stage 2	875	816	-	887	799	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.1	1.6	2.6
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	884	917	1560	-	-
HCM Lane V/C Ratio	0.01	-	-	0.012	0.046	0.017	-	-
HCM Control Delay (s)	7.3	0	-	9.1	9.1	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	0	35	4	3	0	44	39	1	1	19	30
Future Vol, veh/h	52	0	35	4	3	0	44	39	1	1	19	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	57	0	38	4	3	0	48	42	1	1	21	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	180	179	38	198	195	43	54	0	0	43	0	0
Stage 1	40	40	-	139	139	-	-	-	-	-	-	-
Stage 2	140	139	-	59	56	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	786	718	1040	765	704	1033	1564	-	-	1579	-	-
Stage 1	980	866	-	869	785	-	-	-	-	-	-	-
Stage 2	868	785	-	958	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	764	695	1040	719	681	1033	1564	-	-	1579	-	-
Mov Cap-2 Maneuver	745	677	-	719	666	-	-	-	-	-	-	-
Stage 1	950	865	-	842	761	-	-	-	-	-	-	-
Stage 2	837	761	-	922	851	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.2	3.9	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1564	-	-	841	695	1579	-	-
HCM Lane V/C Ratio	0.031	-	-	0.112	0.011	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.8	10.2	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	2	75	16	8	33
Future Vol, veh/h	17	2	75	16	8	33
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	18	2	82	17	9	36

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	145	91	0	0	99	0
Stage 1	91	-	-	-	-	-
Stage 2	54	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	852	972	-	-	1507	-
Stage 1	938	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	847	972	-	-	1507	-
Mov Cap-2 Maneuver	818	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	832	1507	-
HCM Lane V/C Ratio	-	-	0.025	0.006	-
HCM Control Delay (s)	-	-	9.4	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	9	1	78	32	19
Future Vol, veh/h	12	9	1	78	32	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	13	10	1	85	35	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	133	46	56	0	-	0
Stage 1	46	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	866	1029	1562	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	865	1029	1562	-	-	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1562	-	928	-	-
HCM Lane V/C Ratio	0.001	-	0.025	-	-
HCM Control Delay (s)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	33	12	14	63	9	8	68	9	19	81	41
Future Vol, veh/h	37	33	12	14	63	9	8	68	9	19	81	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	40	36	13	15	68	10	9	74	10	21	88	45
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	8	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	45%	16%	13%
Vol Thru, %	80%	40%	73%	57%
Vol Right, %	11%	15%	10%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	82	86	141
LT Vol	8	37	14	19
Through Vol	68	33	63	81
RT Vol	9	12	9	41
Lane Flow Rate	92	89	93	153
Geometry Grp	1	1	1	1
Degree of Util (X)	0.114	0.113	0.117	0.182
Departure Headway (Hd)	4.447	4.56	4.523	4.282
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	807	787	794	840
Service Time	2.469	2.583	2.546	2.301
HCM Lane V/C Ratio	0.114	0.113	0.117	0.182
HCM Control Delay	8	8.2	8.1	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.4	0.4	0.7

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	15.4	40.8	44.0	13.4	16.7	22.2
Average Queue (m)	4.9	16.5	17.9	3.0	5.1	7.9
95th Queue (m)	12.8	32.8	37.7	10.4	13.6	16.8
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)		0			0	1
Queuing Penalty (veh)		0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	6.9	16.6
Average Queue (m)	0.5	9.1
95th Queue (m)	3.8	15.3
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	30.3	4.4	9.2	20.4
Average Queue (m)	8.1	0.1	2.4	10.7
95th Queue (m)	22.3	2.0	9.1	17.4
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	WB	SB	SB
Directions Served	L	R	L	R
Maximum Queue (m)	12.3	3.7	13.7	9.3
Average Queue (m)	2.4	0.1	7.3	4.2
95th Queue (m)	9.3	1.7	12.5	9.2
Link Distance (m)				67.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	40.0		50.0	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	10.8	6.9	8.9
Average Queue (m)	2.4	6.2	0.3	0.5
95th Queue (m)	8.9	13.0	3.0	4.0
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.6	9.2	9.2	2.2
Average Queue (m)	9.5	4.1	1.0	0.1
95th Queue (m)	14.6	11.4	5.6	1.4
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB
Directions Served	LR
Maximum Queue (m)	9.2
Average Queue (m)	4.1
95th Queue (m)	11.3
Link Distance (m)	127.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	8.3
Average Queue (m)	4.5
95th Queue (m)	11.1
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.4	12.9	16.5	17.4
Average Queue (m)	8.9	7.7	9.7	9.9
95th Queue (m)	15.4	14.6	14.4	14.8
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

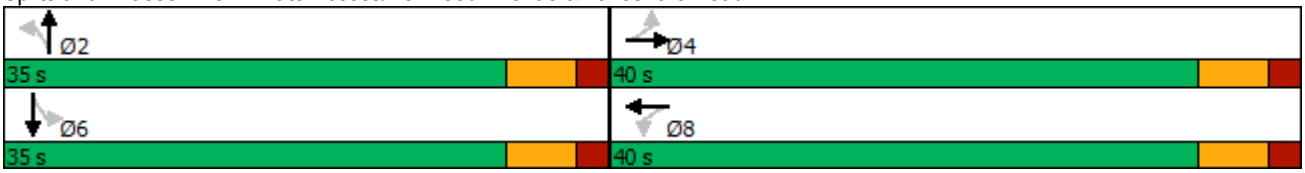
Network wide Queuing Penalty: 0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	379	10	10	400	35	10	0	9	29	2	44
Future Volume (vph)	34	379	10	10	400	35	10	0	9	29	2	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.989			0.936			0.856	
Flt Protected	0.950				0.999			0.974		0.950		
Satd. Flow (prot)	1825	1895	0	0	1898	0	0	1664	0	1825	1612	0
Flt Permitted	0.532				0.990			0.809		0.816		
Satd. Flow (perm)	1022	1895	0	0	1881	0	0	1382	0	1568	1612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			7			44			48	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	37	412	11	11	435	38	11	0	10	32	2	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	423	0	0	484	0	0	21	0	32	50	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	40.0	40.0		40.0	40.0		35.0	35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.0	34.0		34.0	34.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	42.3	42.3			42.3			8.1		8.1	8.1	
Actuated g/C Ratio	0.78	0.78			0.78			0.15		0.15	0.15	
v/c Ratio	0.05	0.29			0.33			0.09		0.14	0.18	
Control Delay	4.0	4.4			4.6			4.4		21.7	9.5	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.0	4.4			4.6			4.4		21.7	9.5	
LOS	A	A			A			A		C	A	
Approach Delay		4.3			4.6			4.4			14.3	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 54.5			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay: 5.3		Intersection LOS: A	
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	39	44	23	40	41	22
Future Vol, veh/h	39	44	23	40	41	22
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, %	0	0	0	4	0	0
Mvmt Flow	42	48	25	43	45	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	90	0	159	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	93	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1518	-	837	1003
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1518	-	823	1003
Mov Cap-2 Maneuver	-	-	-	-	823	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	936	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	878	-	-	1518	-
HCM Lane V/C Ratio	0.078	-	-	0.016	-
HCM Control Delay (s)	9.4	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	340	5	2	368	41	3	0	5	25	0	74
Future Vol, veh/h	72	340	5	2	368	41	3	0	5	25	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	78	370	5	2	400	45	3	0	5	27	0	80

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	445	0	0	375	0	0	996	978	373	958	958	423
Stage 1	-	-	-	-	-	-	529	529	-	427	427	-
Stage 2	-	-	-	-	-	-	467	449	-	531	531	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1126	-	-	1195	-	-	225	252	678	239	259	635
Stage 1	-	-	-	-	-	-	537	530	-	610	589	-
Stage 2	-	-	-	-	-	-	580	576	-	536	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1126	-	-	1195	-	-	183	229	678	221	236	635
Mov Cap-2 Maneuver	-	-	-	-	-	-	291	328	-	336	347	-
Stage 1	-	-	-	-	-	-	490	483	-	556	588	-
Stage 2	-	-	-	-	-	-	506	575	-	485	482	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	13.1	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	452	1126	-	-	1195	-	-	518
HCM Lane V/C Ratio	0.019	0.07	-	-	0.002	-	-	0.208
HCM Control Delay (s)	13.1	8.4	0	-	8	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	352	379	46	56	32
Future Vol, veh/h	18	352	379	46	56	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	400	-	-	0	500	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	20	383	412	50	61	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	462	0	-	0	835	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	423	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1110	-	-	-	340	644
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1110	-	-	-	334	644
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1110	-	-	-	450	644
HCM Lane V/C Ratio	0.018	-	-	-	0.135	0.054
HCM Control Delay (s)	8.3	-	-	-	14.2	10.9
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	3	9	8	3	18	7	53	9	22	58	3
Future Vol, veh/h	2	3	9	8	3	18	7	53	9	22	58	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	3	10	9	3	20	8	58	10	24	63	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	204	197	65	198	193	63	66	0	0	68	0	0
Stage 1	113	113	-	79	79	-	-	-	-	-	-	-
Stage 2	91	84	-	119	114	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	758	702	1005	765	706	1007	1549	-	-	1546	-	-
Stage 1	897	806	-	935	833	-	-	-	-	-	-	-
Stage 2	921	829	-	890	805	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	728	687	1005	743	691	1007	1549	-	-	1546	-	-
Mov Cap-2 Maneuver	735	677	-	743	682	-	-	-	-	-	-	-
Stage 1	893	793	-	930	829	-	-	-	-	-	-	-
Stage 2	895	825	-	864	792	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	9.3	0.7	2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1549	-	-	869	878	1546	-	-
HCM Lane V/C Ratio	0.005	-	-	0.018	0.036	0.015	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9.3	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	1	48	12	1	4	39	19	6	2	28	33
Future Vol, veh/h	38	1	48	12	1	4	39	19	6	2	28	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	41	1	52	13	1	4	42	21	7	2	30	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	163	164	48	188	179	25	66	0	0	28	0	0
Stage 1	52	52	-	109	109	-	-	-	-	-	-	-
Stage 2	111	112	-	79	70	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	806	732	1027	777	718	1057	1549	-	-	1599	-	-
Stage 1	966	856	-	901	809	-	-	-	-	-	-	-
Stage 2	899	807	-	935	841	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	784	711	1027	720	697	1057	1549	-	-	1599	-	-
Mov Cap-2 Maneuver	765	693	-	720	680	-	-	-	-	-	-	-
Stage 1	939	855	-	876	786	-	-	-	-	-	-	-
Stage 2	869	784	-	885	840	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.8	4.5	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1549	-	-	889	775	1599	-	-
HCM Lane V/C Ratio	0.027	-	-	0.106	0.024	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.8	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	4	47	14	2	51
Future Vol, veh/h	12	4	47	14	2	51
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	13	4	51	15	2	55

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	118	59	0	0	66	0
Stage 1	59	-	-	-	-	-
Stage 2	59	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	883	1012	-	-	1549	-
Stage 1	969	-	-	-	-	-
Stage 2	969	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	882	1012	-	-	1549	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	969	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	881	1549	-
HCM Lane V/C Ratio	-	-	0.02	0.001	-
HCM Control Delay (s)	-	-	9.2	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	8	5	46	45	21
Future Vol, veh/h	13	8	5	46	45	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	14	9	5	50	49	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	121	61	72	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	879	1010	1272	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	875	1010	1272	-	-	-
Mov Cap-2 Maneuver	875	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1272	-	922	-	-
HCM Lane V/C Ratio	0.004	-	0.025	-	-
HCM Control Delay (s)	7.8	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	26	13	16	22	12	14	69	11	16	66	29
Future Vol, veh/h	21	26	13	16	22	12	14	69	11	16	66	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	23	28	14	17	24	13	15	75	12	17	72	32
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.7	7.9	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	35%	32%	14%
Vol Thru, %	73%	43%	44%	59%
Vol Right, %	12%	22%	24%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	60	50	111
LT Vol	14	21	16	16
Through Vol	69	26	22	66
RT Vol	11	13	12	29
Lane Flow Rate	102	65	54	121
Geometry Grp	1	1	1	1
Degree of Util (X)	0.121	0.079	0.066	0.139
Departure Headway (Hd)	4.263	4.388	4.38	4.158
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	846	819	820	867
Service Time	2.265	2.401	2.394	2.161
HCM Lane V/C Ratio	0.121	0.079	0.066	0.14
HCM Control Delay	7.9	7.8	7.7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.2	0.5

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	37.2	76.3	45.0	10.5	20.2	22.0
Average Queue (m)	9.3	38.2	17.2	1.1	9.4	7.4
95th Queue (m)	25.2	69.7	34.9	6.1	18.2	17.2
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	4			1	0
Queuing Penalty (veh)	0	2			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.7	23.2	23.1
Average Queue (m)	0.1	4.5	12.6
95th Queue (m)	1.1	15.3	19.9
Link Distance (m)	263.7	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	52.5	1.8	12.7	30.3
Average Queue (m)	9.4	0.1	4.1	11.4
95th Queue (m)	32.4	1.1	12.2	22.0
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	17.1	58.3	18.8	10.4	9.0	12.8
Average Queue (m)	3.3	16.8	4.2	1.2	2.1	3.4
95th Queue (m)	12.3	45.7	13.9	6.2	7.6	9.3
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		1				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.9	17.5	2.3	9.3
Average Queue (m)	4.3	6.8	0.1	1.3
95th Queue (m)	11.8	14.5	1.4	6.6
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	17.7	6.9	12.6	1.8
Average Queue (m)	8.1	0.2	1.0	0.1
95th Queue (m)	14.6	2.6	6.8	1.1
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	12.0	2.3
Average Queue (m)	4.3	0.1
95th Queue (m)	12.0	1.5
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.3	2.1
Average Queue (m)	2.7	0.1
95th Queue (m)	8.9	1.3
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

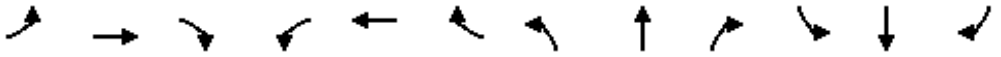
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	25.1	22.6	23.6	23.6
Average Queue (m)	13.8	11.2	11.2	12.7
95th Queue (m)	21.8	18.3	18.3	20.6
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

Network wide Queuing Penalty: 3

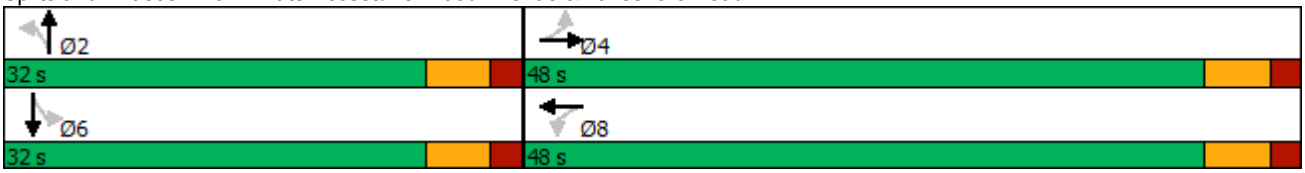


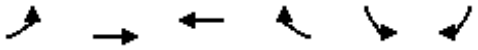
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	867	9	1	353	36	1	0	2	53	0	46
Future Volume (vph)	56	867	9	1	353	36	1	0	2	53	0	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.988			0.910			0.850	
Flt Protected	0.950							0.984		0.950		
Satd. Flow (prot)	1706	1898	0	0	1853	0	0	1720	0	1825	1555	0
Flt Permitted	0.553				0.999			0.881		0.756		
Satd. Flow (perm)	993	1898	0	0	1851	0	0	1540	0	1452	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			10			41			424	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	1%	0%	0%	2%	7%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	61	942	10	1	384	39	1	0	2	58	0	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	952	0	0	424	0	0	3	0	58	50	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	42.0	42.0		42.0	42.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	49.2	49.2			49.2			8.8		8.8	8.8	
Actuated g/C Ratio	0.75	0.75			0.75			0.13		0.13	0.13	
v/c Ratio	0.08	0.67			0.31			0.01		0.30	0.09	
Control Delay	4.2	9.6			4.7			0.0		29.3	0.3	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.2	9.6			4.7			0.0		29.3	0.3	
LOS	A	A			A			A		C	A	
Approach Delay		9.3			4.7						15.9	
Approach LOS		A			A						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 65.9			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 63.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



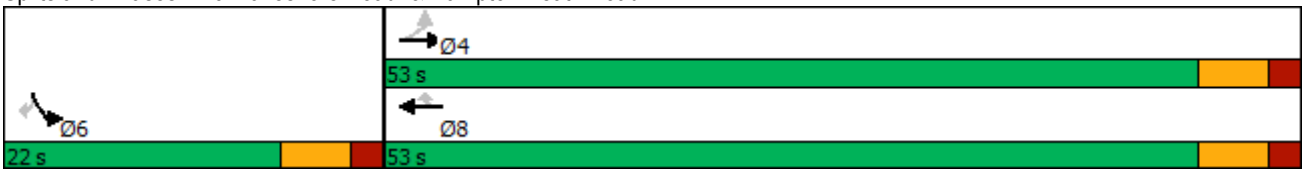


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	878	246	30	11	23
Future Volume (vph)	28	878	246	30	11	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1336
Flt Permitted	0.595				0.950	
Satd. Flow (perm)	1029	1695	1712	1470	1643	1336
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				33		25
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	10%
Adj. Flow (vph)	30	954	267	33	12	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	954	267	33	12	25
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	53.0	53.0	53.0	53.0	22.0	22.0
Total Split (%)	70.7%	70.7%	70.7%	70.7%	29.3%	29.3%
Maximum Green (s)	47.0	47.0	47.0	47.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	65.4	65.4	65.4	65.4	6.3	6.3
Actuated g/C Ratio	0.90	0.90	0.90	0.90	0.09	0.09
v/c Ratio	0.03	0.62	0.17	0.02	0.08	0.18
Control Delay	2.0	5.6	1.9	1.0	33.5	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	5.6	1.9	1.0	33.5	17.1
LOS	A	A	A	A	C	B
Approach Delay		5.5	1.8		22.4	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 75			
Actuated Cycle Length: 72.5			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 64.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	69	61	120	57	71
Future Vol, veh/h	116	69	61	120	57	71
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, %	5	0	6	7	2	2
Mvmt Flow	126	75	66	130	62	77

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	201	0	426	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1347	-	585	881
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1347	-	554	881
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	698	-	-	1347	-
HCM Lane V/C Ratio	0.199	-	-	0.049	-
HCM Control Delay (s)	11.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	63	859	0	0	257	28	12	0	4	43	0	36
Future Vol, veh/h	63	859	0	0	257	28	12	0	4	43	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	4	0	0	0	0	0	0
Mvmt Flow	68	934	0	0	279	30	13	0	4	47	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	934	0	0	1384	1379	934	1366	1364	294
Stage 1	-	-	-	-	-	-	1070	1070	-	294	294	-
Stage 2	-	-	-	-	-	-	314	309	-	1072	1070	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1263	-	-	741	-	-	122	146	325	126	149	750
Stage 1	-	-	-	-	-	-	270	300	-	719	673	-
Stage 2	-	-	-	-	-	-	701	663	-	269	300	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1263	-	-	741	-	-	106	130	325	114	132	750
Mov Cap-2 Maneuver	-	-	-	-	-	-	193	215	-	194	219	-
Stage 1	-	-	-	-	-	-	240	266	-	638	673	-
Stage 2	-	-	-	-	-	-	664	663	-	236	266	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	23.2	22.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	1263	-	-	741	-	-	293
HCM Lane V/C Ratio	0.081	0.054	-	-	-	-	-	0.293
HCM Control Delay (s)	23.2	8	0	-	0	-	-	22.3
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0	-	-	1.2

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	1	14	11	0	22	2	75	15	48	74	1
Future Vol, veh/h	9	1	14	11	0	22	2	75	15	48	74	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	11	0	0	0	6	8	0	2	0
Mvmt Flow	10	1	15	12	0	24	2	82	16	52	80	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	291	287	81	287	279	90	81	0	0	98	0	0
Stage 1	185	185	-	94	94	-	-	-	-	-	-	-
Stage 2	106	102	-	193	185	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	665	626	985	648	632	973	1529	-	-	1508	-	-
Stage 1	821	751	-	891	821	-	-	-	-	-	-	-
Stage 2	905	815	-	788	751	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	630	603	985	619	609	973	1529	-	-	1508	-	-
Mov Cap-2 Maneuver	664	613	-	644	623	-	-	-	-	-	-	-
Stage 1	820	724	-	890	820	-	-	-	-	-	-	-
Stage 2	882	814	-	747	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.5	0.2	2.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1529	-	-	816	831	1508	-	-
HCM Lane V/C Ratio	0.001	-	-	0.032	0.043	0.035	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.5	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	1	23	0	1	0	29	29	0	1	37	23
Future Vol, veh/h	32	1	23	0	1	0	29	29	0	1	37	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0	8	28	0	0	6	0
Mvmt Flow	35	1	25	0	1	0	32	32	0	1	40	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	152	151	53	164	163	32	65	0	0	32	0	0
Stage 1	55	55	-	96	96	-	-	-	-	-	-	-
Stage 2	97	96	-	68	67	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	820	744	1006	805	733	1048	1500	-	-	1593	-	-
Stage 1	962	853	-	916	819	-	-	-	-	-	-	-
Stage 2	914	819	-	947	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	804	727	1006	770	716	1048	1500	-	-	1593	-	-
Mov Cap-2 Maneuver	783	706	-	759	694	-	-	-	-	-	-	-
Stage 1	941	852	-	896	801	-	-	-	-	-	-	-
Stage 2	893	801	-	921	842	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.2	3.7	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1500	-	-	860	694	1593	-	-
HCM Lane V/C Ratio	0.021	-	-	0.071	0.002	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.5	10.2	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	5	37	13	7	61
Future Vol, veh/h	18	5	37	13	7	61
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	13	9	0	8
Mvmt Flow	20	5	40	14	8	66

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	129	47	0	0	54	0
Stage 1	47	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	854	1028	-	-	1564	-
Stage 1	963	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	850	1028	-	-	1564	-
Mov Cap-2 Maneuver	815	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	853	1564	-
HCM Lane V/C Ratio	-	-	0.029	0.005	-
HCM Control Delay (s)	-	-	9.3	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	5	5	37	62	7
Future Vol, veh/h	7	5	5	37	62	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	25	6	8	0
Mvmt Flow	8	5	5	40	67	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	121	71	75	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	50	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.35	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	879	997	1390	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	978	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	875	997	1390	-	-	-
Mov Cap-2 Maneuver	875	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	978	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1390	-	922	-	-
HCM Lane V/C Ratio	0.004	-	0.014	-	-
HCM Control Delay (s)	7.6	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	63	19	7	81	15	30	77	13	13	48	69
Future Vol, veh/h	108	63	19	7	81	15	30	77	13	13	48	69
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	6	0	0	6	0	4	3	0	9	7	8
Mvmt Flow	117	68	21	8	88	16	33	84	14	14	52	75
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.6	9	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	57%	7%	10%
Vol Thru, %	64%	33%	79%	37%
Vol Right, %	11%	10%	15%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	190	103	130
LT Vol	30	108	7	13
Through Vol	77	63	81	48
RT Vol	13	19	15	69
Lane Flow Rate	130	207	112	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.177	0.275	0.147	0.184
Departure Headway (Hd)	4.895	4.792	4.736	4.688
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	729	748	753	762
Service Time	2.947	2.841	2.791	2.739
HCM Lane V/C Ratio	0.178	0.277	0.149	0.185
HCM Control Delay	9	9.7	8.6	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.1	0.5	0.7

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	19.5	42.9	91.2	21.0	16.2	18.1
Average Queue (m)	6.5	15.5	45.3	5.3	4.5	8.1
95th Queue (m)	16.0	33.9	81.7	15.0	13.0	17.1
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			1			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)		0			0	0
Queuing Penalty (veh)		0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	11.1	19.2
Average Queue (m)	2.0	11.2
95th Queue (m)	8.5	16.7
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	77.4	26.2	9.1	47.3
Average Queue (m)	21.9	1.7	1.9	19.0
95th Queue (m)	51.8	11.3	7.9	37.1
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	0			0
Queuing Penalty (veh)	1			0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	15.3	39.2	61.8	15.6	15.4	15.3
Average Queue (m)	5.5	10.6	26.9	4.1	6.0	4.7
95th Queue (m)	13.9	28.3	51.5	12.4	13.2	11.4
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.4	12.7	4.6	6.7
Average Queue (m)	3.8	7.7	0.2	0.4
95th Queue (m)	11.0	13.1	2.1	3.4
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	16.6	10.8	12.5
Average Queue (m)	9.4	2.5	0.9
95th Queue (m)	13.7	9.3	6.0
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	14.2	2.3
Average Queue (m)	5.5	0.1
95th Queue (m)	13.2	2.0
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.3	6.1
Average Queue (m)	4.1	0.2
95th Queue (m)	10.7	2.9
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

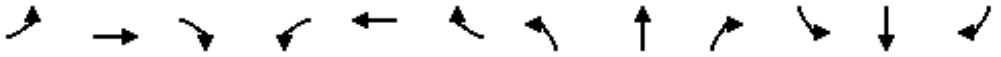
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.5	18.3	16.4	22.8
Average Queue (m)	9.5	10.1	9.4	12.0
95th Queue (m)	13.9	16.1	15.0	18.8
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

Network wide Queuing Penalty: 2

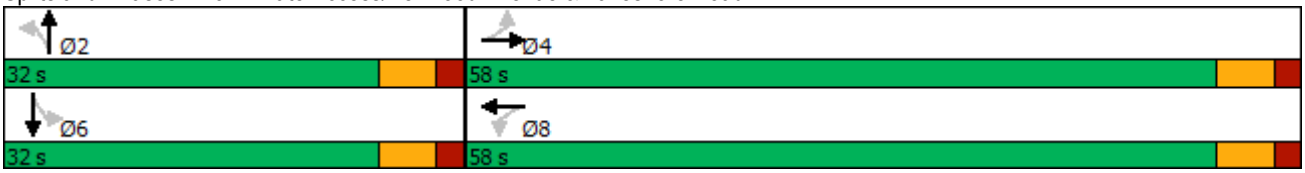


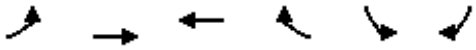
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	418	4	9	879	52	16	0	5	23	2	35
Future Volume (vph)	33	418	4	9	879	52	16	0	5	23	2	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.992			0.969			0.857	
Flt Protected	0.950							0.963		0.950		
Satd. Flow (prot)	1825	1882	0	0	1886	0	0	1696	0	1825	1586	0
Flt Permitted	0.307				0.996			0.748		0.816		
Satd. Flow (perm)	590	1882	0	0	1878	0	0	1318	0	1568	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			6			36			38	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	36	454	4	10	955	57	17	0	5	25	2	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	458	0	0	1022	0	0	22	0	25	40	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	61.0	61.0			61.0			8.1		8.1	8.1	
Actuated g/C Ratio	0.83	0.83			0.83			0.11		0.11	0.11	
v/c Ratio	0.07	0.29			0.65			0.12		0.14	0.19	
Control Delay	3.3	3.4			7.3			8.2		31.2	13.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.3	3.4			7.3			8.2		31.2	13.6	
LOS	A	A			A			A		C	B	
Approach Delay		3.4			7.3			8.3			20.4	
Approach LOS		A			A			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 73.1			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 6.6		Intersection LOS: A	
Intersection Capacity Utilization 74.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



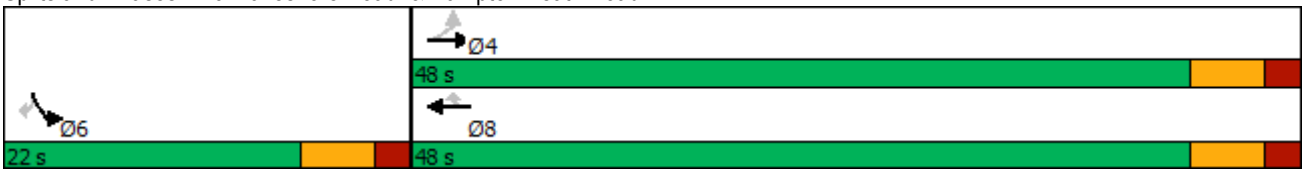


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	30	378	846	96	32	34
Future Volume (vph)	30	378	846	96	32	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1374
Flt Permitted	0.256				0.950	
Satd. Flow (perm)	443	1695	1712	1470	1643	1374
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				104		37
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	7%
Adj. Flow (vph)	33	411	920	104	35	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	411	920	104	35	37
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	48.0	48.0	48.0	48.0	22.0	22.0
Total Split (%)	68.6%	68.6%	68.6%	68.6%	31.4%	31.4%
Maximum Green (s)	42.0	42.0	42.0	42.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	56.2	56.2	56.2	56.2	7.0	7.0
Actuated g/C Ratio	0.83	0.83	0.83	0.83	0.10	0.10
v/c Ratio	0.09	0.29	0.65	0.08	0.21	0.21
Control Delay	3.8	3.6	8.1	1.0	30.7	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	3.6	8.1	1.0	30.7	13.1
LOS	A	A	A	A	C	B
Approach Delay		3.6	7.4		21.7	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 70			
Actuated Cycle Length: 67.7			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 7.0		Intersection LOS: A	
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	48	48	62	61	50
Future Vol, veh/h	88	48	48	62	61	50
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, %	4	0	2	6	0	0
Mvmt Flow	96	52	52	67	66	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	293	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	171	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1434	-	702	935
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1434	-	675	935
Mov Cap-2 Maneuver	-	-	-	-	675	-
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	864	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	772	-	-	1434	-
HCM Lane V/C Ratio	0.156	-	-	0.036	-
HCM Control Delay (s)	10.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	69	375	2	5	842	36	4	0	4	30	0	88
Future Vol, veh/h	69	375	2	5	842	36	4	0	4	30	0	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	75	408	2	5	915	39	4	0	4	33	0	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	954	0	0	410	0	0	1552	1523	409	1506	1505	935
Stage 1	-	-	-	-	-	-	559	559	-	945	945	-
Stage 2	-	-	-	-	-	-	993	964	-	561	560	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	729	-	-	1160	-	-	93	119	647	100	122	325
Stage 1	-	-	-	-	-	-	517	514	-	317	343	-
Stage 2	-	-	-	-	-	-	298	336	-	516	514	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	729	-	-	1160	-	-	58	102	647	89	105	325
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	191	-	192	222	-
Stage 1	-	-	-	-	-	-	448	446	-	275	340	-
Stage 2	-	-	-	-	-	-	208	333	-	444	446	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	25.1	28.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	188	729	-	-	1160	-	-	276
HCM Lane V/C Ratio	0.046	0.103	-	-	0.005	-	-	0.465
HCM Control Delay (s)	25.1	10.5	0	-	8.1	0	-	28.9
HCM Lane LOS	D	B	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	2.3

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	1	7	15	2	34	18	55	12	30	39	11
Future Vol, veh/h	6	1	7	15	2	34	18	55	12	30	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	1	8	16	2	37	20	60	13	33	42	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	240	227	48	226	227	67	54	0	0	73	0	0
Stage 1	114	114	-	107	107	-	-	-	-	-	-	-
Stage 2	126	113	-	119	120	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	718	676	1027	734	676	1002	1564	-	-	1540	-	-
Stage 1	896	805	-	903	811	-	-	-	-	-	-	-
Stage 2	883	806	-	890	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	671	652	1027	708	652	1002	1564	-	-	1540	-	-
Mov Cap-2 Maneuver	687	651	-	717	653	-	-	-	-	-	-	-
Stage 1	884	787	-	891	800	-	-	-	-	-	-	-
Stage 2	837	796	-	863	782	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.4	1.6	2.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1564	-	-	819	881	1540	-	-
HCM Lane V/C Ratio	0.013	-	-	0.019	0.063	0.021	-	-
HCM Control Delay (s)	7.3	0	-	9.5	9.4	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	4	53	5	0	6	66	47	2	0	40	28
Future Vol, veh/h	46	4	53	5	0	6	66	47	2	0	40	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	50	4	58	5	0	7	72	51	2	0	43	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	258	255	58	285	269	52	73	0	0	53	0	0
Stage 1	58	58	-	196	196	-	-	-	-	-	-	-
Stage 2	200	197	-	89	73	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	699	652	1014	671	641	1021	1540	-	-	1566	-	-
Stage 1	959	851	-	810	742	-	-	-	-	-	-	-
Stage 2	806	742	-	923	838	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	669	621	1014	607	610	1021	1540	-	-	1566	-	-
Mov Cap-2 Maneuver	672	624	-	634	611	-	-	-	-	-	-	-
Stage 1	913	851	-	771	706	-	-	-	-	-	-	-
Stage 2	762	706	-	866	838	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.6	4.3	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1540	-	-	810	799	1566	-	-
HCM Lane V/C Ratio	0.047	-	-	0.138	0.015	-	-	-
HCM Control Delay (s)	7.5	0	-	10.2	9.6	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	1	94	18	9	46
Future Vol, veh/h	23	1	94	18	9	46
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	25	1	102	20	10	50

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	182	112	0	0	122	0
Stage 1	112	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	812	947	-	-	1478	-
Stage 1	918	-	-	-	-	-
Stage 2	958	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	806	947	-	-	1478	-
Mov Cap-2 Maneuver	791	-	-	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	958	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	796	1478	-
HCM Lane V/C Ratio	-	-	0.033	0.007	-
HCM Control Delay (s)	-	-	9.7	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	9	5	90	36	21
Future Vol, veh/h	15	9	5	90	36	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	16	10	5	98	39	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	159	51	62	0	-	0
Stage 1	51	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	837	1023	1554	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	834	1023	1554	-	-	-
Mov Cap-2 Maneuver	834	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1554	-	896	-	-
HCM Lane V/C Ratio	0.003	-	0.029	-	-
HCM Control Delay (s)	7.3	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	42	16	12	75	12	11	86	9	30	89	48
Future Vol, veh/h	41	42	16	12	75	12	11	86	9	30	89	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	45	46	17	13	82	13	12	93	10	33	97	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.5	8.4	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	41%	12%	18%
Vol Thru, %	81%	42%	76%	53%
Vol Right, %	8%	16%	12%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	99	99	167
LT Vol	11	41	12	30
Through Vol	86	42	75	89
RT Vol	9	16	12	48
Lane Flow Rate	115	108	108	182
Geometry Grp	1	1	1	1
Degree of Util (X)	0.147	0.14	0.139	0.222
Departure Headway (Hd)	4.586	4.692	4.658	4.409
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	763	768	813
Service Time	2.619	2.729	2.695	2.439
HCM Lane V/C Ratio	0.147	0.142	0.141	0.224
HCM Control Delay	8.4	8.5	8.5	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.5	0.5	0.8

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	20.7	42.2	58.4	15.5	19.3	24.1
Average Queue (m)	6.9	20.1	26.3	5.4	6.9	8.4
95th Queue (m)	16.2	35.9	46.5	13.5	15.8	17.3
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)		0			0	0
Queuing Penalty (veh)		0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	9.2	16.5
Average Queue (m)	0.5	9.1
95th Queue (m)	3.8	15.4
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	48.9	4.2	10.6	26.9
Average Queue (m)	11.9	0.4	2.6	12.4
95th Queue (m)	33.6	3.4	9.4	21.3
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	12.3	43.8	43.2	14.1	15.6	12.3
Average Queue (m)	4.9	16.6	16.5	4.3	7.4	4.3
95th Queue (m)	12.6	34.5	34.1	12.8	13.9	9.9
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	11.0	16.0	2.3	10.9
Average Queue (m)	3.6	6.7	0.1	0.6
95th Queue (m)	11.0	14.1	1.4	4.6
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.2	11.1	10.8	3.7
Average Queue (m)	9.2	4.5	1.8	0.1
95th Queue (m)	14.0	12.1	7.9	2.3
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	9.2	2.3
Average Queue (m)	5.1	0.1
95th Queue (m)	12.3	1.5
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	8.3
Average Queue (m)	4.3
95th Queue (m)	10.9
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.0	14.6	16.6	16.6
Average Queue (m)	8.9	7.2	10.0	10.0
95th Queue (m)	15.8	14.0	14.5	14.7
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

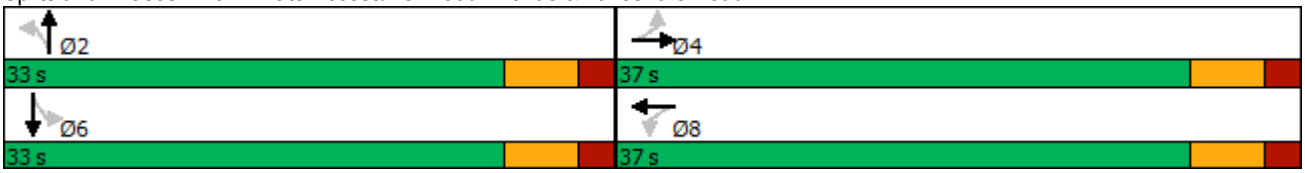
Network wide Queuing Penalty: 1

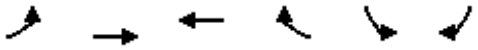
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	450	12	12	450	47	12	0	11	36	2	54
Future Volume (vph)	45	450	12	12	450	47	12	0	11	36	2	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.988			0.935			0.855	
Flt Protected	0.950				0.999			0.975		0.950		
Satd. Flow (prot)	1825	1895	0	0	1896	0	0	1665	0	1825	1616	0
Flt Permitted	0.495				0.987			0.804		0.800		
Satd. Flow (perm)	951	1895	0	0	1873	0	0	1373	0	1537	1616	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			47			59	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	49	489	13	13	489	51	13	0	12	39	2	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	502	0	0	553	0	0	25	0	39	61	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	37.0	37.0		37.0	37.0		33.0	33.0		33.0	33.0	
Total Split (%)	52.9%	52.9%		52.9%	52.9%		47.1%	47.1%		47.1%	47.1%	
Maximum Green (s)	31.0	31.0		31.0	31.0		27.0	27.0		27.0	27.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.3	39.3			39.3			8.1		8.1	8.1	
Actuated g/C Ratio	0.76	0.76			0.76			0.16		0.16	0.16	
v/c Ratio	0.07	0.35			0.39			0.10		0.16	0.20	
Control Delay	4.4	5.1			5.4			4.5		20.4	8.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.4	5.1			5.4			4.5		20.4	8.6	
LOS	A	A			A			A		C	A	
Approach Delay		5.0			5.4			4.5			13.2	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 51.5			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



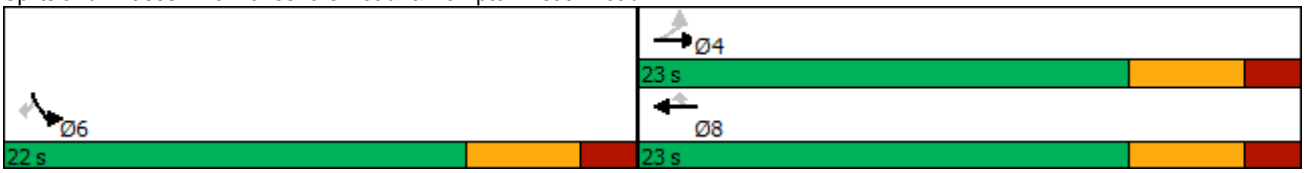


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	416	444	70	62	35
Future Volume (vph)	26	416	444	70	62	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.485				0.950	
Satd. Flow (perm)	839	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				76		38
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	28	452	483	76	67	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	452	483	76	67	38
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	23.0	23.0	23.0	23.0	22.0	22.0
Total Split (%)	51.1%	51.1%	51.1%	51.1%	48.9%	48.9%
Maximum Green (s)	17.0	17.0	17.0	17.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	28.7	28.7	28.7	28.7	7.2	7.2
Actuated g/C Ratio	0.71	0.71	0.71	0.71	0.18	0.18
v/c Ratio	0.05	0.37	0.39	0.07	0.23	0.13
Control Delay	5.8	6.8	7.0	2.3	15.8	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.8	6.8	7.0	2.3	15.8	6.6
LOS	A	A	A	A	B	A
Approach Delay		6.8	6.4		12.4	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 45			
Actuated Cycle Length: 40.4			
Natural Cycle: 45			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 39.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	52	27	47	48	26
Future Vol, veh/h	46	52	27	47	48	26
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, %	0	0	0	4	0	0
Mvmt Flow	50	57	29	51	52	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	107	0	188	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	109	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1497	-	806	987
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1497	-	790	987
Mov Cap-2 Maneuver	-	-	-	-	790	-
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	921	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	850	-	-	1497	-
HCM Lane V/C Ratio	0.095	-	-	0.02	-
HCM Control Delay (s)	9.7	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	84	407	6	2	412	48	4	0	6	29	0	87
Future Vol, veh/h	84	407	6	2	412	48	4	0	6	29	0	87
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	91	442	7	2	448	52	4	0	7	32	0	95

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	500	0	0	449	0	0	1154	1132	446	1109	1109	474
Stage 1	-	-	-	-	-	-	628	628	-	478	478	-
Stage 2	-	-	-	-	-	-	526	504	-	631	631	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1075	-	-	1122	-	-	176	205	617	189	211	595
Stage 1	-	-	-	-	-	-	474	479	-	572	559	-
Stage 2	-	-	-	-	-	-	539	544	-	472	477	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1075	-	-	1122	-	-	135	181	617	170	187	595
Mov Cap-2 Maneuver	-	-	-	-	-	-	238	282	-	284	302	-
Stage 1	-	-	-	-	-	-	420	425	-	507	558	-
Stage 2	-	-	-	-	-	-	452	543	-	414	423	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	14.8	15.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	377	1075	-	-	1122	-	-	467
HCM Lane V/C Ratio	0.029	0.085	-	-	0.002	-	-	0.27
HCM Control Delay (s)	14.8	8.7	0	-	8.2	0	-	15.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	1.1

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	4	11	9	2	26	7	71	13	27	73	5
Future Vol, veh/h	2	4	11	9	2	26	7	71	13	27	73	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	4	12	10	2	28	8	77	14	29	79	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	255	247	82	248	242	84	84	0	0	91	0	0
Stage 1	140	140	-	100	100	-	-	-	-	-	-	-
Stage 2	115	107	-	148	142	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	702	659	983	710	663	981	1526	-	-	1517	-	-
Stage 1	868	785	-	911	816	-	-	-	-	-	-	-
Stage 2	895	811	-	859	783	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	667	642	983	684	646	981	1526	-	-	1517	-	-
Mov Cap-2 Maneuver	691	646	-	701	651	-	-	-	-	-	-	-
Stage 1	863	769	-	906	811	-	-	-	-	-	-	-
Stage 2	862	806	-	827	767	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.3	0.6	1.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	838	872	1517	-	-
HCM Lane V/C Ratio	0.005	-	-	0.022	0.046	0.019	-	-
HCM Control Delay (s)	7.4	0	-	9.4	9.3	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	2	54	9	4	5	59	29	8	7	36	30
Future Vol, veh/h	49	2	54	9	4	5	59	29	8	7	36	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	53	2	59	10	4	5	64	32	9	8	39	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	241	241	56	267	253	37	72	0	0	41	0	0
Stage 1	72	72	-	165	165	-	-	-	-	-	-	-
Stage 2	169	169	-	102	88	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	717	664	1016	690	654	1041	1541	-	-	1581	-	-
Stage 1	943	839	-	842	766	-	-	-	-	-	-	-
Stage 2	838	763	-	909	826	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	683	632	1016	624	623	1041	1541	-	-	1581	-	-
Mov Cap-2 Maneuver	687	634	-	648	624	-	-	-	-	-	-	-
Stage 1	902	835	-	806	733	-	-	-	-	-	-	-
Stage 2	793	730	-	850	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.2	4.6	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1541	-	-	823	717	1581	-	-
HCM Lane V/C Ratio	0.042	-	-	0.139	0.027	0.005	-	-
HCM Control Delay (s)	7.4	0	-	10.1	10.2	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	6	61	28	1	55
Future Vol, veh/h	20	6	61	28	1	55
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	22	7	66	30	1	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	143	81	0	0	96	0
Stage 1	81	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	854	985	-	-	1510	-
Stage 1	947	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	853	985	-	-	1510	-
Mov Cap-2 Maneuver	825	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	966	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	857	1510	-
HCM Lane V/C Ratio	-	-	0.033	0.001	-
HCM Control Delay (s)	-	-	9.3	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	6	2	70	60	26
Future Vol, veh/h	13	6	2	70	60	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	14	7	2	76	65	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	159	79	93	0	-	0
Stage 1	79	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	837	987	1248	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	835	987	1248	-	-	-
Mov Cap-2 Maneuver	835	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	948	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1248	-	878	-	-
HCM Lane V/C Ratio	0.002	-	0.024	-	-
HCM Control Delay (s)	7.9	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	30	15	19	26	14	16	81	13	19	77	34
Future Vol, veh/h	25	30	15	19	26	14	16	81	13	19	77	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	27	33	16	21	28	15	17	88	14	21	84	37
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.9	8.1	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	36%	32%	15%
Vol Thru, %	74%	43%	44%	59%
Vol Right, %	12%	21%	24%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	70	59	130
LT Vol	16	25	19	19
Through Vol	81	30	26	77
RT Vol	13	15	14	34
Lane Flow Rate	120	76	64	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.144	0.095	0.08	0.166
Departure Headway (Hd)	4.331	4.493	4.487	4.226
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	830	799	800	851
Service Time	2.348	2.513	2.507	2.241
HCM Lane V/C Ratio	0.145	0.095	0.08	0.166
HCM Control Delay	8.1	8	7.9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.3	0.6

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	37.3	105.1	46.8	10.6	21.3	27.1
Average Queue (m)	9.6	48.4	17.6	1.3	10.5	7.5
95th Queue (m)	25.4	86.5	37.4	6.5	20.4	18.0
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	7			2	0
Queuing Penalty (veh)	0	4			1	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	20.7	29.7
Average Queue (m)	3.5	13.4
95th Queue (m)	12.9	22.4
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	45.6	9.1	38.6
Average Queue (m)	10.4	2.1	13.8
95th Queue (m)	31.9	8.3	27.9
Link Distance (m)	93.6	53.4	60.4
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	33.9	70.2	21.8	8.0	12.1	18.2
Average Queue (m)	4.3	25.8	5.7	0.9	2.7	4.7
95th Queue (m)	17.7	59.2	16.4	5.3	9.1	11.8
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)	0	2				
Queuing Penalty (veh)	0	1				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	11.0	12.8	9.2
Average Queue (m)	5.5	5.3	1.3
95th Queue (m)	12.8	13.2	6.6
Link Distance (m)	81.8	79.8	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	18.9	9.0	10.6
Average Queue (m)	8.4	0.4	0.7
95th Queue (m)	15.3	3.7	5.1
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB
Directions Served	LR
Maximum Queue (m)	14.3
Average Queue (m)	6.2
95th Queue (m)	15.0
Link Distance (m)	127.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	8.3
Average Queue (m)	2.2
95th Queue (m)	8.0
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	25.6	23.7	22.1	26.1
Average Queue (m)	15.1	12.2	11.5	13.2
95th Queue (m)	22.8	19.2	18.6	21.3
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

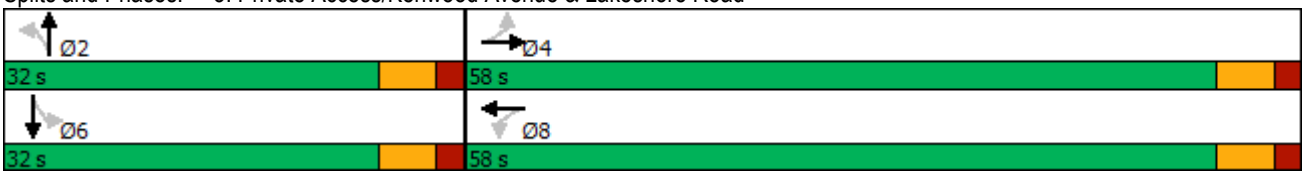
Network wide Queuing Penalty: 7

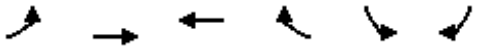
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	957	10	1	389	40	1	0	3	58	0	50
Future Volume (vph)	62	957	10	1	389	40	1	0	3	58	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.988			0.899			0.850	
Flt Protected	0.950							0.988		0.950		
Satd. Flow (prot)	1706	1898	0	0	1853	0	0	1706	0	1825	1555	0
Flt Permitted	0.524				0.999			0.911		0.755		
Satd. Flow (perm)	941	1898	0	0	1851	0	0	1573	0	1450	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			10			36			424	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	1%	0%	0%	2%	7%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	67	1040	11	1	423	43	1	0	3	63	0	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1051	0	0	467	0	0	4	0	63	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	58.6	58.6			58.6			9.3		9.3	9.3	
Actuated g/C Ratio	0.77	0.77			0.77			0.12		0.12	0.12	
v/c Ratio	0.09	0.72			0.33			0.02		0.36	0.10	
Control Delay	3.9	10.4			4.5			0.2		35.8	0.3	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.9	10.4			4.5			0.2		35.8	0.3	
LOS	A	B			A			A		D	A	
Approach Delay		10.0			4.5			0.3			19.4	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.7			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 70.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



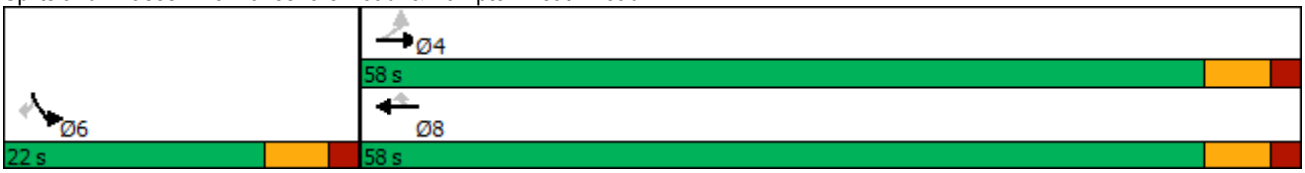


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	31	969	272	34	12	26
Future Volume (vph)	31	969	272	34	12	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1336
Flt Permitted	0.579				0.950	
Satd. Flow (perm)	1001	1695	1712	1470	1643	1336
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				37		28
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	10%
Adj. Flow (vph)	34	1053	296	37	13	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	1053	296	37	13	28
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	58.0	58.0	58.0	58.0	22.0	22.0
Total Split (%)	72.5%	72.5%	72.5%	72.5%	27.5%	27.5%
Maximum Green (s)	52.0	52.0	52.0	52.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	68.9	68.9	68.9	68.9	6.4	6.4
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.08	0.08
v/c Ratio	0.04	0.72	0.20	0.03	0.10	0.21
Control Delay	2.3	8.6	2.4	0.9	36.8	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	8.6	2.4	0.9	36.8	17.8
LOS	A	A	A	A	D	B
Approach Delay		8.4	2.2		23.9	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 80			
Actuated Cycle Length: 79.7			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 7.4		Intersection LOS: A	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	128	76	67	132	63	79
Future Vol, veh/h	128	76	67	132	63	79
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, %	5	0	6	7	2	2
Mvmt Flow	139	83	73	143	68	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	222	0	470	181
Stage 1	-	-	-	-	181	-
Stage 2	-	-	-	-	289	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1324	-	552	862
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	760	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1324	-	519	862
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	760	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	667	-	-	1324	-
HCM Lane V/C Ratio	0.231	-	-	0.055	-
HCM Control Delay (s)	12	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	948	0	0	283	31	3	0	4	48	0	40
Future Vol, veh/h	70	948	0	0	283	31	3	0	4	48	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	4	0	0	0	0	0	0
Mvmt Flow	76	1030	0	0	308	34	3	0	4	52	0	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	342	0	0	1030	0	0	1529	1524	1030	1509	1507	325
Stage 1	-	-	-	-	-	-	1182	1182	-	325	325	-
Stage 2	-	-	-	-	-	-	347	342	-	1184	1182	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1228	-	-	682	-	-	97	119	286	100	122	721
Stage 1	-	-	-	-	-	-	234	266	-	692	653	-
Stage 2	-	-	-	-	-	-	673	642	-	233	266	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1228	-	-	682	-	-	81	102	286	88	104	721
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	183	-	162	187	-
Stage 1	-	-	-	-	-	-	200	227	-	592	653	-
Stage 2	-	-	-	-	-	-	632	642	-	196	227	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	22.4	28.1
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	1228	-	-	682	-	-	250
HCM Lane V/C Ratio	0.035	0.062	-	-	-	-	-	0.383
HCM Control Delay (s)	22.4	8.1	0	-	0	-	-	28.1
HCM Lane LOS	C	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	1.7

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	1	16	12	0	25	3	83	17	53	81	1
Future Vol, veh/h	10	1	16	12	0	25	3	83	17	53	81	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	11	0	0	0	6	8	0	2	0
Mvmt Flow	11	1	17	13	0	27	3	90	18	58	88	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	324	319	89	319	310	99	89	0	0	108	0	0
Stage 1	205	205	-	105	105	-	-	-	-	-	-	-
Stage 2	119	114	-	214	205	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	633	601	975	617	608	962	1519	-	-	1495	-	-
Stage 1	802	736	-	879	812	-	-	-	-	-	-	-
Stage 2	890	805	-	768	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	595	575	975	586	582	962	1519	-	-	1495	-	-
Mov Cap-2 Maneuver	638	593	-	618	604	-	-	-	-	-	-	-
Stage 1	800	706	-	877	810	-	-	-	-	-	-	-
Stage 2	863	803	-	722	706	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9.6	0.2	2.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	800	815	1495	-	-
HCM Lane V/C Ratio	0.002	-	-	0.037	0.049	0.039	-	-
HCM Control Delay (s)	7.4	0	-	9.7	9.6	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	1	26	1	1	0	32	32	0	1	41	26
Future Vol, veh/h	35	1	26	1	1	0	32	32	0	1	41	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0	8	28	0	0	6	0
Mvmt Flow	38	1	28	1	1	0	35	35	0	1	45	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	167	166	59	181	180	35	73	0	0	35	0	0
Stage 1	61	61	-	105	105	-	-	-	-	-	-	-
Stage 2	106	105	-	76	75	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	802	730	998	785	717	1044	1490	-	-	1589	-	-
Stage 1	955	848	-	906	812	-	-	-	-	-	-	-
Stage 2	905	812	-	938	836	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	786	712	998	747	699	1044	1490	-	-	1589	-	-
Mov Cap-2 Maneuver	770	696	-	742	683	-	-	-	-	-	-	-
Stage 1	932	847	-	884	793	-	-	-	-	-	-	-
Stage 2	882	793	-	909	835	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	10.1	3.7	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1490	-	-	850	711	1589	-	-
HCM Lane V/C Ratio	0.023	-	-	0.079	0.003	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.6	10.1	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	5	41	14	8	67
Future Vol, veh/h	19	5	41	14	8	67
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	13	9	0	8
Mvmt Flow	21	5	45	15	9	73

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	144	53	0	0	60	0
Stage 1	53	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	837	1020	-	-	1556	-
Stage 1	957	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	832	1020	-	-	1556	-
Mov Cap-2 Maneuver	803	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	920	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1556	-
HCM Lane V/C Ratio	-	-	0.031	0.006	-
HCM Control Delay (s)	-	-	9.4	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	5	41	69	8
Future Vol, veh/h	8	5	5	41	69	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	25	6	8	0
Mvmt Flow	9	5	5	45	75	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	135	80	84	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	55	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.35	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	863	986	1380	-	-	-
Stage 1	948	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	860	986	1380	-	-	-
Mov Cap-2 Maneuver	860	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	973	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1380	-	904	-	-
HCM Lane V/C Ratio	0.004	-	0.016	-	-
HCM Control Delay (s)	7.6	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	119	70	21	8	89	17	34	85	14	14	53	76
Future Vol, veh/h	119	70	21	8	89	17	34	85	14	14	53	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	6	0	0	6	0	4	3	0	9	7	8
Mvmt Flow	129	76	23	9	97	18	37	92	15	15	58	83
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	8.9	9.4	9.1
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	57%	7%	10%
Vol Thru, %	64%	33%	78%	37%
Vol Right, %	11%	10%	15%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	133	210	114	143
LT Vol	34	119	8	14
Through Vol	85	70	89	53
RT Vol	14	21	17	76
Lane Flow Rate	145	228	124	155
Geometry Grp	1	1	1	1
Degree of Util (X)	0.201	0.31	0.167	0.207
Departure Headway (Hd)	5.012	4.888	4.848	4.802
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	730	734	741
Service Time	3.081	2.952	2.92	2.871
HCM Lane V/C Ratio	0.204	0.312	0.169	0.209
HCM Control Delay	9.4	10.2	8.9	9.1
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.7	1.3	0.6	0.8

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	20.4	42.4	93.6	22.9	21.6	22.0
Average Queue (m)	6.2	18.2	53.2	6.3	6.4	8.5
95th Queue (m)	16.3	36.1	97.9	16.9	16.5	18.5
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			3			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	0			0	0
Queuing Penalty (veh)	0	0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.7	15.8	19.8
Average Queue (m)	0.1	2.2	11.6
95th Queue (m)	1.1	9.7	17.8
Link Distance (m)	263.7	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	89.7	46.9	15.6	54.9
Average Queue (m)	31.3	3.6	2.7	23.8
95th Queue (m)	75.5	20.9	10.6	47.9
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	1			2
Queuing Penalty (veh)	5			0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	24.7	51.9	127.4	15.8	19.8	19.3
Average Queue (m)	7.1	12.7	32.1	4.3	6.1	5.5
95th Queue (m)	18.3	33.8	79.2	12.5	15.4	13.4
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	12.8	9.2	9.2
Average Queue (m)	4.0	8.3	0.5	0.8
95th Queue (m)	11.2	13.3	4.1	5.1
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	18.9	9.2	15.5
Average Queue (m)	9.8	3.3	1.9
95th Queue (m)	15.1	10.3	8.8
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	12.7	6.9
Average Queue (m)	5.5	0.5
95th Queue (m)	13.1	3.9
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.0	4.1
Average Queue (m)	4.7	0.2
95th Queue (m)	11.3	3.0
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LTR	R	LTR
Maximum Queue (m)	16.5	13.8	14.6	8.5	21.4
Average Queue (m)	10.2	7.7	8.5	1.1	12.2
95th Queue (m)	15.5	12.8	13.0	5.7	18.6
Link Distance (m)	283.4	342.5	456.1	456.1	231.1
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 23:

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

Network Summary

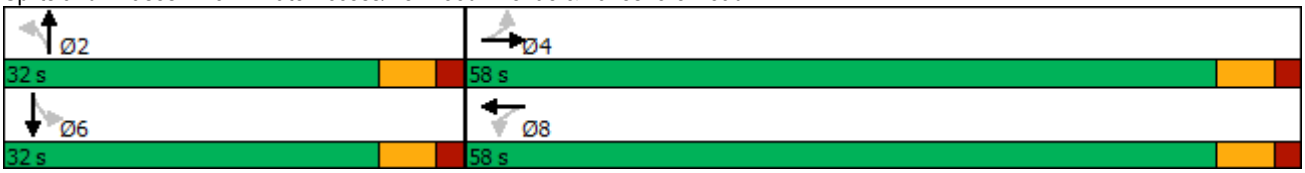
Network wide Queuing Penalty: 8

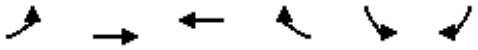
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	462	4	10	970	57	18	0	5	26	3	39
Future Volume (vph)	36	462	4	10	970	57	18	0	5	26	3	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.973			0.860	
Flt Protected	0.950							0.962		0.950		
Satd. Flow (prot)	1825	1882	0	0	1888	0	0	1713	0	1825	1593	0
Flt Permitted	0.277				0.995			0.738		0.800		
Satd. Flow (perm)	532	1882	0	0	1878	0	0	1314	0	1537	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			6			36			42	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	39	502	4	11	1054	62	20	0	5	28	3	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	506	0	0	1127	0	0	25	0	28	45	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	60.4	60.4			60.4			8.2		8.2	8.2	
Actuated g/C Ratio	0.83	0.83			0.83			0.11		0.11	0.11	
v/c Ratio	0.09	0.32			0.72			0.14		0.16	0.21	
Control Delay	3.5	3.6			9.5			9.9		31.3	13.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.5	3.6			9.5			9.9		31.3	13.6	
LOS	A	A			A			A		C	B	
Approach Delay		3.6			9.5			9.9			20.4	
Approach LOS		A			A			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 72.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 80.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



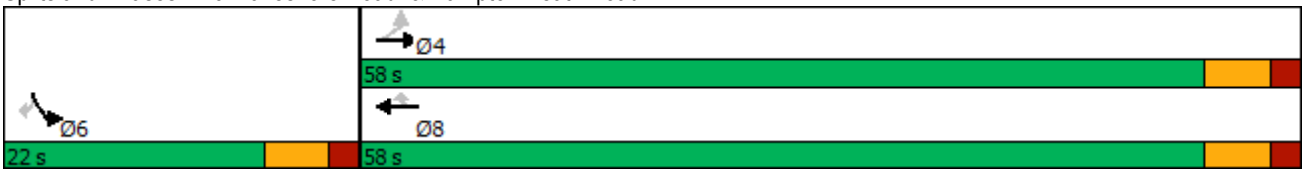


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	418	934	106	35	38
Future Volume (vph)	34	418	934	106	35	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1374
Flt Permitted	0.223				0.950	
Satd. Flow (perm)	386	1695	1712	1470	1643	1374
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				115		41
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	7%
Adj. Flow (vph)	37	454	1015	115	38	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	454	1015	115	38	41
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	58.0	58.0	58.0	58.0	22.0	22.0
Total Split (%)	72.5%	72.5%	72.5%	72.5%	27.5%	27.5%
Maximum Green (s)	52.0	52.0	52.0	52.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	65.9	65.9	65.9	65.9	7.4	7.4
Actuated g/C Ratio	0.85	0.85	0.85	0.85	0.10	0.10
v/c Ratio	0.11	0.32	0.70	0.09	0.25	0.25
Control Delay	3.8	3.4	9.0	0.9	36.4	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	3.4	9.0	0.9	36.4	14.6
LOS	A	A	A	A	D	B
Approach Delay		3.5	8.2		25.1	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 80			
Actuated Cycle Length: 77.7			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	97	53	53	69	67	56
Future Vol, veh/h	97	53	53	69	67	56
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, %	4	0	2	6	0	0
Mvmt Flow	105	58	58	75	73	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	163	0	325	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	191	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1416	-	673	920
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1416	-	644	920
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	846	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	746	-	-	1416	-
HCM Lane V/C Ratio	0.179	-	-	0.041	-
HCM Control Delay (s)	10.9	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	76	414	3	5	930	5	4	0	4	34	0	97
Future Vol, veh/h	76	414	3	5	930	5	4	0	4	34	0	97
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	83	450	3	5	1011	5	4	0	4	37	0	105

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1016	0	0	453	0	0	1694	1644	452	1644	1643	1014
Stage 1	-	-	-	-	-	-	618	618	-	1024	1024	-
Stage 2	-	-	-	-	-	-	1076	1026	-	620	619	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	691	-	-	1118	-	-	74	101	612	81	101	292
Stage 1	-	-	-	-	-	-	480	484	-	286	315	-
Stage 2	-	-	-	-	-	-	268	315	-	479	483	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	691	-	-	1118	-	-	41	84	612	70	84	292
Mov Cap-2 Maneuver	-	-	-	-	-	-	75	168	-	166	198	-
Stage 1	-	-	-	-	-	-	403	406	-	240	312	-
Stage 2	-	-	-	-	-	-	170	312	-	399	405	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0	33.7	38.5
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	134	691	-	-	1118	-	-	244
HCM Lane V/C Ratio	0.065	0.12	-	-	0.005	-	-	0.584
HCM Control Delay (s)	33.7	10.9	0	-	8.2	0	-	38.5
HCM Lane LOS	D	B	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.2	0.4	-	-	0	-	-	3.3

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	1	8	17	3	38	19	61	13	34	43	12
Future Vol, veh/h	6	1	8	17	3	38	19	61	13	34	43	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	1	9	18	3	41	21	66	14	37	47	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	265	250	54	248	249	73	60	0	0	80	0	0
Stage 1	128	128	-	115	115	-	-	-	-	-	-	-
Stage 2	137	122	-	133	134	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	692	656	1019	710	657	995	1556	-	-	1531	-	-
Stage 1	881	794	-	895	804	-	-	-	-	-	-	-
Stage 2	871	799	-	875	789	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	641	630	1019	682	631	995	1556	-	-	1531	-	-
Mov Cap-2 Maneuver	665	635	-	698	638	-	-	-	-	-	-	-
Stage 1	869	774	-	882	793	-	-	-	-	-	-	-
Stage 2	820	788	-	845	769	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.5	1.5	2.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1556	-	-	813	862	1531	-	-
HCM Lane V/C Ratio	0.013	-	-	0.02	0.073	0.024	-	-
HCM Control Delay (s)	7.3	0	-	9.5	9.5	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	50	4	58	5	0	6	72	52	3	0	44	31
Future Vol, veh/h	50	4	58	5	0	6	72	52	3	0	44	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	54	4	63	5	0	7	78	57	3	0	48	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	283	281	65	314	297	59	82	0	0	60	0	0
Stage 1	65	65	-	215	215	-	-	-	-	-	-	-
Stage 2	218	216	-	99	82	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	673	631	1005	643	618	1012	1528	-	-	1556	-	-
Stage 1	951	845	-	792	729	-	-	-	-	-	-	-
Stage 2	789	728	-	912	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	641	598	1005	575	585	1012	1528	-	-	1556	-	-
Mov Cap-2 Maneuver	652	607	-	610	593	-	-	-	-	-	-	-
Stage 1	901	845	-	750	690	-	-	-	-	-	-	-
Stage 2	742	689	-	850	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.7	4.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1528	-	-	794	779	1556	-	-
HCM Lane V/C Ratio	0.051	-	-	0.153	0.015	-	-	-
HCM Control Delay (s)	7.5	0	-	10.4	9.7	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	1	103	19	10	50
Future Vol, veh/h	26	1	103	19	10	50
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	28	1	112	21	11	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	199	123	0	0	133	0
Stage 1	123	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	794	933	-	-	1464	-
Stage 1	907	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	788	933	-	-	1464	-
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	952	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	783	1464	-
HCM Lane V/C Ratio	-	-	0.037	0.007	-
HCM Control Delay (s)	-	-	9.8	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	10	5	100	40	23
Future Vol, veh/h	17	10	5	100	40	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	18	11	5	109	43	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	175	56	68	0	-	0
Stage 1	56	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	819	1016	1546	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	817	1016	1546	-	-	-
Mov Cap-2 Maneuver	817	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1546	-	881	-	-
HCM Lane V/C Ratio	0.004	-	0.033	-	-
HCM Control Delay (s)	7.3	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	47	18	13	83	13	12	94	10	34	98	53
Future Vol, veh/h	45	47	18	13	83	13	12	94	10	34	98	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	49	51	20	14	90	14	13	102	11	37	107	58
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.8	8.8	9.1	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	0%	41%	12%	18%
Vol Thru, %	88%	0%	43%	76%	53%
Vol Right, %	1%	100%	16%	12%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	9	110	109	185
LT Vol	12	0	45	13	34
Through Vol	94	0	47	83	98
RT Vol	1	9	18	13	53
Lane Flow Rate	116	10	120	118	201
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.172	0.012	0.16	0.158	0.257
Departure Headway (Hd)	5.31	4.554	4.823	4.794	4.609
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	673	782	740	745	776
Service Time	3.059	2.303	2.873	2.844	2.654
HCM Lane V/C Ratio	0.172	0.013	0.162	0.158	0.259
HCM Control Delay	9.2	7.4	8.8	8.8	9.3
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0.6	0.6	1

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	26.7	44.3	72.5	15.2	20.0	24.1
Average Queue (m)	7.9	22.6	30.8	5.1	7.3	9.3
95th Queue (m)	19.2	40.3	58.0	13.9	15.7	19.0
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)		0			0	0
Queuing Penalty (veh)		0			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	9.3	18.1
Average Queue (m)	1.0	9.8
95th Queue (m)	5.6	15.6
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	51.0	20.9	12.4	29.8
Average Queue (m)	15.4	1.5	2.6	13.3
95th Queue (m)	38.1	9.7	9.7	22.5
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	14.0	50.1	41.8	15.6	18.9	11.2
Average Queue (m)	4.9	19.8	18.1	5.2	8.6	4.1
95th Queue (m)	12.9	42.4	33.8	13.0	16.0	9.4
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		1				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	14.2	2.1	6.8
Average Queue (m)	4.3	6.7	0.1	0.5
95th Queue (m)	11.5	13.6	1.3	3.9
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.3	10.6	9.3	2.3
Average Queue (m)	10.3	4.5	1.5	0.2
95th Queue (m)	15.4	12.1	7.1	2.1
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB
Directions Served	LR
Maximum Queue (m)	12.6
Average Queue (m)	5.7
95th Queue (m)	13.2
Link Distance (m)	127.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	9.9	5.8
Average Queue (m)	4.6	0.3
95th Queue (m)	11.2	3.7
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

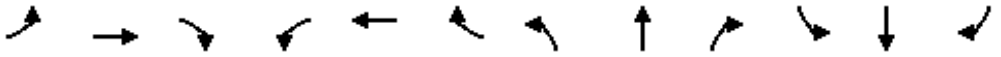
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.7	14.8	16.6	18.5
Average Queue (m)	8.7	8.8	10.6	10.9
95th Queue (m)	14.4	14.2	15.2	16.9
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

Network wide Queuing Penalty: 1

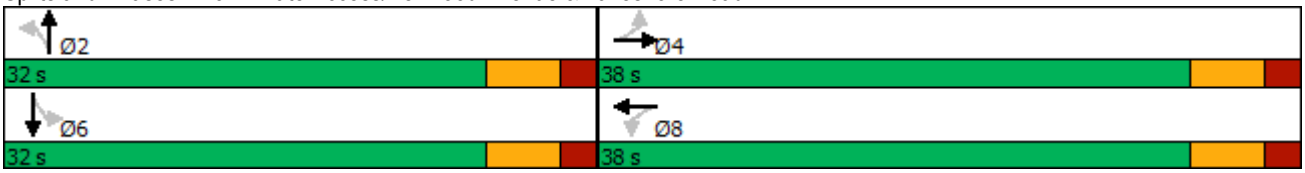


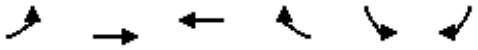
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	497	13	13	497	52	13	0	12	40	3	60
Future Volume (vph)	49	497	13	13	497	52	13	0	12	40	3	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.987			0.935			0.857	
Flt Protected	0.950				0.999			0.975		0.950		
Satd. Flow (prot)	1825	1895	0	0	1894	0	0	1665	0	1825	1611	0
Flt Permitted	0.458				0.986			0.801		0.740		
Satd. Flow (perm)	880	1895	0	0	1870	0	0	1368	0	1422	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			47			65	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	53	540	14	14	540	57	14	0	13	43	3	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	554	0	0	611	0	0	27	0	43	68	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0	32.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	32.0	32.0		32.0	32.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.0	39.0			39.0			8.3		8.3	8.3	
Actuated g/C Ratio	0.71	0.71			0.71			0.15		0.15	0.15	
v/c Ratio	0.09	0.41			0.46			0.11		0.20	0.23	
Control Delay	4.7	6.2			6.6			5.2		22.2	8.8	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.7	6.2			6.6			5.2		22.2	8.8	
LOS	A	A			A			A		C	A	
Approach Delay		6.0			6.6			5.2			14.0	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 55.2			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



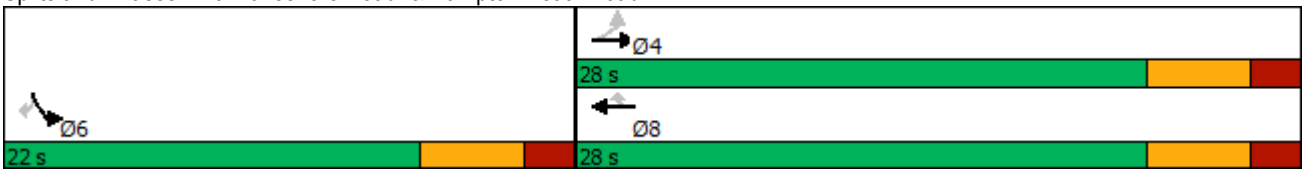


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	459	490	78	69	39
Future Volume (vph)	28	459	490	78	69	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.448				0.950	
Satd. Flow (perm)	775	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				85		42
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	30	499	533	85	75	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	499	533	85	75	42
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	28.0	28.0	28.0	28.0	22.0	22.0
Total Split (%)	56.0%	56.0%	56.0%	56.0%	44.0%	44.0%
Maximum Green (s)	22.0	22.0	22.0	22.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	33.0	33.0	33.0	33.0	7.5	7.5
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.17	0.17
v/c Ratio	0.05	0.40	0.42	0.08	0.27	0.15
Control Delay	5.4	6.7	6.9	2.0	18.5	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	6.7	6.9	2.0	18.5	7.4
LOS	A	A	A	A	B	A
Approach Delay		6.6	6.2		14.5	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 50			
Actuated Cycle Length: 45.1			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 7.2		Intersection LOS: A	
Intersection Capacity Utilization 42.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	57	30	52	53	28
Future Vol, veh/h	50	57	30	52	53	28
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, %	0	0	0	4	0	0
Mvmt Flow	54	62	33	57	58	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	116	0	208	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1485	-	785	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1485	-	767	980
Mov Cap-2 Maneuver	-	-	-	-	767	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	907	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	829	-	-	1485	-
HCM Lane V/C Ratio	0.106	-	-	0.022	-
HCM Control Delay (s)	9.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	93	449	6	3	455	53	4	0	6	32	0	96
Future Vol, veh/h	93	449	6	3	455	53	4	0	6	32	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	101	488	7	3	495	58	4	0	7	35	0	104

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	553	0	0	495	0	0	1276	1253	492	1227	1227	524
Stage 1	-	-	-	-	-	-	694	694	-	530	530	-
Stage 2	-	-	-	-	-	-	582	559	-	697	697	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1027	-	-	1079	-	-	145	174	581	157	180	557
Stage 1	-	-	-	-	-	-	436	447	-	536	530	-
Stage 2	-	-	-	-	-	-	502	514	-	435	446	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1027	-	-	1079	-	-	105	150	581	139	155	557
Mov Cap-2 Maneuver	-	-	-	-	-	-	201	250	-	250	270	-
Stage 1	-	-	-	-	-	-	377	386	-	463	528	-
Stage 2	-	-	-	-	-	-	406	512	-	372	385	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	16.2	17.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	331	1027	-	-	1079	-	-	426
HCM Lane V/C Ratio	0.033	0.098	-	-	0.003	-	-	0.327
HCM Control Delay (s)	16.2	8.9	0	-	8.3	0	-	17.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	1.4

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	4	12	10	3	28	8	79	14	30	80	5
Future Vol, veh/h	3	4	12	10	3	28	8	79	14	30	80	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	13	11	3	30	9	86	15	33	87	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	284	275	90	276	270	94	92	0	0	101	0	0
Stage 1	156	156	-	112	112	-	-	-	-	-	-	-
Stage 2	128	119	-	164	158	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	672	636	973	680	640	968	1515	-	-	1504	-	-
Stage 1	851	772	-	898	807	-	-	-	-	-	-	-
Stage 2	881	801	-	843	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	634	618	973	653	621	968	1515	-	-	1504	-	-
Mov Cap-2 Maneuver	667	628	-	679	634	-	-	-	-	-	-	-
Stage 1	846	754	-	893	802	-	-	-	-	-	-	-
Stage 2	845	796	-	808	753	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.5	0.6	1.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	819	847	1504	-	-
HCM Lane V/C Ratio	0.006	-	-	0.025	0.053	0.022	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.5	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	3	60	10	4	5	65	32	9	8	40	34
Future Vol, veh/h	54	3	60	10	4	5	65	32	9	8	40	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	59	3	65	11	4	5	71	35	10	9	43	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	267	267	62	296	280	40	80	0	0	45	0	0
Stage 1	80	80	-	182	182	-	-	-	-	-	-	-
Stage 2	187	187	-	114	98	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	690	642	1009	660	632	1037	1531	-	-	1576	-	-
Stage 1	934	832	-	824	753	-	-	-	-	-	-	-
Stage 2	819	749	-	896	818	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	655	607	1009	589	598	1037	1531	-	-	1576	-	-
Mov Cap-2 Maneuver	665	616	-	621	605	-	-	-	-	-	-	-
Stage 1	889	827	-	784	717	-	-	-	-	-	-	-
Stage 2	771	713	-	830	813	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	10.4	4.6	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1531	-	-	804	690	1576	-	-
HCM Lane V/C Ratio	0.046	-	-	0.158	0.03	0.006	-	-
HCM Control Delay (s)	7.5	0	-	10.3	10.4	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	6	67	31	1	61
Future Vol, veh/h	22	6	67	31	1	61
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	24	7	73	34	1	66

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	158	90	0	0	107	0
Stage 1	90	-	-	-	-	-
Stage 2	68	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	838	973	-	-	1497	-
Stage 1	939	-	-	-	-	-
Stage 2	960	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	837	973	-	-	1497	-
Mov Cap-2 Maneuver	815	-	-	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	960	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	844	1497	-
HCM Lane V/C Ratio	-	-	0.036	0.001	-
HCM Control Delay (s)	-	-	9.4	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	6	3	78	66	28
Future Vol, veh/h	14	6	3	78	66	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	15	7	3	85	72	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	178	87	102	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	816	977	1238	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	814	977	1238	-	-	-
Mov Cap-2 Maneuver	814	-	-	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	938	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1238	-	857	-	-
HCM Lane V/C Ratio	0.003	-	0.025	-	-
HCM Control Delay (s)	7.9	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	34	17	21	28	16	18	89	14	21	85	38
Future Vol, veh/h	27	34	17	21	28	16	18	89	14	21	85	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	29	37	18	23	30	17	20	97	15	23	92	41
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8	8.2	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	35%	32%	15%
Vol Thru, %	74%	44%	43%	59%
Vol Right, %	12%	22%	25%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	78	65	144
LT Vol	18	27	21	21
Through Vol	89	34	28	85
RT Vol	14	17	16	38
Lane Flow Rate	132	85	71	157
Geometry Grp	1	1	1	1
Degree of Util (X)	0.16	0.107	0.089	0.186
Departure Headway (Hd)	4.391	4.562	4.557	4.278
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	818	786	787	841
Service Time	2.41	2.586	2.582	2.296
HCM Lane V/C Ratio	0.161	0.108	0.09	0.187
HCM Control Delay	8.2	8.1	8	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.4	0.3	0.7

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	42.4	148.8	53.1	9.1	21.7	22.5
Average Queue (m)	11.4	69.9	22.2	1.2	11.1	8.1
95th Queue (m)	30.5	143.0	43.1	6.1	19.7	17.4
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)		2				
Queuing Penalty (veh)		0				
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	11			2	0
Queuing Penalty (veh)	1	8			1	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.8	21.1	28.6
Average Queue (m)	0.1	4.8	13.0
95th Queue (m)	1.1	14.5	22.0
Link Distance (m)	263.7	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	77.4	3.2	10.9	35.4
Average Queue (m)	14.0	0.1	3.2	16.2
95th Queue (m)	45.3	1.4	10.3	31.3
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	26.8	85.7	23.7	10.5	9.0	14.7
Average Queue (m)	3.5	26.7	6.1	1.1	2.7	4.8
95th Queue (m)	14.3	64.1	18.2	5.9	8.6	11.5
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		2				
Queuing Penalty (veh)		1				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	14.1	2.3	12.2
Average Queue (m)	4.8	7.2	0.1	2.2
95th Queue (m)	12.1	14.1	1.4	9.2
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	17.4	9.0	13.4
Average Queue (m)	9.0	0.5	0.9
95th Queue (m)	14.5	3.8	6.2
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	13.7	2.3
Average Queue (m)	5.6	0.1
95th Queue (m)	13.8	1.5
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.3	2.3
Average Queue (m)	2.6	0.1
95th Queue (m)	8.8	1.5
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	29.9	20.7	22.1	27.0
Average Queue (m)	15.1	12.0	12.2	13.6
95th Queue (m)	23.9	18.3	18.9	22.0
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

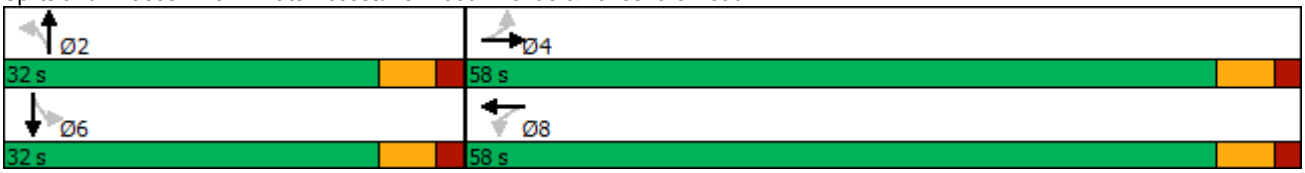
Network wide Queuing Penalty: 11

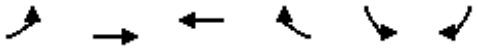
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	1057	1	1	430	44	1	0	3	64	0	56
Future Volume (vph)	69	1057	1	1	430	44	1	0	3	64	0	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.987			0.899			0.850	
Flt Protected	0.950							0.988		0.950		
Satd. Flow (prot)	1706	1902	0	0	1851	0	0	1706	0	1825	1555	0
Flt Permitted	0.497				0.999			0.913		0.755		
Satd. Flow (perm)	892	1902	0	0	1849	0	0	1577	0	1450	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			36			384	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	1%	0%	0%	2%	7%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	75	1149	1	1	467	48	1	0	3	70	0	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	1150	0	0	516	0	0	4	0	70	61	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	57.6	57.6			57.6			9.5		9.5	9.5	
Actuated g/C Ratio	0.77	0.77			0.77			0.13		0.13	0.13	
v/c Ratio	0.11	0.79			0.36			0.02		0.38	0.11	
Control Delay	4.2	13.5			4.9			0.2		35.9	0.4	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.2	13.5			4.9			0.2		35.9	0.4	
LOS	A	B			A			A		D	A	
Approach Delay		12.9			4.9			0.3			19.4	
Approach LOS		B			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 75.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



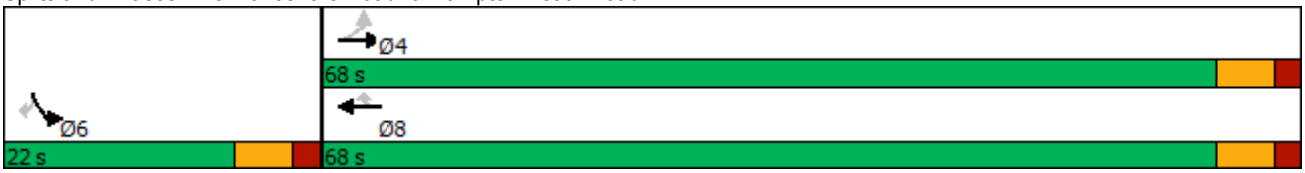


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	1070	300	37	13	29
Future Volume (vph)	34	1070	300	37	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1336
Flt Permitted	0.563				0.950	
Satd. Flow (perm)	973	1695	1712	1470	1643	1336
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				40		32
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	10%
Adj. Flow (vph)	37	1163	326	40	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	1163	326	40	14	32
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	68.0	68.0	68.0	68.0	22.0	22.0
Total Split (%)	75.6%	75.6%	75.6%	75.6%	24.4%	24.4%
Maximum Green (s)	62.0	62.0	62.0	62.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	78.7	78.7	78.7	78.7	6.5	6.5
Actuated g/C Ratio	0.88	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.04	0.78	0.22	0.03	0.12	0.25
Control Delay	2.1	10.5	2.3	0.8	42.2	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.1	10.5	2.3	0.8	42.2	19.4
LOS	A	B	A	A	D	B
Approach Delay		10.3	2.1		26.3	
Approach LOS		B	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 89.7			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 75.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	141	84	74	146	70	87
Future Vol, veh/h	141	84	74	146	70	87
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, %	5	0	6	7	2	2
Mvmt Flow	153	91	80	159	76	95

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	244	0	518	199
Stage 1	-	-	-	-	199	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1299	-	518	842
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1299	-	483	842
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	737	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	632	-	-	1299	-
HCM Lane V/C Ratio	0.27	-	-	0.062	-
HCM Control Delay (s)	12.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	77	1047	0	0	313	34	3	0	4	53	0	44
Future Vol, veh/h	77	1047	0	0	313	34	3	0	4	53	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	4	0	0	0	0	0	0
Mvmt Flow	84	1138	0	0	340	37	3	0	4	58	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	377	0	0	1138	0	0	1689	1683	1138	1667	1665	359
Stage 1	-	-	-	-	-	-	1306	1306	-	359	359	-
Stage 2	-	-	-	-	-	-	383	377	-	1308	1306	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1193	-	-	621	-	-	75	95	248	78	98	690
Stage 1	-	-	-	-	-	-	199	232	-	663	631	-
Stage 2	-	-	-	-	-	-	644	619	-	198	232	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1193	-	-	621	-	-	60	77	248	65	79	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	130	152	-	130	155	-
Stage 1	-	-	-	-	-	-	161	188	-	536	631	-
Stage 2	-	-	-	-	-	-	599	619	-	157	188	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	26	39.5
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	179	1193	-	-	621	-	-	206
HCM Lane V/C Ratio	0.043	0.07	-	-	-	-	-	0.512
HCM Control Delay (s)	26	8.2	0	-	0	-	-	39.5
HCM Lane LOS	D	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	2.6

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	1	17	13	0	27	3	91	19	59	90	1
Future Vol, veh/h	11	1	17	13	0	27	3	91	19	59	90	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	11	0	0	0	6	8	0	2	0
Mvmt Flow	12	1	18	14	0	29	3	99	21	64	98	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	357	353	99	352	343	110	99	0	0	120	0	0
Stage 1	227	227	-	116	116	-	-	-	-	-	-	-
Stage 2	130	126	-	236	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	602	575	962	586	583	949	1507	-	-	1480	-	-
Stage 1	780	720	-	867	803	-	-	-	-	-	-	-
Stage 2	878	796	-	747	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	562	547	962	553	555	949	1507	-	-	1480	-	-
Mov Cap-2 Maneuver	613	572	-	594	584	-	-	-	-	-	-	-
Stage 1	778	687	-	865	801	-	-	-	-	-	-	-
Stage 2	849	794	-	698	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.8	0.2	3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1507	-	-	776	795	1480	-	-
HCM Lane V/C Ratio	0.002	-	-	0.041	0.055	0.043	-	-
HCM Control Delay (s)	7.4	0	-	9.8	9.8	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	1	29	0	1	0	36	36	0	1	46	29
Future Vol, veh/h	39	1	29	0	1	0	36	36	0	1	46	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0	8	28	0	0	6	0
Mvmt Flow	42	1	32	0	1	0	39	39	0	1	50	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	186	185	66	202	201	39	82	0	0	39	0	0
Stage 1	68	68	-	117	117	-	-	-	-	-	-	-
Stage 2	118	117	-	85	84	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	779	713	989	761	699	1038	1478	-	-	1584	-	-
Stage 1	947	842	-	892	803	-	-	-	-	-	-	-
Stage 2	891	803	-	928	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	761	693	989	720	679	1038	1478	-	-	1584	-	-
Mov Cap-2 Maneuver	752	683	-	722	668	-	-	-	-	-	-	-
Stage 1	921	841	-	868	781	-	-	-	-	-	-	-
Stage 2	866	781	-	896	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.4	3.8	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	835	668	1584	-	-
HCM Lane V/C Ratio	0.026	-	-	0.09	0.002	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.7	10.4	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	6	46	16	9	74
Future Vol, veh/h	21	6	46	16	9	74
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	13	9	0	8
Mvmt Flow	23	7	50	17	10	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	159	59	0	0	67	0
Stage 1	59	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	821	1012	-	-	1547	-
Stage 1	951	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	1012	-	-	1547	-
Mov Cap-2 Maneuver	792	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	912	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	832	1547	-
HCM Lane V/C Ratio	-	-	0.035	0.006	-
HCM Control Delay (s)	-	-	9.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	6	46	76	6
Future Vol, veh/h	9	6	6	46	76	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	25	6	8	0
Mvmt Flow	10	7	7	50	83	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	151	87	90	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.35	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	846	977	1372	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	842	977	1372	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1372	-	891	-	-
HCM Lane V/C Ratio	0.005	-	0.018	-	-
HCM Control Delay (s)	7.6	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	77	23	9	99	19	37	94	16	16	59	84
Future Vol, veh/h	131	77	23	9	99	19	37	94	16	16	59	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	6	0	0	6	0	4	3	0	9	7	8
Mvmt Flow	142	84	25	10	108	21	40	102	17	17	64	91
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	9.3	9.8	9.6
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	57%	7%	10%
Vol Thru, %	64%	33%	78%	37%
Vol Right, %	11%	10%	15%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	231	127	159
LT Vol	37	131	9	16
Through Vol	94	77	99	59
RT Vol	16	23	19	84
Lane Flow Rate	160	251	138	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.228	0.349	0.191	0.237
Departure Headway (Hd)	5.144	5.007	4.985	4.937
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	711	711	719
Service Time	3.234	3.088	3.077	3.025
HCM Lane V/C Ratio	0.232	0.353	0.194	0.241
HCM Control Delay	9.8	10.8	9.3	9.6
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.9	1.6	0.7	0.9

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	33.9	81.8	95.6	21.6	21.5	37.1
Average Queue (m)	10.8	28.1	63.3	6.6	7.1	10.3
95th Queue (m)	23.6	71.7	103.4	17.3	17.6	24.6
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)			1			
Queuing Penalty (veh)			16			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	3			1	2
Queuing Penalty (veh)	0	1			0	1

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	13.8	19.6
Average Queue (m)	3.3	11.7
95th Queue (m)	11.0	17.8
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	97.5	92.6	12.0	65.0
Average Queue (m)	55.7	13.2	3.0	57.4
95th Queue (m)	107.3	63.0	10.4	80.7
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	4	0		72
Queuing Penalty (veh)	24	3		0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	26.3	50.5	125.8	73.7	20.2	17.6
Average Queue (m)	8.1	12.7	40.7	6.6	6.9	5.9
95th Queue (m)	19.1	37.6	101.9	44.1	15.5	14.1
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		1				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	12.6	4.4	9.2
Average Queue (m)	3.1	7.8	0.2	0.9
95th Queue (m)	10.1	13.4	2.5	5.3
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.4	10.8	12.4	3.2
Average Queue (m)	10.0	3.3	2.0	0.1
95th Queue (m)	15.3	10.5	8.5	1.5
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	14.3	2.3
Average Queue (m)	6.1	0.2
95th Queue (m)	13.7	2.1
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	11.9
Average Queue (m)	4.9
95th Queue (m)	11.5
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

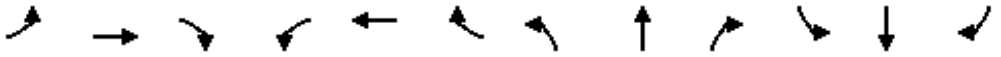
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.6	16.9	17.7	20.6
Average Queue (m)	11.1	10.9	10.6	12.9
95th Queue (m)	16.2	15.8	15.9	19.1
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

Network wide Queuing Penalty: 45

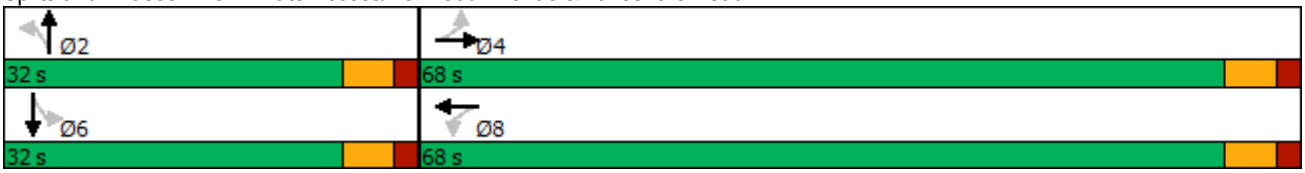


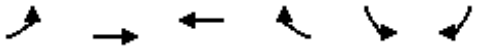
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	510	4	11	1071	63	20	0	6	29	3	43
Future Volume (vph)	40	510	4	11	1071	63	20	0	6	29	3	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.967			0.859	
Flt Protected	0.950							0.963		0.950		
Satd. Flow (prot)	1825	1882	0	0	1888	0	0	1687	0	1825	1590	0
Flt Permitted	0.244				0.994			0.745		0.738		
Satd. Flow (perm)	469	1882	0	0	1876	0	0	1305	0	1418	1590	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			33			47	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	43	554	4	12	1164	68	22	0	7	32	3	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	558	0	0	1244	0	0	29	0	32	50	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	68.0	68.0		68.0	68.0		32.0	32.0		32.0	32.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	62.0	62.0		62.0	62.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.2	69.2			69.2			8.4		8.4	8.4	
Actuated g/C Ratio	0.81	0.81			0.81			0.10		0.10	0.10	
v/c Ratio	0.11	0.37			0.82			0.18		0.23	0.25	
Control Delay	3.7	4.0			13.3			14.1		38.9	15.1	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.7	4.0			13.3			14.1		38.9	15.1	
LOS	A	A			B			B		D	B	
Approach Delay		4.0			13.3			14.1			24.4	
Approach LOS		A			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 85.6			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 87.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



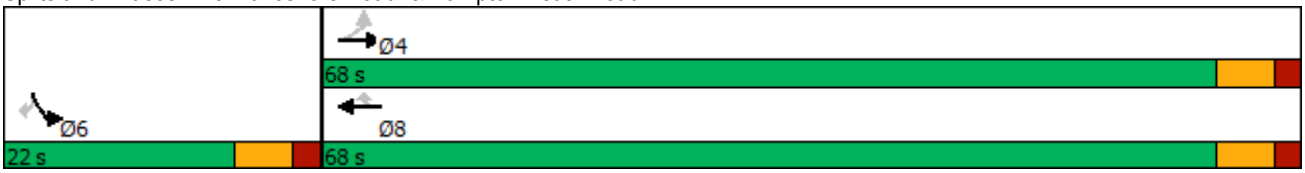


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	37	461	1031	117	39	41
Future Volume (vph)	37	461	1031	117	39	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1374
Flt Permitted	0.178				0.950	
Satd. Flow (perm)	308	1695	1712	1470	1643	1374
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				127		45
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	7%
Adj. Flow (vph)	40	501	1121	127	42	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	501	1121	127	42	45
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	68.0	68.0	68.0	68.0	22.0	22.0
Total Split (%)	75.6%	75.6%	75.6%	75.6%	24.4%	24.4%
Maximum Green (s)	62.0	62.0	62.0	62.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	74.2	74.2	74.2	74.2	7.8	7.8
Actuated g/C Ratio	0.82	0.82	0.82	0.82	0.09	0.09
v/c Ratio	0.16	0.36	0.80	0.10	0.30	0.28
Control Delay	4.6	3.9	12.6	0.8	43.2	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	3.9	12.6	0.8	43.2	16.0
LOS	A	A	B	A	D	B
Approach Delay		3.9	11.4		29.2	
Approach LOS		A	B		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90.3			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 10.0		Intersection LOS: B	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	59	59	76	74	61
Future Vol, veh/h	107	59	59	76	74	61
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, %	4	0	2	6	0	0
Mvmt Flow	116	64	64	83	80	66

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	180	0	359	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	211	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1396	-	644	904
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	829	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1396	-	613	904
Mov Cap-2 Maneuver	-	-	-	-	613	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	829	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	717	-	-	1396	-
HCM Lane V/C Ratio	0.205	-	-	0.046	-
HCM Control Delay (s)	11.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	84	457	3	6	1027	44	4	0	4	37	0	107
Future Vol, veh/h	84	457	3	6	1027	44	4	0	4	37	0	107
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	91	497	3	7	1116	48	4	0	4	40	0	116

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1164	0	0	500	0	0	1893	1859	499	1837	1836	1140
Stage 1	-	-	-	-	-	-	681	681	-	1154	1154	-
Stage 2	-	-	-	-	-	-	1212	1178	-	683	682	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	607	-	-	1075	-	-	54	74	576	59	77	247
Stage 1	-	-	-	-	-	-	444	453	-	242	274	-
Stage 2	-	-	-	-	-	-	225	267	-	442	453	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	607	-	-	1075	-	-	24	57	576	48	60	247
Mov Cap-2 Maneuver	-	-	-	-	-	-	24	128	-	132	166	-
Stage 1	-	-	-	-	-	-	352	359	-	192	269	-
Stage 2	-	-	-	-	-	-	117	262	-	347	359	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	0	100.7	65.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	46	607	-	-	1075	-	-	202
HCM Lane V/C Ratio	0.189	0.15	-	-	0.006	-	-	0.775
HCM Control Delay (s)	100.7	12	0	-	8.4	0	-	65.9
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0	-	-	5.3

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	1	9	19	3	41	21	67	14	37	47	13
Future Vol, veh/h	7	1	9	19	3	41	21	67	14	37	47	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	1	10	21	3	45	23	73	15	40	51	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	289	272	58	271	272	81	65	0	0	88	0	0
Stage 1	138	138	-	127	127	-	-	-	-	-	-	-
Stage 2	151	134	-	144	145	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	667	638	1014	686	638	985	1550	-	-	1520	-	-
Stage 1	870	786	-	882	795	-	-	-	-	-	-	-
Stage 2	856	789	-	864	781	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	614	611	1014	657	611	985	1550	-	-	1520	-	-
Mov Cap-2 Maneuver	644	621	-	680	624	-	-	-	-	-	-	-
Stage 1	856	765	-	868	782	-	-	-	-	-	-	-
Stage 2	801	776	-	831	760	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.6	1.5	2.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1550	-	-	796	847	1520	-	-
HCM Lane V/C Ratio	0.015	-	-	0.023	0.081	0.026	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.6	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	56	4	64	6	0	7	80	57	3	0	49	34
Future Vol, veh/h	56	4	64	6	0	7	80	57	3	0	49	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	61	4	70	7	0	8	87	62	3	0	53	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	314	311	72	347	328	64	90	0	0	65	0	0
Stage 1	72	72	-	238	238	-	-	-	-	-	-	-
Stage 2	242	239	-	109	90	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	643	607	996	611	594	1006	1518	-	-	1550	-	-
Stage 1	943	839	-	770	712	-	-	-	-	-	-	-
Stage 2	766	711	-	901	824	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	571	996	540	559	1006	1518	-	-	1550	-	-
Mov Cap-2 Maneuver	626	587	-	582	573	-	-	-	-	-	-	-
Stage 1	887	839	-	725	670	-	-	-	-	-	-	-
Stage 2	715	669	-	834	824	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	9.9	4.3	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1518	-	-	772	753	1550	-	-
HCM Lane V/C Ratio	0.057	-	-	0.175	0.019	-	-	-
HCM Control Delay (s)	7.5	0	-	10.6	9.9	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	1	114	21	11	56
Future Vol, veh/h	29	1	114	21	11	56
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	32	1	124	23	12	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	221	136	0	0	147	0
Stage 1	136	-	-	-	-	-
Stage 2	85	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	772	918	-	-	1447	-
Stage 1	895	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	766	918	-	-	1447	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	767	1447	-
HCM Lane V/C Ratio	-	-	0.043	0.008	-
HCM Control Delay (s)	-	-	9.9	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	19	6	110	44	26
Future Vol, veh/h	11	19	6	110	44	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	12	21	7	120	48	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	196	62	76	0	-	0
Stage 1	62	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	797	1009	1536	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	793	1009	1536	-	-	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1536	-	917	-	-
HCM Lane V/C Ratio	0.004	-	0.036	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	21	50	14	91	14	13	104	11	37	109	59
Future Vol, veh/h	50	21	50	14	91	14	13	104	11	37	109	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	54	23	54	15	99	15	14	113	12	40	118	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9	8.9	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	41%	12%	18%
Vol Thru, %	81%	17%	76%	53%
Vol Right, %	9%	41%	12%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	121	119	205
LT Vol	13	50	14	37
Through Vol	104	21	91	109
RT Vol	11	50	14	59
Lane Flow Rate	139	132	129	223
Geometry Grp	1	1	1	1
Degree of Util (X)	0.184	0.173	0.175	0.282
Departure Headway (Hd)	4.761	4.744	4.861	4.561
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	750	752	733	784
Service Time	2.815	2.801	2.918	2.61
HCM Lane V/C Ratio	0.185	0.176	0.176	0.284
HCM Control Delay	8.9	8.8	9	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.6	0.6	1.2

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	28.2	57.3	75.4	14.3	19.0	25.9
Average Queue (m)	8.9	27.0	32.7	5.5	8.5	10.5
95th Queue (m)	19.7	47.0	59.2	14.0	17.0	19.9
Link Distance (m)		175.8	93.6	62.4		150.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	1			1	1
Queuing Penalty (veh)	0	1			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.6	12.7	17.9
Average Queue (m)	0.1	1.7	9.8
95th Queue (m)	1.0	8.2	14.8
Link Distance (m)	263.7	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	55.0	21.1	10.8	37.2
Average Queue (m)	17.7	1.3	3.6	16.3
95th Queue (m)	41.4	10.1	11.0	28.8
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	27.3	50.9	49.5	16.2	23.0	16.0
Average Queue (m)	5.9	22.2	22.7	5.1	10.7	5.0
95th Queue (m)	18.2	42.6	40.9	13.7	19.2	11.7
Link Distance (m)		177.3				67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)	0	1				
Queuing Penalty (veh)	0	0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.9	14.0	4.6	8.4
Average Queue (m)	4.4	6.8	0.2	1.1
95th Queue (m)	11.8	13.8	2.6	6.1
Link Distance (m)	81.8	79.8	150.0	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.2	10.8	12.5	5.6
Average Queue (m)	10.5	5.0	2.0	0.2
95th Queue (m)	16.3	12.5	8.9	2.1
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB
Directions Served	LR
Maximum Queue (m)	10.9
Average Queue (m)	5.4
95th Queue (m)	12.7
Link Distance (m)	127.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.3	5.1
Average Queue (m)	3.9	0.2
95th Queue (m)	10.3	3.2
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

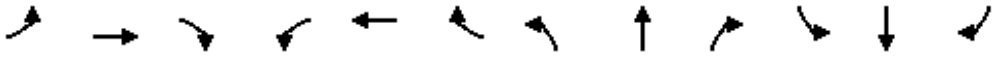
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.5	16.5	16.4	18.4
Average Queue (m)	9.4	9.8	10.5	10.8
95th Queue (m)	14.5	16.0	15.4	15.7
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23:

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

Network Summary

Network wide Queuing Penalty: 2

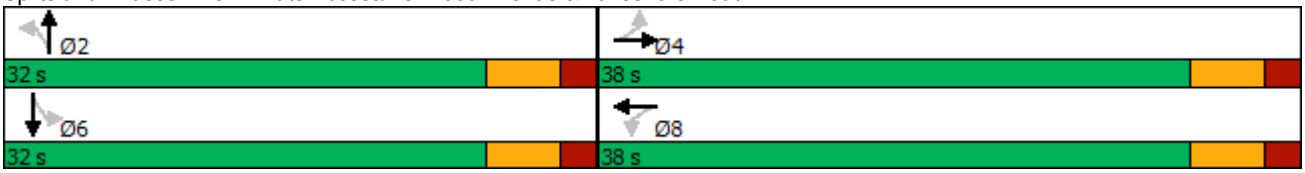


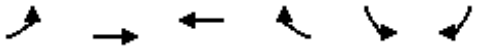
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	548	14	14	548	57	14	0	13	44	3	66
Future Volume (vph)	54	548	14	14	548	57	14	0	13	44	3	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.988			0.935			0.856	
Flt Protected	0.950				0.999			0.975		0.950		
Satd. Flow (prot)	1825	1895	0	0	1896	0	0	1665	0	1825	1612	0
Flt Permitted	0.427				0.985			0.798		0.738		
Satd. Flow (perm)	820	1895	0	0	1870	0	0	1363	0	1418	1612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			10			47			72	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			162.5	
Travel Time (s)		13.2			7.6			5.0			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	59	596	15	15	596	62	15	0	14	48	3	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	611	0	0	673	0	0	29	0	48	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0	32.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	32.0	32.0		32.0	32.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	37.8	37.8			37.8			8.3		8.3	8.3	
Actuated g/C Ratio	0.70	0.70			0.70			0.15		0.15	0.15	
v/c Ratio	0.10	0.46			0.51			0.12		0.22	0.24	
Control Delay	4.9	6.7			7.3			5.7		22.2	8.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.9	6.7			7.3			5.7		22.2	8.6	
LOS	A	A			A			A		C	A	
Approach Delay		6.6			7.3			5.7			13.9	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 54.1			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



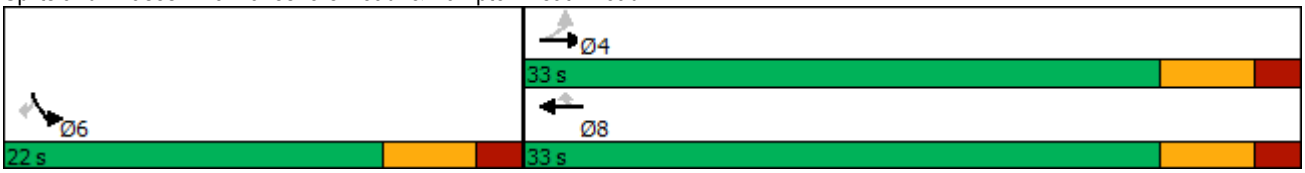


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	31	507	541	86	76	43
Future Volume (vph)	31	507	541	86	76	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.403				0.950	
Satd. Flow (perm)	697	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				93		47
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	34	551	588	93	83	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	551	588	93	83	47
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	33.0	33.0	33.0	33.0	22.0	22.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%
Maximum Green (s)	27.0	27.0	27.0	27.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	36.1	36.1	36.1	36.1	8.0	8.0
Actuated g/C Ratio	0.69	0.69	0.69	0.69	0.15	0.15
v/c Ratio	0.07	0.47	0.49	0.09	0.33	0.18
Control Delay	5.4	7.6	7.9	1.8	22.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	7.6	7.9	1.8	22.4	8.0
LOS	A	A	A	A	C	A
Approach Delay		7.5	7.1		17.2	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 52.4			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 46.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	56	63	33	57	59	31
Future Vol, veh/h	56	63	33	57	59	31
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, %	0	0	0	4	0	0
Mvmt Flow	61	68	36	62	64	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	129	0	229	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	134	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1469	-	764	967
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1469	-	745	967
Mov Cap-2 Maneuver	-	-	-	-	745	-
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	897	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	809	-	-	1469	-
HCM Lane V/C Ratio	0.121	-	-	0.024	-
HCM Control Delay (s)	10.1	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	103	496	7	3	503	59	4	0	7	36	0	106
Future Vol, veh/h	103	496	7	3	503	59	4	0	7	36	0	106
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	112	539	8	3	547	64	4	0	8	39	0	115

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	611	0	0	547	0	0	1410	1384	543	1356	1356	579
Stage 1	-	-	-	-	-	-	767	767	-	585	585	-
Stage 2	-	-	-	-	-	-	643	617	-	771	771	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	978	-	-	1033	-	-	117	145	544	128	151	519
Stage 1	-	-	-	-	-	-	398	414	-	501	501	-
Stage 2	-	-	-	-	-	-	465	484	-	396	413	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	978	-	-	1033	-	-	79	121	544	110	126	519
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	218	-	215	240	-
Stage 1	-	-	-	-	-	-	332	346	-	418	499	-
Stage 2	-	-	-	-	-	-	360	482	-	326	345	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	17.7	20.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	296	978	-	-	1033	-	-	382
HCM Lane V/C Ratio	0.04	0.114	-	-	0.003	-	-	0.404
HCM Control Delay (s)	17.7	9.2	0	-	8.5	0	-	20.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0	-	-	1.9

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	4	13	11	3	31	9	87	16	33	89	6
Future Vol, veh/h	3	4	13	11	3	31	9	87	16	33	89	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	14	12	3	34	10	95	17	36	97	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	315	305	101	306	300	104	104	0	0	112	0	0
Stage 1	173	173	-	124	124	-	-	-	-	-	-	-
Stage 2	142	132	-	182	176	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	642	612	960	650	616	956	1500	-	-	1490	-	-
Stage 1	834	760	-	885	797	-	-	-	-	-	-	-
Stage 2	866	791	-	824	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	602	592	960	621	596	956	1500	-	-	1490	-	-
Mov Cap-2 Maneuver	643	610	-	655	616	-	-	-	-	-	-	-
Stage 1	828	740	-	879	791	-	-	-	-	-	-	-
Stage 2	826	785	-	786	737	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.6	0.6	1.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1500	-	-	808	832	1490	-	-
HCM Lane V/C Ratio	0.007	-	-	0.027	0.059	0.024	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.6	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	60	3	66	11	4	6	71	36	10	9	44	37
Future Vol, veh/h	60	3	66	11	4	6	71	36	10	9	44	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	65	3	72	12	4	7	77	39	11	10	48	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	292	292	68	325	307	45	88	0	0	50	0	0
Stage 1	88	88	-	199	199	-	-	-	-	-	-	-
Stage 2	204	204	-	126	108	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	664	622	1001	632	610	1031	1520	-	-	1570	-	-
Stage 1	925	826	-	807	740	-	-	-	-	-	-	-
Stage 2	803	737	-	883	810	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	627	585	1001	558	574	1031	1520	-	-	1570	-	-
Mov Cap-2 Maneuver	644	600	-	596	588	-	-	-	-	-	-	-
Stage 1	877	820	-	765	702	-	-	-	-	-	-	-
Stage 2	752	699	-	811	804	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	10.5	4.5	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	786	676	1570	-	-
HCM Lane V/C Ratio	0.051	-	-	0.178	0.034	0.006	-	-
HCM Control Delay (s)	7.5	0	-	10.6	10.5	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	7	74	34	1	67
Future Vol, veh/h	24	7	74	34	1	67
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	26	8	80	37	1	73

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	174	99	0	0	117	0
Stage 1	99	-	-	-	-	-
Stage 2	75	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	821	962	-	-	1484	-
Stage 1	930	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	820	962	-	-	1484	-
Mov Cap-2 Maneuver	803	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	834	1484	-
HCM Lane V/C Ratio	-	-	0.04	0.001	-
HCM Control Delay (s)	-	-	9.5	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	16	3	86	73	31
Future Vol, veh/h	7	16	3	86	73	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	8	17	3	93	79	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	195	96	113	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	99	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	798	966	1225	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	796	966	1225	-	-	-
Mov Cap-2 Maneuver	796	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1225	-	907	-	-
HCM Lane V/C Ratio	0.003	-	0.028	-	-
HCM Control Delay (s)	7.9	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	37	19	23	31	17	20	99	16	23	94	41
Future Vol, veh/h	30	37	19	23	31	17	20	99	16	23	94	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	33	40	21	25	34	18	22	108	17	25	102	45
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.2	8.5	8.5
HCM LOS	A	A	A	A

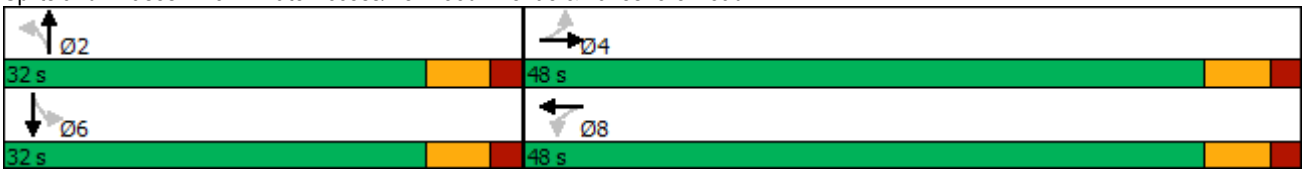
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	35%	32%	15%
Vol Thru, %	73%	43%	44%	59%
Vol Right, %	12%	22%	24%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	86	71	158
LT Vol	20	30	23	23
Through Vol	99	37	31	94
RT Vol	16	19	17	41
Lane Flow Rate	147	93	77	172
Geometry Grp	1	1	1	1
Degree of Util (X)	0.181	0.121	0.1	0.207
Departure Headway (Hd)	4.449	4.645	4.65	4.34
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	806	771	770	826
Service Time	2.478	2.675	2.681	2.368
HCM Lane V/C Ratio	0.182	0.121	0.1	0.208
HCM Control Delay	8.5	8.3	8.2	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.4	0.3	0.8

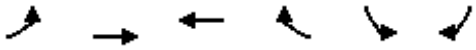
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	865	9	0	434	36	1	0	0	53	0	72
Future Volume (vph)	93	865	9	0	434	36	1	0	0	53	0	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.990						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1706	1898	0	0	1858	0	0	1825	0	1825	1555	0
Flt Permitted	0.459							0.706		0.757		
Satd. Flow (perm)	824	1898	0	0	1858	0	0	1356	0	1454	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8						340	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			86.4	
Travel Time (s)		13.2			7.6			5.0			7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	1%	0%	0%	2%	7%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	101	940	10	0	472	39	1	0	0	58	0	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	950	0	0	511	0	0	1	0	58	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	42.0	42.0		42.0	42.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	47.4	47.4			47.4			8.7		8.7	8.7	
Actuated g/C Ratio	0.74	0.74			0.74			0.14		0.14	0.14	
v/c Ratio	0.17	0.68			0.37			0.01		0.29	0.15	
Control Delay	4.9	9.7			5.3			23.0		28.6	0.7	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.9	9.7			5.3			23.0		28.6	0.7	
LOS	A	A			A			C		C	A	
Approach Delay		9.3			5.3			23.0			12.6	
Approach LOS		A			A			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 64.1			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 92.8%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



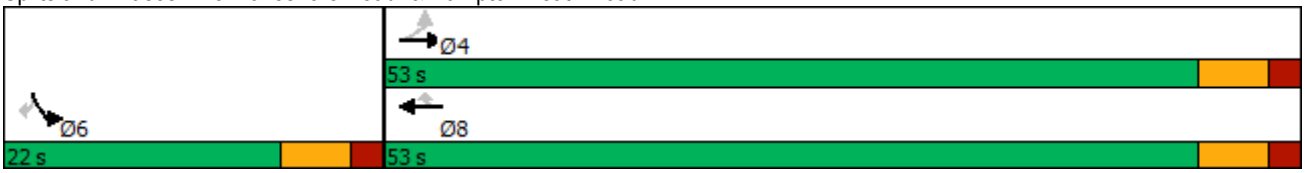


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	872	244	20	24	3
Future Volume (vph)	28	872	244	20	24	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1336
Flt Permitted	0.596				0.950	
Satd. Flow (perm)	1030	1695	1712	1470	1643	1336
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				22		3
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	10%
Adj. Flow (vph)	30	948	265	22	26	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	948	265	22	26	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	53.0	53.0	53.0	53.0	22.0	22.0
Total Split (%)	70.7%	70.7%	70.7%	70.7%	29.3%	29.3%
Maximum Green (s)	47.0	47.0	47.0	47.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	66.4	66.4	66.4	66.4	6.8	6.8
Actuated g/C Ratio	0.90	0.90	0.90	0.90	0.09	0.09
v/c Ratio	0.03	0.62	0.17	0.02	0.17	0.02
Control Delay	2.1	5.7	2.0	1.2	35.5	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.1	5.7	2.0	1.2	35.5	23.7
LOS	A	A	A	A	D	C
Approach Delay		5.5	2.0		34.3	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 75			
Actuated Cycle Length: 73.7			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	42.4	103.1	47.9	4.5	21.5	29.2
Average Queue (m)	14.2	45.0	23.2	0.3	9.3	11.0
95th Queue (m)	33.1	84.5	42.4	2.9	18.7	21.5
Link Distance (m)		175.8	93.6	62.4		73.9
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	7			1	1
Queuing Penalty (veh)	1	6			1	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.6	17.2	29.5
Average Queue (m)	0.1	3.2	15.5
95th Queue (m)	1.0	11.5	25.3
Link Distance (m)	263.8	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	44.5	4.0	9.1	44.2
Average Queue (m)	8.5	0.2	1.6	16.1
95th Queue (m)	30.5	2.8	7.2	30.4
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	33.4	71.4	19.1	5.9	13.5	4.1
Average Queue (m)	2.7	16.3	3.3	0.3	4.0	0.1
95th Queue (m)	14.5	53.7	13.1	2.6	10.7	1.6
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)	0	1				
Queuing Penalty (veh)	0	0				

Intersection: 11: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.2	19.7	8.3
Average Queue (m)	1.1	9.8	0.5
95th Queue (m)	6.1	16.1	4.0
Link Distance (m)	82.2	84.2	65.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	11.0	15.7	12.5
Average Queue (m)	5.7	9.0	1.5
95th Queue (m)	13.0	12.9	7.6
Link Distance (m)	83.5	81.5	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	NB
Directions Served	LTR	LTR
Maximum Queue (m)	18.4	2.1
Average Queue (m)	10.5	0.1
95th Queue (m)	15.5	1.4
Link Distance (m)	93.6	67.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	15.5	6.9
Average Queue (m)	3.7	0.3
95th Queue (m)	11.8	3.0
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	8.3
Average Queue (m)	4.9
95th Queue (m)	11.4
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 21: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.7	16.6	18.5	16.6
Average Queue (m)	13.1	11.0	12.2	10.8
95th Queue (m)	19.3	16.7	18.0	15.9
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 9

Intersection	
Int Delay, s/veh	5.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	103	41	120	161	71
Future Vol, veh/h	116	103	41	120	161	71
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, %	5	0	6	7	2	2
Mvmt Flow	126	112	45	130	175	77

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	238	0	402	182
Stage 1	-	-	-	-	182	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1306	-	604	861
Stage 1	-	-	-	-	849	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1306	-	582	861
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	817	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	646	-	-	1306	-
HCM Lane V/C Ratio	0.39	-	-	0.034	-
HCM Control Delay (s)	14.1	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.9	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	59	859	0	0	257	26	2	0	4	37	0	116
Future Vol, veh/h	59	859	0	0	257	26	2	0	4	37	0	116
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	4	0	0	0	0	0	0
Mvmt Flow	64	934	0	0	279	28	2	0	4	40	0	126

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	307	0	0	934	0	0	1418	1369	934	1357	1355	293
Stage 1	-	-	-	-	-	-	1062	1062	-	293	293	-
Stage 2	-	-	-	-	-	-	356	307	-	1064	1062	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1265	-	-	741	-	-	116	148	325	127	151	751
Stage 1	-	-	-	-	-	-	273	303	-	719	674	-
Stage 2	-	-	-	-	-	-	666	665	-	272	303	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1265	-	-	741	-	-	89	132	325	115	135	751
Mov Cap-2 Maneuver	-	-	-	-	-	-	183	218	-	197	222	-
Stage 1	-	-	-	-	-	-	244	271	-	644	674	-
Stage 2	-	-	-	-	-	-	554	665	-	240	271	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	19.3	17.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	1265	-	-	741	-	-	447
HCM Lane V/C Ratio	0.025	0.051	-	-	-	-	-	0.372
HCM Control Delay (s)	19.3	8	0	-	0	-	-	17.7
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	1.7

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	35	9	44	0	80	50	25	89	0
Future Vol, veh/h	0	5	0	35	9	44	0	80	50	25	89	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	0	38	10	48	0	87	54	27	97	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	294	292	97	268	265	114	97	0	0	141	0	0
Stage 1	151	151	-	114	114	-	-	-	-	-	-	-
Stage 2	143	141	-	154	151	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	658	619	959	685	640	939	1496	-	-	1442	-	-
Stage 1	851	772	-	891	801	-	-	-	-	-	-	-
Stage 2	860	780	-	848	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	607	607	959	670	627	939	1496	-	-	1442	-	-
Mov Cap-2 Maneuver	607	607	-	670	627	-	-	-	-	-	-	-
Stage 1	851	757	-	891	801	-	-	-	-	-	-	-
Stage 2	806	780	-	825	757	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	10.3	0	1.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1496	-	-	607	776	1442	-	-
HCM Lane V/C Ratio	-	-	-	0.009	0.123	0.019	-	-
HCM Control Delay (s)	0	-	-	11	10.3	7.5	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	5	14	2	9	82	2	119	2	37	74	1
Future Vol, veh/h	9	5	14	2	9	82	2	119	2	37	74	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	11	0	0	0	6	8	0	2	0
Mvmt Flow	10	5	15	2	10	89	2	129	2	40	80	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	345	296	81	305	295	130	81	0	0	131	0	0
Stage 1	161	161	-	134	134	-	-	-	-	-	-	-
Stage 2	184	135	-	171	161	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	613	619	985	630	620	925	1529	-	-	1467	-	-
Stage 1	846	769	-	848	789	-	-	-	-	-	-	-
Stage 2	822	789	-	810	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	535	600	985	602	601	925	1529	-	-	1467	-	-
Mov Cap-2 Maneuver	584	615	-	640	623	-	-	-	-	-	-	-
Stage 1	845	747	-	847	788	-	-	-	-	-	-	-
Stage 2	733	788	-	769	747	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	9.6	0.1	2.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1529	-	-	742	876	1467	-	-
HCM Lane V/C Ratio	0.001	-	-	0.041	0.115	0.027	-	-
HCM Control Delay (s)	7.4	0	-	10.1	9.6	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	84	0	25	0	0	0	19	29	0	1	37	5
Future Vol, veh/h	84	0	25	0	0	0	19	29	0	1	37	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0	8	28	0	0	6	0
Mvmt Flow	91	0	27	0	0	0	21	32	0	1	40	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	119	119	43	132	121	32	45	0	0	32	0	0
Stage 1	45	45	-	74	74	-	-	-	-	-	-	-
Stage 2	74	74	-	58	47	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	861	775	1019	845	773	1048	1525	-	-	1593	-	-
Stage 1	974	861	-	940	837	-	-	-	-	-	-	-
Stage 2	940	837	-	959	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	852	763	1019	813	761	1048	1525	-	-	1593	-	-
Mov Cap-2 Maneuver	818	731	-	790	727	-	-	-	-	-	-	-
Stage 1	960	860	-	927	825	-	-	-	-	-	-	-
Stage 2	927	825	-	932	859	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	0	2.9	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1525	-	-	857	-	1593	-	-
HCM Lane V/C Ratio	0.014	-	-	0.138	-	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.9	0	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	5	91	11	7	50
Future Vol, veh/h	11	5	91	11	7	50
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	13	9	0	8
Mvmt Flow	12	5	99	12	8	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	175	105	0	0	111	0
Stage 1	105	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	803	955	-	-	1492	-
Stage 1	907	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	799	955	-	-	1492	-
Mov Cap-2 Maneuver	782	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	829	1492	-
HCM Lane V/C Ratio	-	-	0.021	0.005	-
HCM Control Delay (s)	-	-	9.4	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	1	1	91	55	46
Future Vol, veh/h	22	1	1	91	55	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	25	6	8	0
Mvmt Flow	24	1	1	99	60	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	186	85	110	0	-	0
Stage 1	85	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.35	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	808	980	1349	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	807	980	1349	-	-	-
Mov Cap-2 Maneuver	807	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	928	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1349	-	813	-	-
HCM Lane V/C Ratio	0.001	-	0.031	-	-
HCM Control Delay (s)	7.7	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	63	16	26	81	15	30	109	57	13	60	69
Future Vol, veh/h	108	63	16	26	81	15	30	109	57	13	60	69
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	117	68	17	28	88	16	33	118	62	14	65	75
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	9.2	9.8	9
HCM LOS	B	A	A	A

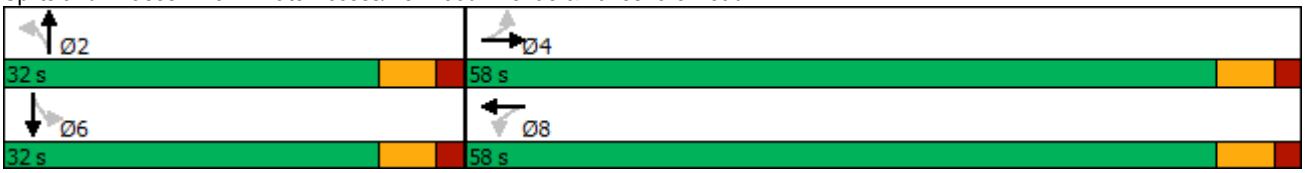
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	58%	21%	9%
Vol Thru, %	56%	34%	66%	42%
Vol Right, %	29%	9%	12%	49%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	196	187	122	142
LT Vol	30	108	26	13
Through Vol	109	63	81	60
RT Vol	57	16	15	69
Lane Flow Rate	213	203	133	154
Geometry Grp	1	1	1	1
Degree of Util (X)	0.283	0.282	0.184	0.203
Departure Headway (Hd)	4.782	5.002	5.007	4.733
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	746	711	709	752
Service Time	2.853	3.08	3.092	2.809
HCM Lane V/C Ratio	0.286	0.286	0.188	0.205
HCM Control Delay	9.8	10.1	9.2	9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	1.2	1.2	0.7	0.8

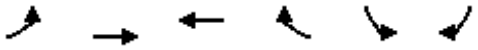
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	447	4	1	918	52	16	0	1	23	0	49
Future Volume (vph)	112	447	4	1	918	52	16	0	1	23	0	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.992			0.850	
Flt Protected	0.950							0.955		0.950		
Satd. Flow (prot)	1825	1882	0	0	1890	0	0	1795	0	1825	1570	0
Flt Permitted	0.292							0.699		0.746		
Satd. Flow (perm)	561	1882	0	0	1890	0	0	1314	0	1433	1570	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			36			111	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			88.4	
Travel Time (s)		13.2			7.6			5.0			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	122	486	4	1	998	57	17	0	1	25	0	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	490	0	0	1056	0	0	18	0	25	53	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	59.2	59.2			59.2			8.2		8.2	8.2	
Actuated g/C Ratio	0.79	0.79			0.79			0.11		0.11	0.11	
v/c Ratio	0.28	0.33			0.71			0.10		0.16	0.20	
Control Delay	5.4	4.1			9.2			6.3		32.0	2.4	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	5.4	4.1			9.2			6.3		32.0	2.4	
LOS	A	A			A			A		C	A	
Approach Delay		4.3			9.2			6.3			11.9	
Approach LOS		A			A			A			B	

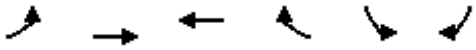
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.3			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 97.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road





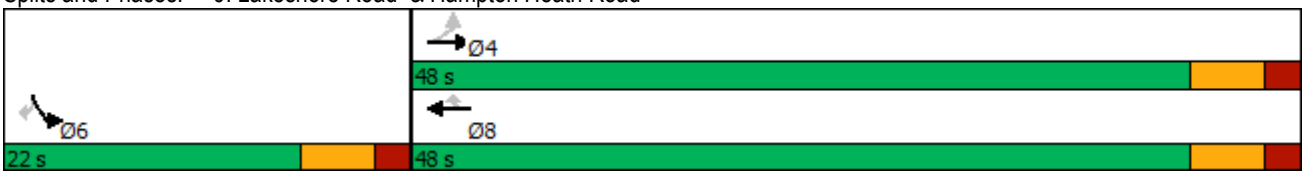
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	30	377	848	68	23	5
Future Volume (vph)	30	377	848	68	23	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1374
Flt Permitted	0.270				0.950	
Satd. Flow (perm)	467	1695	1712	1470	1643	1374
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				74		5
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	7%
Adj. Flow (vph)	33	410	922	74	25	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	410	922	74	25	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	48.0	48.0	48.0	48.0	22.0	22.0
Total Split (%)	68.6%	68.6%	68.6%	68.6%	31.4%	31.4%
Maximum Green (s)	42.0	42.0	42.0	42.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	61.3	61.3	61.3	61.3	6.7	6.7
Actuated g/C Ratio	0.90	0.90	0.90	0.90	0.10	0.10
v/c Ratio	0.08	0.27	0.60	0.06	0.16	0.04
Control Delay	2.7	2.5	5.5	0.9	32.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.7	2.5	5.5	0.9	32.6	20.6
LOS	A	A	A	A	C	C
Approach Delay		2.5	5.2		30.6	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 70			
Actuated Cycle Length: 68.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 4.9		Intersection LOS: A	
Intersection Capacity Utilization 62.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 2: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.6	17.2	6.9	10.7
Average Queue (m)	2.5	9.7	0.2	2.8
95th Queue (m)	9.2	14.6	2.7	9.6
Link Distance (m)	75.2	79.1	75.9	63.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	40.7	81.8	76.2	18.6	16.3	21.0
Average Queue (m)	18.6	20.2	40.6	4.3	5.3	9.3
95th Queue (m)	33.9	56.6	73.1	13.1	13.9	18.7
Link Distance (m)		175.8	93.6	62.4		75.9
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	2	1			0	0
Queuing Penalty (veh)	9	1			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	12.7	27.8
Average Queue (m)	2.2	12.3
95th Queue (m)	9.1	20.2
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	90.5	22.2	12.5	65.0
Average Queue (m)	28.3	1.7	2.4	32.1
95th Queue (m)	65.9	11.0	9.7	60.5
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	0			4
Queuing Penalty (veh)	2			0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	15.4	36.3	52.3	11.0	13.8	6.2
Average Queue (m)	5.6	7.5	16.7	1.8	4.7	0.7
95th Queue (m)	13.7	25.0	44.2	7.8	12.0	4.0
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.2	16.3	2.3	11.1
Average Queue (m)	3.9	8.5	0.1	1.6
95th Queue (m)	11.1	13.6	1.5	7.6
Link Distance (m)	83.5	81.5	63.4	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	19.4	9.2	9.0
Average Queue (m)	10.3	2.9	0.6
95th Queue (m)	15.4	9.7	4.3
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB	SB
Directions Served	LR	L	T
Maximum Queue (m)	10.7	6.5	2.2
Average Queue (m)	3.8	0.2	0.1
95th Queue (m)	11.3	2.4	1.4
Link Distance (m)	127.7	16.2	16.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	9.9
Average Queue (m)	5.8
95th Queue (m)	12.1
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.5	19.9	19.6	23.4
Average Queue (m)	10.0	12.4	11.2	13.5
95th Queue (m)	15.3	18.6	16.7	20.7
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 12

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	9	0	38	4	43	0	44	104	57	35	0
Future Vol, veh/h	0	9	0	38	4	43	0	44	104	57	35	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	41	4	47	0	48	113	62	38	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	292	323	38	272	267	105	38	0	0	161	0	0
Stage 1	162	162	-	105	105	-	-	-	-	-	-	-
Stage 2	130	161	-	167	162	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	660	595	1034	680	639	949	1572	-	-	1418	-	-
Stage 1	840	764	-	901	808	-	-	-	-	-	-	-
Stage 2	874	765	-	835	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	603	568	1034	648	610	949	1572	-	-	1418	-	-
Mov Cap-2 Maneuver	603	568	-	648	610	-	-	-	-	-	-	-
Stage 1	840	730	-	901	808	-	-	-	-	-	-	-
Stage 2	826	765	-	787	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	10.3	0	4.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1572	-	-	568	769	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.017	0.12	0.044	-	-
HCM Control Delay (s)	0	-	-	11.4	10.3	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	129	35	62	113	50
Future Vol, veh/h	88	129	35	62	113	50
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, %	4	0	2	6	0	0
Mvmt Flow	96	140	38	67	123	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	236	0	309	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	143	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1331	-	687	884
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	889	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1331	-	666	884
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	889	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	721	-	-	1331	-
HCM Lane V/C Ratio	0.246	-	-	0.029	-
HCM Control Delay (s)	11.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	119	350	2	5	834	46	4	0	4	50	0	126
Future Vol, veh/h	119	350	2	5	834	46	4	0	4	50	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	129	380	2	5	907	50	4	0	4	54	0	137

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	957	0	0	382	0	0	1650	1606	381	1583	1582	932
Stage 1	-	-	-	-	-	-	639	639	-	942	942	-
Stage 2	-	-	-	-	-	-	1011	967	-	641	640	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	727	-	-	1188	-	-	80	106	671	89	110	326
Stage 1	-	-	-	-	-	-	468	474	-	318	344	-
Stage 2	-	-	-	-	-	-	291	335	-	466	473	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	727	-	-	1188	-	-	38	81	671	73	84	326
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	152	-	164	199	-
Stage 1	-	-	-	-	-	-	363	367	-	246	341	-
Stage 2	-	-	-	-	-	-	167	332	-	359	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0	10.4	51.9
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	671	727	-	-	1188	-	-	255
HCM Lane V/C Ratio	0.013	0.178	-	-	0.005	-	-	0.75
HCM Control Delay (s)	10.4	11	0	-	8	0	-	51.9
HCM Lane LOS	B	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0	0.6	-	-	0	-	-	5.4

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	5	7	11	4	59	18	85	7	66	24	11
Future Vol, veh/h	6	5	7	11	4	59	18	85	7	66	24	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	5	8	12	4	64	20	92	8	72	26	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	346	316	32	319	318	96	38	0	0	100	0	0
Stage 1	176	176	-	136	136	-	-	-	-	-	-	-
Stage 2	170	140	-	183	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	612	603	1048	638	602	966	1585	-	-	1505	-	-
Stage 1	831	757	-	872	788	-	-	-	-	-	-	-
Stage 2	837	785	-	823	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	542	566	1048	600	565	966	1585	-	-	1505	-	-
Mov Cap-2 Maneuver	585	583	-	635	590	-	-	-	-	-	-	-
Stage 1	820	720	-	861	778	-	-	-	-	-	-	-
Stage 2	767	775	-	771	716	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.6	1.2	4.9
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1585	-	-	706	869	1505	-	-
HCM Lane V/C Ratio	0.012	-	-	0.028	0.093	0.048	-	-
HCM Control Delay (s)	7.3	0	-	10.2	9.6	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	68	1	40	5	0	6	44	41	2	0	40	9
Future Vol, veh/h	68	1	40	5	0	6	44	41	2	0	40	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	74	1	43	5	0	7	48	45	2	0	43	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	194	191	48	212	195	46	53	0	0	47	0	0
Stage 1	48	48	-	142	142	-	-	-	-	-	-	-
Stage 2	146	143	-	70	53	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	770	708	1027	749	704	1029	1566	-	-	1573	-	-
Stage 1	971	859	-	866	783	-	-	-	-	-	-	-
Stage 2	861	782	-	945	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	747	686	1027	700	682	1029	1566	-	-	1573	-	-
Mov Cap-2 Maneuver	735	673	-	706	666	-	-	-	-	-	-	-
Stage 1	941	859	-	839	759	-	-	-	-	-	-	-
Stage 2	829	758	-	904	855	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	9.3	3.7	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1566	-	-	820	852	1573	-	-
HCM Lane V/C Ratio	0.031	-	-	0.144	0.014	-	-	-
HCM Control Delay (s)	7.4	0	-	10.1	9.3	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	1	121	12	9	33
Future Vol, veh/h	17	1	121	12	9	33
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	18	1	132	13	10	36

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	195	139	0	0	145	0
Stage 1	139	-	-	-	-	-
Stage 2	56	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	798	915	-	-	1450	-
Stage 1	893	-	-	-	-	-
Stage 2	972	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	792	915	-	-	1450	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	972	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	785	1450	-
HCM Lane V/C Ratio	-	-	0.025	0.007	-
HCM Control Delay (s)	-	-	9.7	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	1	1	117	15	139
Future Vol, veh/h	40	1	1	117	15	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	43	1	1	127	16	151

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	221	92	167	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	129	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	772	971	1423	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	771	971	1423	-	-	-
Mov Cap-2 Maneuver	771	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.1	0
HCM LOS	A		

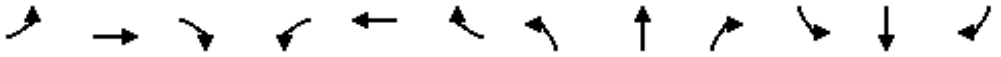
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1423	-	775	-	-
HCM Lane V/C Ratio	0.001	-	0.058	-	-
HCM Control Delay (s)	7.5	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	42	12	64	75	12	11	101	49	30	138	48
Future Vol, veh/h	41	42	12	64	75	12	11	101	49	30	138	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	45	46	13	70	82	13	12	110	53	33	150	52
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.6	9.2	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	43%	42%	14%
Vol Thru, %	63%	44%	50%	64%
Vol Right, %	30%	13%	8%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	95	151	216
LT Vol	11	41	64	30
Through Vol	101	42	75	138
RT Vol	49	12	12	48
Lane Flow Rate	175	103	164	235
Geometry Grp	1	1	1	1
Degree of Util (X)	0.228	0.146	0.229	0.305
Departure Headway (Hd)	4.688	5.087	5.026	4.677
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	760	698	709	763
Service Time	2.755	3.167	3.099	2.74
HCM Lane V/C Ratio	0.23	0.148	0.231	0.308
HCM Control Delay	9.2	9	9.6	9.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.5	0.9	1.3

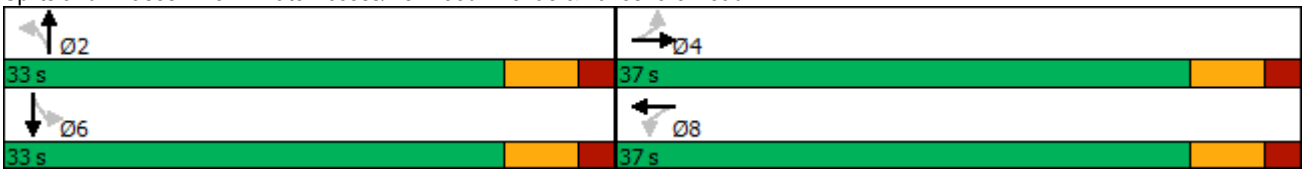


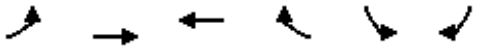
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	473	12	2	487	47	12	0	2	36	0	72
Future Volume (vph)	125	473	12	2	487	47	12	0	2	36	0	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.988			0.982			0.850	
Flt Protected	0.950							0.958		0.950		
Satd. Flow (prot)	1825	1895	0	0	1898	0	0	1663	0	1825	1633	0
Flt Permitted	0.472				0.999			0.700		0.748		
Satd. Flow (perm)	907	1895	0	0	1896	0	0	1215	0	1437	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			47			229	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			83.2	
Travel Time (s)		13.2			7.6			5.0			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	136	514	13	2	529	51	13	0	2	39	0	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	527	0	0	582	0	0	15	0	39	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	37.0	37.0		37.0	37.0		33.0	33.0		33.0	33.0	
Total Split (%)	52.9%	52.9%		52.9%	52.9%		47.1%	47.1%		47.1%	47.1%	
Maximum Green (s)	31.0	31.0		31.0	31.0		27.0	27.0		27.0	27.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	38.1	38.1			38.1			8.2		8.2	8.2	
Actuated g/C Ratio	0.70	0.70			0.70			0.15		0.15	0.15	
v/c Ratio	0.21	0.40			0.44			0.07		0.18	0.18	
Control Delay	5.7	6.0			6.3			2.1		21.3	0.9	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	5.7	6.0			6.3			2.1		21.3	0.9	
LOS	A	A			A			A		C	A	
Approach Delay		5.9			6.3			2.1			7.7	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 54.3			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 6.2		Intersection LOS: A	
Intersection Capacity Utilization 76.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



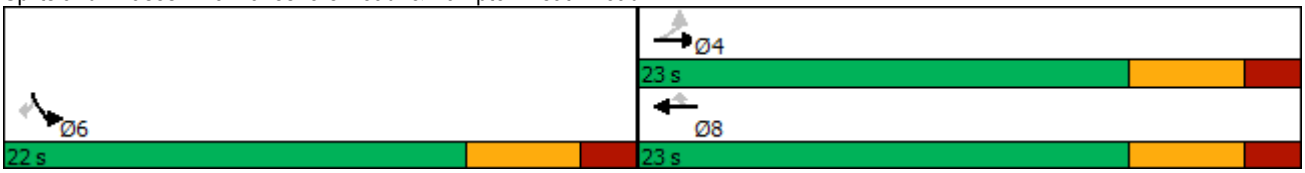


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	414	437	49	26	5
Future Volume (vph)	26	414	437	49	26	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.491				0.950	
Satd. Flow (perm)	849	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				53		5
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	28	450	475	53	28	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	450	475	53	28	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	23.0	23.0	23.0	23.0	22.0	22.0
Total Split (%)	51.1%	51.1%	51.1%	51.1%	48.9%	48.9%
Maximum Green (s)	17.0	17.0	17.0	17.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	36.2	36.2	36.2	36.2	6.3	6.3
Actuated g/C Ratio	0.91	0.91	0.91	0.91	0.16	0.16
v/c Ratio	0.04	0.29	0.30	0.04	0.11	0.02
Control Delay	2.5	2.7	2.7	1.3	16.0	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	2.7	2.7	1.3	16.0	11.0
LOS	A	A	A	A	B	B
Approach Delay		2.7	2.6		15.3	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 45			
Actuated Cycle Length: 39.6			
Natural Cycle: 45			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay: 3.0		Intersection LOS: A	
Intersection Capacity Utilization 38.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 2: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.3	17.5	1.7
Average Queue (m)	2.4	9.3	0.1
95th Queue (m)	8.9	15.6	1.1
Link Distance (m)	102.8	94.4	70.7
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	36.8	54.1	63.8	15.7	17.8	19.0
Average Queue (m)	14.6	23.9	24.8	3.2	7.1	8.7
95th Queue (m)	30.1	46.2	49.3	11.6	15.6	16.1
Link Distance (m)		175.8	93.6	62.4		70.7
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	1			0	0
Queuing Penalty (veh)	1	1			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	10.7	18.0
Average Queue (m)	1.1	11.3
95th Queue (m)	6.1	17.0
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	44.6	11.8	10.6	31.5
Average Queue (m)	15.0	0.6	2.6	16.4
95th Queue (m)	34.8	5.1	9.5	28.3
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	10.9	31.4	33.6	6.7	12.3	7.7
Average Queue (m)	2.7	8.8	9.3	0.8	4.3	1.0
95th Queue (m)	9.7	25.8	26.9	4.7	11.2	5.0
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.2	17.6	13.0
Average Queue (m)	3.9	8.6	2.4
95th Queue (m)	11.2	14.7	9.4
Link Distance (m)	83.5	81.5	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	20.9	10.9	4.6	6.2
Average Queue (m)	10.2	3.1	0.5	0.3
95th Queue (m)	15.9	10.4	3.7	3.2
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	9.2	2.2
Average Queue (m)	3.8	0.1
95th Queue (m)	11.0	1.4
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.1	4.1
Average Queue (m)	6.3	0.2
95th Queue (m)	12.5	2.8
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.1	16.7	18.4	20.0
Average Queue (m)	9.0	10.4	10.8	11.8
95th Queue (m)	16.2	16.0	15.7	17.7
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 2

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	9	0	36	4	43	0	48	107	0	72	58
Future Vol, veh/h	0	9	0	36	4	43	0	48	107	0	72	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	39	4	47	0	52	116	0	78	63

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	246	278	110	225	251	110	141	0	0	168	0	0
Stage 1	110	110	-	110	110	-	-	-	-	-	-	-
Stage 2	136	168	-	115	141	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	708	630	943	730	652	943	1442	-	-	1410	-	-
Stage 1	895	804	-	895	804	-	-	-	-	-	-	-
Stage 2	867	759	-	890	780	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	670	630	943	721	652	943	1442	-	-	1410	-	-
Mov Cap-2 Maneuver	670	630	-	721	652	-	-	-	-	-	-	-
Stage 1	895	804	-	895	804	-	-	-	-	-	-	-
Stage 2	820	759	-	879	780	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1442	-	-	630	816	1410	-	-
HCM Lane V/C Ratio	-	-	-	0.016	0.111	-	-	-
HCM Control Delay (s)	0	-	-	10.8	10	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	133	19	47	105	26
Future Vol, veh/h	46	133	19	47	105	26
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, %	0	0	0	4	0	0
Mvmt Flow	50	145	21	51	114	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	195	0	216	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	93	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1390	-	777	933
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1390	-	765	933
Mov Cap-2 Maneuver	-	-	-	-	765	-
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	936	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	793	-	-	1390	-
HCM Lane V/C Ratio	0.18	-	-	0.015	-
HCM Control Delay (s)	10.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	124	381	6	2	404	49	4	0	6	47	0	120
Future Vol, veh/h	124	381	6	2	404	49	4	0	6	47	0	120
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	135	414	7	2	439	53	4	0	7	51	0	130

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	492	0	0	421	0	0	1223	1184	418	1161	1161	466
Stage 1	-	-	-	-	-	-	688	688	-	470	470	-
Stage 2	-	-	-	-	-	-	535	496	-	691	691	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1082	-	-	1149	-	-	158	191	639	174	197	601
Stage 1	-	-	-	-	-	-	440	450	-	578	563	-
Stage 2	-	-	-	-	-	-	533	549	-	438	449	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1082	-	-	1149	-	-	108	159	639	151	164	601
Mov Cap-2 Maneuver	-	-	-	-	-	-	193	252	-	255	275	-
Stage 1	-	-	-	-	-	-	368	377	-	484	562	-
Stage 2	-	-	-	-	-	-	416	548	-	363	376	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	16.2	19.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	332	1082	-	-	1149	-	-	435
HCM Lane V/C Ratio	0.033	0.125	-	-	0.002	-	-	0.417
HCM Control Delay (s)	16.2	8.8	0	-	8.1	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0	-	-	2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	6	11	9	4	56	7	101	7	67	58	5
Future Vol, veh/h	2	6	11	9	4	56	7	101	7	67	58	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	7	12	10	4	61	8	110	8	73	63	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	375	346	66	351	344	114	68	0	0	118	0	0
Stage 1	212	212	-	130	130	-	-	-	-	-	-	-
Stage 2	163	134	-	221	214	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	586	580	1003	608	582	944	1546	-	-	1483	-	-
Stage 1	795	731	-	878	792	-	-	-	-	-	-	-
Stage 2	844	789	-	786	729	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	522	547	1003	570	549	944	1546	-	-	1483	-	-
Mov Cap-2 Maneuver	577	570	-	613	580	-	-	-	-	-	-	-
Stage 1	790	694	-	873	787	-	-	-	-	-	-	-
Stage 2	781	784	-	730	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	9.6	0.4	3.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1546	-	-	761	853	1483	-	-
HCM Lane V/C Ratio	0.005	-	-	0.027	0.088	0.049	-	-
HCM Control Delay (s)	7.3	0	-	9.9	9.6	7.6	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	65	0	37	9	1	5	44	23	8	7	36	9
Future Vol, veh/h	65	0	37	9	1	5	44	23	8	7	36	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	71	0	40	10	1	5	48	25	9	8	39	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	189	190	44	206	191	30	49	0	0	34	0	0
Stage 1	60	60	-	126	126	-	-	-	-	-	-	-
Stage 2	129	130	-	80	65	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	776	708	1032	756	708	1050	1571	-	-	1591	-	-
Stage 1	957	849	-	883	796	-	-	-	-	-	-	-
Stage 2	880	792	-	934	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	750	683	1032	707	683	1050	1571	-	-	1591	-	-
Mov Cap-2 Maneuver	739	671	-	711	668	-	-	-	-	-	-	-
Stage 1	927	845	-	856	771	-	-	-	-	-	-	-
Stage 2	847	767	-	893	841	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.6	4.3	1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	824	793	1591	-	-
HCM Lane V/C Ratio	0.03	-	-	0.135	0.021	0.005	-	-
HCM Control Delay (s)	7.4	0	-	10	9.6	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	6	83	21	1	30
Future Vol, veh/h	14	6	83	21	1	30
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	15	7	90	23	1	33

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	137	102	0	0	113	0
Stage 1	102	-	-	-	-	-
Stage 2	35	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	861	959	-	-	1489	-
Stage 1	927	-	-	-	-	-
Stage 2	993	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	860	959	-	-	1489	-
Mov Cap-2 Maneuver	825	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	993	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	861	1489	-
HCM Lane V/C Ratio	-	-	0.025	0.001	-
HCM Control Delay (s)	-	-	9.3	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	1	0	92	23	144
Future Vol, veh/h	40	1	0	92	23	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	43	1	0	100	25	157

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	204	104	182	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	789	956	1150	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	789	956	1150	-	-	-
Mov Cap-2 Maneuver	789	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	929	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1150	-	792	-	-
HCM Lane V/C Ratio	-	-	0.056	-	-
HCM Control Delay (s)	0	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	30	7	67	26	14	16	92	51	19	118	34
Future Vol, veh/h	25	30	7	67	26	14	16	92	51	19	118	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	27	33	8	73	28	15	17	100	55	21	128	37
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.8	8.6	8.8
HCM LOS	A	A	A	A

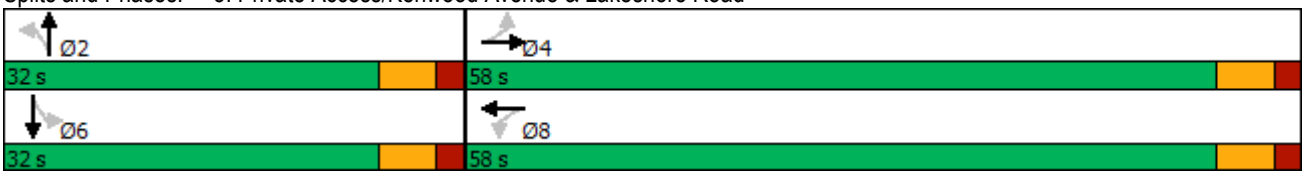
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	40%	63%	11%
Vol Thru, %	58%	48%	24%	69%
Vol Right, %	32%	11%	13%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	159	62	107	171
LT Vol	16	25	67	19
Through Vol	92	30	26	118
RT Vol	51	7	14	34
Lane Flow Rate	173	67	116	186
Geometry Grp	1	1	1	1
Degree of Util (X)	0.211	0.091	0.156	0.23
Departure Headway (Hd)	4.389	4.865	4.834	4.446
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	734	740	807
Service Time	2.42	2.911	2.875	2.478
HCM Lane V/C Ratio	0.212	0.091	0.157	0.23
HCM Control Delay	8.6	8.4	8.8	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.6	0.9

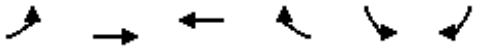
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	955	10	0	470	40	1	0	1	58	0	86
Future Volume (vph)	99	955	10	0	470	40	1	0	1	58	0	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.990			0.932			0.850	
Flt Protected	0.950							0.976		0.950		
Satd. Flow (prot)	1706	1898	0	0	1858	0	0	1748	0	1825	1555	0
Flt Permitted	0.434							0.823		0.757		
Satd. Flow (perm)	779	1898	0	0	1858	0	0	1474	0	1454	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8			36			347	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			80.0	
Travel Time (s)		13.2			7.6			5.0			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	1%	0%	0%	2%	7%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	108	1038	11	0	511	43	1	0	1	63	0	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	1049	0	0	554	0	0	2	0	63	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	56.2	56.2			56.2			9.2		9.2	9.2	
Actuated g/C Ratio	0.77	0.77			0.77			0.13		0.13	0.13	
v/c Ratio	0.18	0.72			0.39			0.01		0.35	0.19	
Control Delay	4.7	10.6			5.1			0.0		34.7	0.8	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.7	10.6			5.1			0.0		34.7	0.8	
LOS	A	B			A			A		C	A	
Approach Delay		10.0			5.1						14.5	
Approach LOS		B			A						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 73.4			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 98.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



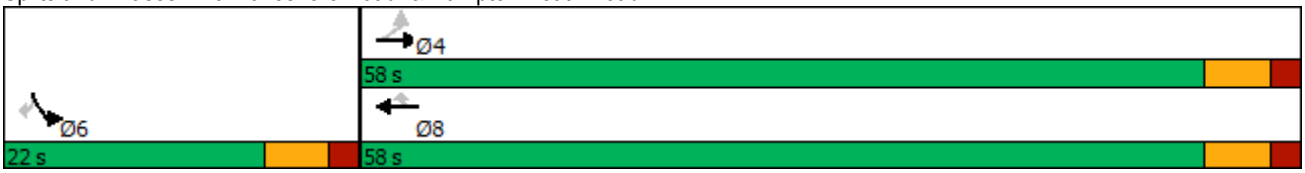


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	31	963	270	24	25	6
Future Volume (vph)	31	963	270	24	25	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1336
Flt Permitted	0.581				0.950	
Satd. Flow (perm)	1005	1695	1712	1470	1643	1336
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				26		7
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	10%
Adj. Flow (vph)	34	1047	293	26	27	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	1047	293	26	27	7
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	58.0	58.0	58.0	58.0	22.0	22.0
Total Split (%)	72.5%	72.5%	72.5%	72.5%	27.5%	27.5%
Maximum Green (s)	52.0	52.0	52.0	52.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	70.9	70.9	70.9	70.9	6.9	6.9
Actuated g/C Ratio	0.91	0.91	0.91	0.91	0.09	0.09
v/c Ratio	0.04	0.68	0.19	0.02	0.19	0.06
Control Delay	2.0	7.0	2.0	1.1	37.9	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	7.0	2.0	1.1	37.9	21.8
LOS	A	A	A	A	D	C
Approach Delay		6.9	1.9		34.6	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 80			
Actuated Cycle Length: 78.3			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 6.4		Intersection LOS: A	
Intersection Capacity Utilization 69.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	42.3	112.5	50.9	8.8	21.2	24.5
Average Queue (m)	15.8	52.5	22.0	0.4	10.8	10.5
95th Queue (m)	34.7	95.8	42.3	3.4	19.0	18.9
Link Distance (m)		175.8	93.6	62.4		67.5
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	8			1	0
Queuing Penalty (veh)	0	8			1	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.8	15.9	34.1
Average Queue (m)	0.1	3.2	17.4
95th Queue (m)	1.1	11.6	27.4
Link Distance (m)	263.8	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	44.4	9.1	44.5
Average Queue (m)	8.9	1.4	16.6
95th Queue (m)	28.5	6.7	30.5
Link Distance (m)	93.6	53.4	60.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	17.2	59.1	20.5	6.4	15.1	9.6
Average Queue (m)	3.0	23.1	4.9	0.5	5.0	0.9
95th Queue (m)	11.9	55.6	15.5	3.7	11.8	5.2
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		2				
Queuing Penalty (veh)		1				

Intersection: 10: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	9.1	18.2
Average Queue (m)	1.2	10.0
95th Queue (m)	6.2	15.7
Link Distance (m)	90.6	85.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.2	17.1	3.9	9.3
Average Queue (m)	5.3	9.1	0.1	1.2
95th Queue (m)	12.4	13.2	2.5	6.3
Link Distance (m)	83.5	81.5	71.8	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	NB
Directions Served	LTR	LTR
Maximum Queue (m)	21.4	4.5
Average Queue (m)	10.7	0.3
95th Queue (m)	16.7	3.0
Link Distance (m)	93.6	67.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	12.5	7.0
Average Queue (m)	4.2	0.5
95th Queue (m)	12.0	3.9
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	13.1	2.3
Average Queue (m)	4.8	0.1
95th Queue (m)	12.0	1.5
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	26.9	23.4	27.7	24.0
Average Queue (m)	14.9	13.0	13.3	12.9
95th Queue (m)	23.4	20.3	20.8	20.3
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 10

Intersection	
Int Delay, s/veh	6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	128	110	47	132	167	79
Future Vol, veh/h	128	110	47	132	167	79
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, %	5	0	6	7	2	2
Mvmt Flow	139	120	51	143	182	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	259	0	444	199
Stage 1	-	-	-	-	199	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.16	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.254	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1283	-	571	842
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	796	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1283	-	546	842
Mov Cap-2 Maneuver	-	-	-	-	546	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	796	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	615	-	-	1283	-
HCM Lane V/C Ratio	0.435	-	-	0.04	-
HCM Control Delay (s)	15.3	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	66	948	0	0	283	29	3	0	4	42	0	120
Future Vol, veh/h	66	948	0	0	283	29	3	0	4	42	0	120
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	4	0	0	0	0	0	0
Mvmt Flow	72	1030	0	0	308	32	3	0	4	46	0	130

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	1030	0	0	1563	1514	1030	1500	1498	324
Stage 1	-	-	-	-	-	-	1174	1174	-	324	324	-
Stage 2	-	-	-	-	-	-	389	340	-	1176	1174	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1230	-	-	682	-	-	92	121	286	101	124	722
Stage 1	-	-	-	-	-	-	236	268	-	692	653	-
Stage 2	-	-	-	-	-	-	639	643	-	235	268	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1230	-	-	682	-	-	67	104	286	89	107	722
Mov Cap-2 Maneuver	-	-	-	-	-	-	153	186	-	164	190	-
Stage 1	-	-	-	-	-	-	204	231	-	597	653	-
Stage 2	-	-	-	-	-	-	524	643	-	200	231	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	23	22.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	208	1230	-	-	682	-	-	384
HCM Lane V/C Ratio	0.037	0.058	-	-	-	-	-	0.459
HCM Control Delay (s)	23	8.1	0	-	0	-	-	22.1
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	2.3

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	35	9	44	0	89	50	0	100	25
Future Vol, veh/h	0	5	0	35	9	44	0	89	50	0	100	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	0	38	10	48	0	97	54	0	109	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	276	274	123	249	260	124	136	0	0	151	0	0
Stage 1	123	123	-	124	124	-	-	-	-	-	-	-
Stage 2	153	151	-	125	136	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	676	633	928	705	645	927	1448	-	-	1430	-	-
Stage 1	881	794	-	880	793	-	-	-	-	-	-	-
Stage 2	849	772	-	879	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	633	633	928	700	645	927	1448	-	-	1430	-	-
Mov Cap-2 Maneuver	633	633	-	700	645	-	-	-	-	-	-	-
Stage 1	881	794	-	880	793	-	-	-	-	-	-	-
Stage 2	795	772	-	873	784	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	10.2	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1448	-	-	633	790	1430	-	-
HCM Lane V/C Ratio	-	-	-	0.009	0.121	-	-	-
HCM Control Delay (s)	0	-	-	10.7	10.2	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	5	16	3	9	85	3	127	4	42	81	1
Future Vol, veh/h	10	5	16	3	9	85	3	127	4	42	81	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	11	0	0	0	6	8	0	2	0
Mvmt Flow	11	5	17	3	10	92	3	138	4	46	88	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	378	329	89	338	327	140	89	0	0	142	0	0
Stage 1	181	181	-	146	146	-	-	-	-	-	-	-
Stage 2	197	148	-	192	181	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	583	593	975	599	595	913	1519	-	-	1453	-	-
Stage 1	825	754	-	836	780	-	-	-	-	-	-	-
Stage 2	809	779	-	789	754	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	504	572	975	568	574	913	1519	-	-	1453	-	-
Mov Cap-2 Maneuver	560	594	-	614	604	-	-	-	-	-	-	-
Stage 1	823	729	-	834	778	-	-	-	-	-	-	-
Stage 2	717	777	-	744	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.8	0.2	2.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	726	859	1453	-	-
HCM Lane V/C Ratio	0.002	-	-	0.046	0.123	0.031	-	-
HCM Control Delay (s)	7.4	0	-	10.2	9.8	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	0	28	0	0	0	22	32	0	1	41	8
Future Vol, veh/h	87	0	28	0	0	0	22	32	0	1	41	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	5	0	0	0	8	28	0	0	6	0
Mvmt Flow	95	0	30	0	0	0	24	35	0	1	45	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	135	135	50	150	139	35	54	0	0	35	0	0
Stage 1	52	52	-	83	83	-	-	-	-	-	-	-
Stage 2	83	83	-	67	56	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	841	760	1010	822	756	1044	1514	-	-	1589	-	-
Stage 1	966	856	-	930	830	-	-	-	-	-	-	-
Stage 2	930	830	-	948	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	830	747	1010	787	743	1044	1514	-	-	1589	-	-
Mov Cap-2 Maneuver	803	720	-	772	714	-	-	-	-	-	-	-
Stage 1	951	855	-	915	817	-	-	-	-	-	-	-
Stage 2	915	817	-	919	851	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	0	3	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1514	-	-	845	-	1589	-	-
HCM Lane V/C Ratio	0.016	-	-	0.148	-	0.001	-	-
HCM Control Delay (s)	7.4	0	-	10	0	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	5	95	12	8	56
Future Vol, veh/h	12	5	95	12	8	56
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	13	9	0	8
Mvmt Flow	13	5	103	13	9	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	189	110	0	0	116	0
Stage 1	110	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	789	949	-	-	1485	-
Stage 1	902	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	784	949	-	-	1485	-
Mov Cap-2 Maneuver	773	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	932	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	818	1485	-
HCM Lane V/C Ratio	-	-	0.023	0.006	-
HCM Control Delay (s)	-	-	9.5	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	1	1	95	62	47
Future Vol, veh/h	23	1	1	95	62	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	25	6	8	0
Mvmt Flow	25	1	1	103	67	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	198	93	118	0	-	0
Stage 1	93	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.35	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	795	970	1339	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	794	970	1339	-	-	-
Mov Cap-2 Maneuver	794	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	924	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.1	0
HCM LOS	A		

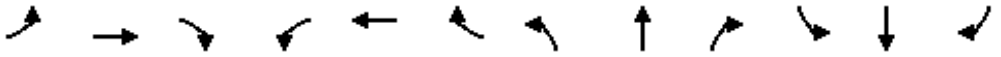
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1339	-	800	-	-
HCM Lane V/C Ratio	0.001	-	0.033	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	119	70	18	27	89	17	34	117	58	14	69	76
Future Vol, veh/h	119	70	18	27	89	17	34	117	58	14	69	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	6	0	0	6	0	4	3	0	9	7	8
Mvmt Flow	129	76	20	29	97	18	37	127	63	15	75	83
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	9.7	10.5	9.8
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	57%	20%	9%
Vol Thru, %	56%	34%	67%	43%
Vol Right, %	28%	9%	13%	48%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	209	207	133	159
LT Vol	34	119	27	14
Through Vol	117	70	89	69
RT Vol	58	18	17	76
Lane Flow Rate	227	225	145	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.322	0.331	0.212	0.246
Departure Headway (Hd)	5.1	5.292	5.275	5.133
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	704	679	681	700
Service Time	3.129	3.319	3.305	3.164
HCM Lane V/C Ratio	0.322	0.331	0.213	0.247
HCM Control Delay	10.5	10.9	9.7	9.8
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.4	1.4	0.8	1

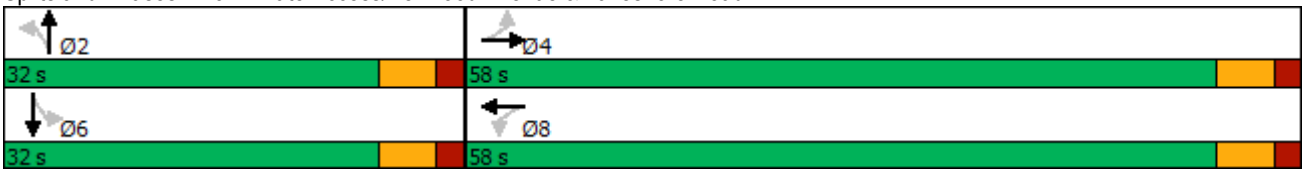


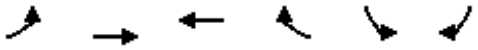
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	491	4	2	1009	57	18	0	1	26	1	53
Future Volume (vph)	115	491	4	2	1009	57	18	0	1	26	1	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.994			0.853	
Flt Protected	0.950							0.955		0.950		
Satd. Flow (prot)	1825	1882	0	0	1889	0	0	1802	0	1825	1577	0
Flt Permitted	0.263				0.999			0.693		0.744		
Satd. Flow (perm)	505	1882	0	0	1888	0	0	1308	0	1429	1577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			36			58	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			88.6	
Travel Time (s)		13.2			7.6			5.0			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	125	534	4	2	1097	62	20	0	1	28	1	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	538	0	0	1161	0	0	21	0	28	59	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	59.2	59.2			59.2			8.2		8.2	8.2	
Actuated g/C Ratio	0.79	0.79			0.79			0.11		0.11	0.11	
v/c Ratio	0.32	0.36			0.78			0.12		0.18	0.26	
Control Delay	6.2	4.3			12.1			7.7		32.4	12.5	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	6.2	4.3			12.1			7.7		32.4	12.5	
LOS	A	A			B			A		C	B	
Approach Delay		4.7			12.1			7.7			18.9	
Approach LOS		A			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.4			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 9.8		Intersection LOS: A	
Intersection Capacity Utilization 105.5%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



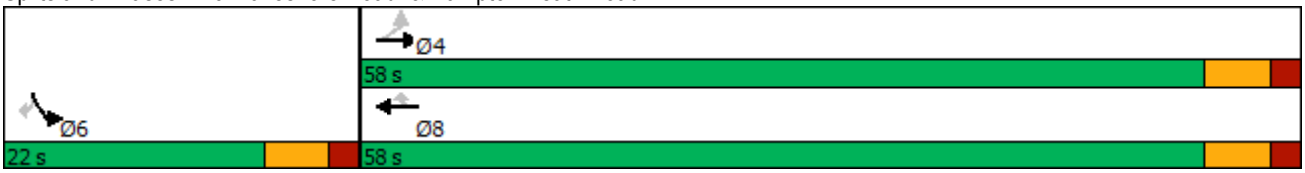


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	417	936	78	26	9
Future Volume (vph)	34	417	936	78	26	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1374
Flt Permitted	0.228				0.950	
Satd. Flow (perm)	394	1695	1712	1470	1643	1374
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				85		10
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	7%
Adj. Flow (vph)	37	453	1017	85	28	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	453	1017	85	28	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	58.0	58.0	58.0	58.0	22.0	22.0
Total Split (%)	72.5%	72.5%	72.5%	72.5%	27.5%	27.5%
Maximum Green (s)	52.0	52.0	52.0	52.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	69.3	69.3	69.3	69.3	6.9	6.9
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.09	0.09
v/c Ratio	0.11	0.31	0.69	0.07	0.20	0.08
Control Delay	3.4	3.1	7.9	0.8	38.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.4	3.1	7.9	0.8	38.8	20.6
LOS	A	A	A	A	D	C
Approach Delay		3.1	7.3		34.0	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 80			
Actuated Cycle Length: 80.5			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 68.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	42.5	162.2	95.6	10.6	17.9	21.5
Average Queue (m)	24.1	38.3	55.3	4.2	6.0	9.1
95th Queue (m)	43.1	110.2	90.4	11.6	14.9	18.5
Link Distance (m)		175.8	93.6	62.4		76.1
Upstream Blk Time (%)		2	1			
Queuing Penalty (veh)		0	8			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	8	4			0	1
Queuing Penalty (veh)	40	4			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.8	15.2	24.7
Average Queue (m)	0.1	2.8	13.6
95th Queue (m)	1.1	10.5	20.8
Link Distance (m)	263.8	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	96.7	58.5	10.7	65.0
Average Queue (m)	45.0	7.3	2.4	61.6
95th Queue (m)	93.6	34.9	9.1	78.1
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	3			83
Queuing Penalty (veh)	14			0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	19.0	31.8	111.9	12.5	15.2	9.5
Average Queue (m)	6.8	7.3	23.7	2.1	4.7	1.7
95th Queue (m)	15.5	24.4	71.3	8.6	12.2	6.7
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 10: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.2	17.3	3.4	12.7
Average Queue (m)	1.8	9.7	0.2	2.5
95th Queue (m)	7.6	14.8	1.9	9.9
Link Distance (m)	79.4	76.8	76.1	63.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.2	14.4	4.6	9.3
Average Queue (m)	3.6	8.7	0.2	1.5
95th Queue (m)	10.7	13.7	2.1	7.1
Link Distance (m)	83.5	81.5	63.2	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	18.0	10.8	9.1
Average Queue (m)	10.3	2.7	1.0
95th Queue (m)	15.8	9.8	5.5
Link Distance (m)	93.6	70.2	67.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB	SB
Directions Served	LR	L	T
Maximum Queue (m)	12.4	4.6	2.9
Average Queue (m)	4.8	0.5	0.1
95th Queue (m)	12.3	3.9	1.8
Link Distance (m)	127.7	16.2	16.2
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	11.8
Average Queue (m)	6.6
95th Queue (m)	12.7
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LTR	R	LTR
Maximum Queue (m)	18.3	15.5	16.4	8.7	22.9
Average Queue (m)	10.4	9.4	9.2	3.9	14.2
95th Queue (m)	16.7	15.5	14.4	10.6	20.6
Link Distance (m)	283.4	342.5	456.1	456.1	231.1
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 67

Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	97	134	40	69	119	56
Future Vol, veh/h	97	134	40	69	119	56
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, %	4	0	2	6	0	0
Mvmt Flow	105	146	43	75	129	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	251	0	339	178
Stage 1	-	-	-	-	178	-
Stage 2	-	-	-	-	161	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1314	-	661	870
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	873	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1314	-	639	870
Mov Cap-2 Maneuver	-	-	-	-	639	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	873	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	698	-	-	1314	-
HCM Lane V/C Ratio	0.273	-	-	0.033	-
HCM Control Delay (s)	12.1	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	11.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	126	389	3	5	922	50	4	0	4	54	0	135
Future Vol, veh/h	126	389	3	5	922	50	4	0	4	54	0	135
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	137	423	3	5	1002	54	4	0	4	59	0	147

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1056	0	0	426	0	0	1812	1765	425	1740	1739	1029
Stage 1	-	-	-	-	-	-	699	699	-	1039	1039	-
Stage 2	-	-	-	-	-	-	1113	1066	-	701	700	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	667	-	-	1144	-	-	61	85	634	69	88	286
Stage 1	-	-	-	-	-	-	434	445	-	281	310	-
Stage 2	-	-	-	-	-	-	255	301	-	433	444	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	667	-	-	1144	-	-	23	61	634	~ 54	64	286
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ -18	122	-	136	172	-
Stage 1	-	-	-	-	-	-	317	325	-	205	307	-
Stage 2	-	-	-	-	-	-	123	298	-	314	325	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0		94.5
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	667	-	-	1144	-	-	217
HCM Lane V/C Ratio	-	0.205	-	-	0.005	-	-	0.947
HCM Control Delay (s)	-	11.8	0	-	8.2	0	-	94.5
HCM Lane LOS	-	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	0.8	-	-	0	-	-	8.1

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

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	9	0	38	4	43	0	53	104	57	41	0
Future Vol, veh/h	0	9	0	38	4	43	0	53	104	57	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	41	4	47	0	58	113	62	45	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	309	340	45	289	284	115	45	0	0	171	0	0
Stage 1	169	169	-	115	115	-	-	-	-	-	-	-
Stage 2	140	171	-	174	169	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	643	582	1025	663	625	937	1563	-	-	1406	-	-
Stage 1	833	759	-	890	800	-	-	-	-	-	-	-
Stage 2	863	757	-	828	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	586	556	1025	632	597	937	1563	-	-	1406	-	-
Mov Cap-2 Maneuver	586	556	-	632	597	-	-	-	-	-	-	-
Stage 1	833	725	-	890	800	-	-	-	-	-	-	-
Stage 2	815	757	-	780	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	10.4	0	4.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1563	-	-	556	754	1406	-	-
HCM Lane V/C Ratio	-	-	-	0.018	0.123	0.044	-	-
HCM Control Delay (s)	0	-	-	11.6	10.4	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	5	8	13	5	63	19	91	8	70	28	12
Future Vol, veh/h	6	5	8	13	5	63	19	91	8	70	28	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	5	9	14	5	68	21	99	9	76	30	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	371	339	37	342	341	104	43	0	0	108	0	0
Stage 1	189	189	-	146	146	-	-	-	-	-	-	-
Stage 2	182	150	-	196	195	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	589	586	1041	616	584	956	1579	-	-	1495	-	-
Stage 1	817	748	-	861	780	-	-	-	-	-	-	-
Stage 2	824	777	-	810	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	516	548	1041	576	546	956	1579	-	-	1495	-	-
Mov Cap-2 Maneuver	564	569	-	618	576	-	-	-	-	-	-	-
Stage 1	806	709	-	849	769	-	-	-	-	-	-	-
Stage 2	749	766	-	756	704	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	9.7	1.2	4.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	701	847	1495	-	-
HCM Lane V/C Ratio	0.013	-	-	0.029	0.104	0.051	-	-
HCM Control Delay (s)	7.3	0	-	10.3	9.7	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	1	45	5	0	6	50	46	3	0	44	12
Future Vol, veh/h	72	1	45	5	0	6	50	46	3	0	44	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	78	1	49	5	0	7	54	50	3	0	48	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	218	216	55	240	221	52	61	0	0	53	0	0
Stage 1	55	55	-	160	160	-	-	-	-	-	-	-
Stage 2	163	161	-	80	61	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	743	685	1018	718	681	1021	1555	-	-	1566	-	-
Stage 1	962	853	-	847	769	-	-	-	-	-	-	-
Stage 2	844	769	-	934	848	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	718	660	1018	664	656	1021	1555	-	-	1566	-	-
Mov Cap-2 Maneuver	713	655	-	680	647	-	-	-	-	-	-	-
Stage 1	927	853	-	817	741	-	-	-	-	-	-	-
Stage 2	808	741	-	888	848	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	9.4	3.7	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1555	-	-	804	831	1566	-	-
HCM Lane V/C Ratio	0.035	-	-	0.16	0.014	-	-	-
HCM Control Delay (s)	7.4	0	-	10.3	9.4	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	1	130	13	10	37
Future Vol, veh/h	20	1	130	13	10	37
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	22	1	141	14	11	40

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	210	148	0	0	155	0
Stage 1	148	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	783	904	-	-	1438	-
Stage 1	884	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	777	904	-	-	1438	-
Mov Cap-2 Maneuver	768	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	966	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	774	1438	-
HCM Lane V/C Ratio	-	-	0.029	0.008	-
HCM Control Delay (s)	-	-	9.8	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	2	1	127	19	141
Future Vol, veh/h	42	2	1	127	19	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	46	2	1	138	21	153

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	238	98	174	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	755	963	1415	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	754	963	1415	-	-	-
Mov Cap-2 Maneuver	754	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	892	-	-	-	-	-

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

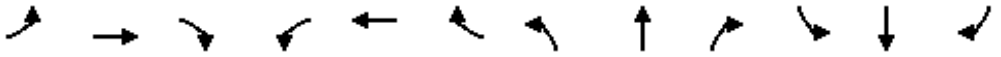
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1415	-	762	-	-
HCM Lane V/C Ratio	0.001	-	0.063	-	-
HCM Control Delay (s)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	47	14	65	83	13	12	109	50	34	147	53
Future Vol, veh/h	45	47	14	65	83	13	12	109	50	34	147	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	49	51	15	71	90	14	13	118	54	37	160	58
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	9.4	10	9.3	10.6
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	0%	42%	40%	15%
Vol Thru, %	87%	0%	44%	52%	63%
Vol Right, %	4%	100%	13%	8%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	45	106	161	234
LT Vol	12	0	45	65	34
Through Vol	109	0	47	83	147
RT Vol	5	45	14	13	53
Lane Flow Rate	137	49	115	175	254
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.21	0.065	0.167	0.251	0.345
Departure Headway (Hd)	5.518	4.791	5.221	5.157	4.879
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	644	738	679	689	730
Service Time	3.309	2.581	3.321	3.247	2.963
HCM Lane V/C Ratio	0.213	0.066	0.169	0.254	0.348
HCM Control Delay	9.8	7.9	9.4	10	10.6
HCM Lane LOS	A	A	A	A	B
HCM 95th-tile Q	0.8	0.2	0.6	1	1.5

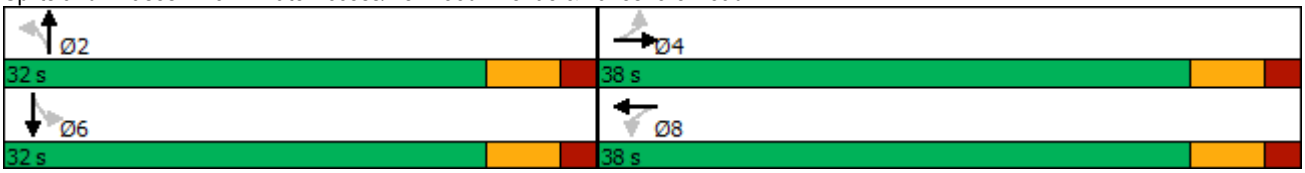


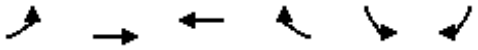
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	520	13	3	534	52	13	0	3	40	1	78
Future Volume (vph)	129	520	13	3	534	52	13	0	3	40	1	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.988			0.976			0.852	
Flt Protected	0.950							0.960		0.950		
Satd. Flow (prot)	1825	1895	0	0	1898	0	0	1663	0	1825	1627	0
Flt Permitted	0.443				0.998			0.705		0.746		
Satd. Flow (perm)	851	1895	0	0	1894	0	0	1221	0	1433	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			47			85	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			88.0	
Travel Time (s)		13.2			7.6			5.0			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	140	565	14	3	580	57	14	0	3	43	1	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	579	0	0	640	0	0	17	0	43	86	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0	32.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	32.0	32.0		32.0	32.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	38.1	38.1			38.1			8.3		8.3	8.3	
Actuated g/C Ratio	0.70	0.70			0.70			0.15		0.15	0.15	
v/c Ratio	0.23	0.44			0.48			0.08		0.20	0.27	
Control Delay	6.0	6.4			6.8			2.9		21.9	8.2	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	6.0	6.4			6.8			2.9		21.9	8.2	
LOS	A	A			A			A		C	A	
Approach Delay		6.3			6.8			2.9			12.8	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 54.3			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



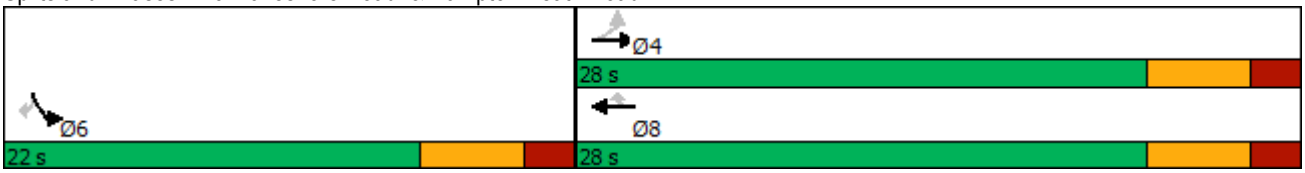


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	457	483	57	33	9
Future Volume (vph)	28	457	483	57	33	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.468				0.950	
Satd. Flow (perm)	809	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				62		10
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	30	497	525	62	36	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	497	525	62	36	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	28.0	28.0	28.0	28.0	22.0	22.0
Total Split (%)	56.0%	56.0%	56.0%	56.0%	44.0%	44.0%
Maximum Green (s)	22.0	22.0	22.0	22.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	39.5	39.5	39.5	39.5	6.6	6.6
Actuated g/C Ratio	0.85	0.85	0.85	0.85	0.14	0.14
v/c Ratio	0.04	0.34	0.36	0.05	0.15	0.05
Control Delay	3.6	4.2	4.3	1.6	20.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	4.2	4.3	1.6	20.0	11.6
LOS	A	A	A	A	B	B
Approach Delay		4.1	4.0		18.1	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 50			
Actuated Cycle Length: 46.7			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 4.6		Intersection LOS: A	
Intersection Capacity Utilization 41.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	38.8	66.2	65.1	15.2	17.9	25.9
Average Queue (m)	17.5	27.2	31.1	3.9	7.3	9.8
95th Queue (m)	32.9	52.9	56.2	12.4	16.3	19.0
Link Distance (m)		175.8	93.6	62.4		75.5
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	1			0	1
Queuing Penalty (veh)	2	2			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	12.1	18.5
Average Queue (m)	2.1	12.0
95th Queue (m)	8.9	18.0
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	57.0	17.1	9.1	43.8
Average Queue (m)	19.2	1.3	2.2	18.8
95th Queue (m)	43.0	7.8	8.6	34.0
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	13.7	42.7	41.1	13.5	10.7	6.3
Average Queue (m)	3.7	11.1	12.6	2.1	5.0	1.4
95th Queue (m)	11.6	30.9	31.5	8.6	11.3	5.6
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 10: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.7	22.2	1.8	16.8
Average Queue (m)	2.4	10.1	0.1	3.3
95th Queue (m)	9.1	17.0	1.2	11.7
Link Distance (m)	75.8	77.5	75.5	63.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.2	12.9	17.6
Average Queue (m)	4.1	8.3	2.7
95th Queue (m)	11.4	13.1	11.0
Link Distance (m)	83.5	81.5	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.5	10.8	7.0	2.2
Average Queue (m)	10.0	3.7	0.4	0.1
95th Queue (m)	14.5	11.1	3.4	1.8
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	10.8	2.1
Average Queue (m)	4.8	0.1
95th Queue (m)	12.3	1.3
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB
Directions Served	LR
Maximum Queue (m)	13.8
Average Queue (m)	6.4
95th Queue (m)	12.7
Link Distance (m)	87.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LTR	R	LTR	LTR
Maximum Queue (m)	16.2	14.9	8.4	17.9	18.1
Average Queue (m)	9.2	8.2	0.5	11.2	9.2
95th Queue (m)	14.5	13.5	3.8	16.8	15.5
Link Distance (m)	283.4	342.5	342.5	459.9	227.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 5

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	138	22	52	110	28
Future Vol, veh/h	50	138	22	52	110	28
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, %	0	0	0	4	0	0
Mvmt Flow	54	150	24	57	120	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	204	0	234	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1380	-	759	926
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1380	-	745	926
Mov Cap-2 Maneuver	-	-	-	-	745	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	924	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	776	-	-	1380	-
HCM Lane V/C Ratio	0.193	-	-	0.017	-
HCM Control Delay (s)	10.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	133	423	6	3	447	54	4	0	6	50	0	129
Future Vol, veh/h	133	423	6	3	447	54	4	0	6	50	0	129
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	145	460	7	3	486	59	4	0	7	54	0	140

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	545	0	0	467	0	0	1346	1305	464	1279	1279	516
Stage 1	-	-	-	-	-	-	754	754	-	522	522	-
Stage 2	-	-	-	-	-	-	592	551	-	757	757	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1034	-	-	1105	-	-	130	162	602	144	167	563
Stage 1	-	-	-	-	-	-	404	420	-	542	534	-
Stage 2	-	-	-	-	-	-	496	519	-	403	419	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1034	-	-	1105	-	-	83	131	602	121	135	563
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	222	-	222	245	-
Stage 1	-	-	-	-	-	-	328	341	-	440	532	-
Stage 2	-	-	-	-	-	-	371	517	-	323	340	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	18.2	22.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	283	1034	-	-	1105	-	-	394
HCM Lane V/C Ratio	0.038	0.14	-	-	0.003	-	-	0.494
HCM Control Delay (s)	18.2	9	0	-	8.3	0	-	22.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.5	-	-	0	-	-	2.6

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	9	0	36	4	43	0	58	107	58	82	0
Future Vol, veh/h	0	9	0	36	4	43	0	58	107	58	82	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	39	4	47	0	63	116	63	89	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	362	394	89	341	336	121	89	0	0	179	0	0
Stage 1	215	215	-	121	121	-	-	-	-	-	-	-
Stage 2	147	179	-	220	215	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	594	542	969	613	585	930	1506	-	-	1397	-	-
Stage 1	787	725	-	883	796	-	-	-	-	-	-	-
Stage 2	856	751	-	782	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	541	517	969	582	558	930	1506	-	-	1397	-	-
Mov Cap-2 Maneuver	541	517	-	582	558	-	-	-	-	-	-	-
Stage 1	787	691	-	883	796	-	-	-	-	-	-	-
Stage 2	809	751	-	735	691	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	10.7	0	3.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	517	720	1397	-	-
HCM Lane V/C Ratio	-	-	-	0.019	0.125	0.045	-	-
HCM Control Delay (s)	0	-	-	12.1	10.7	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	6	12	10	5	58	8	109	8	70	65	5
Future Vol, veh/h	3	6	12	10	5	58	8	109	8	70	65	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	7	13	11	5	63	9	118	9	76	71	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	401	371	74	377	369	123	76	0	0	127	0	0
Stage 1	226	226	-	141	141	-	-	-	-	-	-	-
Stage 2	175	145	-	236	228	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	563	562	993	584	563	933	1536	-	-	1472	-	-
Stage 1	781	721	-	867	784	-	-	-	-	-	-	-
Stage 2	832	781	-	772	719	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	497	528	993	545	529	933	1536	-	-	1472	-	-
Mov Cap-2 Maneuver	558	556	-	595	566	-	-	-	-	-	-	-
Stage 1	776	682	-	862	779	-	-	-	-	-	-	-
Stage 2	766	776	-	714	680	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.8	0.5	3.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1536	-	-	743	831	1472	-	-
HCM Lane V/C Ratio	0.006	-	-	0.031	0.095	0.052	-	-
HCM Control Delay (s)	7.4	0	-	10	9.8	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	1	43	10	1	5	50	26	9	8	40	13
Future Vol, veh/h	70	1	43	10	1	5	50	26	9	8	40	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	76	1	47	11	1	5	54	28	10	9	43	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	212	214	50	233	216	33	57	0	0	38	0	0
Stage 1	68	68	-	141	141	-	-	-	-	-	-	-
Stage 2	144	146	-	92	75	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	749	687	1024	726	685	1046	1560	-	-	1585	-	-
Stage 1	947	842	-	867	784	-	-	-	-	-	-	-
Stage 2	864	780	-	920	836	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	721	659	1024	670	657	1046	1560	-	-	1585	-	-
Mov Cap-2 Maneuver	718	654	-	683	650	-	-	-	-	-	-	-
Stage 1	914	837	-	837	757	-	-	-	-	-	-	-
Stage 2	828	753	-	872	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	9.8	4.3	1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	808	763	1585	-	-
HCM Lane V/C Ratio	0.035	-	-	0.153	0.023	0.005	-	-
HCM Control Delay (s)	7.4	0	-	10.3	9.8	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	6	89	24	1	36
Future Vol, veh/h	16	6	89	24	1	36
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	17	7	97	26	1	39

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	151	110	0	0	123	0
Stage 1	110	-	-	-	-	-
Stage 2	41	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	846	949	-	-	1477	-
Stage 1	920	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	845	949	-	-	1477	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	848	1477	-
HCM Lane V/C Ratio	-	-	0.028	0.001	-
HCM Control Delay (s)	-	-	9.4	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	1	1	100	29	146
Future Vol, veh/h	41	1	1	100	29	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	45	1	1	109	32	159

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	223	112	191	0	-	0
Stage 1	112	-	-	-	-	-
Stage 2	111	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	770	947	1141	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	769	947	1141	-	-	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	919	-	-	-	-	-

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

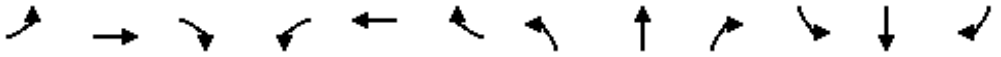
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1141	-	772	-	-
HCM Lane V/C Ratio	0.001	-	0.059	-	-
HCM Control Delay (s)	8.2	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	34	9	69	28	16	18	100	52	21	126	38
Future Vol, veh/h	27	34	9	69	28	16	18	100	52	21	126	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	29	37	10	75	30	17	20	109	57	23	137	41
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	8.7	9.5	8.9	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	39%	70%	0%	11%
Vol Thru, %	59%	49%	28%	0%	68%
Vol Right, %	31%	13%	2%	100%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	70	99	14	185
LT Vol	18	27	69	0	21
Through Vol	100	34	28	0	126
RT Vol	52	9	2	14	38
Lane Flow Rate	185	76	107	16	201
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.231	0.107	0.172	0.021	0.254
Departure Headway (Hd)	4.506	5.06	5.793	4.745	4.547
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	795	704	616	749	788
Service Time	2.548	3.124	3.554	2.505	2.587
HCM Lane V/C Ratio	0.233	0.108	0.174	0.021	0.255
HCM Control Delay	8.9	8.7	9.8	7.6	9.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.9	0.4	0.6	0.1	1

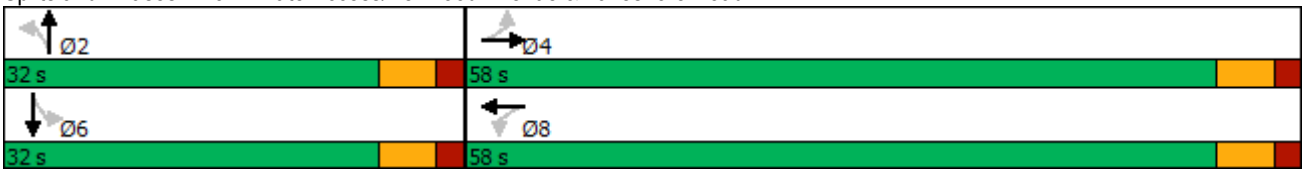


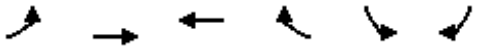
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	1055	11	0	511	44	1	0	1	64	0	82
Future Volume (vph)	106	1055	11	0	511	44	1	0	1	64	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.989			0.932			0.850	
Flt Protected	0.950							0.976		0.950		
Satd. Flow (prot)	1825	1898	0	0	1900	0	0	1664	0	1825	1633	0
Flt Permitted	0.405							0.830		0.757		
Satd. Flow (perm)	778	1898	0	0	1900	0	0	1415	0	1454	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8			36			314	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			89.0	
Travel Time (s)		13.2			7.6			5.0			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	115	1147	12	0	555	48	1	0	1	70	0	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	1159	0	0	603	0	0	2	0	70	89	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	58.0	58.0		58.0	58.0		32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	52.0	52.0		52.0	52.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	56.3	56.3			56.3			9.5		9.5	9.5	
Actuated g/C Ratio	0.76	0.76			0.76			0.13		0.13	0.13	
v/c Ratio	0.19	0.80			0.42			0.01		0.38	0.18	
Control Delay	4.9	14.1			5.4			0.0		35.3	0.8	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.9	14.1			5.4			0.0		35.3	0.8	
LOS	A	B			A			A		D	A	
Approach Delay		13.2			5.4						16.0	
Approach LOS		B			A						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 73.7			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 104.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



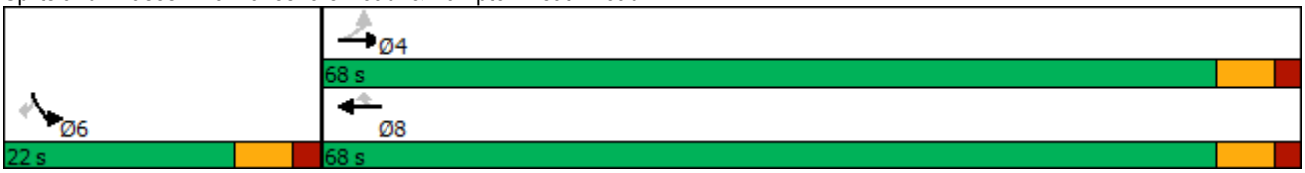


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	1064	298	27	26	9
Future Volume (vph)	34	1064	298	27	26	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.564				0.950	
Satd. Flow (perm)	975	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				29		10
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	495.9		84.0	
Travel Time (s)		13.7	35.7		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	37	1157	324	29	28	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	1157	324	29	28	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	68.0	68.0	68.0	68.0	22.0	22.0
Total Split (%)	75.6%	75.6%	75.6%	75.6%	24.4%	24.4%
Maximum Green (s)	62.0	62.0	62.0	62.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	79.5	79.5	79.5	79.5	7.1	7.1
Actuated g/C Ratio	0.87	0.87	0.87	0.87	0.08	0.08
v/c Ratio	0.04	0.77	0.21	0.02	0.22	0.08
Control Delay	2.3	10.4	2.4	0.9	44.7	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	10.4	2.4	0.9	44.7	22.7
LOS	A	B	A	A	D	C
Approach Delay		10.1	2.3		38.9	
Approach LOS		B	A		D	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90.9			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 9.0		Intersection LOS: A	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 2: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.3	18.0	1.7
Average Queue (m)	1.7	9.4	0.1
95th Queue (m)	7.4	14.8	1.1
Link Distance (m)	75.0	77.2	76.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	42.5	183.3	48.1	6.7	22.2	31.9
Average Queue (m)	18.0	94.8	23.1	0.6	11.6	11.2
95th Queue (m)	42.6	177.6	42.7	4.3	21.4	22.7
Link Distance (m)		175.8	93.6	62.4		76.5
Upstream Blk Time (%)		3				
Queuing Penalty (veh)		0				
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	15			3	1
Queuing Penalty (veh)	2	16			3	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	20.7	33.4
Average Queue (m)	4.4	17.0
95th Queue (m)	15.3	28.2
Link Distance (m)	283.4	457.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	60.3	10.6	63.8
Average Queue (m)	11.9	2.1	28.4
95th Queue (m)	36.4	8.4	56.6
Link Distance (m)	93.6	53.4	60.4
Upstream Blk Time (%)			3
Queuing Penalty (veh)			0
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	35.5	73.7	26.6	10.4	12.3	6.3
Average Queue (m)	4.4	24.2	5.9	1.4	4.5	1.3
95th Queue (m)	17.0	63.8	19.3	6.5	11.4	5.2
Link Distance (m)		177.3	483.5	483.5		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)	0	2				
Queuing Penalty (veh)	0	1				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.2	18.4	14.3
Average Queue (m)	5.8	9.7	1.7
95th Queue (m)	12.8	15.7	8.3
Link Distance (m)	83.5	81.5	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	NB
Directions Served	LTR	LTR
Maximum Queue (m)	19.8	6.7
Average Queue (m)	10.8	0.3
95th Queue (m)	16.1	3.0
Link Distance (m)	93.6	67.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	10.8	4.6
Average Queue (m)	5.2	0.2
95th Queue (m)	12.5	2.1
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.1	2.1
Average Queue (m)	4.5	0.1
95th Queue (m)	11.3	1.3
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LTR	R	LTR	LTR
Maximum Queue (m)	26.7	18.0	8.6	20.1	20.3
Average Queue (m)	14.4	10.0	0.8	13.7	9.6
95th Queue (m)	21.8	15.9	4.8	19.8	16.8
Link Distance (m)	283.4	342.5	342.5	459.9	227.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 22

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	35	9	44	0	100	50	0	111	25
Future Vol, veh/h	0	5	0	35	9	44	0	100	50	0	111	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	0	38	10	48	0	109	54	0	121	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	300	298	135	273	284	136	148	0	0	163	0	0
Stage 1	135	135	-	136	136	-	-	-	-	-	-	-
Stage 2	165	163	-	137	148	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	652	614	914	679	625	913	1434	-	-	1416	-	-
Stage 1	868	785	-	867	784	-	-	-	-	-	-	-
Stage 2	837	763	-	866	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	614	914	674	625	913	1434	-	-	1416	-	-
Mov Cap-2 Maneuver	610	614	-	674	625	-	-	-	-	-	-	-
Stage 1	868	785	-	867	784	-	-	-	-	-	-	-
Stage 2	783	763	-	860	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	10.4	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1434	-	-	614	768	1416	-	-
HCM Lane V/C Ratio	-	-	-	0.009	0.125	-	-	-
HCM Control Delay (s)	0	-	-	10.9	10.4	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	141	118	54	146	174	87
Future Vol, veh/h	141	118	54	146	174	87
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, %	0	0	0	4	0	0
Mvmt Flow	153	128	59	159	189	95

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	281	0	494	217
Stage 1	-	-	-	-	217	-
Stage 2	-	-	-	-	277	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1293	-	538	828
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1293	-	511	828
Mov Cap-2 Maneuver	-	-	-	-	511	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	774	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	586	-	-	1293	-
HCM Lane V/C Ratio	0.484	-	-	0.045	-
HCM Control Delay (s)	16.8	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	73	1047	0	0	313	32	3	0	4	47	0	124
Future Vol, veh/h	73	1047	0	0	313	32	3	0	4	47	0	124
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	79	1138	0	0	340	35	3	0	4	51	0	135

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	375	0	0	1138	0	0	1721	1671	1138	1656	1654	358
Stage 1	-	-	-	-	-	-	1296	1296	-	358	358	-
Stage 2	-	-	-	-	-	-	425	375	-	1298	1296	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1195	-	-	621	-	-	71	97	248	79	99	691
Stage 1	-	-	-	-	-	-	201	234	-	664	631	-
Stage 2	-	-	-	-	-	-	611	621	-	201	234	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	621	-	-	49	80	248	67	81	691
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	155	-	134	158	-
Stage 1	-	-	-	-	-	-	165	192	-	544	631	-
Stage 2	-	-	-	-	-	-	492	621	-	162	192	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	26.6	30.2
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	174	1195	-	-	621	-	-	323
HCM Lane V/C Ratio	0.044	0.066	-	-	-	-	-	0.575
HCM Control Delay (s)	26.6	8.2	0	-	0	-	-	30.2
HCM Lane LOS	D	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	3.4

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	5	17	4	9	87	3	135	6	48	90	1
Future Vol, veh/h	11	5	17	4	9	87	3	135	6	48	90	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	5	18	4	10	95	3	147	7	52	98	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	412	363	99	371	360	151	99	0	0	154	0	0
Stage 1	203	203	-	157	157	-	-	-	-	-	-	-
Stage 2	209	160	-	214	203	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	554	568	962	589	570	901	1507	-	-	1439	-	-
Stage 1	804	737	-	850	772	-	-	-	-	-	-	-
Stage 2	798	769	-	793	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	475	545	962	556	547	901	1507	-	-	1439	-	-
Mov Cap-2 Maneuver	539	574	-	610	584	-	-	-	-	-	-	-
Stage 1	802	709	-	848	770	-	-	-	-	-	-	-
Stage 2	704	767	-	742	709	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.9	0.2	2.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1507	-	-	705	844	1439	-	-
HCM Lane V/C Ratio	0.002	-	-	0.051	0.129	0.036	-	-
HCM Control Delay (s)	7.4	0	-	10.4	9.9	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	91	0	31	0	0	0	26	36	0	1	46	11
Future Vol, veh/h	91	0	31	0	0	0	26	36	0	1	46	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	99	0	34	0	0	0	28	39	0	1	50	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	153	153	56	170	159	39	62	0	0	39	0	0
Stage 1	58	58	-	95	95	-	-	-	-	-	-	-
Stage 2	95	95	-	75	64	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	819	742	1016	798	737	1038	1554	-	-	1584	-	-
Stage 1	959	851	-	917	820	-	-	-	-	-	-	-
Stage 2	917	820	-	939	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	808	728	1016	760	723	1038	1554	-	-	1584	-	-
Mov Cap-2 Maneuver	787	707	-	753	700	-	-	-	-	-	-	-
Stage 1	942	850	-	900	805	-	-	-	-	-	-	-
Stage 2	900	805	-	907	845	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	0	3.1	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1554	-	-	835	-	1584	-	-
HCM Lane V/C Ratio	0.018	-	-	0.159	-	0.001	-	-
HCM Control Delay (s)	7.4	0	-	10.1	0	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	-	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	6	100	14	9	63
Future Vol, veh/h	14	6	100	14	9	63
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	15	7	109	15	10	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	205	117	0	0	124	0
Stage 1	117	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	788	941	-	-	1475	-
Stage 1	913	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	782	941	-	-	1475	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	819	1475	-
HCM Lane V/C Ratio	-	-	0.027	0.007	-
HCM Control Delay (s)	-	-	9.5	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	2	2	100	69	48
Future Vol, veh/h	24	2	2	100	69	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	26	2	2	109	75	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	214	101	127	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	113	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	779	960	1210	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	777	960	1210	-	-	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1210	-	789	-	-
HCM Lane V/C Ratio	0.002	-	0.036	-	-
HCM Control Delay (s)	8	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	77	20	28	99	19	37	126	60	16	75	84
Future Vol, veh/h	131	77	20	28	99	19	37	126	60	16	75	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	142	84	22	30	108	21	40	137	65	17	82	91
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	11.9	10.5	11.1	10.2
HCM LOS	B	B	B	B

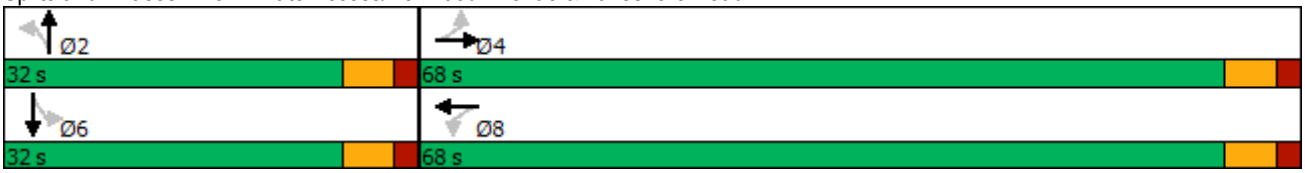
Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	17%	57%	22%	0%	9%
Vol Thru, %	57%	34%	77%	0%	43%
Vol Right, %	27%	9%	1%	100%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	228	129	17	175
LT Vol	37	131	28	0	16
Through Vol	126	77	99	0	75
RT Vol	60	20	2	17	84
Lane Flow Rate	242	248	140	19	190
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.352	0.379	0.238	0.027	0.274
Departure Headway (Hd)	5.235	5.505	6.111	5.3	5.184
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	686	654	587	674	692
Service Time	3.274	3.541	3.851	3.041	3.225
HCM Lane V/C Ratio	0.353	0.379	0.239	0.028	0.275
HCM Control Delay	11.1	11.9	10.8	8.2	10.2
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	1.6	1.8	0.9	0.1	1.1

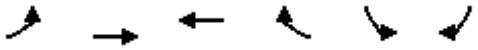
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	539	4	3	1110	63	20	0	2	29	1	57
Future Volume (vph)	119	539	4	3	1110	63	20	0	2	29	1	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.989			0.852	
Flt Protected	0.950							0.956		0.950		
Satd. Flow (prot)	1825	1882	0	0	1889	0	0	1779	0	1825	1575	0
Flt Permitted	0.236				0.999			0.698		0.742		
Satd. Flow (perm)	453	1882	0	0	1887	0	0	1299	0	1425	1575	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			33			62	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			82.7	
Travel Time (s)		13.2			7.6			5.0			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	12%	1%	0%	0%	0%	25%	0%	0%	4%
Adj. Flow (vph)	129	586	4	3	1207	68	22	0	2	32	1	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	129	590	0	0	1278	0	0	24	0	32	63	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	68.0	68.0		68.0	68.0		32.0	32.0		32.0	32.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	62.0	62.0		62.0	62.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.1	69.1			69.1			8.4		8.4	8.4	
Actuated g/C Ratio	0.81	0.81			0.81			0.10		0.10	0.10	
v/c Ratio	0.35	0.39			0.84			0.15		0.23	0.30	
Control Delay	6.7	4.1			14.3			11.8		38.8	14.0	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	6.7	4.1			14.3			11.8		38.8	14.0	
LOS	A	A			B			B		D	B	
Approach Delay		4.6			14.3			11.8			22.3	
Approach LOS		A			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 85.5			
Natural Cycle: 110			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 113.1%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



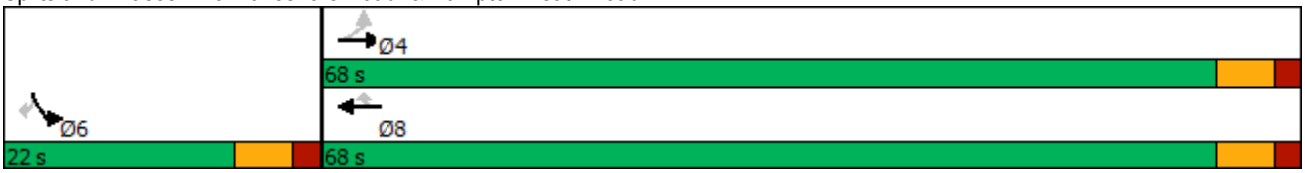


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	37	460	1033	89	30	12
Future Volume (vph)	37	460	1033	89	30	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1695	1712	1470	1643	1374
Flt Permitted	0.191				0.950	
Satd. Flow (perm)	330	1695	1712	1470	1643	1374
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				97		13
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	0%	7%
Adj. Flow (vph)	40	500	1123	97	33	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	500	1123	97	33	13
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	68.0	68.0	68.0	68.0	22.0	22.0
Total Split (%)	75.6%	75.6%	75.6%	75.6%	24.4%	24.4%
Maximum Green (s)	62.0	62.0	62.0	62.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	78.8	78.8	78.8	78.8	7.4	7.4
Actuated g/C Ratio	0.87	0.87	0.87	0.87	0.08	0.08
v/c Ratio	0.14	0.34	0.75	0.08	0.25	0.10
Control Delay	3.7	3.1	9.8	0.7	44.5	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	3.1	9.8	0.7	44.5	21.3
LOS	A	A	A	A	D	C
Approach Delay		3.1	9.1		38.0	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90.5			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 73.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	42.5	172.5	97.1	22.0	20.9	37.6
Average Queue (m)	31.2	94.0	63.0	5.8	7.5	12.5
95th Queue (m)	51.6	210.0	108.8	16.0	18.8	26.1
Link Distance (m)		175.8	93.6	62.4		70.2
Upstream Blk Time (%)		20	4			
Queuing Penalty (veh)		0	44			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	20	26			6	3
Queuing Penalty (veh)	108	31			3	1

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.8	12.5	25.6
Average Queue (m)	0.1	2.9	14.4
95th Queue (m)	1.1	10.4	22.8
Link Distance (m)	263.8	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	98.9	111.0	16.9	65.0
Average Queue (m)	75.7	27.6	3.9	63.4
95th Queue (m)	120.9	110.0	12.3	66.6
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	16	1		100
Queuing Penalty (veh)	89	6		0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	20.0	47.6	198.2	130.5	15.1	10.8
Average Queue (m)	7.9	8.5	46.9	5.9	5.3	2.1
95th Queue (m)	17.3	30.2	137.7	57.7	12.7	7.6
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 10: Kenwood Avenue & Adjacent Commercial Access/New Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	18.9	3.5	15.2
Average Queue (m)	1.9	10.0	0.2	2.7
95th Queue (m)	8.1	15.6	2.0	10.4
Link Distance (m)	72.9	75.0	70.2	69.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	12.3	16.4	10.6	12.7
Average Queue (m)	4.3	9.3	0.4	2.4
95th Queue (m)	11.9	14.6	3.6	9.5
Link Distance (m)	83.5	81.5	69.1	457.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	22.1	11.0	10.8	1.7
Average Queue (m)	10.6	3.4	1.0	0.1
95th Queue (m)	16.8	10.7	6.0	1.1
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (m)	12.7	8.8
Average Queue (m)	4.1	0.5
95th Queue (m)	11.8	3.9
Link Distance (m)	127.7	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	12.2	2.3
Average Queue (m)	6.7	0.2
95th Queue (m)	12.8	2.1
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	18.0	20.2	20.8	26.1
Average Queue (m)	10.7	12.7	12.0	14.3
95th Queue (m)	16.2	19.0	18.2	21.8
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 282

Intersection	
Int Delay, s/veh	4.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	140	46	76	126	61
Future Vol, veh/h	107	140	46	76	126	61
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, %	4	0	2	6	0	0
Mvmt Flow	116	152	50	83	137	66

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	268	0	375	192
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	183	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1296	-	630	855
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1296	-	605	855
Mov Cap-2 Maneuver	-	-	-	-	605	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	669	-	-	1296	-
HCM Lane V/C Ratio	0.304	-	-	0.039	-
HCM Control Delay (s)	12.7	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	21

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	134	432	3	6	1019	54	4	0	4	57	0	145
Future Vol, veh/h	134	432	3	6	1019	54	4	0	4	57	0	145
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	146	470	3	7	1108	59	4	0	4	62	0	158

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1167	0	0	473	0	0	1995	1945	472	1918	1917	1138
Stage 1	-	-	-	-	-	-	764	764	-	1152	1152	-
Stage 2	-	-	-	-	-	-	1231	1181	-	766	765	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	606	-	-	1099	-	-	46	66	596	~ 52	68	248
Stage 1	-	-	-	-	-	-	399	416	-	243	275	-
Stage 2	-	-	-	-	-	-	219	266	-	398	415	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	606	-	-	1099	-	-	12	44	596	~ 38	45	248
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ -95	90	-	108	144	-
Stage 1	-	-	-	-	-	-	269	280	-	164	270	-
Stage 2	-	-	-	-	-	-	78	261	-	266	279	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	0		184.8
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	606	-	-	1099	-	-	182
HCM Lane V/C Ratio	-	0.24	-	-	0.006	-	-	1.206
HCM Control Delay (s)	-	12.8	0	-	8.3	0	-	184.8
HCM Lane LOS	-	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	0.9	-	-	0	-	-	11.7

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

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	9	0	38	4	43	0	63	104	57	47	0
Future Vol, veh/h	0	9	0	38	4	43	0	63	104	57	47	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	41	4	47	0	68	113	62	51	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	325	356	51	305	300	125	51	0	0	181	0	0
Stage 1	175	175	-	125	125	-	-	-	-	-	-	-
Stage 2	150	181	-	180	175	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	628	570	1017	647	612	926	1555	-	-	1394	-	-
Stage 1	827	754	-	879	792	-	-	-	-	-	-	-
Stage 2	853	750	-	822	754	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	572	544	1017	616	584	926	1555	-	-	1394	-	-
Mov Cap-2 Maneuver	572	544	-	616	584	-	-	-	-	-	-	-
Stage 1	827	719	-	879	792	-	-	-	-	-	-	-
Stage 2	805	750	-	774	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	10.6	0	4.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1555	-	-	544	739	1394	-	-
HCM Lane V/C Ratio	-	-	-	0.018	0.125	0.044	-	-
HCM Control Delay (s)	0	-	-	11.7	10.6	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	5	9	15	6	66	21	97	9	73	32	13
Future Vol, veh/h	7	5	9	15	6	66	21	97	9	73	32	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	5	10	16	7	72	23	105	10	79	35	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	396	361	42	364	363	110	49	0	0	115	0	0
Stage 1	200	200	-	156	156	-	-	-	-	-	-	-
Stage 2	196	161	-	208	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	568	569	1034	596	568	949	1571	-	-	1487	-	-
Stage 1	806	739	-	851	772	-	-	-	-	-	-	-
Stage 2	810	769	-	799	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	492	529	1034	555	528	949	1571	-	-	1487	-	-
Mov Cap-2 Maneuver	544	555	-	601	563	-	-	-	-	-	-	-
Stage 1	793	698	-	837	760	-	-	-	-	-	-	-
Stage 2	730	757	-	742	694	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.9	1.2	4.7
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	687	827	1487	-	-
HCM Lane V/C Ratio	0.015	-	-	0.033	0.114	0.053	-	-
HCM Control Delay (s)	7.3	0	-	10.4	9.9	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.2	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	78	1	51	6	0	7	58	51	3	0	49	15
Future Vol, veh/h	78	1	51	6	0	7	58	51	3	0	49	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	9	0
Mvmt Flow	85	1	55	7	0	8	63	55	3	0	53	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	248	245	61	272	252	57	69	0	0	58	0	0
Stage 1	61	61	-	183	183	-	-	-	-	-	-	-
Stage 2	187	184	-	89	69	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	710	661	1010	685	655	1015	1545	-	-	1559	-	-
Stage 1	955	848	-	823	752	-	-	-	-	-	-	-
Stage 2	819	751	-	923	841	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	682	633	1010	626	627	1015	1545	-	-	1559	-	-
Mov Cap-2 Maneuver	685	634	-	650	625	-	-	-	-	-	-	-
Stage 1	915	848	-	788	720	-	-	-	-	-	-	-
Stage 2	779	719	-	871	841	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	9.5	3.8	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1545	-	-	783	806	1559	-	-
HCM Lane V/C Ratio	0.041	-	-	0.18	0.018	-	-	-
HCM Control Delay (s)	7.4	0	-	10.6	9.5	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	1	141	15	11	43
Future Vol, veh/h	23	1	141	15	11	43
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	8
Mvmt Flow	25	1	153	16	12	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	232	161	0	0	169	0
Stage 1	161	-	-	-	-	-
Stage 2	71	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	761	889	-	-	1421	-
Stage 1	873	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	755	889	-	-	1421	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	957	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	758	1421	-
HCM Lane V/C Ratio	-	-	0.034	0.008	-
HCM Control Delay (s)	-	-	9.9	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	3	2	137	23	144
Future Vol, veh/h	44	3	2	137	23	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	48	3	2	149	25	157

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	257	104	182	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	736	956	1405	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	735	956	1405	-	-	-
Mov Cap-2 Maneuver	735	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1405	-	746	-	-
HCM Lane V/C Ratio	0.002	-	0.068	-	-
HCM Control Delay (s)	7.6	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	51	16	66	91	14	13	119	51	37	158	59
Future Vol, veh/h	50	51	16	66	91	14	13	119	51	37	158	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	54	55	17	72	99	15	14	129	55	40	172	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	10.4	10	11
HCM LOS	A	B	A	B

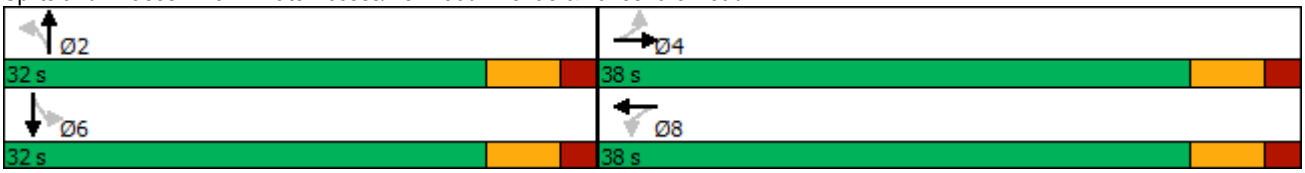
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	43%	39%	15%
Vol Thru, %	65%	44%	53%	62%
Vol Right, %	28%	14%	8%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	117	171	254
LT Vol	13	50	66	37
Through Vol	119	51	91	158
RT Vol	51	16	14	59
Lane Flow Rate	199	127	186	276
Geometry Grp	1	1	1	1
Degree of Util (X)	0.278	0.192	0.276	0.381
Departure Headway (Hd)	5.03	5.421	5.345	4.964
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	718	661	671	729
Service Time	3.04	3.459	3.382	2.972
HCM Lane V/C Ratio	0.277	0.192	0.277	0.379
HCM Control Delay	10	9.8	10.4	11
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	1.1	0.7	1.1	1.8

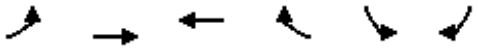
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	571	14	4	585	57	14	0	4	44	1	84
Future Volume (vph)	134	571	14	4	585	57	14	0	4	44	1	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	0.0		0.0	20.0		0.0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.988			0.972			0.852	
Flt Protected	0.950							0.962		0.950		
Satd. Flow (prot)	1825	1895	0	0	1898	0	0	1665	0	1825	1628	0
Flt Permitted	0.414				0.997			0.710		0.745		
Satd. Flow (perm)	795	1895	0	0	1892	0	0	1229	0	1431	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9			47			91	
Link Speed (k/h)		50			50			50			40	
Link Distance (m)		183.0			106.0			69.5			79.1	
Travel Time (s)		13.2			7.6			5.0			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	10%	0%	0%	0%	50%	0%
Adj. Flow (vph)	146	621	15	4	636	62	15	0	4	48	1	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	636	0	0	702	0	0	19	0	48	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	36.0	36.0		36.0	36.0		32.0	32.0		32.0	32.0	
Total Split (s)	38.0	38.0		38.0	38.0		32.0	32.0		32.0	32.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	32.0	32.0		32.0	32.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	18.0	18.0		18.0	18.0		15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	12.0	12.0		12.0	12.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	37.1	37.1			37.1			8.3		8.3	8.3	
Actuated g/C Ratio	0.69	0.69			0.69			0.16		0.16	0.16	
v/c Ratio	0.26	0.48			0.53			0.08		0.22	0.28	
Control Delay	6.4	7.0			7.6			3.4		22.0	8.1	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	6.4	7.0			7.6			3.4		22.0	8.1	
LOS	A	A			A			A		C	A	
Approach Delay		6.9			7.6			3.4			12.9	
Approach LOS		A			A			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 53.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 7.7		Intersection LOS: A	
Intersection Capacity Utilization 88.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Private Access/Kenwood Avenue & Lakeshore Road



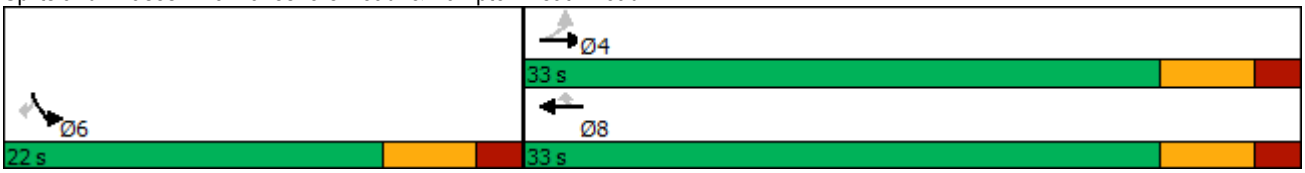


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	31	505	534	65	40	13
Future Volume (vph)	31	505	534	65	40	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			0.0	50.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1643	1712	1729	1470	1643	1470
Flt Permitted	0.433				0.950	
Satd. Flow (perm)	749	1712	1729	1470	1643	1470
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				71		14
Link Speed (k/h)		50	50		50	
Link Distance (m)		189.9	247.9		84.0	
Travel Time (s)		13.7	17.8		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	34	549	580	71	43	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	549	580	71	43	14
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.13	1.13	1.13	1.13	1.13	1.13
Turning Speed (k/h)	24			14	24	14
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	6.1	30.5	30.5	6.1	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	1.8	6.1	6.1	6.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	33.0	33.0	33.0	33.0	22.0	22.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%
Maximum Green (s)	27.0	27.0	27.0	27.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	43.6	43.6	43.6	43.6	6.9	6.9
Actuated g/C Ratio	0.85	0.85	0.85	0.85	0.14	0.14
v/c Ratio	0.05	0.38	0.39	0.06	0.19	0.07
Control Delay	3.6	4.3	4.4	1.5	22.2	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	4.3	4.4	1.5	22.2	11.7
LOS	A	A	A	A	C	B
Approach Delay		4.2	4.1		19.6	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 55			
Actuated Cycle Length: 51.1			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Lakeshore Road & Hampton Heath Road



Intersection: 2: Kenwood Avenue & Adjacent Commercial Access/New Site Acces

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.3	18.0	9.0	17.6
Average Queue (m)	2.6	9.5	0.5	3.1
95th Queue (m)	9.3	15.9	4.3	11.9
Link Distance (m)	79.3	65.6	66.6	72.7
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Private Access/Kenwood Avenue & Lakeshore Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	L	TR
Maximum Queue (m)	41.6	63.2	84.8	14.1	19.8	26.7
Average Queue (m)	17.8	30.0	33.8	4.6	7.8	10.5
95th Queue (m)	33.6	52.1	61.8	12.8	17.7	20.1
Link Distance (m)		175.8	93.6	62.4		66.6
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			1			
Storage Bay Dist (m)	40.0				20.0	
Storage Blk Time (%)	0	2			0	0
Queuing Penalty (veh)	0	2			0	0

Intersection: 4: Kenwood Avenue & Spruce Avenue

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	1.7	12.7	21.1
Average Queue (m)	0.1	2.1	12.7
95th Queue (m)	1.5	8.9	19.2
Link Distance (m)	263.8	283.4	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Access/Southerly Site Access & Lakeshore Road/Lakeshore Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	72.8	16.8	10.8	48.0
Average Queue (m)	23.1	1.5	2.4	20.6
95th Queue (m)	50.4	8.2	9.1	38.5
Link Distance (m)	93.6	177.3	53.4	60.4
Upstream Blk Time (%)	0			0
Queuing Penalty (veh)	1			0
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lakeshore Road & Hampton Heath Road

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (m)	15.6	46.7	45.6	12.5	13.8	7.8
Average Queue (m)	4.0	14.3	15.5	2.5	5.7	2.0
95th Queue (m)	12.0	34.4	38.2	9.0	13.4	6.7
Link Distance (m)		177.3	240.8	240.8		67.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	40.0				50.0	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 12: Kenwood Avenue & Banting Court/Westerly Site Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	10.9	16.3	9.3
Average Queue (m)	4.8	8.7	3.1
95th Queue (m)	12.3	14.6	10.2
Link Distance (m)	83.5	81.5	457.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Hampton Heath Road & Soutern Easterly Site Access/Private Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	17.8	9.2	9.2	2.3
Average Queue (m)	10.7	4.2	1.0	0.1
95th Queue (m)	15.9	11.6	5.6	1.4
Link Distance (m)	93.6	70.2	67.8	39.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Stratton Road & Hampton Heath Road

Movement	WB
Directions Served	LR
Maximum Queue (m)	9.2
Average Queue (m)	5.0
95th Queue (m)	12.2
Link Distance (m)	127.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Hampton Heath Road & Northern Easterly Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	14.2	8.0
Average Queue (m)	6.7	0.3
95th Queue (m)	12.8	3.1
Link Distance (m)	87.1	16.2
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Hampton Heath Road & Spruce Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.7	19.8	22.5	24.1
Average Queue (m)	9.5	10.9	12.3	12.9
95th Queue (m)	15.3	16.9	18.7	19.5
Link Distance (m)	283.4	346.3	459.9	231.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 5

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	9	0	36	4	43	0	68	107	58	92	0
Future Vol, veh/h	0	9	0	36	4	43	0	68	107	58	92	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	39	4	47	0	74	116	63	100	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	384	416	100	363	358	132	100	0	0	190	0	0
Stage 1	226	226	-	132	132	-	-	-	-	-	-	-
Stage 2	158	190	-	231	226	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	574	527	956	593	568	917	1493	-	-	1384	-	-
Stage 1	777	717	-	871	787	-	-	-	-	-	-	-
Stage 2	844	743	-	772	717	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	522	502	956	563	541	917	1493	-	-	1384	-	-
Mov Cap-2 Maneuver	522	502	-	563	541	-	-	-	-	-	-	-
Stage 1	777	683	-	871	787	-	-	-	-	-	-	-
Stage 2	797	743	-	724	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	10.9	0	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1493	-	-	502	702	1384	-	-
HCM Lane V/C Ratio	-	-	-	0.019	0.129	0.046	-	-
HCM Control Delay (s)	0	-	-	12.3	10.9	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	56	144	25	57	116	31
Future Vol, veh/h	56	144	25	57	116	31
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, %	0	0	0	4	0	0
Mvmt Flow	61	157	27	62	126	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	218	0	256	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1364	-	737	913
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1364	-	722	913
Mov Cap-2 Maneuver	-	-	-	-	722	-
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	914	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	755	-	-	1364	-
HCM Lane V/C Ratio	0.212	-	-	0.02	-
HCM Control Delay (s)	11	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	143	470	7	3	495	60	4	0	7	45	0	139
Future Vol, veh/h	143	470	7	3	495	60	4	0	7	45	0	139
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	155	511	8	3	538	65	4	0	8	49	0	151

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	603	0	0	519	0	0	1477	1434	515	1406	1406	571
Stage 1	-	-	-	-	-	-	825	825	-	577	577	-
Stage 2	-	-	-	-	-	-	652	609	-	829	829	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	984	-	-	1057	-	-	105	135	564	118	140	524
Stage 1	-	-	-	-	-	-	370	390	-	506	505	-
Stage 2	-	-	-	-	-	-	460	488	-	368	388	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	984	-	-	1057	-	-	62	105	564	96	109	524
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	192	-	191	217	-
Stage 1	-	-	-	-	-	-	288	303	-	394	503	-
Stage 2	-	-	-	-	-	-	326	486	-	282	302	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0	20.4	26
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	246	984	-	-	1057	-	-	367
HCM Lane V/C Ratio	0.049	0.158	-	-	0.003	-	-	0.545
HCM Control Delay (s)	20.4	9.3	0	-	8.4	0	-	26
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.2	0.6	-	-	0	-	-	3.1

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	6	13	11	5	61	9	117	10	73	74	6
Future Vol, veh/h	3	6	13	11	5	61	9	117	10	73	74	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	7	14	12	5	66	10	127	11	79	80	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	430	400	84	405	398	133	87	0	0	138	0	0
Stage 1	242	242	-	153	153	-	-	-	-	-	-	-
Stage 2	188	158	-	252	245	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	539	541	981	560	543	922	1522	-	-	1458	-	-
Stage 1	766	709	-	854	775	-	-	-	-	-	-	-
Stage 2	818	771	-	757	707	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	472	506	981	520	508	922	1522	-	-	1458	-	-
Mov Cap-2 Maneuver	538	540	-	576	551	-	-	-	-	-	-	-
Stage 1	761	669	-	848	770	-	-	-	-	-	-	-
Stage 2	749	766	-	697	667	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	9.9	0.5	3.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1522	-	-	735	816	1458	-	-
HCM Lane V/C Ratio	0.006	-	-	0.033	0.103	0.054	-	-
HCM Control Delay (s)	7.4	0	-	10.1	9.9	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	76	1	49	11	1	6	56	30	10	9	44	16
Future Vol, veh/h	76	1	49	11	1	6	56	30	10	9	44	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	83	1	53	12	1	7	61	33	11	10	48	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	242	243	57	265	246	39	65	0	0	44	0	0
Stage 1	77	77	-	161	161	-	-	-	-	-	-	-
Stage 2	165	166	-	104	85	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	716	662	1015	692	660	1038	1550	-	-	1577	-	-
Stage 1	937	835	-	846	769	-	-	-	-	-	-	-
Stage 2	842	765	-	907	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	685	631	1015	632	629	1038	1550	-	-	1577	-	-
Mov Cap-2 Maneuver	691	634	-	654	629	-	-	-	-	-	-	-
Stage 1	900	829	-	812	738	-	-	-	-	-	-	-
Stage 2	802	734	-	852	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10	4.3	1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1550	-	-	788	744	1577	-	-
HCM Lane V/C Ratio	0.039	-	-	0.174	0.026	0.006	-	-
HCM Control Delay (s)	7.4	0	-	10.5	10	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	7	96	27	1	42
Future Vol, veh/h	18	7	96	27	1	42
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	-	-	-	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	20	8	104	29	1	46

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	167	119	0	0	133	0
Stage 1	119	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	828	938	-	-	1464	-
Stage 1	911	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	827	938	-	-	1464	-
Mov Cap-2 Maneuver	804	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	980	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	838	1464	-
HCM Lane V/C Ratio	-	-	0.032	0.001	-
HCM Control Delay (s)	-	-	9.4	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	2	1	108	36	149
Future Vol, veh/h	43	2	1	108	36	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	50	0	0	0
Mvmt Flow	47	2	1	117	39	162

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	239	120	201	0	-	0
Stage 1	120	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.6	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.65	-	-	-
Pot Cap-1 Maneuver	754	937	1130	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	753	937	1130	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1130	-	760	-	-
HCM Lane V/C Ratio	0.001	-	0.064	-	-
HCM Control Delay (s)	8.2	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	37	11	71	31	17	20	110	54	23	135	41
Future Vol, veh/h	30	37	11	71	31	17	20	110	54	23	135	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	3
Mvmt Flow	33	40	12	77	34	18	22	120	59	25	147	45
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9.1	9.1	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	38%	60%	12%
Vol Thru, %	60%	47%	26%	68%
Vol Right, %	29%	14%	14%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	184	78	119	199
LT Vol	20	30	71	23
Through Vol	110	37	31	135
RT Vol	54	11	17	41
Lane Flow Rate	200	85	129	216
Geometry Grp	1	1	1	1
Degree of Util (X)	0.252	0.118	0.179	0.274
Departure Headway (Hd)	4.533	5.013	4.99	4.566
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	788	710	715	783
Service Time	2.581	3.077	3.05	2.614
HCM Lane V/C Ratio	0.254	0.12	0.18	0.276
HCM Control Delay	9.1	8.8	9.1	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.4	0.6	1.1