

Municipal CEA for Lawrence Park Neighbourhood

Traffic and Road Report



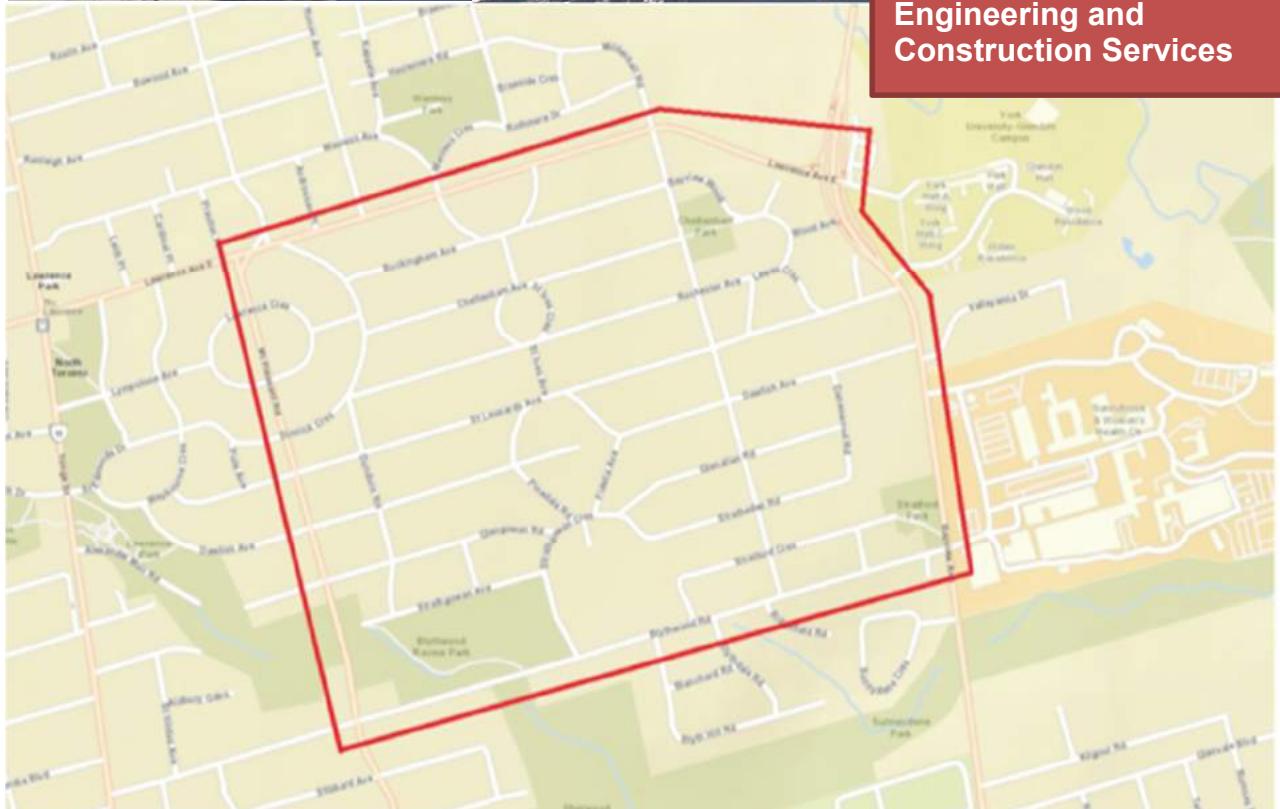
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EXECUTIVE SUMMARY

Morrison Hershfield Limited and Aquafor Beech Limited have been retained by the City of Toronto to conduct a Municipal Class Environmental Assessment (EA Study) for the Lawrence Park Neighbourhood. As part of the EA Study, Morrison Hershfield Limited are investigating the traffic and road improvements required within the neighbourhood. The Study Area is generally bounded by Lawrence Avenue East to the north, Bayview Avenue to the east, Blythwood Avenue to the south, and Mount Pleasant Road to the west.

Traffic in the Lawrence Park Study Area has several aspects to be studied including traffic and travel patterns, traffic operations and Level of Service (LOS), as well as traffic safety.

- To understand travel Patterns in the Study Area; Traffic Surveys and Counts were conducted, mathematical modelling was carried out to study traffic movements, particularly the through movements (infiltration) of vehicles.
- To understand Traffic Operations; turning movements at intersections were studied and the Level of Service, delay and queues were examined at the main locations.
- To understand the State of Traffic Safety in the Study Area, measurements and safety indicators were studied, and Collision Analysis for the last 5 years was carried out.
- The need for measurements of spot speeds was considered.

MH conducted various types of necessary traffic surveys, including turning movement counts, mid-block link volume counts, origin-destination surveys using vehicle trace method and origin-destination surveys using home questionnaires.

MH conducted 8-hour turning movement counts from 6 to 10 am and from 3 to 7 pm for 10 intersections. The data was used to study the travel patterns (**Section 2** of report) and the traffic operations (**Section 3** of report) in the Study Area. Together with Ontario Traffic Inc., MH conducted 8 hour long ATR (Automated Traffic Recorder) volume counts from 6 to 10 am and from 3 to 7 pm for 18 locations. The data collected was very useful in estimating traffic and travel in the Study Area, especially for peak travel periods. MH conducted an Origin-Destination (O-D) licence plate trace surveys to trace the flow of vehicles in and out of the Study Area to help understand the Study Area travel patterns and to particularly highlight the through trips across the Study Area. The O-D Licence Plate Survey didn't record the turning directions. The trip distribution at each entrance location was extracted from MH's Emme model to modify the Origin Destination matrix to determine the turning traffic during the morning and afternoon peak hours. A Home-Questionnaire survey was also conducted to identify the origins and destinations of all the trips in the Study Area, with exception of the through trips. This was also used to understand the travel patterns in the Study Area.

To be able to understand the traffic movements in the Study Area, particularly the through movements that can't be easily observed, two components were needed, namely, traffic/ travel surveys and Mathematical Modelling. The traffic/travel surveys included traffic counts, licence plate trace and home questionnaires. Mathematical Modelling was done by MH for the Study Area using the macro modelling software "Emme", as the main platform for doing the analysis

(Synchro and Simtraffic micro-simulation tools were also used). Using those two components, travel patterns in the Study Area were revealed and the through trips were detected. Running the model that MH built revealed that the total internal road volumes are small. Mildenhall Road has a comparatively larger volumes than other roads within the Study Area. The heavier volumes on Mildenhall Road are southbound in the AM Peak whereas the heavier volumes on Mildenhall Road are northbound in the PM Peak. The other connections to the arterial roadways exhibit some smaller infiltration but these volumes are relatively smaller. The analysis shows clearly that while traffic infiltration does exist, the size of that traffic is small in number with respect to road volumes given the size and no arterial roads and only Mildenhall Road as a collector road in the Study Area.

Traffic measurements and analyses together with Emme platform were successful in identifying those through trips and their routes.

Traffic operations from the points of view of delay and queues were studied. For the 10 main intersections, using Synchro 7 and Simtraffic, MH investigated the AM and PM traffic conditions including turning movements, Volume over Capacity (V/C), Level of Service (LOS), queue length, approach delay as well as the total intersection LOS. There are some elements of the traffic operations in the Study Area that could be improved. None of the traffic movements entering or leaving the Study Area is experiencing any major inconvenience or are below satisfactory Level of Service (LOS D). Some of the Study Area boundary intersections were identified as having LOS difficulties which is a cause of the infiltration into the area and an opportunity for further consideration or action. The Bayview Avenue and Lawrence Avenue East, west ramp terminal intersection fails during both the morning and afternoon peak hours (LOS "F"). There are other three intersections (Lawrence Avenue East / Mount Pleasant Rd, Bayview Avenue/ Blythwood Road and Bayview Avenue/ Lawrence Avenue East "east ramp terminal") that fail either in the morning or the afternoon peak hour. A discussion of some of the failing intersections and movements observed in the analysis is given in **Section 3**. Future external improvements to through movements on arterial roads could alleviate some operational problems such as traffic infiltration, though avoiding congestion on the major arterials in the area is difficult.

Traffic Safety in the Study Area was investigated. Between the years 2007 to 2011 inclusive, there were 29 collisions in the Study Area, at an average of 6 collisions/year. 77 people were involved in these accidents within 5 years.

The analysis revealed that there was one particular intersection that had relatively high numbers of collisions, amounting to one third of the total collisions in the whole Study Area, namely, the Mildenhall Road and Dawlish Avenue intersection, with 10 collisions. The main collision type at the Mildenhall and Dawlish intersection was the "Angle Collisions", typically an indication of a failure to yield. Mildenhall Road and Dawlish Avenue intersection is a two-way stop controlled on Dawlish Avenue, contributing to a failure to yield. Through the review we did not identify this location to have particularly poor sight distances or geometric deficiencies, but consideration should be given to raising the road grade to improve sight distance over the slightly higher property grades especially on the west, along with possible consideration for some vegetation removals though they are on private property. The failure to yield the right-of-way to the Mildenhall traffic on Dawlish, which is stop sign controlled, and driver inattention are contributing factors in a significant number of angle-collision collisions. We have identified that both streets have higher traffic volumes and some traffic infiltration. It is observed that the two adjacent

Mildenhall Road intersections, at St. Leonard's Avenue and at Dawlish Avenue have differing traffic control and significantly differing collision totals and collision rates. The Mildenhall and St. Leonard's intersection has a 4 way stop sign control and a much lower collision rate. A warrant for all-way-stop control should be conducted at Mildenhall and Dawlish intersection as a measure to reduce future collisions.

We concluded that based on volumes Mildenhall Road between Lawrence Avenue East and Blythwood Road is being used as a route for infiltration, though that is part of its function being categorized as a Collector Road. Through the collision analysis study, we noted that 10 collisions at Mildenhall Road and Dawlish Avenue intersection were very high considering the traffic volumes when we compared it to the intersection of Stratford Crescent and Daneswood Road that carries slightly more volumes where there were only 2 collisions. The Stratford Crescent and Daneswood Road intersection is located just west of Bayview Avenue north of Blythwood Road. Through this comparison we identified that the high volumes at the Stratford and Daneswood intersection, indicate that this is an area with traffic infiltration, as an option to turning directly on Mildenhall Road from Blythwood Road when that intersection is congested. This determination can be made given it is only a minor intersection since the third leg for Stratford Crescent is only a short cul-de-sac stub, and we would not expect such high traffic volumes. This roadway operates as a fairly direct unimpeded route to Mildenhall Road. We concluded that the 2 collisions at the Stratford and Daneswood intersection is low, as we would expect given the lack of conflicting movements. A turn restriction could be placed on Blythwood Road at Daneswood Road to reduce infiltration, but we would then expect more traffic would use the Mildenhall and Blythwood intersection and increase congestion at that location.

The preliminary assessment of the existing road conditions and potential improvement needs including the Sightlines and Stopping Sight Distance, Pedestrian and Cyclist Safety, Road Widths, Street Parking, and Deteriorating Pavement Conditions were investigated.

A detailed sightline analysis of the intersections in the neighbourhood was conducted and the intersections with poor visibility were identified. These intersections are:

- Lawrence Crescent / Mount Pleasant Road (south intersection)
- St. Leonard's Avenue / Mount Pleasant Road
- Dawlish Avenue / Mount Pleasant Road
- Strathgowan Avenue / Blythwood Road
- Rochester Avenue / Mildenhall Road
- Wanless Crescent / Lawrence Avenue East (east intersection)
- The point where Stratheden Road turns into Strathgowan Crescent

Each intersection was examined individually to determine the best options to improve the sightlines. In most cases, removal of obstructions to the sightlines wherever possible was recommended in order to provide the sight triangle required for the sight distance needed. Where removal of the obstructions are not feasible, signage warning approaching vehicles of hidden driveways can be put in place or a temporary reduction of the posted speed could be considered. Where the intersection is between a collector road and a local road, and lower

traffic volumes exist, such as Mildenhall Road / Rochester Avenue or Strathgowan Crescent and Blythwood Road, an all-way stop control at the intersection can be considered.

There is a general lack of continuation of the pedestrian facilities to the east side of the neighbourhood east of St. Ives Crescent and a lack of connectivity of the facilities in the north-south direction. The potential locations for new facilities were identified. These locations are:

- Mildenhall Road
- St. Leonard's Avenue
- Dawlish Avenue
- Strathgowan Crescent and Stratheden Road
- Pinedale Road
- Cheltenham Avenue, Buckingham Avenue, and Rochester Avenue

Many streets in the neighbourhood are narrower than ideal and there is street parking allowed, this in conjunction with appropriately slower posted speeds and travel times in residential neighbourhoods would make emergency service vehicle response times a bit longer. Snow storage and snow banks in the winter could make response times longer in the winter given the tight roadway corridors. The Ontario Fire Code states that fire access routes shall be maintained so as to be immediately ready for use at all times by fire department vehicles and the routes shall not be obstructed by vehicles, gates, fences, building materials, vegetation, signs, or any other form of obstruction. Provision for a minimum clear road width of 7.2 m at any time should be provided.

1. TRAVEL SURVEYS AND DATA COLLECTION

MH conducted various types of necessary traffic and travel surveys, including turning movement counts, mid-block link volume counts, origin-destination surveys using vehicle trace method and origin-destination survey using home questionnaires. Details are discussed below.

1.1 Turning Movement Counts

MH conducted 8-hour turning movement counts including the pedestrian counts from 6 to 10 am and from 3 to 7 pm for the blue marked intersections in **Figure 1-1**:

- 1 Lawrence Ave. E and Mildenhall Rd;
- 2 Lawrence Ave E and Mount Pleasant Rd;
- 3 Mount Pleasant Rd and St. Leonard's Ave;
- 4 Mount Pleasant Rd and Glengowan Rd;
- 5 Mount Pleasant Rd and Blythwood Rd;
- 6 Bayview Ave. and Blythwood Rd;
- 7 Bayview Ave. and Lawrence Ave E (east ramp terminal);
- 8 Bayview Ave. and Lawrence Ave E (west ramp terminal);
- 9 Lawrence Ave. E and TFS Access; and,
- 10 Bayview Ave. and Armistice Drive.

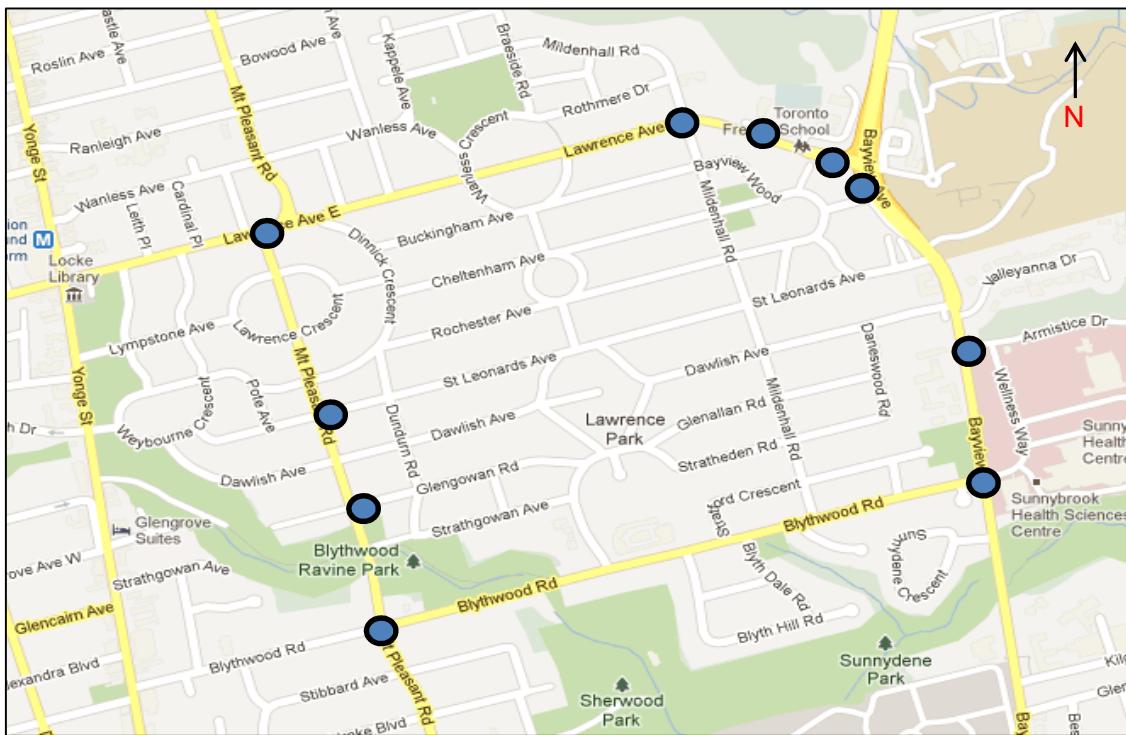


Figure 1-1 Turning Movement Counts Hours (6-10am and 3-7pm)

The data was used to study the travel patterns (**Section 2**) and the traffic operations in the Study Area (**Section 3**).

A copy of the 8-hour turning movement counts including the pedestrian counts are presented in **Appendix A**.

1.1.1 Partial Restrictions

There are partial restrictions on some turning movements within the Study Area that forbids turning at certain times/days or both. These movements are:

- Southbound right turn from Bayview Avenue to Wood Avenue from 7 AM – 8 AM (Monday to Friday);
- Southbound right turn from Bayview Avenue to St. Leonard's Avenue from 8 AM – 9 AM (Monday to Friday);
- Southbound right turn and northbound left turn from Bayview Avenue to Dawlish Avenue from 7 AM – 9 AM (Monday to Friday, these restrictions do not apply to buses);
- Southbound right turn from Bayview Avenue to Blythwood Road from 7 AM – 9 AM (Monday to Friday, this restriction does not apply to buses);
- Westbound through movement from Wellness Wy to Blythwood Road from 4 PM – 6 PM (Monday to Friday, this restriction does not apply to bicycles);
- Westbound left turn from Lawrence Avenue East to Dinnick Crescent from 7 AM – 9 AM and from 4 PM – 6 PM (Monday to Friday);
- Westbound left turn from Lawrence Avenue East to Mildenhall Road from 7 AM – 9 AM (Monday to Friday, this restriction does not apply to buses); and
- Eastbound right turn from Lawrence Avenue East to Mildenhall Road from 7 AM – 9 AM (Monday to Friday, this restriction does not apply to bicycles and buses).

1.2 Link Volume Counts

Together with Ontario Traffic Inc., MH conducted an 8-hour ATR (Automated Traffic Recorder) volume counts from 6 to 10 am and from 3 to 7 pm for 18 locations (red-marked locations in **Figure 1-2** (Volume Counts (6-10 am and 3-7pm))). The data collected was very useful in estimating traffic and travel in the Study Area (**Section 2**).

A copy of the 8-hour ATR volume counts are included in **Appendix B**.

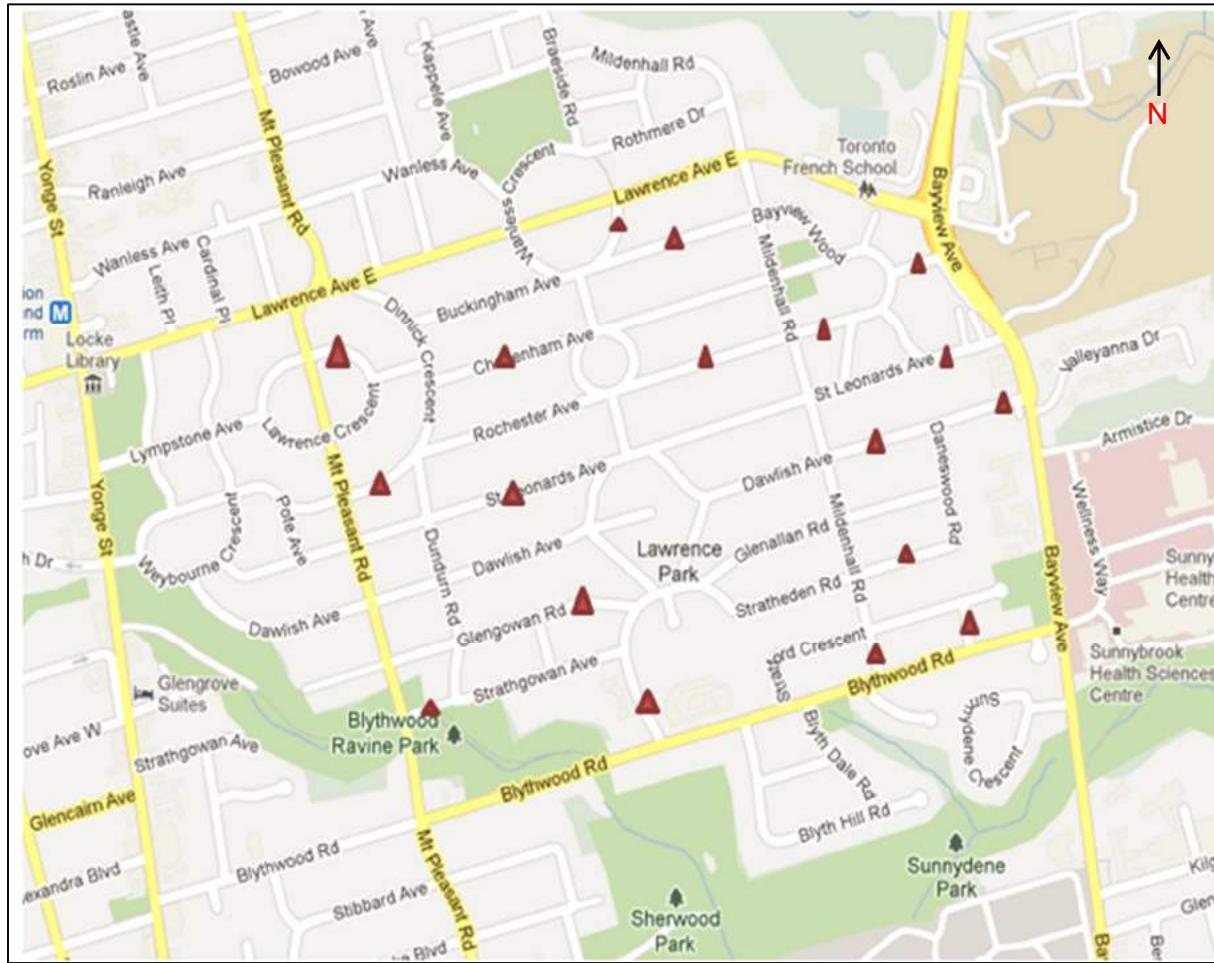


Figure 1-2 Volume Counts (6-10 am and 3-7pm)

1.3 Origin-Destination Study Using Vehicle Trace Surveys

Origin-Destination (O-D) licence plate trace survey, traces the flow of vehicles in and out of the Study Area to help understand the Study Area travel patterns and to particularly highlight the through (infiltration) trips across the Study Area. These are the trips that start outside the Study Area and end also outside the Study Area. The survey was conducted at all the entrances/ exits of the Study Area (see **Figure 1-3**). A copy of the O-D licence plate trace survey is included with this Report as **Appendix C**.

The survey was conducted by noting a part of the licence plate together with the time and place of occurrence. Through comparing the licence plate numbers from various entrances and exits, it was possible to identify the through trips or vehicles with drivers that don't live in the Study Area but just passed through it. Vehicles were not stopped for any information.

As noted above, the O-D Licence Plate Survey didn't record the turning directions. The trip distribution at each entrance location was extracted from MH's Emme model to modify the Origin Destination matrix to determine the turning traffic during the morning and afternoon peak hours (refer to **Appendix C**).

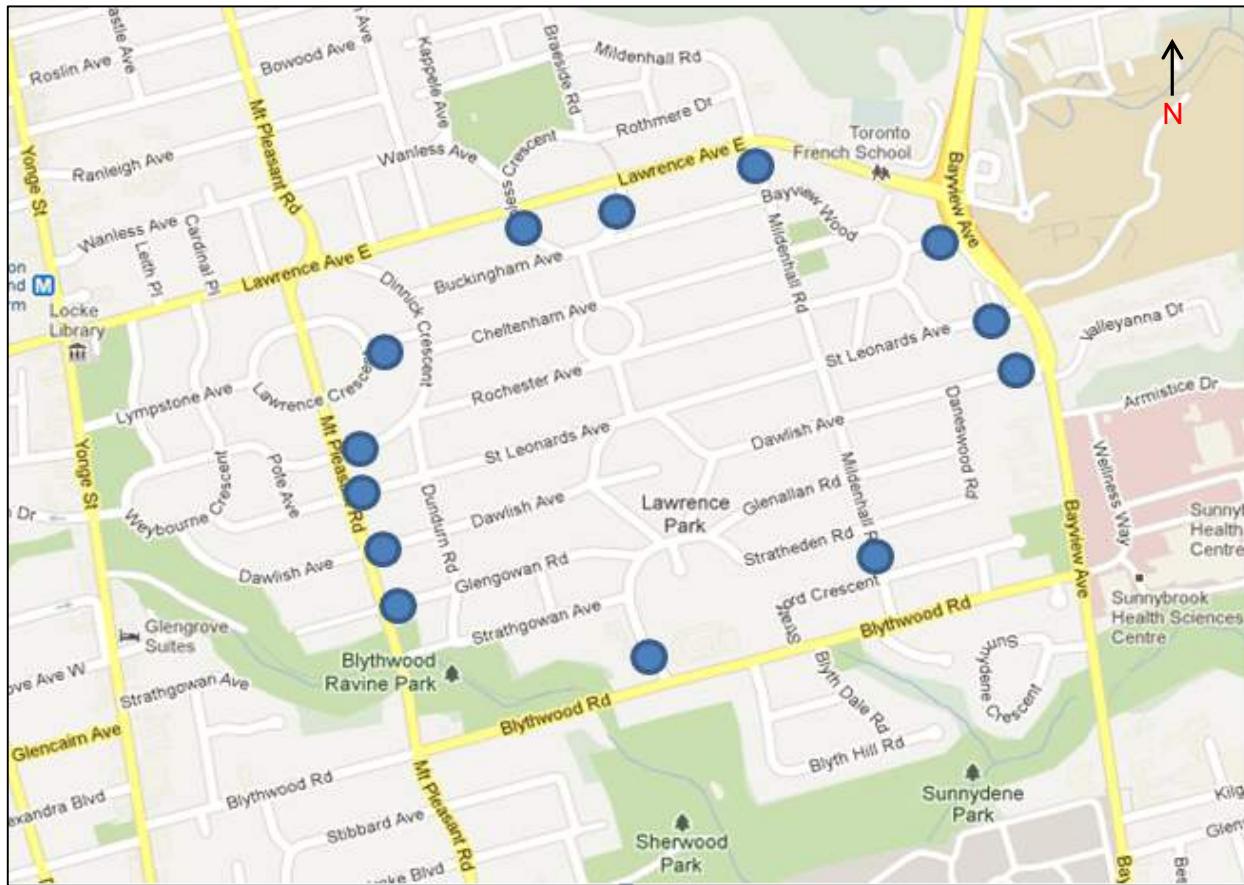


Figure 1-3 Traffic Survey: Trace Stations

1.4 Origin- Destination Study Using Home Questionnaires

It is important to recall that trips in any area are usually composed of four types:

1. Internal – Internal;
2. Internal-External;
3. External-Internal;
4. External -External (Through Trips).

A Home-Questionnaire survey was conducted in the Lawrence Park Study Area to identify the origins and destinations of certain types of trips, particularly the Internal – External trips. A copy of the Questionnaire is included with this Report as **Appendix D**. The transportation question (#6) in the home-questionnaires was designed to achieve that result. Question #6 was formulated as shown below:

The Project Team is interested in learning about transportation patterns within the study area. On the map below, please draw the primary route your household members use on a daily basis during the morning weekday rush hour (7 am to 9 am) to exit the neighbourhood.

From the questionnaire's response, one can identify the intersection used to exit the Study Area. The home address was also on the questionnaire. Accordingly, from each of the filled-in questionnaires, it was possible to get the following information:

- Street Address
- Postal Code
- Exit Intersection.

The data was cleaned and coded. The home street address (Street name and home number) and the postal code were used to locate the zone of the home according to the zoning system devised for this project. The "Exit Intersection number" was used to locate the Exit zone.

After cleaning and coding the data, the size of the sample of responses received and cleaned was 230. The results were expanded using population figures. The resulting Origin-Destination matrix was constructed. It was further adjusted in Emme using the results of the turning movement counts, volume counts, Origin-Destination (O-D) licence plate trace survey as described below.

1.5 The Adjustment of the Origin-Destination Matrices

The adjustment of the Origin-Destination matrices was performed using a method developed by Dr. Heinz Spiess¹ (from Switzerland/ Montreal at the time). The method is based on a new gradient based model that he developed, which can be applied to large scale networks. Mathematically, the model is formulated as a Convex Minimization problem where, by following the direction of the Steepest Descent, it ensures that the original O-D matrix is not changed more than necessary. Using these results, together with the traffic counts, the travel patterns within the Study Area were estimated.

1.6 Summary of Surveys

MH conducted various types of necessary traffic and travel surveys, including turning movement counts, mid-block link volume counts, origin-destination surveys using vehicle trace method and origin-destination survey using home questionnaires.

MH conducted 8-hour turning movement counts from 6 to 10 am and from 3 to 7 pm for 10 intersections. The data was used to study the travel patterns (**Section 2**) and the traffic operations (**Section 3**) in the Study Area. Together with Ontario Traffic Inc., MH conducted an 8-hour ATR (Automated Traffic Recorder) volume counts from 6 to 10 am and from 3 to 7 pm for

¹ Heinz Spiess (1990) *A Gradient Approach For The O-D Matrix Adjustment Problem*, EMME/2 Support Center, Haldenstrasse 16, CH-2558 Aegerten, Switzerland. heinz@spiess.ch.

18 locations. The data collected was very useful in estimating traffic and travel in the Study Area (**Section 2**).

MH conducted an Origin-Destination (O-D) licence plate trace survey to trace the flow of vehicles in and out of the Study Area to help understand the Study Area travel patterns and to particularly highlight the through (infiltration) trips across the Study Area (**Section 2**). The O-D Licence Plate Survey didn't record the turning directions. The trip distribution at each entrance location was extracted from MH's Emme model to modify the Origin Destination matrix to determine the turning traffic during the morning and afternoon peak hours.

A Home-Questionnaire survey was also conducted to identify the origins and destinations of all the trips in the Study Area, with exception of the through trips. This was also used to understand the travel patterns in the Study Area (**Section 2**).

2. TRAVEL PATTERNS

2.1 Modelling the Study Area in Emme

The reason for the Mathematical Modelling of the Study Area is to be able to understand the traffic movements there and accordingly, to be able to improve and control them if needed. This is particularly true for the through (infiltration) movements and their routes inside the Study Area, which can't be easily observed.

To do mathematical modelling, one needs to account for both the supply and the demand sides.

The supply side is the road network. To simulate it, one needs to convert the road links and intersections into nodes connected by links.

The City of Toronto has a strategic model for the entire City. However, in that model, our current Study Area is represented as one zone (see **Figure 2-1**). Accordingly, it was not possible to use such a model for this Study. Modelling the Study Area from scratch was the only possibility available to MH.

MH selected the platform for the modelling exercise to be Emme, the one the City of Toronto has been using for the last 25 years, also it is one of the best transportation planning software available in the market.

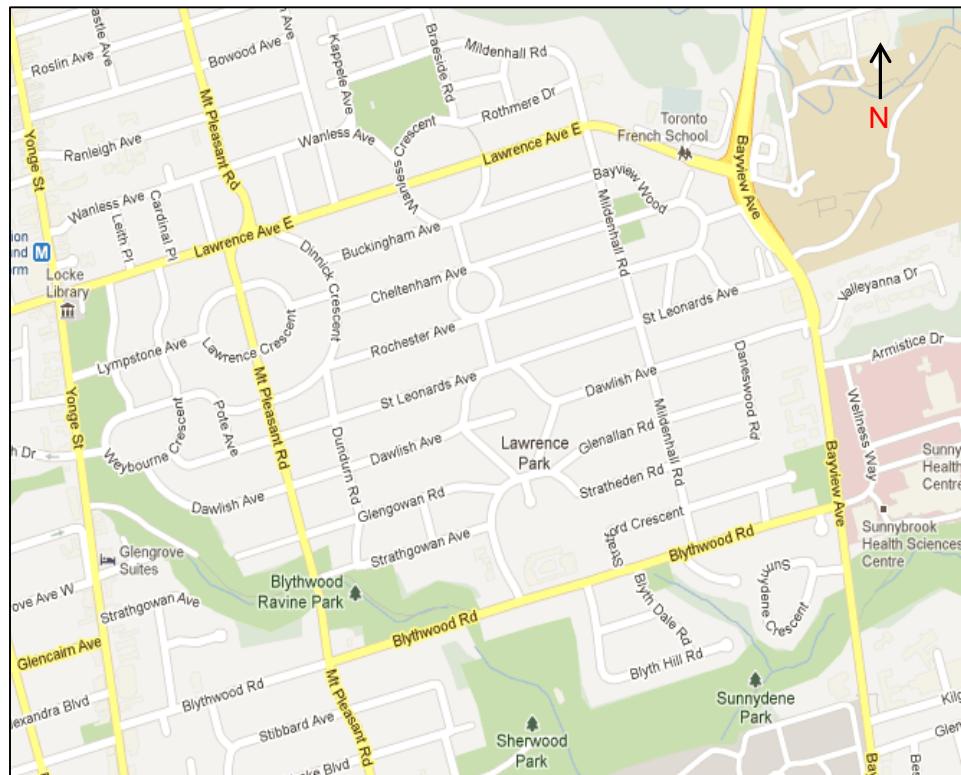


Figure 2-1 The Study Area

As required, MH subdivided the Study Area into smaller areas called “zones”, namely, 31 zones; 15 internal zones and 16 external ones. Also, MH abstracted the Study Area intersections and roads into nodes and links respectively. The intersections were represented by 124 regular nodes and the road links were represented by 420 directional links, forming the main part of the road network. Zone centroids, representing the centers of activities in each zone, were located, and connected to the road network. See **Figures 2-2 and 2-3**.

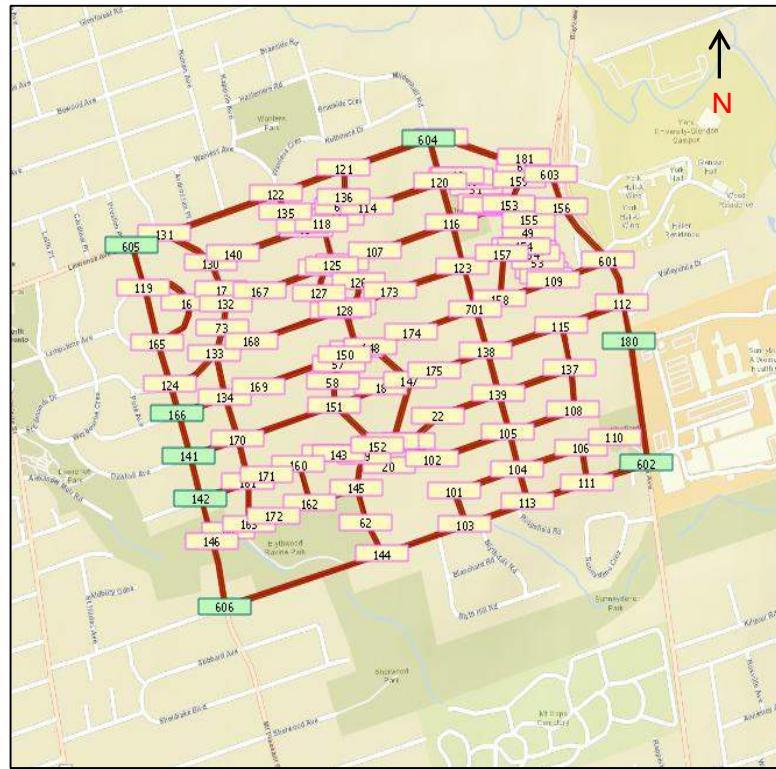


Figure 2-2 Simulated Road Network

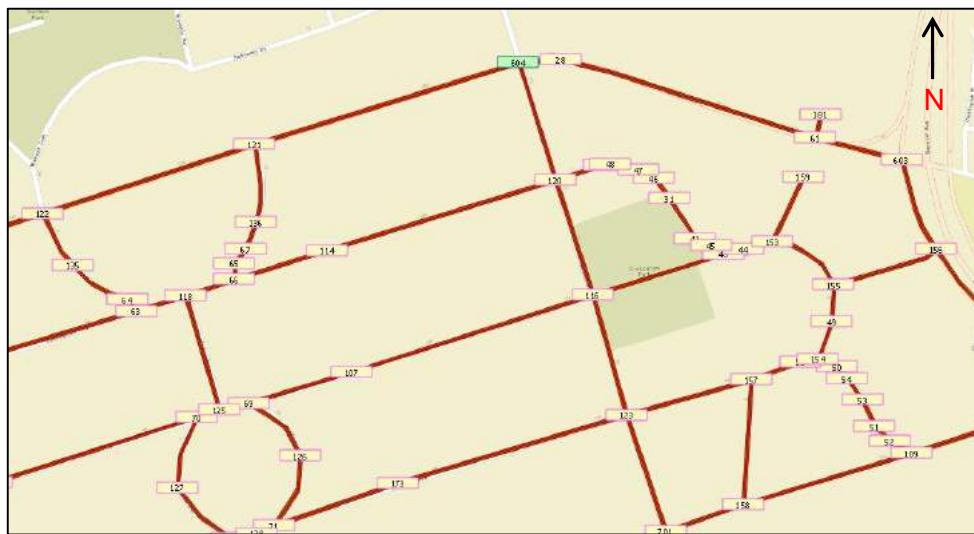


Figure 2-3 Nodes and Links with Traffic Volumes

The demand side of Mathematical modelling includes the origin-destination tables for the movements of vehicles from every zone to every other zone in the Study Area. To do that, MH needed a sample of the vehicular trips' movements in the Study Area. The City didn't have that information. MH developed the matrices needed using three sources of data discussed below.

First, MH conducted an origin-destination trace survey and extracted the information about three types of trips:

- External-Internal trips.
- Internal-External trips
- External-External trips.

Second, MH learned about a Questionnaire Survey that was planned to be conducted in the Study Area by the City last year. MH requested the inclusion of an origin-destination question in that survey. When the citizens' responses came back, MH coded the responses and developed the appropriate parts of the matrices based on that information.

Third, MH conducted traffic count exercises for measuring the volumes at intersections and on various sections of the Study Area roads. Those counts were needed to expand the Origin-Destination sample survey to the total and to study the traffic conditions in the Study Area.

Fourth MH developed the road network from the nodes and links then applied the partial restrictions for the turning movements, previously identified in **Section 1.1.1**, to the Emme model.

After connecting the network to the zones via zone centroids and centroid connectors, then MH assigned the developed demand matrices to the road network using Equilibrium Assignment in Emme. The Assignment results revealed the travel patterns in the area.

2.2 Travel Patterns

After the Equilibrium Assignment was run in Emme, the assignment results, for both the AM and the PM peak hours, in terms of total volumes were extracted from Emme. These results are shown below.

2.2.1 AM and PM Peak Hours

Figures 2-4 and 2-5 illustrate the AM and PM peak hour traffic volumes on the road segments of the Study Area.

It is clear that, generally speaking, the volumes on the internal roads of the Study Area are relatively small. One exception is the volumes on Mildenhall Road. Mildenhall Road and Blythwood Road within the Study Area are classified as Collectors.

In addition, relatively larger volumes can be found on Dawlish Avenue and St. Leonard's Avenue during the afternoon peak hour on the westbound direction due to the absence of turning restrictions at these locations.

2.2.2 The AM & PM Infiltration

As shown in **Figures 2-4** and **2.5**, the total internal road volumes are small. Mildenhall Road has a comparatively larger volumes than other roads within the Study Area. The heavier volumes on Mildenhall Road are southbound in the AM Peak whereas the heavier volumes on Mildenhall Road are northbound in the PM Peak.

The traffic volume figures help to illustrate the infiltration routes for traffic from the arterial roadway system. Specifically, Mildenhall Road, though it is a collector roadway. The volume figures also illustrate unexpectedly high volumes at the Stratford Crescent and Daneswood Road intersection that is located just west of Bayview Avenue north of Blythwood Road and is therefore a point of traffic infiltration. This intersection has the one leg of Stratford Crescent on the east as a short cul-de-sac stub with little traffic, so it is a fairly uninterrupted direct route to Mildenhall Road. We concluded that based on volumes we see Mildenhall Road between Lawrence Avenue East and Blythwood Road is being used as a route for infiltration, though that is part of its function being categorized as a Collector Road. We also see that Stratford Crescent and Daneswood Road is being used as an alternate route to Mildenhall Road to access Blythwood Road. A turn restriction could be placed on Blythwood Road at Daneswood Road but this would result in added traffic using the Mildenhall and Blythwood intersection.

The other connections to the arterial roadways exhibit some smaller infiltration but these volumes are relatively smaller. The analysis shows clearly that while traffic infiltration does exist, the size of that traffic is small in number with respect to road volumes given the size and no arterial roads and only Mildenhall Road as a collector road in the Study Area.

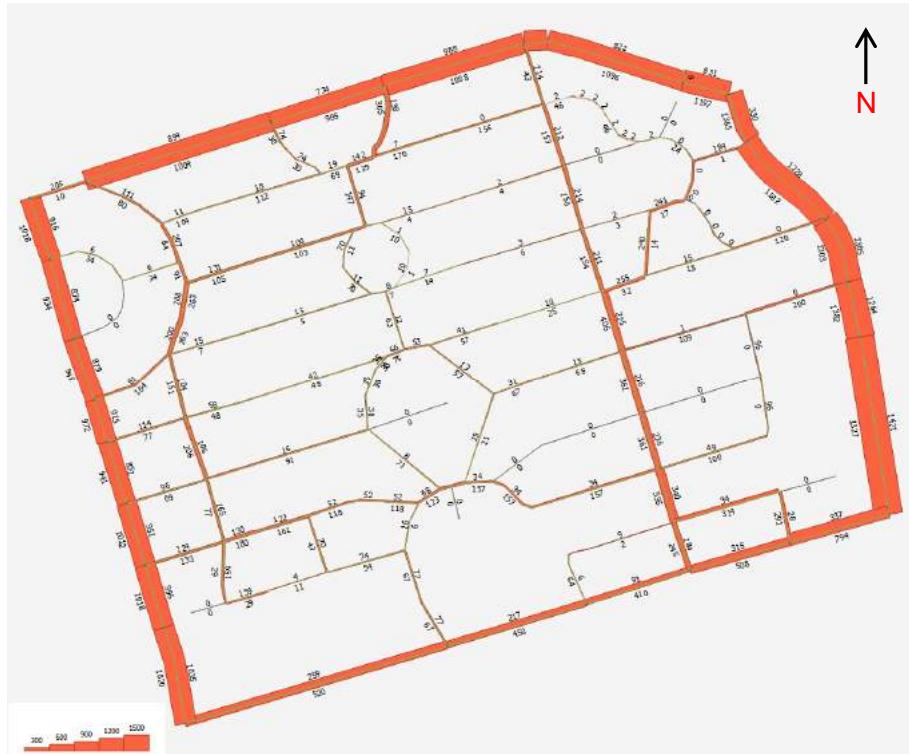


Figure 2-4 Travel Patterns: AM Traffic Volumes

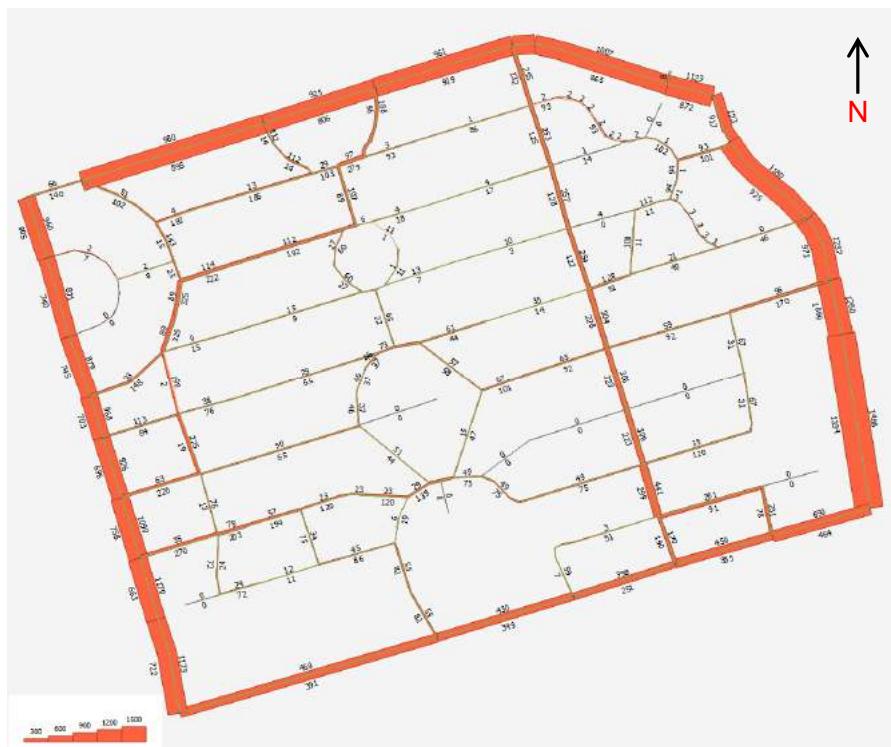


Figure 2-5 Travel Patterns: PM Traffic Volumes

2.3 Speed Analysis

During the site visit, MH concluded that the speed was not a major issue within the study area. Speed limits are reviewed further along in the report, in **Section 6.2.1**.

2.4 Summary and Conclusions

Initially, and as described in **Section 2**, MH built a mathematical model for the Study Area. Running that model revealed that there are through trips (infiltrations) in the Study Area, however, they don't represent large volumes. They are concentrated on Mildenhall Road. In the AM, the heavier volumes on Mildenhall Road are southbound. For the PM, the heavier volumes on Mildenhall Road are northbound. Mildenhall Road is the only collector road in the Study Area.

The analysis shows clearly that while traffic infiltration does exist, the size of that traffic is small in number and percentage of road volumes.

It was concluded that speeding within the study area is not an issue. Occasional surveillance focused at key points such as the school and park areas would be useful in assessing and discouraging high speeds. There are many ways to discourage high speeds including speed bumps, speed signs, and good surveillance. None are proposed at this time based on findings in this report.

3. EXISTING TRAFFIC OPERATIONS AND LEVEL OF SERVICE

This Chapter presents the results of the intersection capacity and level of service (LOS) analysis that was completed for the Lawrence Park Study Area. The Study Area considered is shown in **Figure 3-1** below. Please note that in spite of the fact that the Study Area border roads are not part of this Study, their LOSs are analyzed below, as they affect the operations of the local roads.

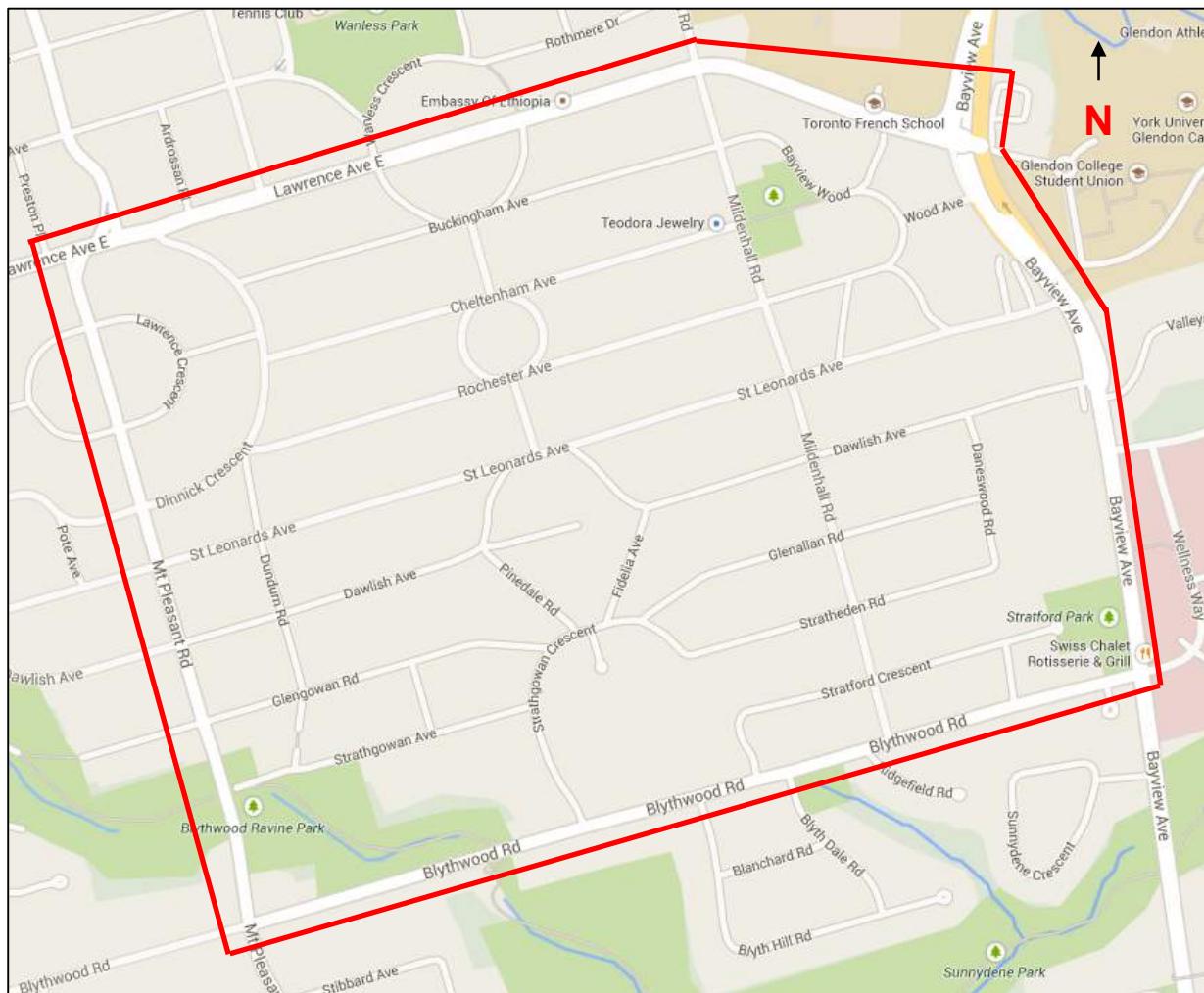


Figure 3-1 Lawrence Park Study Area

3.1 Intersections Considered

This analysis considered the intersections listed below.

- Lawrence Avenue East and Mildenhall Road;
- Lawrence Avenue East and Mount Pleasant Road;
- Mount Pleasant Road and St. Leonard's Avenue;

- Mount Pleasant Road and Glengowan Road;
- Mount Pleasant Road and Blythwood Road;
- Bayview Avenue and Blythwood Road;
- Bayview Avenue and Lawrence Avenue East (east ramp terminal);
- Bayview Avenue and Lawrence Avenue East (west ramp terminal);
- Lawrence Avenue East and TFS Access; and,
- Bayview Avenue and Armistice Drive.

3.2 Study Approach

The capacity and level of service (LOS) analysis was carried out by using Synchro 7 software. Turning movement counts and signal timing plans were obtained from the City of Toronto.

Synchro provides details on a number of Measures of Effectiveness (MOE's) including:

- The capacity of the intersection on an overall basis and for individual movements;
- The volume-to-capacity ratio for individual movements, each approach and the overall intersection; and
- The LOS for the movements at the intersection, particularly the movements experiencing the greatest delay (critical movements).

The LOS for both signalized and unsignalized intersections is related to the intersection delay and is a quantitative measure of the ability of the intersection (or movement) to be accommodated. The LOS definitions are summarized in **Table 3-1**.

Table 3-1 Level of Service Definitions

| Level of Service (LOS) | Signalized Intersection Control Delay (s/veh) | Unsignalized Intersection Control Delay (s/veh) |
|------------------------|---|---|
| A (Free Flow) | ≤ 10 | ≤ 10 |
| B | > 10 and ≤ 20 | > 10 and ≤ 15 |
| C | > 20 and ≤ 35 | > 15 and ≤ 25 |
| D | > 35 and ≤ 55 | > 25 and ≤ 35 |
| E (Capacity) | > 55 and ≤ 80 | > 35 and ≤ 50 |
| F (Forced Flow) | > 80 | > 50 |

Generally, overall intersection LOS C or better is deemed to be satisfactory. Operation at LOS D, while still satisfactory is beginning to show higher levels of delay and may warrant improvements. Individual movements are generally acceptable if LOS E (capacity) or better operation is achieved.

A summary of the LOS results is shown in **Table 3-2**. The detailed results of the analysis are shown in **Table 3-3**.

The traffic volumes/ turning movements and lane configurations used in the analysis are shown in **Figures 3-2** and **3-3**. The data used to determine the LOS and V/C in the software Synchro is attached as **Appendix E**. A summary of the results is given in **Table 3-3** (Traffic Conditions). Simtraffic was used to determine the 95th percentile queue lengths and average delays. The results of the analysis are also attached as **Appendix E**.

Table 3-2 Intersection Performance Summary

| Intersection | Intersection LOS | |
|---|------------------|----|
| | AM | PM |
| Lawrence Ave E and Mildenhall Rd | B | B |
| Lawrence Ave E and Mount Pleasant Rd | F | E |
| Mount Pleasant Rd and St. Leonard's Ave | B | A |
| Mount Pleasant Rd and Glengowan Rd | A | A |
| Mount Pleasant Rd and Blythwood Rd | C | E |
| Bayview Ave and Blythwood Rd | E | F |
| Bayview Ave and Lawrence Ave E (ERT) | F | E |
| Bayview Ave and Lawrence Ave E (WRT) | F | F |
| Lawrence Ave E and TFS Access | B | B |
| Bayview Ave and Armistice Dr | D | D |

Table 3-3 Traffic Conditions

| Intersection | Period | Direction | LOS | V/C | 95th % Queue (m) | Approach Delay (sec) | Intersection LOS |
|---|--------|-----------|-----|------|------------------|----------------------|------------------|
| Lawrence Ave E and Mildenhall Rd | AM | NB | C | 0.58 | 177 | 121 | B |
| | | SB | C | 0.72 | 184 | 13 | |
| | | EB | B | 0.59 | See Note (1) | 337 | |
| | | WB | B | 0.58 | 68 | 19 | |
| | PM | NB | C | 0.49 | 57 | 20 | B |
| | | SB | C | 0.54 | 40 | 26 | |
| | | EB | A | 0.42 | See Note (1) | 14 | |
| | | WB | A | 0.49 | 77 | 19 | |
| Lawrence Ave E and Mount Pleasant Rd | AM | NB | F | 0.90 | 930 (2) | 443 | F |
| | | SB | F | 0.97 | 232 | 148 | |
| | | EB | F | 1.19 | 4097 (3) | 867 | |
| | | WB | E | 0.93 | 213 | 126 | |
| | PM | NB | F | 0.97 | 4963 (3) | 295 | E |
| | | SB | E | 0.68 | 97 | 59 | |
| | | EB | F | 1.09 | 2809 (4) | 841 | |
| | | WB | D | 0.79 | 677 | 383 | |
| Mount Pleasant Rd and St. Leonard's Ave | AM | NB | A | 0.42 | See Note (2) | 122 | B |
| | | SB | A | 0.43 | 55 | 8 | |
| | | EB | C | 0.19 | 21 | 25 | |
| | | WB | C | 0.60 | 24 | 53 | |
| | PM | NB | A | 0.51 | See Note (2) | 48 | A |
| | | SB | A | 0.33 | 55 | 8 | |
| | | EB | C | 0.08 | 18 | 19 | |
| | | WB | C | 0.39 | 49 | 40 | |
| Mount Pleasant Rd and Glengowan Rd | AM | NB | A | 0.37 | See Note (2) | 46 | A |
| | | SB | A | 0.41 | 34 | 3 | |
| | | EB | D | 0.02 | 5 | 39 | |
| | | WB | D | 0.32 | 25 | 47 | |
| | PM | NB | A | 0.46 | See Note (2) | 41 | A |
| | | SB | A | 0.32 | 27 | 2 | |
| | | EB | D | 0.03 | 12 | 39 | |
| | | WB | D | 0.13 | 22 | 36 | |

Table 3-3 Traffic Conditions (Cont'd)

| Intersection | Period | Direction | LOS | V/C | 95th % Queue (m) | Approach Delay (sec) | Intersection LOS |
|--|--------|-----------|-----|------|------------------|----------------------|------------------|
| Mount Pleasant Rd and Blythwood Rd | AM | NB | B | 0.68 | 3103 (5) | 119 | C |
| | | SB | B | 0.62 | 95 | 38 | |
| | | EB | D | 0.82 | See Note (6) | 720 | |
| | | WB | D | 0.88 | 148 | 91 | |
| | PM | NB | B | 0.80 | See Note (2) | 67 | E |
| | | SB | B | 0.46 | 87 | 20 | |
| | | EB | D | 0.72 | 114 | 111 | |
| | | WB | F | 1.58 | 458 | 368 | |
| Bayview Ave and Blythwood Rd | AM | NB | E | 1.39 | 5049 (8) | 509 | E |
| | | SB | E | 1.23 | 197 | 50 | |
| | | EB | C | 0.85 | 2733 (6) | 284 | |
| | | WB | F | 1.26 | 53 | 35 | |
| | PM | NB | F | 2.09 | 6243 (8) | 1332 | F |
| | | SB | C | 0.87 | 3307 (11) | 85 | |
| | | EB | F | 1.18 | 644 (7) | 426 | |
| | | WB | F | 1.26 | 632 | 113 | |
| Bayview Ave and Lawrence Ave (East Ramp Terminal Intersection) | AM | NB | D | 0.76 | 101 | 43 | F |
| | | SB | D | 0.05 | 5 | 68 | |
| | | EB | F | 1.15 | 1019 (1) | 24 | |
| | | WB | D | 0.76 | 13 | 39 | |
| | PM | NB | C | 0.69 | 101 | 55 | E |
| | | SB | N/A | N/A | N/A | N/A | |
| | | EB | F | 1.11 | 435 (1) | 32 | |
| | | WB | D | 0.28 | 24 | 2 | |
| Lawrence Ave and Toronto French School Access | AM | NB | N/A | N/A | N/A | N/A | B |
| | | SB | C | 0.39 | 45 | 36 | |
| | | EB | A | 0.59 | See Note (1) | 123 | |
| | | WB | B | 0.77 | 347 (9) | 28 | |
| | PM | NB | N/A | N/A | N/A | N/A | B |
| | | SB | C | 0.44 | 64 | 49 | |
| | | EB | A | 0.61 | See Note (1) | 81 | |
| | | WB | B | 0.50 | 139 (9) | 22 | |

Table 3-3 Traffic Conditions (Cont'd)

| Intersection | Period | Direction | LOS | V/C | 95th % Queue (m) | Approach Delay (sec) | Intersection LOS |
|--|--------|-----------|-----|------|------------------|----------------------|------------------|
| Bayview Ave and Armistice Dr | AM | NB | C | 0.92 | 186 | 50 | D |
| | | SB | D | 1.16 | 4869 (10) | 457 | |
| | | EB | C | 0.01 | 18 | 34 | |
| | | WB | C | 0.18 | 50 | 15 | |
| | PM | NB | E | 1.08 | 166 | 29 | D |
| | | SB | C | 1.09 | See Note (11) | 322 | |
| | | EB | C | 0.01 | 5 | 16 | |
| | | WB | D | 0.76 | 74 | 22 | |
| Bayview Ave and Lawrence Ave (West Ramp Terminal Intersection) | AM | SB | F | 1.24 | 4246 (12) | 1798 | F |
| | PM | SB | F | 1.07 | 78 | 55 | F |

Red Highlights in the above table indicate LOS E or F, V/C values of 0.90 or higher, long queues or delays and notes.

Notes:

| | | | |
|---|---|----|---|
| 1 | The EB queue at the Lawrence Ave/Bayview Ave east ramp terminal intersection extends past the intersection of Lawrence and Mildenhall | 7 | The EB queue at Blythwood Rd/Bayview Ave extends past Mildenhall during the PM Peak Hour |
| 2 | The NB queue at Lawrence Ave/Mt Pleasant Rd extends past St Leonard, Dawlish and Glengowan almost reaching Blythwood during the AM Peak Hour | 8 | The NB queue at Blythwood Rd/Bayview Ave is very long exceeding 5km |
| 3 | The NB queue at Lawrence Ave/Mt Pleasant Rd extends past St Leonard, Dawlish, Glengowan and Blythwood during the PM Peak Hour, this queue potentially exceeds 5km | 9 | The WB queue at Lawrence Ave/TFS Access extends past the Lawrence Ave/Bayview Ave west ramp terminal intersection |
| 4 | The EB queue at Lawrence Ave/Mt Pleasant Rd is very long potentially exceeding 5km | 10 | The SB queue at Bayview Ave/Armistice Dr is very long potentially exceeding 5km during the AM Peak Hour |
| 5 | The NB queue at Blythwood Rd/Mt Pleasant Rd is very long potentially exceeding 5km | 11 | The SB queue at Bayview Ave/Blythwood Rd extends past the Armistice intersection and can potentially exceed 5km during the PM Peak Hour |
| 6 | The EB queue at Blythwood Rd/Bayview Ave extends past Mildenhall and Mt Pleasant during the AM Peak Hour | 12 | The SB queue at the Bayview Ave/Lawrence Ave WRT intersection is long and potentially exceeding 5km during the AM Peak Hour |



Figure 3-2 AM Turning Movements


Figure 3-3 PM Turning Movements

3.3 Analysis Results

The results of the analysis of the City of Toronto input data indicate that there is only one intersection that fails (with LOS "F") during both the morning and the afternoon peak hours. There are other three intersections that fail either in the morning or the afternoon peak hour. This is shown in **Figure 3-4** and **Table 3-1**.

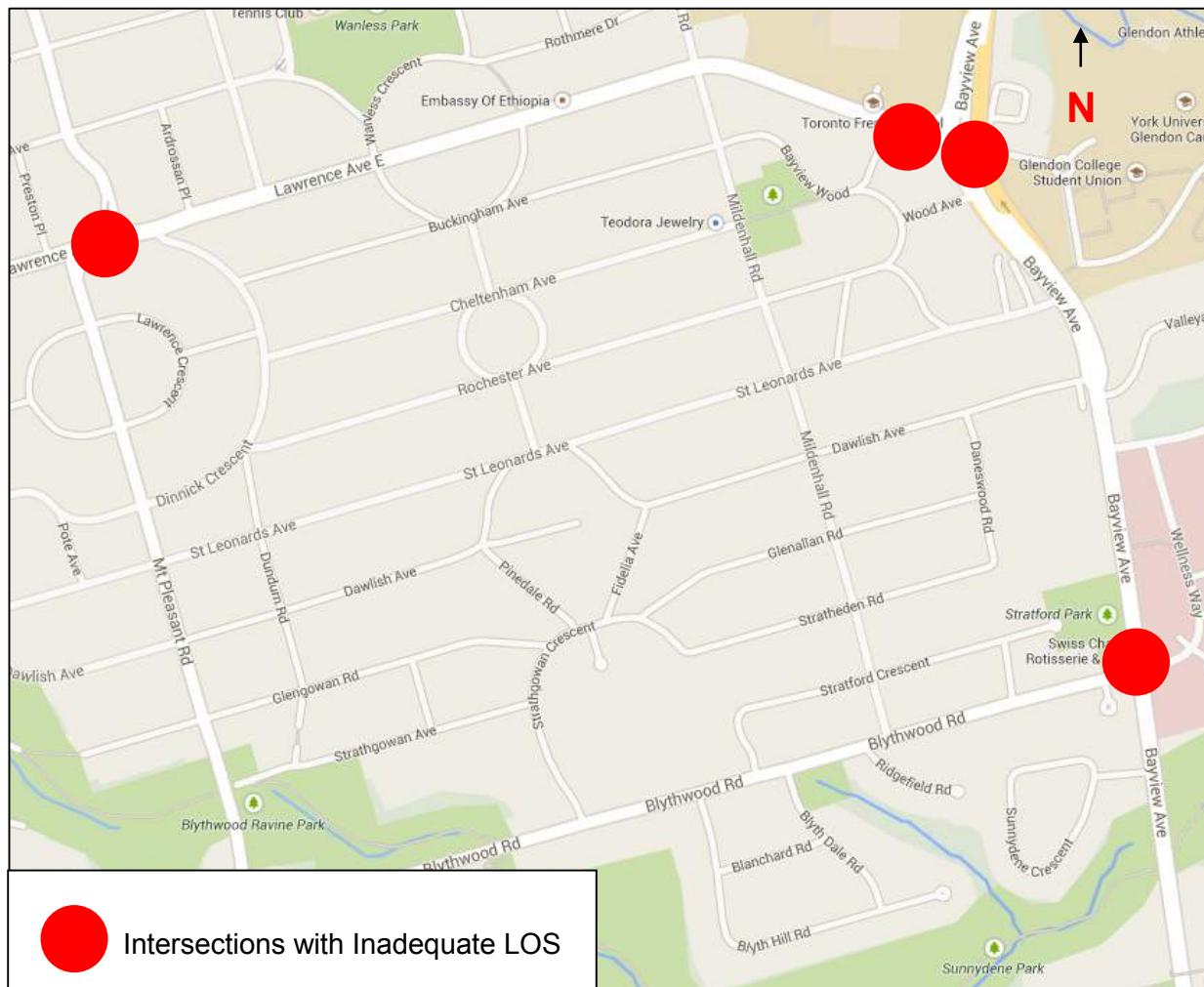


Figure 3-4 Intersections with Inadequate LOS

3.4 Discussion

Below is a discussion of some of the failing intersections and movements observed in the analysis. Please see **Table 3-3** for a comprehensive list.

- The eastbound movement at the east ramp terminal (ERT) intersection of the Lawrence Avenue East and Bayview Avenue interchange is failing, both in the AM and PM. The queues spill past the west ramp terminal (WRT), the Toronto French School access

intersection and the Mildenhall Road intersection. These queues and the associated delays are experienced during the morning and afternoon peak hours. The left turn volume at this intersection is very high and signal timing optimization may not remediate the problem. It is possible that geometric changes will provide some improvement.

- The northbound movement at the Lawrence Avenue East and Mount Pleasant Road intersection is failing. The queues spill past the intersections of Mount Pleasant Road and St. Leonard's Avenue, Dawlish Avenue, Glengowan Road and almost reach the intersection of Mount Pleasant Road and Blythwood Road during the morning peak hour and extending past Blythwood road during the PM peak hour. This is thought to be part of the cause for more use of Mildenhall Road. These queues and the associated delays are experienced during the morning and afternoon peak hours. The northbound volume at this intersection is very high and right turns are not permitted on a red signal. Signal timing optimization may not be able to resolve the problem but may be the only possible course of action. The residential area surrounding this intersection is built up and many buildings are close to the right of way; this may not allow for geometric changes such as widening, without costly land acquisition and opposition from the residents of the community.
- The PM eastbound movement at the Bayview Avenue and Blythwood Road intersection is failing. The eastbound queue extends past the Mildenhall Road intersection during the afternoon peak hour and extends past the Mildenhall Road and the Mount Pleasant Road intersections during morning peak hour. The eastbound volume at this intersection is very high and signal timing optimization may not remediate the problem without shifting the problem to another movement. This is thought to be part of the cause for more use of Mildenhall Road.
- During the morning peak hour the southbound queue at the intersection of Bayview Avenue and Armistice Drive is very long potentially exceeding 5 kilometers. During the afternoon peak hour the southbound queue at the intersection of Bayview Avenue and Blythwood Road extends past Armistice Drive and also can potentially exceed 5 kilometers. The southbound volume on Bayview Avenue is very high and causes the long queues described. Signal timing optimization may not remediate the problem without shifting the problem to another movement.

In addition to the concerns identified in the discussion above there are a number of locations where the 95th percentile queues reported by the Simtraffic outputs are expected to exceed 5 kilometers. While this might not be exactly what is happening in reality, it indicates high level of congestion in the area, during which neither the Synchro software nor Emme (nor any of the available software for that matter) can give an exact measure.

It should be emphasized here that none of the traffic movements entering or leaving the Study Area is experiencing major inconvenience or a below satisfactory LOS (LOS D).

3.5 Summary and Conclusions

This Chapter presented the results of MH study of the traffic conditions for the Lawrence Park area. For the 10 main intersections, using Synchro 7 and Simtraffic, MH investigated the AM

and PM traffic conditions including turning movements, V/C, LOS, queue length, approach delay as well as the total intersection LOS.

There are several concerns about the traffic operations at the congested boundary arterial roadways of the Study Area. The Bayview Avenue and Lawrence Avenue East, west ramp terminal intersection fails during both the morning and the afternoon peak hours (with LOS "F"). Also there are other three intersections (Lawrence Avenue East / Mount Pleasant Road, Bayview Avenue/ Blythwood Road and Bayview Avenue/ Lawrence Avenue East "east ramp terminal") that fail either in the morning or the afternoon peak hour. A discussion of some of the failing intersections and movements observed in the analysis was given in **Section 3**. This is thought to be part of the cause for more use of Mildenhall Road due to the traffic infiltration.

While, as discussed above, some of the Study Area boundary intersections do have LOS difficulties, they are outside the scope of this Study. None of the traffic movements entering or leaving the Study Area is experiencing any major inconvenience or a below satisfactory LOS (LOS D).

4. TRAFFIC SAFETY

4.1 Introduction

Many professionals use collision rates as a measure of traffic safety. As it was shown in the literature², without making any improvements, collision rates decrease with the increase in traffic volumes. Accordingly, the use of collision rates alone is not a good practice to measure traffic safety since with low volumes collision rates may be distorted. More important in assessing traffic safety is the number of collisions and this was found in the data for this Study Area.

The collision analysis below is based on collision data provided by the City of Toronto for the 5-years period 2007 to 2011, inclusive. Some collision data for the year 2012 was also provided. However, it covered only the months of January, February and March. Including that portion of the data in the analysis would bias its results towards the winter months. Accordingly, that set of data that belonged to the year 2012 was omitted from the analysis and all the tables and figures below relate to the Study Area during the 5-year period 2007-2011.

From the data provided by the City for the years 2007 to 2011, there were 29 collisions that occurred in the Lawrence Park Study Area, excluding the boundaries of the area. As shown in **Figure 4-1**, except for only one collision (with two injured people), all the rest of the collisions were property-damage only. During the period 2007-2011, none of the collisions was fatal.

The collision analysis below doesn't consider the arterial roads at the borders of the Study Area as they are not within the scope of this Study. The analysis below shows the variability of the number of collisions over the years, months of the year, days of the week and time of day, by impact type, by intersection, and by driver's condition.

² Dr. E. Hauer (1997) **Observational Before-After Studies in Road Safety**, Pergamon Books.

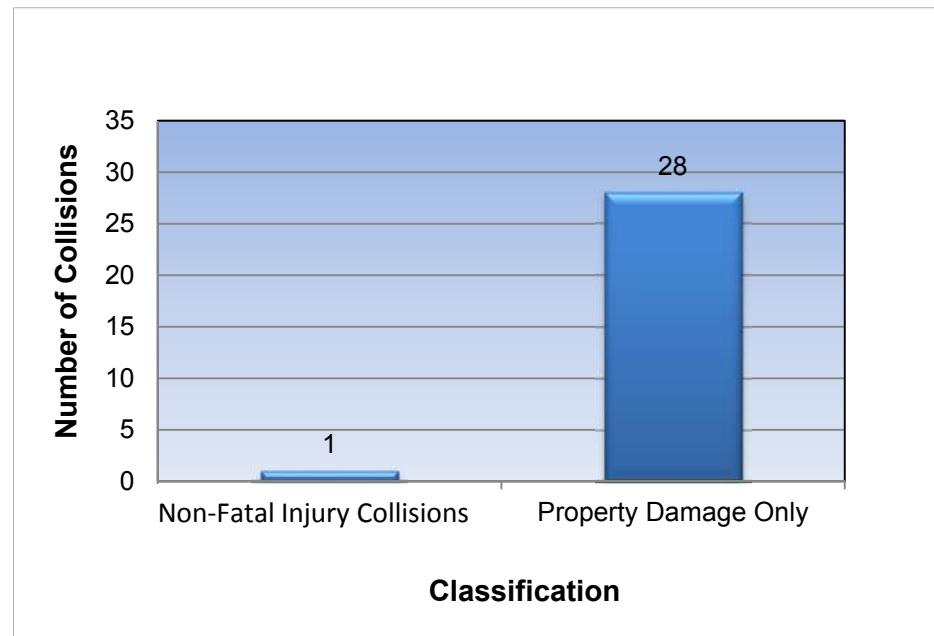


Figure 4-1 Collisions by Severity

4.2 Collisions by Year

Figure 4-2 shows the annual number of collisions that occurred between 2007 and 2011. The average was approximately 6 collisions per year. 77 people were involved in these accidents within 5 years or about 15 people per year. The peak of the annual collisions (11) occurred in the year 2011. As shown in the **Figure 4-2**. The variability of the number of collisions over the years is not small. This is not surprising given the fact that the number of collisions was relatively low.

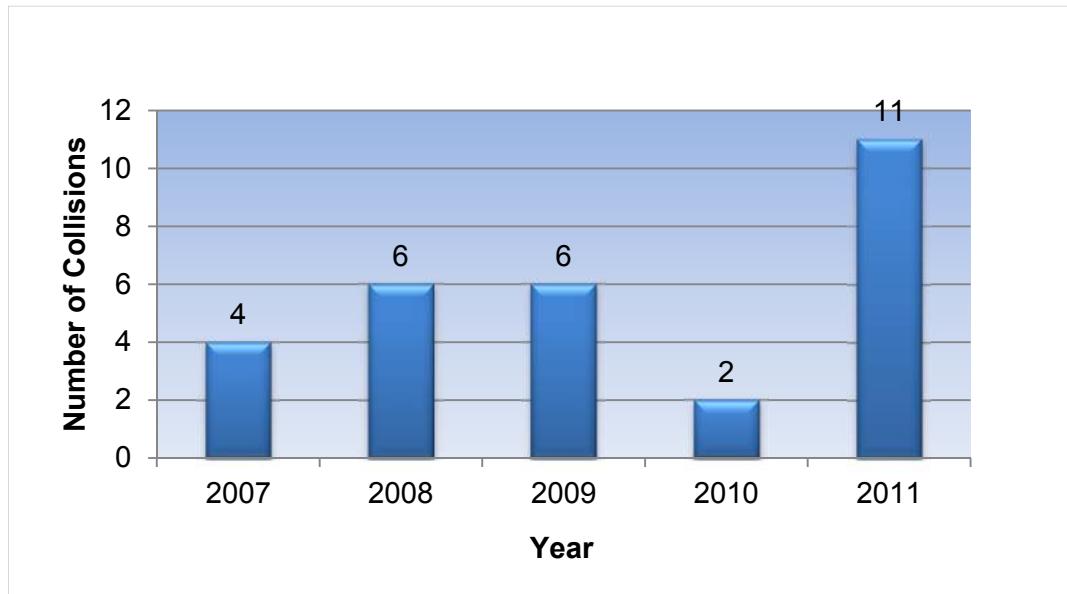


Figure 4-2 Collisions by Year

4.3 Collisions by the Month of the Year

Monthly collisions are shown in **Figure 4-3** below. This shows the seasonal patterns of collisions. Generally, collisions increase during the winter months and recover during the rest of the year. This is probably due to the slippery road conditions as result of the snow, ice or slush. Other reasons could be the smaller number of day light hours and the resulting reduced visibility during the winter months. In **Figure 4-3**, this is very clear in the month of January. However, due to the fact that the number of collisions is very small, we are left with a good portion of the data “noise” and randomness. It is hard to see the patterns that usually appear when the numbers are large and the statistical stability prevails over the random elements.

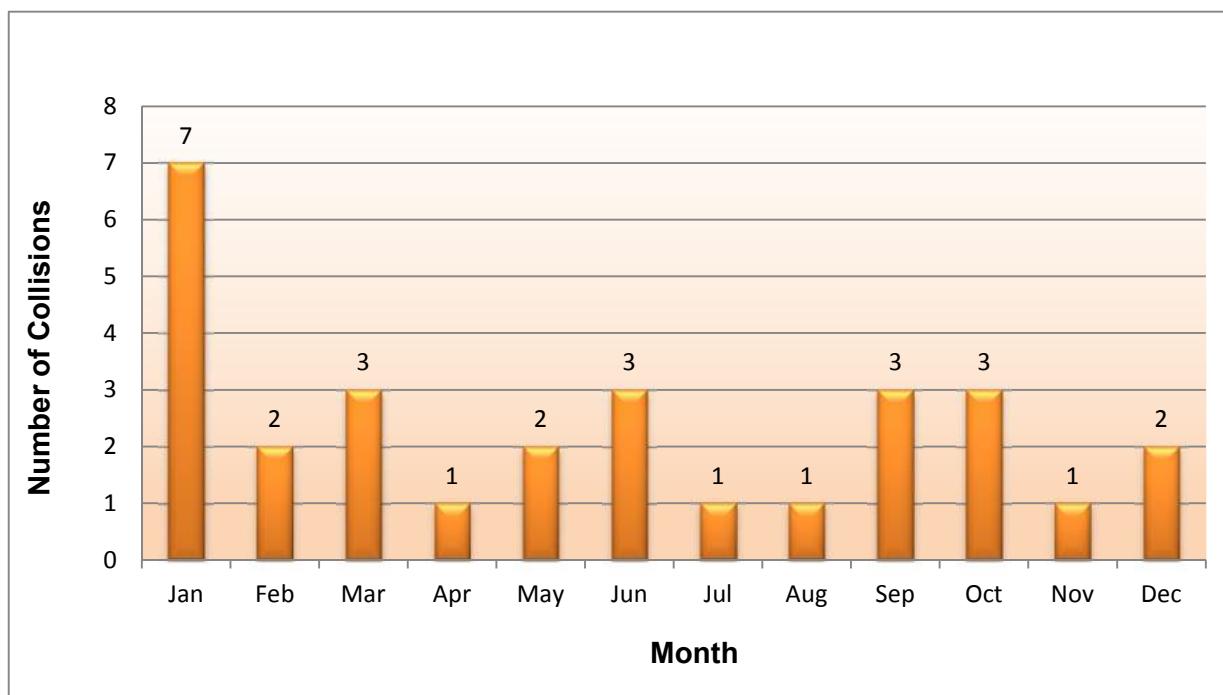


Figure 4-3 Collisions by the Month of the Year

4.4 Collisions by the Day of the Week

As shown in **Figure 4-4** below, the highest number of collisions was found to occur on Thursdays and Fridays. The least number of collisions occurred on Sundays and Tuesdays.

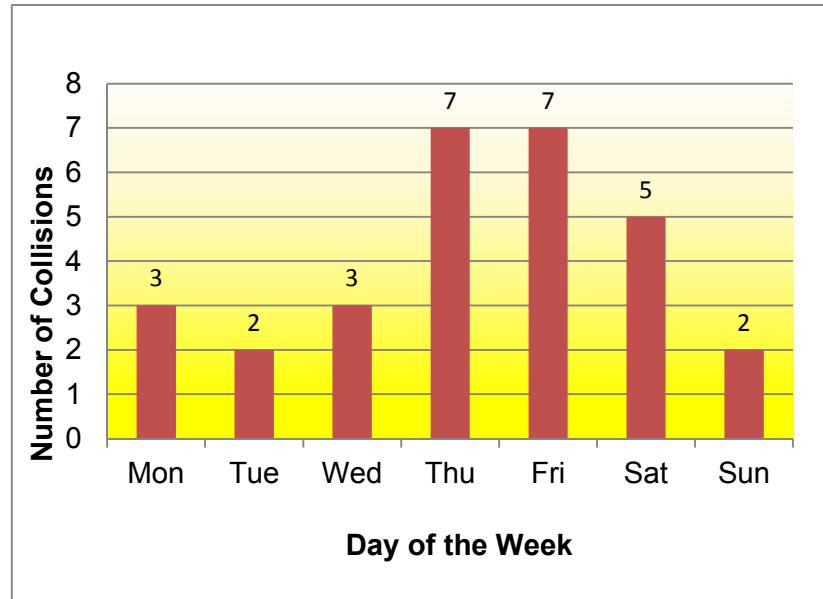


Figure 4-4 Collisions by Day of the Week

4.5 Collisions by the Time of the Day

One of the obvious factors that contribute to the number of collisions at a certain location is the number of conflicting volumes at that location. This fact explains the observations that relatively lower number of collisions are usually observed during the off-peak hours, when the road volumes drop significantly.

The collisions by the time of the day are plotted in **Figure 4-5**. As mentioned, generally collisions peak during the morning and the afternoon traffic peak periods. This is, to some extent, reflected below. However, because the collision numbers are low, the pattern is not very clear.

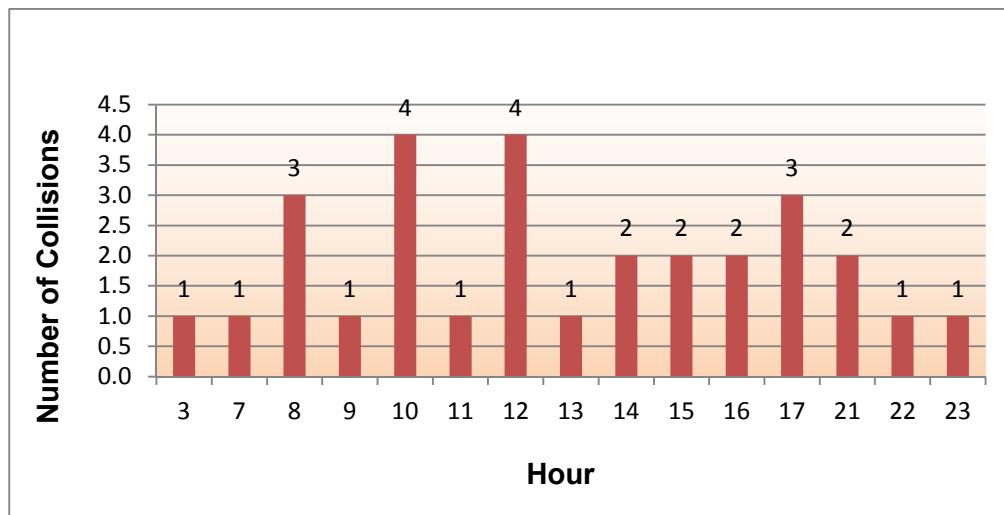


Figure 4-5 Collisions by the Hour of the Day

4.6 Collisions by Impact Type

The number of collisions is also plotted by the impact type in **Figure 4-6**. The rear-end and the turning-movement types of collisions are not high. The reason probably is the fact that the volumes are low on the internal roads of the Study Area. Two types of collisions had the highest frequency, namely, the Angle and the Single Motor Vehicle (SMV) Unattended collisions. Please note that there were no collisions involving pedestrians in any of the five year database for the Study Area.

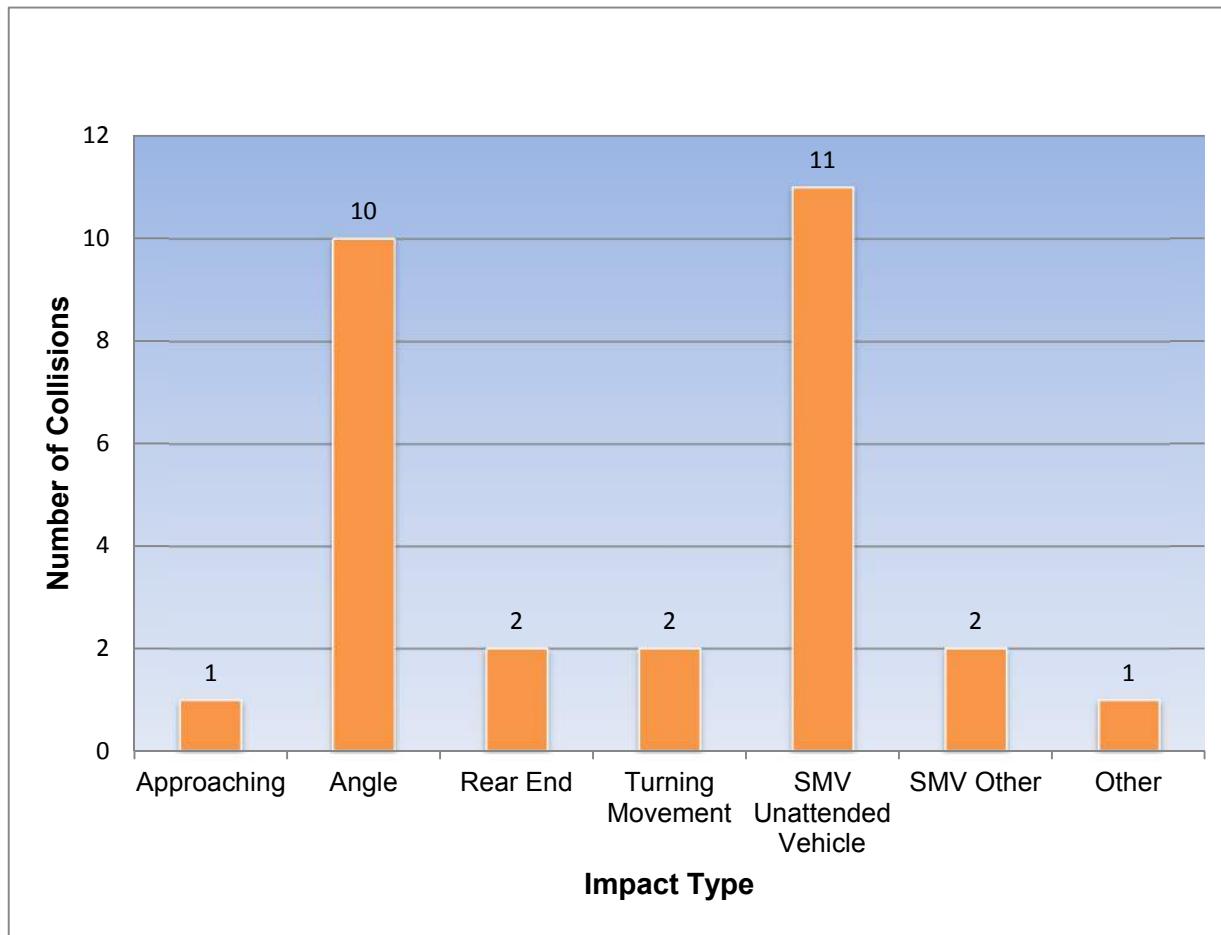


Figure 4-6 Collisions by Impact Type

4.7 Collisions by Intersection

During the analysis period, all the 29 collisions occurred at intersections. **Figure 4-7** shows that there is one particular intersection with relatively high numbers of collisions, amounting to one third of the total collisions in the whole area, namely, Mildenhall Road and Dawlish Avenue intersection. This intersection needs to be thoroughly investigated.

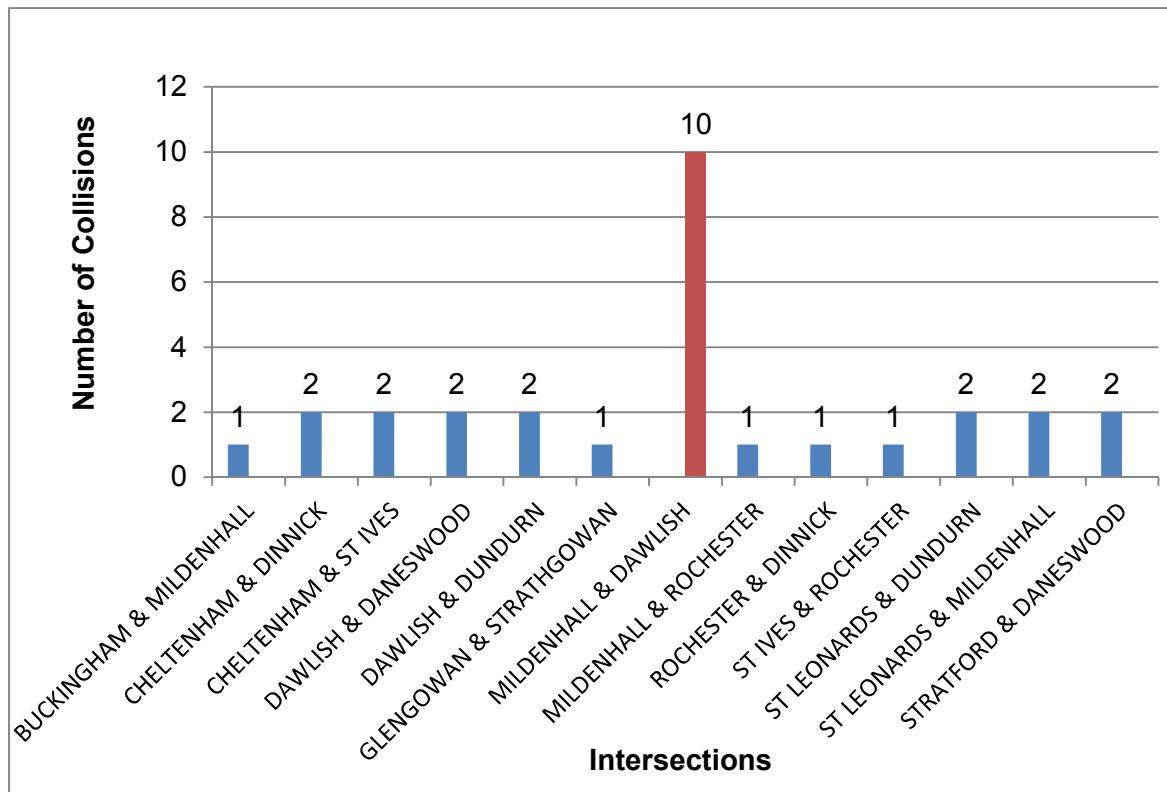


Figure 4-7 Collisions by Intersection

Table 4-1 shows the same information as that of **Figure 4-7**, but in a tabular way sorted by the frequency of collisions, from the highest to the lowest. **Table 4-1** also indicates the traffic control at these intersections.

In the Table, there is a large variability in the number of collisions, ranging from 1 to 10. One of the obvious reasons for that variability is that the intersecting volumes are very different. To explore that possibility, the AADT volumes for the intersections are also shown in **Table 4-1**. The collision potential or “exposure” is usually taken to be $\text{AADT}_1 * \text{AADT}_2$, where AADT_1 and AADT_2 are the Average Annual Daily Traffic for the intersecting roads.

We concluded that based on volumes Mildenhall Road between Lawrence Avenue East and Blythwood Road is being used as a route for infiltration, though that is part of its function as a Collector Road. Through the collision analysis study, we noted that 10 collisions at Mildenhall Road and Dawlish Avenue intersection were high considering the traffic volumes when we

compared it to the intersection of Stratford Crescent and Daneswood Road that carries slightly more volumes where there were only 2 collisions. The Stratford Crescent and Daneswood Road intersection is located just west of Bayview Avenue north of Blythwood Road. Through this comparison we identified that the high volumes at the Stratford and Daneswood intersection, indicate that this is a point of traffic infiltration, as an option to turning directly on Mildenhall Road from Blythwood Road when that intersection is congested. This determination can be made given it is only a minor intersection since the third leg for Stratford Crescent is only a short cul-de-sac stub, and we would not expect such high traffic volumes. This roadway operates as a fairly direct unimpeded route to Mildenhall Road. We concluded that the 2 collisions at the Stratford and Daneswood intersection is low as we would expect given the lack of conflicting movements. A turn restriction could be placed on Blythwood Road at Daneswood Road but this would result in more traffic using the Mildenhall and Blythwood intersection and increased congestion.

Table 4-1 Collisions by Intersection

| Intersection(# of stop signs) | AADT1 | AADT2 | AADT1*AADT2 | Collisions |
|---------------------------------------|--------|--------|-------------|------------|
| MILDENHALL & DAWLISH (2 WAY STOP) | 5226.5 | 1910 | 9,982,615 | 10 |
| CHELTENHAM & DINNICK (3 WAY STOP) | 178 | 85 | 15,130 | 2 |
| CHELTENHAM & ST IVES (2 WAY STOP) | 708 | 2036.5 | 1,441,842 | 2 |
| DAWLISH & DANESWOOD (1 WAY STOP) | 2169 | 230 | 498,870 | 2 |
| DAWLISH & DUNDURN (4 WAY STOP) | 805 | 2110.5 | 1,698,953 | 2 |
| ST LEONARDS & DUNDURN (4 WAY STOP) | 2309 | 612.5 | 1,414,263 | 2 |
| ST LEONARDS & MILDENHALL (4 WAY STOP) | 1910 | 4150 | 7,926,500 | 2 |
| STRATFORD & DANESWOOD (1 WAY STOP) | 3448 | 3243 | 11,181,864 | 2 |
| BUCKINGHAM & MILDENHALL (2 WAY STOP) | 683 | 3373 | 2,303,759 | 1 |
| GLENGOWAN & STRATHGOWAN (3 WAY STOP) | 185 | 1090 | 201,650 | 1 |
| MILDENHALL & ROCHESTER (2 WAY STOP) | 3129 | 506.5 | 1,584,839 | 1 |
| ROCHESTER & DINNICK (4 WAY STOP) | 506.5 | 1141.5 | 578,170 | 1 |
| ST IVES & ROCHESTER (2 WAY STOP) | 1741.5 | 111.5 | 194,177 | 1 |

Table 4-1 illustrates that the two adjacent Mildenhall Road intersections, at St. Leonard's Avenue and Dawlish Avenue have differing traffic control and significantly differing collision totals and collision rates. A warrant for all-way-stop control should be conducted at Mildenhall and Dawlish intersection as a measure to reduce future collisions.

4.8 Collision Impact Types at Mildenhall Road and Dawlish Avenue

Figure 4-8 shows clearly that the main collision problem at the intersection of Mildenhall and Dawlish is the “Angle Collisions”. Through the review we did not identify this location to have particularly poor sight distances or geometric deficiencies, but consideration should be given to raising the road grade to improve sight distance over the slightly higher property grades especially on the west, along with consideration for some vegetation removals though they are on private property. The failure to yield the right-of-way to the Mildenhall traffic on Dawlish, which is stop sign controlled and driver inattention are contributing factors in a significant number of angle-collision collisions. We have identified that both streets have higher traffic volumes and some traffic infiltration. As mentioned in **Section 4-7**, the two adjacent Mildenhall Road intersections, at St. Leonard’s Avenue and Dawlish Avenue have differing traffic control and significantly differing collision totals and collision rates. A warrant for all-way-stop control should be conducted at Mildenhall Road and Dawlish Avenue intersection as a measure to reduce future collisions.

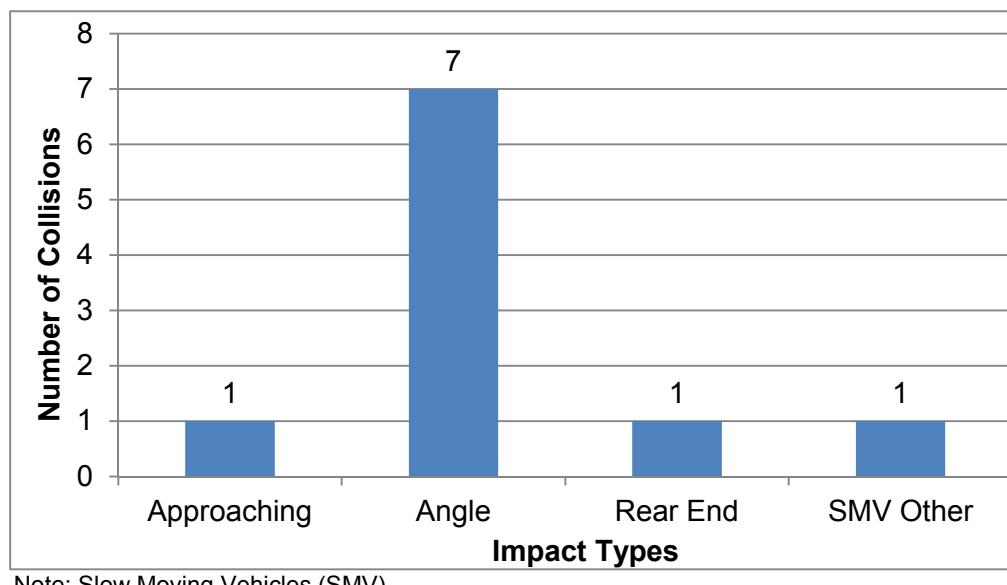


Figure 4-8 Collision Impact Types at Mildenhall Road and Dawlish Avenue

4.9 Summary and Conclusions

Main conclusions of the collision analysis are listed below.

- Between the years 2007 to 2011 inclusive, there were 29 collisions, at an average of 6 collisions/ year involving 77 people, or about 15 people/ year. The variability of the number of collisions over the years was not small. This is not surprising given the fact that the number of collisions per year was relatively small.
- During the 5 year analysis period, no fatal collisions took place, and except for only one non-fatal injury collision, all the rest of the collisions were property-damage only.

- The variability over the months of the year was not clear. Regarding the days of the week, collisions peaked on Thursdays and Fridays while the least number occurred on Sundays and Tuesdays.
- Two types of collisions had the highest frequency, namely, the Angle and the Slow Moving Vehicles (SMV) Unattended collisions.
- There were no collisions involving pedestrians in any of the five year database for the Study Area.
- All the recorded collisions during the period 2007 – 2011 were at intersections and none were at mid-block locations.

Analysis revealed that there was one particular intersection that had relatively high numbers of collisions, amounting to one third of the total collisions in the whole Study Area, namely, the Mildenhall Road and Dawlish Avenue intersection, with 10 collisions. The main collision type at the Mildenhall Road and Dawlish Avenue intersection was the “Angle Collisions”. Mildenhall Road and Dawlish Avenue intersection is a two-way stop controlled. Through the review we did not identify this location to have particularly poor sight distances or geometric deficiencies, but consideration should be given to raising the road grade to improve sight distance over the slightly higher property grades especially on the west, along with possible consideration for some vegetation removals though they are on private property. The failure to yield the right-of-way to the Mildenhall Road traffic on Dawlish, which is stop sign controlled and driver inattention are contributing factors in a significant number of angle-collision collisions. We have identified that both streets have higher traffic volumes and some traffic infiltration. It is observed that the two adjacent Mildenhall Road intersections, at St. Leonard's Avenue and at Dawlish Avenue have differing traffic control and significantly differing collision totals and collision rates. The Mildenhall Road and St. Leonards Avenue intersection has a 4 way stop sign control and a much lower collision rate. A warrant for all-way-stop control should be conducted at Mildenhall Road and Dawlish Avenue intersection as a measure to reduce future collisions.

We concluded that based on volumes Mildenhall Road between Lawrence Avenue East and Blythwood Road is being used as a route for infiltration, though that is part of its function being categorized as a Collector Road. Through the collision analysis study, we noted that 10 collisions at Mildenhall Road and Dawlish Avenue intersection were high considering the traffic volumes when we compared it to the intersection of Stratford Crescent and Daneswood Road that carries slightly more volumes where there were only 2 collisions. The Stratford Crescent and Daneswood Road intersection is located just west of Bayview Avenue north of Blythwood Road. Through this comparison we identified that the high volumes at the Stratford and Daneswood intersection, indicate that this is a point of traffic infiltration, as an option to turning directly on Mildenhall Road from Blythwood Road when that intersection is congested. This determination can be made given it is only a minor intersection since the third leg for Stratford Crescent is only a short cul-de-sac stub, and we would not expect such high traffic volumes. This roadway operates as a fairly direct unimpeded route to Mildenhall Road. We concluded that the 2 collisions at the Stratford and Daneswood intersection is low as we would expect given the lack of conflicting movements. A turn restriction could be placed on Blythwood Road at Daneswood Road but this would result in more traffic using the Mildenhall Road and Blythwood Road intersection and increased congestion.

It is also recommended that collision frequencies and patterns continue to be monitored in the Lawrence Park area particularly for the Mildenhall Road and Dawlish Avenue intersection.

5. EXISTING ROAD CONDITIONS

5.1 Road Classification

According to the 2008 Road Classification System of the City of Toronto, the Road Classification criteria for each type of roads are summarized in **Table 5-1**. The roads within the Lawrence Park Neighbourhood are classified as follows:

Major Arterials

The primary function for major arterials is for traffic movement, with greater than 20,000 vehicles per day. Highway priority for winter maintenance is given to major arterials. Lawrence Avenue East, Bayview Avenue, and Mount Pleasant Road are the major arterials within this Study Area.

Collectors

The primary functions for collectors are to provide access to property and traffic movement, with 2,500 to 8,000 vehicles and less than 1,500 transit vehicles per day. The intersections with arterial roads would be signalized. Medium priority for winter maintenance is given to major arterials. Mildenhall Road and Blythwood Road within the Study Area are classified as Collectors. There is 2.1 kms between the congested Eglinton Avenue and Lawrence Avenue East with the only collector road between being Blythwood Road, thus it draws significant traffic. Similarly there almost 1.2 kms between Mount Pleasant Road and Bayview Avenue and those roads being fairly congested Mildenhall Road draws some traffic through volumes are well within the range for a collector road. Thus the Collector Road function is a bit strained in the area likely resulting in more traffic on the Arterial roadways.

Local Roads

The primary function for local roads is to provide access to property, with less than 2,500 vehicles per day without any transit traffic. Low traffic speed is expected. Low priority for winter maintenance is given for these roads. All the other roads within the neighbourhood besides those mentioned above are classified as Local Roads.

Table 5-1 Road Classification Criteria (2008 Road Classification System of City of Toronto)

| Characteristics | Locals | Collectors | Major Arterials |
|---|----------------------------------|--|--|
| Traffic movement versus property access | Property access primary function | Traffic movement and property access of equal importance | Traffic movement primary consideration; subject to property access control |
| Typical daily motor vehicle traffic volume (both direction) | Less than 2,500 | 2,500 - 8000 | More than 20,000 |
| Minimum number of peak period lanes (excluding bicycle lanes) | One (one-way streets) or two | One (one-way streets) or two | Four |
| Desirable connections | Locals, collectors | Locals, collectors, arterials | Collectors, arterials, expressways |
| Flow characteristics | Interrupted flow | Interrupted flow | Uninterrupted except at signals and crosswalks |
| Legal speed limit, km/h | 40 - 50 | 40 - 50 | 50 - 60 |
| Accommodation of pedestrians | Sidewalks on one or both sides | Sidewalks on both sides | Sidewalks on both sides |
| Accommodation of cyclists | Special facilities as required | Special facilities as required | Wide curb lane or special facilities desirable |
| Surface transit | Generally not provided | Permitted | Preferred |
| Surface transit daily passengers | Not applicable | Less than 1,500 | More than 5,000 |
| Heavy truck restrictions (e.g. seasonal or night time) | Restrictions preferred | Restrictions permitted | Generally no restrictions |
| Typical spacing between traffic control devices (m) | 0 - 150 | 215 - 400 | 215 - 400 |
| Typical right-of-way width, m | 15 - 22 | 20 - 27 | 20 – 45 |

5.2 Potential Road Improvements Required

As part of this EA Study, various road improvements within the Lawrence Park neighbourhood will be investigated. Transportation and roadway issues that will be addressed include: poor sightline at intersections; narrow roads according to City's standards; street parking; and lack of pedestrian facility and connectivity.

5.2.1 Sightlines and Stopping Sight Distance

Morrison Hershfield (MH) has conducted a preliminary investigation of the sight distance at each intersection in the Lawrence Park neighbourhood. MH noted some intersections where the sightlines between the approaching vehicle and a stopped vehicle at the intersection are obstructed, either by a frontage feature such as elevated garden beds or vegetation bushes or by a mature tree. Sightlines are discussed in more details in **Section 6**.

5.2.2 Pedestrian and Cyclist Safety

As shown in **Table 5-1**, sidewalks are standard on both sides for any collector roads and on at least one side for local roads. However, there is no pedestrian facility in the neighbourhood on roads east of St. Ives Crescent / St. Leonard's Crescent and a general lack of connectivity of the pedestrian connectivity within the neighbourhood. MH has conducted an investigation of the need for pedestrian and cycling facilities within the area. The results and recommendations are discussed in **Section 7**.

5.2.3 Road Widths

Ideally, according to the City's Development Infrastructure Policy and Standards, local roads with a 20m ROW should have an 8.5m paved roadway. This includes a minimum lane width of 3.25m for each direction and 2.0 m allowance for street parking on one side of the street.

A minor local road with a 16.5m ROW can have a paved roadway of 8.0m, with a minimum of 3.0m for each direction of traffic flow plus a 2.0 m allowance for street parking.

Accordingly, portions of the local roads within the Lawrence Park neighbourhood are narrower than the minimum 8.5 m outlined in the City's policy. However, realizing the existing road constraints, a number of factors should be considered in determining the final width of the roads for this study. These factors are discussed further in **Section 8**.

5.2.4 Street Parking

The street parking within the Lawrence Park neighbourhood further reduces the already narrow roads in some locations. The problem is aggravated by the vicinity of the neighbourhood to the nearby Sunnybrook Hospital and associated street parking for those going to the hospital. In the case where road improvements are not feasible due to roadside constraints, restriction to street parking may be required to improve the traffic operation within the neighbourhood. This detail will be studied further for consideration in the final road improvements.

5.2.5 Deteriorating Pavement Conditions

MH noted during the site reconnaissance that the pavement conditions within the Lawrence Park neighbourhood are generally poor, especially in the north-east portion of the neighbourhood where drainage issues exist. A geotechnical investigation has been completed and results will be part of the study to identify the pavement condition, as well as recommendations for Capital improvements, including full depth reconstruction, partial depth reconstruction, or resurfacing. These recommendations will be coordinated in the improvement strategies for the roads to minimize the disturbance to the neighbourhood.

Notwithstanding Capital improvements the City will undertake maintenance (pot hole filing, patching etc.) to maintain the roads as per provincially legislated maintenance standards.

6. SIGHTLINES AND STOPPING SIGHT DISTANCE

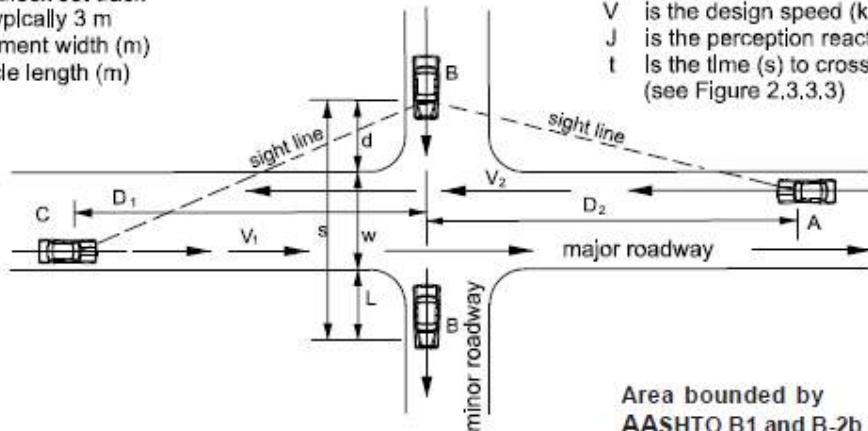
6.1 Overview of Sightlines and Stopping Sight Distances

The ability of a driver to see ahead is important for the safe and efficient operation of a vehicle. At an intersection, the available sight distance must be considered for both vehicles approaching the intersection and vehicles departing from a stopped position at the intersection. The area of unobstructed sight distance is called the sight triangle. In a stop control on the minor roadway or traffic signal control at the intersection, the required sight triangles are a function of the vehicle speeds on the major roadway and the crossing or turning departure maneuver of the vehicles leaving from the stopped condition. The Geometric Design Guide for Canadian Roads by the Transportation Association of Canada (TAC) illustrates the conditions for sight lines approaching an intersection and vehicles departing from a stopped position. See **Figures 6-1 and 6-2** below.

To assess the adequacy of the available sightline at the intersection, the stopping sight distance determined from the sight triangle formulated by the unobstructed sightline available is compared to the minimum stopping sight distance of the approaching vehicles.

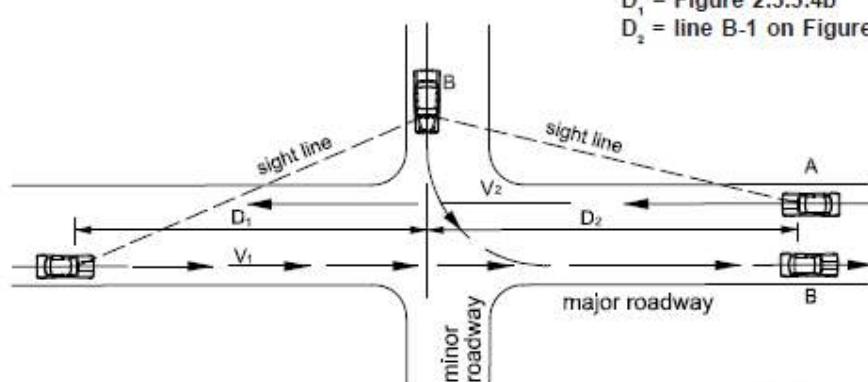
$s = d+w+L$ (Equation 2.3.2)
 s is the distance travelled to cross the major roadway (m)
 d is the stop block set-back distance, typically 3 m
 w is the pavement width (m)
 L is the vehicle length (m)

$D_1, D_2 = \frac{V(J+t)}{3.6}$ (Equation 2.3.1)
 D_1, D_2 = Line A on Figure 2.3.3.4a required (m)
 V is the design speed (km/h)
 J is the perception reaction time, 2 s
 t is the time (s) to cross distances 's' (m) (see Figure 2.3.3.3)



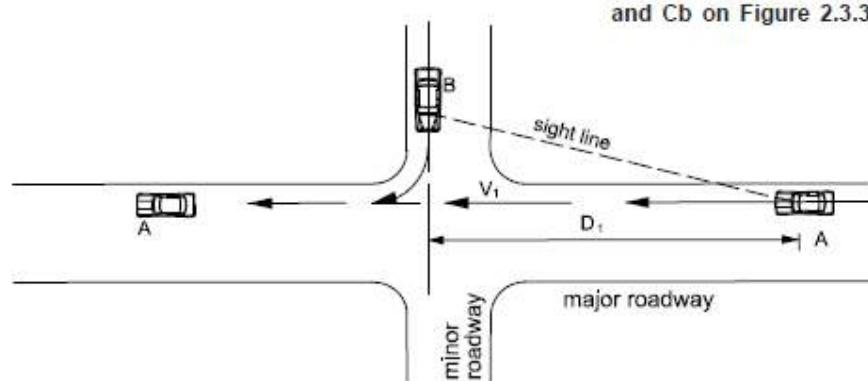
a. crossing

Area bounded by AASHTO B1 and B-2b on
 D_1 = Figure 2.3.3.4b
 D_2 = line B-1 on Figure 2.3.3.4a



b. left-turn

Area bounded by AASHTO B2 and Cb on Figure 2.3.3.4b



c. right-turn

*In urban situations, the distance "d" may be governed by adjacent view obstructions.

Note: Sight line set-back distance is typically between 4.4 m and 5.4 m from the edge-of-traveled lane.

Figure 6-1 Departure Sight Triangles

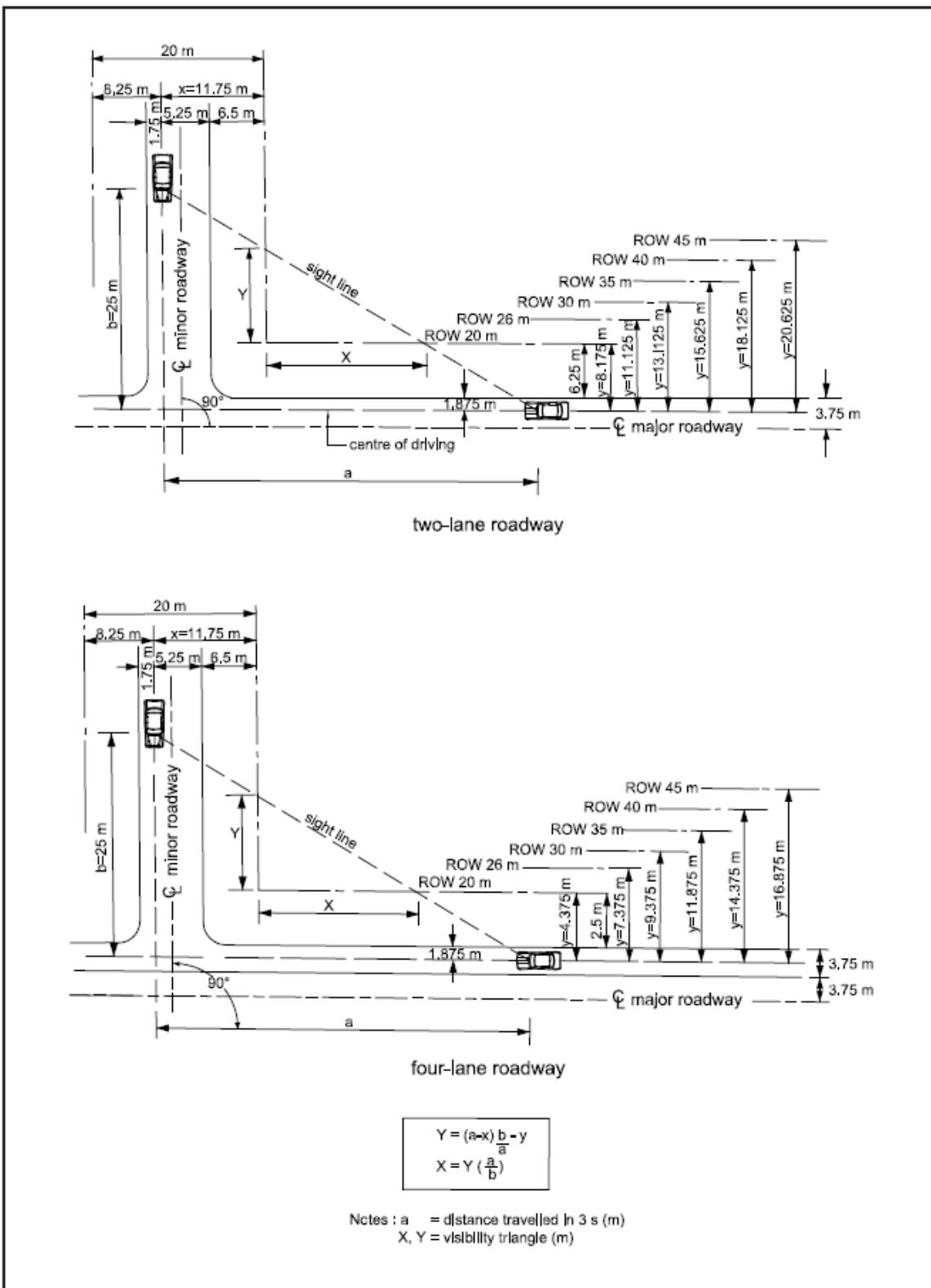


Figure 6-2 Sight Distance and Visibility Triangle at 90° Intersections for Approaches with Stop Control

6.2 Potential Sightline Problems in the Study Area

MH has conducted a sightline review of the intersections within the Lawrence Park neighbourhood and identified potential locations of intersections with a lack of sight distance.

6.2.1 Standards

Most of the intersections with a lack of sight distance are located in the perimeter of the Study Area where the local roads connect with the collector roads or the major arterials. According to the Geometric Design Guide for Canadian Roads, the minimum sight distance required at the intersection of local roads and major roads with various design speeds in different conflict scenarios are shown in **Table 6-1**.

Table 6-1 Minimum Sight Distance Required for Various Design Speeds in Different Conflict Scenarios

| Design Speed (Posted Speed) | Major Road Name | Minimum Sight Distance ¹ required for a Stopped Vehicle on Local Roads (m) | | | |
|--------------------------------|------------------------------------|---|----------------------------------|--|-----------------------------------|
| | | Crossing the Major Road | Turning Left onto the Major Road | | Turning Right onto the Major Road |
| | | | To vehicle approaching from left | To vehicle approaching from right ² | |
| 70 km/hr (60 km/hr) | Lawrence Avenue East | 145 | 150 | 200 | 200 |
| 60 km/hr (50 km/hr) | Mount Pleasant Road | 105 | 110 | 158 | 158 |
| 50 km/hr (40km/hr) | Blythwood Road; Mildenhall Road | 88 | 98 | 125 | 125 |

Notes:

1. This distance is based on the time required for a vehicle to turn onto or cross the major road without significantly interfering with the approaching vehicles.
2. It is assumed that the main line vehicle will slow down to a speed 85% of the design speed and a gap of 2.0 s between the vehicles.

The distances shown in **Table 6-1** are the minimum distances that should be available in order for a vehicle to cross an intersection or turn into and merge with main line traffic without significant interference with the approaching vehicles. However, they do not represent the minimum distance below which collisions may occur. The minimum distance required to prevent a collision in this case is the stopping sight distance (SSD). The SSD is defined as the sum of the distance travelled during the perception and reaction time and the distance it takes to stop a vehicle once the brakes have been applied. The SSD is a function of the design speed, perception and reaction time, and the coefficient of friction between the tires and the road.

Table 6-2 shows the stopping sight distance required at each design speed.

Table 6-2 Stopping Sight Distance Required at Various Design Speeds

| Design Speed (Posted Speed) | Stopping Sight Distance (m) |
|-----------------------------|-----------------------------|
| 70 km/hr (60 km/hr) | 110 |
| 60 km/hr (50 km/hr) | 85 |
| 50 km/hr (40 km/hr) | 65 |

6.2.2 Locations of Sight Line Problems

Through the site visit, MH has identified seven locations with poor sight distance. These are:

- Lawrence Crescent / Mount Pleasant Road (south intersection)
- St. Leonard's Avenue / Mount Pleasant Road
- Dawlish Avenue / Mount Pleasant Road
- Strathgowan Avenue / Blythwood Road
- Rochester Avenue / Mildenhall Road
- Wanless Crescent / Lawrence Avenue East (east intersection)
- The point where Stratheden Road turns into Strathgowan Crescent

As shown, the first six intersections with a lack of sight distance are located in the perimeter of the Study Area where the local roads connect with the collector roads or the major arterials. The individual intersections are discussed in detail in the following sections.

Lawrence Crescent / Mount Pleasant Road (south intersection)

The movements of concern are:

1. westbound right turn vehicle from Lawrence Crescent to Mount Pleasant Road with the approaching north bound traffic from the left on Mount Pleasant Road
2. westbound left turn vehicle from Lawrence Crescent to Mount Pleasant Road with the approaching southbound bound vehicle from the right on Mount Pleasant Road

In the first case, the sightline of a stopped westbound vehicle at Lawrence Crescent to the approaching northbound vehicle on the curb lane on Mount Pleasant is blocked by a line of roadside trees and thick evergreen trees. The estimated sight distance available to an approaching northbound vehicle is approximately 50m. The required sight distance for the vehicle to turn left without interruption to the mainline flow is 110m and for the vehicle to turn right is approximately 158m. The distance needed for the vehicle to cross is 105m (see **Figure 6-3**).

In the second case, the sightline of a stopped westbound vehicle on Lawrence Crescent to the approaching southbound



Figure 6-3 Sightline at Lawrence Crescent to SB Vehicle on Mount Pleasant Ave.

vehicle on the curb lane on Mount Pleasant is blocked thick vegetation bush at around 25m from the intersection.

The estimated sight distance available to a southbound vehicle is approximately 50m. The required sight distance for the vehicle to turn left without interruption to the flow is 158m. The distance needed for the vehicle to cross is 105m.

Lawrence Crescent / Mount Pleasant Road (north intersection)

Similar to the south intersection, the sightline of a stopped westbound vehicle on Lawrence Crescent to the approaching northbound vehicle on the curb lane on Mount Pleasant is blocked by a line of roadside trees and slightly elevated front lawn at the south-east corner. The crest curve on Mount Pleasant further aggravates the problem. The estimated sight distance available to an approaching northbound vehicle is approximately 40m. The required sight distance for the vehicle to turn left without interruption to the mainline flow is 110m and for the vehicle to turn right is approximately 158m. The distance needed for the vehicle to cross is 105m (see **Figure 6-4**).

St. Leonard's Avenue / Mount Pleasant Road

The sightline of a stopped westbound vehicle on St. Leonard's Avenue to an approaching northbound vehicle is blocked by the heavy vegetation on the southeast corner of the intersection. Since this is a signalized intersection, only the westbound right turn movement onto Mount Pleasant Road is of concern. The available sight distance is estimated to be approximately 50m, but the required sight distance for this movement is 158m (see **Figure 6-5**).

Dawlish Avenue / Mount Pleasant Road

The sightline of a stopped westbound vehicle on Dawlish Avenue to an approaching southbound vehicle is blocked by the elevated front lawn and retaining wall on the property at the northeast corner of the intersection. The available sight distance to an approaching southbound vehicle is approximately 60m, but the required sight distance for the left turn movement and crossing movement to an approaching vehicle from the right is 125m (see **Figure 6-6**).



Figure 6-4 Sightline at St. Leonard's Ave. to NB Vehicle on Mount Pleasant Ave.



Figure 6-5 Sightline at Dawlish Ave. to SB Vehicle on Mount Pleasant Ave.



Figure 6-6 Sightline at Strathgowan Ave. to WB Vehicle on Blythwood Road

Strathgowan Avenue / Blythwood Road

The sightline of a stopped southbound vehicle on Strathgowan Avenue to an approaching westbound vehicle on Blythwood Road is blocked by the elevated lawn and the dense vegetation of the Sunny View Public School on the northeast corner of the T-intersection. The available sight distance is estimated to be approximately 35m, and the required sight distance left turn and right turn vehicle to the approaching westbound vehicle is 98 m and 125m respectively (see **Figure 6-7**).

Rochester Avenue / Mildenhall Road

The sightline of a stopped westbound vehicle on Rochester Avenue to an approaching southbound vehicle on Mildenhall Road is obstructed by the dense vegetation at the northeast corner of the intersection. The available sight distance is approximately 30 m, but the required sight distance for the westbound turn onto Mildenhall Road is 125 m (see **Figure 6-8**).

Wanless Crescent / Lawrence Avenue East (east intersection)

The sightline of a stopped northbound vehicle on Wanless Crescent (east intersection) to an approaching westbound vehicle on Lawrence Avenue East is obstructed by the elevated front lawn at the northwest corner of the intersection. The available sight distance is approximately 70m, but the required sight distance for the northbound right turn and left turn onto Lawrence Avenue East are 150m and 200m respectively. Similarly, the sightline to an eastbound approaching vehicle on Lawrence Avenue East is obstructed by an elevated lawn / interlocking retaining wall. The available distance is approximately 50m and the required distance is 200m (see **Figures 6-9 and 6-10**).



Figure 6-7 Sightline at Lawrence Cres. to NB Vehicle on Mount Pleasant Ave.



Figure 6-8 Sightline at Rochester Ave. to SB Vehicle on Mildenhall Road



Figure 6-9 Sightline at Wanless Cres. to EB Vehicle on Lawrence Ave.



Figure 6-10 Sightline at Wanless Cres. to WB Vehicle on Lawrence Ave.

Stratheden Road connection to Strathgowan Crescent

The point where Stratheden Road turns into Strathgowan Crescent also has substandard sightline, due to the angle of the connection of the two roadways and the vegetation on private property on the inside of the bend in the roads. This is evident by a reduction of speed signing posted by the City.

6.3 Recommendations

Each intersection should be examined individually to determine the best options to improve the sightline. In most cases, removal of the obstruction to the sightline wherever possible is recommended in order to provide the sight triangle required for the sight distance needed. Where removal of the obstruction is not feasible, signage warning approaching vehicles of hidden driveways can be put in place or a temporary reduction of the design and posted speed could be considered. Where the intersection is between a collector road and a local road, such as Mildenhall Road / Rochester Avenue or Strathgowan Crescent and Blythwood Road, an all-way stop control at the intersection can be considered along with other warranting factors. At an intersection along a major arterial and warranting traffic where it is deemed unsafe due to the lack of sight distance, a signalized intersection may be warranted.

7. PEDESTRIAN AND CYCLIST SAFETY

7.1 Existing Facilities and City Criteria

As part of the road classification, the City outlines the criteria regarding the pedestrian and cyclist facilities required for each type of roads. According to **Table 5-1**, all local streets should have sidewalk on at least one side of the street and all collector roads and major arterials should have sidewalks on both sides of the street.

Currently, pedestrian facilities exist only in the west part of the neighbourhood west of St. Ives Crescent and there is no facility in the east portion. Therefore, there is a lack of connectivity of the pedestrian links within the neighbourhood. Aside from Mount Pleasant Road and Bayview Road, there is a lack of continuous facility in the north-south direction since there is no sidewalk on Pinedale Road or Fidelia Avenue. In addition, none of the existing east-west facility extends far enough to connect the neighbourhood between Mount Pleasant Road and Bayview Road.

7.2 Locations of Key Destinations for Pedestrians

Prior to identifying and recommending locations of potential new sidewalks, the key destinations within the neighbourhood and in the surrounding must be identified. These locations may include institutions, parks, the Sunnybrook Hospital, bus stops, and walking trails. Once the key destinations are mapped, the missing links can then be identified and a strategy to provide better connectivity for pedestrians to these key destinations can be recommended.

Figure 7-1 shows a map of the key destinations within and in the vicinity of the Study Area. There are three schools within the area: Toronto French School, Blythwood Junior Public School, and the Sunny View Public School. There is also a nursery school at Bayview Avenue and Dawlish Avenue with entrances from both St. Leonard's Avenue and Dawlish Avenue. There are three parks within the Study Area: Cheltenham Park at Cheltenham Avenue and Mildenhall Road; Stratford Park at Blythwood Road and Bayview Avenue; and the Blythwood Ravine Park near Mount Pleasant and Blythwood Road along the tributary to the Don River. A walking trail crosses through the neighbourhood with access through Strathgowan Avenue and Blythwood Road 100 m west of Strathgowan Crescent from the neighbourhood. Lastly, the Sunnybrook Hospital and York University Glendon Campus is located east of the neighbourhood.

Lawrence Avenue East, Bayview Avenue, and Mount Pleasant Road are all bus routes with stops along the road. The Bayview Avenue route (Route 11) with stops at Lawrence Avenue East and at the Sunnybrook Hospital. The route runs between Yonge Subway line at Davisville Station and connect to the York Region Transit at Bayview Avenue and Steeles Avenue.

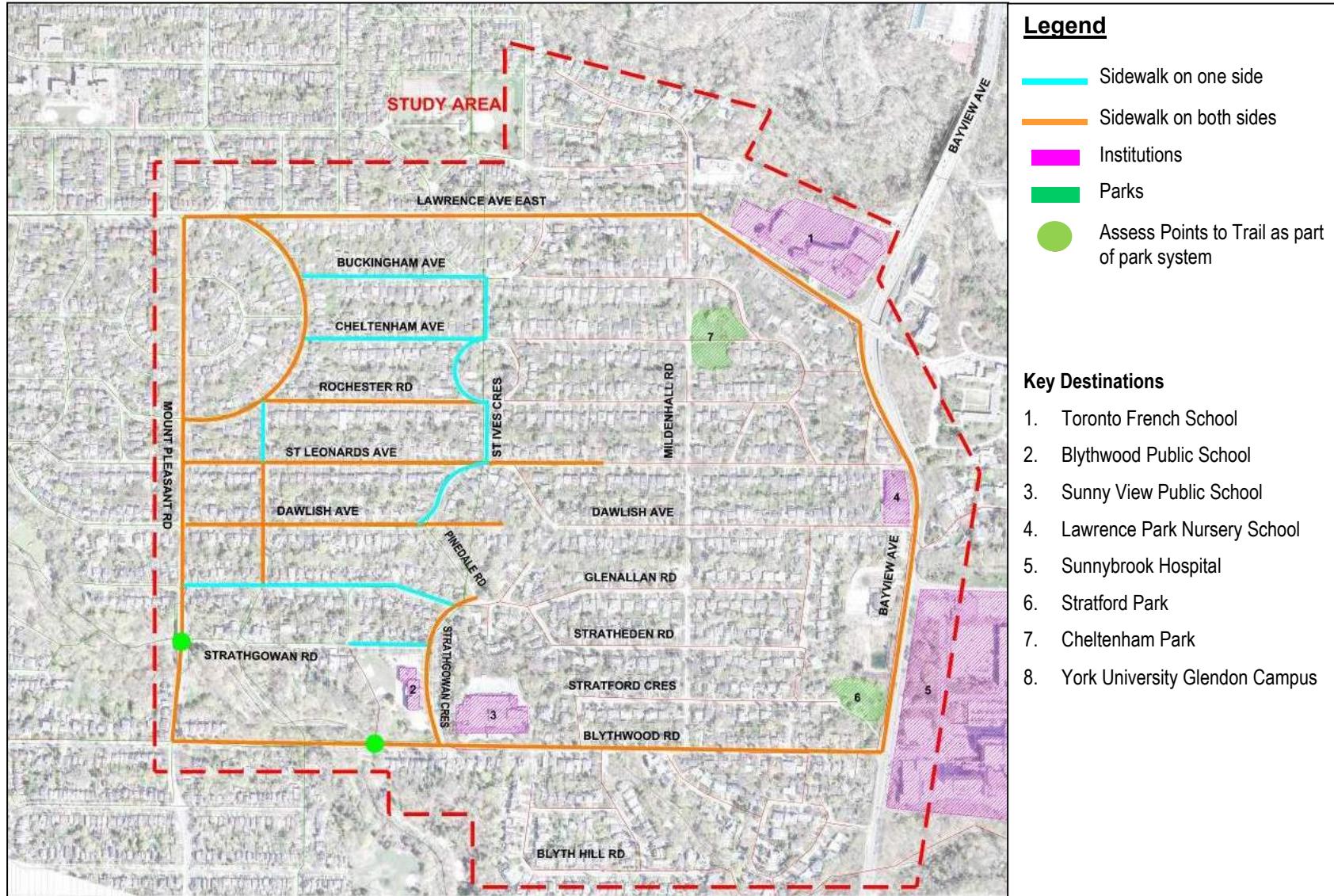


Figure 7-1 Existing Sidewalks and Key Destinations in Study Area

7.3 Potential Links for Pedestrians and Cyclists

As noted, there is a general lack of continuation of the pedestrian facilities to the east side of the neighbourhood east of St. Ives Crescent and a connectivity of the facilities in the north-south direction. In order to determine the potential locations for new sidewalk, several factors should be considered, including:

- Vicinity to key pedestrian destinations;
- Potential accessibility for disabled/elderly;
- Connectivity to existing facilities;
- Available road width and potential impact;
- Recommendations as outlined in road classification; and
- Preservation of vegetation and other roadside features.

In general, sidewalks should be provided wherever possible to facilitate and encourage pedestrian movement within the neighbourhood. However, the City realizes the potential impacts of the sidewalk to roadside trees and, therefore, will examine the potential locations of the sidewalks that will best improve the pedestrian connectivity within the neighbourhood and to the key destinations as part the EA Study.

Mildenhall Road

According to the City of Toronto Road Classification System, Mildenhall Road has been identified as a collector road. While sidewalks are recommended on both sides of a collector road, such as those on Blythwood Road, Mildenhall Road currently has no sidewalk. Much like how it facilitates vehicular traffic, Mildenhall Road is the most direct north-south pedestrian route in the neighbourhood connecting to all east-west roads within the neighbourhood. It provides a key north-south connection to the Toronto French School to the north on Lawrence Avenue East and connection to Blythwood Road to the south that leads to the Sunny View Public School and Blythwood Public School. Mildenhall Road also provides a route to the Cheltenham Park. As such, Mildenhall Road is a logical location for a new pedestrian facility, on at least one side or on both sides of the road as recommended by the Road Classification System. However, the tight road width, especially between Rochester Avenue and St. Leonard's Avenue, will be the key constraints to place a sidewalk along Mildenhall Road. **Figure 7-2** shows pedestrians jogging on Mildenhall Road.



Figure 7-2 Pedestrians Jogging on Mildenhall Road

St. Leonard's Avenue

According to the City of Toronto Road Classification System, St. Leonard's Avenue has been identified as a local road and a sidewalk is recommended on at least one side of the road. Currently, there are sidewalks on both sides on the road west of St. Ives Crescent, and the sidewalk continues on the north side for 200m east of St. Ives Crescent. The sidewalk discontinues where the road tightening and the on-road ditches begin. Although the wide roadside shoulders provide a path for pedestrians, the path is undefined and uneven at multiple locations. A new sidewalk will provide:

- a continuation of the existing sidewalk and better connectivity between the west and east side of the neighbourhood;
- a route for commuters of the bus route on Bayview Avenue;
- a protected path for pedestrians and children to Lawrence Park Nursery School located on Bayview Avenue and St. Leonard's Avenue;
- a route to walk to Sunnybrook hospital; and
- a potential connection to Mildenhall Road if a new sidewalk is built there.

As the on-road asphalt ditches between St. Ives Crescent and Mildenhall Road will likely be removed if the cross section is changed to an urban configuration, St. Leonard's Avenue should have sufficient width for at least a sidewalk on the north side.

Dawlish Avenue

Similar to St. Leonard's Avenue, Dawlish Avenue has been identified as a local road and sidewalk is recommended on at least one side of the road according to the City of Toronto Road Classification System. There are sidewalks on both sides on the road west of St. Leonard's Crescent, but the sidewalk discontinues as the road split at St. Leonard's Crescent. Similar to St. Leonard's Avenue, a new sidewalk will provide:

- a continuation of the existing sidewalk and better connectivity between the west and east side of the neighbourhood, although the connection is indirect as Dawlish Avenue is split at St. Leonard's Crescent;
- a route connecting commuters to the bus route on Bayview Avenue;
- a protected path for pedestrians and children to Lawrence Park Nursery School located on Bayview Avenue and St. Leonard's Avenue;
- a route to walk to Sunnybrook hospital; and
- a potential connection to Mildenhall Road if a new sidewalk is built there.

There appears to be more roadside mature trees and less room for a new sidewalk on Dawlish Avenue compared to St. Leonard's Avenue. If a sidewalk is deemed not feasible, restriction to on-road parking should be considered to reduce the vehicle-pedestrian conflict on the road.

Strathgowan Crescent and Stratheden Road

This short portion of road in the south-east corner of the neighbourhood can serve as a key route for pedestrians walking to the Sunny View Public School or Blythwood Public School. Currently, Strathgowan Crescent between Pinedale Road and Blythwood Road has sidewalk on both sides. It is recommended that the sidewalk be extended to Mildenhall Road, especially if sidewalks are being considered on Mildenhall Road. As a minimum, the sidewalk should be extended beyond Glenallan Road since there are four points of traffic merging to Strathgowan Crescent at this location. The point where Stratheden Road turns into Strathgowan Crescent also has substandard sightline, as evident by a temporary reduction of speed posted by the City, therefore, it will be prudent to keep the pedestrians off the road at this location by adding at least one sidewalk.

Pinedale Road

As shown in **Figure 7-3**, this short portion of road between Dawlish Avenue and Strathgowan Road is an obvious missing link for a continuous sidewalk in the north-south direction. It provides a direct route to the two public schools and a new sidewalk will connect to the existing sidewalks on St. Leonards Avenue and St. Ives Avenue to the north and Strathgowan Crescent to the south. However, the road is very narrow with a road width of approximately 7.0 m. Potential solutions can include on-road parking restriction.



Figure 7-3 Narrow ROW on
Pinedale Road

Cheltenham Avenue, Buckingham Avenue, and Rochester Avenue

In general, the existing facilities should be extended to east of St. Ives Crescent to provide continuity. However, these roads do not connect to the major arterials directly, therefore, addition of new sidewalks may benefit only small portion of the neighbourhood. The benefits will have to be compared against the potential impacts of the road expansion to the adjacent properties

7.4 Cycling Facility

Currently, there is no cycling facility within the neighbourhood. New cycling facilities in Toronto are identified in the Toronto Bike Plan and the Lawrence Park Neighbourhood is not identified in the bike network, therefore, new cycling facilities such as bike lanes are not expected.

8. ROAD WIDTHS

As noted in several occasion in this memo, the available road widths and the impacts of the final road widths play a major role in determining the solutions to be adopted in this EA Study. This section provides an overview of the City standards related minimum road width requirements, and specific considerations when determining a feasible road width under roadside constraints.

8.1 City Standards

The recognized transportation infrastructure policy for a local residential roadway within the City of Toronto consists of a 20 m right-of-way, an 8.5m paved road surface, concrete curbs and a 1.7m to 2.0m sidewalk on one side or both sides of the road.

8.2 Minimum Requirements

In the event where the City standards cannot be adopted due to constraints to road expansion (mature trees, private properties, etc.), There are a number of factors that could to be considered in determining the minimum allowable road width for this study, namely:

- Requirements for emergency vehicle access
- Requirements for service vehicle access
- Consideration for cyclist and pedestrian / vehicle conflict
- Consideration for two way traffic flow
- Requirement for winter road maintenance (reduction in road width as a result of snow banks)
- Impact to utilities and underground infrastructure
- On-street parking
- Types of cross section (urban versus rural)
- Impact to roadside features



Figure 8-1 Rochester Road Blocked as a Result of Street Parking on both Sides, Narrow Road, and Large Construction Vehicle.

Figure 8-1 shows Rochester Road blocked as a result of street parking on both sides, narrow road, and large construction vehicle.

Figure 8-2 is an illustration of several of the factors which are taken into consideration when defining the preferred road width.

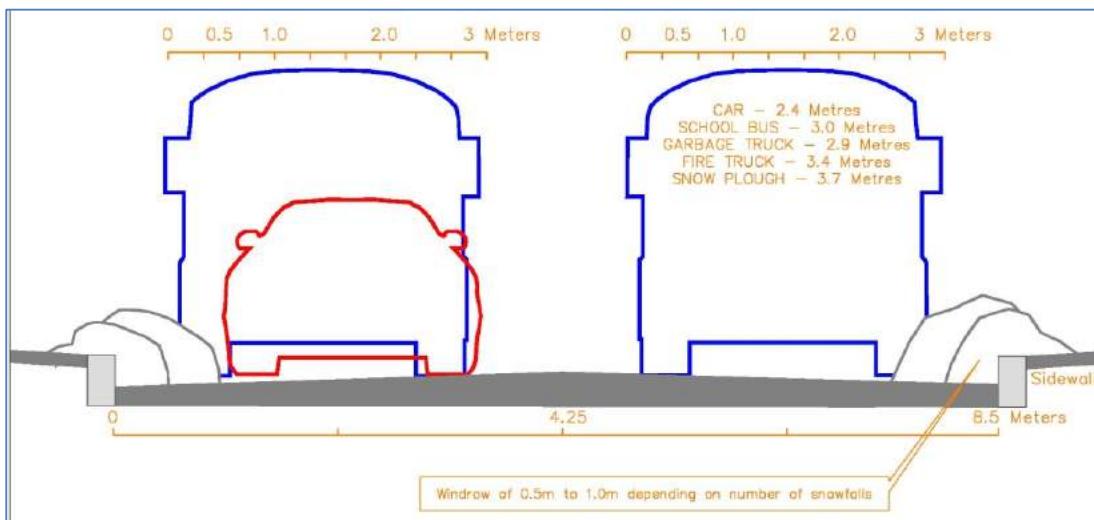


Figure 8-2 Factors which are Taken into Consideration when Defining the Preferred Road Width

Emergency Vehicles

Many streets in the neighbourhood are narrower than ideal; there is street parking allowed; this in conjunction with appropriately slower posted speeds and travel times in residential neighbourhoods would make emergency service vehicle response times a bit longer but not atypical for a residential neighbourhood. Snow storage and snow banks in the winter time could make response times longer in the winter given the tight roadway corridors. The Ontario Fire Code states that fire access routes shall be maintained so as to be immediately ready for use at all times by fire department vehicles and the routes shall not be obstructed by vehicles, gates, fences, building materials, vegetation, signs, or any other form of obstruction. The City's obligation to public safety must recognize this and provide for a minimum clear road width of 7.2 m at any time.

Vehicle Widths

Although 4.25 m would be ideal for major local streets, a minimum of 3.6 m would be sufficient for each lane of traffic. Therefore, a minimum of 7.2 m would be needed to facilitate two lane of traffic with no parking.

Pedestrian and Cycling on the Road

A pedestrian or cyclist on the road will occupy a space of approximately 1.7 m.

On Street Parking

According to the City's policy, a minimum of 2.0 m of additional width should be allowed if on-street parking is permitted.

Other Consideration

Winter maintenance can significantly reduce the width of the travelled portion of the roadway. Windrows created after a number of winter storms can extend to more than 1.0 m from the edge of the pavement.

APPENDIX A: 8-HOUR TURNING MOVEMENT COUNTS

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Toronto

Site #: 1213100001

Intersection: Lawrence Ave E & Mt. Pleasant Ave

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Lawrence Ave E runs W/E

North Leg Total: 915

North Entering: 568

North Peds: 108

Peds Cross: ☒

| | | | | |
|--------|----|-----|-----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 12 | 5 | 17 |
| Cars | 12 | 293 | 246 | 551 |
| Totals | 12 | 305 | 251 | |

East Leg Total: 2026

East Entering: 905

East Peds: 23

Peds Cross: ☒

| | | | | |
|--------|----|-----|-----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 12 | 5 | 17 |
| Cars | 12 | 293 | 246 | 551 |
| Totals | 12 | 305 | 251 | |

| | | | | |
|--------|-----|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 5 | | | |
| Cars | 342 | | | |
| Totals | 347 | | | |

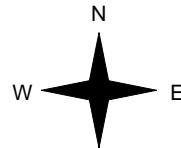
Heavys Trucks Cars Totals

| | | | |
|---|----|-----|-----|
| 0 | 37 | 904 | 941 |
|---|----|-----|-----|



Mt. Pleasant Ave

Lawrence Ave E



Heavys Trucks Cars Totals

| | | | |
|---|---|----|----|
| 0 | 0 | 73 | 73 |
|---|---|----|----|

| | | | |
|---|----|-----|-----|
| 0 | 62 | 592 | 654 |
|---|----|-----|-----|

| | | | |
|---|----|-----|-----|
| 0 | 24 | 363 | 387 |
|---|----|-----|-----|

| | | | |
|---|----|------|--|
| 0 | 86 | 1028 | |
|---|----|------|--|



Mt. Pleasant Ave

| | | | | |
|--------|-----|----|---|-----|
| Cars | 81 | 0 | 0 | 81 |
| Trucks | 554 | 30 | 0 | 584 |
| Heavys | 238 | 2 | 0 | 240 |
| Totals | 873 | 32 | 0 | |

Lawrence Ave E

| | | | | |
|--------|------|----|---|------|
| Cars | 1048 | 73 | 0 | 1121 |
| Trucks | | | | |
| Heavys | | | | |
| Totals | | | | |

Peds Cross: ☒

West Peds: 22

West Entering: 1114

West Leg Total: 2055

Cars 894

Trucks 38

Heavys 0

Totals 932

| | | | | |
|------|-----|-----|-----|-----|
| Cars | 338 | 188 | 210 | 736 |
|------|-----|-----|-----|-----|

| | | | | |
|--------|---|---|---|----|
| Trucks | 7 | 5 | 6 | 18 |
|--------|---|---|---|----|

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
|--------|---|---|---|---|

| | | | | |
|--------|-----|-----|-----|--|
| Totals | 345 | 193 | 216 | |
|--------|-----|-----|-----|--|

Peds Cross: ☐

South Peds: 22

South Entering: 754

South Leg Total: 1686

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:30:00

To: 18:30:00

Municipality: Toronto

Site #: 1213100001

Intersection: Lawrence Ave E & Mt. Pleasant Ave

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Lawrence Ave E runs W/E

North Leg Total: 722

North Entering: 336

North Peds: 89

Peds Cross: ☒

Heavys 0 0 0 0

Trucks 0 2 2 4

Cars 24 133 175 332

Totals 24 135 177

Heavys 0

Trucks 4

Cars 382

Totals 386

East Leg Total: 1743

East Entering: 782

East Peds: 62

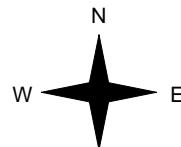
Peds Cross: ☒

Heavys Trucks Cars Totals
0 31 947 978



Mt. Pleasant Ave

Lawrence Ave E



Heavys Trucks Cars Totals
0 0 41 41
0 9 579 588
0 6 387 393
0 15 1007



Cars Trucks Heavys Totals
99 3 0 102
469 20 0 489
186 5 0 191
754 28 0

Lawrence Ave E



Cars Trucks Heavys Totals
946 15 0 961

Peds Cross: ☒
West Peds: 7
West Entering: 1022
West Leg Total: 2000

Cars 706
Trucks 13
Heavys 0
Totals 719

Cars 454 242 192 888
Trucks 11 1 4 16
Heavys 0 0 0 0
Totals 465 243 196

Peds Cross: ☐
South Peds: 14
South Entering: 904
South Leg Total: 1623

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto

Site #: 1213100001

Intersection: Lawrence Ave E & Mt. Pleasant Ave

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

**** Signalized Intersection ****

Major Road: Lawrence Ave E runs W/E

North Leg Total: 5222

North Entering: 2770

North Peds: 542

Peds Cross: ☒

| Heavys | 0 | 0 | 0 | 0 |
|--------|---|---|---|---|
|--------|---|---|---|---|

| Trucks | 2 | 50 | 28 | 80 |
|--------|---|----|----|----|
|--------|---|----|----|----|

| Cars | 193 | 1335 | 1162 | 2690 |
|------|-----|------|------|------|
|------|-----|------|------|------|

| Totals | 195 | 1385 | 1190 | |
|--------|-----|------|------|--|
|--------|-----|------|------|--|

Heavys 0

Trucks 58

Cars 2394

Totals 2452

East Leg Total: 12177

East Entering: 5767

East Peds: 257

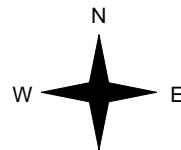
Peds Cross: ☒

Heavys Trucks Cars Totals
0 269 6331 6600

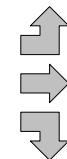


Mt. Pleasant Ave

Lawrence Ave E



Heavys Trucks Cars Totals
0 1 352 353
0 264 3725 3989
0 113 2632 2745
0 378 6709



Cars Trucks Heavys Totals
597 9 0 606
3439 173 0 3612
1523 26 0 1549
5559 208 0

Lawrence Ave E



Cars Trucks Heavys Totals
6084 326 0 6410

Peds Cross: ☒
West Peds: 94
West Entering: 7087
West Leg Total: 13687

Cars 5490
Trucks 189
Heavys 0
Totals 5679

Cars 2699 1445 1197 5341
Trucks 94 48 34 176
Heavys 0 0 0 0
Totals 2793 1493 1231

Peds Cross: ☐
South Peds: 154
South Entering: 5517
South Leg Total: 11196

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Lawrence Ave E & Mt. Pleasant Av

Count Date: 6-Nov-12

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|---|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|--|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 79 | 117 | 31 | 227 | 50 | 449 | 7:00:00 | 120 | 49 | 53 | |
| 8:00:00 | 174 | 250 | 31 | 455 | 54 | 1117 | 8:00:00 | 321 | 143 | 198 | |
| 9:00:00 | 230 | 280 | 11 | 521 | 113 | 1251 | 9:00:00 | 344 | 206 | 180 | |
| 10:00:00 | 159 | 213 | 14 | 386 | 59 | 1054 | 10:00:00 | 358 | 159 | 151 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | |
| 16:00:00 | 93 | 119 | 32 | 244 | 28 | 940 | 16:00:00 | 351 | 197 | 148 | |
| 17:00:00 | 140 | 135 | 28 | 303 | 48 | 1142 | 17:00:00 | 443 | 230 | 166 | |
| 18:00:00 | 146 | 154 | 25 | 325 | 125 | 1260 | 18:00:00 | 461 | 282 | 192 | |
| 19:00:00 | 169 | 117 | 23 | 309 | 65 | 1074 | 19:00:00 | 395 | 227 | 143 | |
| Totals: | 1190 | 1385 | 195 | 2770 | 542 | 8287 | | 2793 | 1493 | 1231 | |
| | | | | | | | | 5517 | 154 | | |
| East Approach Totals | | | | | West Approach Totals | | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | East/West Total Approaches | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 98 | 115 | 38 | 251 | 33 | 541 | 7:00:00 | 34 | 144 | 112 | |
| 8:00:00 | 190 | 498 | 58 | 746 | 20 | 1590 | 8:00:00 | 48 | 422 | 374 | |
| 9:00:00 | 244 | 518 | 90 | 852 | 23 | 2006 | 9:00:00 | 78 | 667 | 409 | |
| 10:00:00 | 257 | 507 | 48 | 812 | 21 | 1910 | 10:00:00 | 46 | 604 | 448 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | |
| 16:00:00 | 176 | 483 | 80 | 739 | 10 | 1608 | 16:00:00 | 8 | 537 | 324 | |
| 17:00:00 | 212 | 536 | 102 | 850 | 35 | 1780 | 17:00:00 | 61 | 541 | 328 | |
| 18:00:00 | 187 | 496 | 87 | 770 | 58 | 1738 | 18:00:00 | 40 | 561 | 367 | |
| 19:00:00 | 185 | 459 | 103 | 747 | 57 | 1681 | 19:00:00 | 38 | 513 | 383 | |
| Totals: | 1549 | 3612 | 606 | 5767 | 257 | 12854 | | 353 | 3989 | 2745 | |
| | | | | | | | | 7087 | 94 | | |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | 16:00 | 17:00 | 18:00 | 19:00 | | |
| Crossing Values: | 357 | 778 | 897 | 762 | | 660 | 860 | 963 | 853 | | |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 121310001

Ontario Traffic Inc

Count Date: 6-Nov-12 **Site #:** 1213100001

Ontario Traffic Inc

Count Date: 6-Nov-12 **Site #:** 121310001

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100001

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 8:00:00

To: 9:00:00

Municipality: Toronto

Site #: 1307000002

Intersection: Bayview Ave & Lawrence Ave E (ea)

TFR File #: 5

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 900

North Entering: 2

North Peds: 28

Peds Cross: ☒

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 0 | 1 | 1 | 2 |
| Totals | 0 | 1 | 1 | |

| | | | |
|--------|-----|--|--|
| Heavys | 0 | | |
| Trucks | 12 | | |
| Cars | 886 | | |
| Totals | 898 | | |

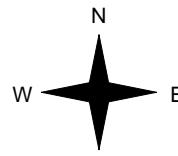
| | |
|-----------------|-----|
| East Leg Total: | 194 |
| East Entering: | 19 |
| East Peds: | 28 |
| Peds Cross: | ☒ |

Heavys Trucks Cars Totals
0 12 223 235



Bayview Ave

Lawrence Ave E (east ramps)



Heavys Trucks Cars Totals
0 7 873 880
0 2 135 137
0 0 0 0
0 9 1008



Cars Trucks Heavys Totals
7 2 0 9
10 0 0 10
0 0 0 0
17 2 0

Lawrence Ave E (east ramps)

Cars Trucks Heavys Totals
172 3 0 175

Peds Cross: ☒
West Peds: 0
West Entering: 1017
West Leg Total: 1252

Cars 1
Trucks 0
Heavys 0
Totals 1

Cars 213 6 36 255
Trucks 12 3 1 16
Heavys 0 0 0 0
Totals 225 9 37

Peds Cross: ☐
South Peds: 65
South Entering: 271
South Leg Total: 272

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 15:30:00

To: 16:30:00

Municipality: Toronto

Site #: 1307000002

Intersection: Bayview Ave & Lawrence Ave E (ea)

TFR File #: 5

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 773

North Entering: 0

North Peds: 39

Peds Cross: ☒

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 0 | 0 | 0 | 0 |
| Totals | 0 | 0 | 0 | 0 |

East Leg Total: 172

East Entering: 49

East Peds: 59

Peds Cross: ☐

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 0 | 0 | 0 | 0 |
| Totals | 0 | 0 | 0 | 0 |

| | | | | |
|--------|-----|-----|-----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 18 | 18 | 18 | 18 |
| Cars | 755 | 755 | 755 | 755 |
| Totals | 773 | 773 | 773 | 773 |

Heavys Trucks Cars Totals

0 13 307 320

Lawrence Ave E (east ramps)

Heavys Trucks Cars Totals

0 12 706 718

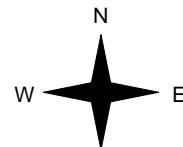
0 0 104 104

0 0 1 1

0 12 811 811



Bayview Ave



| | | | | |
|--------|----|---|---|----|
| Cars | 23 | 1 | 0 | 24 |
| Trucks | 25 | 0 | 0 | 25 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 48 | 1 | 0 | 49 |

Lawrence Ave E (east ramps)



Bayview Ave



| | | | | |
|--------|-----|---|---|-----|
| Cars | 123 | 0 | 0 | 123 |
| Trucks | 0 | 0 | 0 | 0 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 123 | 0 | 0 | 123 |

Peds Cross: ☐

West Peds: 0

West Entering: 823

West Leg Total: 1143

Cars 1

Trucks 0

Heavys 0

Totals 1

| | | | | |
|------|-----|----|----|-----|
| Cars | 282 | 26 | 19 | 327 |
|------|-----|----|----|-----|

| | | | | |
|--------|----|---|---|----|
| Trucks | 13 | 5 | 0 | 18 |
|--------|----|---|---|----|

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
|--------|---|---|---|---|

| | | | | |
|--------|-----|----|----|-----|
| Totals | 295 | 31 | 19 | 346 |
|--------|-----|----|----|-----|

Peds Cross: ☐

South Peds: 61

South Entering: 345

South Leg Total: 346

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Toronto

Site #: 1307000002

Intersection: Bayview Ave & Lawrence Ave E (ea)

TFR File #: 5

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 4643

North Entering: 9

North Peds: 148

Peds Cross: ☒

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 4 | 1 | 4 | 9 |
| Totals | 4 | 1 | 4 | |

East Leg Total: 1030

East Entering: 275

East Peds: 199

Peds Cross: ☒

Heavys Trucks Cars Totals

| | | | |
|---|-----|------|------|
| 0 | 104 | 1900 | 2004 |
|---|-----|------|------|



Bayview Ave

Lawrence Ave E (east ramps)

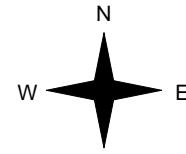
Heavys Trucks Cars Totals

| | | | |
|---|----|------|------|
| 0 | 64 | 4354 | 4418 |
|---|----|------|------|

| | | | |
|---|---|-----|-----|
| 0 | 8 | 575 | 583 |
|---|---|-----|-----|

| | | | |
|---|---|---|---|
| 0 | 0 | 1 | 1 |
|---|---|---|---|

| | | | |
|---|----|------|--|
| 0 | 72 | 4930 | |
|---|----|------|--|



Bayview Ave

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 112 | 5 | 0 | 117 |
| 152 | 6 | 0 | 158 |
| 0 | 0 | 0 | 0 |

Lawrence Ave E (east ramps)



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 746 | 9 | 0 | 755 |

Peds Cross: ☒

West Peds: 0

West Entering: 5002

West Leg Total: 7006

Cars 2

Trucks 0

Heavys 0

| | | | | |
|------|------|----|-----|------|
| Cars | 1744 | 59 | 167 | 1970 |
|------|------|----|-----|------|

| | | | | |
|--------|----|----|---|-----|
| Trucks | 98 | 40 | 1 | 139 |
|--------|----|----|---|-----|

| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
|--------|---|---|---|---|

| | | | | |
|--------|------|----|-----|--|
| Totals | 1842 | 99 | 168 | |
|--------|------|----|-----|--|

Peds Cross: ☐

South Peds: 360

South Entering: 2109

South Leg Total: 2111

Comments

Ontario Traffic Inc.

Traffic Count Summary

Intersection: Bayview Ave & Lawrence Ave E (e) Count Date: 15-May-13 Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|-----------------------|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|------|-------|-----|--|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 0 | 0 | 0 | 0 | 2 | 121 | 7:00:00 | 111 | 7 | 3 | |
| 8:00:00 | 0 | 0 | 0 | 0 | 13 | 212 | 8:00:00 | 186 | 8 | 18 | |
| 9:00:00 | 1 | 1 | 0 | 2 | 28 | 273 | 9:00:00 | 225 | 9 | 37 | |
| 10:00:00 | 0 | 0 | 0 | 0 | 11 | 228 | 10:00:00 | 204 | 8 | 16 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | |
| 16:00:00 | 0 | 0 | 0 | 0 | 28 | 359 | 16:00:00 | 305 | 23 | 31 | |
| 17:00:00 | 0 | 0 | 0 | 0 | 29 | 323 | 17:00:00 | 280 | 24 | 19 | |
| 18:00:00 | 0 | 0 | 0 | 0 | 21 | 304 | 18:00:00 | 270 | 11 | 23 | |
| 19:00:00 | 3 | 0 | 4 | 7 | 16 | 298 | 19:00:00 | 261 | 9 | 21 | |
| Totals: | 4 | 1 | 4 | 9 | 148 | 2118 | | 1842 | 99 | 168 | |
| | | | | | | | | | 2109 | 360 | |

| East Approach Totals | | | | | East/West Total Approaches | West Approach Totals | | | | | |
|----------------------|---------------------------------|------|-------|-------------|----------------------------|----------------------|---------------------------------|------|-------|---|--|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 0 | 6 | 4 | 10 | 8 | 171 | 7:00:00 | 138 | 23 | 0 | |
| 8:00:00 | 0 | 10 | 10 | 20 | 16 | 542 | 8:00:00 | 480 | 42 | 0 | |
| 9:00:00 | 0 | 10 | 9 | 19 | 28 | 1036 | 9:00:00 | 880 | 137 | 0 | |
| 10:00:00 | 0 | 23 | 9 | 32 | 20 | 591 | 10:00:00 | 499 | 60 | 0 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | |
| 16:00:00 | 0 | 25 | 30 | 55 | 61 | 730 | 16:00:00 | 568 | 106 | 1 | |
| 17:00:00 | 0 | 34 | 19 | 53 | 31 | 807 | 17:00:00 | 670 | 84 | 0 | |
| 18:00:00 | 0 | 27 | 13 | 40 | 21 | 755 | 18:00:00 | 643 | 72 | 0 | |
| 19:00:00 | 0 | 23 | 23 | 46 | 14 | 645 | 19:00:00 | 540 | 59 | 0 | |
| Totals: | 0 | 158 | 117 | 275 | 199 | 5277 | | 4418 | 583 | 1 | |
| | | | | | | | | | 5002 | 0 | |

Calculated Values for Traffic Crossing Major Street

| | | | | | | | | |
|------------------|------|------|------|-------|-------|-------|-------|-------|
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | 16:00 | 17:00 | 18:00 | 19:00 |
| Crossing Values: | 175 | 563 | 1110 | 595 | 767 | 848 | 810 | 641 |

Ontario Traffic Inc.

Count Date: 15-May-13 **Site #:** 1307000002

Ontario Traffic Inc.

Count Date: 15-May-13 **Site #:** 1307000002

Ontario Traffic Inc.

Count Date: 15-May-13 **Site #:** 1307000002

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 130700002

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Toronto

Site #: 1213100002

Intersection: Lawrence Ave E & Mildenhall Rd

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Lawrence Ave E runs W/E

North Leg Total: 382

North Entering: 216

North Peds: 92

Peds Cross: ☒

| | | | | |
|--------|----|----|-----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 1 | 0 | 1 |
| Cars | 18 | 70 | 127 | 215 |
| Totals | 18 | 71 | 127 | |

| | | | | |
|--------|-----|--|--|--|
| Heavys | 0 | | | |
| Trucks | 1 | | | |
| Cars | 165 | | | |
| Totals | 166 | | | |

East Leg Total: 2382

East Entering: 1005

East Peds: 4

Peds Cross: ☒

| | | | | |
|--------|-----|--|--|--|
| Heavys | 0 | | | |
| Trucks | 24 | | | |
| Cars | 908 | | | |
| Totals | 932 | | | |



Mildenhall Rd

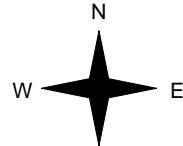
| | | | | |
|--------|----|--|--|----|
| Heavys | 0 | | | |
| Trucks | 0 | | | |
| Cars | 13 | | | 13 |
| Totals | 13 | | | |

| | | | | |
|--------|------|--|--|--|
| Heavys | 0 | | | |
| Trucks | 24 | | | |
| Cars | 998 | | | |
| Totals | 1022 | | | |

| | | | | |
|--------|---|--|--|---|
| Heavys | 1 | | | |
| Trucks | 0 | | | |
| Cars | 7 | | | 8 |
| Totals | 8 | | | |

| | | | | |
|--------|------|--|--|--|
| Heavys | 1 | | | |
| Trucks | 24 | | | |
| Cars | 1018 | | | |
| Totals | 1018 | | | |

Lawrence Ave E



Mildenhall Rd

| | | | | |
|--------|-----|----|---|-----|
| Cars | 103 | 0 | 0 | 103 |
| Trucks | 867 | 24 | 0 | 891 |
| Heavys | 10 | 1 | 0 | 11 |
| Totals | 980 | 25 | 0 | |

Lawrence Ave E



| | | | | |
|------|------|----|---|------|
| Cars | 1352 | 25 | 0 | 1377 |
|------|------|----|---|------|

| | | | | |
|-----------------|------|--|--|--|
| Peds Cross: | ☒ | | | |
| West Peds: | 87 | | | |
| West Entering: | 1043 | | | |
| West Leg Total: | 1975 | | | |

| | | | | |
|--------|----|--|--|--|
| Cars | 87 | | | |
| Trucks | 2 | | | |
| Heavys | 1 | | | |
| Totals | 90 | | | |

Comments

| | | | | |
|------------------|-----|--|--|--|
| Peds Cross: | ☒ | | | |
| South Peds: | 16 | | | |
| South Entering: | 301 | | | |
| South Leg Total: | 391 | | | |

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 15:30:00

To: 16:30:00

Municipality: Toronto

Site #: 1213100002

Intersection: Lawrence Ave E & Mildenhall Rd

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Lawrence Ave E runs W/E

North Leg Total: 306

North Entering: 142

North Peds: 77

Peds Cross: ☒

| | | | | |
|--------|----|----|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 22 | 37 | 83 | 142 |
| Totals | 22 | 37 | 83 | |

East Leg Total: 1961

East Entering: 941

East Peds: 4

Peds Cross: ☒

| | | | | |
|--------|----|-----|-----|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 26 | 796 | 822 | |
| Totals | 26 | 796 | 822 | |

| | | | | |
|--------|-----|-----|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 108 | 746 | 65 | 919 |
| Totals | 108 | 746 | 65 | 919 |

Heavys Trucks Cars Totals

0 26 796 822

Heavys Trucks Cars Totals

0 22 756 778

Heavys Trucks Cars Totals

0 0 20 20

Heavys Trucks Cars Totals

0 22 786 786

Peds Cross: ☒

West Peds: 60

West Entering: 808

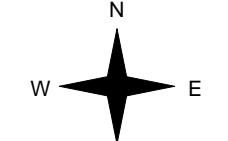
West Leg Total: 1630



Mildenhall Rd



Lawrence Ave E



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 108 | 0 | 0 | 108 |
| 746 | 22 | 0 | 768 |
| 65 | 0 | 0 | 65 |
| 919 | 22 | 0 | |

Lawrence Ave E

| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 995 | 25 | 0 | 1020 |



Mildenhall Rd

Cars 122

Trucks 0

Heavys 0

Totals 122

Cars 28

Trucks 4

Heavys 0

Totals 32

46

0

156

159

156

3

7

0

Peds Cross: ☐

South Peds: 12

South Entering: 237

South Leg Total: 359

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto

Site #: 1213100002

Intersection: Lawrence Ave E & Mildenhall Rd

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

**** Signalized Intersection ****

Major Road: Lawrence Ave E runs W/E

North Leg Total: 1525

North Entering: 775

North Peds: 285

Peds Cross: ☒

| | | | | |
|--------|----|-----|-----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 2 | 1 | 3 |
| Cars | 77 | 241 | 454 | 772 |
| Totals | 77 | 243 | 455 | |

| | | | |
|--------|-----|--|--|
| Heavys | 0 | | |
| Trucks | 3 | | |
| Cars | 747 | | |
| Totals | 750 | | |

East Leg Total: 13119

East Entering: 6138

East Peds: 25

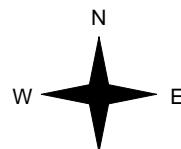
Peds Cross: ☐

Heavys Trucks Cars Totals
0 192 5511 5703



Mildenhall Rd

Lawrence Ave E



Heavys Trucks Cars Totals
0 0 56 56
0 150 5470 5620
1 2 140 143
1 152 5666



Cars Trucks Heavys Totals
486 2 0 488
5202 183 0 5385
259 6 0 265
5947 191 0

Lawrence Ave E

Cars Trucks Heavys Totals
6818 163 0 6981

Peds Cross: ☐
West Peds: 253
West Entering: 5819
West Leg Total: 11522

Cars 640
Trucks 10
Heavys 1
Totals 651

Cars 232 205 894 1331
Trucks 9 1 12 22
Heavys 0 0 0 0
Totals 241 206 906

Peds Cross: ☐
South Peds: 99
South Entering: 1353
South Leg Total: 2004

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Lawrence Ave E & Mildenhall Rd

Count Date: 6-Nov-12

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|---|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|--|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 14 | 2 | 2 | 18 | 3 | 57 | 7:00:00 | 7 | 0 | 32 | |
| 8:00:00 | 42 | 27 | 4 | 73 | 23 | 196 | 8:00:00 | 17 | 5 | 101 | |
| 9:00:00 | 149 | 92 | 24 | 265 | 95 | 554 | 9:00:00 | 25 | 58 | 206 | |
| 10:00:00 | 50 | 36 | 3 | 89 | 17 | 210 | 10:00:00 | 36 | 10 | 75 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | |
| 16:00:00 | 82 | 43 | 23 | 148 | 68 | 341 | 16:00:00 | 41 | 37 | 115 | |
| 17:00:00 | 47 | 20 | 8 | 75 | 44 | 303 | 17:00:00 | 42 | 48 | 138 | |
| 18:00:00 | 37 | 12 | 8 | 57 | 19 | 272 | 18:00:00 | 41 | 34 | 140 | |
| 19:00:00 | 32 | 11 | 5 | 48 | 16 | 193 | 19:00:00 | 32 | 14 | 99 | |
| Totals: | 453 | 243 | 77 | 773 | 285 | 2126 | | 241 | 206 | 906 | |
| | | | | | | | | | | 1353 | |
| | | | | | | | | | | 99 | |
| East Approach Totals | | | | | East/West Total Approaches | West Approach Totals | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 7 | 222 | 11 | 240 | 1 | 468 | 7:00:00 | 0 | 224 | 4 | |
| 8:00:00 | 6 | 758 | 34 | 798 | 6 | 1489 | 8:00:00 | 5 | 677 | 9 | |
| 9:00:00 | 13 | 850 | 123 | 986 | 2 | 1994 | 9:00:00 | 20 | 975 | 13 | |
| 10:00:00 | 37 | 654 | 31 | 722 | 3 | 1399 | 10:00:00 | 4 | 645 | 28 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 1 | 15:00:00 | 0 | 1 | 0 | |
| 16:00:00 | 54 | 710 | 93 | 857 | 3 | 1618 | 16:00:00 | 12 | 721 | 28 | |
| 17:00:00 | 60 | 788 | 100 | 948 | 5 | 1734 | 17:00:00 | 6 | 757 | 23 | |
| 18:00:00 | 41 | 697 | 63 | 801 | 2 | 1656 | 18:00:00 | 2 | 831 | 22 | |
| 19:00:00 | 47 | 706 | 33 | 786 | 3 | 1598 | 19:00:00 | 7 | 789 | 16 | |
| Totals: | 265 | 5385 | 488 | 6138 | 25 | 11957 | | 56 | 5620 | 143 | |
| | | | | | | | | | | 5819 | |
| | | | | | | | | | | 253 | |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | 16:00 | 17:00 | 18:00 | 19:00 | | |
| Crossing Values: | 28 | 113 | 362 | 137 | | 222 | 185 | 126 | 95 | | |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100002

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100002

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100002

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100002

| Interval Time | Passenger Cars - West Approach | | | | | | Trucks - West Approach | | | | | | Heavys - West Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | West Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 0 | 0 | 21 | 21 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30:00 | 0 | 0 | 57 | 36 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6:45:00 | 0 | 0 | 125 | 68 | 2 | 2 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 7:00:00 | 0 | 0 | 216 | 91 | 4 | 2 | 0 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 7:15:00 | 1 | 1 | 330 | 114 | 4 | 0 | 0 | 0 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 7:30:00 | 2 | 1 | 486 | 156 | 10 | 6 | 0 | 0 | 15 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 7:45:00 | 4 | 2 | 633 | 147 | 13 | 3 | 0 | 0 | 20 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 8:00:00 | 5 | 1 | 875 | 242 | 13 | 0 | 0 | 0 | 26 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| 8:15:00 | 7 | 2 | 1133 | 258 | 14 | 1 | 0 | 0 | 34 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 8:30:00 | 14 | 7 | 1389 | 256 | 15 | 1 | 0 | 0 | 37 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 75 |
| 8:45:00 | 17 | 3 | 1631 | 242 | 20 | 5 | 0 | 0 | 44 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 106 |
| 9:00:00 | 25 | 8 | 1827 | 196 | 25 | 5 | 0 | 0 | 49 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 119 |
| 9:15:00 | 26 | 1 | 2010 | 183 | 30 | 5 | 0 | 0 | 56 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 124 |
| 9:30:00 | 26 | 0 | 2154 | 144 | 40 | 10 | 0 | 0 | 60 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 129 |
| 9:45:00 | 28 | 2 | 2318 | 164 | 47 | 7 | 0 | 0 | 69 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 130 |
| 10:00:00 | 29 | 1 | 2449 | 131 | 53 | 6 | 0 | 0 | 72 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 131 |
| 10:00:07 | 29 | 0 | 2450 | 1 | 53 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 131 |
| 15:00:00 | 29 | 0 | 2450 | 0 | 53 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 131 |
| 15:15:00 | 33 | 4 | 2600 | 150 | 59 | 6 | 0 | 0 | 77 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 136 |
| 15:30:00 | 34 | 1 | 2778 | 178 | 67 | 8 | 0 | 0 | 83 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 155 |
| 15:45:00 | 38 | 4 | 2951 | 173 | 76 | 9 | 0 | 0 | 87 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 166 |
| 16:00:00 | 41 | 3 | 3150 | 199 | 80 | 4 | 0 | 0 | 93 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 184 |
| 16:15:00 | 42 | 1 | 3354 | 204 | 84 | 4 | 0 | 0 | 101 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 206 |
| 16:30:00 | 44 | 2 | 3534 | 180 | 87 | 3 | 0 | 0 | 105 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 215 |
| 16:45:00 | 45 | 1 | 3718 | 184 | 94 | 7 | 0 | 0 | 115 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 220 |
| 17:00:00 | 47 | 2 | 3880 | 162 | 102 | 8 | 0 | 0 | 120 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 227 |
| 17:15:00 | 48 | 1 | 4058 | 178 | 110 | 8 | 0 | 0 | 126 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 229 |
| 17:30:00 | 48 | 0 | 4240 | 182 | 112 | 2 | 0 | 0 | 128 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 232 |
| 17:45:00 | 48 | 0 | 4451 | 211 | 118 | 6 | 0 | 0 | 133 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 235 |
| 18:00:00 | 49 | 1 | 4695 | 244 | 124 | 6 | 0 | 0 | 136 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 239 |
| 18:15:00 | 49 | 0 | 4903 | 208 | 129 | 5 | 0 | 0 | 140 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 242 |
| 18:30:00 | 51 | 2 | 5123 | 220 | 132 | 3 | 0 | 0 | 141 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 245 |
| 18:45:00 | 54 | 3 | 5323 | 200 | 137 | 5 | 0 | 0 | 147 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 253 |
| 19:00:00 | 56 | 2 | 5470 | 147 | 140 | 3 | 0 | 0 | 150 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 253 |
| 19:15:00 | 56 | 0 | 5470 | 0 | 140 | 0 | 0 | 0 | 150 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 253 |
| 19:15:19 | 56 | 0 | 5470 | 0 | 140 | 0 | 0 | 0 | 150 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 253 |

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 8:00:00

To: 9:00:00

Municipality: Toronto

Site #: 1213100003

Intersection: Bayview Ave & Blythwood Rd

TFR File #: 4

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 2991

North Entering: 1549

North Peds:

Peds Cross: ☒

| | | | | |
|--------|----|------|-----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 7 | 37 | 17 | 61 |
| Cars | 39 | 1229 | 220 | 1488 |
| Totals | 46 | 1266 | 237 | |

| | | | |
|--------|------|--|--|
| Heavys | 0 | | |
| Trucks | 35 | | |
| Cars | 1407 | | |
| Totals | 1442 | | |

East Leg Total: 1073

East Entering: 253

East Peds: 27

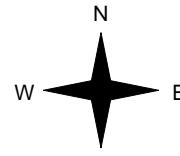
Peds Cross: ☒

| | | | |
|--------|--------|------|--------|
| Heavys | Trucks | Cars | Totals |
| 0 | 22 | 348 | 370 |



Bayview Ave

Blythwood Rd



| | | | |
|--------|--------|------|--------|
| Heavys | Trucks | Cars | Totals |
| 0 | 5 | 217 | 222 |
| 0 | 0 | 238 | 238 |
| 0 | 8 | 256 | 264 |
| 0 | 13 | 711 | |

| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 62 | 0 | 0 | 62 |
| 59 | 1 | 0 | 60 |
| 119 | 12 | 0 | 131 |
| 240 | 13 | 0 | |

Sunnybrook Hospital

| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 791 | 29 | 0 | 820 |

| | |
|-----------------|------|
| Peds Cross: | ☒ |
| West Peds: | 8 |
| West Entering: | 724 |
| West Leg Total: | 1094 |

| | |
|--------|------|
| Cars | 1604 |
| Trucks | 57 |
| Heavys | 0 |
| Totals | 1661 |

| | | | | |
|--------|-----|------|-----|------|
| Cars | 250 | 1128 | 333 | 1711 |
| Trucks | 14 | 30 | 12 | 56 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 264 | 1158 | 345 | |

| | |
|------------------|------|
| Peds Cross: | ☒ |
| South Peds: | 78 |
| South Entering: | 1767 |
| South Leg Total: | 3428 |

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:45:00

To: 18:45:00

Municipality: Toronto

Site #: 1213100003

Intersection: Bayview Ave & Blythwood Rd

TFR File #: 4

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 3350

North Entering: 1410

North Peds: 4

Peds Cross: ☒

| | | | | |
|--------|-----|------|----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 3 | 16 | 17 | 36 |
| Cars | 169 | 1133 | 72 | 1374 |
| Totals | 172 | 1149 | 89 | |

East Leg Total: 649

East Entering: 420

East Peds: 9

Peds Cross: ☒

Heavys Trucks Cars Totals

0 6 510 516



Heavys Trucks Cars Totals

0 2 181 183

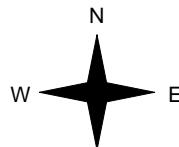
0 4 27 31

1 1 121 123

1 7 329



Bayview Ave



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 130 | 2 | 0 | 132 |
| 89 | 2 | 0 | 91 |
| 189 | 8 | 0 | 197 |
| 408 | 12 | 0 | |

Heavys Trucks Cars Totals

0 2 181 183

0 4 27 31

1 1 121 123

1 7 329

Bayview Ave

Sunnybrook Hospital



Cars Trucks Heavys Totals

198 31 0 229

Peds Cross: ☒

Cars 1443

West Peds: 21

Trucks 25

West Entering: 337

Heavys 1

West Leg Total: 853

Totals 1469

| | | | | |
|--------|-----|------|-----|------|
| Cars | 252 | 1601 | 99 | 1952 |
| Trucks | 1 | 24 | 10 | 35 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 253 | 1625 | 109 | |

Peds Cross: ☐

South Peds: 76

South Entering: 1987

South Leg Total: 3456

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto
Site #: 1213100003
Intersection: Bayview Ave & Blythwood Rd
TFR File #: 4
Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

**** Signalized Intersection ****

Major Road: Bayview Ave runs N/S

North Leg Total: 21206

North Entering: 10372

North Peds: 144

Peds Cross: ☒

| | | | | |
|--------|-----|------|------|-------|
| Heavys | 0 | 0 | 1 | 1 |
| Trucks | 26 | 188 | 143 | 357 |
| Cars | 854 | 7917 | 1243 | 10014 |
| Totals | 880 | 8105 | 1387 | |

Heavys 1

Trucks 246

Cars 10587

Totals 10834

East Leg Total: 7063

East Entering: 3204

East Peds: 147

Peds Cross: ☒

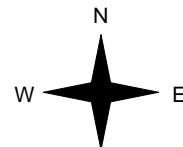
Heavys Trucks Cars Totals

1 79 2867 2947



Bayview Ave

Blythwood Rd



Heavys Trucks Cars Totals

0 32 1127 1159

4 17 858 879

1 44 1196 1241

5 93 3181



Bayview Ave

Cars Trucks Heavys Totals

1126 22 0 1148

509 9 1 519

1443 94 0 1537

3078 125 1

Sunnybrook Hospital



Cars Trucks Heavys Totals

3599 255 5 3859

Peds Cross: ☒

Cars 10556

West Peds: 121

Trucks 326

West Entering: 3279

Heavys 1

West Leg Total: 6226

Totals 10883

Cars 1504 8334 1498 11336

Trucks 44 192 95 331

Heavys 0 1 0 1

Totals 1548 8527 1593

Peds Cross: ☐

South Peds: 555

South Entering: 11668

South Leg Total: 22551

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Bayview Ave & Blythwood Rd

Count Date: 6-Nov-12

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | | |
|---|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|------------|-----|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | | |
| 6:00:00 | 1 | 6 | 0 | 7 | 0 | 8 | 6:00:00 | 0 | 1 | 0 | 1 | 0 |
| 7:00:00 | 152 | 578 | 21 | 751 | 3 | 1259 | 7:00:00 | 32 | 344 | 132 | 508 | 18 |
| 8:00:00 | 311 | 1053 | 25 | 1389 | 16 | 2815 | 8:00:00 | 144 | 952 | 330 | 1426 | 42 |
| 9:00:00 | 237 | 1266 | 46 | 1549 | 17 | 3316 | 9:00:00 | 264 | 1158 | 345 | 1767 | 78 |
| 10:00:00 | 273 | 1133 | 92 | 1498 | 8 | 2889 | 10:00:00 | 152 | 960 | 279 | 1391 | 73 |
| 15:00:00 | 0 | 2 | 0 | 2 | 0 | 5 | 15:00:00 | 0 | 3 | 0 | 3 | 1 |
| 16:00:00 | 151 | 884 | 135 | 1170 | 51 | 2858 | 16:00:00 | 227 | 1281 | 180 | 1688 | 65 |
| 17:00:00 | 100 | 967 | 223 | 1290 | 25 | 2792 | 17:00:00 | 269 | 1112 | 121 | 1502 | 92 |
| 18:00:00 | 70 | 1082 | 205 | 1357 | 22 | 2732 | 18:00:00 | 222 | 1060 | 93 | 1375 | 104 |
| 19:00:00 | 92 | 1133 | 133 | 1358 | 2 | 3364 | 19:00:00 | 237 | 1656 | 113 | 2006 | 82 |
| Totals: | 1387 | 8104 | 880 | 10371 | 144 | 22038 | | 1547 | 8527 | 1593 | 11667 | 555 |
| East Approach Totals | | | | | East/West Total Approaches | West Approach Totals | | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | Total Peds | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | 0 |
| 7:00:00 | 53 | 7 | 14 | 74 | 7 | 173 | 7:00:00 | 27 | 45 | 27 | 99 | 4 |
| 8:00:00 | 119 | 54 | 39 | 212 | 25 | 691 | 8:00:00 | 147 | 193 | 139 | 479 | 20 |
| 9:00:00 | 131 | 60 | 62 | 253 | 27 | 977 | 9:00:00 | 222 | 238 | 264 | 724 | 8 |
| 10:00:00 | 171 | 64 | 72 | 307 | 18 | 838 | 10:00:00 | 127 | 176 | 228 | 531 | 5 |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 2 | 15:00:00 | 1 | 1 | 0 | 2 | 0 |
| 16:00:00 | 227 | 105 | 268 | 600 | 27 | 1027 | 16:00:00 | 171 | 70 | 186 | 427 | 23 |
| 17:00:00 | 350 | 61 | 349 | 760 | 17 | 1122 | 17:00:00 | 142 | 73 | 147 | 362 | 18 |
| 18:00:00 | 305 | 88 | 235 | 628 | 16 | 969 | 18:00:00 | 158 | 48 | 135 | 341 | 27 |
| 19:00:00 | 181 | 79 | 109 | 369 | 10 | 683 | 19:00:00 | 164 | 35 | 115 | 314 | 16 |
| Totals: | 1537 | 518 | 1148 | 3203 | 147 | 6482 | | 1159 | 879 | 1241 | 3279 | 121 |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | | 16:00 | 17:00 | 18:00 | 19:00 | | |
| Crossing Values: | 146 | 517 | 686 | 555 | | | 619 | 682 | 677 | 508 | | |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100003

| Interval Time | Passenger Cars - East Approach | | | | | | Trucks - East Approach | | | | | | Heavys - East Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | East Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 11 | 11 | 0 | 0 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 6:30:00 | 17 | 6 | 1 | 1 | 6 | 3 | 5 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 6:45:00 | 25 | 8 | 5 | 4 | 9 | 3 | 9 | 4 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 7:00:00 | 41 | 16 | 7 | 2 | 12 | 3 | 12 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 7:15:00 | 59 | 18 | 10 | 3 | 20 | 8 | 14 | 2 | 1 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 7:30:00 | 87 | 28 | 30 | 20 | 26 | 6 | 15 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 7:45:00 | 116 | 29 | 41 | 11 | 41 | 15 | 17 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| 8:00:00 | 152 | 36 | 60 | 19 | 50 | 9 | 20 | 3 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 8:15:00 | 182 | 30 | 77 | 17 | 66 | 16 | 26 | 6 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 8:30:00 | 201 | 19 | 91 | 14 | 89 | 23 | 28 | 2 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| 8:45:00 | 237 | 36 | 95 | 4 | 99 | 10 | 32 | 4 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| 9:00:00 | 271 | 34 | 119 | 24 | 112 | 13 | 32 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 9:15:00 | 311 | 40 | 136 | 17 | 127 | 15 | 35 | 3 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 |
| 9:30:00 | 351 | 40 | 152 | 16 | 140 | 13 | 39 | 4 | 2 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| 9:45:00 | 382 | 31 | 162 | 10 | 160 | 20 | 42 | 3 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 10:00:00 | 426 | 44 | 183 | 21 | 183 | 23 | 48 | 6 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 10:00:15 | 426 | 0 | 183 | 0 | 183 | 0 | 48 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00:34 | 426 | 0 | 183 | 0 | 183 | 0 | 48 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 15:00:00 | 426 | 0 | 183 | 0 | 183 | 0 | 48 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 15:15:00 | 471 | 45 | 204 | 21 | 244 | 61 | 52 | 4 | 2 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| 15:30:00 | 526 | 55 | 235 | 31 | 316 | 72 | 54 | 2 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| 15:45:00 | 593 | 67 | 269 | 34 | 378 | 62 | 57 | 3 | 4 | 2 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 16:00:00 | 640 | 47 | 286 | 17 | 447 | 69 | 61 | 4 | 4 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 104 |
| 16:15:00 | 720 | 80 | 302 | 16 | 530 | 83 | 62 | 1 | 4 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |
| 16:30:00 | 802 | 82 | 311 | 9 | 610 | 80 | 66 | 4 | 4 | 0 | 11 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 110 |
| 16:45:00 | 883 | 81 | 330 | 19 | 705 | 95 | 68 | 2 | 5 | 1 | 13 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 116 |
| 17:00:00 | 982 | 99 | 345 | 15 | 787 | 82 | 69 | 1 | 5 | 0 | 17 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 121 |
| 17:15:00 | 1052 | 70 | 373 | 28 | 856 | 69 | 71 | 2 | 6 | 1 | 18 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 127 |
| 17:30:00 | 1125 | 73 | 389 | 16 | 912 | 56 | 76 | 5 | 7 | 1 | 18 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 136 |
| 17:45:00 | 1217 | 92 | 409 | 20 | 973 | 61 | 81 | 5 | 7 | 0 | 20 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 136 |
| 18:00:00 | 1273 | 56 | 431 | 22 | 1019 | 46 | 83 | 2 | 7 | 0 | 20 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 137 |
| 18:15:00 | 1330 | 57 | 462 | 31 | 1046 | 27 | 84 | 1 | 9 | 2 | 20 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 142 |
| 18:30:00 | 1379 | 49 | 480 | 18 | 1078 | 32 | 88 | 4 | 9 | 0 | 22 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 142 |
| 18:45:00 | 1406 | 27 | 498 | 18 | 1103 | 25 | 89 | 1 | 9 | 0 | 22 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 145 |
| 19:00:00 | 1443 | 37 | 508 | 10 | 1126 | 23 | 94 | 5 | 9 | 0 | 22 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 147 |
| 19:15:00 | 1443 | 0 | 509 | 1 | 1126 | 0 | 94 | 0 | 9 | 0 | 22 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 147 |
| 19:15:41 | 1443 | 0 | 509 | 0 | 1126 | 0 | 94 | 0 | 9 | 0 | 22 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 147 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100003

| Interval Time | Passenger Cars - South Approach | | | | | | Trucks - South Approach | | | | | | Heavys - South Approach | | | | | | Pedestrians | |
|---------------|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | South Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 3 | 3 | 54 | 53 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 6:30:00 | 5 | 2 | 131 | 77 | 31 | 22 | 0 | 0 | 4 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 6:45:00 | 16 | 11 | 231 | 100 | 69 | 38 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 7:00:00 | 32 | 16 | 338 | 107 | 124 | 55 | 0 | 0 | 7 | 3 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 7:15:00 | 53 | 21 | 513 | 175 | 190 | 66 | 3 | 3 | 9 | 2 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 7:30:00 | 73 | 20 | 714 | 201 | 269 | 79 | 6 | 3 | 14 | 5 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 7:45:00 | 110 | 37 | 964 | 250 | 354 | 85 | 6 | 0 | 22 | 8 | 17 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 8:00:00 | 170 | 60 | 1270 | 306 | 441 | 87 | 6 | 0 | 27 | 5 | 21 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| 8:15:00 | 228 | 58 | 1569 | 299 | 510 | 69 | 8 | 2 | 35 | 8 | 25 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 |
| 8:30:00 | 293 | 65 | 1868 | 299 | 582 | 72 | 8 | 0 | 44 | 9 | 27 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| 8:45:00 | 360 | 67 | 2124 | 256 | 666 | 84 | 13 | 5 | 50 | 6 | 29 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 9:00:00 | 420 | 60 | 2398 | 274 | 774 | 108 | 20 | 7 | 57 | 7 | 33 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 |
| 9:15:00 | 465 | 45 | 2628 | 230 | 856 | 82 | 23 | 3 | 67 | 10 | 37 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 180 |
| 9:30:00 | 496 | 31 | 2883 | 255 | 910 | 54 | 25 | 2 | 75 | 8 | 39 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 187 |
| 9:45:00 | 533 | 37 | 3126 | 243 | 994 | 84 | 26 | 1 | 77 | 2 | 42 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 197 |
| 10:00:00 | 566 | 33 | 3332 | 206 | 1040 | 46 | 26 | 0 | 83 | 6 | 46 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 |
| 10:00:15 | 566 | 0 | 3332 | 0 | 1040 | 0 | 26 | 0 | 83 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 |
| 10:00:34 | 566 | 0 | 3335 | 3 | 1040 | 0 | 26 | 0 | 83 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 212 |
| 15:00:00 | 566 | 0 | 3335 | 0 | 1040 | 0 | 26 | 0 | 83 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 212 |
| 15:15:00 | 620 | 54 | 3602 | 267 | 1085 | 45 | 30 | 4 | 91 | 8 | 51 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 223 |
| 15:30:00 | 666 | 46 | 3924 | 322 | 1124 | 39 | 33 | 3 | 101 | 10 | 54 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 226 |
| 15:45:00 | 725 | 59 | 4259 | 335 | 1157 | 33 | 34 | 1 | 113 | 12 | 58 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 251 |
| 16:00:00 | 784 | 59 | 4576 | 317 | 1203 | 46 | 35 | 1 | 123 | 10 | 63 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 277 |
| 16:15:00 | 838 | 54 | 4868 | 292 | 1233 | 30 | 38 | 3 | 135 | 12 | 64 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 305 |
| 16:30:00 | 909 | 71 | 5181 | 313 | 1272 | 39 | 38 | 0 | 143 | 8 | 66 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 329 |
| 16:45:00 | 966 | 57 | 5458 | 277 | 1298 | 26 | 40 | 2 | 151 | 8 | 69 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 358 |
| 17:00:00 | 1047 | 81 | 5655 | 197 | 1315 | 17 | 41 | 1 | 155 | 4 | 72 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 369 |
| 17:15:00 | 1110 | 63 | 5810 | 155 | 1335 | 20 | 41 | 0 | 157 | 2 | 76 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 410 |
| 17:30:00 | 1158 | 48 | 6040 | 230 | 1347 | 12 | 41 | 0 | 158 | 1 | 80 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 431 |
| 17:45:00 | 1211 | 53 | 6351 | 311 | 1380 | 33 | 43 | 2 | 164 | 6 | 83 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 447 |
| 18:00:00 | 1267 | 56 | 6699 | 348 | 1395 | 15 | 43 | 0 | 171 | 7 | 85 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 473 |
| 18:15:00 | 1340 | 73 | 7116 | 417 | 1417 | 22 | 44 | 1 | 181 | 10 | 87 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 485 |
| 18:30:00 | 1400 | 60 | 7514 | 398 | 1445 | 28 | 44 | 0 | 186 | 5 | 91 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 499 |
| 18:45:00 | 1463 | 63 | 7952 | 438 | 1479 | 34 | 44 | 0 | 188 | 2 | 93 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 523 |
| 19:00:00 | 1503 | 40 | 8334 | 382 | 1498 | 19 | 44 | 0 | 192 | 4 | 95 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 555 |
| 19:15:00 | 1503 | 0 | 8334 | 0 | 1498 | 0 | 44 | 0 | 192 | 0 | 95 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 555 |
| 19:15:41 | 1504 | 1 | 8334 | 0 | 1498 | 0 | 44 | 0 | 192 | 0 | 95 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 555 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100003

| Interval Time | Passenger Cars - West Approach | | | | | | Trucks - West Approach | | | | | | Heavys - West Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | West Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 5 | 5 | 5 | 5 | 4 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30:00 | 7 | 2 | 8 | 3 | 12 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6:45:00 | 16 | 9 | 22 | 14 | 18 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:00:00 | 27 | 11 | 44 | 22 | 27 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 7:15:00 | 40 | 13 | 72 | 28 | 51 | 24 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 7:30:00 | 60 | 20 | 122 | 50 | 74 | 23 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 7:45:00 | 110 | 50 | 171 | 49 | 109 | 35 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 8:00:00 | 174 | 64 | 237 | 66 | 163 | 54 | 0 | 0 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 8:15:00 | 238 | 64 | 296 | 59 | 224 | 61 | 1 | 1 | 1 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 8:30:00 | 300 | 62 | 342 | 46 | 285 | 61 | 1 | 0 | 1 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| 8:45:00 | 347 | 47 | 403 | 61 | 352 | 67 | 2 | 1 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 9:00:00 | 391 | 44 | 475 | 72 | 419 | 67 | 5 | 3 | 1 | 0 | 11 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 9:15:00 | 424 | 33 | 538 | 63 | 505 | 86 | 9 | 4 | 1 | 0 | 18 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 9:30:00 | 465 | 41 | 576 | 38 | 552 | 47 | 13 | 4 | 2 | 1 | 22 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 9:45:00 | 482 | 17 | 620 | 44 | 587 | 35 | 13 | 0 | 2 | 0 | 25 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 10:00:00 | 509 | 27 | 648 | 28 | 631 | 44 | 14 | 1 | 4 | 2 | 27 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 10:00:15 | 509 | 0 | 648 | 0 | 631 | 0 | 14 | 0 | 4 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 10:00:34 | 510 | 1 | 649 | 1 | 631 | 0 | 14 | 0 | 4 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 15:00:00 | 510 | 0 | 649 | 0 | 631 | 0 | 14 | 0 | 4 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 15:15:00 | 550 | 40 | 665 | 16 | 668 | 37 | 19 | 5 | 5 | 1 | 29 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| 15:30:00 | 586 | 36 | 686 | 21 | 696 | 28 | 24 | 5 | 6 | 1 | 34 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| 15:45:00 | 620 | 34 | 702 | 16 | 749 | 53 | 25 | 1 | 7 | 1 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 |
| 16:00:00 | 669 | 49 | 716 | 14 | 807 | 58 | 26 | 1 | 7 | 0 | 37 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| 16:15:00 | 696 | 27 | 749 | 33 | 855 | 48 | 26 | 0 | 8 | 1 | 38 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 65 |
| 16:30:00 | 735 | 39 | 756 | 7 | 883 | 28 | 26 | 0 | 9 | 1 | 38 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 69 |
| 16:45:00 | 766 | 31 | 770 | 14 | 914 | 31 | 26 | 0 | 11 | 2 | 39 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 76 |
| 17:00:00 | 811 | 45 | 784 | 14 | 952 | 38 | 26 | 0 | 11 | 0 | 39 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 78 |
| 17:15:00 | 840 | 29 | 796 | 12 | 984 | 32 | 27 | 1 | 11 | 0 | 40 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 84 |
| 17:30:00 | 880 | 40 | 804 | 8 | 1021 | 37 | 28 | 1 | 12 | 1 | 42 | 2 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 96 |
| 17:45:00 | 926 | 46 | 820 | 16 | 1054 | 33 | 30 | 2 | 13 | 1 | 43 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 99 |
| 18:00:00 | 965 | 39 | 827 | 7 | 1083 | 29 | 30 | 0 | 13 | 0 | 43 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 105 |
| 18:15:00 | 1011 | 46 | 833 | 6 | 1120 | 37 | 32 | 2 | 16 | 3 | 43 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 110 |
| 18:30:00 | 1073 | 62 | 843 | 10 | 1152 | 32 | 32 | 0 | 16 | 0 | 43 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 113 |
| 18:45:00 | 1107 | 34 | 847 | 4 | 1175 | 23 | 32 | 0 | 17 | 1 | 44 | 1 | 0 | 0 | 4 | 0 | 1 | 1 | 0 | 120 |
| 19:00:00 | 1127 | 20 | 858 | 11 | 1196 | 21 | 32 | 0 | 17 | 0 | 44 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 121 |
| 19:15:00 | 1127 | 0 | 858 | 0 | 1196 | 0 | 32 | 0 | 17 | 0 | 44 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 121 |
| 19:15:41 | 1127 | 0 | 858 | 0 | 1196 | 0 | 32 | 0 | 17 | 0 | 44 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 121 |

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 8:00:00

To: 9:00:00

Municipality: Toronto

Site #: 1307000003

Intersection: Bayview Ave & Lawrence Ave E (west)

TFR File #: 14

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 914

North Entering: 914

North Peds: 24

Peds Cross: ☒

| | | | | |
|--------|-----|----|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 18 | 5 | 2 | 25 |
| Cars | 814 | 46 | 29 | 889 |
| Totals | 832 | 51 | 31 | |

East Leg Total: 1252

East Entering: 235

East Peds: 0

Peds Cross: ☒

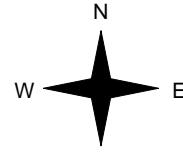
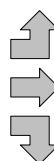
Heavys Trucks Cars Totals
0 30 1030 1060



Bayview Ave

Lawrence Ave E (west ramps)

Heavys Trucks Cars Totals
0 0 0 0
0 7 979 986
0 18 371 389
0 25 1350



Cars Trucks Heavys Totals
0 0 0 0
216 12 0 228
7 0 0 7
223 12 0

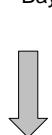
Lawrence Ave E (west ramps)



Cars Trucks Heavys Totals
1008 9 0 1017

Peds Cross: ☒
West Peds: 4
West Entering: 1375
West Leg Total: 2435

Cars 424
Trucks 23
Heavys 0
Totals 447



Cars 0 0 0 0
Trucks 0 0 0 0
Heavys 0 0 0 0
Totals 0 0 0 0

Peds Cross: ☐
South Peds: 66
South Entering: 0
South Leg Total: 447

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 15:30:00

To: 16:30:00

Municipality: Toronto

Site #: 1307000003

Intersection: Bayview Ave & Lawrence Ave E (west)

TFR File #: 14

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 638

North Entering: 638

North Peds: 42

Peds Cross: ☒

| | | | | |
|--------|-----|---|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 14 | 5 | 0 | 19 |
| Cars | 595 | 3 | 21 | 619 |
| Totals | 609 | 8 | 21 | |

East Leg Total: 1143

East Entering: 320

East Peds: 0

Peds Cross: ☒

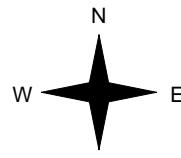
Totals 0

Heavys Trucks Cars Totals
0 26 894 920



Bayview Ave

Lawrence Ave E (west ramps)



Heavys Trucks Cars Totals
0 0 0 0
0 12 790 802
1 11 236 248
1 23 1026

Bayview Ave

Cars Trucks Heavys Totals
0 0 0 0
299 12 0 311
8 1 0 9
307 13 0

Lawrence Ave E (west ramps)

Peds Cross: ☒
West Peds: 10
West Entering: 1050
West Leg Total: 1970

Cars 247
Trucks 17
Heavys 1
Totals 265

Cars 0 0 0 0
Trucks 0 0 0 0
Heavys 0 0 0 0
Totals 0 0 0 0

Peds Cross: ☐
South Peds: 48
South Entering: 0
South Leg Total: 265

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Toronto

Site #: 1307000003

Intersection: Bayview Ave & Lawrence Ave E (west)

TFR File #: 14

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 4789

North Entering: 4779

North Peds: 167

Peds Cross: ☒

| | | | | |
|--------|------|-----|-----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 98 | 40 | 8 | 146 |
| Cars | 4329 | 115 | 189 | 4633 |
| Totals | 4427 | 155 | 197 | |

| | | | |
|--------|----|--|--|
| Heavys | 1 | | |
| Trucks | 1 | | |
| Cars | 8 | | |
| Totals | 10 | | |

East Leg Total: 7006

East Entering: 2003

East Peds: 1

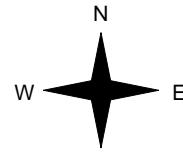
Peds Cross: ☒

Heavys Trucks Cars Totals
0 198 6156 6354

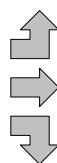


Bayview Ave

Lawrence Ave E (west ramps)



Heavys Trucks Cars Totals
0 1 8 9
0 64 4742 4806
1 101 2038 2140
1 166 6788



Bayview Ave

Cars Trucks Heavys Totals
0 0 0 0
1827 99 0 1926
73 4 0 77
1900 103 0

Lawrence Ave E (west ramps)



Cars Trucks Heavys Totals
4931 72 0 5003

Peds Cross: ☒
West Peds: 35
West Entering: 6955
West Leg Total: 13309

Cars 2226
Trucks 145
Heavys 1
Totals 2372

Cars 0 0 0 0
Trucks 1 0 0 1
Heavys 0 1 0 1
Totals 1 1 0 1

Peds Cross: ☐
South Peds: 353
South Entering: 2
South Leg Total: 2374

Comments

Ontario Traffic Inc.

Traffic Count Summary

| Intersection: Bayview Ave & Lawrence Ave E (W) | | | | Count Date: 15-May-13 | | Municipality: Toronto | | | | | | |
|---|---------------------------------|------|-------|-----------------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|------------|--|
| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | Total Peds | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | | |
| | Left | Thru | Right | Grand Total | Total Peds | | Left | Thru | Right | Grand Total | | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 13 | 4 | 131 | 148 | 6 | 148 | 7:00:00 | 0 | 0 | 0 | 0 | |
| 8:00:00 | 20 | 37 | 582 | 639 | 13 | 640 | 8:00:00 | 0 | 1 | 0 | 1 | |
| 9:00:00 | 31 | 51 | 832 | 914 | 24 | 914 | 9:00:00 | 0 | 0 | 0 | 66 | |
| 10:00:00 | 26 | 21 | 552 | 599 | 15 | 600 | 10:00:00 | 1 | 0 | 0 | 1 | |
| 15:00:00 | 0 | 0 | 1 | 1 | 0 | 1 | 15:00:00 | 0 | 0 | 0 | 0 | |
| 16:00:00 | 25 | 8 | 575 | 608 | 25 | 608 | 16:00:00 | 0 | 0 | 0 | 47 | |
| 17:00:00 | 15 | 9 | 591 | 615 | 34 | 615 | 17:00:00 | 0 | 0 | 0 | 59 | |
| 18:00:00 | 36 | 10 | 637 | 683 | 27 | 683 | 18:00:00 | 0 | 0 | 0 | 76 | |
| 19:00:00 | 31 | 15 | 526 | 572 | 23 | 572 | 19:00:00 | 0 | 0 | 0 | 28 | |
| Totals: | 197 | 155 | 4427 | 4779 | 167 | 4781 | | 1 | 1 | 0 | 2 | |
| | | | | | | | | | | | 353 | |
| East Approach Totals | | | | | East/West Total Approaches | West Approach Totals | | | | | Total Peds | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | | |
| | Left | Thru | Right | Grand Total | Total Peds | | Left | Thru | Right | Grand Total | | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 2 | 115 | 0 | 117 | 1 | 395 | 7:00:00 | 0 | 147 | 131 | 278 | |
| 8:00:00 | 6 | 190 | 0 | 196 | 0 | 967 | 8:00:00 | 0 | 502 | 269 | 771 | |
| 9:00:00 | 7 | 228 | 0 | 235 | 0 | 1610 | 9:00:00 | 0 | 986 | 389 | 1375 | |
| 10:00:00 | 16 | 211 | 0 | 227 | 0 | 1061 | 10:00:00 | 0 | 533 | 301 | 834 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | 0 | |
| 16:00:00 | 9 | 321 | 0 | 330 | 0 | 1207 | 16:00:00 | 0 | 650 | 227 | 877 | |
| 17:00:00 | 9 | 305 | 0 | 314 | 0 | 1331 | 17:00:00 | 0 | 739 | 278 | 1017 | |
| 18:00:00 | 15 | 281 | 0 | 296 | 0 | 1247 | 18:00:00 | 0 | 679 | 272 | 951 | |
| 19:00:00 | 13 | 275 | 0 | 288 | 0 | 1138 | 19:00:00 | 9 | 568 | 273 | 850 | |
| Totals: | 77 | 1926 | 0 | 2003 | 1 | 8956 | | 9 | 4804 | 2140 | 6953 | |
| | | | | | | | | | | | 35 | |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | 16:00 | 17:00 | 18:00 | 19:00 | | | |
| Crossing Values: | 168 | 553 | 1083 | 596 | | 731 | 841 | 797 | 641 | | | |

Ontario Traffic Inc.

Count Date: 15-May-13 **Site #:** 1307000003

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 130700003

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 1307000003

| Interval Time | Passenger Cars - South Approach | | | | | | Trucks - South Approach | | | | | | Heavys - South Approach | | | | | | Pedestrians | |
|---------------|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | South Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 6:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 7:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 7:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 36 |
| 8:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 |
| 8:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 18 |
| 8:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 24 |
| 8:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| 9:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 9:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 13 |
| 9:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 9:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 |
| 10:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| 10:00:06 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 15:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 11 |
| 15:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| 15:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 18 |
| 16:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 16:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 12 |
| 16:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| 16:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 19 |
| 17:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 20 |
| 17:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| 17:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 |
| 17:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 17 |
| 18:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 27 |
| 18:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 |
| 18:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 18:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 |
| 19:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 |
| 19:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 19:15:09 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

Ontario Traffic Inc.

Count Date: 15-May-13 **Site #:** 1307000003

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Toronto

Site #: 1307000001

Intersection: Bayview Ave & Armistice Dr

TFR File #: 5

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 3607

North Entering: 2015

North Peds: 13

Peds Cross: ☒

| | | | | |
|--------|---|------|-----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 1 | 45 | 4 | 50 |
| Cars | 3 | 1433 | 529 | 1965 |
| Totals | 4 | 1478 | 533 | |

East Leg Total: 851

East Entering: 272

East Peds: 13

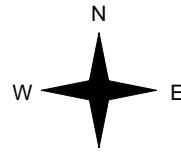
Peds Cross: ☒

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 2 | 6 | 8 |



Bayview Ave

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 |
| 0 | 2 | 2 | 4 |
| 0 | 2 | 3 | |



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 241 | 18 | 0 | 259 |
| 1 | 0 | 0 | 1 |
| 10 | 2 | 0 | 12 |
| 252 | 20 | 0 | |

| Peds Cross: | ☒ | Cars | 1445 |
|-----------------|----|--------|------|
| West Peds: | 8 | Trucks | 49 |
| West Entering: | 5 | Heavys | 0 |
| West Leg Total: | 13 | Totals | 1494 |



Bayview Ave

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 572 | 7 | 0 | 579 |

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:30:00

To: 18:30:00

Municipality: Toronto

Site #: 1307000001

Intersection: Bayview Ave & Armistice Dr

TFR File #: 5

Count date: 15-May-13

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Bayview Ave runs N/S

North Leg Total: 3580

North Entering: 1627

North Peds: 19

Peds Cross: ☒

| | | | | |
|--------|---|------|-----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 27 | 2 | 29 |
| Cars | 1 | 1474 | 123 | 1598 |
| Totals | 1 | 1501 | 125 | |

East Leg Total: 604

East Entering: 452

East Peds: 10

Peds Cross: ☒

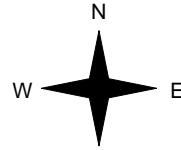
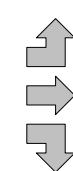
| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 0 | 0 | 0 | 0 |
| Totals | 0 | 0 | 0 | 0 |



Bayview Ave

| | | | | |
|--------|-----|----|---|-----|
| Cars | 368 | 20 | 0 | 388 |
| Trucks | 0 | 0 | 0 | 0 |
| Heavys | 64 | 0 | 0 | 64 |
| Totals | 432 | 20 | 0 | |

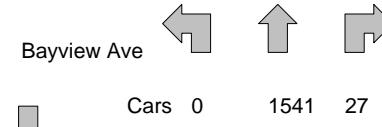
| | | | | |
|--------|---|---|---|---|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 0 | 0 | 4 | 4 |
| Totals | 0 | 0 | 4 | 4 |



Armistice Dr

| | | | | |
|--------|-----|---|---|-----|
| Cars | 150 | 2 | 0 | 152 |
| Trucks | 0 | 0 | 0 | 0 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 150 | 2 | 0 | 152 |

| | | | | |
|-----------------|---|--------|------|--|
| Peds Cross: | ☒ | Cars | 1539 | |
| West Peds: | 0 | Trucks | 27 | |
| West Entering: | 5 | Heavys | 0 | |
| West Leg Total: | 6 | Totals | 1566 | |



Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Toronto
Site #: 1307000001
Intersection: Bayview Ave & Armistice Dr
TFR File #: 5
Count date: 15-May-13

Weather conditions:

Person(s) who counted:

**** Signalized Intersection ****

Major Road: Bayview Ave runs N/S

North Leg Total: 25371

North Entering: 12926

North Peds: 106

Peds Cross: ☒

| | | | | |
|--------|----|-------|------|-------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 3 | 310 | 31 | 344 |
| Cars | 50 | 10006 | 2526 | 12582 |
| Totals | 53 | 10316 | 2557 | |

| | | | |
|--------|-------|--|--|
| Heavys | 0 | | |
| Trucks | 368 | | |
| Cars | 12077 | | |
| Totals | 12445 | | |

| | | | |
|-----------------|------|--|--|
| East Leg Total: | 5756 | | |
| East Entering: | 2989 | | |
| East Peds: | 99 | | |
| Peds Cross: | ☒ | | |

Heavys Trucks Cars Totals
0 6 66 72

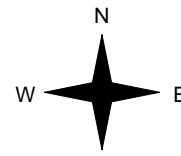


Bayview Ave

Heavys Trucks Cars Totals
0 4 45 49
0 0 0 0
0 3 12 15
0 7 57



Driveway



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 2455 | 141 | 0 | 2596 |
| 1 | 0 | 0 | 1 |
| 385 | 7 | 0 | 392 |
| 2841 | 148 | 0 | |

Armistice Dr

| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 2732 | 35 | 0 | 2767 |

Peds Cross: ☒
 West Peds: 77
 West Entering: 64
 West Leg Total: 136

| | | | |
|--------|-------|--|--|
| Cars | 10403 | | |
| Trucks | 320 | | |
| Heavys | 0 | | |
| Totals | 10723 | | |

| | | | | |
|--------|----|------|-----|------|
| Cars | 15 | 9577 | 206 | 9798 |
| Trucks | 3 | 223 | 4 | 230 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 18 | 9800 | 210 | |

| | | | |
|------------------|-------|--|--|
| Peds Cross: | ☒ | | |
| South Peds: | 117 | | |
| South Entering: | 10028 | | |
| South Leg Total: | 20751 | | |

Comments

Ontario Traffic Inc.

Traffic Count Summary

Intersection: Bayview Ave & Armistice Dr

Count Date: 15-May-13

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|---|---------------------------------|-------|-------|-------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|-------|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 349 | 754 | 25 | 1128 | 15 | 1560 | 7:00:00 | 6 | 410 | 16 | 432 |
| 8:00:00 | 622 | 1401 | 21 | 2044 | 11 | 3106 | 8:00:00 | 4 | 1021 | 37 | 1062 |
| 9:00:00 | 496 | 1451 | 4 | 1951 | 12 | 3282 | 9:00:00 | 3 | 1282 | 46 | 1331 |
| 10:00:00 | 498 | 1462 | 0 | 1960 | 7 | 3038 | 10:00:00 | 4 | 1016 | 58 | 1078 |
| 15:00:00 | 0 | 9 | 0 | 9 | 0 | 9 | 15:00:00 | 0 | 0 | 0 | 0 |
| 16:00:00 | 210 | 1149 | 2 | 1361 | 18 | 2986 | 16:00:00 | 0 | 1608 | 17 | 1625 |
| 17:00:00 | 131 | 1246 | 0 | 1377 | 12 | 2854 | 17:00:00 | 1 | 1471 | 5 | 1477 |
| 18:00:00 | 111 | 1417 | 0 | 1528 | 17 | 3011 | 18:00:00 | 0 | 1466 | 17 | 1483 |
| 19:00:00 | 138 | 1417 | 1 | 1556 | 14 | 3096 | 19:00:00 | 0 | 1526 | 14 | 1540 |
| Totals: | 2555 | 10306 | 53 | 12914 | 106 | 22942 | | 18 | 9800 | 210 | 10028 |
| | | | | | | | | | | | 117 |
| East Approach Totals | | | | | West Approach Totals | | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | East/West Total Approaches | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 2 | 0 | 72 | 74 | 14 | 74 | 7:00:00 | 0 | 0 | 0 | |
| 8:00:00 | 12 | 0 | 255 | 267 | 15 | 272 | 8:00:00 | 3 | 0 | 2 | |
| 9:00:00 | 15 | 1 | 183 | 199 | 7 | 204 | 9:00:00 | 1 | 0 | 4 | |
| 10:00:00 | 42 | 0 | 222 | 264 | 5 | 270 | 10:00:00 | 5 | 0 | 1 | |
| 15:00:00 | 2 | 0 | 1 | 3 | 0 | 3 | 15:00:00 | 0 | 0 | 0 | |
| 16:00:00 | 83 | 0 | 540 | 623 | 13 | 639 | 16:00:00 | 14 | 0 | 2 | |
| 17:00:00 | 119 | 0 | 546 | 665 | 20 | 682 | 17:00:00 | 14 | 0 | 3 | |
| 18:00:00 | 84 | 0 | 450 | 534 | 17 | 543 | 18:00:00 | 8 | 0 | 1 | |
| 19:00:00 | 33 | 0 | 325 | 358 | 8 | 364 | 19:00:00 | 4 | 0 | 2 | |
| Totals: | 392 | 1 | 2594 | 2987 | 99 | 3051 | | 49 | 0 | 15 | 64 |
| | | | | | | | | | | | 77 |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | 16:00 | 17:00 | 18:00 | 19:00 | | |
| Crossing Values: | 26 | 57 | 47 | 65 | | 135 | 158 | 116 | 59 | | |

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 130700001

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 130700001

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 130700001

Ontario Traffic Inc.

Count Date: 15-May-13 Site #: 130700001

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Toronto

Site #: 1213100004

Intersection: Mt. Pleasant Rd & Blythwood Rd

TFR File #: 12

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 2055

North Entering: 1043

North Peds:

Peds Cross: ☒

| | | | | |
|--------|----|-----|----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 13 | 0 | 13 |
| Cars | 62 | 934 | 34 | 1030 |
| Totals | 62 | 947 | 34 | |

Heavys 0

Trucks 10

Cars 1002

Totals 1012

East Leg Total: 897

East Entering: 307

East Peds: 7

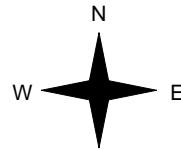
Peds Cross: ☒

Heavys Trucks Cars Totals
0 1 266 267



Mt. Pleasant Rd

Blythwood Rd



Heavys Trucks Cars Totals
0 1 33 34
0 2 340 342
0 3 51 54
0 6 424



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 50 | 1 | 0 | 51 |
| 176 | 0 | 0 | 176 |
| 78 | 2 | 0 | 80 |
| 304 | 3 | 0 | |

Blythwood Rd



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 587 | 3 | 0 | 590 |

Peds Cross: ☒
West Peds: 3
West Entering: 430
West Leg Total: 697

Cars 1063
Trucks 18
Heavys 0
Totals 1081

Cars 28 919 213 1160
Trucks 1 8 1 10
Heavys 0 0 0 0
Totals 29 927 214

Peds Cross: ☐
South Peds: 34
South Entering: 1170
South Leg Total: 2251

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:15:00

To: 18:15:00

Municipality: Toronto

Site #: 1213100004

Intersection: Mt. Pleasant Rd & Blythwood Rd

TFR File #: 12

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 2020

North Entering: 812

North Peds:

Peds Cross: ☒

| | | | | |
|--------|----|-----|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 3 | 2 | 5 |
| Cars | 21 | 759 | 27 | 807 |
| Totals | 21 | 762 | 29 | |

Heavys 0

Trucks 11

Cars 1197

Totals 1208

East Leg Total: 872

East Entering: 456

East Peds:

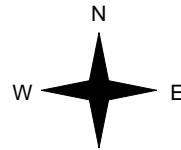
Peds Cross: ☒

Heavys Trucks Cars Totals
0 2 322 324



Mt. Pleasant Rd

Blythwood Rd



Heavys Trucks Cars Totals
0 0 32 32
0 0 237 237
0 0 59 59
0 0 328 328



Cars Trucks Heavys Totals
46 2 0 48
233 2 0 235
172 1 0 173
451 5 0

Blythwood Rd

Cars Trucks Heavys Totals
413 3 0 416

Peds Cross: ☒
West Peds: 10
West Entering: 328
West Leg Total: 652

Cars 990
Trucks 4
Heavys 0
Totals 994

Cars 68 1119 149 1336
Trucks 0 9 1 10
Heavys 0 0 0 0
Totals 68 1128 150

Peds Cross: ☐
South Peds: 23
South Entering: 1346
South Leg Total: 2340

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto

Site #: 1213100004

Intersection: Mt. Pleasant Rd & Blythwood Rd

TFR File #: 12

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

**** Signalized Intersection ****

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 12553

North Entering: 6016

North Peds: 30

Peds Cross: ☒

| | | | | |
|--------|-----|------|-----|------|
| Heavys | 0 | 1 | 0 | 1 |
| Trucks | 4 | 104 | 10 | 118 |
| Cars | 220 | 5437 | 240 | 5897 |
| Totals | 224 | 5542 | 250 | |

Heavys 2

Trucks 118

Cars 6417

Totals 6537

East Leg Total: 5207

East Entering: 2464

East Peds: 56

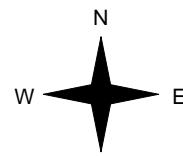
Peds Cross: ☒

Heavys Trucks Cars Totals
0 24 1826 1850



Mt. Pleasant Rd

Blythwood Rd



Heavys Trucks Cars Totals
0 3 185 188
0 16 1452 1468
0 4 326 330
0 23 1963



Mt. Pleasant Rd

Cars Trucks Heavys Totals
260 13 0 273
1321 13 0 1334
848 7 2 857
2429 33 2

Blythwood Rd

Cars Trucks Heavys Totals
2709 34 0 2743

Peds Cross: ☒
West Peds: 47
West Entering: 1986
West Leg Total: 3836

Cars 6611
Trucks 115
Heavys 3
Totals 6729

Cars 285 5972 1017 7274
Trucks 7 102 8 117
Heavys 0 2 0 2
Totals 292 6076 1025

Peds Cross: ☐
South Peds: 217
South Entering: 7393
South Leg Total: 14122

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Mt. Pleasant Rd & Blythwood Rd

Count Date: 6-Nov-12

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|-----------------------|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|------|-------|-------------|------|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 16 | 289 | 0 | 305 | 0 | 564 | 7:00:00 | 10 | 212 | 37 | 259 |
| 8:00:00 | 46 | 873 | 42 | 961 | 7 | 1759 | 8:00:00 | 24 | 606 | 168 | 798 |
| 9:00:00 | 41 | 940 | 48 | 1029 | 1 | 2173 | 9:00:00 | 33 | 927 | 184 | 1144 |
| 10:00:00 | 40 | 785 | 20 | 845 | 3 | 1486 | 10:00:00 | 12 | 528 | 101 | 641 |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | 0 |
| 16:00:00 | 35 | 557 | 41 | 633 | 6 | 1643 | 16:00:00 | 42 | 847 | 121 | 1010 |
| 17:00:00 | 18 | 678 | 33 | 729 | 1 | 1886 | 17:00:00 | 41 | 982 | 134 | 1157 |
| 18:00:00 | 27 | 755 | 29 | 811 | 11 | 2109 | 18:00:00 | 67 | 1082 | 149 | 1298 |
| 19:00:00 | 27 | 665 | 11 | 703 | 1 | 1789 | 19:00:00 | 63 | 892 | 131 | 1086 |
| Totals: | 250 | 5542 | 224 | 6016 | 30 | 13409 | | 292 | 6076 | 1025 | 7393 |
| | | | | | | | | | | | 217 |

| East Approach Totals | | | | | East/West Total Approaches | West Approach Totals | | | | | |
|----------------------|---------------------------------|------|-------|-------------|----------------------------|----------------------|---------------------------------|------|-------|-------------|------|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 26 | 27 | 2 | 55 | 6 | 103 | 7:00:00 | 4 | 29 | 15 | 48 |
| 8:00:00 | 76 | 135 | 26 | 237 | 3 | 484 | 8:00:00 | 16 | 180 | 51 | 247 |
| 9:00:00 | 88 | 163 | 54 | 305 | 7 | 741 | 9:00:00 | 42 | 347 | 47 | 436 |
| 10:00:00 | 118 | 124 | 25 | 267 | 10 | 510 | 10:00:00 | 17 | 193 | 33 | 243 |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | 0 |
| 16:00:00 | 118 | 228 | 36 | 382 | 11 | 605 | 16:00:00 | 36 | 139 | 48 | 223 |
| 17:00:00 | 130 | 209 | 42 | 381 | 6 | 642 | 17:00:00 | 25 | 196 | 40 | 261 |
| 18:00:00 | 150 | 212 | 48 | 410 | 7 | 680 | 18:00:00 | 23 | 192 | 55 | 270 |
| 19:00:00 | 151 | 236 | 40 | 427 | 6 | 685 | 19:00:00 | 25 | 192 | 41 | 258 |
| Totals: | 857 | 1334 | 273 | 2464 | 56 | 4450 | | 188 | 1468 | 330 | 1986 |
| | | | | | | | | | | | 47 |

Calculated Values for Traffic Crossing Major Street

| | | | | | | | | |
|------------------|------|------|------|-------|-------|-------|-------|-------|
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | 16:00 | 17:00 | 18:00 | 19:00 |
| Crossing Values: | 63 | 289 | 526 | 359 | 437 | 407 | 422 | 423 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100004

| Interval Time | Passenger Cars - North Approach | | | | | | Trucks - North Approach | | | | | | Heavys - North Approach | | | | | | Pedestrians | |
|---------------|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | North Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 0 | 0 | 34 | 34 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30:00 | 1 | 1 | 89 | 55 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45:00 | 6 | 5 | 177 | 88 | 0 | 0 | 3 | 1 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:00:00 | 13 | 7 | 281 | 104 | 0 | 0 | 3 | 0 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15:00 | 20 | 7 | 455 | 174 | 6 | 6 | 3 | 0 | 17 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:30:00 | 36 | 16 | 657 | 202 | 9 | 3 | 3 | 0 | 23 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 7:45:00 | 48 | 12 | 886 | 229 | 19 | 10 | 3 | 0 | 26 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:00:00 | 59 | 11 | 1131 | 245 | 41 | 22 | 3 | 0 | 31 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:15:00 | 65 | 6 | 1378 | 247 | 54 | 13 | 3 | 0 | 35 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:30:00 | 71 | 6 | 1574 | 196 | 67 | 13 | 3 | 0 | 36 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 8:45:00 | 82 | 11 | 1820 | 246 | 81 | 14 | 3 | 0 | 39 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 9:00:00 | 100 | 18 | 2058 | 238 | 89 | 8 | 3 | 0 | 44 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 9:15:00 | 113 | 13 | 2231 | 173 | 94 | 5 | 6 | 3 | 50 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 9:30:00 | 122 | 9 | 2443 | 212 | 102 | 8 | 7 | 1 | 59 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 9:45:00 | 130 | 8 | 2630 | 187 | 105 | 3 | 7 | 0 | 68 | 9 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 11 |
| 10:00:00 | 136 | 6 | 2816 | 186 | 108 | 3 | 7 | 0 | 70 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 10:02:22 | 136 | 0 | 2816 | 0 | 108 | 0 | 7 | 0 | 70 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 14:45:00 | 136 | 0 | 2816 | 0 | 108 | 0 | 7 | 0 | 70 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 15:00:00 | 136 | 0 | 2816 | 0 | 108 | 0 | 7 | 0 | 70 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 15:15:00 | 147 | 11 | 2932 | 116 | 122 | 14 | 7 | 0 | 75 | 5 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 15:30:00 | 156 | 9 | 3055 | 123 | 130 | 8 | 7 | 0 | 79 | 4 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 13 |
| 15:45:00 | 163 | 7 | 3195 | 140 | 138 | 8 | 7 | 0 | 85 | 6 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 14 |
| 16:00:00 | 171 | 8 | 3355 | 160 | 147 | 9 | 7 | 0 | 88 | 3 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 17 |
| 16:15:00 | 174 | 3 | 3514 | 159 | 162 | 15 | 7 | 0 | 89 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 18 |
| 16:30:00 | 179 | 5 | 3675 | 161 | 167 | 5 | 7 | 0 | 90 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 18 |
| 16:45:00 | 187 | 8 | 3862 | 187 | 173 | 6 | 7 | 0 | 92 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 18 |
| 17:00:00 | 189 | 2 | 4028 | 166 | 180 | 7 | 7 | 0 | 93 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 18 |
| 17:15:00 | 197 | 8 | 4209 | 181 | 191 | 11 | 8 | 1 | 94 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 19 |
| 17:30:00 | 203 | 6 | 4396 | 187 | 195 | 4 | 8 | 0 | 95 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 27 |
| 17:45:00 | 209 | 6 | 4583 | 187 | 199 | 4 | 9 | 1 | 95 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 29 |
| 18:00:00 | 214 | 5 | 4781 | 198 | 209 | 10 | 9 | 0 | 95 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 29 |
| 18:15:00 | 224 | 10 | 4968 | 187 | 212 | 3 | 10 | 1 | 97 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 29 |
| 18:30:00 | 234 | 10 | 5130 | 162 | 214 | 2 | 10 | 0 | 100 | 3 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 29 |
| 18:45:00 | 237 | 3 | 5287 | 157 | 219 | 5 | 10 | 0 | 102 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 30 |
| 19:00:00 | 240 | 3 | 5437 | 150 | 220 | 1 | 10 | 0 | 104 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 30 |
| 19:15:00 | 240 | 0 | 5437 | 0 | 220 | 0 | 10 | 0 | 104 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 30 |
| 19:15:33 | 240 | 0 | 5437 | 0 | 220 | 0 | 10 | 0 | 104 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 30 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100004

| Interval Time | Passenger Cars - East Approach | | | | | | Trucks - East Approach | | | | | | Heavys - East Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | East Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 4 | 4 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6:30:00 | 8 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 6:45:00 | 12 | 4 | 12 | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 7:00:00 | 24 | 12 | 25 | 13 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 7:15:00 | 36 | 12 | 42 | 17 | 4 | 3 | 0 | 0 | 3 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 7:30:00 | 53 | 17 | 78 | 36 | 8 | 4 | 0 | 0 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 7:45:00 | 76 | 23 | 108 | 30 | 14 | 6 | 0 | 0 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 8:00:00 | 100 | 24 | 159 | 51 | 26 | 12 | 0 | 0 | 3 | 0 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 8:15:00 | 121 | 21 | 208 | 49 | 41 | 15 | 1 | 1 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 8:30:00 | 131 | 10 | 242 | 34 | 58 | 17 | 1 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 8:45:00 | 154 | 23 | 284 | 42 | 64 | 6 | 2 | 1 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 9:00:00 | 186 | 32 | 322 | 38 | 79 | 15 | 2 | 0 | 3 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 9:15:00 | 221 | 35 | 363 | 41 | 88 | 9 | 2 | 0 | 4 | 1 | 4 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 9:30:00 | 246 | 25 | 393 | 30 | 91 | 3 | 2 | 0 | 4 | 0 | 7 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 9:45:00 | 274 | 28 | 418 | 25 | 95 | 4 | 3 | 1 | 4 | 0 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 10:00:00 | 303 | 29 | 445 | 27 | 100 | 5 | 3 | 0 | 4 | 0 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 10:02:22 | 303 | 0 | 445 | 0 | 100 | 0 | 3 | 0 | 4 | 0 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 14:45:00 | 303 | 0 | 445 | 0 | 100 | 0 | 3 | 0 | 4 | 0 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 15:00:00 | 303 | 0 | 445 | 0 | 100 | 0 | 3 | 0 | 4 | 0 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 15:15:00 | 329 | 26 | 501 | 56 | 106 | 6 | 4 | 1 | 5 | 1 | 8 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 15:30:00 | 357 | 28 | 555 | 54 | 113 | 7 | 5 | 1 | 7 | 2 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 15:45:00 | 388 | 31 | 619 | 64 | 122 | 9 | 5 | 0 | 7 | 0 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 16:00:00 | 419 | 31 | 669 | 50 | 135 | 13 | 5 | 0 | 8 | 1 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 16:15:00 | 459 | 40 | 720 | 51 | 138 | 3 | 5 | 0 | 9 | 1 | 9 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 16:30:00 | 491 | 32 | 778 | 58 | 146 | 8 | 5 | 0 | 9 | 0 | 10 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 16:45:00 | 525 | 34 | 822 | 44 | 159 | 13 | 5 | 0 | 10 | 1 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 17:00:00 | 549 | 24 | 876 | 54 | 174 | 15 | 5 | 0 | 10 | 0 | 11 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 17:15:00 | 580 | 31 | 929 | 53 | 188 | 14 | 5 | 0 | 11 | 1 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| 17:30:00 | 626 | 46 | 987 | 58 | 202 | 14 | 5 | 0 | 13 | 2 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 17:45:00 | 653 | 27 | 1032 | 45 | 208 | 6 | 5 | 0 | 13 | 0 | 13 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 18:00:00 | 699 | 46 | 1085 | 53 | 220 | 12 | 5 | 0 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 18:15:00 | 752 | 53 | 1162 | 77 | 234 | 14 | 6 | 1 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| 18:30:00 | 796 | 44 | 1238 | 76 | 239 | 5 | 7 | 1 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 18:45:00 | 826 | 30 | 1296 | 58 | 255 | 16 | 7 | 0 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 19:00:00 | 848 | 22 | 1321 | 25 | 260 | 5 | 7 | 0 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 19:15:00 | 848 | 0 | 1321 | 0 | 260 | 0 | 7 | 0 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 19:15:33 | 848 | 0 | 1321 | 0 | 260 | 0 | 7 | 0 | 13 | 0 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100004

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Toronto

Site #: 1213100005

Intersection: Mt. Pleasant Rd & Glengowan Rd

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 2005

North Entering: 1058

North Peds: 0

Peds Cross: ☒

| | | | | |
|--------|---|------|----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 1 | 9 | 4 | 14 |
| Cars | 2 | 1029 | 13 | 1044 |
| Totals | 3 | 1038 | 17 | |

East Leg Total: 78

East Entering: 41

East Peds: 2

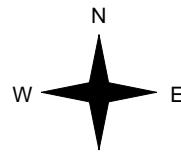
Peds Cross: ☒

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 1 | 8 | 9 |



Mt. Pleasant Rd

Glengowan Rd



| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 0 | 2 | 2 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 2 | 2 |
| 0 | 0 | 4 | 4 |



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 10 | 1 | 0 | 11 |
| 0 | 0 | 0 | 0 |
| 30 | 0 | 0 | 30 |
| 40 | 1 | 0 | |

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 33 | 4 | 0 | 37 |

| Peds Cross: | ☒ |
|-----------------|----|
| West Peds: | 3 |
| West Entering: | 4 |
| West Leg Total: | 13 |

| Cars | 1061 |
|--------|------|
| Trucks | 9 |
| Heavys | 0 |
| Totals | 1070 |

| Cars | 6 | 930 | 20 | 956 |
|--------|---|-----|----|-----|
| Trucks | 0 | 4 | 0 | 4 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 6 | 934 | 20 | |

| Peds Cross: | ☒ |
|------------------|------|
| South Peds: | 0 |
| South Entering: | 960 |
| South Leg Total: | 2030 |

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:15:00

To: 18:15:00

Municipality: Toronto

Site #: 1213100005

Intersection: Mt. Pleasant Rd & Glengowan Rd

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 1977

North Entering: 801

North Peds: 4

Peds Cross: ☒

| | | | | |
|--------|----|-----|---|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 2 | 1 | 3 |
| Cars | 14 | 776 | 8 | 798 |
| Totals | 14 | 778 | 9 | |

Heavys 8

Trucks 12

Cars 1156

Totals 1176

East Leg Total: 58

East Entering: 29

East Peds: 6

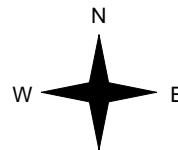
Peds Cross: ☒

Heavys Trucks Cars Totals
0 1 26 27



Mt. Pleasant Rd

Glengowan Rd



Heavys Trucks Cars Totals
8 1 2 11
0 0 0 0
0 0 2 2
8 1 4

Mt. Pleasant Rd

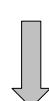
| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 15 | 0 | 0 | 15 |
| 1 | 0 | 0 | 1 |
| 13 | 0 | 0 | 13 |
| 29 | 0 | 0 | |

Glengowan Rd

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 28 | 1 | 0 | 29 |

Peds Cross: ☒
West Peds: 6
West Entering: 13
West Leg Total: 40

Cars 791
Trucks 2
Heavys 0
Totals 793



| | | | | |
|--------|----|------|----|------|
| Cars | 11 | 1139 | 20 | 1170 |
| Trucks | 1 | 11 | 0 | 12 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 12 | 1150 | 20 | |

Peds Cross: ☐
South Peds: 1
South Entering: 1182
South Leg Total: 1975

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto

Site #: 1213100005

Intersection: Mt. Pleasant Rd & Glengowan Rd

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

**** Signalized Intersection ****

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 12173

North Entering: 5864

North Peds: 36

Peds Cross: ☒

| | | | | |
|--------|----|------|-----|------|
| Heavys | 0 | 0 | 6 | 6 |
| Trucks | 1 | 89 | 17 | 107 |
| Cars | 36 | 5637 | 78 | 5751 |
| Totals | 37 | 5726 | 101 | |

Heavys 13

Trucks 103

Cars 6193

Totals 6309

East Leg Total: 556

East Entering: 290

East Peds: 49

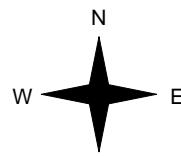
Peds Cross: ☒

Heavys Trucks Cars Totals
0 2 103 105



Mt. Pleasant Rd

Glengowan Rd



Heavys Trucks Cars Totals
12 2 21 35
0 0 9 9
11 3 19 33
23 5 49



Mt. Pleasant Rd

Cars Trucks Heavys Totals
95 6 0 101
9 0 0 9
178 2 0 180
282 8 0

Glengowan Rd

Cars Trucks Heavys Totals
233 27 6 266

Peds Cross: ☒
West Peds: 37
West Entering: 77
West Leg Total: 182

Cars 5834
Trucks 94
Heavys 11
Totals 5939

Cars 58 6077 146 6281
Trucks 1 95 10 106
Heavys 0 1 0 1
Totals 59 6173 156

Peds Cross: ☐
South Peds: 6
South Entering: 6388
South Leg Total: 12327

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Mt. Pleasant Rd & Glengowan Rd

Count Date: 6-Nov-12

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|---|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|------|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 10 | 331 | 0 | 341 | 1 | 563 | 7:00:00 | 0 | 220 | 2 | 222 |
| 8:00:00 | 9 | 969 | 4 | 982 | 3 | 1607 | 8:00:00 | 7 | 613 | 5 | 625 |
| 9:00:00 | 17 | 999 | 2 | 1018 | 0 | 1986 | 9:00:00 | 6 | 922 | 40 | 968 |
| 10:00:00 | 12 | 687 | 1 | 700 | 1 | 1222 | 10:00:00 | 3 | 509 | 10 | 522 |
| 15:00:00 | 0 | 9 | 0 | 9 | 0 | 26 | 15:00:00 | 0 | 17 | 0 | 17 |
| 16:00:00 | 18 | 572 | 7 | 597 | 6 | 1496 | 16:00:00 | 6 | 855 | 38 | 899 |
| 17:00:00 | 19 | 679 | 2 | 700 | 16 | 1722 | 17:00:00 | 6 | 995 | 21 | 1022 |
| 18:00:00 | 8 | 789 | 15 | 812 | 3 | 1968 | 18:00:00 | 3 | 1128 | 25 | 1156 |
| 19:00:00 | 8 | 683 | 6 | 697 | 6 | 1648 | 19:00:00 | 28 | 908 | 15 | 951 |
| Totals: | 101 | 5718 | 37 | 5856 | 36 | 12238 | | 59 | 6167 | 156 | 6382 |
| | | | | | | | | | | | 6 |
| East Approach Totals | | | | | West Approach Totals | | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | East/West Total Approaches | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 1 | 3 | 7 | 11 | 7 | 21 | 7:00:00 | 2 | 6 | 2 | 10 |
| 8:00:00 | 18 | 0 | 8 | 26 | 5 | 35 | 8:00:00 | 3 | 0 | 6 | 9 |
| 9:00:00 | 37 | 0 | 11 | 48 | 5 | 52 | 9:00:00 | 2 | 0 | 2 | 4 |
| 10:00:00 | 29 | 0 | 7 | 36 | 9 | 44 | 10:00:00 | 6 | 1 | 1 | 8 |
| 15:00:00 | 0 | 0 | 1 | 1 | 0 | 1 | 15:00:00 | 0 | 0 | 0 | 0 |
| 16:00:00 | 34 | 2 | 19 | 55 | 8 | 69 | 16:00:00 | 3 | 0 | 11 | 14 |
| 17:00:00 | 36 | 2 | 19 | 57 | 2 | 70 | 17:00:00 | 5 | 2 | 6 | 13 |
| 18:00:00 | 12 | 0 | 21 | 33 | 4 | 45 | 18:00:00 | 7 | 0 | 5 | 12 |
| 19:00:00 | 13 | 2 | 8 | 23 | 9 | 30 | 19:00:00 | 7 | 0 | 0 | 7 |
| Totals: | 180 | 9 | 101 | 290 | 49 | 367 | | 35 | 9 | 33 | 77 |
| | | | | | | | | | | | 37 |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | 16:00 | 17:00 | 18:00 | 19:00 | | |
| Crossing Values: | 10 | 24 | 39 | 38 | | 46 | 61 | 22 | 30 | | |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100005

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100005

| Interval Time | Passenger Cars - South Approach | | | | | | Trucks - South Approach | | | | | | Heavys - South Approach | | | | | | Pedestrians | | |
|---------------|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|---|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | South Cross | | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 0 | 0 | 27 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30:00 | 0 | 0 | 68 | 41 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45:00 | 0 | 0 | 132 | 64 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:00:00 | 0 | 0 | 217 | 85 | 2 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15:00 | 1 | 1 | 309 | 92 | 3 | 1 | 0 | 0 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30:00 | 2 | 1 | 442 | 133 | 4 | 1 | 0 | 0 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45:00 | 4 | 2 | 604 | 162 | 4 | 0 | 0 | 0 | 14 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00:00 | 7 | 3 | 818 | 214 | 7 | 3 | 0 | 0 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15:00 | 9 | 2 | 1062 | 244 | 8 | 1 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30:00 | 10 | 1 | 1309 | 247 | 12 | 4 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45:00 | 10 | 0 | 1534 | 225 | 24 | 12 | 0 | 0 | 18 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00:00 | 13 | 3 | 1734 | 200 | 47 | 23 | 0 | 0 | 21 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15:00 | 13 | 0 | 1888 | 154 | 50 | 3 | 0 | 0 | 27 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9:30:00 | 15 | 2 | 2016 | 128 | 54 | 4 | 0 | 0 | 29 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 9:45:00 | 16 | 1 | 2115 | 99 | 55 | 1 | 0 | 0 | 32 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 10:00:00 | 16 | 0 | 2229 | 114 | 57 | 2 | 0 | 0 | 35 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 10:00:23 | 16 | 0 | 2237 | 8 | 57 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 15:00:00 | 16 | 0 | 2246 | 9 | 57 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 15:15:00 | 16 | 0 | 2407 | 161 | 60 | 3 | 0 | 0 | 40 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 15:30:00 | 17 | 1 | 2597 | 190 | 67 | 7 | 0 | 0 | 45 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 15:45:00 | 19 | 2 | 2848 | 251 | 78 | 11 | 0 | 0 | 52 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 16:00:00 | 22 | 3 | 3079 | 231 | 94 | 16 | 0 | 0 | 56 | 4 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 |
| 16:15:00 | 22 | 0 | 3298 | 219 | 97 | 3 | 0 | 0 | 61 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 1 |
| 16:30:00 | 24 | 2 | 3568 | 270 | 102 | 5 | 0 | 0 | 64 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |
| 16:45:00 | 25 | 1 | 3818 | 250 | 104 | 2 | 0 | 0 | 68 | 4 | 10 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 1 |
| 17:00:00 | 28 | 3 | 4060 | 242 | 106 | 2 | 0 | 0 | 70 | 2 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 17:15:00 | 28 | 0 | 4303 | 243 | 114 | 8 | 0 | 0 | 76 | 6 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 17:30:00 | 28 | 0 | 4593 | 290 | 118 | 4 | 0 | 0 | 83 | 7 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 17:45:00 | 29 | 1 | 4898 | 305 | 124 | 6 | 0 | 0 | 85 | 2 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 18:00:00 | 31 | 2 | 5172 | 274 | 131 | 7 | 0 | 0 | 86 | 1 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 |
| 18:15:00 | 39 | 8 | 5442 | 270 | 134 | 3 | 1 | 1 | 87 | 1 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 1 |
| 18:30:00 | 55 | 16 | 5692 | 250 | 142 | 8 | 1 | 0 | 92 | 5 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 |
| 18:45:00 | 57 | 2 | 5898 | 206 | 143 | 1 | 1 | 0 | 93 | 1 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 1 |
| 19:00:00 | 58 | 1 | 6071 | 173 | 146 | 3 | 1 | 0 | 95 | 2 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 |
| 19:15:00 | 58 | 0 | 6077 | 6 | 146 | 0 | 1 | 0 | 95 | 0 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 |
| 19:15:39 | 58 | 0 | 6077 | 0 | 146 | 0 | 1 | 0 | 95 | 0 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100005

| Interval Time | Passenger Cars - West Approach | | | | | | Trucks - West Approach | | | | | | Heavys - West Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | West Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15:00 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6:30:00 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6:45:00 | 2 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 7:00:00 | 2 | 0 | 6 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 7:15:00 | 4 | 2 | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 7:30:00 | 4 | 0 | 6 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 7:45:00 | 5 | 1 | 6 | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 8:00:00 | 5 | 0 | 6 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 8:15:00 | 7 | 2 | 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 8:30:00 | 7 | 0 | 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 8:45:00 | 7 | 0 | 6 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 9:00:00 | 7 | 0 | 6 | 0 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 9:15:00 | 8 | 1 | 6 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 9:30:00 | 10 | 2 | 7 | 1 | 10 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 9:45:00 | 10 | 0 | 7 | 0 | 10 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 10:00:00 | 12 | 2 | 7 | 0 | 10 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 10:00:23 | 12 | 0 | 7 | 0 | 10 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 15:00:00 | 12 | 0 | 7 | 0 | 10 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 15:15:00 | 12 | 0 | 7 | 0 | 14 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 13 |
| 15:30:00 | 13 | 1 | 7 | 0 | 14 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 14 |
| 15:45:00 | 14 | 1 | 7 | 0 | 15 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 19 |
| 16:00:00 | 15 | 1 | 7 | 0 | 15 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 21 |
| 16:15:00 | 15 | 0 | 8 | 1 | 15 | 0 | 1 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 24 |
| 16:30:00 | 17 | 2 | 8 | 0 | 16 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 6 | 0 | 24 |
| 16:45:00 | 18 | 1 | 8 | 0 | 16 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 9 | 3 | 25 |
| 17:00:00 | 18 | 0 | 9 | 1 | 16 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 9 | 0 | 26 |
| 17:15:00 | 18 | 0 | 9 | 0 | 17 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 11 | 2 | 26 |
| 17:30:00 | 19 | 1 | 9 | 0 | 17 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 11 | 0 | 27 |
| 17:45:00 | 20 | 1 | 9 | 0 | 18 | 1 | 2 | 1 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 11 | 0 | 27 |
| 18:00:00 | 20 | 0 | 9 | 0 | 19 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 6 | 3 | 0 | 0 | 0 | 11 | 0 | 30 |
| 18:15:00 | 20 | 0 | 9 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 11 | 5 | 0 | 0 | 0 | 11 | 0 | 32 |
| 18:30:00 | 21 | 1 | 9 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 12 | 1 | 0 | 0 | 0 | 11 | 0 | 34 |
| 18:45:00 | 21 | 0 | 9 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 35 |
| 19:00:00 | 21 | 0 | 9 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 37 |
| 19:15:00 | 21 | 0 | 9 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 37 |
| 19:15:39 | 21 | 0 | 9 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 37 |

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Toronto

Site #: 1213100006

Intersection: Mt. Pleasant Rd & Dawlish Ave

TFR File #: 3

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Non-Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 1827

North Entering: 1005

North Peds:

Peds Cross: ☒

| | | | | |
|--------|---|-----|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 17 | 0 | 17 |
| Cars | 1 | 975 | 12 | 988 |
| Totals | 1 | 992 | 12 | |

Heavys 0

Trucks 9

Cars 813

Totals 822

East Leg Total: 62

East Entering: 24

East Peds: 3

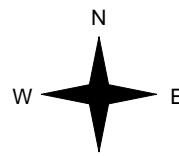
Peds Cross: ☒

Heavys Trucks Cars Totals
0 0 139 139



Mt. Pleasant Rd

Dawlish Ave



Heavys Trucks Cars Totals
0 0 1 1
0 1 3 4
0 0 59 59
0 1 63

Mt. Pleasant Rd

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 8 | 0 | 0 | 8 |
| 3 | 0 | 0 | 3 |
| 13 | 0 | 0 | 13 |
| 24 | 0 | 0 | |

Dawlish Ave

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 37 | 1 | 0 | 38 |

Peds Cross: ☒
West Peds: 0
West Entering: 64
West Leg Total: 203

Cars 1047
Trucks 17
Heavys 0
Totals 1064

Cars 135 804 22 961
Trucks 0 9 0 9
Heavys 0 0 0 0
Totals 135 813 22

Peds Cross: ☐
South Peds: 1
South Entering: 970
South Leg Total: 2034

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:00:00

To: 18:00:00

Municipality: Toronto

Site #: 1213100006

Intersection: Mt. Pleasant Rd & Dawlish Ave

TFR File #: 3

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Non-Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 1785

North Entering: 752

North Peds:

Peds Cross:

| | | | | |
|--------|---|-----|---|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 1 | 4 | 0 | 5 |
| Cars | 4 | 738 | 5 | 747 |
| Totals | 5 | 742 | 5 | |

Heavys 0

Trucks 16

Cars 1017

Totals 1033

East Leg Total: 57

East Entering: 14

East Peds:

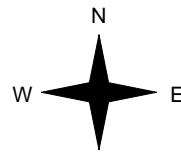
Peds Cross:

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 1 | 123 | 124 |



Mt. Pleasant Rd

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 0 | 1 | 1 |
| 0 | 0 | 2 | 2 |
| 0 | 1 | 50 | 51 |
| 0 | 1 | 53 | |



Dawlish Ave

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 6 | 0 | 0 | 6 |
| 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 8 |
| 14 | 0 | 0 | |

Dawlish Ave

| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 43 | 0 | 0 | 43 |

| Peds Cross: | ☒ |
|-----------------|-----|
| West Peds: | 4 |
| West Entering: | 54 |
| West Leg Total: | 178 |

| Cars | 796 |
|--------|-----|
| Trucks | 5 |
| Heavys | 0 |
| Totals | 801 |

| Cars | 119 | 1010 | 36 | 1165 |
|--------|-----|------|----|------|
| Trucks | 0 | 16 | 0 | 16 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 119 | 1026 | 36 | |

| Peds Cross: | ☒ |
|------------------|------|
| South Peds: | 1 |
| South Entering: | 1181 |
| South Leg Total: | 1982 |

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto
Site #: 1213100006
Intersection: Mt. Pleasant Rd & Dawlish Ave
TFR File #: 3
Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Non-Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 11283

North Entering: 5583

North Peds:

Peds Cross: ☒

| | | | | |
|--------|----|------|----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 1 | 114 | 3 | 118 |
| Cars | 20 | 5401 | 44 | 5465 |
| Totals | 21 | 5515 | 47 | |

Heavys 0

Trucks 114

Cars 5586

Totals 5700

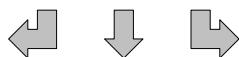
East Leg Total: 364

East Entering: 153

East Peds: 23

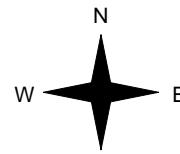
Peds Cross: ☒

Heavys Trucks Cars Totals
0 2 649 651



Mt. Pleasant Rd

Dawlish Ave



Heavys Trucks Cars Totals
0 2 10 12
0 2 25 27
0 1 296 297
0 5 331



Mt. Pleasant Rd

Cars Trucks Heavys Totals
29 2 0 31
35 0 0 35
87 0 0 87
151 2 0

Dawlish Ave

Cars Trucks Heavys Totals
205 6 0 211

Peds Cross: ☒
West Peds: 27
West Entering: 336
West Leg Total: 987

Cars 5784
Trucks 115
Heavys 0
Totals 5899

Cars 594 5547 136 6277
Trucks 1 110 1 112
Heavys 0 0 0 0
Totals 595 5657 137

Peds Cross: ☐
South Peds: 16
South Entering: 6389
South Leg Total: 12288

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Mt. Pleasant Rd & Dawlish Ave

Count Date: 6-Nov-12

Municipality: Toronto

North Approach Totals

| Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds | North/South Total Approaches | Hour Ending | South Approach Totals | | | | Total Peds |
|-------------|---------------------------------|------|-------|-------------|------------|------------------------------|-------------|-----------------------|------|-------|-------------|------------|
| | Left | Thru | Right | Grand Total | | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 5 | 1 | 6 | 0 | 11 | 6:00:00 | 1 | 4 | 0 | 5 | 0 |
| 7:00:00 | 2 | 307 | 0 | 309 | 2 | 535 | 7:00:00 | 15 | 210 | 1 | 226 | 0 |
| 8:00:00 | 7 | 904 | 2 | 913 | 1 | 1559 | 8:00:00 | 63 | 582 | 1 | 646 | 1 |
| 9:00:00 | 10 | 961 | 1 | 972 | 0 | 1929 | 9:00:00 | 127 | 802 | 28 | 957 | 1 |
| 10:00:00 | 6 | 701 | 2 | 709 | 2 | 1259 | 10:00:00 | 36 | 507 | 7 | 550 | 4 |
| 15:00:00 | 0 | 6 | 0 | 6 | 0 | 16 | 15:00:00 | 3 | 7 | 0 | 10 | 0 |
| 16:00:00 | 8 | 564 | 3 | 575 | 0 | 1459 | 16:00:00 | 72 | 794 | 18 | 884 | 5 |
| 17:00:00 | 7 | 663 | 6 | 676 | 1 | 1682 | 17:00:00 | 83 | 895 | 28 | 1006 | 1 |
| 18:00:00 | 5 | 742 | 5 | 752 | 1 | 1933 | 18:00:00 | 119 | 1026 | 36 | 1181 | 1 |
| 19:00:00 | 2 | 660 | 1 | 663 | 1 | 1587 | 19:00:00 | 76 | 830 | 18 | 924 | 3 |
| Totals: | 47 | 5513 | 21 | 5581 | 8 | 11970 | | 595 | 5657 | 137 | 6389 | 16 |

East Approach Totals

| Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds | East/West Total Approaches | Hour Ending | West Approach Totals | | | | Total Peds |
|-------------|---------------------------------|------|-------|-------------|------------|----------------------------|-------------|----------------------|------|-------|-------------|------------|
| | Left | Thru | Right | Grand Total | | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 1 | 0 | 0 | 1 | 0 | 5 | 6:00:00 | 0 | 2 | 2 | 4 | 0 |
| 7:00:00 | 13 | 3 | 2 | 18 | 2 | 31 | 7:00:00 | 0 | 2 | 11 | 13 | 2 |
| 8:00:00 | 16 | 5 | 3 | 24 | 1 | 87 | 8:00:00 | 1 | 3 | 59 | 63 | 4 |
| 9:00:00 | 13 | 5 | 9 | 27 | 3 | 80 | 9:00:00 | 1 | 3 | 49 | 53 | 1 |
| 10:00:00 | 12 | 4 | 1 | 17 | 5 | 58 | 10:00:00 | 1 | 4 | 36 | 41 | 3 |
| 15:00:00 | 1 | 0 | 1 | 2 | 0 | 2 | 15:00:00 | 0 | 0 | 0 | 0 | 0 |
| 16:00:00 | 5 | 10 | 5 | 20 | 3 | 59 | 16:00:00 | 4 | 3 | 32 | 39 | 8 |
| 17:00:00 | 8 | 4 | 1 | 13 | 3 | 52 | 17:00:00 | 3 | 6 | 30 | 39 | 2 |
| 18:00:00 | 8 | 0 | 6 | 14 | 0 | 68 | 18:00:00 | 1 | 2 | 51 | 54 | 4 |
| 19:00:00 | 10 | 4 | 3 | 17 | 6 | 47 | 19:00:00 | 1 | 2 | 27 | 30 | 3 |
| Totals: | 87 | 35 | 31 | 153 | 23 | 489 | | 12 | 27 | 297 | 336 | 27 |

Calculated Values for Traffic Crossing Major Street

| | | | | | | | | |
|------------------|------|------|------|-------|-------|-------|-------|-------|
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | 16:00 | 17:00 | 18:00 | 19:00 |
| Crossing Values: | 18 | 24 | 20 | 23 | 24 | 19 | 13 | 19 |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100006

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100006

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100006

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100006

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 6:00:00

To: 10:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Toronto

Site #: 1213100007

Intersection: Mt. Pleasant Rd & St. Leonards Ave

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 1663

North Entering: 879

North Peds:

Peds Cross:

| | | | | |
|--------|---|-----|----|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 18 | 3 | 21 |
| Cars | 6 | 839 | 13 | 858 |
| Totals | 6 | 857 | 16 | |

Heavys 0

Trucks 14

Cars 770

Totals 784

East Leg Total: 325

East Entering: 202

East Peds: 14

Peds Cross: X

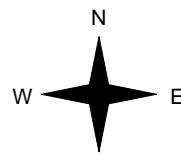
Heavys Trucks Cars Totals

| | | | |
|---|---|-----|-----|
| 0 | 2 | 102 | 104 |
|---|---|-----|-----|



Mt. Pleasant Rd

St. Leonards Ave



Heavys Trucks Cars Totals

| | | | |
|---|---|---|---|
| 0 | 0 | 4 | 4 |
|---|---|---|---|

| | | | |
|---|---|----|----|
| 0 | 0 | 58 | 58 |
|---|---|----|----|

| | | | |
|---|---|----|----|
| 0 | 1 | 41 | 42 |
|---|---|----|----|

| | | | |
|---|---|-----|--|
| 0 | 1 | 103 | |
|---|---|-----|--|



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 3 | 3 | 0 | 6 |
| 80 | 1 | 0 | 81 |
| 115 | 0 | 0 | 115 |
| 198 | 4 | 0 | |

St. Leonards Ave



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 119 | 4 | 0 | 123 |

Peds Cross: X

West Peds: 1

West Entering: 104

West Leg Total: 208

Cars 995

Trucks 19

Heavys 0

Totals 1014

Cars 16

Trucks 1

Heavys 0

Totals 17

763

11

0

774

48

1

0

49

827

13

0

Peds Cross: X

South Peds: 13

South Entering: 840

South Leg Total: 1854

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 19:00:00

One Hour Peak

From: 17:00:00

To: 18:00:00

Municipality: Toronto

Site #: 1213100007

Intersection: Mt. Pleasant Rd & St. Leonards Ave

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 1655

North Entering: 681

North Peds:

Peds Cross: ☒

| | | | | |
|--------|---|-----|---|-----|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 0 | 4 | 0 | 4 |
| Cars | 1 | 670 | 6 | 677 |
| Totals | 1 | 674 | 6 | |

East Leg Total: 219

East Entering: 138

East Peds: 2

Peds Cross: ☒

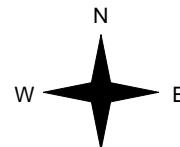
| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 1 | 85 | 86 |



Mt. Pleasant Rd

St. Leonards Ave

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 0 | 1 | 1 |
| 0 | 1 | 26 | 27 |
| 0 | 0 | 18 | 18 |
| 0 | 1 | 45 | |



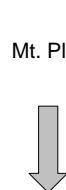
| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 11 | 1 | 0 | 12 |
| 60 | 0 | 0 | 60 |
| 65 | 1 | 0 | 66 |
| 136 | 2 | 0 | |

St. Leonards Ave



| Peds Cross: | ☒ |
|-----------------|-----|
| West Peds: | 4 |
| West Entering: | 46 |
| West Leg Total: | 132 |

| Cars | 753 |
|--------|-----|
| Trucks | 5 |
| Heavys | 0 |
| Totals | 758 |



Mt. Pleasant Rd

Comments

| Cars | 24 | 946 | 48 | 1018 |
|--------|----|-----|----|------|
| Trucks | 1 | 15 | 0 | 16 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 25 | 961 | 48 | |

| Peds Cross: | ☒ |
|------------------|------|
| South Peds: | 7 |
| South Entering: | 1034 |
| South Leg Total: | 1792 |

Ontario Traffic Inc

Total Count Diagram

Municipality: Toronto

Site #: 1213100007

Intersection: Mt. Pleasant Rd & St. Leonards Ave

TFR File #: 1

Count date: 6-Nov-12

Weather conditions:

Person(s) who counted:

** Signalized Intersection **

Major Road: Mt. Pleasant Rd runs N/S

North Leg Total: 10673

North Entering: 5154

North Peds: 75

Peds Cross: ☒

| | | | | |
|--------|----|------|----|------|
| Heavys | 0 | 0 | 0 | 0 |
| Trucks | 1 | 125 | 5 | 131 |
| Cars | 14 | 4952 | 57 | 5023 |
| Totals | 15 | 5077 | 62 | |

| | | | |
|--------|------|--|--|
| Heavys | 0 | | |
| Trucks | 136 | | |
| Cars | 5383 | | |
| Totals | 5519 | | |

East Leg Total: 1371

East Entering: 891

East Peds: 46

Peds Cross: ☒

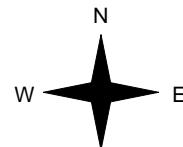
Heavys Trucks Cars Totals
0 9 477 486



Mt. Pleasant Rd

St. Leonards Ave

Heavys Trucks Cars Totals
0 2 15 17
0 3 181 184
0 3 134 137
0 8 330



Mt. Pleasant Rd

Cars Trucks Heavys Totals
71 10 0 81
365 5 0 370
438 2 0 440
874 17 0

St. Leonards Ave

Cars Trucks Heavys Totals
469 11 0 480

Peds Cross: ☒
West Peds: 47
West Entering: 338
West Leg Total: 824

Cars 5524
Trucks 130
Heavys 0
Totals 5654

Cars 98 5297 231 5626
Trucks 3 124 3 130
Heavys 0 0 0 0
Totals 101 5421 234

Peds Cross: ☒
South Peds: 69
South Entering: 5756
South Leg Total: 11410

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Mt. Pleasant Rd & St. Leonards Av

Count Date: 6-Nov-12

Municipality: Toronto

| North Approach Totals | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|---|---------------------------------|------|-------|-------------|------------------------------|-----------------------|---------------------------------|-------|-------|-------------|--|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 1 | 0 | 1 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 2 | 308 | 0 | 310 | 1 | 522 | 7:00:00 | 4 | 204 | 4 | |
| 8:00:00 | 16 | 823 | 4 | 843 | 13 | 1444 | 8:00:00 | 9 | 574 | 18 | |
| 9:00:00 | 13 | 856 | 5 | 874 | 10 | 1703 | 9:00:00 | 17 | 769 | 43 | |
| 10:00:00 | 7 | 699 | 0 | 706 | 13 | 1230 | 10:00:00 | 3 | 504 | 17 | |
| 15:00:00 | 0 | 1 | 0 | 1 | 0 | 2 | 15:00:00 | 0 | 1 | 0 | |
| 16:00:00 | 6 | 512 | 3 | 521 | 10 | 1332 | 16:00:00 | 11 | 764 | 36 | |
| 17:00:00 | 4 | 577 | 2 | 583 | 6 | 1493 | 17:00:00 | 19 | 852 | 39 | |
| 18:00:00 | 6 | 674 | 1 | 681 | 14 | 1715 | 18:00:00 | 25 | 961 | 48 | |
| 19:00:00 | 8 | 625 | 0 | 633 | 8 | 1466 | 19:00:00 | 13 | 791 | 29 | |
| Totals: | 62 | 5076 | 15 | 5153 | 75 | 10908 | | 101 | 5420 | 234 | |
| | | | | | | | | | 5755 | 69 | |
| East Approach Totals | | | | | West Approach Totals | | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | East/West Total Approaches | Hour Ending | Includes Cars, Trucks, & Heavys | | | | |
| | Left | Thru | Right | Grand Total | | | Left | Thru | Right | Grand Total | |
| 6:00:00 | 0 | 0 | 0 | 0 | 0 | 6:00:00 | 0 | 0 | 0 | 0 | |
| 7:00:00 | 2 | 5 | 5 | 12 | 3 | 16 | 7:00:00 | 0 | 1 | 3 | |
| 8:00:00 | 73 | 38 | 6 | 117 | 7 | 166 | 8:00:00 | 2 | 22 | 25 | |
| 9:00:00 | 82 | 77 | 9 | 168 | 9 | 266 | 9:00:00 | 2 | 53 | 43 | |
| 10:00:00 | 34 | 19 | 8 | 61 | 6 | 87 | 10:00:00 | 4 | 15 | 7 | |
| 15:00:00 | 0 | 0 | 0 | 0 | 0 | 15:00:00 | 0 | 0 | 0 | 0 | |
| 16:00:00 | 60 | 71 | 18 | 149 | 7 | 194 | 16:00:00 | 5 | 26 | 14 | |
| 17:00:00 | 82 | 67 | 15 | 164 | 4 | 210 | 17:00:00 | 2 | 27 | 17 | |
| 18:00:00 | 66 | 60 | 12 | 138 | 2 | 184 | 18:00:00 | 1 | 27 | 18 | |
| 19:00:00 | 41 | 33 | 8 | 82 | 8 | 106 | 19:00:00 | 1 | 13 | 10 | |
| Totals: | 440 | 370 | 81 | 891 | 46 | 1229 | | 17 | 184 | 137 | |
| | | | | | | | | | 338 | 47 | |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | | 16:00 | 17:00 | 18:00 | 19:00 | | |
| Crossing Values: | 10 | 129 | 184 | 77 | | 168 | 162 | 148 | 93 | | |

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100007

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100007

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100007

Ontario Traffic Inc

Count Date: 6-Nov-12 Site #: 1213100007

APPENDIX B: 8-HOUR AUTOMATED TRAFFIC RECORDER VOLUME COUNTS

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100018

Station ID: C80

Lawrence Cres (north leg) east of

Mt. Pleasant Rd

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 3 | 0 | * | * | * | * | 3 | 0 | * | * | * | * |
| 01:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 04:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 05:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 5 | 3 | * | * | * | * | 5 | 3 | * | * | * | * |
| 07:00 | * | * | * | * | 1 | 3 | * | * | * | * | 1 | 3 | * | * | * | * |
| 08:00 | * | * | * | * | 11 | 3 | * | * | * | * | 11 | 3 | * | * | * | * |
| 09:00 | * | * | * | * | 12 | 6 | * | * | * | * | 12 | 6 | * | * | * | * |
| 10:00 | * | * | * | * | 7 | 13 | * | * | * | * | 7 | 13 | * | * | * | * |
| 11:00 | * | * | * | * | 6 | 8 | * | * | * | * | 6 | 8 | * | * | * | * |
| 12:00 PM | * | * | * | * | 11 | 6 | * | * | * | * | 11 | 6 | * | * | * | * |
| 01:00 | * | * | * | * | 15 | 13 | * | * | * | * | 15 | 13 | * | * | * | * |
| 02:00 | * | * | * | * | 4 | 11 | * | * | * | * | 4 | 11 | * | * | * | * |
| 03:00 | * | * | * | * | 9 | 5 | * | * | * | * | 9 | 5 | * | * | * | * |
| 04:00 | * | * | * | * | 10 | 4 | * | * | * | * | 10 | 4 | * | * | * | * |
| 05:00 | * | * | * | * | 10 | 7 | * | * | * | * | 10 | 7 | * | * | * | * |
| 06:00 | * | * | * | * | 11 | 9 | * | * | * | * | 11 | 9 | * | * | * | * |
| 07:00 | * | * | * | * | 6 | 4 | * | * | * | * | 6 | 4 | * | * | * | * |
| 08:00 | * | * | * | * | 4 | 6 | * | * | * | * | 4 | 6 | * | * | * | * |
| 09:00 | * | * | * | * | 3 | 4 | * | * | * | * | 3 | 4 | * | * | * | * |
| 10:00 | * | * | * | * | 8 | 0 | * | * | * | * | 8 | 0 | * | * | * | * |
| 11:00 | * | * | * | * | 6 | 4 | * | * | * | * | 6 | 4 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 144 | 112 | 0 | 0 | 0 | 0 | 144 | 112 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 09:00 | 10:00 | | | | | 09:00 | 10:00 | | | | |
| | | | | | 12 | 13 | | | | | 12 | 13 | | | | |
| PM Peak Vol. | | | | | 13:00 | 13:00 | | | | | 13:00 | 13:00 | | | | |
| | | | | | 15 | 13 | | | | | 15 | 13 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 256 | 0 | 256 | 0 | 0 | 256 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

| | | |
|-----|---------|----------|
| ADT | ADT 256 | AADT 256 |
|-----|---------|----------|

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100018
Station ID: C80
Lawrence Cres (north leg) east of
Mt. Pleasant Rd
Latitude: 0' 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100017

Station ID: C83

Dinnick Cres east of Mt. Pleasant Rd

Latitude: 0' 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 3 | 5 | * | * | * | * | 3 | 5 | * | * | * | * |
| 01:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 02:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 04:00 | * | * | * | * | 3 | 2 | * | * | * | * | 3 | 2 | * | * | * | * |
| 05:00 | * | * | * | * | 1 | 3 | * | * | * | * | 1 | 3 | * | * | * | * |
| 06:00 | * | * | * | * | 4 | 15 | * | * | * | * | 4 | 15 | * | * | * | * |
| 07:00 | * | * | * | * | 30 | 50 | * | * | * | * | 30 | 50 | * | * | * | * |
| 08:00 | * | * | * | * | 56 | 48 | * | * | * | * | 56 | 48 | * | * | * | * |
| 09:00 | * | * | * | * | 40 | 37 | * | * | * | * | 40 | 37 | * | * | * | * |
| 10:00 | * | * | * | * | 26 | 31 | * | * | * | * | 26 | 31 | * | * | * | * |
| 11:00 | * | * | * | * | 26 | 30 | * | * | * | * | 26 | 30 | * | * | * | * |
| 12:00 PM | * | * | * | * | 38 | 30 | * | * | * | * | 38 | 30 | * | * | * | * |
| 01:00 | * | * | * | * | 31 | 45 | * | * | * | * | 31 | 45 | * | * | * | * |
| 02:00 | * | * | * | * | 23 | 31 | * | * | * | * | 23 | 31 | * | * | * | * |
| 03:00 | * | * | * | * | 45 | 34 | * | * | * | * | 45 | 34 | * | * | * | * |
| 04:00 | * | * | * | * | 53 | 44 | * | * | * | * | 53 | 44 | * | * | * | * |
| 05:00 | * | * | * | * | 66 | 39 | * | * | * | * | 66 | 39 | * | * | * | * |
| 06:00 | * | * | * | * | 57 | 45 | * | * | * | * | 57 | 45 | * | * | * | * |
| 07:00 | * | * | * | * | 29 | 26 | * | * | * | * | 29 | 26 | * | * | * | * |
| 08:00 | * | * | * | * | 24 | 18 | * | * | * | * | 24 | 18 | * | * | * | * |
| 09:00 | * | * | * | * | 17 | 18 | * | * | * | * | 17 | 18 | * | * | * | * |
| 10:00 | * | * | * | * | 18 | 19 | * | * | * | * | 18 | 19 | * | * | * | * |
| 11:00 | * | * | * | * | 8 | 5 | * | * | * | * | 8 | 5 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 601 | 577 | 0 | 0 | 0 | 0 | 601 | 577 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 | 07:00 | | | | | 08:00 | 07:00 | | | | |
| PM Peak Vol. | | | | | 17:00 | 13:00 | | | | | 17:00 | 13:00 | | | | |

Comb.
Total

C

1178

0

117

0

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100017
Station ID: C83
Dinnick Cres east of Mt. Pleasant Rd

Latitude: 0' 0.000 Undefined

ADT

ADT 1,178

AADT 1,178

Ontario Traffic Inc
17705 Leslie Street, Unit 6
Newmarket, ON L3Y 3E3
905-898-7711 / 905-898-3664 / oti@ontario-traffic.com

Page 1

Site Code: 1213100016

Station ID: T11

Strathgowan Cres west of Dundurn Rd

| Start Time | Latitude: 0' 0.000 Undefined | | | | | | | | | | | | Week Average | | | |
|--------------|------------------------------|----|-----|----|-------|-------|-----|----|-----|----|-----|----|--------------|----|-------|-------|
| | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Sat | | EB | WB | | |
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 03:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 04:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 05:00 | * | * | * | * | 1 | 0 | * | * | * | * | * | * | * | * | 1 | 0 |
| 06:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 07:00 | * | * | * | * | 1 | 0 | * | * | * | * | * | * | * | * | 1 | 0 |
| 08:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 09:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 10:00 | * | * | * | * | 2 | 0 | * | * | * | * | * | * | * | * | 2 | 0 |
| 11:00 | * | * | * | * | 0 | 1 | * | * | * | * | * | * | * | * | 0 | 1 |
| 12:00 PM | * | * | * | * | 2 | 0 | * | * | * | * | * | * | * | * | 2 | 0 |
| 01:00 | * | * | * | * | 0 | 4 | * | * | * | * | * | * | * | * | 0 | 4 |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 03:00 | * | * | * | * | 1 | 0 | * | * | * | * | * | * | * | * | 1 | 0 |
| 04:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 05:00 | * | * | * | * | 1 | 1 | * | * | * | * | * | * | * | * | 1 | 1 |
| 06:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 07:00 | * | * | * | * | 1 | 2 | * | * | * | * | * | * | * | * | 1 | 2 |
| 08:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 09:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 10:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 11:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| Lane Day | 0 | 0 | 0 | 0 | 9 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 8 |
| | 0 | 0 | 0 | 0 | 17 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | |
| AM Peak Vol. | | | | | 10:00 | 11:00 | | | | | | | | | 10:00 | 11:00 |
| PM Peak Vol. | | | | | 2 | 1 | | | | | | | | | 2 | 1 |
| | | | | | 12:00 | 13:00 | | | | | | | | | 12:00 | 13:00 |
| | | | | | 2 | 4 | | | | | | | | | 2 | 4 |

| | | | | | | | | | | | | | | |
|-------------|----------------|---|----|---|---|---|---|---|---|---|---|---|---|----|
| Comb. Total | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| ADT | Not Calculated | | | | | | | | | | | | | |

Ontario Traffic Inc
17705 Leslie Street, Unit 6

Page 1

Site Code: 1213100016

Station ID: T11

Strathgowan Cres west of Dundurn Rd

Latitude: 0° 0.000 Undefined

ADT Not Calculated

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100015

Station ID: C76

Cheltenham Ave west of St. Ives Cres

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 2 | 1 | * | * | * | * | 2 | 1 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 2 | 0 | * | * | * | * | 2 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 05:00 | * | * | * | * | 3 | 1 | * | * | * | * | 3 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 4 | 2 | * | * | * | * | 4 | 2 | * | * | * | * |
| 07:00 | * | * | * | * | 12 | 12 | * | * | * | * | 12 | 12 | * | * | * | * |
| 08:00 | * | * | * | * | 36 | 23 | * | * | * | * | 36 | 23 | * | * | * | * |
| 09:00 | * | * | * | * | 31 | 10 | * | * | * | * | 31 | 10 | * | * | * | * |
| 10:00 | * | * | * | * | 5 | 14 | * | * | * | * | 5 | 14 | * | * | * | * |
| 11:00 | * | * | * | * | 13 | 18 | * | * | * | * | 13 | 18 | * | * | * | * |
| 12:00 PM | * | * | * | * | 16 | 11 | * | * | * | * | 16 | 11 | * | * | * | * |
| 01:00 | * | * | * | * | 13 | 16 | * | * | * | * | 13 | 16 | * | * | * | * |
| 02:00 | * | * | * | * | 14 | 13 | * | * | * | * | 14 | 13 | * | * | * | * |
| 03:00 | * | * | * | * | 25 | 12 | * | * | * | * | 25 | 12 | * | * | * | * |
| 04:00 | * | * | * | * | 23 | 18 | * | * | * | * | 23 | 18 | * | * | * | * |
| 05:00 | * | * | * | * | 18 | 21 | * | * | * | * | 18 | 21 | * | * | * | * |
| 06:00 | * | * | * | * | 16 | 13 | * | * | * | * | 16 | 13 | * | * | * | * |
| 07:00 | * | * | * | * | 6 | 13 | * | * | * | * | 6 | 13 | * | * | * | * |
| 08:00 | * | * | * | * | 9 | 7 | * | * | * | * | 9 | 7 | * | * | * | * |
| 09:00 | * | * | * | * | 4 | 8 | * | * | * | * | 4 | 8 | * | * | * | * |
| 10:00 | * | * | * | * | 4 | 8 | * | * | * | * | 4 | 8 | * | * | * | * |
| 11:00 | * | * | * | * | 4 | 3 | * | * | * | * | 4 | 3 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 262 | 225 | 0 | 0 | 0 | 0 | 262 | 225 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 | 08:00 | | | | | 08:00 | 08:00 | | | | |
| | | | | | 36 | 23 | | | | | 36 | 23 | | | | |
| PM Peak Vol. | | | | | 15:00 | 17:00 | | | | | 15:00 | 17:00 | | | | |
| | | | | | 25 | 21 | | | | | 25 | 21 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 487 | 0 | 487 | 0 | 0 | 487 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

ADT

ADT 487

AADT 487

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100015
Station ID: C76
Cheltenham Ave west of St. Ives Cres

Latitude: 0° 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100014

Station ID: C74

St. Leonards Ave west of St. Leonards Cr

Latitude: 0' 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 2 | 1 | * | * | * | * | 2 | 1 | * | * | * | * |
| 01:00 | * | * | * | * | 3 | 0 | * | * | * | * | 3 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 1 | 2 | * | * | * | * | 1 | 2 | * | * | * | * |
| 05:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 3 | 4 | * | * | * | * | 3 | 4 | * | * | * | * |
| 07:00 | * | * | * | * | 31 | 29 | * | * | * | * | 31 | 29 | * | * | * | * |
| 08:00 | * | * | * | * | 103 | 72 | * | * | * | * | 103 | 72 | * | * | * | * |
| 09:00 | * | * | * | * | 64 | 66 | * | * | * | * | 64 | 66 | * | * | * | * |
| 10:00 | * | * | * | * | 40 | 35 | * | * | * | * | 40 | 35 | * | * | * | * |
| 11:00 | * | * | * | * | 21 | 33 | * | * | * | * | 21 | 33 | * | * | * | * |
| 12:00 PM | * | * | * | * | 29 | 34 | * | * | * | * | 29 | 34 | * | * | * | * |
| 01:00 | * | * | * | * | 21 | 23 | * | * | * | * | 21 | 23 | * | * | * | * |
| 02:00 | * | * | * | * | 19 | 33 | * | * | * | * | 19 | 33 | * | * | * | * |
| 03:00 | * | * | * | * | 54 | 97 | * | * | * | * | 54 | 97 | * | * | * | * |
| 04:00 | * | * | * | * | 57 | 127 | * | * | * | * | 57 | 127 | * | * | * | * |
| 05:00 | * | * | * | * | 47 | 134 | * | * | * | * | 47 | 134 | * | * | * | * |
| 06:00 | * | * | * | * | 37 | 83 | * | * | * | * | 37 | 83 | * | * | * | * |
| 07:00 | * | * | * | * | 35 | 34 | * | * | * | * | 35 | 34 | * | * | * | * |
| 08:00 | * | * | * | * | 25 | 21 | * | * | * | * | 25 | 21 | * | * | * | * |
| 09:00 | * | * | * | * | 17 | 13 | * | * | * | * | 17 | 13 | * | * | * | * |
| 10:00 | * | * | * | * | 8 | 8 | * | * | * | * | 8 | 8 | * | * | * | * |
| 11:00 | * | * | * | * | 4 | 6 | * | * | * | * | 4 | 6 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 621 | 856 | 0 | 0 | 0 | 0 | 621 | 856 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 | 08:00 | | | | | 08:00 | 08:00 | | | | |
| | | | | | 103 | 72 | | | | | 103 | 72 | | | | |
| PM Peak Vol. | | | | | 16:00 | 17:00 | | | | | 16:00 | 17:00 | | | | |
| | | | | | 57 | 134 | | | | | 57 | 134 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|------|---|------|---|---|------|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 1477 | 0 | 1477 | 0 | 0 | 1477 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|------|---|------|---|---|------|---|---|---|---|---|---|---|---|

ADT ADT 1,477

AADT 1,477

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100014

Station ID: C74

St. Leonards Ave west of St. Leonards Cr

Latitude: 0' 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100013

Station ID: C34

Glengowan Rd west of Strathgowan Cres

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 05:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 2 | 0 | * | * | * | * | 2 | 0 | * | * | * | * |
| 07:00 | * | * | * | * | 15 | 10 | * | * | * | * | 15 | 10 | * | * | * | * |
| 08:00 | * | * | * | * | 63 | 26 | * | * | * | * | 63 | 26 | * | * | * | * |
| 09:00 | * | * | * | * | 71 | 33 | * | * | * | * | 71 | 33 | * | * | * | * |
| 10:00 | * | * | * | * | 21 | 21 | * | * | * | * | 21 | 21 | * | * | * | * |
| 11:00 | * | * | * | * | 31 | 23 | * | * | * | * | 31 | 23 | * | * | * | * |
| 12:00 PM | * | * | * | * | 20 | 22 | * | * | * | * | 20 | 22 | * | * | * | * |
| 01:00 | * | * | * | * | 21 | 24 | * | * | * | * | 21 | 24 | * | * | * | * |
| 02:00 | * | * | * | * | 15 | 17 | * | * | * | * | 15 | 17 | * | * | * | * |
| 03:00 | * | * | * | * | 46 | 38 | * | * | * | * | 46 | 38 | * | * | * | * |
| 04:00 | * | * | * | * | 49 | 66 | * | * | * | * | 49 | 66 | * | * | * | * |
| 05:00 | * | * | * | * | 28 | 38 | * | * | * | * | 28 | 38 | * | * | * | * |
| 06:00 | * | * | * | * | 13 | 20 | * | * | * | * | 13 | 20 | * | * | * | * |
| 07:00 | * | * | * | * | 9 | 18 | * | * | * | * | 9 | 18 | * | * | * | * |
| 08:00 | * | * | * | * | 9 | 10 | * | * | * | * | 9 | 10 | * | * | * | * |
| 09:00 | * | * | * | * | 9 | 4 | * | * | * | * | 9 | 4 | * | * | * | * |
| 10:00 | * | * | * | * | 4 | 0 | * | * | * | * | 4 | 0 | * | * | * | * |
| 11:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 431 | 372 | 0 | 0 | 0 | 0 | 431 | 372 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 09:00 | 09:00 | | | | | 09:00 | 09:00 | | | | |
| | | | | | 71 | 33 | | | | | 71 | 33 | | | | |
| PM Peak Vol. | | | | | 16:00 | 16:00 | | | | | 16:00 | 16:00 | | | | |
| | | | | | 49 | 66 | | | | | 49 | 66 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|---|-----|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 803 | 0 | 803 | 0 | 0 | 0 | 803 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|---|-----|---|---|---|---|---|---|---|

ADT

ADT 803

AADT 803

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100013
Station ID: C34
Glengowan Rd west of Strathgowan Cres

Latitude: 0° 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100012

Station ID: C31

Strathgowan Cres north of Blythwood Rd

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| 12:00 AM | * | * | * | * | 8 | 1 | * | * | * | * | 8 | 1 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 2 | 0 | * | * | * | * | 2 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 05:00 | * | * | * | * | 1 | 3 | * | * | * | * | 1 | 3 | * | * | * | * |
| 06:00 | * | * | * | * | 5 | 2 | * | * | * | * | 5 | 2 | * | * | * | * |
| 07:00 | * | * | * | * | 37 | 28 | * | * | * | * | 37 | 28 | * | * | * | * |
| 08:00 | * | * | * | * | 64 | 45 | * | * | * | * | 64 | 45 | * | * | * | * |
| 09:00 | * | * | * | * | 95 | 109 | * | * | * | * | 95 | 109 | * | * | * | * |
| 10:00 | * | * | * | * | 24 | 13 | * | * | * | * | 24 | 13 | * | * | * | * |
| 11:00 | * | * | * | * | 29 | 33 | * | * | * | * | 29 | 33 | * | * | * | * |
| 12:00 PM | * | * | * | * | 18 | 18 | * | * | * | * | 18 | 18 | * | * | * | * |
| 01:00 | * | * | * | * | 36 | 63 | * | * | * | * | 36 | 63 | * | * | * | * |
| 02:00 | * | * | * | * | 13 | 12 | * | * | * | * | 13 | 12 | * | * | * | * |
| 03:00 | * | * | * | * | 16 | 35 | * | * | * | * | 16 | 35 | * | * | * | * |
| 04:00 | * | * | * | * | 34 | 58 | * | * | * | * | 34 | 58 | * | * | * | * |
| 05:00 | * | * | * | * | 24 | 32 | * | * | * | * | 24 | 32 | * | * | * | * |
| 06:00 | * | * | * | * | 23 | 23 | * | * | * | * | 23 | 23 | * | * | * | * |
| 07:00 | * | * | * | * | 10 | 9 | * | * | * | * | 10 | 9 | * | * | * | * |
| 08:00 | * | * | * | * | 10 | 5 | * | * | * | * | 10 | 5 | * | * | * | * |
| 09:00 | * | * | * | * | 10 | 8 | * | * | * | * | 10 | 8 | * | * | * | * |
| 10:00 | * | * | * | * | 5 | 6 | * | * | * | * | 5 | 6 | * | * | * | * |
| 11:00 | * | * | * | * | 3 | 3 | * | * | * | * | 3 | 3 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 468 | 506 | 0 | 0 | 0 | 0 | 468 | 506 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 09:00 | 09:00 | | | | | 09:00 | 09:00 | | | | |
| | | | | | 95 | 109 | | | | | 95 | 109 | | | | |
| PM Peak Vol. | | | | | 13:00 | 13:00 | | | | | 13:00 | 13:00 | | | | |
| | | | | | 36 | 63 | | | | | 36 | 63 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|-----|---|---|---|---|---|
| Comb. Total | 0 | 0 | 974 | 0 | 974 | 0 | 0 | 974 | 0 | 0 | 974 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|-----|---|---|---|---|---|

ADT

ADT 974

AADT 974

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100012
Station ID: C31
Strathgowan Cres north of Blythwood Rd

Latitude: 0° 0.000 Undefined

| Start Time | 07-Nov-12 | | NB | | SB | | Combined | | 08-Nov- | | NB | | SB | | Combined | | |
|-------------------------|-----------|--|-------|-------|-------|-------|----------|------|---------|--|-------|------|-------|------|----------|------|------|
| | Wed | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | Thu | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | |
| 12:00 | | | 3 | 2 | 0 | 6 | 3 | 8 | | | * | * | * | * | * | * | |
| 12:15 | | | 1 | 5 | 1 | 2 | 2 | 7 | | | * | * | * | * | * | * | |
| 12:30 | | | 1 | 9 | 0 | 5 | 1 | 14 | | | * | * | * | * | * | * | |
| 12:45 | | | 3 | 2 | 0 | 5 | 3 | 7 | | | * | * | * | * | * | * | |
| 01:00 | | | 0 | 17 | 0 | 29 | 0 | 46 | | | * | * | * | * | * | * | |
| 01:15 | | | 0 | 16 | 0 | 24 | 0 | 40 | | | * | * | * | * | * | * | |
| 01:30 | | | 0 | 2 | 0 | 4 | 0 | 6 | | | * | * | * | * | * | * | |
| 01:45 | | | 0 | 1 | 0 | 6 | 0 | 7 | | | * | * | * | * | * | * | |
| 02:00 | | | 1 | 2 | 0 | 6 | 1 | 8 | | | * | * | * | * | * | * | |
| 02:15 | | | 0 | 1 | 0 | 1 | 0 | 2 | | | * | * | * | * | * | * | |
| 02:30 | | | 0 | 7 | 0 | 2 | 0 | 9 | | | * | * | * | * | * | * | |
| 02:45 | | | 0 | 3 | 0 | 3 | 0 | 6 | | | * | * | * | * | * | * | |
| 03:00 | | | 0 | 0 | 0 | 4 | 0 | 4 | | | * | * | * | * | * | * | |
| 03:15 | | | 1 | 8 | 0 | 3 | 1 | 11 | | | * | * | * | * | * | * | |
| 03:30 | | | 0 | 6 | 0 | 11 | 0 | 17 | | | * | * | * | * | * | * | |
| 03:45 | | | 1 | 2 | 0 | 17 | 1 | 19 | | | * | * | * | * | * | * | |
| 04:00 | | | 0 | 11 | 0 | 42 | 0 | 53 | | | * | * | * | * | * | * | |
| 04:15 | | | 0 | 13 | 0 | 4 | 0 | 17 | | | * | * | * | * | * | * | |
| 04:30 | | | 0 | 5 | 0 | 10 | 0 | 15 | | | * | * | * | * | * | * | |
| 04:45 | | | 0 | 5 | 0 | 2 | 0 | 7 | | | * | * | * | * | * | * | |
| 05:00 | | | 0 | 12 | 0 | 5 | 0 | 17 | | | * | * | * | * | * | * | |
| 05:15 | | | 0 | 2 | 0 | 11 | 0 | 13 | | | * | * | * | * | * | * | |
| 05:30 | | | 1 | 1 | 1 | 9 | 2 | 10 | | | * | * | * | * | * | * | |
| 05:45 | | | 0 | 9 | 2 | 7 | 2 | 16 | | | * | * | * | * | * | * | |
| 06:00 | | | 0 | 1 | 0 | 6 | 0 | 7 | | | * | * | * | * | * | * | |
| 06:15 | | | 1 | 6 | 0 | 4 | 1 | 10 | | | * | * | * | * | * | * | |
| 06:30 | | | 1 | 5 | 0 | 10 | 1 | 15 | | | * | * | * | * | * | * | |
| 06:45 | | | 3 | 11 | 2 | 3 | 5 | 14 | | | * | * | * | * | * | * | |
| 07:00 | | | 5 | 4 | 7 | 1 | 12 | 5 | | | * | * | * | * | * | * | |
| 07:15 | | | 11 | 1 | 4 | 1 | 15 | 2 | | | * | * | * | * | * | * | |
| 07:30 | | | 9 | 4 | 8 | 2 | 17 | 6 | | | * | * | * | * | * | * | |
| 07:45 | | | 12 | 1 | 9 | 5 | 21 | 6 | | | * | * | * | * | * | * | |
| 08:00 | | | 20 | 1 | 11 | 1 | 31 | 2 | | | * | * | * | * | * | * | |
| 08:15 | | | 16 | 5 | 12 | 0 | 28 | 5 | | | * | * | * | * | * | * | |
| 08:30 | | | 10 | 4 | 6 | 1 | 16 | 5 | | | * | * | * | * | * | * | |
| 08:45 | | | 18 | 0 | 16 | 3 | 34 | 3 | | | * | * | * | * | * | * | |
| 09:00 | | | 15 | 1 | 55 | 1 | 70 | 2 | | | * | * | * | * | * | * | |
| 09:15 | | | 47 | 1 | 43 | 1 | 90 | 2 | | | * | * | * | * | * | * | |
| 09:30 | | | 19 | 5 | 6 | 6 | 25 | 11 | | | * | * | * | * | * | * | |
| 09:45 | | | 14 | 3 | 5 | 0 | 19 | 3 | | | * | * | * | * | * | * | |
| 10:00 | | | 10 | 0 | 5 | 2 | 15 | 2 | | | * | * | * | * | * | * | |
| 10:15 | | | 10 | 2 | 5 | 2 | 15 | 4 | | | * | * | * | * | * | * | |
| 10:30 | | | 1 | 2 | 3 | 2 | 4 | 4 | | | * | * | * | * | * | * | |
| 10:45 | | | 3 | 1 | 0 | 0 | 3 | 1 | | | * | * | * | * | * | * | |
| 11:00 | | | 7 | 1 | 0 | 0 | 7 | 1 | | | * | * | * | * | * | * | |
| 11:15 | | | 3 | 2 | 8 | 3 | 11 | 5 | | | * | * | * | * | * | * | |
| 11:30 | | | 9 | 0 | 4 | 0 | 13 | 0 | | | * | * | * | * | * | * | |
| 11:45 | | | 10 | 0 | 21 | 0 | 31 | 0 | | | * | * | * | * | * | * | |
| Total Day Total % Total | | | 266 | 202 | 234 | 506 | 272 | 500 | 974 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Vol. P.H.F. | | | 468 | 24.0% | 44 | 27.9% | | | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 08:45 | | | 00:30 | | 08:30 | | 03:30 | | 08:45 | | 00:30 | | | | | | |
| Vol. | | | 99 | | 120 | | 74 | | 219 | | 107 | | | | | | |
| P.H.F. | | | 0.527 | | 0.647 | | 0.545 | | 0.440 | | 0.608 | | 0.582 | | | | |

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100011

Station ID: C28

Mildenhall Rd north of Blythwood Rd

Latitude: 0' 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|--------------|--------------|-----|----|-----|----|-----------------|--------------|-----|----|-----|----|
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| 12:00 AM | * | * | * | * | 4 | 2 | * | * | * | * | 4 | 2 | * | * | * | * |
| 01:00 | * | * | * | * | 1 | 2 | * | * | * | * | 1 | 2 | * | * | * | * |
| 02:00 | * | * | * | * | 2 | 1 | * | * | * | * | 2 | 1 | * | * | * | * |
| 03:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 04:00 | * | * | * | * | 2 | 2 | * | * | * | * | 2 | 2 | * | * | * | * |
| 05:00 | * | * | * | * | 3 | 3 | * | * | * | * | 3 | 3 | * | * | * | * |
| 06:00 | * | * | * | * | 7 | 13 | * | * | * | * | 7 | 13 | * | * | * | * |
| 07:00 | * | * | * | * | 60 | 118 | * | * | * | * | 60 | 118 | * | * | * | * |
| 08:00 | * | * | * | * | 149 | 245 | * | * | * | * | 149 | 245 | * | * | * | * |
| 09:00 | * | * | * | * | 111 | 195 | * | * | * | * | 111 | 195 | * | * | * | * |
| 10:00 | * | * | * | * | 56 | 99 | * | * | * | * | 56 | 99 | * | * | * | * |
| 11:00 | * | * | * | * | 76 | 75 | * | * | * | * | 76 | 75 | * | * | * | * |
| 12:00 PM | * | * | * | * | 71 | 82 | * | * | * | * | 71 | 82 | * | * | * | * |
| 01:00 | * | * | * | * | 88 | 91 | * | * | * | * | 88 | 91 | * | * | * | * |
| 02:00 | * | * | * | * | 69 | 77 | * | * | * | * | 69 | 77 | * | * | * | * |
| 03:00 | * | * | * | * | 144 | 125 | * | * | * | * | 144 | 125 | * | * | * | * |
| 04:00 | * | * | * | * | 178 | 120 | * | * | * | * | 178 | 120 | * | * | * | * |
| 05:00 | * | * | * | * | 131 | 116 | * | * | * | * | 131 | 116 | * | * | * | * |
| 06:00 | * | * | * | * | 119 | 83 | * | * | * | * | 119 | 83 | * | * | * | * |
| 07:00 | * | * | * | * | 83 | 66 | * | * | * | * | 83 | 66 | * | * | * | * |
| 08:00 | * | * | * | * | 46 | 27 | * | * | * | * | 46 | 27 | * | * | * | * |
| 09:00 | * | * | * | * | 33 | 22 | * | * | * | * | 33 | 22 | * | * | * | * |
| 10:00 | * | * | * | * | 31 | 10 | * | * | * | * | 31 | 10 | * | * | * | * |
| 11:00 | * | * | * | * | 12 | 7 | * | * | * | * | 12 | 7 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 1477 | 3059 | 0 | 0 | 0 | 0 | 1477 | 3059 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 149 | 08:00 245 | | | | | 08:00 149 | 08:00 245 | | | | |
| PM Peak Vol. | | | | | 16:00 178 | 15:00 125 | | | | | 16:00 178 | 15:00 125 | | | | |

Comb.
Total

0

3059

1

305

0

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100011
Station ID: C28
Mildenhall Rd north of Blythwood Rd

Latitude: 0' 0.000 Undefined

| Start Time | 07-Nov-12 Wed | NB | | SB | | Combined | | 08-Nov- Thu | NB | | SB | | Combined | |
|-----------------|------------------|-------|-------|-------|-------|----------|-------|----------------|------|------|------|------|----------|------|
| | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | | 1 | 22 | 0 | 18 | 1 | 40 | | * | * | * | * | * | * |
| 12:15 | | 1 | 18 | 2 | 17 | 3 | 35 | | * | * | * | * | * | * |
| 12:30 | | 1 | 9 | 0 | 22 | 1 | 31 | | * | * | * | * | * | * |
| 12:45 | | 1 | 22 | 0 | 25 | 1 | 47 | | * | * | * | * | * | * |
| 01:00 | | 1 | 22 | 1 | 33 | 2 | 55 | | * | * | * | * | * | * |
| 01:15 | | 0 | 23 | 1 | 18 | 1 | 41 | | * | * | * | * | * | * |
| 01:30 | | 0 | 12 | 0 | 27 | 0 | 39 | | * | * | * | * | * | * |
| 01:45 | | 0 | 31 | 0 | 13 | 0 | 44 | | * | * | * | * | * | * |
| 02:00 | | 1 | 17 | 0 | 21 | 1 | 38 | | * | * | * | * | * | * |
| 02:15 | | 0 | 15 | 0 | 13 | 0 | 28 | | * | * | * | * | * | * |
| 02:30 | | 1 | 20 | 1 | 17 | 2 | 37 | | * | * | * | * | * | * |
| 02:45 | | 0 | 17 | 0 | 26 | 0 | 43 | | * | * | * | * | * | * |
| 03:00 | | 0 | 27 | 1 | 29 | 1 | 56 | | * | * | * | * | * | * |
| 03:15 | | 0 | 28 | 0 | 26 | 0 | 54 | | * | * | * | * | * | * |
| 03:30 | | 0 | 47 | 0 | 30 | 0 | 77 | | * | * | * | * | * | * |
| 03:45 | | 1 | 42 | 0 | 40 | 1 | 82 | | * | * | * | * | * | * |
| 04:00 | | 0 | 61 | 0 | 34 | 0 | 95 | | * | * | * | * | * | * |
| 04:15 | | 0 | 36 | 0 | 25 | 0 | 61 | | * | * | * | * | * | * |
| 04:30 | | 1 | 43 | 1 | 42 | 2 | 85 | | * | * | * | * | * | * |
| 04:45 | | 1 | 38 | 1 | 19 | 2 | 57 | | * | * | * | * | * | * |
| 05:00 | | 0 | 33 | 2 | 26 | 2 | 59 | | * | * | * | * | * | * |
| 05:15 | | 1 | 37 | 0 | 33 | 1 | 70 | | * | * | * | * | * | * |
| 05:30 | | 0 | 30 | 1 | 33 | 1 | 63 | | * | * | * | * | * | * |
| 05:45 | | 2 | 31 | 0 | 24 | 2 | 55 | | * | * | * | * | * | * |
| 06:00 | | 0 | 26 | 2 | 22 | 2 | 48 | | * | * | * | * | * | * |
| 06:15 | | 3 | 30 | 2 | 30 | 5 | 60 | | * | * | * | * | * | * |
| 06:30 | | 1 | 37 | 1 | 13 | 2 | 50 | | * | * | * | * | * | * |
| 06:45 | | 3 | 26 | 8 | 18 | 11 | 44 | | * | * | * | * | * | * |
| 07:00 | | 13 | 30 | 13 | 27 | 26 | 57 | | * | * | * | * | * | * |
| 07:15 | | 10 | 16 | 18 | 20 | 28 | 36 | | * | * | * | * | * | * |
| 07:30 | | 12 | 18 | 35 | 11 | 47 | 29 | | * | * | * | * | * | * |
| 07:45 | | 25 | 19 | 52 | 8 | 77 | 27 | | * | * | * | * | * | * |
| 08:00 | | 26 | 10 | 60 | 8 | 86 | 18 | | * | * | * | * | * | * |
| 08:15 | | 38 | 14 | 58 | 5 | 96 | 19 | | * | * | * | * | * | * |
| 08:30 | | 41 | 14 | 59 | 8 | 100 | 22 | | * | * | * | * | * | * |
| 08:45 | | 44 | 8 | 68 | 6 | 112 | 14 | | * | * | * | * | * | * |
| 09:00 | | 44 | 12 | 65 | 4 | 109 | 16 | | * | * | * | * | * | * |
| 09:15 | | 28 | 6 | 59 | 7 | 87 | 13 | | * | * | * | * | * | * |
| 09:30 | | 19 | 5 | 42 | 3 | 61 | 8 | | * | * | * | * | * | * |
| 09:45 | | 20 | 10 | 29 | 8 | 49 | 18 | | * | * | * | * | * | * |
| 10:00 | | 18 | 12 | 35 | 4 | 53 | 16 | | * | * | * | * | * | * |
| 10:15 | | 8 | 10 | 16 | 3 | 24 | 13 | | * | * | * | * | * | * |
| 10:30 | | 13 | 2 | 21 | 1 | 34 | 3 | | * | * | * | * | * | * |
| 10:45 | | 17 | 7 | 27 | 2 | 44 | 9 | | * | * | * | * | * | * |
| 11:00 | | 14 | 3 | 15 | 2 | 29 | 5 | | * | * | * | * | * | * |
| 11:15 | | 20 | 3 | 24 | 2 | 44 | 5 | | * | * | * | * | * | * |
| 11:30 | | 23 | 3 | 16 | 0 | 39 | 3 | | * | * | * | * | * | * |
| 11:45 | | 19 | 3 | 20 | 3 | 39 | 6 | | * | * | * | * | * | * |
| Total Day Total | | 472 | 1005 | 756 | 826 | 1228 | 1831 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Total | | 15.4% | 32.9% | 24.7% | 27.0% | 3059 | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Peak Vol. | | 08:15 | 03:30 | 08:30 | 03:45 | 08:15 | 03:45 | | | | | | | |
| P.H.F. | | 167 | 186 | 251 | 141 | 417 | 323 | | | | | | | |
| | | 0.949 | 0.762 | 0.923 | 0.839 | 0.931 | 0.850 | | | | | | | |

ADT

ADT 3,059

AADT 3,059

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100010
Station ID: C47

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| 12:00 AM | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 01:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 03:00 | * | * | * | * | 1 | 2 | * | * | * | * | 1 | 2 | * | * | * | * |
| 04:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 05:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 6 | 2 | * | * | * | * | 6 | 2 | * | * | * | * |
| 07:00 | * | * | * | * | 4 | 6 | * | * | * | * | 4 | 6 | * | * | * | * |
| 08:00 | * | * | * | * | 7 | 13 | * | * | * | * | 7 | 13 | * | * | * | * |
| 09:00 | * | * | * | * | 17 | 9 | * | * | * | * | 17 | 9 | * | * | * | * |
| 10:00 | * | * | * | * | 20 | 24 | * | * | * | * | 20 | 24 | * | * | * | * |
| 11:00 | * | * | * | * | 20 | 13 | * | * | * | * | 20 | 13 | * | * | * | * |
| 12:00 PM | * | * | * | * | 23 | 25 | * | * | * | * | 23 | 25 | * | * | * | * |
| 01:00 | * | * | * | * | 21 | 21 | * | * | * | * | 21 | 21 | * | * | * | * |
| 02:00 | * | * | * | * | 12 | 16 | * | * | * | * | 12 | 16 | * | * | * | * |
| 03:00 | * | * | * | * | 27 | 14 | * | * | * | * | 27 | 14 | * | * | * | * |
| 04:00 | * | * | * | * | 17 | 9 | * | * | * | * | 17 | 9 | * | * | * | * |
| 05:00 | * | * | * | * | 12 | 12 | * | * | * | * | 12 | 12 | * | * | * | * |
| 06:00 | * | * | * | * | 19 | 12 | * | * | * | * | 19 | 12 | * | * | * | * |
| 07:00 | * | * | * | * | 18 | 10 | * | * | * | * | 18 | 10 | * | * | * | * |
| 08:00 | * | * | * | * | 9 | 5 | * | * | * | * | 9 | 5 | * | * | * | * |
| 09:00 | * | * | * | * | 5 | 9 | * | * | * | * | 5 | 9 | * | * | * | * |
| 10:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 11:00 | * | * | * | * | 1 | 3 | * | * | * | * | 1 | 3 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 240 | 208 | 0 | 0 | 0 | 0 | 240 | 208 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 10:00 | 10:00 | | | | | 10:00 | 10:00 | | | | |
| Vol. | | | | | 20 | 24 | | | | | 20 | 24 | | | | |
| PM Peak Vol. | | | | | 15:00 | 12:00 | | | | | 15:00 | 12:00 | | | | |
| | | | | | 27 | 25 | | | | | 27 | 25 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 448 | 0 | 448 | 0 | 0 | 448 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

ADT

ADT 448

AADT 448

| Start Time | 07-Nov Wed | NB | | SB | | Combined | | 08-Nov Thu | | NB | | SB | | Combined | |
|-----------------|----------------|-------|-------|-------|-------|----------|-------|------------|------|------|------|------|------|----------|------|
| | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | | 0 | 7 | 0 | 8 | 0 | 15 | * | * | * | * | * | * | * | * |
| 12:15 | | 0 | 6 | 0 | 7 | 0 | 13 | * | * | * | * | * | * | * | * |
| 12:30 | | 0 | 9 | 0 | 6 | 0 | 15 | * | * | * | * | * | * | * | * |
| 12:45 | | 0 | 1 | 0 | 4 | 0 | 5 | * | * | * | * | * | * | * | * |
| 01:00 | | 0 | 11 | 1 | 9 | 1 | 20 | * | * | * | * | * | * | * | * |
| 01:15 | | 1 | 4 | 0 | 3 | 1 | 7 | * | * | * | * | * | * | * | * |
| 01:30 | | 0 | 4 | 0 | 8 | 0 | 12 | * | * | * | * | * | * | * | * |
| 01:45 | | 0 | 2 | 0 | 1 | 0 | 3 | * | * | * | * | * | * | * | * |
| 02:00 | | 0 | 4 | 0 | 7 | 0 | 11 | * | * | * | * | * | * | * | * |
| 02:15 | | 0 | 4 | 0 | 3 | 0 | 7 | * | * | * | * | * | * | * | * |
| 02:30 | | 0 | 3 | 0 | 5 | 0 | 8 | * | * | * | * | * | * | * | * |
| 02:45 | | 0 | 1 | 1 | 1 | 1 | 2 | * | * | * | * | * | * | * | * |
| 03:00 | | 1 | 4 | 0 | 1 | 1 | 5 | * | * | * | * | * | * | * | * |
| 03:15 | | 0 | 7 | 2 | 4 | 2 | 11 | * | * | * | * | * | * | * | * |
| 03:30 | | 0 | 12 | 0 | 7 | 0 | 19 | * | * | * | * | * | * | * | * |
| 03:45 | | 0 | 4 | 0 | 2 | 0 | 6 | * | * | * | * | * | * | * | * |
| 04:00 | | 0 | 4 | 0 | 1 | 0 | 5 | * | * | * | * | * | * | * | * |
| 04:15 | | 0 | 5 | 0 | 1 | 0 | 6 | * | * | * | * | * | * | * | * |
| 04:30 | | 0 | 4 | 0 | 3 | 0 | 7 | * | * | * | * | * | * | * | * |
| 04:45 | | 0 | 4 | 0 | 4 | 0 | 8 | * | * | * | * | * | * | * | * |
| 05:00 | | 0 | 1 | 0 | 2 | 0 | 3 | * | * | * | * | * | * | * | * |
| 05:15 | | 0 | 2 | 0 | 3 | 0 | 5 | * | * | * | * | * | * | * | * |
| 05:30 | | 0 | 3 | 1 | 5 | 1 | 8 | * | * | * | * | * | * | * | * |
| 05:45 | | 0 | 6 | 0 | 2 | 0 | 8 | * | * | * | * | * | * | * | * |
| 06:00 | | 0 | 9 | 1 | 1 | 1 | 10 | * | * | * | * | * | * | * | * |
| 06:15 | | 0 | 3 | 0 | 4 | 0 | 7 | * | * | * | * | * | * | * | * |
| 06:30 | | 2 | 3 | 0 | 4 | 2 | 7 | * | * | * | * | * | * | * | * |
| 06:45 | | 4 | 4 | 1 | 3 | 5 | 7 | * | * | * | * | * | * | * | * |
| 07:00 | | 0 | 3 | 1 | 1 | 1 | 4 | * | * | * | * | * | * | * | * |
| 07:15 | | 1 | 7 | 2 | 4 | 3 | 11 | * | * | * | * | * | * | * | * |
| 07:30 | | 1 | 6 | 0 | 3 | 1 | 9 | * | * | * | * | * | * | * | * |
| 07:45 | | 2 | 2 | 3 | 2 | 5 | 4 | * | * | * | * | * | * | * | * |
| 08:00 | | 1 | 3 | 2 | 1 | 3 | 4 | * | * | * | * | * | * | * | * |
| 08:15 | | 4 | 2 | 4 | 0 | 8 | 2 | * | * | * | * | * | * | * | * |
| 08:30 | | 2 | 2 | 6 | 1 | 8 | 3 | * | * | * | * | * | * | * | * |
| 08:45 | | 0 | 2 | 1 | 3 | 1 | 5 | * | * | * | * | * | * | * | * |
| 09:00 | | 5 | 2 | 2 | 5 | 7 | 7 | * | * | * | * | * | * | * | * |
| 09:15 | | 1 | 0 | 1 | 1 | 2 | 1 | * | * | * | * | * | * | * | * |
| 09:30 | | 4 | 0 | 3 | 1 | 7 | 1 | * | * | * | * | * | * | * | * |
| 09:45 | | 7 | 3 | 3 | 2 | 10 | 5 | * | * | * | * | * | * | * | * |
| 10:00 | | 5 | 0 | 8 | 0 | 13 | 0 | * | * | * | * | * | * | * | * |
| 10:15 | | 1 | 0 | 4 | 0 | 5 | 0 | * | * | * | * | * | * | * | * |
| 10:30 | | 7 | 0 | 8 | 0 | 15 | 0 | * | * | * | * | * | * | * | * |
| 10:45 | | 7 | 0 | 4 | 0 | 11 | 0 | * | * | * | * | * | * | * | * |
| 11:00 | | 6 | 1 | 2 | 0 | 8 | 1 | * | * | * | * | * | * | * | * |
| 11:15 | | 3 | 0 | 2 | 0 | 5 | 0 | * | * | * | * | * | * | * | * |
| 11:30 | | 3 | 0 | 3 | 2 | 6 | 2 | * | * | * | * | * | * | * | * |
| 11:45 | | 8 | 0 | 6 | 1 | 14 | 1 | * | * | * | * | * | * | * | * |
| Total Day Total | | 76 | 164 | 72 | 136 | 148 | 300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Total | | 17.0% | 36.6% | 16.1% | 30.4% | | | 0.0% | 0.0% | 0.0% | 0.0% | | | | |
| Peak Vol. | | 10:30 | 00:15 | 10:00 | 00:15 | 10:00 | 00:15 | | | | | | | | |
| P.H.F. | | 23 | 27 | 24 | 26 | 44 | 53 | | | | | | | | |
| ADT | Not Calculated | | | | | | | | | | | | | | |

Latitude: 0' 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100009

Station ID: C69

Stratheden Rd east of Mildenhall Rd

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 05:00 | * | * | * | * | 3 | 2 | * | * | * | * | 3 | 2 | * | * | * | * |
| 06:00 | * | * | * | * | 1 | 5 | * | * | * | * | 1 | 5 | * | * | * | * |
| 07:00 | * | * | * | * | 9 | 7 | * | * | * | * | 9 | 7 | * | * | * | * |
| 08:00 | * | * | * | * | 11 | 15 | * | * | * | * | 11 | 15 | * | * | * | * |
| 09:00 | * | * | * | * | 7 | 9 | * | * | * | * | 7 | 9 | * | * | * | * |
| 10:00 | * | * | * | * | 10 | 12 | * | * | * | * | 10 | 12 | * | * | * | * |
| 11:00 | * | * | * | * | 5 | 8 | * | * | * | * | 5 | 8 | * | * | * | * |
| 12:00 PM | * | * | * | * | 10 | 10 | * | * | * | * | 10 | 10 | * | * | * | * |
| 01:00 | * | * | * | * | 13 | 19 | * | * | * | * | 13 | 19 | * | * | * | * |
| 02:00 | * | * | * | * | 11 | 9 | * | * | * | * | 11 | 9 | * | * | * | * |
| 03:00 | * | * | * | * | 14 | 21 | * | * | * | * | 14 | 21 | * | * | * | * |
| 04:00 | * | * | * | * | 5 | 10 | * | * | * | * | 5 | 10 | * | * | * | * |
| 05:00 | * | * | * | * | 7 | 4 | * | * | * | * | 7 | 4 | * | * | * | * |
| 06:00 | * | * | * | * | 9 | 10 | * | * | * | * | 9 | 10 | * | * | * | * |
| 07:00 | * | * | * | * | 8 | 9 | * | * | * | * | 8 | 9 | * | * | * | * |
| 08:00 | * | * | * | * | 7 | 7 | * | * | * | * | 7 | 7 | * | * | * | * |
| 09:00 | * | * | * | * | 2 | 2 | * | * | * | * | 2 | 2 | * | * | * | * |
| 10:00 | * | * | * | * | 4 | 0 | * | * | * | * | 4 | 0 | * | * | * | * |
| 11:00 | * | * | * | * | 0 | 2 | * | * | * | * | 0 | 2 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 137 | 162 | 0 | 0 | 0 | 0 | 137 | 162 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 | 08:00 | | | | | 08:00 | 08:00 | | | | |
| PM Peak Vol. | | | | | 15:00 | 15:00 | | | | | 15:00 | 15:00 | | | | |
| Comb. Total | 0 | | 0 | | 299 | | 0 | | 0 | | 299 | | 0 | | 0 | 0 |

| | | |
|-----|---------|----------|
| ADT | ADT 299 | AADT 299 |
|-----|---------|----------|

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100009
Station ID: C69
Stratheden Rd east of Mildenhall Rd

Latitude: 0° 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100008

Station ID: C64

Dawlish Ave east of Mildenhall Rd

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 0 | 2 | * | * | * | * | 0 | 2 | * | * | * | * |
| 01:00 | * | * | * | * | 3 | 2 | * | * | * | * | 3 | 2 | * | * | * | * |
| 02:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 04:00 | * | * | * | * | 1 | 2 | * | * | * | * | 1 | 2 | * | * | * | * |
| 05:00 | * | * | * | * | 2 | 1 | * | * | * | * | 2 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 7 | 3 | * | * | * | * | 7 | 3 | * | * | * | * |
| 07:00 | * | * | * | * | 20 | 8 | * | * | * | * | 20 | 8 | * | * | * | * |
| 08:00 | * | * | * | * | 46 | 18 | * | * | * | * | 46 | 18 | * | * | * | * |
| 09:00 | * | * | * | * | 47 | 40 | * | * | * | * | 47 | 40 | * | * | * | * |
| 10:00 | * | * | * | * | 19 | 11 | * | * | * | * | 19 | 11 | * | * | * | * |
| 11:00 | * | * | * | * | 33 | 47 | * | * | * | * | 33 | 47 | * | * | * | * |
| 12:00 PM | * | * | * | * | 21 | 23 | * | * | * | * | 21 | 23 | * | * | * | * |
| 01:00 | * | * | * | * | 13 | 23 | * | * | * | * | 13 | 23 | * | * | * | * |
| 02:00 | * | * | * | * | 24 | 16 | * | * | * | * | 24 | 16 | * | * | * | * |
| 03:00 | * | * | * | * | 23 | 37 | * | * | * | * | 23 | 37 | * | * | * | * |
| 04:00 | * | * | * | * | 19 | 56 | * | * | * | * | 19 | 56 | * | * | * | * |
| 05:00 | * | * | * | * | 30 | 67 | * | * | * | * | 30 | 67 | * | * | * | * |
| 06:00 | * | * | * | * | 38 | 30 | * | * | * | * | 38 | 30 | * | * | * | * |
| 07:00 | * | * | * | * | 24 | 27 | * | * | * | * | 24 | 27 | * | * | * | * |
| 08:00 | * | * | * | * | 15 | 16 | * | * | * | * | 15 | 16 | * | * | * | * |
| 09:00 | * | * | * | * | 14 | 31 | * | * | * | * | 14 | 31 | * | * | * | * |
| 10:00 | * | * | * | * | 5 | 7 | * | * | * | * | 5 | 7 | * | * | * | * |
| 11:00 | * | * | * | * | 3 | 6 | * | * | * | * | 3 | 6 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 408 | 475 | 0 | 0 | 0 | 0 | 408 | 475 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 09:00 | 11:00 | | | | | 09:00 | 11:00 | | | | |
| Vol. | | | | | 47 | 47 | | | | | 47 | 47 | | | | |
| PM Peak Vol. | | | | | 18:00 | 17:00 | | | | | 18:00 | 17:00 | | | | |
| Vol. | | | | | 38 | 67 | | | | | 38 | 67 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 883 | 0 | 883 | 0 | 0 | 883 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

ADT

ADT 883

AADT 883

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100008
Station ID: C64
Dawlish Ave east of Mildenhall Rd

Latitude: 0' 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100007

Station ID: C60

Dawlish Ave west of Bayview Ave

Latitude: 0' 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Sat | | Sun | | Week Average EB | Week Average WB |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----|----|-----|----|-----------------|-----------------|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | | |
| 12:00 AM | * | * | * | * | 0 | 3 | * | * | * | * | * | * | * | * | 0 | 3 |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 03:00 | * | * | * | * | 0 | 1 | * | * | * | * | * | * | * | * | 0 | 1 |
| 04:00 | * | * | * | * | 1 | 1 | * | * | * | * | * | * | * | * | 1 | 1 |
| 05:00 | * | * | * | * | 4 | 1 | * | * | * | * | * | * | * | * | 4 | 1 |
| 06:00 | * | * | * | * | 10 | 3 | * | * | * | * | * | * | * | * | 10 | 3 |
| 07:00 | * | * | * | * | 29 | 8 | * | * | * | * | * | * | * | * | 29 | 8 |
| 08:00 | * | * | * | * | 67 | 17 | * | * | * | * | * | * | * | * | 67 | 17 |
| 09:00 | * | * | * | * | 80 | 63 | * | * | * | * | * | * | * | * | 80 | 63 |
| 10:00 | * | * | * | * | 40 | 40 | * | * | * | * | * | * | * | * | 40 | 40 |
| 11:00 | * | * | * | * | 61 | 56 | * | * | * | * | * | * | * | * | 61 | 56 |
| 12:00 PM | * | * | * | * | 39 | 48 | * | * | * | * | * | * | * | * | 39 | 48 |
| 01:00 | * | * | * | * | 29 | 36 | * | * | * | * | * | * | * | * | 29 | 36 |
| 02:00 | * | * | * | * | 22 | 45 | * | * | * | * | * | * | * | * | 22 | 45 |
| 03:00 | * | * | * | * | 19 | 58 | * | * | * | * | * | * | * | * | 19 | 58 |
| 04:00 | * | * | * | * | 36 | 84 | * | * | * | * | * | * | * | * | 36 | 84 |
| 05:00 | * | * | * | * | 42 | 99 | * | * | * | * | * | * | * | * | 42 | 99 |
| 06:00 | * | * | * | * | 51 | 67 | * | * | * | * | * | * | * | * | 51 | 67 |
| 07:00 | * | * | * | * | 54 | 60 | * | * | * | * | * | * | * | * | 54 | 60 |
| 08:00 | * | * | * | * | 21 | 31 | * | * | * | * | * | * | * | * | 21 | 31 |
| 09:00 | * | * | * | * | 42 | 43 | * | * | * | * | * | * | * | * | 42 | 43 |
| 10:00 | * | * | * | * | 12 | 9 | * | * | * | * | * | * | * | * | 12 | 9 |
| 11:00 | * | * | * | * | 2 | 5 | * | * | * | * | * | * | * | * | 2 | 5 |
| Lane Day | 0 | 0 | 0 | 0 | 661 | 778 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 661 | 778 |
| AM Peak Vol. | | | | | 09:00 | 09:00 | | | | | | | | | 09:00 | 09:00 |
| PM Peak Vol. | | | | | 19:00 | 17:00 | | | | | | | | | 19:00 | 17:00 |
| Comb. Total | 0 | | 0 | | 1439 | | 0 | | 0 | | 0 | | 0 | | 0 | 1439 |

| | | |
|-----|-----------|------------|
| ADT | ADT 1,439 | AADT 1,439 |
|-----|-----------|------------|

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100007

Station ID: C60

Dawlish Ave west of Bayview Ave

Latitude: 0' 0.000 Undefined

| Start Time | 07-Nov-12 | EB | WB | Combined | 08-Nov- | EB | WB | Combined | |
|-----------------|-----------|-------|-------|----------|---------|-------|-------|----------|------|
| | Wed | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | | 0 | 6 | 0 | 15 | 0 | 21 | * | * |
| 12:15 | | 0 | 8 | 2 | 11 | 2 | 19 | * | * |
| 12:30 | | 0 | 7 | 1 | 9 | 1 | 16 | * | * |
| 12:45 | | 0 | 18 | 0 | 13 | 0 | 31 | * | * |
| 01:00 | | 0 | 8 | 0 | 10 | 0 | 18 | * | * |
| 01:15 | | 0 | 7 | 0 | 11 | 0 | 18 | * | * |
| 01:30 | | 0 | 7 | 0 | 6 | 0 | 13 | * | * |
| 01:45 | | 0 | 7 | 0 | 9 | 0 | 16 | * | * |
| 02:00 | | 0 | 2 | 0 | 11 | 0 | 13 | * | * |
| 02:15 | | 0 | 6 | 0 | 21 | 0 | 27 | * | * |
| 02:30 | | 0 | 13 | 0 | 8 | 0 | 21 | * | * |
| 02:45 | | 0 | 1 | 0 | 5 | 0 | 6 | * | * |
| 03:00 | | 0 | 1 | 0 | 9 | 0 | 10 | * | * |
| 03:15 | | 0 | 2 | 1 | 20 | 1 | 22 | * | * |
| 03:30 | | 0 | 8 | 0 | 8 | 0 | 16 | * | * |
| 03:45 | | 0 | 8 | 0 | 21 | 0 | 29 | * | * |
| 04:00 | | 0 | 13 | 1 | 13 | 1 | 26 | * | * |
| 04:15 | | 0 | 7 | 0 | 28 | 0 | 35 | * | * |
| 04:30 | | 0 | 6 | 0 | 23 | 0 | 29 | * | * |
| 04:45 | 1 | 10 | 0 | 20 | 1 | 30 | * | * | * |
| 05:00 | 1 | 11 | 0 | 25 | 1 | 36 | * | * | * |
| 05:15 | 2 | 6 | 0 | 24 | 2 | 30 | * | * | * |
| 05:30 | 0 | 15 | 0 | 31 | 0 | 46 | * | * | * |
| 05:45 | 1 | 10 | 1 | 19 | 2 | 29 | * | * | * |
| 06:00 | 0 | 7 | 0 | 19 | 0 | 26 | * | * | * |
| 06:15 | 2 | 8 | 0 | 16 | 2 | 24 | * | * | * |
| 06:30 | 6 | 16 | 2 | 9 | 8 | 25 | * | * | * |
| 06:45 | 2 | 20 | 1 | 23 | 3 | 43 | * | * | * |
| 07:00 | 0 | 10 | 4 | 18 | 4 | 28 | * | * | * |
| 07:15 | 10 | 18 | 0 | 17 | 10 | 35 | * | * | * |
| 07:30 | 8 | 16 | 2 | 13 | 10 | 29 | * | * | * |
| 07:45 | 11 | 10 | 2 | 12 | 13 | 22 | * | * | * |
| 08:00 | 18 | 6 | 1 | 12 | 19 | 18 | * | * | * |
| 08:15 | 11 | 7 | 4 | 9 | 15 | 16 | * | * | * |
| 08:30 | 18 | 6 | 5 | 3 | 23 | 9 | * | * | * |
| 08:45 | 20 | 2 | 7 | 7 | 27 | 9 | * | * | * |
| 09:00 | 37 | 8 | 12 | 16 | 49 | 24 | * | * | * |
| 09:15 | 25 | 8 | 30 | 15 | 55 | 23 | * | * | * |
| 09:30 | 11 | 11 | 12 | 6 | 23 | 17 | * | * | * |
| 09:45 | 7 | 15 | 9 | 6 | 16 | 21 | * | * | * |
| 10:00 | 18 | 1 | 16 | 3 | 34 | 4 | * | * | * |
| 10:15 | 13 | 2 | 3 | 2 | 16 | 4 | * | * | * |
| 10:30 | 2 | 2 | 5 | 3 | 7 | 5 | * | * | * |
| 10:45 | 7 | 7 | 16 | 1 | 23 | 8 | * | * | * |
| 11:00 | 10 | 1 | 7 | 4 | 17 | 5 | * | * | * |
| 11:15 | 7 | 0 | 12 | 0 | 19 | 0 | * | * | * |
| 11:30 | 29 | 0 | 11 | 1 | 40 | 1 | * | * | * |
| 11:45 | 15 | 1 | 26 | 0 | 41 | 1 | * | * | * |
| Total Day Total | | 292 | 369 | 193 | 585 | 485 | 954 | 0 | 0 |
| % Total | | 20.3% | 25.6% | 13.4% | 40.7% | | | 0.0% | 0.0% |
| Peak Vol. | | 08:30 | 06:30 | 09:15 | 04:45 | 08:30 | 04:45 | | |
| P.H.F. | | 100 | 64 | 67 | 100 | 154 | 142 | | |
| | | 0.676 | 0.800 | 0.558 | 0.806 | 0.700 | 0.772 | | |

ADT

ADT 1,439

AADT 1,439

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100006

Station ID: C5

St. Leonards Ave east of Lewes Cres

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | 06-Nov-12 | | 07-Nov-12 | | 08-Nov-12 | | 09-Nov-12 | | Weekday Average | | 10-Nov-12 | | 11-Nov-12 | |
|--------------|-----------|----|-----------|----|-----------|-------|-----------|----|-----------|----|-----------------|-------|-----------|----|-----------|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 05:00 | * | * | * | * | 4 | 3 | * | * | * | * | 4 | 3 | * | * | * | * |
| 06:00 | * | * | * | * | 6 | 1 | * | * | * | * | 6 | 1 | * | * | * | * |
| 07:00 | * | * | * | * | 12 | 47 | * | * | * | * | 12 | 47 | * | * | * | * |
| 08:00 | * | * | * | * | 27 | 58 | * | * | * | * | 27 | 58 | * | * | * | * |
| 09:00 | * | * | * | * | 53 | 62 | * | * | * | * | 53 | 62 | * | * | * | * |
| 10:00 | * | * | * | * | 9 | 19 | * | * | * | * | 9 | 19 | * | * | * | * |
| 11:00 | * | * | * | * | 21 | 33 | * | * | * | * | 21 | 33 | * | * | * | * |
| 12:00 PM | * | * | * | * | 24 | 29 | * | * | * | * | 24 | 29 | * | * | * | * |
| 01:00 | * | * | * | * | 28 | 30 | * | * | * | * | 28 | 30 | * | * | * | * |
| 02:00 | * | * | * | * | 20 | 32 | * | * | * | * | 20 | 32 | * | * | * | * |
| 03:00 | * | * | * | * | 21 | 55 | * | * | * | * | 21 | 55 | * | * | * | * |
| 04:00 | * | * | * | * | 18 | 79 | * | * | * | * | 18 | 79 | * | * | * | * |
| 05:00 | * | * | * | * | 23 | 72 | * | * | * | * | 23 | 72 | * | * | * | * |
| 06:00 | * | * | * | * | 18 | 52 | * | * | * | * | 18 | 52 | * | * | * | * |
| 07:00 | * | * | * | * | 18 | 25 | * | * | * | * | 18 | 25 | * | * | * | * |
| 08:00 | * | * | * | * | 11 | 19 | * | * | * | * | 11 | 19 | * | * | * | * |
| 09:00 | * | * | * | * | 15 | 15 | * | * | * | * | 15 | 15 | * | * | * | * |
| 10:00 | * | * | * | * | 4 | 11 | * | * | * | * | 4 | 11 | * | * | * | * |
| 11:00 | * | * | * | * | 3 | 3 | * | * | * | * | 3 | 3 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 336 | 647 | 0 | 0 | 0 | 0 | 336 | 647 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 09:00 | 09:00 | | | | | 09:00 | 09:00 | | | | |
| | | | | | 53 | 62 | | | | | 53 | 62 | | | | |
| PM Peak Vol. | | | | | 13:00 | 16:00 | | | | | 13:00 | 16:00 | | | | |
| | | | | | 28 | 79 | | | | | 28 | 79 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 983 | 0 | 983 | 0 | 0 | 983 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

ADT

ADT 983

AADT 983

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100006

Station ID: C5

St. Leonards Ave east of Lewes Cres

Latitude: 0' 0.000 Undefined

| Start Time | 07-Nov-12 Wed | EB | | WB | | Combined | | 08-Nov- Thu | EB | | WB | | Combined | |
|-----------------|------------------|-------|-------|-------|-------|----------|-------|----------------|------|------|------|------|----------|------|
| | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | | 0 | 10 | 0 | 1 | 0 | 11 | | * | * | * | * | * | * |
| 12:15 | | 1 | 5 | 1 | 4 | 2 | 9 | | * | * | * | * | * | * |
| 12:30 | | 0 | 2 | 0 | 2 | 0 | 4 | | * | * | * | * | * | * |
| 12:45 | | 0 | 7 | 0 | 0 | 0 | 7 | | * | * | * | * | * | * |
| 01:00 | | 0 | 4 | 0 | 8 | 0 | 12 | | * | * | * | * | * | * |
| 01:15 | | 0 | 7 | 0 | 1 | 0 | 8 | | * | * | * | * | * | * |
| 01:30 | | 0 | 7 | 0 | 1 | 0 | 8 | | * | * | * | * | * | * |
| 01:45 | | 0 | 10 | 1 | 6 | 1 | 16 | | * | * | * | * | * | * |
| 02:00 | | 0 | 4 | 0 | 2 | 0 | 6 | | * | * | * | * | * | * |
| 02:15 | | 0 | 11 | 0 | 3 | 0 | 14 | | * | * | * | * | * | * |
| 02:30 | | 0 | 2 | 0 | 6 | 0 | 8 | | * | * | * | * | * | * |
| 02:45 | | 0 | 3 | 0 | 1 | 0 | 4 | | * | * | * | * | * | * |
| 03:00 | | 0 | 4 | 0 | 4 | 0 | 8 | | * | * | * | * | * | * |
| 03:15 | | 0 | 8 | 0 | 1 | 0 | 9 | | * | * | * | * | * | * |
| 03:30 | | 0 | 5 | 0 | 13 | 0 | 18 | | * | * | * | * | * | * |
| 03:45 | | 0 | 4 | 0 | 16 | 0 | 20 | | * | * | * | * | * | * |
| 04:00 | | 0 | 5 | 0 | 6 | 0 | 11 | | * | * | * | * | * | * |
| 04:15 | | 0 | 2 | 0 | 19 | 0 | 21 | | * | * | * | * | * | * |
| 04:30 | | 0 | 5 | 1 | 15 | 1 | 20 | | * | * | * | * | * | * |
| 04:45 | | 0 | 6 | 0 | 21 | 0 | 27 | | * | * | * | * | * | * |
| 05:00 | | 1 | 0 | 0 | 15 | 1 | 15 | | * | * | * | * | * | * |
| 05:15 | | 1 | 11 | 0 | 16 | 1 | 27 | | * | * | * | * | * | * |
| 05:30 | | 1 | 7 | 0 | 9 | 1 | 16 | | * | * | * | * | * | * |
| 05:45 | | 1 | 5 | 1 | 9 | 2 | 14 | | * | * | * | * | * | * |
| 06:00 | | 1 | 3 | 1 | 23 | 2 | 26 | | * | * | * | * | * | * |
| 06:15 | | 1 | 4 | 0 | 8 | 1 | 12 | | * | * | * | * | * | * |
| 06:30 | | 3 | 5 | 3 | 3 | 6 | 8 | | * | * | * | * | * | * |
| 06:45 | | 1 | 6 | 1 | 0 | 2 | 6 | | * | * | * | * | * | * |
| 07:00 | | 2 | 3 | 0 | 7 | 2 | 10 | | * | * | * | * | * | * |
| 07:15 | | 4 | 5 | 8 | 3 | 12 | 8 | | * | * | * | * | * | * |
| 07:30 | | 1 | 4 | 21 | 2 | 22 | 6 | | * | * | * | * | * | * |
| 07:45 | | 5 | 6 | 6 | 5 | 11 | 11 | | * | * | * | * | * | * |
| 08:00 | | 6 | 5 | 23 | 0 | 29 | 5 | | * | * | * | * | * | * |
| 08:15 | | 11 | 0 | 2 | 4 | 13 | 4 | | * | * | * | * | * | * |
| 08:30 | | 5 | 3 | 4 | 3 | 9 | 6 | | * | * | * | * | * | * |
| 08:45 | | 5 | 3 | 6 | 1 | 11 | 4 | | * | * | * | * | * | * |
| 09:00 | | 22 | 5 | 9 | 2 | 31 | 7 | | * | * | * | * | * | * |
| 09:15 | | 17 | 2 | 7 | 3 | 24 | 5 | | * | * | * | * | * | * |
| 09:30 | | 6 | 3 | 8 | 3 | 14 | 6 | | * | * | * | * | * | * |
| 09:45 | | 8 | 5 | 3 | 4 | 11 | 9 | | * | * | * | * | * | * |
| 10:00 | | 4 | 2 | 1 | 1 | 5 | 3 | | * | * | * | * | * | * |
| 10:15 | | 1 | 2 | 5 | 1 | 6 | 3 | | * | * | * | * | * | * |
| 10:30 | | 2 | 0 | 2 | 3 | 4 | 3 | | * | * | * | * | * | * |
| 10:45 | | 2 | 0 | 2 | 4 | 4 | 4 | | * | * | * | * | * | * |
| 11:00 | | 4 | 1 | 4 | 1 | 8 | 2 | | * | * | * | * | * | * |
| 11:15 | | 4 | 1 | 1 | 1 | 5 | 2 | | * | * | * | * | * | * |
| 11:30 | | 5 | 0 | 4 | 1 | 9 | 1 | | * | * | * | * | * | * |
| 11:45 | | 8 | 1 | 3 | 1 | 11 | 2 | | * | * | * | * | * | * |
| Total Day Total | | 133 | 203 | 128 | 391 | 263 | 727 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Total | | 336 | 18.3% | 32 | 27.9% | 17.6% | 36.2% | | 0.0% | 0 | 0.0% | 0.0% | 0.0% | 0.0% |
| Peak Vol. | 09:00 | 01:30 | 07:15 | 04:15 | 08:45 | 04:30 | | | | | | | | |
| P.H.F. | 53 | 32 | 58 | 70 | 80 | 89 | | | | | | | | |
| | 0.602 | 0.727 | 0.630 | 0.833 | 0.645 | 0.824 | | | | | | | | |

ADT

ADT 727

AADT 727

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100005
Station ID: C21
Wood Ave west of Bayview Ave

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Sat | | Sun | | Week Average | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----|----|-----|----|--------------|-------|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 1 | 2 | * | * | * | * | * | * | * | * | 1 | 2 |
| 01:00 | * | * | * | * | 0 | 1 | * | * | * | * | * | * | * | * | 0 | 1 |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 03:00 | * | * | * | * | 1 | 0 | * | * | * | * | * | * | * | * | 1 | 0 |
| 04:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 05:00 | * | * | * | * | 1 | 1 | * | * | * | * | * | * | * | * | 1 | 1 |
| 06:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 07:00 | * | * | * | * | 1 | 3 | * | * | * | * | * | * | * | * | 1 | 3 |
| 08:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 09:00 | * | * | * | * | 6 | 9 | * | * | * | * | * | * | * | * | 6 | 9 |
| 10:00 | * | * | * | * | 8 | 13 | * | * | * | * | * | * | * | * | 8 | 13 |
| 11:00 | * | * | * | * | 3 | 17 | * | * | * | * | * | * | * | * | 3 | 17 |
| 12:00 PM | * | * | * | * | 6 | 2 | * | * | * | * | * | * | * | * | 6 | 2 |
| 01:00 | * | * | * | * | 4 | 6 | * | * | * | * | * | * | * | * | 4 | 6 |
| 02:00 | * | * | * | * | 10 | 10 | * | * | * | * | * | * | * | * | 10 | 10 |
| 03:00 | * | * | * | * | 3 | 5 | * | * | * | * | * | * | * | * | 3 | 5 |
| 04:00 | * | * | * | * | 11 | 10 | * | * | * | * | * | * | * | * | 11 | 10 |
| 05:00 | * | * | * | * | 4 | 5 | * | * | * | * | * | * | * | * | 4 | 5 |
| 06:00 | * | * | * | * | 2 | 1 | * | * | * | * | * | * | * | * | 2 | 1 |
| 07:00 | * | * | * | * | 6 | 3 | * | * | * | * | * | * | * | * | 6 | 3 |
| 08:00 | * | * | * | * | 5 | 4 | * | * | * | * | * | * | * | * | 5 | 4 |
| 09:00 | * | * | * | * | 5 | 5 | * | * | * | * | * | * | * | * | 5 | 5 |
| 10:00 | * | * | * | * | 1 | 6 | * | * | * | * | * | * | * | * | 1 | 6 |
| 11:00 | * | * | * | * | 2 | 2 | * | * | * | * | * | * | * | * | 2 | 2 |
| Lane Day | 0 | 0 | 0 | 0 | 80 | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 105 |
| AM Peak Vol. | | | | | 10:00 | 11:00 | | | | | | | | | 10:00 | 11:00 |
| PM Peak Vol. | | | | | 16:00 | 14:00 | | | | | | | | | 16:00 | 14:00 |
| Comb. Total | 0 | 0 | 0 | 0 | 185 | 185 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 | 185 |

ADT

ADT 185

AADT 185

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100005
Station ID: C21
Wood Ave west of Bayview Ave

Latitude: 0° 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100004
Station ID: C1

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Sat | | Sun | | Week Average | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----|----|-----|----|--------------|-------|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 1 | 1 | * | * | * | * | * | * | * | * | 1 | 1 |
| 01:00 | * | * | * | * | 1 | 1 | * | * | * | * | * | * | * | * | 1 | 1 |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| 03:00 | * | * | * | * | 0 | 2 | * | * | * | * | * | * | * | * | 0 | 2 |
| 04:00 | * | * | * | * | 1 | 0 | * | * | * | * | * | * | * | * | 1 | 0 |
| 05:00 | * | * | * | * | 0 | 1 | * | * | * | * | * | * | * | * | 0 | 1 |
| 06:00 | * | * | * | * | 0 | 1 | * | * | * | * | * | * | * | * | 0 | 1 |
| 07:00 | * | * | * | * | 6 | 19 | * | * | * | * | * | * | * | * | 6 | 19 |
| 08:00 | * | * | * | * | 8 | 18 | * | * | * | * | * | * | * | * | 8 | 18 |
| 09:00 | * | * | * | * | 13 | 23 | * | * | * | * | * | * | * | * | 13 | 23 |
| 10:00 | * | * | * | * | 11 | 11 | * | * | * | * | * | * | * | * | 11 | 11 |
| 11:00 | * | * | * | * | 11 | 15 | * | * | * | * | * | * | * | * | 11 | 15 |
| 12:00 PM | * | * | * | * | 10 | 9 | * | * | * | * | * | * | * | * | 10 | 9 |
| 01:00 | * | * | * | * | 5 | 12 | * | * | * | * | * | * | * | * | 5 | 12 |
| 02:00 | * | * | * | * | 10 | 10 | * | * | * | * | * | * | * | * | 10 | 10 |
| 03:00 | * | * | * | * | 12 | 12 | * | * | * | * | * | * | * | * | 12 | 12 |
| 04:00 | * | * | * | * | 11 | 10 | * | * | * | * | * | * | * | * | 11 | 10 |
| 05:00 | * | * | * | * | 10 | 9 | * | * | * | * | * | * | * | * | 10 | 9 |
| 06:00 | * | * | * | * | 16 | 9 | * | * | * | * | * | * | * | * | 16 | 9 |
| 07:00 | * | * | * | * | 8 | 10 | * | * | * | * | * | * | * | * | 8 | 10 |
| 08:00 | * | * | * | * | 2 | 8 | * | * | * | * | * | * | * | * | 2 | 8 |
| 09:00 | * | * | * | * | 4 | 4 | * | * | * | * | * | * | * | * | 4 | 4 |
| 10:00 | * | * | * | * | 6 | 6 | * | * | * | * | * | * | * | * | 6 | 6 |
| 11:00 | * | * | * | * | 0 | 0 | * | * | * | * | * | * | * | * | 0 | 0 |
| Lane Day | 0 | 0 | 0 | 0 | 146 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 | 191 |
| AM Peak Vol. | | | | | 09:00 | 09:00 | | | | | | | | | 09:00 | 09:00 |
| PM Peak Vol. | | | | | 18:00 | 13:00 | | | | | | | | | 18:00 | 13:00 |
| Comb. Total | 0 | | 0 | | 337 | | 0 | | 0 | | 0 | | 0 | | 0 | 337 |

Comb.
Total

0

0

337

0

0

0

0

337

ADT

ADT 337

AADT 337

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100004
Station ID: C1

Latitude: 0' 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100003

Station ID: C71

Rochester Ave east of St. Ives Ave

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 2 | 2 | * | * | * | * | 2 | 2 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 1 | 1 | * | * | * | * | 1 | 1 | * | * | * | * |
| 04:00 | * | * | * | * | 2 | 0 | * | * | * | * | 2 | 0 | * | * | * | * |
| 05:00 | * | * | * | * | 4 | 1 | * | * | * | * | 4 | 1 | * | * | * | * |
| 06:00 | * | * | * | * | 3 | 2 | * | * | * | * | 3 | 2 | * | * | * | * |
| 07:00 | * | * | * | * | 17 | 17 | * | * | * | * | 17 | 17 | * | * | * | * |
| 08:00 | * | * | * | * | 39 | 15 | * | * | * | * | 39 | 15 | * | * | * | * |
| 09:00 | * | * | * | * | 24 | 22 | * | * | * | * | 24 | 22 | * | * | * | * |
| 10:00 | * | * | * | * | 19 | 15 | * | * | * | * | 19 | 15 | * | * | * | * |
| 11:00 | * | * | * | * | 21 | 15 | * | * | * | * | 21 | 15 | * | * | * | * |
| 12:00 PM | * | * | * | * | 19 | 10 | * | * | * | * | 19 | 10 | * | * | * | * |
| 01:00 | * | * | * | * | 24 | 17 | * | * | * | * | 24 | 17 | * | * | * | * |
| 02:00 | * | * | * | * | 17 | 14 | * | * | * | * | 17 | 14 | * | * | * | * |
| 03:00 | * | * | * | * | 26 | 21 | * | * | * | * | 26 | 21 | * | * | * | * |
| 04:00 | * | * | * | * | 28 | 14 | * | * | * | * | 28 | 14 | * | * | * | * |
| 05:00 | * | * | * | * | 16 | 21 | * | * | * | * | 16 | 21 | * | * | * | * |
| 06:00 | * | * | * | * | 22 | 17 | * | * | * | * | 22 | 17 | * | * | * | * |
| 07:00 | * | * | * | * | 12 | 13 | * | * | * | * | 12 | 13 | * | * | * | * |
| 08:00 | * | * | * | * | 7 | 10 | * | * | * | * | 7 | 10 | * | * | * | * |
| 09:00 | * | * | * | * | 6 | 8 | * | * | * | * | 6 | 8 | * | * | * | * |
| 10:00 | * | * | * | * | 8 | 5 | * | * | * | * | 8 | 5 | * | * | * | * |
| 11:00 | * | * | * | * | 2 | 1 | * | * | * | * | 2 | 1 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 319 | 242 | 0 | 0 | 0 | 0 | 319 | 242 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 | 09:00 | | | | | 08:00 | 09:00 | | | | |
| Vol. | | | | | 39 | 22 | | | | | 39 | 22 | | | | |
| PM Peak Vol. | | | | | 16:00 | 15:00 | | | | | 16:00 | 15:00 | | | | |
| Vol. | | | | | 28 | 21 | | | | | 28 | 21 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 561 | 0 | 561 | 0 | 0 | 561 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

ADT

ADT 561

AADT 561

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100003
Station ID: C71
Rochester Ave east of St. Ives Ave

Latitude: 0' 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100002

Station ID: C74

Buckingham Ave east of Wanless Cres

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------|-------|-----|----|-----|----|-----------------|-------|-----|----|-----|----|
| | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB | EB | WB |
| 12:00 AM | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 0 | 1 | * | * | * | * | 0 | 1 | * | * | * | * |
| 03:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 05:00 | * | * | * | * | 0 | 6 | * | * | * | * | 0 | 6 | * | * | * | * |
| 06:00 | * | * | * | * | 0 | 3 | * | * | * | * | 0 | 3 | * | * | * | * |
| 07:00 | * | * | * | * | 19 | 9 | * | * | * | * | 19 | 9 | * | * | * | * |
| 08:00 | * | * | * | * | 60 | 21 | * | * | * | * | 60 | 21 | * | * | * | * |
| 09:00 | * | * | * | * | 31 | 14 | * | * | * | * | 31 | 14 | * | * | * | * |
| 10:00 | * | * | * | * | 13 | 22 | * | * | * | * | 13 | 22 | * | * | * | * |
| 11:00 | * | * | * | * | 15 | 16 | * | * | * | * | 15 | 16 | * | * | * | * |
| 12:00 PM | * | * | * | * | 20 | 30 | * | * | * | * | 20 | 30 | * | * | * | * |
| 01:00 | * | * | * | * | 30 | 30 | * | * | * | * | 30 | 30 | * | * | * | * |
| 02:00 | * | * | * | * | 27 | 30 | * | * | * | * | 27 | 30 | * | * | * | * |
| 03:00 | * | * | * | * | 20 | 26 | * | * | * | * | 20 | 26 | * | * | * | * |
| 04:00 | * | * | * | * | 21 | 25 | * | * | * | * | 21 | 25 | * | * | * | * |
| 05:00 | * | * | * | * | 15 | 25 | * | * | * | * | 15 | 25 | * | * | * | * |
| 06:00 | * | * | * | * | 16 | 14 | * | * | * | * | 16 | 14 | * | * | * | * |
| 07:00 | * | * | * | * | 10 | 23 | * | * | * | * | 10 | 23 | * | * | * | * |
| 08:00 | * | * | * | * | 9 | 5 | * | * | * | * | 9 | 5 | * | * | * | * |
| 09:00 | * | * | * | * | 7 | 13 | * | * | * | * | 7 | 13 | * | * | * | * |
| 10:00 | * | * | * | * | 2 | 4 | * | * | * | * | 2 | 4 | * | * | * | * |
| 11:00 | * | * | * | * | 5 | 8 | * | * | * | * | 5 | 8 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 321 | 326 | 0 | 0 | 0 | 0 | 321 | 326 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 | 10:00 | | | | | 08:00 | 10:00 | | | | |
| Vol. | | | | | 60 | 22 | | | | | 60 | 22 | | | | |
| PM Peak Vol. | | | | | 13:00 | 12:00 | | | | | 13:00 | 12:00 | | | | |
| Comb. Total | 0 | | 0 | | 647 | | 0 | | 0 | | 647 | | 0 | | 0 | 0 |

Comb.
Total

0

0

647

0

0

647

0

0

ADT

ADT 647

AADT 647

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100002
Station ID: C74
Buckingham Ave east of Wanless Cres

Latitude: 0° 0.000 Undefined

Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100001

Station ID: C78

Wanless Cres (E leg) S of Lawrence Ave E

Latitude: 0° 0.000 Undefined

| Start Time | 05-Nov-12 | | Tue | | Wed | | Thu | | Fri | | Weekday Average | | Sat | | Sun | |
|--------------|-----------|----|-----|----|-------------|--------------|-----|----|-----|----|-----------------|--------------|-----|----|-----|----|
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| 12:00 AM | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 01:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 02:00 | * | * | * | * | 2 | 0 | * | * | * | * | 2 | 0 | * | * | * | * |
| 03:00 | * | * | * | * | 0 | 0 | * | * | * | * | 0 | 0 | * | * | * | * |
| 04:00 | * | * | * | * | 1 | 0 | * | * | * | * | 1 | 0 | * | * | * | * |
| 05:00 | * | * | * | * | 2 | 3 | * | * | * | * | 2 | 3 | * | * | * | * |
| 06:00 | * | * | * | * | 8 | 1 | * | * | * | * | 8 | 1 | * | * | * | * |
| 07:00 | * | * | * | * | 15 | 50 | * | * | * | * | 15 | 50 | * | * | * | * |
| 08:00 | * | * | * | * | 43 | 109 | * | * | * | * | 43 | 109 | * | * | * | * |
| 09:00 | * | * | * | * | 35 | 43 | * | * | * | * | 35 | 43 | * | * | * | * |
| 10:00 | * | * | * | * | 16 | 12 | * | * | * | * | 16 | 12 | * | * | * | * |
| 11:00 | * | * | * | * | 11 | 15 | * | * | * | * | 11 | 15 | * | * | * | * |
| 12:00 PM | * | * | * | * | 18 | 13 | * | * | * | * | 18 | 13 | * | * | * | * |
| 01:00 | * | * | * | * | 16 | 12 | * | * | * | * | 16 | 12 | * | * | * | * |
| 02:00 | * | * | * | * | 15 | 5 | * | * | * | * | 15 | 5 | * | * | * | * |
| 03:00 | * | * | * | * | 26 | 22 | * | * | * | * | 26 | 22 | * | * | * | * |
| 04:00 | * | * | * | * | 37 | 43 | * | * | * | * | 37 | 43 | * | * | * | * |
| 05:00 | * | * | * | * | 18 | 30 | * | * | * | * | 18 | 30 | * | * | * | * |
| 06:00 | * | * | * | * | 37 | 20 | * | * | * | * | 37 | 20 | * | * | * | * |
| 07:00 | * | * | * | * | 9 | 14 | * | * | * | * | 9 | 14 | * | * | * | * |
| 08:00 | * | * | * | * | 5 | 9 | * | * | * | * | 5 | 9 | * | * | * | * |
| 09:00 | * | * | * | * | 2 | 10 | * | * | * | * | 2 | 10 | * | * | * | * |
| 10:00 | * | * | * | * | 3 | 2 | * | * | * | * | 3 | 2 | * | * | * | * |
| 11:00 | * | * | * | * | 4 | 0 | * | * | * | * | 4 | 0 | * | * | * | * |
| Total Day | 0 | 0 | 0 | 0 | 324 | 413 | 0 | 0 | 0 | 0 | 324 | 413 | 0 | 0 | 0 | 0 |
| AM Peak Vol. | | | | | 08:00 43 | 08:00 109 | | | | | 08:00 43 | 08:00 109 | | | | |
| PM Peak Vol. | | | | | 16:00 37 | 16:00 43 | | | | | 16:00 37 | 16:00 43 | | | | |

| | | | | | | | | | | | | | | | | |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|
| Comb. Total | 0 | 0 | 737 | 0 | 737 | 0 | 0 | 737 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|-----|---|-----|---|---|-----|---|---|---|---|---|---|---|---|

ADT

ADT 737

AADT 737

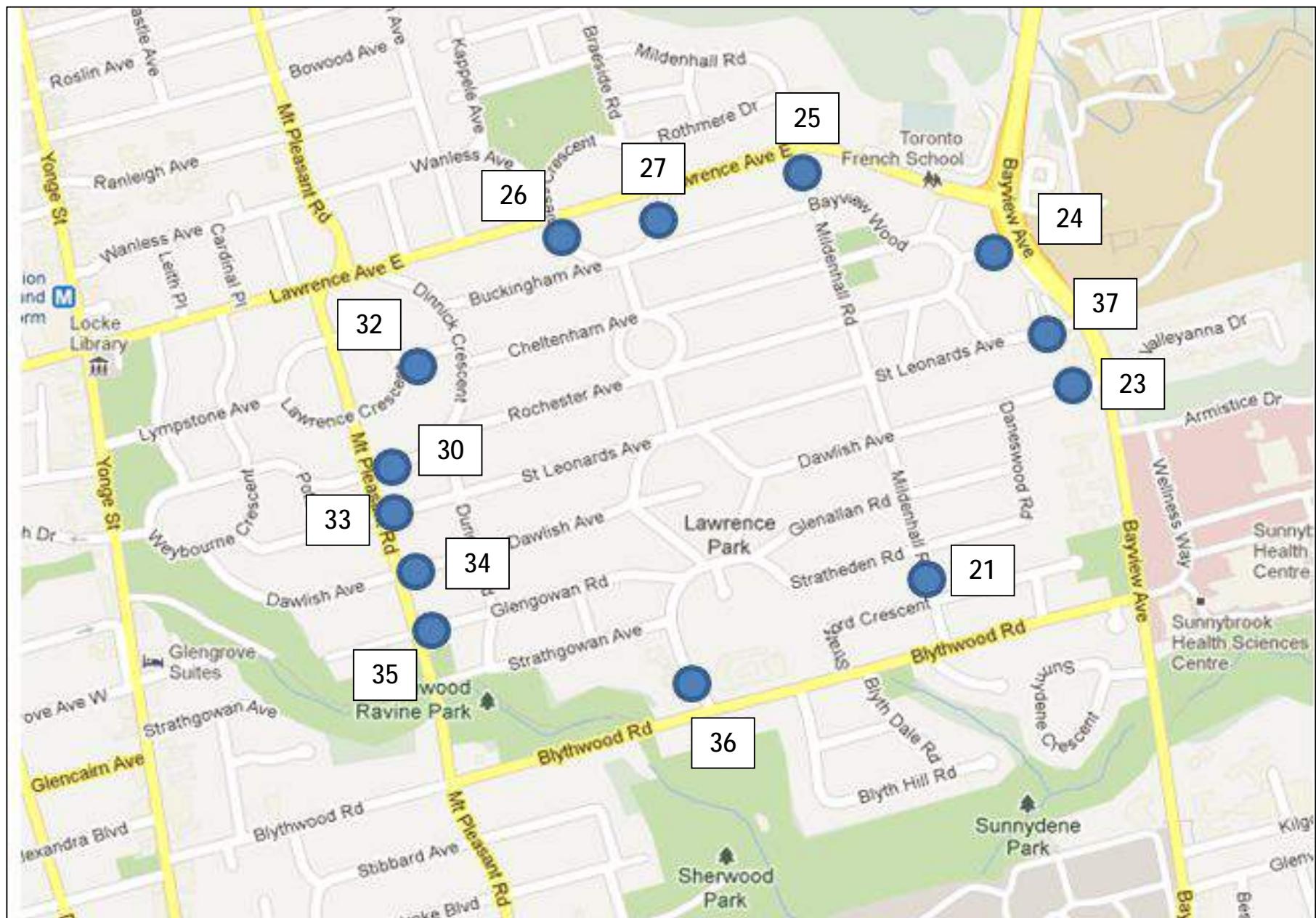
Ontario Traffic Inc
17705 Leslie St. Unit 6
Newmarket, Ontario
L3Y3E3, Canada

Page 1

Site Code: 1213100001
Station ID: C78
Wanless Cres (E leg) S of Lawrence Ave E

Latitude: 0' 0.000 Undefined

APPENDIX C: ORIGIN-DESTINATION (O-D) LICENCE PLATE TRACE SURVEY



Origin – Destination (O - D) Licence Plate Trace Survey Locations

AM

| | |
|--------------------------|----------------|
| Survey Start Time | 6:30 AM |
| Survey End Time | 9:30 AM |
| Current Time | |

| ALL | | TO | | | | | | | | | | | | | | | | | |
|------|-----------|--|----|-----|----|----|----|-----|-----|-----|----|-----|-----|----|-------|----------|---------|----------|--|
| | | 26 27 25 24 37 23 21 36 35 34 33 32 30 | | | | | | | | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | Internal | Through | TOTAL IN | |
| FROM | 26 | 1 | 2 | 4 | 6 | 1 | 3 | 3 | 18 | 1 | 5 | 2 | 8 | 3 | 1 | 41 | 57 | 98 | |
| | 27 | 2 | 2 | 7 | 23 | 0 | 2 | 1 | 4 | 2 | 4 | 5 | 40 | 9 | 0 | 70 | 99 | 169 | |
| | 25 | 3 | 2 | 0 | 26 | 0 | 7 | 2 | 74 | 2 | 3 | 1 | 11 | 2 | 2 | 95 | 132 | 227 | |
| | 24 | 4 | 0 | 0 | 6 | 1 | 1 | 2 | 4 | 0 | 0 | 1 | 2 | 1 | 0 | 20 | 18 | 38 | |
| | 37 | 5 | 0 | 0 | 6 | 0 | 3 | 1 | 22 | 2 | 2 | 0 | 17 | 0 | 0 | 35 | 53 | 88 | |
| | 23 | 6 | 0 | 0 | 2 | 0 | 0 | 1 | 6 | 1 | 1 | 2 | 1 | 1 | 0 | 11 | 15 | 26 | |
| | 21 | 7 | 3 | 2 | 61 | 0 | 2 | 2 | 15 | 7 | 2 | 1 | 12 | 2 | 0 | 154 | 109 | 263 | |
| | 36 | 8 | 0 | 0 | 4 | 0 | 1 | 2 | 6 | 7 | 3 | 0 | 2 | 0 | 0 | 32 | 25 | 57 | |
| | 35 | 9 | 0 | 0 | 6 | 0 | 0 | 0 | 7 | 18 | 10 | 2 | 1 | 1 | 0 | 39 | 45 | 84 | |
| | 34 | 10 | 0 | 3 | 19 | 0 | 0 | 0 | 8 | 4 | 4 | 1 | 5 | 4 | 0 | 23 | 48 | 71 | |
| | 33 | 11 | 0 | 3 | 18 | 0 | 6 | 1 | 12 | 3 | 1 | 2 | 4 | 4 | 1 | 76 | 55 | 131 | |
| | 32 | 12 | 1 | 5 | 10 | 0 | 4 | 0 | 9 | 2 | 4 | 1 | 5 | 4 | 0 | 46 | 45 | 91 | |
| | 30 | 13 | 1 | 3 | 7 | 0 | 1 | 0 | 6 | 5 | 0 | 2 | 8 | 2 | 0 | 22 | 35 | 57 | |
| | | | | | | | | | | | | | | | | 664 | 736 | 1,400 | |
| | Internal | 30 | 39 | 297 | 11 | 37 | 42 | 291 | 70 | 78 | 51 | 215 | 70 | 17 | 1,248 | | | | |
| | Through | 11 | 27 | 194 | 2 | 30 | 15 | 191 | 54 | 39 | 20 | 116 | 33 | 4 | 736 | | | | |
| | TOTAL OUT | 41 | 66 | 491 | 13 | 67 | 57 | 482 | 124 | 117 | 71 | 331 | 103 | 21 | 1,984 | | | | |

| Zone # | Inbound Location | Dir | Distribution % | Outbound Location of Transient Traffic-AM Peak Hour | | | | | | | | | | | | | Through | Internal | Total In | | |
|-----------------|---|----------|----------------|---|------|-------|-------|-------|------|-------|------|-------|------|------|-------|--------|---------|----------|----------|--------|-------|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | | | | |
| 1 | Wood Ave just west of Bayview Ave | SBR | 100 | 1.0 | 1.0 | 2.0 | 4.0 | 0.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 0.0 | 0.0 | 6.0 | | 18.0 | 20.0 | 38.0 | |
| 2 | St. Leonards Ave just west of Bayview Ave | SBR | 100 | 0.0 | 3.0 | 1.0 | 22.0 | 2.0 | 2.0 | 0.0 | 17.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | | 53.0 | 35.0 | 88.0 | |
| 3 | Dawlish Ave just west of Bayview Ave | SBR | 50 | 0.0 | 0.0 | 0.5 | 3.0 | 0.5 | 0.5 | 1.0 | 0.5 | 0.0 | 0.5 | 0.0 | 0.0 | 1.0 | | 15.0 | 11.0 | 26.0 | |
| | | NBL | 50 | 0.0 | 0.0 | 0.5 | 3.0 | 0.5 | 0.5 | 1.0 | 0.5 | 0.0 | 0.5 | 0.0 | 0.0 | 1.0 | | | | | |
| 4 | Mildenhall Rd just north of Stratford Cres | WBR | 86 | 0.0 | 1.7 | 1.7 | 12.9 | 6.0 | 1.7 | 0.9 | 10.3 | 0.0 | 1.7 | 2.6 | 1.7 | 52.5 | | 109.0 | 154.0 | 263.0 | |
| | | EBL | 14 | 0.0 | 0.3 | 0.3 | 2.1 | 1.0 | 0.3 | 0.1 | 1.7 | 0.0 | 0.3 | 0.4 | 0.3 | 8.5 | | | | | |
| 5 | Strathgowan Cres just north of Blythwood Rd | WBR | 60 | 0.0 | 0.6 | 1.2 | 3.6 | 4.2 | 1.8 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | | 25.0 | 32.0 | 57.0 |
| | | EBL | 40 | 0.0 | 0.4 | 0.8 | 2.4 | 2.8 | 1.2 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | | | | |
| 6 | Glengowan Rd just east of Mt. Pleasant Rd | NBR | 92 | 0.0 | 0.0 | 0.0 | 6.4 | 16.6 | 9.2 | 1.8 | 0.9 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 5.5 | | 45.0 | 39.0 | 84.0 |
| | | SBL | 5 | 0.0 | 0.0 | 0.0 | 0.4 | 0.9 | 0.5 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | | | | |
| | | EBT | 3 | 0.0 | 0.0 | 0.0 | 0.2 | 0.5 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | | | | |
| 7 | Dawlish Ave just east of Mt. Pleasant Rd | NBR | 87 | 0.0 | 0.0 | 0.0 | 7.0 | 3.5 | 3.5 | 0.9 | 4.4 | 0.0 | 3.5 | 0.0 | 2.6 | 16.5 | | 48.0 | 23.0 | 71.0 | |
| | | SBL | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | EBT | 13 | 0.0 | 0.0 | 0.0 | 1.0 | 0.5 | 0.5 | 0.1 | 0.7 | 0.0 | 0.5 | 0.0 | 0.0 | 0.4 | 2.5 | | | | |
| 8 | St. Leonards Ave just east of Mt. Pleasant Rd | NBR | 3 | 0.0 | 0.2 | 0.0 | 0.4 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.5 | | 55.6 | 76.0 | 131.6 |
| | | SBL | 22 | 0.0 | 1.3 | 0.2 | 2.6 | 0.7 | 0.2 | 0.4 | 0.9 | 0.2 | 0.9 | 0.0 | 0.0 | 0.7 | 4.0 | | | | |
| | | EBT | 76 | 0.0 | 4.6 | 0.8 | 9.1 | 2.3 | 0.8 | 1.5 | 3.0 | 0.8 | 3.0 | 0.0 | 2.3 | 13.7 | | | | | |
| 9 | Lympstone Ave just east of Lawrence Cres | NBR | 47 | 0.0 | 0.5 | 0.0 | 2.8 | 2.4 | 0.0 | 0.9 | 3.8 | 0.0 | 0.9 | 0.5 | 1.4 | 3.3 | | 35.0 | 22.0 | 57.0 | |
| | | SBL | 1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | | | | |
| | | EBT | 52 | 0.0 | 0.5 | 0.0 | 3.1 | 2.6 | 0.0 | 1.0 | 4.2 | 0.0 | 1.0 | 0.5 | 1.6 | 3.6 | | | | | |
| 10 | Dinnick Cres just east of Mt. Pleasant Rd | NBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 45.0 | 46.0 | 91.0 |
| | | SBL | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | EBT | 100 | 0.0 | 4.0 | 0.0 | 9.0 | 2.0 | 4.0 | 1.0 | 5.0 | 0.0 | 4.0 | 1.0 | 5.0 | 10.0 | | | | | |
| 11 | Wanless Cres W just south of Lawrence Ave E | EBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 57.0 | 41.0 | 98.0 |
| | | WBL | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | SBT | 100 | 1.0 | 3.0 | 3.0 | 18.0 | 1.0 | 5.0 | 2.0 | 8.0 | 1.0 | 3.0 | 2.0 | 4.0 | 6.0 | | | | | |
| 12 | Wanless Cres E just south of Lawrence Ave E | EBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 99.0 | 70.0 | 169.0 |
| | | WBL | 82 | 0.0 | 1.6 | 0.8 | 3.3 | 1.6 | 3.3 | 4.1 | 32.8 | 0.0 | 7.4 | 1.6 | 5.7 | 18.9 | | | | | |
| | | SBT | 18 | 0.0 | 0.4 | 0.2 | 0.7 | 0.4 | 0.7 | 0.9 | 7.2 | 0.0 | 1.6 | 0.4 | 1.3 | 4.1 | | | | | |
| 13 | Mildenhall Rd just south of Lawrence Ave E | EPR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 132.0 | 95.0 | 227.0 |
| | | WBL | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | SBT | 100 | 0.0 | 7.0 | 2.0 | 74.0 | 2.0 | 3.0 | 1.0 | 11.0 | 2.0 | 2.0 | 2.0 | 0.0 | 26.0 | | | | | |
| Restricted Turn | | Through | 2.0 | 30.1 | 15.0 | 191.1 | 54.0 | 39.0 | 20.0 | 116.0 | 4.0 | 33.0 | 11.0 | 27.0 | 194.2 | 736.6 | | 736.6 | 664.0 | 1400.6 | |
| | | Internal | 11.0 | 37.0 | 42.0 | 291.0 | 70.0 | 78.0 | 51.0 | 215.0 | 17.0 | 70.0 | 30.0 | 39.0 | 297.0 | 1248.0 | | | | | |
| | | Total In | 13.0 | 67.1 | 57.0 | 482.1 | 124.0 | 117.0 | 71.0 | 331.0 | 21.0 | 103.0 | 41.0 | 66.0 | 491.2 | 1984.6 | | | | | |

PM

| | |
|--------------------------|----------------|
| Survey Start Time | 3:00 PM |
| Survey End Time | 6:00 PM |
| Current Time | |

| ALL | | | TO | | | | | | | | | | | | | | | | | |
|------|-----------|----|----|-----|-----|----|----|-----|-----|-----|----|-----|-----|----|-------|--|----------|---------|----------|--|
| | | | 26 | 27 | 25 | 24 | 37 | 23 | 21 | 36 | 35 | 34 | 33 | 32 | 30 | | Internal | Through | TOTAL IN | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | | | | |
| FROM | 26 | 1 | 3 | 0 | 4 | 0 | 0 | 0 | 5 | 5 | 3 | 2 | 20 | 15 | 5 | | 43 | 62 | 105 | |
| | 27 | 2 | 0 | 2 | 14 | 1 | 0 | 0 | 5 | 0 | 4 | 2 | 23 | 9 | 4 | | 34 | 64 | 98 | |
| | 25 | 3 | 1 | 2 | 18 | 1 | 9 | 3 | 75 | 2 | 5 | 2 | 46 | 6 | 2 | | 150 | 172 | 322 | |
| | 24 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | | 5 | 6 | 11 | |
| | 37 | 5 | 3 | 1 | 15 | 1 | 0 | 0 | 11 | 3 | 5 | 4 | 64 | 3 | 1 | | 81 | 111 | 192 | |
| | 23 | 6 | 4 | 0 | 43 | 1 | 3 | 4 | 39 | 7 | 9 | 3 | 21 | 3 | 1 | | 108 | 138 | 246 | |
| | 21 | 7 | 5 | 3 | 152 | 1 | 3 | 1 | 14 | 15 | 11 | 5 | 33 | 4 | 2 | | 226 | 249 | 475 | |
| | 36 | 8 | 3 | 1 | 7 | 0 | 0 | 0 | 6 | 7 | 31 | 5 | 6 | 2 | 1 | | 57 | 69 | 126 | |
| | 35 | 9 | 1 | 0 | 8 | 0 | 1 | 0 | 5 | 5 | 12 | 0 | 3 | 1 | 1 | | 51 | 37 | 88 | |
| | 34 | 10 | 1 | 0 | 13 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 0 | 1 | | 43 | 24 | 67 | |
| | 33 | 11 | 0 | 2 | 29 | 0 | 1 | 1 | 8 | 1 | 2 | 0 | 6 | 2 | 0 | | 90 | 52 | 142 | |
| | 32 | 12 | 4 | 11 | 22 | 0 | 4 | 1 | 6 | 6 | 2 | 2 | 5 | 5 | 1 | | 107 | 69 | 176 | |
| | 30 | 13 | 1 | 8 | 11 | 0 | 3 | 0 | 3 | 0 | 1 | 2 | 6 | 2 | 1 | | 42 | 38 | 80 | |
| | | | | | | | | | | | | | | | | | 1,037 | 1,091 | 2,128 | |
| | Internal | 22 | 23 | 234 | 6 | 20 | 22 | 161 | 70 | 94 | 33 | 236 | 75 | 23 | 1,019 | | | | | |
| | Through | 26 | 30 | 337 | 5 | 24 | 10 | 179 | 52 | 88 | 29 | 238 | 53 | 20 | 1,091 | | | | | |
| | TOTAL OUT | 48 | 53 | 571 | 11 | 44 | 32 | 340 | 122 | 182 | 62 | 474 | 128 | 43 | 2,110 | | | | | |

| Zone # | Inbound Location | Dir | Distribution % | Outbound Location of Transient Traffic-PM Peak Hour | | | | | | | | | | | | | | Through | Internal | Total In | | | |
|--------|---|-----|----------------|---|------|------|------|-------|-------|-------|------|-------|------|-------|------|------|-------|---------|----------|----------|--------|--------|--|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Total | | | | | | |
| 1 | Wood Ave just west of Bayview Ave | SBR | 100 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 0.0 | 2.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 6.0 | | 6.0 | 5.0 | 11.0 | | |
| 2 | St. Leonards Ave just west of Bayview Ave | SBR | 100 | 1.0 | 0.0 | 0.0 | 11.0 | 3.0 | 5.0 | 4.0 | 64.0 | 1.0 | 3.0 | 3.0 | 1.0 | 15.0 | 111.0 | | 111.0 | 81.0 | 192.0 | | |
| 3 | Dawlish Ave just west of Bayview Ave | SBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 138.0 | 108.0 | 246.0 | | |
| | | NBL | 100 | 1.0 | 3.0 | 4.0 | 39.0 | 7.0 | 9.0 | 3.0 | 21.0 | 1.0 | 3.0 | 4.0 | 0.0 | 43.0 | 138.0 | | | | | | |
| 4 | Mildenhall Rd just north of Stratford Cres | WBR | 50 | 0.5 | 1.5 | 0.5 | 7.0 | 7.5 | 5.5 | 2.5 | 16.5 | 1.0 | 2.0 | 2.5 | 1.5 | 76.0 | 124.5 | | 249.0 | 226.0 | 475.0 | | |
| | | EBL | 50 | 0.5 | 1.5 | 0.5 | 7.0 | 7.5 | 5.5 | 2.5 | 16.5 | 1.0 | 2.0 | 2.5 | 1.5 | 76.0 | 124.5 | | | | | | |
| 5 | Strathgowan Cres just north of Blythwood Rd | WBR | 27 | 0.0 | 0.0 | 0.0 | 1.6 | 1.9 | 8.4 | 1.4 | 1.6 | 0.3 | 0.5 | 0.8 | 0.3 | 1.9 | 18.6 | | 69.0 | 57.0 | 126.0 | | |
| | | EBL | 73 | 0.0 | 0.0 | 0.0 | 4.4 | 5.1 | 22.6 | 3.7 | 4.4 | 0.7 | 1.5 | 2.2 | 0.7 | 5.1 | 50.4 | | | | | | |
| 6 | Glengowan Rd just east of Mt. Pleasant Rd | NBR | 46 | 0.0 | 0.5 | 0.0 | 2.3 | 2.3 | 5.5 | 0.0 | 1.4 | 0.5 | 0.5 | 0.5 | 0.0 | 3.7 | 17.0 | | 37.4 | 51.0 | 88.4 | | |
| | | SBL | 42 | 0.0 | 0.4 | 0.0 | 2.1 | 2.1 | 5.0 | 0.0 | 1.3 | 0.4 | 0.4 | 0.4 | 0.0 | 3.4 | 15.5 | | | | | | |
| | | EBT | 13 | 0.0 | 0.1 | 0.0 | 0.7 | 0.7 | 1.6 | 0.0 | 0.4 | 0.1 | 0.1 | 0.1 | 0.0 | 1.0 | 4.8 | | | | | | |
| 7 | Dawlish Ave just east of Mt. Pleasant Rd | NBR | 72 | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 1.4 | 1.4 | 2.2 | 0.7 | 0.0 | 0.7 | 0.0 | 9.4 | 17.3 | | 24.0 | 43.0 | 67.0 | | |
| | | SBL | 15 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.5 | 0.2 | 0.0 | 0.2 | 0.0 | 2.0 | 3.6 | | | | | | |
| | | EBT | 13 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.1 | 0.0 | 0.1 | 0.0 | 1.7 | 3.1 | | | | | | |
| 8 | St. Leonards Ave just east of Mt. Pleasant Rd | NBR | 1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.5 | | 51.5 | 90.0 | 141.5 | | |
| | | SBL | 21 | 0.0 | 0.2 | 0.2 | 1.7 | 0.2 | 0.4 | 0.0 | 1.3 | 0.0 | 0.4 | 0.0 | 0.4 | 6.1 | 10.9 | | | | | | |
| | | EBT | 77 | 0.0 | 0.8 | 0.8 | 6.2 | 0.8 | 1.5 | 0.0 | 4.6 | 0.0 | 1.5 | 0.0 | 1.5 | 22.3 | 40.0 | | | | | | |
| 9 | Lympstone Ave just east of Lawrence Cres | NBR | 63 | 0.0 | 1.9 | 0.0 | 1.9 | 0.0 | 0.6 | 1.3 | 3.8 | 0.6 | 1.3 | 0.6 | 5.0 | 6.9 | 23.9 | | 38.0 | 42.0 | 80.0 | | |
| | | SBL | 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.4 | | | | | | |
| | | EBT | 36 | 0.0 | 1.1 | 0.0 | 1.1 | 0.0 | 0.4 | 0.7 | 2.2 | 0.4 | 0.7 | 0.4 | 2.9 | 4.0 | 13.7 | | | | | | |
| 10 | Dinnick Cres just east of Mt. Pleasant Rd | NBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 69.0 | 107.0 | 176.0 | | |
| | | SBL | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | |
| | | EBT | 100 | 0.0 | 4.0 | 1.0 | 6.0 | 6.0 | 2.0 | 2.0 | 5.0 | 1.0 | 5.0 | 4.0 | 11.0 | 22.0 | 69.0 | | | | | | |
| 11 | Wanless Cres W just south of Lawrence Ave E | EBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 62.0 | 43.0 | 105.0 | | |
| | | WBL | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | |
| | | SBT | 100 | 0.0 | 0.0 | 0.0 | 5.0 | 5.0 | 3.0 | 2.0 | 20.0 | 5.0 | 15.0 | 3.0 | 0.0 | 4.0 | 62.0 | | | | | | |
| 12 | Wanless Cres E just south of Lawrence Ave E | EBR | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 64.0 | 34.0 | 98.0 | | |
| | | WBL | 37 | 0.4 | 0.0 | 0.0 | 1.9 | 0.0 | 1.5 | 0.7 | 8.5 | 1.5 | 3.3 | 0.0 | 0.7 | 5.2 | 23.7 | | | | | | |
| | | SBT | 63 | 0.6 | 0.0 | 0.0 | 3.2 | 0.0 | 2.5 | 1.3 | 14.5 | 2.5 | 5.7 | 0.0 | 1.3 | 8.8 | 40.3 | | | | | | |
| 13 | Mildenhall Rd just south of Lawrence Ave E | EBR | 8 | 0.1 | 0.7 | 0.2 | 6.0 | 0.2 | 0.4 | 0.2 | 3.7 | 0.2 | 0.5 | 0.1 | 0.2 | 1.4 | 13.8 | | 172.0 | 150.0 | 322.0 | | |
| | | WBL | 52 | 0.5 | 4.7 | 1.6 | 39.0 | 1.0 | 2.6 | 1.0 | 23.9 | 1.0 | 3.1 | 0.5 | 1.0 | 9.4 | 89.4 | | | | | | |
| | | SBT | 40 | 0.4 | 3.6 | 1.2 | 30.0 | 0.8 | 2.0 | 0.8 | 18.4 | 0.8 | 2.4 | 0.4 | 0.8 | 7.2 | 68.8 | | | | | | |
| | | | | Through | 5.0 | 24.0 | 10.0 | 179.0 | 52.0 | 88.1 | 29.0 | 238.0 | 20.0 | 53.0 | 26.0 | 30.0 | 336.8 | 1090.9 | 1090.9 | 1090.9 | 1037.0 | 2127.9 | |
| | | | | Internal | 6.0 | 20.0 | 22.0 | 161.0 | 70.0 | 94.0 | 33.0 | 236.0 | 23.0 | 75.0 | 22.0 | 23.0 | 234.0 | | 1019.0 | | | | |
| | | | | Total In | 11.0 | 44.0 | 32.0 | 340.0 | 122.0 | 182.1 | 62.0 | 474.0 | 43.0 | 128.0 | 48.0 | 53.0 | 570.8 | | 2109.9 | | | | |

APPENDIX D: THE HOME QUESTIONNAIRE



Lawrence Park Neighbourhood Road & Stormwater Management Study QUESTIONNAIRE

Submit by February 28 - See details on back

The City of Toronto has initiated a Class Environmental Assessment (Class EA) study in the Lawrence Park neighbourhood to address issues related to road conditions, traffic and pedestrian safety. The study is also addressing stormwater management issues including road drainage, and surface and basement flooding.

A map of the study area is shown in Question #6. If you are within the study area, please take a few minutes to complete this voluntary questionnaire. Your answers will inform the study and help the study team get a better understanding of community perspectives on road and stormwater issues.

If you are outside of the study area, Canada Post unaddressed mail service has sent this package to you inadvertently. You do not need to fill out this questionnaire.

NOTE: To help answer any question, clearly illustrate and label your answers on the map (see Question #6) or use another sheet of paper.

This Questionnaire is available online www.toronto.ca/involved/projects/basement_flooding/sa_20.htm

*** * This information is not being collected and will not be used for claims or insurance purposes * ***

1. Please identify your street address _____ Postal Code: _____

2. Please specify if the building at this address is a: *Please check one answer*

HOME: DETACHED SEMI-DETACHED TOWNHOUSE MULTIPLE-STORY
 BUSINESS
 SCHOOL
 OTHER: _____

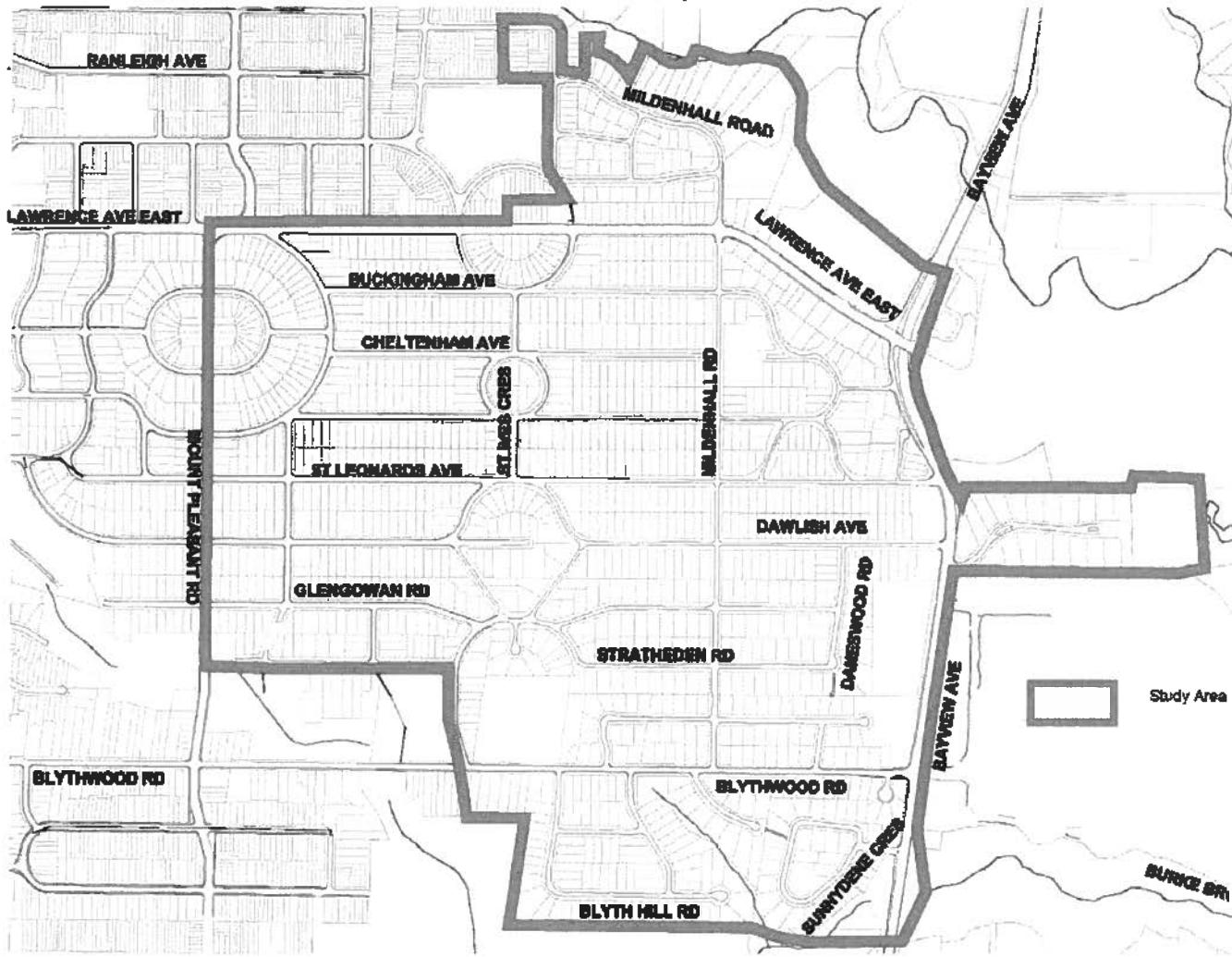
Please answer questions #3 to #6 based on all members of the household.

3. Is there a specific location(s) or section(s) of road that is often congested? If so, please identify location or section of the road.

4. Are there specific locations (intersections or streets) within the study area that are unsafe for pedestrians, cyclists, and/or drivers? If yes, please be specific and explain why.

5. Please identify other opportunities to improve local roads through: traffic signage, sidewalks, pedestrian crosswalks, pedestrian shortcuts, sidewalk and street lighting, traffic calming, etc.

6. The Project Team is interested in learning about transportation patterns within the study area. On the map below, please draw the primary route your household members use on a daily basis during the morning weekday rush hour (7 am to 9 am) to exit the neighbourhood.



7. During rainstorms, does water run over-land from the road onto your property, causing surface flooding problems? YES NO
8. During rainstorms, are you aware of any specific locations or intersections in the study area that experience significant ponding or water that sits in pools on the road? YES NO
If YES, which locations: _____
9. Does the building at your address have a basement?
 YES – continue to Question #10a
 NO – skip to Question 12
- 10a. Have you experienced any basement flooding problems on the property?
 YES – continue to Question #10b
 NO – skip to Question 11

10b. How many times have you experienced basement flooding? _____

Please identify the date (month/year) of each basement flooding incident and the depth of water in the basement.

| Month/Year | Water Depth (in/cm) | Month/Year | Water Depth (in/cm) |
|------------|---------------------|------------|---------------------|
| 1. | _____ | 4. | _____ |
| 2. | _____ | 5. | _____ |
| 3. | _____ | 6. | _____ |

10c. Did you report the basement flooding incidence(s) to the City or 311? YES NO

10d. Did the water entering your basement appear to be coming from any of the following?

Check all that apply: FLOOR DRAIN TOILET/SINK WALLS WINDOW/DOOR

10e. Did the water entering the basement have an odour? YES NO

10f. If there was an odour, what did it smell like: SEWAGE DIRT/MUD OIL/GREASE

10g. How did the water appear? CLEAR DIRTY

11. Do you have a sump pump installed in your basement? YES NO DON'T KNOW
If yes, where does the pumped water discharge to? GROUND SEWER DON'T KNOW

12. Do you have any back-water valves installed on your drains? YES NO DON'T KNOW

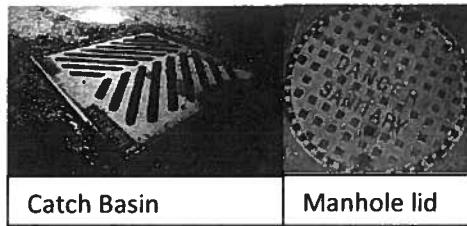
A back-water valve is a device installed on your drain that allows the one-way flow of sewage out of the home, while blocking sewage from backing-up from the street sewer.



Backwater Valve

13. During rainstorms, have you noticed water coming out of catch basins or sewer manhole lids?
 YES NO

If yes, where/which intersections:



Catch Basin

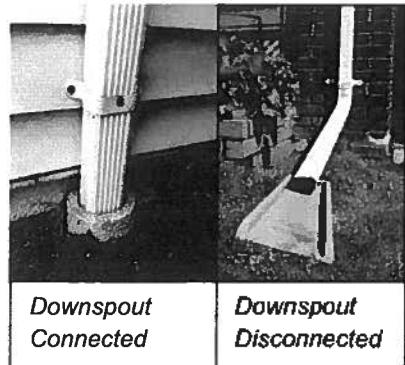
Manhole lid

14. How many roof downspouts are on your property? _____

15. How many downspouts have been disconnected from the sewer? _____

16. Where do your disconnected downspouts drain?

GRASS/LAWN GARDEN DRIVEWAY
 PATIO OTHER: _____



Downspout
Connected

Downspout
Disconnected

17. Do you have a driveway that slopes down towards your building?

YES NO

We welcome any additional comments about road- and flooding-related issues in the area.

Thank you for taking the time to complete this survey.

Please return the completed questionnaire by **FEBRUARY 28, 2013:**

- Enclosed pre-paid envelope, or
- fax 416-392-2974, or
- email kkusiak@toronto.ca

- **For general city services, e.g., tree or water issues, please call 3-1-1 (available 24 hours a day, 7 days a week)**
- **Questions:** Kate Kusiak at kkusiak@toronto.ca phone 416-392-2962, fax 416 392-2974

The personal information on this form is collected under the authority of the City of Toronto Act, 2006, S. 136 (c); City of Toronto Municipal Code, Chapter 681 (Sewers), and City of Toronto Confirmatory By-law No. 1172-2011. The information is used to contact you about future meetings and to provide updates regarding the Lawrence Park Neighbourhood EA Study. Questions about the collection of this information may be directed to Kate Kusiak, Senior Public Consultation Co-ordinator, Metro Hall, 55 John Street 19th Floor, Toronto, Ontario M5V 3C6.

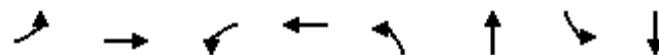
APPENDIX E: ANALYSIS OF INTERSECTIONS IN THE AM AND PM PEAK HOURS

Timings

AM Peak Hour

10/31/2013

1: Mt. Pleasant Road & Blythwood Road



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | |
| Volume (vph) | 33 | 340 | 78 | 176 | 28 | 919 | 34 | 934 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 4 | | 8 | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 22.0 | 22.0 | 22.0 | 22.0 | 17.0 | 17.0 | 17.0 | 17.0 |
| Minimum Split (s) | 28.0 | 28.0 | 28.0 | 28.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 36.0 | 36.0 | 36.0 | 36.0 | 54.0 | 54.0 | 54.0 | 54.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| 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 | |
| Total Lost Time (s) | | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | | 27.6 | | 27.6 | | 50.4 | | 50.4 |
| Actuated g/C Ratio | | 0.31 | | 0.31 | | 0.56 | | 0.56 |
| v/c Ratio | | 0.82 | | 0.88 | | 0.68 | | 0.62 |
| Control Delay | | 41.9 | | 55.0 | | 16.5 | | 20.2 |
| Queue Delay | | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Total Delay | | 41.9 | | 55.0 | | 16.5 | | 20.2 |
| LOS | | D | | D | | B | | C |
| Approach Delay | | 41.9 | | 55.0 | | 16.5 | | 20.2 |
| Approach LOS | | D | | D | | B | | C |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.5

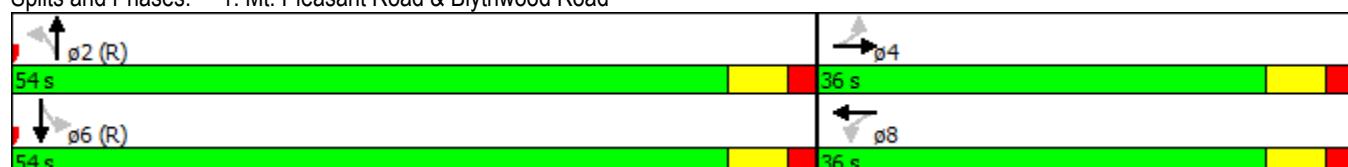
Intersection LOS: C

Intersection Capacity Utilization 99.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: Mt. Pleasant Road & Blythwood Road

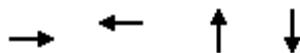


Queues

AM Peak Hour

10/31/2013

1: Mt. Pleasant Road & Blythwood Road



| Lane Group | EBT | WBT | NBT | SBT |
|------------------------|--------|-------|--------|-------|
| Lane Group Flow (vph) | 447 | 320 | 1220 | 1084 |
| v/c Ratio | 0.82 | 0.88 | 0.68 | 0.62 |
| Control Delay | 41.9 | 55.0 | 16.5 | 20.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.9 | 55.0 | 16.5 | 20.2 |
| Queue Length 50th (m) | 67.4 | 48.5 | 75.8 | 89.3 |
| Queue Length 95th (m) | #105.3 | #92.9 | 100.2 | 119.2 |
| Internal Link Dist (m) | 5283.7 | 876.4 | 6309.0 | 256.3 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 590 | 393 | 1782 | 1738 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.76 | 0.81 | 0.68 | 0.62 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: Mt. Pleasant Road & Blythwood Road

AM Peak Hour

10/31/2013

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|------|------|---------------------------|------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 33 | 340 | 51 | 78 | 176 | 50 | 28 | 919 | 213 | 34 | 934 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lane Util. Factor | 1.00 | | | | 1.00 | | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 0.99 | | | | 1.00 | | | 0.99 | | | 1.00 | |
| Flpb, ped/bikes | 1.00 | | | | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | 0.98 | | | | 0.98 | | | 0.97 | | | 0.99 | |
| Flt Protected | 1.00 | | | | 0.99 | | | 1.00 | | | 1.00 | |
| Satd. Flow (prot) | 1838 | | | | 1832 | | | 3484 | | | 3573 | |
| Flt Permitted | 0.95 | | | | 0.62 | | | 0.90 | | | 0.86 | |
| Satd. Flow (perm) | 1755 | | | | 1156 | | | 3146 | | | 3093 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 35 | 358 | 54 | 82 | 185 | 53 | 29 | 967 | 224 | 36 | 983 | 65 |
| RTOR Reduction (vph) | 0 | 6 | 0 | 0 | 8 | 0 | 0 | 20 | 0 | 0 | 5 | 0 |
| Lane Group Flow (vph) | 0 | 441 | 0 | 0 | 312 | 0 | 0 | 1200 | 0 | 0 | 1079 | 0 |
| Confl. Peds. (#/hr) | | | 34 | 34 | | | 3 | | 7 | 7 | | 3 |
| Heavy Vehicles (%) | 3% | 1% | 6% | 2% | 0% | 2% | 3% | 1% | 1% | 0% | 1% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Actuated Green, G (s) | 27.6 | | | 27.6 | | | 50.4 | | | 50.4 | | |
| Effective Green, g (s) | 27.6 | | | 27.6 | | | 50.4 | | | 50.4 | | |
| Actuated g/C Ratio | 0.31 | | | 0.31 | | | 0.56 | | | 0.56 | | |
| Clearance Time (s) | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | | |
| Vehicle Extension (s) | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | | |
| Lane Grp Cap (vph) | 538 | | | 354 | | | 1761 | | | 1732 | | |
| v/s Ratio Prot | | | | | | | | | | | | |
| v/s Ratio Perm | 0.25 | | | c0.27 | | | c0.38 | | | 0.35 | | |
| v/c Ratio | 0.82 | | | 0.88 | | | 0.68 | | | 0.62 | | |
| Uniform Delay, d1 | 28.9 | | | 29.6 | | | 14.1 | | | 13.4 | | |
| Progression Factor | 1.00 | | | 1.00 | | | 1.00 | | | 1.32 | | |
| Incremental Delay, d2 | 10.8 | | | 23.0 | | | 2.2 | | | 1.6 | | |
| Delay (s) | 39.7 | | | 52.6 | | | 16.2 | | | 19.3 | | |
| Level of Service | D | | | D | | | B | | | B | | |
| Approach Delay (s) | 39.7 | | | 52.6 | | | 16.2 | | | 19.3 | | |
| Approach LOS | D | | | D | | | B | | | B | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 24.5 | | | HCM 2000 Level of Service | | | C | | | | | |
| HCM 2000 Volume to Capacity ratio | 0.75 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 90.0 | | | Sum of lost time (s) | | | 12.0 | | | | | |
| Intersection Capacity Utilization | 99.7% | | | ICU Level of Service | | | F | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

AM Peak Hour

4: Mt. Pleasant Road NB & Lawrence Avenue E

10/31/2013



| Lane Group | EBT | WBT | NBL | NBR | ø3 | ø5 |
|----------------------|-------|-------|-------|-------|------|-------|
| Lane Configurations | ↑↓ | ↑↓ | ↑ | ↑ | | |
| Volume (vph) | 665 | 554 | 338 | 398 | | |
| Turn Type | NA | NA | NA | Perm | | |
| Protected Phases | 1 | Free! | 4! | | 3 | 5 |
| Permitted Phases | | | | 4 | | |
| Detector Phase | 1 | | 4 | 4 | | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 20.0 | | 15.0 | 15.0 | 10.0 | 20.0 |
| Minimum Split (s) | 55.0 | | 33.0 | 33.0 | 37.0 | 55.0 |
| Total Split (s) | 56.0 | | 41.0 | 41.0 | 43.0 | 56.0 |
| Total Split (%) | 40.0% | | 29.3% | 29.3% | 31% | 40% |
| Yellow Time (s) | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 13.0 | | 7.0 | 7.0 | 11.0 | 13.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 17.0 | | 11.0 | 11.0 | | |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | Max | Max | None | C-Max |
| Act Effect Green (s) | 39.0 | 140.0 | 30.0 | 30.0 | | |
| Actuated g/C Ratio | 0.28 | 1.00 | 0.21 | 0.21 | | |
| v/c Ratio | 1.19 | 0.32 | 0.90 | 1.20 | | |
| Control Delay | 142.3 | 0.1 | 80.4 | 160.4 | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Delay | 142.3 | 0.1 | 80.4 | 160.4 | | |
| LOS | F | A | F | F | | |
| Approach Delay | 142.3 | 0.1 | 123.7 | | | |
| Approach LOS | F | A | F | | | |

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 1:EBT and 5:, Start of Green, Master Intersection

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 83.0

Intersection LOS: F

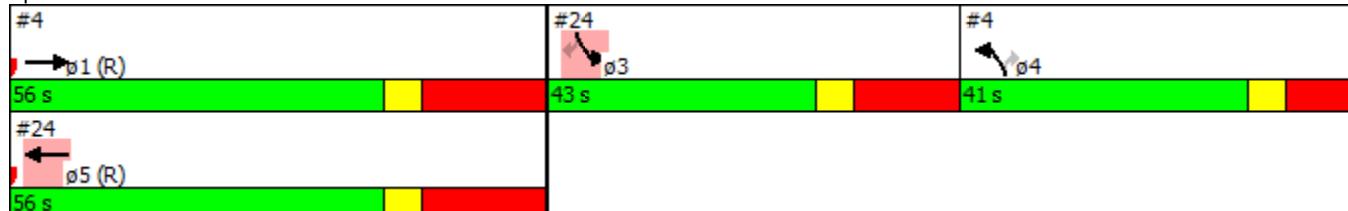
Intersection Capacity Utilization 108.2%

ICU Level of Service G

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 4: Mt. Pleasant Road NB & Lawrence Avenue E



Queues

AM Peak Hour

10/31/2013

4: Mt. Pleasant Road NB & Lawrence Avenue E



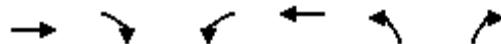
| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|--------|------|--------|--------|
| Lane Group Flow (vph) | 1049 | 1119 | 345 | 406 |
| v/c Ratio | 1.19 | 0.32 | 0.90 | 1.20 |
| Control Delay | 142.3 | 0.1 | 80.4 | 160.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 142.3 | 0.1 | 80.4 | 160.4 |
| Queue Length 50th (m) | ~184.4 | 0.0 | 93.9 | ~135.7 |
| Queue Length 95th (m) | #226.1 | m0.0 | #148.4 | #199.4 |
| Internal Link Dist (m) | 5333.5 | 53.2 | 417.5 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 878 | 3483 | 383 | 339 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.19 | 0.32 | 0.90 | 1.20 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
4: Mt. Pleasant Road NB & Lawrence Avenue E

AM Peak Hour
10/31/2013



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|------------------------|-------|-------|------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Volume (vph) | 665 | 363 | 543 | 554 | 338 | 398 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 17.0 | | | 4.0 | 11.0 | 11.0 |
| Lane Util. Factor | 0.95 | | | 0.95 | 1.00 | 1.00 |
| Frpb, ped/bikes | 0.99 | | | 1.00 | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Fr _t | 0.95 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 0.98 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3152 | | | 3492 | 1789 | 1585 |
| Flt Permitted | 1.00 | | | 0.98 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3152 | | | 3492 | 1789 | 1585 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 679 | 370 | 554 | 565 | 345 | 406 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 1049 | 0 | 0 | 1119 | 345 | 406 |
| Confl. Peds. (#/hr) | | 22 | 22 | | 22 | |
| Heavy Vehicles (%) | 9% | 7% | 2% | 2% | 2% | 3% |
| Turn Type | NA | | Perm | NA | NA | Perm |
| Protected Phases | 1 | | | Free! | 4! | |
| Permitted Phases | | Free! | | | 4 | |
| Actuated Green, G (s) | 39.0 | | | 140.0 | 30.0 | 30.0 |
| Effective Green, g (s) | 39.0 | | | 140.0 | 30.0 | 30.0 |
| Actuated g/C Ratio | 0.28 | | | 1.00 | 0.21 | 0.21 |
| Clearance Time (s) | 17.0 | | | | 11.0 | 11.0 |
| Vehicle Extension (s) | 5.0 | | | | 5.0 | 5.0 |
| Lane Grp Cap (vph) | 878 | | | 3492 | 383 | 339 |
| v/s Ratio Prot | c0.33 | | | 0.32 | 0.19 | |
| v/s Ratio Perm | | | | | c0.26 | |
| v/c Ratio | 1.19 | | | 0.32 | 0.90 | 1.20 |
| Uniform Delay, d1 | 50.5 | | | 0.0 | 53.6 | 55.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 98.8 | | | 0.1 | 26.7 | 114.0 |
| Delay (s) | 149.3 | | | 0.1 | 80.3 | 169.0 |
| Level of Service | F | | | A | F | F |
| Approach Delay (s) | 149.3 | | | 0.1 | 128.2 | |
| Approach LOS | F | | | A | F | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 86.7 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 0.99 | | |
| Actuated Cycle Length (s) | 140.0 | Sum of lost time (s) | 43.0 |
| Intersection Capacity Utilization | 108.2% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

! Phase conflict between lane groups.

c Critical Lane Group

Timings

AM Peak Hour

10/31/2013

9: Bayview Avenue & Blythwood Road/Wellness Way



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↑ | ↓ | ↑ | ↓ | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ |
| Volume (vph) | 217 | 238 | 119 | 59 | 250 | 1128 | 333 | 220 | 1229 | 39 |
| Turn Type | Perm | NA | Perm | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | | 4 | | 8 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | | 8 | | | | 2 | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 4.0 | 12.0 | 12.0 | 4.0 | 12.0 | 12.0 |
| Minimum Split (s) | 37.0 | 37.0 | 37.0 | 37.0 | 8.0 | 50.0 | 50.0 | 8.0 | 50.0 | 50.0 |
| Total Split (s) | 39.0 | 39.0 | 39.0 | 39.0 | 15.0 | 50.0 | 50.0 | 15.0 | 50.0 | 50.0 |
| Total Split (%) | 37.5% | 37.5% | 37.5% | 37.5% | 14.4% | 48.1% | 48.1% | 14.4% | 48.1% | 48.1% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 | 2.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 7.0 | 7.0 | 4.0 | 7.0 | 7.0 |
| Lead/Lag | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | | | | |
| Recall Mode | None |
| Act Effect Green (s) | 34.0 | 34.0 | 34.0 | 34.0 | 11.0 | 41.9 | 41.9 | 11.0 | 41.9 | 41.9 |
| Actuated g/C Ratio | 0.33 | 0.33 | 0.33 | 0.33 | 0.11 | 0.41 | 0.41 | 0.11 | 0.41 | 0.41 |
| v/c Ratio | 0.53 | 0.86 | 1.27 | 0.20 | 1.39 | 0.80 | 0.47 | 1.23 | 0.87 | 0.07 |
| Control Delay | 34.1 | 45.0 | 214.8 | 15.6 | 240.0 | 31.8 | 12.0 | 182.5 | 35.8 | 2.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.1 | 45.0 | 214.8 | 15.6 | 240.0 | 31.8 | 12.0 | 182.5 | 35.8 | 2.4 |
| LOS | C | D | F | B | F | C | B | F | D | A |
| Approach Delay | | 41.6 | | 114.4 | | 58.4 | | | 56.6 | |
| Approach LOS | | D | | F | | E | | | E | |

Intersection Summary

Cycle Length: 104

Actuated Cycle Length: 102.9

Natural Cycle: 115

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.39

Intersection Signal Delay: 58.1

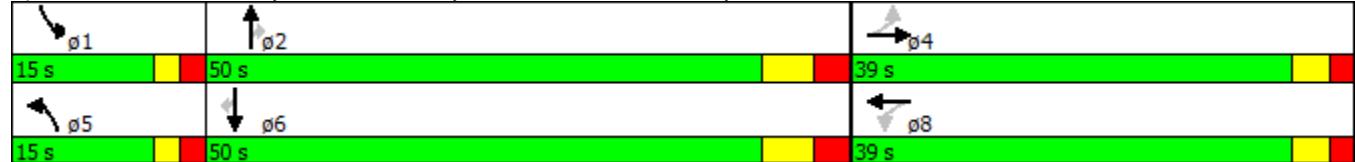
Intersection LOS: E

Intersection Capacity Utilization 105.0%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 9: Bayview Avenue & Blythwood Road/Wellness Way



Queues

AM Peak Hour

10/31/2013

9: Bayview Avenue & Blythwood Road/Wellness Way



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|--------|-------|--------|--------|--------|------|--------|-------|------|
| Lane Group Flow (vph) | 221 | 504 | 121 | 123 | 255 | 1151 | 340 | 224 | 1254 | 40 |
| v/c Ratio | 0.53 | 0.86 | 1.27 | 0.20 | 1.39 | 0.80 | 0.47 | 1.23 | 0.87 | 0.07 |
| Control Delay | 34.1 | 45.0 | 214.8 | 15.6 | 240.0 | 31.8 | 12.0 | 182.5 | 35.8 | 2.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.1 | 45.0 | 214.8 | 15.6 | 240.0 | 31.8 | 12.0 | 182.5 | 35.8 | 2.4 |
| Queue Length 50th (m) | 36.2 | 86.0 | ~31.1 | 9.7 | ~69.3 | 104.3 | 20.5 | ~56.5 | 118.7 | 0.0 |
| Queue Length 95th (m) | 60.3 | #143.7 | #66.2 | 22.7 | #117.4 | 130.3 | 44.1 | #102.1 | 147.7 | 3.3 |
| Internal Link Dist (m) | | 332.3 | | 2030.4 | | 6641.6 | | | 279.4 | |
| Turn Bay Length (m) | 15.0 | | | | 80.0 | | 35.0 | 55.0 | | 30.0 |
| Base Capacity (vph) | 415 | 587 | 95 | 608 | 184 | 1481 | 742 | 182 | 1481 | 598 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.86 | 1.27 | 0.20 | 1.39 | 0.78 | 0.46 | 1.23 | 0.85 | 0.07 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
9: Bayview Avenue & Blythwood Road/Wellness Way

AM Peak Hour

10/31/2013

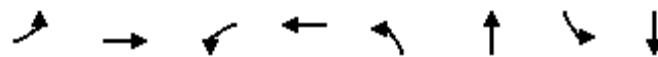
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|--------|------|-------|-------|------|-------|------|------|-------|-------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ |
| Volume (vph) | 217 | 238 | 256 | 119 | 59 | 62 | 250 | 1128 | 333 | 220 | 1229 | 39 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 4.0 | 7.0 | 7.0 | 4.0 | 7.0 | 7.0 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.96 | | 1.00 | 0.99 | | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fr _t | 1.00 | 0.92 | | 1.00 | 0.92 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1765 | 1667 | | 1604 | 1731 | | 1722 | 3544 | 1521 | 1706 | 3544 | 1343 |
| Flt Permitted | 0.68 | 1.00 | | 0.17 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1257 | 1667 | | 290 | 1731 | | 1722 | 3544 | 1521 | 1706 | 3544 | 1343 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 221 | 243 | 261 | 121 | 60 | 63 | 255 | 1151 | 340 | 224 | 1254 | 40 |
| RTOR Reduction (vph) | 0 | 37 | 0 | 0 | 36 | 0 | 0 | 0 | 108 | 0 | 0 | 24 |
| Lane Group Flow (vph) | 221 | 467 | 0 | 121 | 87 | 0 | 255 | 1151 | 232 | 224 | 1254 | 16 |
| Confl. Peds. (#/hr) | 17 | | 78 | 78 | | 17 | 8 | | 27 | 27 | | 8 |
| Heavy Vehicles (%) | 2% | 0% | 3% | 11% | 2% | 0% | 6% | 3% | 4% | 7% | 3% | 18% |
| Turn Type | Perm | NA | | Perm | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | | | 2 | | | 6 |
| Actuated Green, G (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 11.0 | 41.9 | 41.9 | 11.0 | 41.9 | 41.9 |
| Effective Green, g (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 11.0 | 41.9 | 41.9 | 11.0 | 41.9 | 41.9 |
| Actuated g/C Ratio | 0.33 | 0.33 | | 0.33 | 0.33 | | 0.11 | 0.41 | 0.41 | 0.11 | 0.41 | 0.41 |
| Clearance Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 4.0 | 7.0 | 7.0 | 4.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lane Grp Cap (vph) | 415 | 550 | | 95 | 571 | | 184 | 1443 | 619 | 182 | 1443 | 546 |
| v/s Ratio Prot | | 0.28 | | | 0.05 | | c0.15 | 0.32 | | 0.13 | c0.35 | |
| v/s Ratio Perm | 0.18 | | | c0.42 | | | | | 0.15 | | | 0.01 |
| v/c Ratio | 0.53 | 0.85 | | 1.27 | 0.15 | | 1.39 | 0.80 | 0.37 | 1.23 | 0.87 | 0.03 |
| Uniform Delay, d1 | 28.0 | 32.1 | | 34.5 | 24.3 | | 46.0 | 26.8 | 21.3 | 46.0 | 28.0 | 18.3 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.4 | 12.8 | | 182.6 | 0.3 | | 203.6 | 3.6 | 0.8 | 142.3 | 6.4 | 0.0 |
| Delay (s) | 30.4 | 44.9 | | 217.1 | 24.5 | | 249.6 | 30.4 | 22.1 | 188.3 | 34.3 | 18.3 |
| Level of Service | C | D | | F | C | | F | C | C | F | C | B |
| Approach Delay (s) | | 40.5 | | | 120.0 | | | 60.8 | | | 56.6 | |
| Approach LOS | | D | | | F | | | E | | | E | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 59.2 | | | | | | | | | | E |
| HCM 2000 Volume to Capacity ratio | | 1.09 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 102.9 | | | | | | | | | | G |
| Intersection Capacity Utilization | | 105.0% | | | | | | | | | | |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

AM Peak Hour

10/31/2013

11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | |
| Volume (vph) | 4 | 58 | 115 | 80 | 16 | 763 | 13 | 839 |
| 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) | 21.0 | 21.0 | 21.0 | 21.0 | 17.0 | 17.0 | 17.0 | 17.0 |
| Minimum Split (s) | 27.0 | 27.0 | 27.0 | 27.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 28.0 | 28.0 | 28.0 | 28.0 | 62.0 | 62.0 | 62.0 | 62.0 |
| Total Split (%) | 31.1% | 31.1% | 31.1% | 31.1% | 68.9% | 68.9% | 68.9% | 68.9% |
| 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 |
| Total Lost Time (s) | | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | | 21.4 | | 21.4 | | 56.6 | | 56.6 |
| Actuated g/C Ratio | 0.24 | | 0.24 | | 0.63 | | 0.63 | |
| v/c Ratio | 0.24 | | 0.60 | | 0.42 | | 0.43 | |
| Control Delay | 20.6 | | 38.4 | | 3.5 | | 9.3 | |
| Queue Delay | 0.0 | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 20.6 | | 38.4 | | 3.5 | | 9.3 | |
| LOS | C | | D | | A | | A | |
| Approach Delay | 20.6 | | 38.4 | | 3.5 | | 9.3 | |
| Approach LOS | C | | D | | A | | A | |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 65 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 10.4

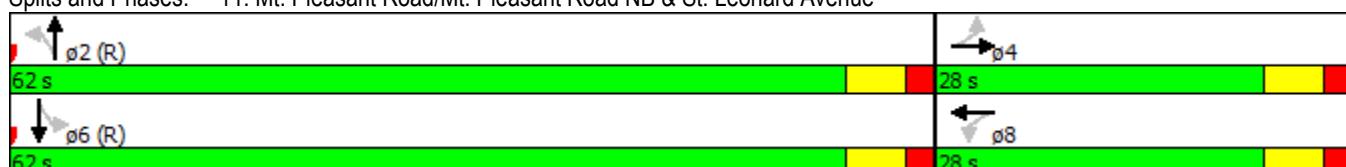
Intersection LOS: B

Intersection Capacity Utilization 61.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue

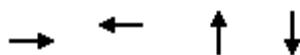


Queues

11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue

AM Peak Hour

10/31/2013



| Lane Group | EBT | WBT | NBT | SBT |
|------------------------|-------|-------|------|-------|
| Lane Group Flow (vph) | 108 | 208 | 871 | 903 |
| v/c Ratio | 0.24 | 0.60 | 0.42 | 0.43 |
| Control Delay | 20.6 | 38.4 | 3.5 | 9.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.6 | 38.4 | 3.5 | 9.3 |
| Queue Length 50th (m) | 10.1 | 32.1 | 8.4 | 37.1 |
| Queue Length 95th (m) | 22.9 | 53.9 | 22.8 | 50.5 |
| Internal Link Dist (m) | 159.1 | 867.4 | 91.1 | 417.5 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 456 | 358 | 2087 | 2100 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.58 | 0.42 | 0.43 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue

AM Peak Hour

10/31/2013

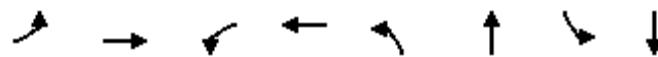
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|-------|------|------|---------------------------|------|------|------|------|------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 4 | 58 | 41 | 115 | 80 | 3 | 16 | 763 | 48 | 13 | 839 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lane Util. Factor | | 1.00 | | | 1.00 | | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | | 0.99 | | | 1.00 | | | 1.00 | | | 1.00 | |
| Flpb, ped/bikes | | 1.00 | | | 0.99 | | | 1.00 | | | 1.00 | |
| Fr _t | | 0.95 | | | 1.00 | | | 0.99 | | | 1.00 | |
| Fl _t Protected | | 1.00 | | | 0.97 | | | 1.00 | | | 1.00 | |
| Satd. Flow (prot) | | 1779 | | | 1814 | | | 3561 | | | 3560 | |
| Fl _t Permitted | | 0.99 | | | 0.78 | | | 0.93 | | | 0.94 | |
| Satd. Flow (perm) | | 1761 | | | 1463 | | | 3313 | | | 3338 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 4 | 61 | 43 | 121 | 84 | 3 | 17 | 803 | 51 | 14 | 883 | 6 |
| RTOR Reduction (vph) | 0 | 27 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 81 | 0 | 0 | 207 | 0 | 0 | 866 | 0 | 0 | 903 | 0 |
| Confl. Peds. (#/hr) | 16 | | 13 | 13 | | 16 | 1 | | 14 | 14 | | 1 |
| Heavy Vehicles (%) | 0% | 0% | 2% | 0% | 1% | 100% | 6% | 1% | 2% | 23% | 2% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Actuated Green, G (s) | | 21.4 | | | 21.4 | | | 56.6 | | | 56.6 | |
| Effective Green, g (s) | | 21.4 | | | 21.4 | | | 56.6 | | | 56.6 | |
| Actuated g/C Ratio | | 0.24 | | | 0.24 | | | 0.63 | | | 0.63 | |
| Clearance Time (s) | | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | |
| Vehicle Extension (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lane Grp Cap (vph) | | 418 | | | 347 | | | 2083 | | | 2099 | |
| v/s Ratio Prot | | | | | | | | | | | | |
| v/s Ratio Perm | | 0.05 | | | c0.14 | | | 0.26 | | | c0.27 | |
| v/c Ratio | | 0.19 | | | 0.60 | | | 0.42 | | | 0.43 | |
| Uniform Delay, d1 | | 27.4 | | | 30.5 | | | 8.4 | | | 8.5 | |
| Progression Factor | | 1.00 | | | 1.00 | | | 0.35 | | | 1.00 | |
| Incremental Delay, d2 | | 0.5 | | | 4.1 | | | 0.6 | | | 0.6 | |
| Delay (s) | | 27.9 | | | 34.6 | | | 3.5 | | | 9.1 | |
| Level of Service | | C | | | C | | | A | | | A | |
| Approach Delay (s) | | 27.9 | | | 34.6 | | | 3.5 | | | 9.1 | |
| Approach LOS | | C | | | C | | | A | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 10.3 | | | HCM 2000 Level of Service | | | B | | | | |
| HCM 2000 Volume to Capacity ratio | | 0.48 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 90.0 | | | Sum of lost time (s) | | | 12.0 | | | | |
| Intersection Capacity Utilization | | 61.7% | | | ICU Level of Service | | | B | | | | |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

AM Peak Hour

17: Mt. Pleasant Road & Glengowan Road

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | |
| Volume (vph) | 2 | 0 | 30 | 0 | 6 | 930 | 13 | 1029 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | | 4 | | 8 | | 2 | |
| Permitted Phases | | | 4 | | 8 | | 2 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Total Split (s) | 27.0 | 27.0 | 27.0 | 27.0 | 63.0 | 63.0 | 63.0 | 63.0 |
| Total Split (%) | 30.0% | 30.0% | 30.0% | 30.0% | 70.0% | 70.0% | 70.0% | 70.0% |
| 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 | |
| Total Lost Time (s) | | | 6.0 | | 6.0 | | 6.0 | |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | | | 8.6 | | 8.6 | | 77.2 | 77.2 |
| Actuated g/C Ratio | | 0.10 | | 0.10 | | 0.86 | | 0.86 |
| v/c Ratio | | 0.02 | | 0.26 | | 0.34 | | 0.38 |
| Control Delay | | 0.2 | | 19.3 | | 9.1 | | 2.0 |
| Queue Delay | | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Total Delay | | 0.2 | | 19.3 | | 9.1 | | 2.0 |
| LOS | | A | | B | | A | | A |
| Approach Delay | | 0.3 | | 19.3 | | 9.1 | | 2.0 |
| Approach LOS | | A | | B | | A | | A |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 89 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 5.7

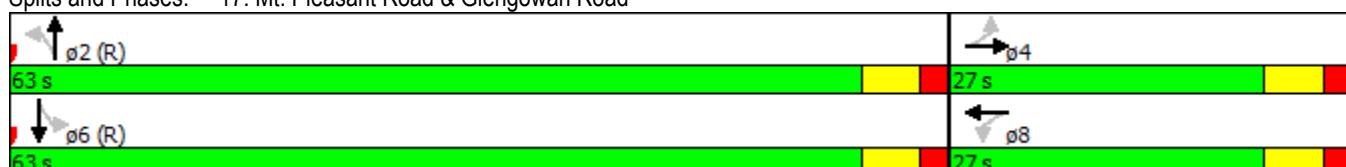
Intersection LOS: A

Intersection Capacity Utilization 53.5%

ICU Level of Service A

Analysis Period (min) 15

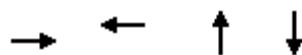
Splits and Phases: 17: Mt. Pleasant Road & Glengowan Road



Queues
17: Mt. Pleasant Road & Glengowan Road

AM Peak Hour

10/31/2013



| Lane Group | EBT | WBT | NBT | SBT |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 4 | 43 | 1006 | 1099 |
| v/c Ratio | 0.02 | 0.26 | 0.34 | 0.38 |
| Control Delay | 0.2 | 19.3 | 9.1 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.2 | 19.3 | 9.1 | 2.0 |
| Queue Length 50th (m) | 0.0 | 1.1 | 76.0 | 11.1 |
| Queue Length 95th (m) | 0.0 | 10.3 | 103.9 | 16.8 |
| Internal Link Dist (m) | 134.3 | 365.0 | 256.3 | 82.7 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 370 | 356 | 2932 | 2887 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.12 | 0.34 | 0.38 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
17: Mt. Pleasant Road & Glengowan Road

AM Peak Hour

10/31/2013

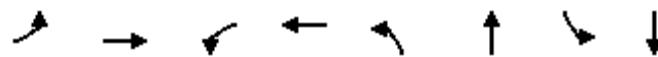
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|------|------|------|---------------------------|------|------|------|------|------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 2 | 0 | 2 | 30 | 0 | 10 | 6 | 930 | 20 | 13 | 1029 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lane Util. Factor | 1.00 | | | | 1.00 | | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 1.00 | | | | 1.00 | | | 1.00 | | | 1.00 | |
| Flpb, ped/bikes | 1.00 | | | | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | 0.93 | | | | 0.97 | | | 1.00 | | | 1.00 | |
| Flt Protected | 0.98 | | | | 0.96 | | | 1.00 | | | 1.00 | |
| Satd. Flow (prot) | 1748 | | | | 1744 | | | 3601 | | | 3586 | |
| Flt Permitted | 0.82 | | | | 0.78 | | | 0.95 | | | 0.94 | |
| Satd. Flow (perm) | 1468 | | | | 1409 | | | 3418 | | | 3366 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 2 | 0 | 2 | 32 | 0 | 11 | 6 | 979 | 21 | 14 | 1083 | 2 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 34 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 1005 | 0 | 0 | 1099 | 0 |
| Confl. Peds. (#/hr) | | | | | | | 3 | | 2 | 2 | | 3 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 10% | 0% | 1% | 0% | 50% | 1% | 31% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Actuated Green, G (s) | 5.6 | | | | 5.6 | | | 72.4 | | | 72.4 | |
| Effective Green, g (s) | 5.6 | | | | 5.6 | | | 72.4 | | | 72.4 | |
| Actuated g/C Ratio | 0.06 | | | | 0.06 | | | 0.80 | | | 0.80 | |
| Clearance Time (s) | 6.0 | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Vehicle Extension (s) | 5.0 | | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lane Grp Cap (vph) | 91 | | | | 87 | | | 2749 | | | 2707 | |
| v/s Ratio Prot | | | | | | | | | | | | |
| v/s Ratio Perm | 0.00 | | | | c0.01 | | | 0.29 | | | c0.33 | |
| v/c Ratio | 0.00 | | | | 0.11 | | | 0.37 | | | 0.41 | |
| Uniform Delay, d1 | 39.6 | | | | 39.8 | | | 2.4 | | | 2.6 | |
| Progression Factor | 1.00 | | | | 1.00 | | | 3.43 | | | 0.58 | |
| Incremental Delay, d2 | 0.0 | | | | 1.1 | | | 0.3 | | | 0.4 | |
| Delay (s) | 39.6 | | | | 41.0 | | | 8.6 | | | 1.9 | |
| Level of Service | D | | | | D | | | A | | | A | |
| Approach Delay (s) | 39.6 | | | | 41.0 | | | 8.6 | | | 1.9 | |
| Approach LOS | D | | | | D | | | A | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 5.9 | | | | HCM 2000 Level of Service | | | A | | | | |
| HCM 2000 Volume to Capacity ratio | 0.38 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 90.0 | | | | Sum of lost time (s) | | | 12.0 | | | | |
| Intersection Capacity Utilization | 53.5% | | | | ICU Level of Service | | | A | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

AM Peak Hour

10/31/2013

23: Mildenhall Road & Lawrence Avenue E



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | ↑ ↗ | ↑ ↘ | ↔ | ↔ | ↔ | ↔ |
| Volume (vph) | 13 | 998 | 10 | 867 | 23 | 49 | 127 | 70 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | 2 | | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 23.0 | 23.0 | 23.0 | 23.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Minimum Split (s) | 29.0 | 29.0 | 29.0 | 29.0 | 21.5 | 21.5 | 30.0 | 30.0 |
| Total Split (s) | 39.0 | 39.0 | 39.0 | 39.0 | 31.0 | 31.0 | 31.0 | 31.0 |
| Total Split (%) | 55.7% | 55.7% | 55.7% | 55.7% | 44.3% | 44.3% | 44.3% | 44.3% |
| 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) | -1.5 | -1.5 | -1.5 | -1.5 | | -1.5 | | -1.5 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | Max | Max | Max | Max | None | None | None | None |
| Act Effect Green (s) | 34.7 | 34.7 | 34.7 | 34.7 | | 20.4 | | 20.4 |
| Actuated g/C Ratio | 0.54 | 0.54 | 0.54 | 0.54 | | 0.32 | | 0.32 |
| v/c Ratio | 0.06 | 0.59 | 0.06 | 0.58 | | 0.62 | | 0.72 |
| Control Delay | 10.0 | 12.7 | 10.1 | 12.6 | | 19.9 | | 32.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 10.0 | 12.7 | 10.1 | 12.6 | | 19.9 | | 32.9 |
| LOS | A | B | B | B | | B | | C |
| Approach Delay | | 12.7 | | 12.6 | | 19.9 | | 32.9 |
| Approach LOS | | B | | B | | B | | C |

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 64.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 15.3

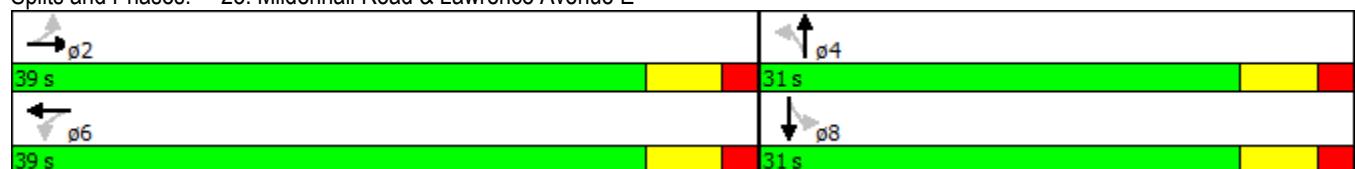
Intersection LOS: B

Intersection Capacity Utilization 82.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 23: Mildenhall Road & Lawrence Avenue E



Queues
23: Mildenhall Road & Lawrence Avenue E

AM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|------------------------|------|-------|------|-------|-------|-------|
| Lane Group Flow (vph) | 13 | 1025 | 10 | 970 | 315 | 219 |
| v/c Ratio | 0.06 | 0.59 | 0.06 | 0.58 | 0.62 | 0.72 |
| Control Delay | 10.0 | 12.7 | 10.1 | 12.6 | 19.9 | 32.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 10.0 | 12.7 | 10.1 | 12.6 | 19.9 | 32.9 |
| Queue Length 50th (m) | 0.7 | 40.6 | 0.5 | 38.1 | 24.4 | 21.8 |
| Queue Length 95th (m) | 3.6 | 68.2 | 3.0 | 64.3 | 46.5 | 44.1 |
| Internal Link Dist (m) | | 788.6 | | 209.7 | 417.0 | 342.1 |
| Turn Bay Length (m) | 40.0 | | 35.0 | | | |
| Base Capacity (vph) | 213 | 1738 | 181 | 1683 | 649 | 394 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.59 | 0.06 | 0.58 | 0.49 | 0.56 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis

AM Peak Hour

10/31/2013

23: Mildenhall Road & Lawrence Avenue E

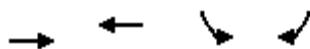
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|-------|------|------|---------------------------|------|------|------|------|------|-------|------|
| Lane Configurations | ↑ | ↑↓ | | ↑ | ↑↓ | | | ↔ | | | ↔ | |
| Volume (vph) | 13 | 998 | 7 | 10 | 867 | 83 | 23 | 49 | 237 | 127 | 70 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | | | 4.5 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.99 | | | 1.00 | | | 0.99 | |
| Flpb, ped/bikes | 0.97 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | 1.00 | 1.00 | | 1.00 | 0.99 | | | 0.90 | | | 0.99 | |
| Fl _t Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 1.00 | | | 0.97 | |
| Satd. Flow (prot) | 1596 | 3214 | | 1487 | 3115 | | | 1522 | | | 1644 | |
| Fl _t Permitted | 0.23 | 1.00 | | 0.21 | 1.00 | | | 0.97 | | | 0.56 | |
| Satd. Flow (perm) | 394 | 3214 | | 336 | 3115 | | | 1477 | | | 941 | |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 13 | 1018 | 7 | 10 | 885 | 85 | 23 | 50 | 242 | 130 | 71 | 18 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 5 | 0 |
| Lane Group Flow (vph) | 13 | 1025 | 0 | 10 | 970 | 0 | 0 | 272 | 0 | 0 | 214 | 0 |
| Confl. Peds. (#/hr) | 92 | | 16 | 16 | | 92 | 87 | | | | | 87 |
| Heavy Vehicles (%) | 0% | 2% | 14% | 10% | 3% | 0% | 0% | 2% | 1% | 0% | 1% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 33.2 | 33.2 | | 33.2 | 33.2 | | | 18.9 | | | 18.9 | |
| Effective Green, g (s) | 34.7 | 34.7 | | 34.7 | 34.7 | | | 20.4 | | | 20.4 | |
| Actuated g/C Ratio | 0.54 | 0.54 | | 0.54 | 0.54 | | | 0.32 | | | 0.32 | |
| Clearance Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | | 6.0 | | | 6.0 | |
| Vehicle Extension (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lane Grp Cap (vph) | 213 | 1739 | | 181 | 1686 | | | 470 | | | 299 | |
| v/s Ratio Prot | | c0.32 | | | 0.31 | | | | | | | |
| v/s Ratio Perm | 0.03 | | | 0.03 | | | | 0.18 | | | c0.23 | |
| v/c Ratio | 0.06 | 0.59 | | 0.06 | 0.58 | | | 0.58 | | | 0.72 | |
| Uniform Delay, d1 | 7.0 | 9.9 | | 7.0 | 9.8 | | | 18.3 | | | 19.3 | |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.5 | 1.5 | | 0.6 | 1.4 | | | 2.7 | | | 9.8 | |
| Delay (s) | 7.5 | 11.4 | | 7.5 | 11.2 | | | 21.0 | | | 29.0 | |
| Level of Service | A | B | | A | B | | | C | | | C | |
| Approach Delay (s) | | 11.3 | | | 11.2 | | | 21.0 | | | 29.0 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 14.0 | | | HCM 2000 Level of Service | | | B | | | | |
| HCM 2000 Volume to Capacity ratio | | 0.64 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 64.1 | | | Sum of lost time (s) | | | 9.0 | | | | |
| Intersection Capacity Utilization | | 82.3% | | | ICU Level of Service | | | E | | | | |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

AM Peak Hour

24: Lawrence Avenue E & Mt. Pleasant Road SB

10/31/2013



| Lane Group | EBT | WBT | SBL | SBR | ø1 | ø4 |
|----------------------|-------|-------|-------|-------|------|----|
| Lane Configurations | | | | | | |
| Volume (vph) | 802 | 792 | 246 | 305 | | |
| Turn Type | NA | NA | NA | Perm | | |
| Protected Phases | Free! | 5 | 3! | | 1 | 4 |
| Permitted Phases | | | | 3 | | |
| Detector Phase | | 5 | 3 | 3 | | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 20.0 | 10.0 | 10.0 | 20.0 | 15.0 | |
| Minimum Split (s) | 55.0 | 37.0 | 37.0 | 55.0 | 33.0 | |
| Total Split (s) | 56.0 | 43.0 | 43.0 | 56.0 | 41.0 | |
| Total Split (%) | 40.0% | 30.7% | 30.7% | 40% | 29% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 13.0 | 11.0 | 11.0 | 13.0 | 7.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | 17.0 | 15.0 | 15.0 | | | |
| Lead/Lag | | Lead | Lead | | Lag | |
| Lead-Lag Optimize? | | Yes | Yes | | Yes | |
| Recall Mode | C-Max | None | None | C-Max | Max | |
| Act Effect Green (s) | 140.0 | 39.0 | 28.0 | 28.0 | | |
| Actuated g/C Ratio | 1.00 | 0.28 | 0.20 | 0.20 | | |
| v/c Ratio | 0.31 | 0.93 | 0.72 | 0.97 | | |
| Control Delay | 0.0 | 66.0 | 64.8 | 98.9 | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Delay | 0.0 | 66.0 | 64.8 | 98.9 | | |
| LOS | A | E | E | F | | |
| Approach Delay | 0.0 | 66.0 | 83.7 | | | |
| Approach LOS | A | E | F | | | |

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 1:EBT and 5:, Start of Green, Master Intersection

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 41.7

Intersection LOS: D

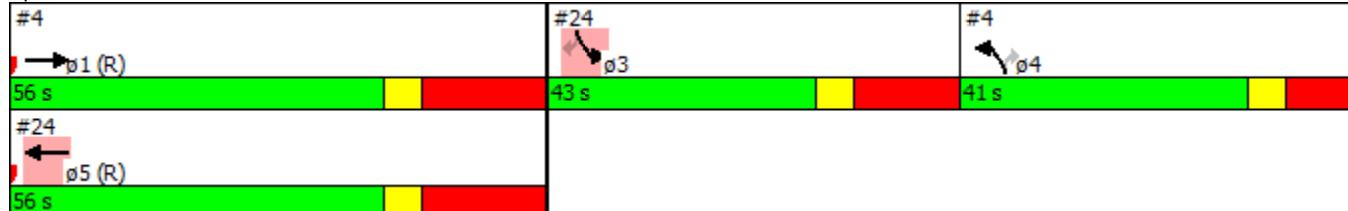
Intersection Capacity Utilization 105.0%

ICU Level of Service G

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 24: Lawrence Avenue E & Mt. Pleasant Road SB

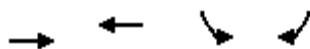


Queues

AM Peak Hour

10/31/2013

24: Lawrence Avenue E & Mt. Pleasant Road SB



| Lane Group | EBT | WBT | SBL | SBR |
|------------------------|------|--------|-------|--------|
| Lane Group Flow (vph) | 1084 | 891 | 251 | 311 |
| v/c Ratio | 0.31 | 0.93 | 0.72 | 0.97 |
| Control Delay | 0.0 | 66.0 | 64.8 | 98.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.0 | 66.0 | 64.8 | 98.9 |
| Queue Length 50th (m) | 0.0 | 126.2 | 65.5 | 86.4 |
| Queue Length 95th (m) | m0.0 | #165.4 | 96.1 | #144.7 |
| Internal Link Dist (m) | 53.2 | 788.6 | 632.7 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 3486 | 953 | 351 | 320 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.93 | 0.72 | 0.97 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
24: Lawrence Avenue E & Mt. Pleasant Road SB

AM Peak Hour
10/31/2013



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------|-------|-------|------|-------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | ↑ |
| Volume (vph) | 261 | 802 | 792 | 81 | 246 | 305 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 17.0 | | 15.0 | 15.0 | |
| Lane Util. Factor | 0.95 | 0.95 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | 1.00 | 0.98 | | 1.00 | 1.00 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Fr _t | 1.00 | 0.99 | | 1.00 | 0.85 | |
| Flt Protected | 0.99 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 3535 | 3404 | | 1755 | 1601 | |
| Flt Permitted | 0.99 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 3535 | 3404 | | 1755 | 1601 | |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 266 | 818 | 808 | 83 | 251 | 311 |
| RTOR Reduction (vph) | 0 | 0 | 6 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 1084 | 885 | 0 | 251 | 311 |
| Confl. Peds. (#/hr) | 108 | | | 108 | 23 | |
| Heavy Vehicles (%) | 2% | 2% | 4% | 0% | 4% | 2% |
| Turn Type | Perm | NA | NA | | NA | Perm |
| Protected Phases | Free! | | 5 | | 3! | |
| Permitted Phases | Free! | | | | 3 | |
| Actuated Green, G (s) | 140.0 | 39.0 | | 28.0 | 28.0 | |
| Effective Green, g (s) | 140.0 | 39.0 | | 28.0 | 28.0 | |
| Actuated g/C Ratio | 1.00 | 0.28 | | 0.20 | 0.20 | |
| Clearance Time (s) | | 17.0 | | 15.0 | 15.0 | |
| Vehicle Extension (s) | | 5.0 | | 5.0 | 5.0 | |
| Lane Grp Cap (vph) | 3535 | 948 | | 351 | 320 | |
| v/s Ratio Prot | 0.31 | c0.26 | | 0.14 | | |
| v/s Ratio Perm | | | | c0.19 | | |
| v/c Ratio | 0.31 | 0.93 | | 0.72 | 0.97 | |
| Uniform Delay, d1 | 0.0 | 49.2 | | 52.3 | 55.6 | |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.0 | 17.0 | | 8.3 | 42.9 | |
| Delay (s) | 0.0 | 66.3 | | 60.6 | 98.5 | |
| Level of Service | A | E | | E | F | |
| Approach Delay (s) | 0.0 | 66.3 | | 81.6 | | |
| Approach LOS | A | E | | F | | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 41.4 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.79 | | |
| Actuated Cycle Length (s) | 140.0 | Sum of lost time (s) | 43.0 |
| Intersection Capacity Utilization | 105.0% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

! Phase conflict between lane groups.

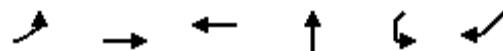
c Critical Lane Group

Timings

AM Peak Hour

28: Bayview - East Ramp Terminal & Lawrence Avenue E

10/31/2013



| Lane Group | EBL2 | EBT | WBT | NBT | SWL2 | SWR |
|----------------------|-------|-------|-------|-------|--------|--------|
| Lane Configurations | ↑ | ↑ | ↑ | ↖ | ↑ | ↖ |
| Volume (vph) | 880 | 137 | 12 | 0 | 1 | 1 |
| Turn Type | Prot | NA | NA | NA | custom | custom |
| Protected Phases | 7 | 4 | 8 | 2 | | |
| Permitted Phases | | | | | 10 | 10 |
| Detector Phase | 7 | 4 | 8 | 2 | 10 | 10 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.0 | 23.0 | 11.0 | 22.0 | 9.0 | 9.0 |
| Total Split (s) | 39.0 | 60.0 | 21.0 | 23.0 | 12.0 | 12.0 |
| Total Split (%) | 41.1% | 63.2% | 22.1% | 24.2% | 12.6% | 12.6% |
| Yellow Time (s) | 2.0 | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 7.0 | 7.0 | 6.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Max | C-Max | None | None | None |
| Act Effect Green (s) | 48.7 | 66.7 | 14.0 | 13.1 | 5.6 | 5.6 |
| Actuated g/C Ratio | 0.51 | 0.70 | 0.15 | 0.14 | 0.06 | 0.06 |
| v/c Ratio | 0.97 | 0.10 | 0.08 | 0.80 | 0.01 | 0.01 |
| Control Delay | 48.6 | 6.4 | 36.0 | 35.1 | 42.0 | 42.0 |
| Queue Delay | 38.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 87.5 | 6.4 | 36.0 | 35.1 | 42.0 | 42.0 |
| LOS | F | A | D | D | D | D |
| Approach Delay | | 76.5 | 36.0 | 35.1 | | |
| Approach LOS | | E | D | D | | |

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 95

Offset: 57 (60%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 67.0

Intersection LOS: E

Intersection Capacity Utilization 89.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 28: Bayview - East Ramp Terminal & Lawrence Avenue E

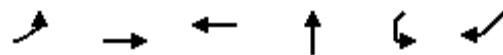


Queues

AM Peak Hour

10/31/2013

28: Bayview - East Ramp Terminal & Lawrence Avenue E



| Lane Group | EBL2 | EBT | WBT | NBT | SWL2 | SWR |
|------------------------|--------|------|-------|-------|------|------|
| Lane Group Flow (vph) | 898 | 140 | 19 | 290 | 1 | 1 |
| v/c Ratio | 0.97 | 0.10 | 0.08 | 0.80 | 0.01 | 0.01 |
| Control Delay | 48.6 | 6.4 | 36.0 | 35.1 | 42.0 | 42.0 |
| Queue Delay | 38.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 87.5 | 6.4 | 36.0 | 35.1 | 42.0 | 42.0 |
| Queue Length 50th (m) | 146.3 | 6.6 | 3.1 | 24.7 | 0.2 | 0.2 |
| Queue Length 95th (m) | #287.6 | 20.3 | 9.4 | 50.5 | 1.8 | 1.8 |
| Internal Link Dist (m) | | 35.3 | 344.3 | 688.4 | | |
| Turn Bay Length (m) | | | | | 2.0 | |
| Base Capacity (vph) | 926 | 1336 | 238 | 430 | 131 | 117 |
| Starvation Cap Reductn | 106 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.10 | 0.10 | 0.08 | 0.67 | 0.01 | 0.01 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
28: Bayview - East Ramp Terminal & Lawrence Avenue E

AM Peak Hour

10/31/2013



| Movement | EBL2 | EBT | WBT | WBR | NBL | NBT | NBR | NBR2 | SWL2 | SWR |
|-----------------------------------|-------|-------|-------|------|------|---------------------------|------|------|--------|--------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | ↑ ↖ | | | ↔ | | | ↑ ↗ | ↑ ↘ |
| Volume (vph) | 880 | 137 | 12 | 7 | 230 | 0 | 9 | 37 | 1 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 7.0 | 7.0 | | | 6.0 | | | 5.0 | 5.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | | | 1.00 | | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.94 | | | 1.00 | | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | | | 1.00 | | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.95 | | | 0.98 | | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | | | 0.96 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1807 | 1902 | 1595 | | | 1707 | | | 1789 | 1601 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | | 0.96 | | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1807 | 1902 | 1595 | | | 1707 | | | 1789 | 1601 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.95 | 0.95 | 0.95 | 0.95 | 0.98 | 0.98 |
| Adj. Flow (vph) | 898 | 140 | 12 | 7 | 242 | 0 | 9 | 39 | 1 | 1 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 128 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 898 | 140 | 19 | 0 | 0 | 162 | 0 | 0 | 1 | 1 |
| Confl. Peds. (#/hr) | 28 | | | 28 | | | | | | |
| Heavy Vehicles (%) | 1% | 1% | 0% | 22% | 5% | 0% | 33% | 3% | 2% | 2% |
| Turn Type | Prot | NA | NA | | Perm | NA | | | custom | custom |
| Protected Phases | 7 | 4 | 8 | | | 2 | | | | |
| Permitted Phases | | | | 2 | | | | | 10 | 10 |
| Actuated Green, G (s) | 48.7 | 62.7 | 10.0 | | | 13.1 | | | 1.2 | 1.2 |
| Effective Green, g (s) | 48.7 | 62.7 | 10.0 | | | 13.1 | | | 1.2 | 1.2 |
| Actuated g/C Ratio | 0.51 | 0.66 | 0.11 | | | 0.14 | | | 0.01 | 0.01 |
| Clearance Time (s) | 4.0 | 7.0 | 7.0 | | | 6.0 | | | 5.0 | 5.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | 3.0 | | | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 926 | 1255 | 167 | | | 235 | | | 22 | 20 |
| v/s Ratio Prot | c0.50 | c0.07 | 0.01 | | | | | | | |
| v/s Ratio Perm | | | | | | 0.09 | | | 0.00 | c0.00 |
| v/c Ratio | 0.97 | 0.11 | 0.11 | | | 0.69 | | | 0.05 | 0.05 |
| Uniform Delay, d1 | 22.4 | 5.9 | 38.5 | | | 39.0 | | | 46.3 | 46.3 |
| Progression Factor | 1.00 | 1.00 | 1.00 | | | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | 22.2 | 0.2 | 1.4 | | | 8.1 | | | 0.9 | 1.0 |
| Delay (s) | 44.6 | 6.1 | 39.9 | | | 47.1 | | | 47.2 | 47.4 |
| Level of Service | D | A | D | | | D | | | D | D |
| Approach Delay (s) | | 39.4 | 39.9 | | | 47.1 | | | | |
| Approach LOS | | D | D | | | D | | | | |
| Intersection Summary | | | | | | | | | | |
| HCM 2000 Control Delay | | | 41.1 | | | HCM 2000 Level of Service | | | D | |
| HCM 2000 Volume to Capacity ratio | | | 0.79 | | | | | | | |
| Actuated Cycle Length (s) | | | 95.0 | | | Sum of lost time (s) | | | 22.0 | |
| Intersection Capacity Utilization | | | 89.3% | | | ICU Level of Service | | | E | |
| Analysis Period (min) | | | 15 | | | | | | | |
| c Critical Lane Group | | | | | | | | | | |

Timings

30: Bayview Avenue & Armistice Dr

AM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | |
| Volume (vph) | 1 | 0 | 12 | 1 | 259 | 3 | 1332 | 46 | 529 | 1478 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | Prot | NA |
| Protected Phases | | | | 4 | | 8 | | 2 | | 1 |
| Permitted Phases | | | | 4 | | 8 | | 2 | | 2 |
| Detector Phase | | | | 4 | | 8 | | 2 | | 1 |
| Switch Phase | | | | | | | | | | 6 |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 43.0 | 43.0 | 43.0 | 8.0 | 69.0 |
| Total Split (s) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 43.0 | 43.0 | 43.0 | 26.0 | 69.0 |
| Total Split (%) | 33.7% | 33.7% | 33.7% | 33.7% | 33.7% | 41.3% | 41.3% | 41.3% | 25.0% | 66.3% |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 | 3.0 |
| Lost Time Adjust (s) | | | | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | | | | 6.0 | | 6.0 | | 7.0 | | 4.0 |
| Lead/Lag | | | | | | Lag | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | |
| Recall Mode | None | None | None | None | None | Max | Max | Max | None | Max |
| Act Effect Green (s) | | 10.3 | | 10.3 | 10.3 | 36.3 | 36.3 | 36.3 | 22.2 | 62.6 |
| Actuated g/C Ratio | | 0.12 | | 0.12 | 0.12 | 0.42 | 0.42 | 0.42 | 0.26 | 0.73 |
| v/c Ratio | | 0.02 | | 0.09 | 0.64 | 0.03 | 0.93 | 0.07 | 1.16 | 0.61 |
| Control Delay | | 0.2 | | 32.3 | 11.9 | 20.0 | 37.0 | 2.7 | 124.7 | 8.6 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 0.2 | | 32.3 | 11.9 | 20.0 | 37.0 | 2.7 | 124.7 | 8.6 |
| LOS | | A | | C | B | B | D | A | F | A |
| Approach Delay | | 0.2 | | 12.9 | | | 35.8 | | | 39.1 |
| Approach LOS | | A | | B | | | D | | | D |

Intersection Summary

Cycle Length: 104

Actuated Cycle Length: 86

Natural Cycle: 135

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 35.9

Intersection LOS: D

Intersection Capacity Utilization 95.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 30: Bayview Avenue & Armistice Dr



Queues

AM Peak Hour

30: Bayview Avenue & Armistice Dr

10/31/2013



| Lane Group | EBT | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|------------------------|------|-------|------|------|--------|------|--------|--------|
| Lane Group Flow (vph) | 5 | 13 | 264 | 3 | 1359 | 47 | 540 | 1512 |
| v/c Ratio | 0.02 | 0.09 | 0.64 | 0.03 | 0.93 | 0.07 | 1.16 | 0.61 |
| Control Delay | 0.2 | 32.3 | 11.9 | 20.0 | 37.0 | 2.7 | 124.7 | 8.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.2 | 32.3 | 11.9 | 20.0 | 37.0 | 2.7 | 124.7 | 8.6 |
| Queue Length 50th (m) | 0.0 | 1.9 | 0.0 | 0.3 | 97.3 | 0.0 | ~96.3 | 39.7 |
| Queue Length 95th (m) | 0.0 | 6.5 | 18.2 | 2.6 | #209.7 | 3.9 | #210.3 | 134.6 |
| Internal Link Dist (m) | 55.9 | 715.4 | | | 279.4 | | | 6778.8 |
| Turn Bay Length (m) | | | | 30.0 | | 35.0 | 70.0 | |
| Base Capacity (vph) | 438 | 420 | 680 | 104 | 1466 | 672 | 466 | 2499 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.03 | 0.39 | 0.03 | 0.93 | 0.07 | 1.16 | 0.61 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

AM Peak Hour

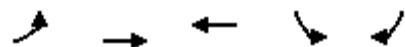
30: Bayview Avenue & Armistice Dr

10/31/2013

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|------|------|------|---------------------------|-------|------|-------|------|-------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1 | 0 | 4 | 12 | 1 | 259 | 3 | 1332 | 46 | 529 | 1478 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | | | | | | | | | | | |
| Lane Util. Factor | | | | | | | | | | | | |
| Frpb, ped/bikes | 0.97 | | | | | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | | | | | 0.98 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fr _t | 0.89 | | | | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 |
| Fl _t Protected | 0.99 | | | | | 0.96 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | | | | | | 1176 | | 1555 | 1491 | 1371 | 3471 | 1494 |
| Fl _t Permitted | | | | | | 0.95 | | 0.76 | 1.00 | 0.17 | 1.00 | 0.95 |
| Satd. Flow (perm) | | | | | | 1131 | | 1242 | 1491 | 247 | 3471 | 1494 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 1 | 0 | 4 | 12 | 1 | 264 | 3 | 1359 | 47 | 540 | 1508 | 4 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 0 | 232 | 0 | 0 | 27 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 1 | 0 | 0 | 13 | 32 | 3 | 1359 | 20 | 540 | 1512 | 0 |
| Confl. Peds. (#/hr) | 13 | | 25 | 25 | | 13 | 8 | | 13 | 13 | | 8 |
| Heavy Vehicles (%) | 0% | 0% | 50% | 17% | 0% | 7% | 33% | 2% | 7% | 1% | 3% | 25% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | |
| Protected Phases | | 4 | | | | 8 | | | 2 | | 1 | 6 |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 2 | | |
| Actuated Green, G (s) | 10.3 | | | | 10.3 | 10.3 | 36.4 | 36.4 | 36.4 | 22.2 | 62.6 | |
| Effective Green, g (s) | 10.3 | | | | 10.3 | 10.3 | 36.4 | 36.4 | 36.4 | 22.2 | 62.6 | |
| Actuated g/C Ratio | 0.12 | | | | 0.12 | 0.12 | 0.42 | 0.42 | 0.42 | 0.26 | 0.73 | |
| Clearance Time (s) | 6.0 | | | | 6.0 | 6.0 | 7.0 | 7.0 | 7.0 | 4.0 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 135 | | | | 148 | 178 | 104 | 1470 | 633 | 467 | 2502 | |
| v/s Ratio Prot | | | | | | | | c0.39 | | c0.30 | 0.44 | |
| v/s Ratio Perm | 0.00 | | | | 0.01 | c0.02 | 0.01 | | | 0.01 | | |
| v/c Ratio | 0.00 | | | | 0.09 | 0.18 | 0.03 | 0.92 | 0.03 | 1.16 | 0.60 | |
| Uniform Delay, d1 | 33.3 | | | | 33.6 | 34.0 | 14.4 | 23.4 | 14.5 | 31.9 | 5.6 | |
| Progression Factor | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.0 | | | | 0.3 | 0.5 | 0.5 | 11.3 | 0.1 | 92.1 | 1.1 | |
| Delay (s) | 33.3 | | | | 33.9 | 34.5 | 15.0 | 34.7 | 14.5 | 124.0 | 6.7 | |
| Level of Service | C | | | | C | C | B | C | B | F | A | |
| Approach Delay (s) | 33.3 | | | | | 34.4 | | | 34.0 | | 37.6 | |
| Approach LOS | C | | | | C | | | C | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 36.0 | | | | HCM 2000 Level of Service | | | | D | | | |
| HCM 2000 Volume to Capacity ratio | 0.89 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 85.9 | | | | Sum of lost time (s) | | | | 17.0 | | | |
| Intersection Capacity Utilization | 95.4% | | | | ICU Level of Service | | | | F | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings
33: Lawrence Avenue E & TFS Access

AM Peak Hour
10/31/2013



| Lane Group | EBL | EBT | WBT | SBL | SBR |
|----------------------|-------|-------|-------|-------|-------|
| Lane Configurations | ↑ | ↑↑ | ↑↑ | ↑ | ↑ |
| Volume (vph) | 186 | 1180 | 919 | 98 | 37 |
| Turn Type | Prot | NA | NA | NA | Perm |
| Protected Phases | 7 | 4 | 8 | 6 | |
| Permitted Phases | | | | | 6 |
| Detector Phase | 7 | 4 | 8 | 6 | 6 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 10.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 10.0 | 33.0 | 33.0 | 28.0 | 28.0 |
| Total Split (s) | 15.0 | 51.0 | 36.0 | 29.0 | 29.0 |
| Total Split (%) | 18.8% | 63.8% | 45.0% | 36.3% | 36.3% |
| Yellow Time (s) | 3.0 | 4.0 | 4.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 3.0 | 3.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 7.0 | 7.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | | |
| Recall Mode | None | None | None | None | None |
| Act Effect Green (s) | 10.9 | 42.4 | 24.7 | 11.1 | 11.1 |
| Actuated g/C Ratio | 0.18 | 0.71 | 0.41 | 0.19 | 0.19 |
| v/c Ratio | 0.59 | 0.47 | 0.78 | 0.30 | 0.12 |
| Control Delay | 36.5 | 7.3 | 21.1 | 25.9 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.5 | 7.3 | 21.1 | 25.9 | 8.9 |
| LOS | D | A | C | C | A |
| Approach Delay | | 11.3 | 21.1 | 21.2 | |
| Approach LOS | | B | C | C | |

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 59.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 16.0

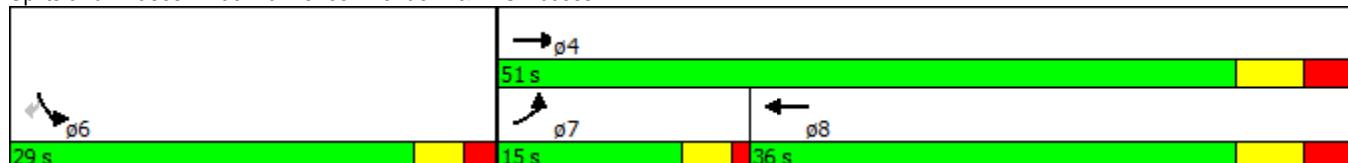
Intersection LOS: B

Intersection Capacity Utilization 60.7%

ICU Level of Service B

Analysis Period (min) 15

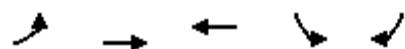
Splits and Phases: 33: Lawrence Avenue E & TFS Access



Queues
33: Lawrence Avenue E & TFS Access

AM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBT | SBL | SBR |
|------------------------|-------|-------|--------|-------|------|
| Lane Group Flow (vph) | 190 | 1204 | 1123 | 100 | 38 |
| v/c Ratio | 0.59 | 0.47 | 0.78 | 0.30 | 0.12 |
| Control Delay | 36.5 | 7.3 | 21.1 | 25.9 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.5 | 7.3 | 21.1 | 25.9 | 8.9 |
| Queue Length 50th (m) | 20.4 | 30.0 | 53.4 | 10.7 | 0.0 |
| Queue Length 95th (m) | #58.5 | 76.6 | #115.4 | 22.4 | 6.3 |
| Internal Link Dist (m) | | 209.7 | 76.4 | 263.1 | |
| Turn Bay Length (m) | 110.0 | | | | |
| Base Capacity (vph) | 358 | 2638 | 1839 | 789 | 713 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.46 | 0.61 | 0.13 | 0.05 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

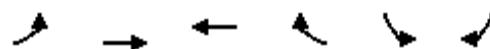
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

AM Peak Hour

33: Lawrence Avenue E & TFS Access

10/31/2013



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------------|-------|-------|-------|---------------------------|-------|------|
| Lane Configurations | ↑ | ↑↑ | ↑↑ | | ↑ | ↑ |
| Volume (vph) | 186 | 1180 | 919 | 181 | 98 | 37 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 7.0 | 7.0 | | 5.0 | 5.0 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Fr _t | 1.00 | 1.00 | 0.98 | | 1.00 | 0.85 |
| Fl _t Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1789 | 3579 | 3459 | | 1807 | 1585 |
| Fl _t Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1789 | 3579 | 3459 | | 1807 | 1585 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 190 | 1204 | 938 | 185 | 100 | 38 |
| RTOR Reduction (vph) | 0 | 0 | 19 | 0 | 0 | 33 |
| Lane Group Flow (vph) | 190 | 1204 | 1104 | 0 | 100 | 5 |
| Confl. Peds. (#/hr) | 4 | | | 4 | | |
| Heavy Vehicles (%) | 2% | 2% | 3% | 1% | 1% | 3% |
| Turn Type | Prot | NA | NA | | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 6 | |
| Permitted Phases | | | | | 6 | |
| Actuated Green, G (s) | 10.9 | 39.9 | 25.0 | | 8.6 | 8.6 |
| Effective Green, g (s) | 10.9 | 39.9 | 25.0 | | 8.6 | 8.6 |
| Actuated g/C Ratio | 0.18 | 0.66 | 0.41 | | 0.14 | 0.14 |
| Clearance Time (s) | 4.0 | 7.0 | 7.0 | | 5.0 | 5.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 322 | 2360 | 1429 | | 256 | 225 |
| v/s Ratio Prot | c0.11 | 0.34 | c0.32 | | c0.06 | |
| v/s Ratio Perm | | | | | 0.00 | |
| v/c Ratio | 0.59 | 0.51 | 0.77 | | 0.39 | 0.02 |
| Uniform Delay, d ₁ | 22.8 | 5.3 | 15.3 | | 23.6 | 22.3 |
| Progression Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d ₂ | 2.9 | 0.2 | 2.7 | | 1.0 | 0.0 |
| Delay (s) | 25.6 | 5.5 | 18.0 | | 24.6 | 22.4 |
| Level of Service | C | A | B | | C | C |
| Approach Delay (s) | | 8.2 | 18.0 | | 24.0 | |
| Approach LOS | | A | B | | C | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | | 13.2 | | HCM 2000 Level of Service | | B |
| HCM 2000 Volume to Capacity ratio | | 0.65 | | | | |
| Actuated Cycle Length (s) | | 60.5 | | Sum of lost time (s) | | 16.0 |
| Intersection Capacity Utilization | | 60.7% | | ICU Level of Service | | B |
| Analysis Period (min) | | 15 | | | | |
| c Critical Lane Group | | | | | | |

HCM Unsignalized Intersection Capacity Analysis
26: Bayview - West Ramp Terminal & Lawrence Avenue E

AM Peak Hour

10/31/2013

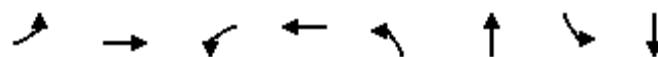


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|-------|------|-------|----------------------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 986 | 292 | 0 | 236 | 0 | 0 | 0 | 0 | 31 | 51 | 864 |
| Sign Control | | Free | | | | Free | | | Stop | | | Stop |
| Grade | | 0% | | | | 0% | | | 0% | | | 0% |
| Peak Hour Factor | 0.98 | 0.98 | 0.95 | 0.95 | 0.98 | 0.98 | 0.95 | 0.95 | 0.95 | 0.98 | 0.95 | 0.98 |
| Hourly flow rate (vph) | 0 | 1006 | 307 | 0 | 241 | 0 | 0 | 0 | 0 | 32 | 54 | 882 |
| Pedestrians | | 4 | | | | | | | | | 24 | |
| Lane Width (m) | | 3.7 | | | | | | | | | 3.7 | |
| Walking Speed (m/s) | | 1.2 | | | | | | | | | 1.2 | |
| Percent Blockage | | 0 | | | | | | | | | 2 | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (m) | | 100 | | | 59 | | | | | | | |
| pX, platoon unblocked | | | | 0.82 | | | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | |
| vC, conflicting volume | 265 | | | 1313 | | | 1431 | 1425 | 657 | 768 | 1578 | 269 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 265 | | | 934 | | | 1078 | 1070 | 129 | 265 | 1258 | 269 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.6 | 6.7 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.6 | 4.1 | 3.3 |
| p0 queue free % | 100 | | | 100 | | | 0 | 100 | 100 | 94 | 58 | 0 |
| cM capacity (veh/h) | 1284 | | | 595 | | | 0 | 176 | 732 | 516 | 127 | 712 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | SB 1 | | | | | | | | |
| Volume Total | 671 | 643 | 241 | 967 | | | | | | | | |
| Volume Left | 0 | 0 | 0 | 32 | | | | | | | | |
| Volume Right | 0 | 307 | 0 | 882 | | | | | | | | |
| cSH | 1700 | 1700 | 1700 | 781 | | | | | | | | |
| Volume to Capacity | 0.39 | 0.38 | 0.14 | 1.24 | | | | | | | | |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 258.2 | | | | | | | | |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 129.1 | | | | | | | | |
| Lane LOS | | | | F | | | | | | | | |
| Approach Delay (s) | 0.0 | | 0.0 | 129.1 | | | | | | | | |
| Approach LOS | | | | F | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| Average Delay | | | 49.5 | | | | | | | | | |
| Intersection Capacity Utilization | | 73.0% | | | ICU Level of Service | | | | D | | | |
| Analysis Period (min) | | 15 | | | | | | | | | | |

Timings
1: Mt. Pleasant Road & Blythwood Road

PM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | |
| Volume (vph) | 32 | 237 | 172 | 233 | 68 | 1119 | 27 | 759 |
| 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) | 22.0 | 22.0 | 22.0 | 22.0 | 17.0 | 17.0 | 17.0 | 17.0 |
| Minimum Split (s) | 28.0 | 28.0 | 28.0 | 28.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 59.0 | 59.0 | 59.0 | 59.0 |
| Total Split (%) | 34.4% | 34.4% | 34.4% | 34.4% | 65.6% | 65.6% | 65.6% | 65.6% |
| 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 | |
| Total Lost Time (s) | | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 25.0 | | 25.0 | | 53.0 | | 53.0 | |
| Actuated g/C Ratio | 0.28 | | 0.28 | | 0.59 | | 0.59 | |
| v/c Ratio | 0.72 | | 1.57 | | 0.80 | | 0.47 | |
| Control Delay | 38.5 | | 300.9 | | 18.5 | | 17.7 | |
| Queue Delay | 0.0 | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 38.5 | | 300.9 | | 18.5 | | 17.7 | |
| LOS | D | | F | | B | | B | |
| Approach Delay | 38.5 | | 300.9 | | 18.5 | | 17.7 | |
| Approach LOS | D | | F | | B | | B | |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 62 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.57

Intersection Signal Delay: 64.1

Intersection LOS: E

Intersection Capacity Utilization 123.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 1: Mt. Pleasant Road & Blythwood Road

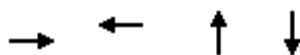


Queues

PM Peak Hour

1: Mt. Pleasant Road & Blythwood Road

10/31/2013



| Lane Group | EBT | WBT | NBT | SBT |
|------------------------|--------|--------|--------|-------|
| Lane Group Flow (vph) | 345 | 474 | 1407 | 849 |
| v/c Ratio | 0.72 | 1.57 | 0.80 | 0.47 |
| Control Delay | 38.5 | 300.9 | 18.5 | 17.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.5 | 300.9 | 18.5 | 17.7 |
| Queue Length 50th (m) | 52.0 | ~118.0 | 90.3 | 54.7 |
| Queue Length 95th (m) | #84.0 | #176.4 | 120.1 | 101.3 |
| Internal Link Dist (m) | 6726.5 | 876.4 | 5607.5 | 256.3 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 477 | 301 | 1759 | 1824 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 1.57 | 0.80 | 0.47 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
1: Mt. Pleasant Road & Blythwood Road

PM Peak Hour

10/31/2013

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|--------|------|------|---------------------------|------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 32 | 237 | 59 | 172 | 233 | 46 | 68 | 1119 | 149 | 27 | 759 | 21 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lane Util. Factor | 1.00 | | | | 1.00 | | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 0.99 | | | | 1.00 | | | 1.00 | | | 1.00 | |
| Flpb, ped/bikes | 1.00 | | | | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | 0.98 | | | | 0.99 | | | 0.98 | | | 1.00 | |
| Flt Protected | 1.00 | | | | 0.98 | | | 1.00 | | | 1.00 | |
| Satd. Flow (prot) | 1851 | | | | 1822 | | | 3531 | | | 3584 | |
| Flt Permitted | 0.91 | | | | 0.58 | | | 0.84 | | | 0.86 | |
| Satd. Flow (perm) | 1688 | | | | 1071 | | | 2970 | | | 3094 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 34 | 249 | 62 | 181 | 245 | 48 | 72 | 1178 | 157 | 28 | 799 | 22 |
| RTOR Reduction (vph) | 0 | 9 | 0 | 0 | 4 | 0 | 0 | 11 | 0 | 0 | 2 | 0 |
| Lane Group Flow (vph) | 0 | 336 | 0 | 0 | 470 | 0 | 0 | 1396 | 0 | 0 | 847 | 0 |
| Confl. Peds. (#/hr) | 10 | | 23 | 23 | | 10 | 10 | | 6 | 6 | | 10 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 1% | 1% | 4% | 0% | 1% | 1% | 7% | 1% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Actuated Green, G (s) | 25.0 | | | 25.0 | | | 53.0 | | | 53.0 | | |
| Effective Green, g (s) | 25.0 | | | 25.0 | | | 53.0 | | | 53.0 | | |
| Actuated g/C Ratio | 0.28 | | | 0.28 | | | 0.59 | | | 0.59 | | |
| Clearance Time (s) | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | | |
| Vehicle Extension (s) | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | | |
| Lane Grp Cap (vph) | 468 | | | 297 | | | 1749 | | | 1822 | | |
| v/s Ratio Prot | | | | | | | | | | | | |
| v/s Ratio Perm | 0.20 | | | c0.44 | | | c0.47 | | | 0.27 | | |
| v/c Ratio | 0.72 | | | 1.58 | | | 0.80 | | | 0.46 | | |
| Uniform Delay, d1 | 29.3 | | | 32.5 | | | 14.4 | | | 10.5 | | |
| Progression Factor | 1.00 | | | 1.00 | | | 1.00 | | | 1.59 | | |
| Incremental Delay, d2 | 6.5 | | | 277.2 | | | 3.9 | | | 0.8 | | |
| Delay (s) | 35.8 | | | 309.7 | | | 18.3 | | | 17.5 | | |
| Level of Service | D | | | F | | | B | | | B | | |
| Approach Delay (s) | 35.8 | | | 309.7 | | | 18.3 | | | 17.5 | | |
| Approach LOS | D | | | F | | | B | | | B | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 64.9 | | | HCM 2000 Level of Service | | | E | | | | | |
| HCM 2000 Volume to Capacity ratio | 1.05 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 90.0 | | | Sum of lost time (s) | | | 12.0 | | | | | |
| Intersection Capacity Utilization | 123.2% | | | ICU Level of Service | | | H | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

PM Peak Hour

4: Mt. Pleasant Road NB & Lawrence Avenue E

10/31/2013



| Lane Group | EBT | WBT | NBL | NBR | ø3 | ø5 |
|----------------------|-------|-------|-------|-------|------|-------|
| Lane Configurations | ↑↓ | ↓↑ | ↑ | ↑ | | |
| Volume (vph) | 620 | 493 | 454 | 434 | | |
| Turn Type | NA | NA | NA | Perm | | |
| Protected Phases | 1 | Free! | 4! | | 3 | 5 |
| Permitted Phases | | | | 4 | | |
| Detector Phase | 1 | | 4 | 4 | | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 20.0 | | 15.0 | 15.0 | 10.0 | 20.0 |
| Minimum Split (s) | 55.0 | | 39.0 | 39.0 | 37.0 | 55.0 |
| Total Split (s) | 56.0 | | 45.0 | 45.0 | 39.0 | 56.0 |
| Total Split (%) | 40.0% | | 32.1% | 32.1% | 28% | 40% |
| Yellow Time (s) | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 13.0 | | 7.0 | 7.0 | 11.0 | 13.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 17.0 | | 11.0 | 11.0 | | |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | Max | Max | None | C-Max |
| Act Effect Green (s) | 39.0 | 140.0 | 37.5 | 37.5 | | |
| Actuated g/C Ratio | 0.28 | 1.00 | 0.27 | 0.27 | | |
| v/c Ratio | 1.10 | 0.24 | 0.97 | 1.02 | | |
| Control Delay | 105.8 | 0.1 | 84.0 | 99.2 | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Delay | 105.8 | 0.1 | 84.0 | 99.2 | | |
| LOS | F | A | F | F | | |
| Approach Delay | 105.8 | 0.1 | 91.4 | | | |
| Approach LOS | F | A | F | | | |

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 1 (1%), Referenced to phase 1:EBT and 5:, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 69.4

Intersection LOS: E

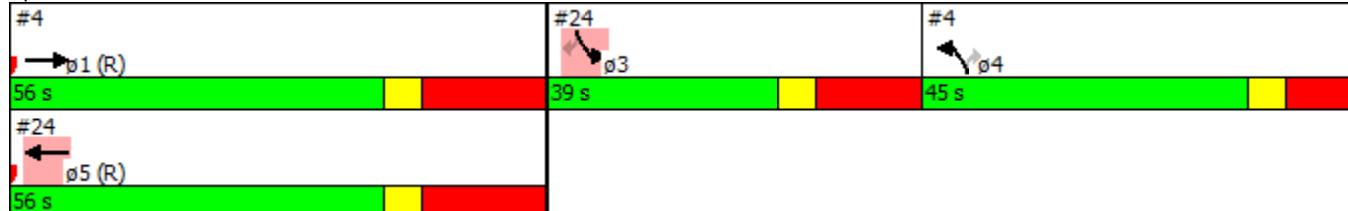
Intersection Capacity Utilization 106.4%

ICU Level of Service G

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 4: Mt. Pleasant Road NB & Lawrence Avenue E



Queues

PM Peak Hour

10/31/2013

4: Mt. Pleasant Road NB & Lawrence Avenue E



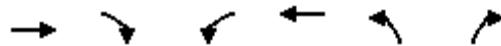
| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|--------|------|--------|--------|
| Lane Group Flow (vph) | 1028 | 829 | 463 | 443 |
| v/c Ratio | 1.10 | 0.24 | 0.97 | 1.02 |
| Control Delay | 105.8 | 0.1 | 84.0 | 99.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 105.8 | 0.1 | 84.0 | 99.2 |
| Queue Length 50th (m) | ~168.9 | 0.0 | ~130.4 | ~135.1 |
| Queue Length 95th (m) | #210.6 | 0.0 | #207.2 | #207.2 |
| Internal Link Dist (m) | 6589.3 | 53.2 | 417.5 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 938 | 3505 | 479 | 433 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.10 | 0.24 | 0.97 | 1.02 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
4: Mt. Pleasant Road NB & Lawrence Avenue E

PM Peak Hour
10/31/2013



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|------------------------|-------|-------|------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Volume (vph) | 620 | 387 | 319 | 493 | 454 | 434 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 17.0 | | | 4.0 | 11.0 | 11.0 |
| Lane Util. Factor | 0.95 | | | 0.95 | 1.00 | 1.00 |
| Frpb, ped/bikes | 0.99 | | | 1.00 | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Fr _t | 0.94 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 0.98 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3370 | | | 3510 | 1789 | 1617 |
| Flt Permitted | 1.00 | | | 0.98 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3370 | | | 3510 | 1789 | 1617 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 633 | 395 | 326 | 503 | 463 | 443 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 1028 | 0 | 0 | 829 | 463 | 443 |
| Confl. Peds. (#/hr) | | 14 | 14 | | 7 | |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 2% | 1% |
| Turn Type | NA | | Perm | NA | NA | Perm |
| Protected Phases | 1 | | | Free! | 4! | |
| Permitted Phases | | Free! | | | 4 | |
| Actuated Green, G (s) | 39.0 | | | 140.0 | 37.5 | 37.5 |
| Effective Green, g (s) | 39.0 | | | 140.0 | 37.5 | 37.5 |
| Actuated g/C Ratio | 0.28 | | | 1.00 | 0.27 | 0.27 |
| Clearance Time (s) | 17.0 | | | | 11.0 | 11.0 |
| Vehicle Extension (s) | 5.0 | | | | 5.0 | 5.0 |
| Lane Grp Cap (vph) | 938 | | | 3510 | 479 | 433 |
| v/s Ratio Prot | c0.31 | | | 0.24 | 0.26 | |
| v/s Ratio Perm | | | | | c0.27 | |
| v/c Ratio | 1.10 | | | 0.24 | 0.97 | 1.02 |
| Uniform Delay, d1 | 50.5 | | | 0.0 | 50.6 | 51.2 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 59.2 | | | 0.1 | 33.6 | 49.3 |
| Delay (s) | 109.7 | | | 0.1 | 84.2 | 100.5 |
| Level of Service | F | | | A | F | F |
| Approach Delay (s) | 109.7 | | | 0.1 | 92.2 | |
| Approach LOS | F | | | A | F | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 71.1 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.92 | | |
| Actuated Cycle Length (s) | 140.0 | Sum of lost time (s) | 43.0 |
| Intersection Capacity Utilization | 106.4% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

! Phase conflict between lane groups.

c Critical Lane Group

Timings

PM Peak Hour

9: Bayview Avenue & Blythwood Road/Wellness Way

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↑ ↗ | ↗ ↘ | ↑ ↗ | ↗ ↘ | ↑ ↗ | ↑↑ ↗ | ↑ ↗ | ↑ ↗ | ↑↑ ↗ | ↑ ↗ |
| Volume (vph) | 181 | 27 | 189 | 89 | 252 | 1601 | 99 | 72 | 1310 | 169 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 9.0 | 10.0 | 9.0 | 10.0 | 7.0 | 10.0 | 10.0 | 7.0 | 10.0 | 10.0 |
| Minimum Split (s) | 13.0 | 37.0 | 13.0 | 37.0 | 11.0 | 51.0 | 51.0 | 11.0 | 51.0 | 51.0 |
| Total Split (s) | 13.0 | 37.0 | 13.0 | 37.0 | 11.0 | 51.0 | 51.0 | 11.0 | 51.0 | 51.0 |
| Total Split (%) | 11.6% | 33.0% | 11.6% | 33.0% | 9.8% | 45.5% | 45.5% | 9.8% | 45.5% | 45.5% |
| Yellow Time (s) | 2.0 | 4.0 | 2.0 | 4.0 | 2.0 | 4.0 | 4.0 | 2.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 3.0 | 2.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 7.0 | 4.0 | 7.0 | 4.0 | 7.0 | 7.0 | 4.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | | | | |
| Recall Mode | None |
| Act Effect Green (s) | 9.1 | 22.1 | 9.1 | 22.1 | 7.1 | 45.9 | 45.9 | 7.1 | 43.3 | 43.3 |
| Actuated g/C Ratio | 0.09 | 0.21 | 0.09 | 0.21 | 0.07 | 0.44 | 0.44 | 0.07 | 0.42 | 0.42 |
| v/c Ratio | 1.17 | 0.36 | 1.25 | 0.54 | 2.09 | 1.16 | 0.14 | 0.60 | 0.89 | 0.24 |
| Control Delay | 168.8 | 11.6 | 198.6 | 29.9 | 545.9 | 112.0 | 3.5 | 71.4 | 37.9 | 9.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 168.8 | 11.6 | 198.6 | 29.9 | 545.9 | 112.0 | 3.5 | 71.4 | 37.9 | 9.0 |
| LOS | F | B | F | C | F | F | A | E | D | A |
| Approach Delay | | | | | | 108.0 | | 162.4 | | 36.3 |
| Approach LOS | | | | | F | | F | | | D |

Intersection Summary

Cycle Length: 112

Actuated Cycle Length: 103.8

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.09

Intersection Signal Delay: 106.1

Intersection LOS: F

Intersection Capacity Utilization 103.3%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 9: Bayview Avenue & Blythwood Road/Wellness Way



Queues

PM Peak Hour

10/31/2013

9: Bayview Avenue & Blythwood Road/Wellness Way



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|------|--------|------|--------|--------|-------|-------|--------|------|
| Lane Group Flow (vph) | 185 | 151 | 193 | 224 | 257 | 1634 | 101 | 73 | 1337 | 172 |
| v/c Ratio | 1.17 | 0.36 | 1.25 | 0.54 | 2.09 | 1.16 | 0.14 | 0.60 | 0.89 | 0.24 |
| Control Delay | 168.8 | 11.6 | 198.6 | 29.9 | 545.9 | 112.0 | 3.5 | 71.4 | 37.9 | 9.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 168.8 | 11.6 | 198.6 | 29.9 | 545.9 | 112.0 | 3.5 | 71.4 | 37.9 | 9.0 |
| Queue Length 50th (m) | ~51.3 | 4.6 | ~55.9 | 28.6 | ~91.5 | ~242.6 | 0.0 | 15.9 | 146.2 | 7.5 |
| Queue Length 95th (m) | #95.1 | 20.4 | #100.6 | 51.4 | #141.2 | #284.8 | 8.1 | #37.5 | #192.1 | 21.7 |
| Internal Link Dist (m) | 332.3 | | 1665.2 | | 5886.8 | | 279.4 | | | |
| Turn Bay Length (m) | 15.0 | | | 80.0 | | 35.0 | | 55.0 | 30.0 | |
| Base Capacity (vph) | 158 | 522 | 154 | 544 | 123 | 1403 | 709 | 121 | 1548 | 721 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.17 | 0.29 | 1.25 | 0.41 | 2.09 | 1.16 | 0.14 | 0.60 | 0.86 | 0.24 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
9: Bayview Avenue & Blythwood Road/Wellness Way

PM Peak Hour

10/31/2013

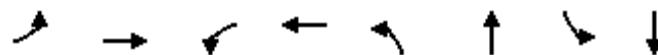
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|--------|------|-------|-------|------|-------|-------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ |
| Volume (vph) | 181 | 27 | 121 | 189 | 89 | 130 | 252 | 1601 | 99 | 72 | 1310 | 169 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 7.0 | | 4.0 | 7.0 | | 4.0 | 7.0 | 7.0 | 4.0 | 7.0 | 7.0 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 0.93 | | 1.00 | 0.99 | | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.96 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.88 | | 1.00 | 0.91 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1807 | 1497 | | 1755 | 1709 | | 1807 | 3174 | 1457 | 1789 | 3614 | 1530 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1807 | 1497 | | 1755 | 1709 | | 1807 | 3174 | 1457 | 1789 | 3614 | 1530 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 185 | 28 | 123 | 193 | 91 | 133 | 257 | 1634 | 101 | 73 | 1337 | 172 |
| RTOR Reduction (vph) | 0 | 97 | 0 | 0 | 50 | 0 | 0 | 0 | 57 | 0 | 0 | 68 |
| Lane Group Flow (vph) | 185 | 54 | 0 | 193 | 174 | 0 | 257 | 1634 | 44 | 73 | 1337 | 104 |
| Confl. Peds. (#/hr) | 4 | | 76 | 76 | | 4 | 21 | | 9 | 9 | | 21 |
| Heavy Vehicles (%) | 1% | 15% | 2% | 4% | 2% | 1% | 1% | 15% | 10% | 2% | 1% | 2% |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | | | | | | | 2 | | | 6 |
| Actuated Green, G (s) | 9.1 | 22.1 | | 9.1 | 22.1 | | 7.1 | 45.9 | 45.9 | 5.4 | 44.2 | 44.2 |
| Effective Green, g (s) | 9.1 | 22.1 | | 9.1 | 22.1 | | 7.1 | 45.9 | 45.9 | 5.4 | 44.2 | 44.2 |
| Actuated g/C Ratio | 0.09 | 0.21 | | 0.09 | 0.21 | | 0.07 | 0.44 | 0.44 | 0.05 | 0.42 | 0.42 |
| Clearance Time (s) | 4.0 | 7.0 | | 4.0 | 7.0 | | 4.0 | 7.0 | 7.0 | 4.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lane Grp Cap (vph) | 157 | 316 | | 152 | 361 | | 122 | 1394 | 639 | 92 | 1528 | 647 |
| v/s Ratio Prot | 0.10 | 0.04 | | c0.11 | c0.10 | | c0.14 | c0.51 | | 0.04 | 0.37 | |
| v/s Ratio Perm | | | | | | | | | 0.03 | | | 0.07 |
| v/c Ratio | 1.18 | 0.17 | | 1.27 | 0.48 | | 2.11 | 1.17 | 0.07 | 0.79 | 0.88 | 0.16 |
| Uniform Delay, d1 | 47.7 | 33.7 | | 47.7 | 36.2 | | 48.7 | 29.3 | 16.9 | 49.0 | 27.6 | 18.7 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 127.8 | 0.5 | | 162.9 | 2.1 | | 524.6 | 85.4 | 0.1 | 40.4 | 6.4 | 0.2 |
| Delay (s) | 175.5 | 34.2 | | 210.6 | 38.3 | | 573.3 | 114.7 | 17.0 | 89.4 | 34.0 | 18.9 |
| Level of Service | F | C | | F | D | | F | F | B | F | C | B |
| Approach Delay (s) | | 112.0 | | | 118.0 | | | 169.0 | | | 34.9 | |
| Approach LOS | | F | | | F | | | F | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 110.6 | | | | | | | | | | F |
| HCM 2000 Volume to Capacity ratio | | 1.10 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 104.5 | | | | | | | | | | 22.0 |
| Intersection Capacity Utilization | | 103.3% | | | | | | | | | | G |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue

PM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | |
| Volume (vph) | 1 | 26 | 65 | 60 | 24 | 946 | 6 | 670 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 4 | | 8 | | 2 | | 6 |
| Permitted Phases | 4 | | 8 | 8 | 2 | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 21.0 | 21.0 | 21.0 | 21.0 | 17.0 | 17.0 | 17.0 | 17.0 |
| Minimum Split (s) | 27.0 | 27.0 | 27.0 | 27.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 28.0 | 28.0 | 28.0 | 28.0 | 62.0 | 62.0 | 62.0 | 62.0 |
| Total Split (%) | 31.1% | 31.1% | 31.1% | 31.1% | 68.9% | 68.9% | 68.9% | 68.9% |
| 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 | |
| Total Lost Time (s) | | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | | 21.0 | | 21.0 | | 57.0 | | 57.0 |
| Actuated g/C Ratio | 0.23 | | 0.23 | | 0.63 | | 0.63 | |
| v/c Ratio | 0.11 | | 0.39 | | 0.51 | | 0.33 | |
| Control Delay | 19.4 | | 31.9 | | 2.5 | | 8.1 | |
| Queue Delay | 0.0 | | 0.0 | | 0.0 | | 0.0 | |
| Total Delay | 19.4 | | 31.9 | | 2.5 | | 8.1 | |
| LOS | B | | C | | A | | A | |
| Approach Delay | 19.4 | | 31.9 | | 2.5 | | 8.1 | |
| Approach LOS | B | | C | | A | | A | |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 4 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 72.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue

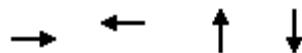


Queues

PM Peak Hour

10/31/2013

11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue



| Lane Group | EBT | WBT | NBT | SBT |
|------------------------|-------|-------|------|-------|
| Lane Group Flow (vph) | 47 | 143 | 1072 | 712 |
| v/c Ratio | 0.11 | 0.39 | 0.51 | 0.33 |
| Control Delay | 19.4 | 31.9 | 2.5 | 8.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.4 | 31.9 | 2.5 | 8.1 |
| Queue Length 50th (m) | 3.8 | 20.2 | 7.1 | 26.9 |
| Queue Length 95th (m) | 12.2 | 36.9 | 10.9 | 36.2 |
| Internal Link Dist (m) | 159.1 | 867.4 | 91.1 | 417.5 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 442 | 381 | 2107 | 2165 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.38 | 0.51 | 0.33 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
11: Mt. Pleasant Road/Mt. Pleasant Road NB & St. Leonard Avenue

PM Peak Hour

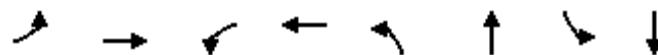
10/31/2013

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|------|------|---------------------------|------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1 | 26 | 18 | 65 | 60 | 11 | 24 | 946 | 48 | 6 | 670 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lane Util. Factor | | 1.00 | | | 1.00 | | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | | 0.99 | | | 1.00 | | | 1.00 | | | 1.00 | |
| Flpb, ped/bikes | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | | 0.95 | | | 0.99 | | | 0.99 | | | 1.00 | |
| Fl _t Protected | | 1.00 | | | 0.98 | | | 1.00 | | | 1.00 | |
| Satd. Flow (prot) | | 1758 | | | 1821 | | | 3579 | | | 3612 | |
| Fl _t Permitted | | 1.00 | | | 0.83 | | | 0.93 | | | 0.95 | |
| Satd. Flow (perm) | | 1752 | | | 1543 | | | 3320 | | | 3420 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 1 | 27 | 19 | 68 | 63 | 12 | 25 | 996 | 51 | 6 | 705 | 1 |
| RTOR Reduction (vph) | 0 | 15 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 32 | 0 | 0 | 139 | 0 | 0 | 1068 | 0 | 0 | 712 | 0 |
| Confl. Peds. (#/hr) | 14 | | 7 | 7 | | 14 | 4 | | 2 | 2 | | 4 |
| Heavy Vehicles (%) | 0% | 4% | 0% | 1% | 0% | 9% | 4% | 1% | 0% | 0% | 1% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Actuated Green, G (s) | 21.0 | | | 21.0 | | | 57.0 | | | 57.0 | | |
| Effective Green, g (s) | 21.0 | | | 21.0 | | | 57.0 | | | 57.0 | | |
| Actuated g/C Ratio | 0.23 | | | 0.23 | | | 0.63 | | | 0.63 | | |
| Clearance Time (s) | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | | |
| Vehicle Extension (s) | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | | |
| Lane Grp Cap (vph) | 408 | | | 360 | | | 2102 | | | 2166 | | |
| v/s Ratio Prot | | | | | | | | | | | | |
| v/s Ratio Perm | 0.02 | | | c0.09 | | | c0.32 | | | 0.21 | | |
| v/c Ratio | 0.08 | | | 0.39 | | | 0.51 | | | 0.33 | | |
| Uniform Delay, d1 | 26.9 | | | 29.1 | | | 8.9 | | | 7.6 | | |
| Progression Factor | 1.00 | | | 1.00 | | | 0.18 | | | 1.00 | | |
| Incremental Delay, d2 | 0.2 | | | 1.4 | | | 0.8 | | | 0.4 | | |
| Delay (s) | 27.1 | | | 30.5 | | | 2.5 | | | 8.0 | | |
| Level of Service | C | | | C | | | A | | | A | | |
| Approach Delay (s) | 27.1 | | | 30.5 | | | 2.5 | | | 8.0 | | |
| Approach LOS | C | | | C | | | A | | | A | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 7.1 | | | HCM 2000 Level of Service | | | A | | | | | |
| HCM 2000 Volume to Capacity ratio | 0.48 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 90.0 | | | Sum of lost time (s) | | | 12.0 | | | | | |
| Intersection Capacity Utilization | 72.5% | | | ICU Level of Service | | | C | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings
17: Mt. Pleasant Road & Glengowan Road

PM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | |
| Volume (vph) | 2 | 0 | 13 | 1 | 11 | 1139 | 8 | 776 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | | | | | | | |
| Permitted Phases | 4 | | 8 | | 2 | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Minimum Split (s) | 26.0 | 26.0 | 26.0 | 26.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Total Split (s) | 27.0 | 27.0 | 27.0 | 27.0 | 63.0 | 63.0 | 63.0 | 63.0 |
| Total Split (%) | 30.0% | 30.0% | 30.0% | 30.0% | 70.0% | 70.0% | 70.0% | 70.0% |
| 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) | | | | | | | | |
| Total Lost Time (s) | | | 6.0 | | | 6.0 | | 6.0 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | | 10.5 | | 10.5 | | 75.3 | | 75.3 |
| Actuated g/C Ratio | | 0.12 | | 0.12 | | 0.84 | | 0.84 |
| v/c Ratio | | 0.03 | | 0.16 | | 0.43 | | 0.30 |
| Control Delay | | 0.2 | | 22.5 | | 3.0 | | 2.4 |
| Queue Delay | | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Total Delay | | 0.2 | | 22.5 | | 3.0 | | 2.4 |
| LOS | | A | | C | | A | | A |
| Approach Delay | | 0.3 | | 22.5 | | 3.0 | | 2.4 |
| Approach LOS | | A | | C | | A | | A |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 3.0

Intersection LOS: A

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

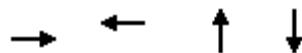
Splits and Phases: 17: Mt. Pleasant Road & Glengowan Road



Queues
17: Mt. Pleasant Road & Glengowan Road

PM Peak Hour

10/31/2013



| Lane Group | EBT | WBT | NBT | SBT |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 4 | 31 | 1232 | 840 |
| v/c Ratio | 0.03 | 0.16 | 0.43 | 0.30 |
| Control Delay | 0.2 | 22.5 | 3.0 | 2.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.2 | 22.5 | 3.0 | 2.4 |
| Queue Length 50th (m) | 0.0 | 2.4 | 3.1 | 9.7 |
| Queue Length 95th (m) | 0.0 | 9.1 | m82.4 | 22.4 |
| Internal Link Dist (m) | 134.3 | 365.0 | 256.3 | 82.7 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 259 | 364 | 2846 | 2836 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.09 | 0.43 | 0.30 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
17: Mt. Pleasant Road & Glengowan Road

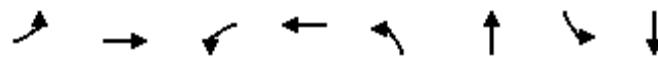
PM Peak Hour

10/31/2013

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|------|------|---------------------------|------|------|-------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 2 | 0 | 2 | 13 | 1 | 15 | 11 | 1139 | 20 | 8 | 776 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | | | | 6.0 | | | 6.0 | | | 6.0 | |
| Lane Util. Factor | 1.00 | | | | 1.00 | | | 0.95 | | | 0.95 | |
| Frpb, ped/bikes | 0.99 | | | | 0.99 | | | 1.00 | | | 1.00 | |
| Flpb, ped/bikes | 1.00 | | | | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | 0.93 | | | | 0.93 | | | 1.00 | | | 1.00 | |
| Flt Protected | 0.98 | | | | 0.98 | | | 1.00 | | | 1.00 | |
| Satd. Flow (prot) | 1154 | | | | 1731 | | | 3599 | | | 3597 | |
| Flt Permitted | 0.84 | | | | 0.85 | | | 0.95 | | | 0.94 | |
| Satd. Flow (perm) | 993 | | | | 1510 | | | 3403 | | | 3391 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 2 | 0 | 2 | 14 | 1 | 16 | 12 | 1199 | 21 | 8 | 817 | 15 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 15 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 1231 | 0 | 0 | 839 | 0 |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | 6 | | 6 | 6 | | 6 |
| Heavy Vehicles (%) | 100% | 0% | 0% | 0% | 0% | 0% | 9% | 1% | 0% | 12% | 1% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Actuated Green, G (s) | 7.5 | | | 7.5 | | | 70.5 | | | 70.5 | | |
| Effective Green, g (s) | 7.5 | | | 7.5 | | | 70.5 | | | 70.5 | | |
| Actuated g/C Ratio | 0.08 | | | 0.08 | | | 0.78 | | | 0.78 | | |
| Clearance Time (s) | 6.0 | | | 6.0 | | | 6.0 | | | 6.0 | | |
| Vehicle Extension (s) | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | | |
| Lane Grp Cap (vph) | 82 | | | 125 | | | 2665 | | | 2656 | | |
| v/s Ratio Prot | | | | | | | | | | | | |
| v/s Ratio Perm | 0.00 | | | c0.01 | | | c0.36 | | | 0.25 | | |
| v/c Ratio | 0.00 | | | 0.13 | | | 0.46 | | | 0.32 | | |
| Uniform Delay, d1 | 37.8 | | | 38.2 | | | 3.3 | | | 2.8 | | |
| Progression Factor | 1.00 | | | 1.00 | | | 0.66 | | | 0.62 | | |
| Incremental Delay, d2 | 0.0 | | | 1.0 | | | 0.3 | | | 0.3 | | |
| Delay (s) | 37.9 | | | 39.2 | | | 2.5 | | | 2.0 | | |
| Level of Service | D | | | D | | | A | | | A | | |
| Approach Delay (s) | 37.9 | | | 39.2 | | | 2.5 | | | 2.0 | | |
| Approach LOS | D | | | D | | | A | | | A | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 2.9 | | | HCM 2000 Level of Service | | | A | | | | | |
| HCM 2000 Volume to Capacity ratio | 0.43 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 90.0 | | | Sum of lost time (s) | | | 12.0 | | | | | |
| Intersection Capacity Utilization | 57.1% | | | ICU Level of Service | | | B | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings
23: Mildenhall Road & Lawrence Avenue E

PM Peak Hour
10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↑ | ↑↓ | ↑ | ↑↓ | | ↔ | | ↔ |
| Volume (vph) | 10 | 756 | 65 | 746 | 28 | 46 | 83 | 37 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | NA |
| Protected Phases | | 2 | | 6 | | 4 | | 8 |
| Permitted Phases | 2 | | 6 | 6 | 4 | | 8 | |
| Detector Phase | 2 | 2 | 6 | 6 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 23.0 | 23.0 | 20.0 | 20.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Minimum Split (s) | 29.0 | 29.0 | 29.0 | 29.0 | 13.0 | 13.0 | 30.0 | 30.0 |
| Total Split (s) | 39.0 | 39.0 | 39.0 | 39.0 | 31.0 | 31.0 | 31.0 | 31.0 |
| Total Split (%) | 55.7% | 55.7% | 55.7% | 55.7% | 44.3% | 44.3% | 44.3% | 44.3% |
| 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) | -1.5 | -1.5 | -1.5 | -1.5 | | -1.5 | | -1.5 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Lead/Lag | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | None | None | None | None |
| Act Effect Green (s) | 42.7 | 42.7 | 42.7 | 42.7 | | 18.3 | | 18.3 |
| Actuated g/C Ratio | 0.61 | 0.61 | 0.61 | 0.61 | | 0.26 | | 0.26 |
| v/c Ratio | 0.04 | 0.42 | 0.21 | 0.49 | | 0.59 | | 0.56 |
| Control Delay | 8.7 | 8.8 | 10.7 | 10.1 | | 16.4 | | 26.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Delay | 8.7 | 8.8 | 10.7 | 10.1 | | 16.4 | | 26.9 |
| LOS | A | A | B | B | | B | | C |
| Approach Delay | | 8.8 | | 10.2 | | 16.4 | | 26.9 |
| Approach LOS | | A | | B | | B | | C |

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 9 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 11.5

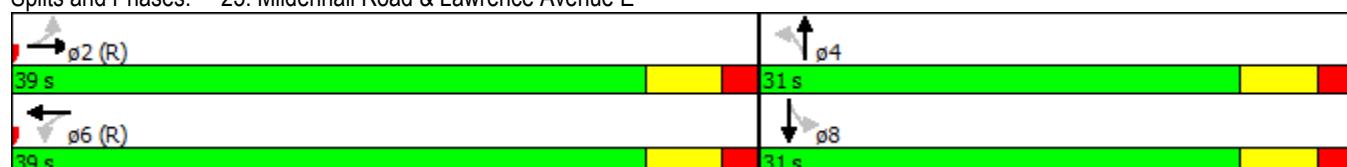
Intersection LOS: B

Intersection Capacity Utilization 90.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 23: Mildenhall Road & Lawrence Avenue E



Queues
23: Mildenhall Road & Lawrence Avenue E

PM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBL | WBT | NBT | SBT |
|------------------------|------|-------|------|-------|-------|-------|
| Lane Group Flow (vph) | 11 | 817 | 68 | 920 | 273 | 149 |
| v/c Ratio | 0.04 | 0.42 | 0.21 | 0.49 | 0.59 | 0.56 |
| Control Delay | 8.7 | 8.8 | 10.7 | 10.1 | 16.4 | 26.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.7 | 8.8 | 10.7 | 10.1 | 16.4 | 26.9 |
| Queue Length 50th (m) | 0.6 | 23.5 | 3.2 | 28.6 | 17.0 | 15.6 |
| Queue Length 95th (m) | m2.1 | 57.6 | 12.5 | 58.3 | 32.4 | 27.6 |
| Internal Link Dist (m) | | 788.6 | | 210.7 | 417.0 | 346.0 |
| Turn Bay Length (m) | 40.0 | | 35.0 | | | |
| Base Capacity (vph) | 276 | 1936 | 326 | 1872 | 615 | 376 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.42 | 0.21 | 0.49 | 0.44 | 0.40 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

PM Peak Hour

10/31/2013

23: Mildenhall Road & Lawrence Avenue E

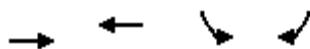
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|-------|------|------|---------------------------|------|------|------|------|------|-------|------|
| Lane Configurations | ↑ | ↑↑ | | ↑ | ↑↑ | | | ↔ | | | ↔ | |
| Volume (vph) | 10 | 756 | 20 | 65 | 746 | 128 | 28 | 46 | 186 | 83 | 37 | 22 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | | | 4.5 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | | | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.99 | | | 0.99 | |
| Flpb, ped/bikes | 0.97 | 1.00 | | 0.99 | 1.00 | | | 1.00 | | | 1.00 | |
| Fr _t | 1.00 | 1.00 | | 1.00 | 0.98 | | | 0.90 | | | 0.98 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.99 | | | 0.97 | |
| Satd. Flow (prot) | 1595 | 3176 | | 1634 | 3071 | | | 1485 | | | 1627 | |
| Flt Permitted | 0.27 | 1.00 | | 0.31 | 1.00 | | | 0.95 | | | 0.58 | |
| Satd. Flow (perm) | 453 | 3176 | | 535 | 3071 | | | 1425 | | | 970 | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 11 | 796 | 21 | 68 | 785 | 135 | 29 | 48 | 196 | 87 | 39 | 23 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 0 | 0 | 11 | 0 |
| Lane Group Flow (vph) | 11 | 817 | 0 | 68 | 920 | 0 | 0 | 184 | 0 | 0 | 138 | 0 |
| Confl. Peds. (#/hr) | 77 | | 12 | 12 | | 77 | 60 | | 4 | 4 | | 60 |
| Heavy Vehicles (%) | 0% | 3% | 0% | 0% | 3% | 0% | 14% | 0% | 2% | 0% | 0% | 0% |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 4 | | | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 41.2 | 41.2 | | 41.2 | 41.2 | | | 16.8 | | | 16.8 | |
| Effective Green, g (s) | 42.7 | 42.7 | | 42.7 | 42.7 | | | 18.3 | | | 18.3 | |
| Actuated g/C Ratio | 0.61 | 0.61 | | 0.61 | 0.61 | | | 0.26 | | | 0.26 | |
| Clearance Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | | 6.0 | | | 6.0 | |
| Vehicle Extension (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lane Grp Cap (vph) | 276 | 1937 | | 326 | 1873 | | | 372 | | | 253 | |
| v/s Ratio Prot | | 0.26 | | | c0.30 | | | | | | | |
| v/s Ratio Perm | 0.02 | | | 0.13 | | | | 0.13 | | | c0.14 | |
| v/c Ratio | 0.04 | 0.42 | | 0.21 | 0.49 | | | 0.49 | | | 0.55 | |
| Uniform Delay, d1 | 5.5 | 7.2 | | 6.1 | 7.6 | | | 21.9 | | | 22.3 | |
| Progression Factor | 1.03 | 0.99 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 0.3 | 0.6 | | 1.4 | 0.9 | | | 2.1 | | | 4.2 | |
| Delay (s) | 5.9 | 7.7 | | 7.5 | 8.5 | | | 24.1 | | | 26.4 | |
| Level of Service | A | A | | A | A | | | C | | | C | |
| Approach Delay (s) | | 7.7 | | | 8.5 | | | 24.1 | | | 26.4 | |
| Approach LOS | | A | | | A | | | C | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 11.3 | | | HCM 2000 Level of Service | | | B | | | | |
| HCM 2000 Volume to Capacity ratio | | 0.51 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 70.0 | | | Sum of lost time (s) | | | 9.0 | | | | |
| Intersection Capacity Utilization | | 90.5% | | | ICU Level of Service | | | E | | | | |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

PM Peak Hour

24: Lawrence Avenue E & Mt. Pleasant Road SB

10/31/2013



| Lane Group | EBT | WBT | SBL | SBR | ø1 | ø4 |
|----------------------|-------|-------|-------|-------|------|----|
| Lane Configurations | ↑↓ | ↑↓ | ↑ | ↑ | | |
| Volume (vph) | 771 | 655 | 175 | 157 | | |
| Turn Type | NA | NA | NA | Perm | | |
| Protected Phases | Free! | 5 | 3! | | 1 | 4 |
| Permitted Phases | | | 3 | | | |
| Detector Phase | | 5 | 3 | 3 | | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 20.0 | 10.0 | 10.0 | 20.0 | 15.0 | |
| Minimum Split (s) | 55.0 | 37.0 | 37.0 | 55.0 | 39.0 | |
| Total Split (s) | 56.0 | 39.0 | 39.0 | 56.0 | 45.0 | |
| Total Split (%) | 40.0% | 27.9% | 27.9% | 40% | 32% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 13.0 | 11.0 | 11.0 | 13.0 | 7.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | 17.0 | 15.0 | 15.0 | | | |
| Lead/Lag | | Lead | Lead | | Lag | |
| Lead-Lag Optimize? | | Yes | Yes | | Yes | |
| Recall Mode | C-Max | None | None | C-Max | Max | |
| Act Effect Green (s) | 140.0 | 39.0 | 20.5 | 20.5 | | |
| Actuated g/C Ratio | 1.00 | 0.28 | 0.15 | 0.15 | | |
| v/c Ratio | 0.31 | 0.79 | 0.68 | 0.68 | | |
| Control Delay | 0.0 | 51.5 | 69.5 | 70.8 | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Delay | 0.0 | 51.5 | 69.5 | 70.8 | | |
| LOS | A | D | E | E | | |
| Approach Delay | 0.0 | 51.5 | 70.2 | | | |
| Approach LOS | A | D | E | | | |

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 1 (1%), Referenced to phase 1:EBT and 5:, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 29.0

Intersection LOS: C

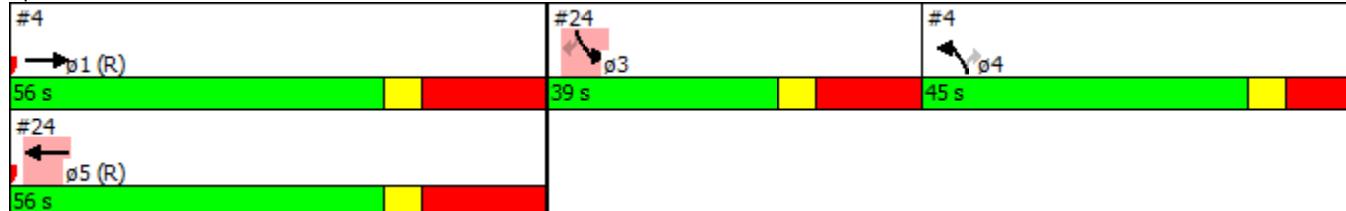
Intersection Capacity Utilization 90.5%

ICU Level of Service E

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 24: Lawrence Avenue E & Mt. Pleasant Road SB

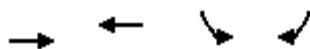


Queues

PM Peak Hour

10/31/2013

24: Lawrence Avenue E & Mt. Pleasant Road SB



| Lane Group | EBT | WBT | SBL | SBR |
|------------------------|------|-------|--------|------|
| Lane Group Flow (vph) | 1076 | 769 | 179 | 160 |
| v/c Ratio | 0.31 | 0.79 | 0.68 | 0.68 |
| Control Delay | 0.0 | 51.5 | 69.5 | 70.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.0 | 51.5 | 69.5 | 70.8 |
| Queue Length 50th (m) | 0.0 | 110.6 | 47.0 | 42.0 |
| Queue Length 95th (m) | m0.0 | 125.3 | 71.2 | 65.2 |
| Internal Link Dist (m) | 53.2 | 788.6 | 1268.9 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 3479 | 968 | 309 | 277 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.79 | 0.58 | 0.58 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
24: Lawrence Avenue E & Mt. Pleasant Road SB

PM Peak Hour
10/31/2013



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------|-------|-------|------|-------|------|------|
| Lane Configurations | | | | | | |
| Volume (vph) | 283 | 771 | 655 | 99 | 175 | 157 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 17.0 | | 15.0 | 15.0 | |
| Lane Util. Factor | 0.95 | 0.95 | | 1.00 | 1.00 | |
| Frpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Fr _t | 1.00 | 0.98 | | 1.00 | 0.85 | |
| Flt Protected | 0.99 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 3531 | 3445 | | 1807 | 1617 | |
| Flt Permitted | 0.99 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (perm) | 3531 | 3445 | | 1807 | 1617 | |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 289 | 787 | 668 | 101 | 179 | 160 |
| RTOR Reduction (vph) | 0 | 0 | 9 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 1076 | 760 | 0 | 179 | 160 |
| Confl. Peds. (#/hr) | 89 | | | | 62 | |
| Heavy Vehicles (%) | 2% | 2% | 4% | 3% | 1% | 1% |
| Turn Type | Perm | NA | NA | | NA | Perm |
| Protected Phases | Free! | | 5 | | 3! | |
| Permitted Phases | Free! | | | | 3 | |
| Actuated Green, G (s) | 140.0 | 39.0 | | 20.5 | 20.5 | |
| Effective Green, g (s) | 140.0 | 39.0 | | 20.5 | 20.5 | |
| Actuated g/C Ratio | 1.00 | 0.28 | | 0.15 | 0.15 | |
| Clearance Time (s) | | 17.0 | | 15.0 | 15.0 | |
| Vehicle Extension (s) | | 5.0 | | 5.0 | 5.0 | |
| Lane Grp Cap (vph) | 3531 | 959 | | 264 | 236 | |
| v/s Ratio Prot | 0.30 | c0.22 | | c0.10 | | |
| v/s Ratio Perm | | | | 0.10 | | |
| v/c Ratio | 0.30 | 0.79 | | 0.68 | 0.68 | |
| Uniform Delay, d1 | 0.0 | 46.8 | | 56.6 | 56.6 | |
| Progression Factor | 1.00 | 0.98 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.0 | 6.0 | | 8.7 | 9.7 | |
| Delay (s) | 0.0 | 51.8 | | 65.3 | 66.3 | |
| Level of Service | A | D | | E | E | |
| Approach Delay (s) | 0.0 | 51.8 | | 65.8 | | |
| Approach LOS | A | D | | E | | |

Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 28.5 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.61 | | |
| Actuated Cycle Length (s) | 140.0 | Sum of lost time (s) | 43.0 |
| Intersection Capacity Utilization | 90.5% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

! Phase conflict between lane groups.

c Critical Lane Group

Timings

PM Peak Hour

37: Bayview - East Ramp Terminal & Lawrence Avenue E

10/31/2013



| Lane Group | EBL2 | EBT | WBT | NBT | ø10 |
|----------------------|-------|-------|-------|-------|------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | ↗ ↙ | ↖ ↖ | |
| Volume (vph) | 718 | 104 | 47 | 0 | |
| Turn Type | Prot | NA | NA | NA | |
| Protected Phases | 7 | 4 | 8 | 2 | 10 |
| Permitted Phases | | | | | |
| Detector Phase | 7 | 4 | 8 | 2 | |
| Switch Phase | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.0 | 23.0 | 11.0 | 22.0 | 9.0 |
| Total Split (s) | 39.0 | 60.0 | 21.0 | 23.0 | 12.0 |
| Total Split (%) | 41.1% | 63.2% | 22.1% | 24.2% | 13% |
| Yellow Time (s) | 2.0 | 4.0 | 4.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 3.0 | 3.0 | 3.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 7.0 | 7.0 | 6.0 | |
| Lead/Lag | Lead | | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | | |
| Recall Mode | None | C-Max | C-Max | None | None |
| Act Effect Green (s) | 44.9 | 62.9 | 14.0 | 19.1 | |
| Actuated g/C Ratio | 0.47 | 0.66 | 0.15 | 0.20 | |
| v/c Ratio | 0.87 | 0.08 | 0.28 | 0.78 | |
| Control Delay | 37.0 | 7.1 | 39.5 | 32.7 | |
| Queue Delay | 7.4 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 44.4 | 7.1 | 39.5 | 32.7 | |
| LOS | D | A | D | C | |
| Approach Delay | | 39.7 | 39.5 | 32.7 | |
| Approach LOS | | D | D | C | |

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 95

Offset: 57 (60%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 37.7

Intersection LOS: D

Intersection Capacity Utilization 76.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 37: Bayview - East Ramp Terminal & Lawrence Avenue E



Queues

PM Peak Hour

10/31/2013

37: Bayview - East Ramp Terminal & Lawrence Avenue E



| Lane Group | EBL2 | EBT | WBT | NBT |
|------------------------|--------|------|-------|-------|
| Lane Group Flow (vph) | 733 | 106 | 72 | 364 |
| v/c Ratio | 0.87 | 0.08 | 0.28 | 0.78 |
| Control Delay | 37.0 | 7.1 | 39.5 | 32.7 |
| Queue Delay | 7.4 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.4 | 7.1 | 39.5 | 32.7 |
| Queue Length 50th (m) | 117.1 | 6.3 | 11.9 | 37.6 |
| Queue Length 95th (m) | #211.5 | 14.7 | 24.5 | 63.2 |
| Internal Link Dist (m) | | 35.3 | 344.3 | 704.1 |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 846 | 1272 | 253 | 488 |
| Starvation Cap Reductn | 86 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.96 | 0.08 | 0.28 | 0.75 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
37: Bayview - East Ramp Terminal & Lawrence Avenue E

PM Peak Hour
10/31/2013

| Movement | EBL2 | EBT | WBT | WBR | NBL | NBT | NBR | NBR2 | SWL2 | SWR |
|-----------------------------------|-------|------|-------|------|------|---------------------------|------|------|--------|--------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | ↑ ↖ | | | ↔ | | | ↑ ↗ | ↑ ↘ |
| Volume (vph) | 718 | 104 | 47 | 24 | 295 | 0 | 31 | 19 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 7.0 | 7.0 | | | 6.0 | | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | | | 1.00 | | | | |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.95 | | | 1.00 | | | | |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | | | 1.00 | | | | |
| Frt | 1.00 | 1.00 | 0.95 | | | 0.98 | | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | | | 0.96 | | | | |
| Satd. Flow (prot) | 1789 | 1921 | 1720 | | | 1722 | | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | | 0.96 | | | | |
| Satd. Flow (perm) | 1789 | 1921 | 1720 | | | 1722 | | | | |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.95 | 0.95 | 0.95 | 0.95 | 0.98 | 0.98 |
| Adj. Flow (vph) | 733 | 106 | 48 | 24 | 311 | 0 | 33 | 20 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 119 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 733 | 106 | 72 | 0 | 0 | 245 | 0 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | 39 | | | | | 59 | |
| Heavy Vehicles (%) | 2% | 0% | 0% | 4% | 4% | 0% | 16% | 0% | 0% | 0% |
| Turn Type | Prot | NA | NA | | Perm | NA | | | custom | custom |
| Protected Phases | 7 | 4 | 8 | | | 2 | | | | |
| Permitted Phases | | | | 2 | | | | | 10 | 10 |
| Actuated Green, G (s) | 44.9 | 62.9 | 14.0 | | | 19.1 | | | | |
| Effective Green, g (s) | 44.9 | 62.9 | 14.0 | | | 19.1 | | | | |
| Actuated g/C Ratio | 0.47 | 0.66 | 0.15 | | | 0.20 | | | | |
| Clearance Time (s) | 4.0 | 7.0 | 7.0 | | | 6.0 | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | 3.0 | | | | |
| Lane Grp Cap (vph) | 845 | 1271 | 253 | | | 346 | | | | |
| v/s Ratio Prot | c0.41 | 0.06 | c0.04 | | | | | | | |
| v/s Ratio Perm | | | | | | 0.14 | | | | |
| v/c Ratio | 0.87 | 0.08 | 0.28 | | | 0.71 | | | | |
| Uniform Delay, d1 | 22.4 | 5.7 | 36.0 | | | 35.4 | | | | |
| Progression Factor | 1.00 | 1.00 | 1.00 | | | 1.00 | | | | |
| Incremental Delay, d2 | 9.4 | 0.1 | 2.8 | | | 6.5 | | | | |
| Delay (s) | 31.7 | 5.9 | 38.8 | | | 41.8 | | | | |
| Level of Service | C | A | D | | | D | | | | |
| Approach Delay (s) | | 28.5 | 38.8 | | | 41.8 | | | | |
| Approach LOS | | C | D | | | D | | | | |
| Intersection Summary | | | | | | | | | | |
| HCM 2000 Control Delay | | | 32.9 | | | HCM 2000 Level of Service | | | C | |
| HCM 2000 Volume to Capacity ratio | | | 0.77 | | | | | | | |
| Actuated Cycle Length (s) | | | 95.0 | | | Sum of lost time (s) | | | 22.0 | |
| Intersection Capacity Utilization | | | 76.7% | | | ICU Level of Service | | | D | |
| Analysis Period (min) | | | 15 | | | | | | | |
| c Critical Lane Group | | | | | | | | | | |

Timings

PM Peak Hour

10/31/2013

39: Bayview Avenue & Armistice Dr



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | |
| Volume (vph) | 4 | 0 | 64 | 0 | 368 | 1881 | 27 | 125 | 1501 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Prot | NA |
| Protected Phases | 4 | | | 8 | | 2 | | 1 | 6 |
| Permitted Phases | 4 | | | 8 | | 8 | | 2 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 54.0 | 54.0 | 8.0 | 64.0 |
| Total Split (s) | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 54.0 | 54.0 | 10.0 | 64.0 |
| Total Split (%) | 42.9% | 42.9% | 42.9% | 42.9% | 42.9% | 48.2% | 48.2% | 8.9% | 57.1% |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 1.0 | 3.0 |
| Lost Time Adjust (s) | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | | 6.0 | 6.0 | 7.0 | 7.0 | 4.0 | 7.0 |
| Lead/Lag | | | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | |
| Recall Mode | None | None | None | None | None | Max | Max | None | Max |
| Act Effect Green (s) | 22.9 | | | 22.9 | 22.9 | 47.5 | 47.5 | 6.1 | 57.6 |
| Actuated g/C Ratio | 0.24 | | | 0.24 | 0.24 | 0.51 | 0.51 | 0.07 | 0.61 |
| v/c Ratio | 0.01 | | | 0.18 | 0.81 | 1.08 | 0.03 | 1.11 | 0.72 |
| Control Delay | 0.0 | | | 27.4 | 35.4 | 71.4 | 0.1 | 160.2 | 17.1 |
| Queue Delay | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.0 | | | 27.4 | 35.4 | 71.4 | 0.1 | 160.2 | 17.1 |
| LOS | A | | | C | D | E | A | F | B |
| Approach Delay | 0.0 | | | 34.2 | | 70.4 | | | 28.1 |
| Approach LOS | A | | | C | | E | | | C |

Intersection Summary

Cycle Length: 112

Actuated Cycle Length: 93.7

Natural Cycle: 145

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 49.0

Intersection LOS: D

Intersection Capacity Utilization 106.4%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 39: Bayview Avenue & Armistice Dr



Queues

PM Peak Hour

10/31/2013

39: Bayview Avenue & Armistice Dr



| Lane Group | EBT | WBT | WBR | NBT | NBR | SBL | SBT |
|------------------------|------|-------|------|--------|------|-------|--------|
| Lane Group Flow (vph) | 5 | 65 | 376 | 1919 | 28 | 128 | 1533 |
| v/c Ratio | 0.01 | 0.18 | 0.81 | 1.08 | 0.03 | 1.11 | 0.72 |
| Control Delay | 0.0 | 27.4 | 35.4 | 71.4 | 0.1 | 160.2 | 17.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.0 | 27.4 | 35.4 | 71.4 | 0.1 | 160.2 | 17.1 |
| Queue Length 50th (m) | 0.0 | 9.2 | 43.0 | ~198.1 | 0.0 | ~25.6 | 86.9 |
| Queue Length 95th (m) | 0.0 | 18.7 | 73.7 | #326.4 | 0.1 | #74.4 | 183.0 |
| Internal Link Dist (m) | 55.9 | 715.4 | | 279.4 | | | 5450.7 |
| Turn Bay Length (m) | | | | | 35.0 | 70.0 | |
| Base Capacity (vph) | 774 | 653 | 754 | 1778 | 845 | 115 | 2135 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.10 | 0.50 | 1.08 | 0.03 | 1.11 | 0.72 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

39: Bayview Avenue & Armistice Dr

PM Peak Hour

10/31/2013

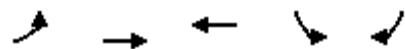
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|--------|------|------|------|---------------------------|-------|------|------|-------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 4 | 0 | 1 | 64 | 0 | 368 | 0 | 1881 | 27 | 125 | 1501 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | | | | 6.0 | 6.0 | | 7.0 | 7.0 | 4.0 | 7.0 | |
| Lane Util. Factor | 1.00 | | | | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | |
| Frpb, ped/bikes | 1.00 | | | | 1.00 | 0.98 | | 1.00 | 0.98 | 1.00 | 1.00 | |
| Flpb, ped/bikes | 0.99 | | | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Fr _t | 0.97 | | | | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | |
| Fl _t Protected | 0.96 | | | | 0.95 | 1.00 | | 1.00 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1775 | | | | 1818 | 1517 | | 3506 | 1604 | 1789 | 3471 | |
| Fl _t Permitted | 0.88 | | | | 0.75 | 1.00 | | 1.00 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1618 | | | | 1444 | 1517 | | 3506 | 1604 | 1789 | 3471 | |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 4 | 0 | 1 | 65 | 0 | 376 | 0 | 1919 | 28 | 128 | 1532 | 1 |
| RTOR Reduction (vph) | 0 | 4 | 0 | 0 | 0 | 94 | 0 | 0 | 14 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 1 | 0 | 0 | 65 | 282 | 0 | 1919 | 14 | 128 | 1533 | 0 |
| Confl. Peds. (#/hr) | 19 | | | 6 | 6 | | 19 | | | 10 | 10 | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 5% | 0% | 1% | 0% | 2% | 2% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 |
| Turn Type | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | |
| Protected Phases | | 4 | | | | 8 | | | 2 | | 1 | 6 |
| Permitted Phases | 4 | | | 8 | | 8 | 2 | | | 2 | | |
| Actuated Green, G (s) | 22.9 | | | 22.9 | 22.9 | | 47.6 | 47.6 | 6.1 | 57.7 | | |
| Effective Green, g (s) | 22.9 | | | 22.9 | 22.9 | | 47.6 | 47.6 | 6.1 | 57.7 | | |
| Actuated g/C Ratio | 0.24 | | | 0.24 | 0.24 | | 0.51 | 0.51 | 0.07 | 0.62 | | |
| Clearance Time (s) | 6.0 | | | 6.0 | 6.0 | | 7.0 | 7.0 | 4.0 | 7.0 | | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | | |
| Lane Grp Cap (vph) | 395 | | | 353 | 371 | | 1782 | 815 | 116 | 2139 | | |
| v/s Ratio Prot | | | | | | c0.55 | | | c0.07 | 0.44 | | |
| v/s Ratio Perm | 0.00 | | | 0.05 | c0.19 | | | | 0.01 | | | |
| v/c Ratio | 0.00 | | | 0.18 | 0.76 | | 1.08 | 0.02 | 1.10 | 0.72 | | |
| Uniform Delay, d1 | 26.7 | | | 28.0 | 32.8 | | 23.0 | 11.4 | 43.8 | 12.3 | | |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Incremental Delay, d2 | 0.0 | | | 0.3 | 8.6 | | 45.4 | 0.0 | 114.1 | 2.1 | | |
| Delay (s) | 26.7 | | | 28.2 | 41.4 | | 68.4 | 11.4 | 157.8 | 14.4 | | |
| Level of Service | C | | | C | D | | E | B | F | B | | |
| Approach Delay (s) | 26.7 | | | 39.5 | | | 67.6 | | | 25.5 | | |
| Approach LOS | C | | | D | | | E | | | C | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | 47.2 | | | | HCM 2000 Level of Service | | | | D | | | |
| HCM 2000 Volume to Capacity ratio | 0.98 | | | | | | | | | | | |
| Actuated Cycle Length (s) | 93.6 | | | | Sum of lost time (s) | | | | 17.0 | | | |
| Intersection Capacity Utilization | 106.4% | | | | ICU Level of Service | | | | G | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

PM Peak Hour

42: Lawrence Avenue E & TFS Access

10/31/2013



| Lane Group | EBL | EBT | WBT | SBL | SBR |
|----------------------|-------|-------|-------|-------|-------|
| Lane Configurations | ↑ | ↑↑ | ↑↑ | ↑ | ↑ |
| Volume (vph) | 116 | 917 | 912 | 112 | 35 |
| Turn Type | Prot | NA | NA | NA | Perm |
| Protected Phases | 7 | 4 | 8 | 6 | |
| Permitted Phases | | | | | 6 |
| Detector Phase | 7 | 4 | 8 | 6 | 6 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 10.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 10.0 | 33.0 | 33.0 | 28.0 | 28.0 |
| Total Split (s) | 11.0 | 46.0 | 35.0 | 29.0 | 29.0 |
| Total Split (%) | 14.7% | 61.3% | 46.7% | 38.7% | 38.7% |
| Yellow Time (s) | 3.0 | 4.0 | 4.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 3.0 | 3.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 7.0 | 7.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | | |
| Recall Mode | None | C-Max | C-Max | None | None |
| Act Effect Green (s) | 9.3 | 54.8 | 43.6 | 12.0 | 12.0 |
| Actuated g/C Ratio | 0.12 | 0.73 | 0.58 | 0.16 | 0.16 |
| v/c Ratio | 0.53 | 0.36 | 0.46 | 0.39 | 0.12 |
| Control Delay | 40.5 | 6.2 | 14.0 | 30.3 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.5 | 6.2 | 14.0 | 30.3 | 8.9 |
| LOS | D | A | B | C | A |
| Approach Delay | | 10.1 | 14.0 | 25.2 | |
| Approach LOS | | B | B | C | |

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 1 (1%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 12.9

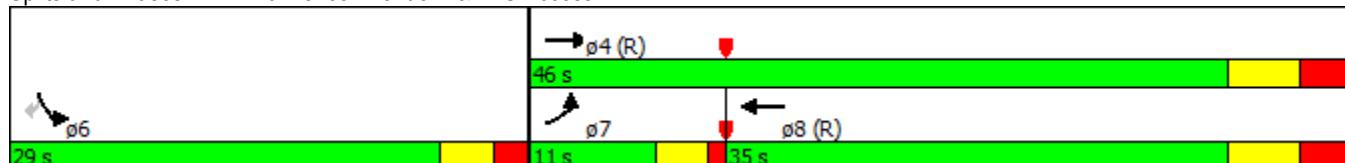
Intersection LOS: B

Intersection Capacity Utilization 52.1%

ICU Level of Service A

Analysis Period (min) 15

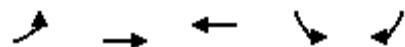
Splits and Phases: 42: Lawrence Avenue E & TFS Access



Queues
42: Lawrence Avenue E & TFS Access

PM Peak Hour

10/31/2013



| Lane Group | EBL | EBT | WBT | SBL | SBR |
|------------------------|-------|-------|------|-------|------|
| Lane Group Flow (vph) | 118 | 936 | 962 | 114 | 36 |
| v/c Ratio | 0.53 | 0.36 | 0.46 | 0.39 | 0.12 |
| Control Delay | 40.5 | 6.2 | 14.0 | 30.3 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.5 | 6.2 | 14.0 | 30.3 | 8.9 |
| Queue Length 50th (m) | 15.6 | 22.5 | 44.5 | 15.2 | 0.0 |
| Queue Length 95th (m) | #36.5 | 55.2 | 80.5 | 23.3 | 5.8 |
| Internal Link Dist (m) | | 210.7 | 76.4 | 263.1 | |
| Turn Bay Length (m) | 110.0 | | | | |
| Base Capacity (vph) | 225 | 2615 | 2071 | 584 | 547 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.36 | 0.46 | 0.20 | 0.07 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

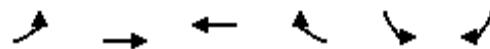
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

PM Peak Hour

42: Lawrence Avenue E & TFS Access

10/31/2013



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------------|-------|-------|-------|---------------------------|-------|------|
| Lane Configurations | ↑ | ↑↑ | ↑↑ | | ↑ | ↑ |
| Volume (vph) | 116 | 917 | 912 | 30 | 112 | 35 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 7.0 | 7.0 | | 5.0 | 5.0 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | | 1.00 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Fr _t | 1.00 | 1.00 | 1.00 | | 1.00 | 0.85 |
| Fl _t Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1807 | 3579 | 3558 | | 1825 | 1633 |
| Fl _t Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1807 | 3579 | 3558 | | 1825 | 1633 |
| Peak-hour factor, PHF | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Adj. Flow (vph) | 118 | 936 | 931 | 31 | 114 | 36 |
| RTOR Reduction (vph) | 0 | 0 | 2 | 0 | 0 | 31 |
| Lane Group Flow (vph) | 118 | 936 | 960 | 0 | 114 | 5 |
| Confl. Peds. (#/hr) | 4 | | | 4 | | |
| Heavy Vehicles (%) | 1% | 2% | 2% | 3% | 0% | 0% |
| Turn Type | Prot | NA | NA | | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 6 | |
| Permitted Phases | | | | | 6 | |
| Actuated Green, G (s) | 8.0 | 52.4 | 40.4 | | 10.6 | 10.6 |
| Effective Green, g (s) | 8.0 | 52.4 | 40.4 | | 10.6 | 10.6 |
| Actuated g/C Ratio | 0.11 | 0.70 | 0.54 | | 0.14 | 0.14 |
| Clearance Time (s) | 4.0 | 7.0 | 7.0 | | 5.0 | 5.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 192 | 2500 | 1916 | | 257 | 230 |
| v/s Ratio Prot | c0.07 | 0.26 | c0.27 | | c0.06 | |
| v/s Ratio Perm | | | | | 0.00 | |
| v/c Ratio | 0.61 | 0.37 | 0.50 | | 0.44 | 0.02 |
| Uniform Delay, d ₁ | 32.0 | 4.6 | 10.9 | | 29.5 | 27.7 |
| Progression Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d ₂ | 5.7 | 0.4 | 0.9 | | 1.2 | 0.0 |
| Delay (s) | 37.8 | 5.0 | 11.9 | | 30.7 | 27.8 |
| Level of Service | D | A | B | | C | C |
| Approach Delay (s) | | 8.7 | 11.9 | | 30.0 | |
| Approach LOS | | A | B | | C | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | | 11.6 | | HCM 2000 Level of Service | | B |
| HCM 2000 Volume to Capacity ratio | | 0.51 | | | | |
| Actuated Cycle Length (s) | | 75.0 | | Sum of lost time (s) | | 16.0 |
| Intersection Capacity Utilization | | 52.1% | | ICU Level of Service | | A |
| Analysis Period (min) | | 15 | | | | |
| c Critical Lane Group | | | | | | |

HCM Unsignalized Intersection Capacity Analysis
35: Bayview - West Ramp Terminal & Lawrence Avenue E

PM Peak Hour

10/31/2013



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|------|------|-------|------|------|----------------------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 801 | 228 | 9 | 333 | 0 | 0 | 0 | 0 | 21 | 8 | 609 |
| Sign Control | | Free | | | | Free | | | Stop | | | Stop |
| Grade | | 0% | | | | 0% | | | 0% | | | 0% |
| Peak Hour Factor | 0.98 | 0.98 | 0.95 | 0.95 | 0.98 | 0.98 | 0.95 | 0.95 | 0.95 | 0.98 | 0.95 | 0.98 |
| Hourly flow rate (vph) | 0 | 817 | 240 | 9 | 340 | 0 | 0 | 0 | 0 | 21 | 8 | 621 |
| Pedestrians | | | | | 10 | | | | | | | 42 |
| Lane Width (m) | | | | | 3.7 | | | | | | | 3.7 |
| Walking Speed (m/s) | | | | | 1.2 | | | | | | | 1.2 |
| Percent Blockage | | | | | 1 | | | | | | | 4 |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | | | None | | | None | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (m) | | | | 100 | | | 59 | | | | | |
| pX, platoon unblocked | | | | | 0.89 | | | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| vC, conflicting volume | 382 | | | | 1057 | | | 1310 | 1338 | 529 | 809 | 1458 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 382 | | | | 825 | | | 1108 | 1139 | 233 | 547 | 1274 |
| tC, single (s) | 4.1 | | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 7.8 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.6 |
| p0 queue free % | 100 | | | | 99 | | | 0 | 100 | 100 | 94 | 90 |
| cM capacity (veh/h) | 1145 | | | | 716 | | | 0 | 170 | 687 | 352 | 86 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | SB 1 | | | | | | | | |
| Volume Total | 545 | 512 | 349 | 651 | | | | | | | | |
| Volume Left | 0 | 0 | 9 | 21 | | | | | | | | |
| Volume Right | 0 | 240 | 0 | 621 | | | | | | | | |
| cSH | 1700 | 1700 | 716 | 608 | | | | | | | | |
| Volume to Capacity | 0.32 | 0.30 | 0.01 | 1.07 | | | | | | | | |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.3 | 141.0 | | | | | | | | |
| Control Delay (s) | 0.0 | 0.0 | 0.4 | 81.2 | | | | | | | | |
| Lane LOS | | | A | F | | | | | | | | |
| Approach Delay (s) | 0.0 | | 0.4 | 81.2 | | | | | | | | |
| Approach LOS | | | | F | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| Average Delay | | | | 25.8 | | | | | | | | |
| Intersection Capacity Utilization | | | | 63.4% | | | ICU Level of Service | | | B | | |
| Analysis Period (min) | | | | 15 | | | | | | | | |