

Scoped Transportation Impact Study

Goodwood Pit Extension

2nd Submission

April , 2025— Project # 2221
Lafarge Canada

TYLin

Executive Summary

TYLin was retained by Lafarge Canada (Lafarge) to prepare a Scoped Transportation Impact Study (TIS) in support of the Planning Act Applications to permit an extension of the Lafarge's Goodwood Pit north of the existing pit area. The subject site is located at 4900 Concession 4 Road, south of Wagg Road on the west side of Concession 4 Road and east side of Concession 3 Road in the Township of Uxbridge, Durham Region.

The Goodwood Pit site ("the Pit") has a maximum annual extraction license limit of 1,177,000 tonnes per year, and this tonnage limit is not proposed to be modified (i.e., increased or decreased) as part of the proposed extension application. Therefore, the application is not seeking an increase in annual tonnage limit, which will remain at the current limit of 1,177,000 tonnes per year, but merely a continuation of extraction at the current levels. Accordingly, there are no new trips proposed to be generated by the Goodwood Pit Activity as part of this application. It is noted that Lafarge will be applying for a Class A license to allow the extraction of material from below the water table.

Under existing conditions, a portion of material from the Goodwood Pit is transferred to the Stouffville Pit for processing and a portion of material is processed on-site at the Goodwood Pit via portable crushing and screening plants used to produce granular material. This configuration is not proposed to change as part of the extension.

Access to the subject site is proposed to be maintained via the existing inbound and outbound driveways on Concession Road 3 and Regional Highway 47.

Accounting for the trip generation for the Pit based on the average annual tonnage, TYLin completed a review of the study intersection operations under 2022 existing conditions, as well as 2028 and 2033 future conditions. As trips from the site are not projected to change, the review of future conditions was completed to confirm that the Pit trips can still be accommodated by the boundary road network when accounting for general traffic growth and background developments.

The review confirms that the site trips are accommodated by the road network under both existing and future conditions, which is acceptable. Based on the request from the Region, TYLin evaluated the proposed left-turn lane at the intersection of Goodwood Pit site access and Regional Highway 47. Based on the review of potential benefits and drawbacks of the proposed left-turn lane, TYLin does not recommend this left-turn lane at the Goodwood Pit site access on Regional Highway 47.

Overall, based on the findings of the study, it is TYLin's opinion that the proposed development application is acceptable as it would not create any changes to the traffic volumes along the road network. Furthermore, in February 2023 Lafarge agreed to enter into a Cost Sharing Agreement with the Region of Durham to implement traffic management/calming measures in the Village of Goodwood to improve traffic safety on Regional Highway 47 and Regional Road 21. These traffic management and calming measures will be implemented by the Region of Durham to help alleviate the general impact of traffic through Goodwood.

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1 Introduction

TYLin was retained by Lafarge Canada (Lafarge) to prepare a Scoped Transportation Impact Study (TIS) in support of the Planning Act Applications to permit an extension of the Lafarge's Goodwood Pit north of the existing pit area. The subject site is located at 4900 Concession 4 Road, south of Wagg Road on the west side of Concession 4 Road and east side of Concession 3 Road in the Township of Uxbridge, Durham Region.

The Goodwood Pit site ("the Pit") has a maximum annual extraction license limit of 1,177,000 tonnes per year. This tonnage limit is not proposed to be modified (i.e., neither increased nor decreased) as part of the proposed extension application. Therefore, the application is not seeking an increase in the tonnage limit, which will remain at the current limit of 1,177,000 tonnes per year, but merely a continuation of production at the current levels. Accordingly, there are no new trips proposed to be generated by the Goodwood Pit activity as part of this application. It is noted that Lafarge will be applying for a Class A license to allow the extraction of material from below the water table.

Under existing conditions, a portion of material from the Goodwood Pit is transferred to the Stouffville Pit for processing and a portion of material is processed on-site at the Goodwood Pit via portable crushing and screening plants used to produce granular material. Overall, the Goodwood Pit traffic can be detailed in the following categories:

- The Goodwood pit employee trips;
- The transfer route truck traffic between the Stouffville and Goodwood pits; and
- The truck route for Goodwood Pit to deliver aggregate to market.

Details related to the trip generation for each of the above noted trip categories have been provided within this report.

Access to the subject site is proposed to be maintained via the existing inbound and outbound driveways on Concession Road 3 and Regional Highway 47. As per correspondence with Durham Region, left-turn restrictions are currently in place for trucks in and out of the Goodwood Pit Access to Regional Highway 47. Note that this restriction only applies to trucks as passenger vehicles are permitted to make left-turn movements at the intersection.

The primary 'haul route' for trucks destined to/from the Goodwood Pit site from locations outside of the immediate study area includes Highway 404, Bloomington Road (RR 40), and Wagg Road. More details related to the haul routes have been provided in sections of this report provided herein.

This TIS adopted future conditions with horizons to 2028 and 2033.

The objectives of this study are to:

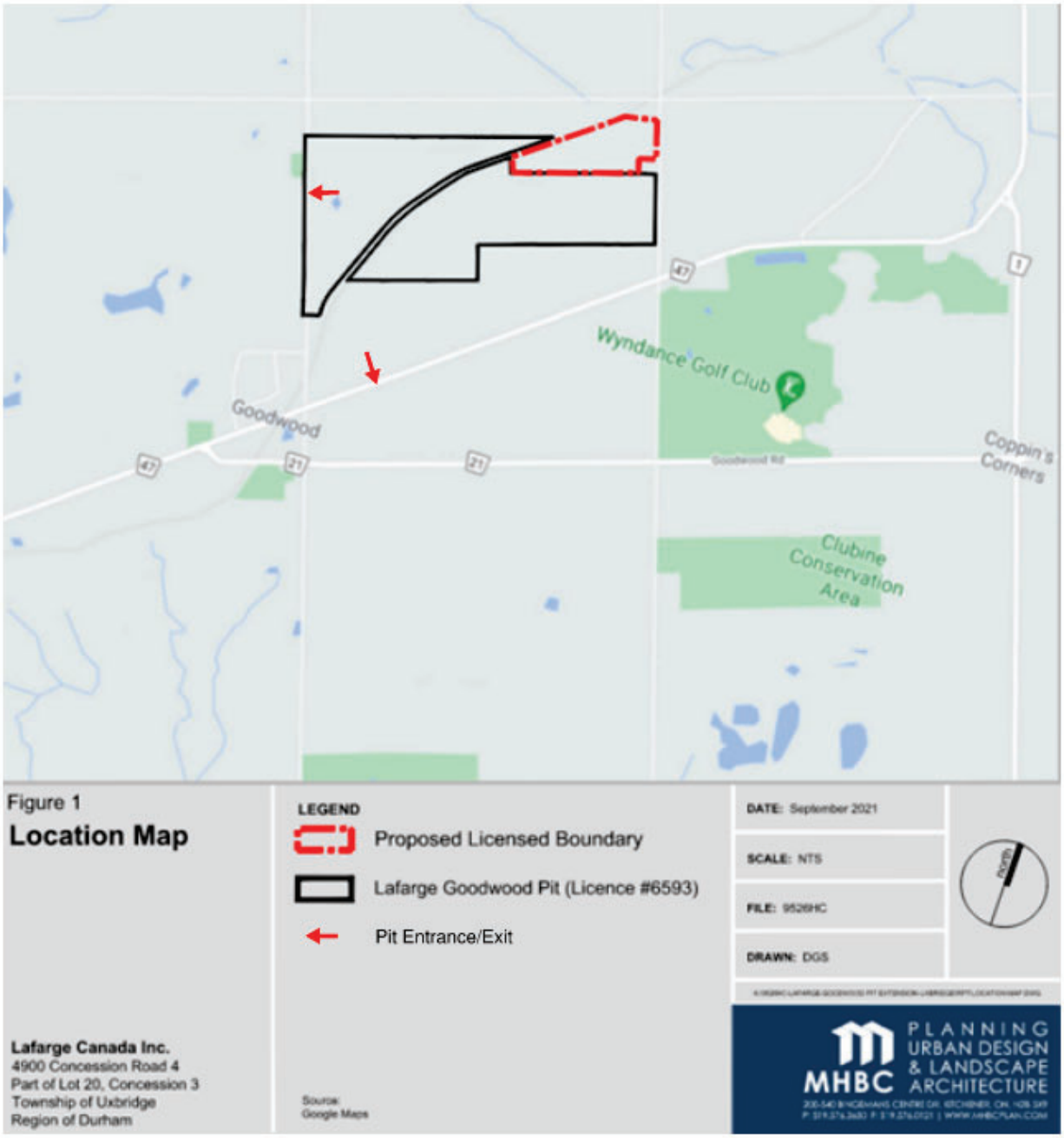
- Establish baseline traffic conditions for the study area and review the existing traffic conditions;
- Derive the future conditions volumes for the study intersections based on a 2028 and

2033 planning horizon; and

– Analyze operations under future conditions at the study intersections; and determine what, if any, remedial measures would be required to accommodate future traffic within the study area.

Please refer to **Figure 1-1** for an illustration of the existing Pit and the proposed extension area.

Figure 1-1 Goodwood Pit – Existing and Proposed Extraction Areas



Source: MHBC

2 Baseline Traffic Conditions

This section summarizes the surrounding road network, the data collection program, and the existing traffic volume conditions on the proximate study area roadways. These 'baseline conditions form the foundation for future traffic projections.

2.1 Study Intersections

The haul route analysis includes the following intersections, as requested during pre-consultation with the review agencies:

- The existing inbound and outbound Stouffville Pit driveways on York-Durham Line;
- York-Durham Line and Aurora Road (Regional Road 15);
- York-Durham Line and Wagg Road /Yake Crescent;
- York-Durham Line and Bloomington Road (Regional Road 40 / Regional Highway 47);
- Goodwood Road (Regional Road 21) and Regional Highway 47;
- Front Street (Concession Road 3) and Regional Highway 47;
- Brock Road (Regional Road 1) and Regional Highway 47;
- Goodwood Pit Site Access and Regional Highway 47; and
- Concession Road 3 and Goodwood Pit North Access.

Please refer to **Figure 2-1** for an illustration of the existing lane configuration at the above noted intersections.

2.2 Site Statistics

Goodwood Pit has a maximum annual extraction license limit of 1,177,000 tonnes per year. This tonnage limit is not intended to be modified (i.e., increased or decreased) as part of the proposed extension application. Therefore, the application is not seeking an increase in the annual tonnage limit (which will remain at the current limit of 1,177,000 tonnes per year), but merely a continuation of production at the current levels. Accordingly, there are **no new trips** proposed to be generated by the Goodwood Pit Activity as part of this application.

2.3 Existing Haul Route

There are currently two existing haul routes for trucks accessing the Goodwood Pit, based on the different activities detailed in the previous section. The routes have been summarized below. As part of the application, there are no changes proposed to these existing haul routes.

For the transfer trucks travelling between Goodwood and Stouffville Pits

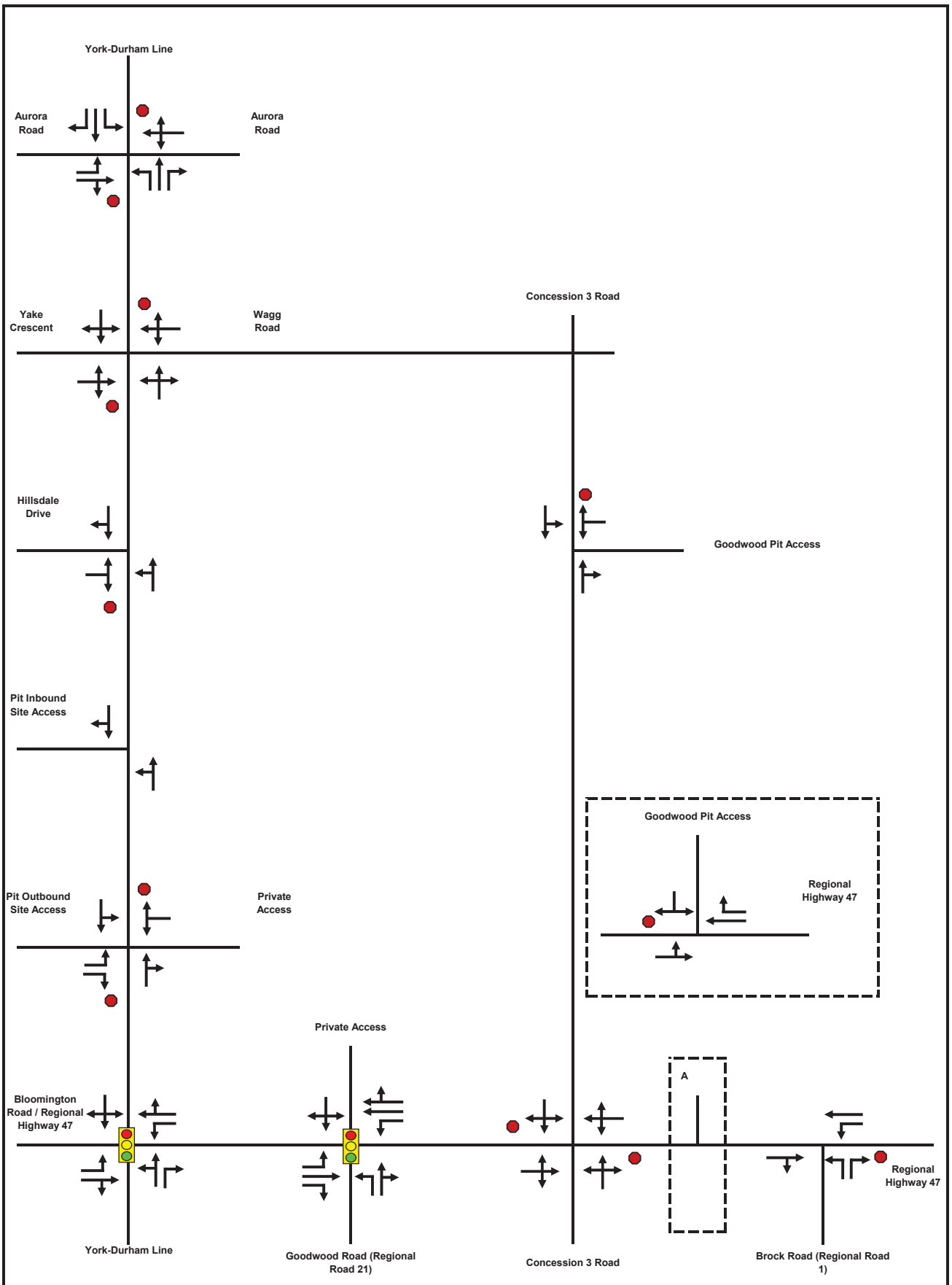
- Trucks transferring material exit the Goodwood Pit via the existing access on Regional Highway 47 and travel west to Regional Road 30 where they head north to the access to the Stouffville Pit located on the west side of Regional Road 30.

- Due to left-turn restrictions for trucks at Goodwood Pit access to Regional Highway 47, empty trucks heading back to Goodwood Pit must use another route. Accordingly, trucks exit the Stouffville Pit and travel north on Regional Road 30 to Wagg Road, travel east on Wagg Road to Concession Road 3 where they turn right and travel south to the existing Goodwood Pit access on the east side of Concession Road 3.
- The existing haul route for the transfer trucks is shown in **Figure 2-2.**

For the aggregate trucks generated by Goodwood Pit to deliver aggregate to market;

- Due to the left-turn restrictions currently in place for trucks in and out of Goodwood Pit access to Regional Highway 47, all trucks entering and exiting the Goodwood Pit access at Regional Highway 47 must make a right turn.
- Trucks exiting the Goodwood Pit destined to the east travel west along Regional Highway 47 and then turn left onto Goodwood Road (Regional Road 21) to continue traveling east along the roadway to their destination (exiting trucks destined to the west of the Goodwood Pit may continue along Regional Highway 47 as required).
- Trucks entering the pit from the west along Regional Highway 47 turn right onto Goodwood Road (Regional Road 21) and proceed along the roadway, then turn left onto Brock Road (Regional Road 1) and then turn left onto Regional Highway 47 to access the site via a right-turn (trucks destined to the pit from east along Regional Highway 47 may complete a right-turn into the site).
- The existing haul route for the aggregate trucks generated by the Goodwood Pit is shown in **Figure 2-3** for inbound vehicles, and **Figure 2-4** for outbound vehicles.

Note that neither of the above haul routes are proposed to change as part of the planned extension.



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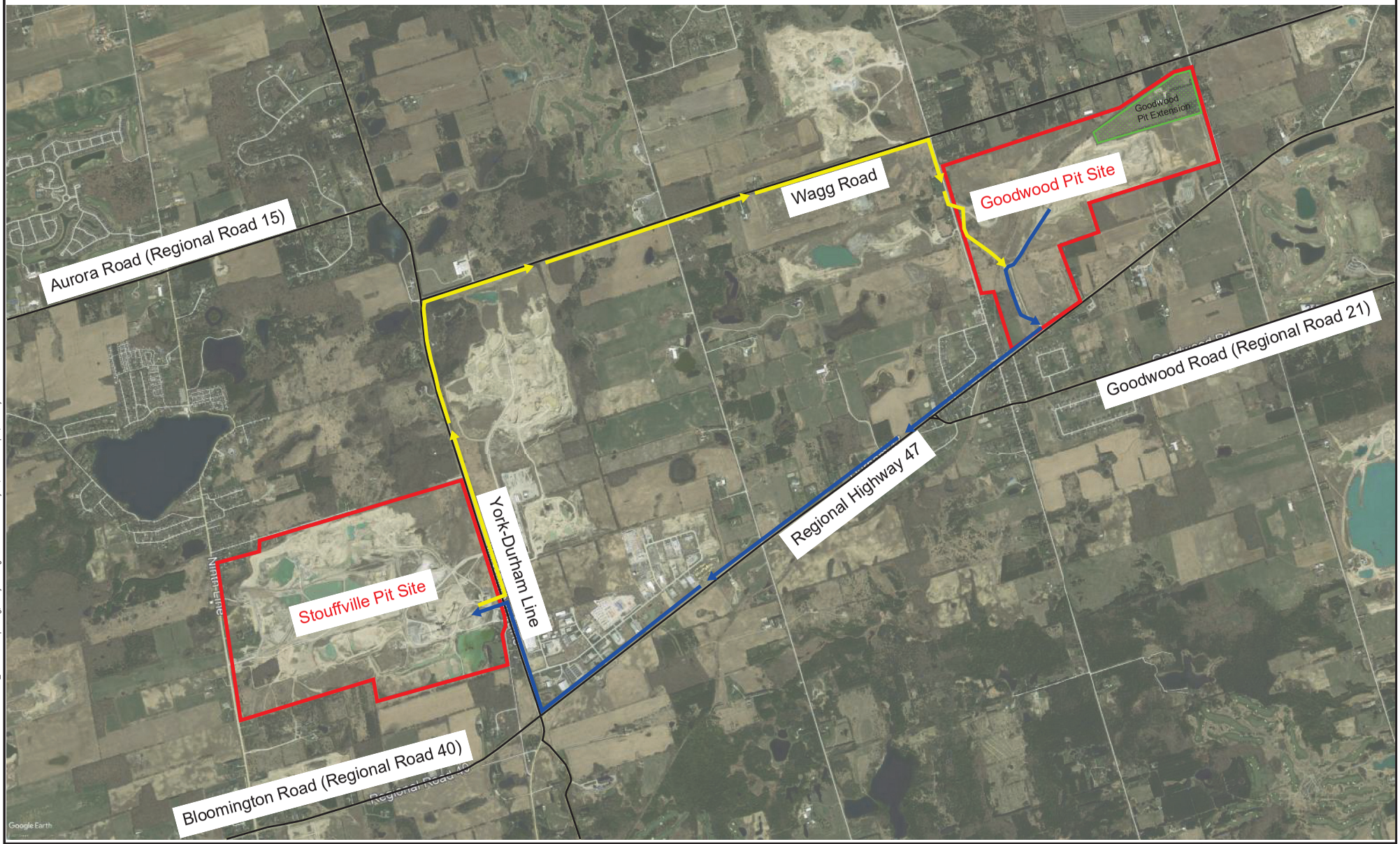
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Stop Sign

Traffic Signal

Figure 2-1

Existing Lane Configuration
Goodwood Pit TIS

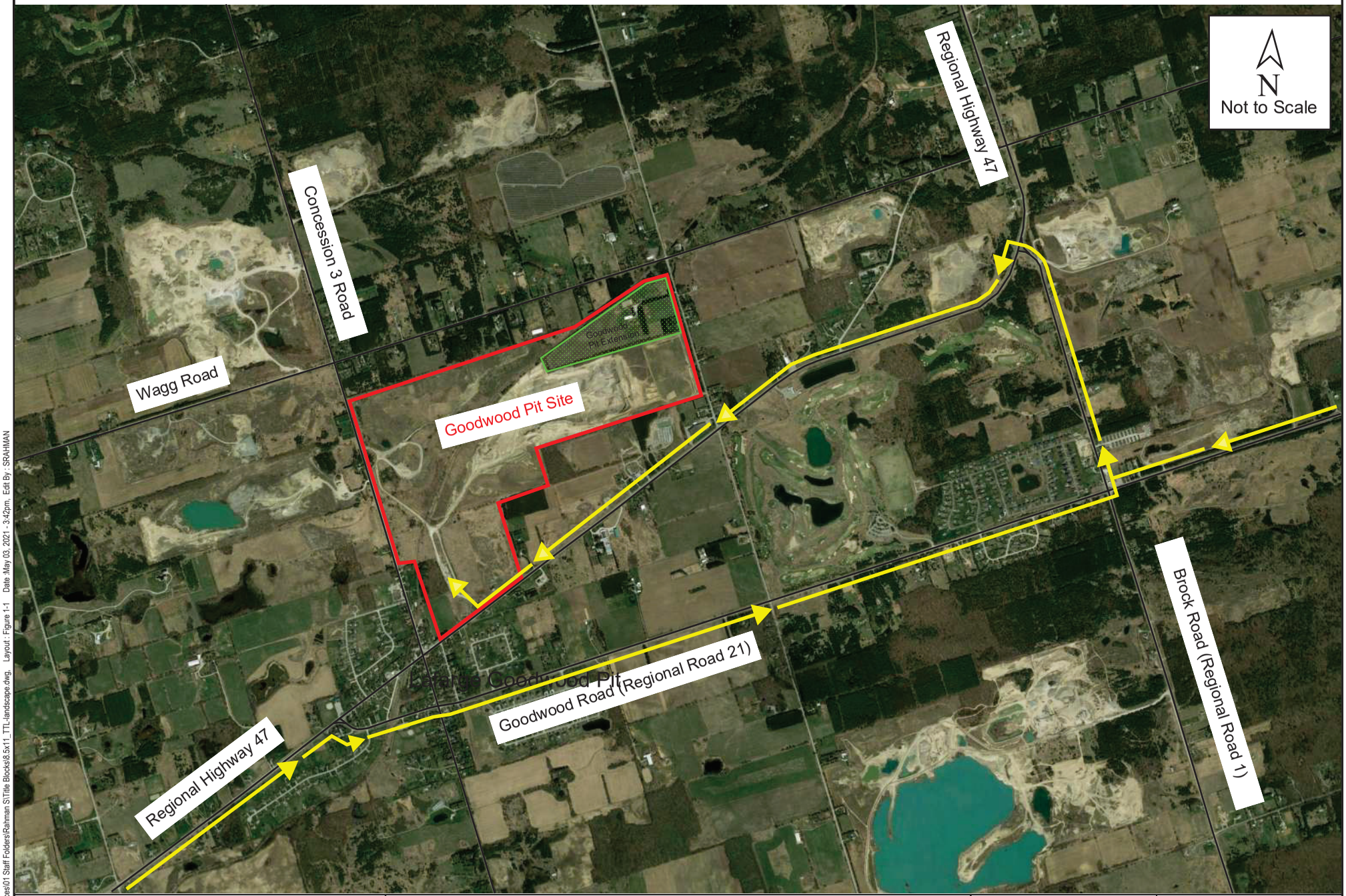


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Transfer Truck Haul Route (between Goodwood and Stouffville Pit)
Lafarge Goodwood Pit Transportation Impact Study

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April 2022	2221
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N.T.S	Figure 2-2

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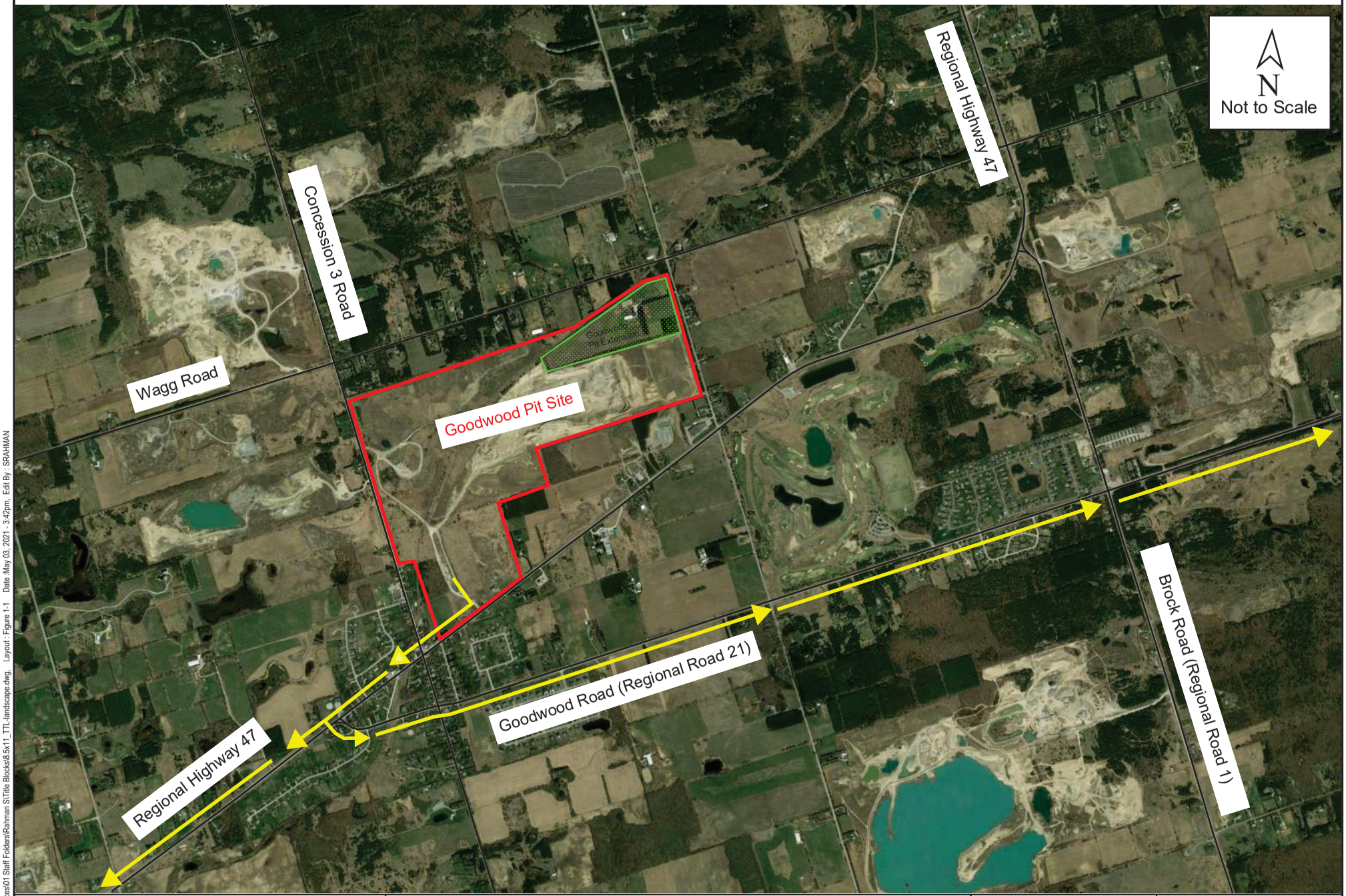


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Aggregate Truck Haul Route - Inbound
Lafarge Goodwood Pit Transportation Impact Study

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April 2022	2221
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TYLin

Aggregate Truck Haul Route - Outbound
Lafarge Goodwood Pit Transportation Impact Study

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April 2022	2221
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2.4 Haul Route Roadways

The roadways below are currently included as part of the site's existing haul routes (as detailed in the above section). The characteristics of these roadways are detailed below:

- **York-Durham Line** is a north/south Type B arterial roadway located further west from the subject site. It has a rural two-lane cross-section, one lane for each direction of travel, and a posted speed limit of 80 km/h. The stretch of roadway within the study area is under the jurisdiction of the Region of Durham.
- **Regional Highway 47** is an east/west arterial roadway under the Region of Durham. As per the latest version of the Region of Durham's Official Plan (2023), the section between York-Durham Line and Goodwood Road (Regional Road 21) is classified as Type "A" Arterial but the section east of Goodwood Road (Regional Road 21) is classified as Type "B" Arterial. Additionally, while the stretch of Regional Highway 47 within the study area generally has a rural two-lane cross-section with one lane for each direction of travel, there is a short section of Regional Highway 47 within the Hamlet of Goodwood that has an urban cross-section and also there is a relatively longer section of Regional Highway 47 located, west of the intersection of Goodwood Road (Regional Road 21) that has a passing lane in the westbound direction of travel – with two lanes of travel in the westbound direction and one lane of travel in the eastbound direction of travel. There is a short section of Regional Highway 47, west of the Hamlet of Goodwood, with a posted speed limit of 60 km/h and the remainder of Regional Highway 47 within the study area has a posted speed limit of 80 km/h. Moreover, the section of Regional Highway 47 within the Hamlet of Goodwood is designated as a Community Safety Zone where there is a permanent speed camera installed. Furthermore, there are signs currently installed to inform drivers of trucks travelling eastbound on approach to the Hamlet of Goodwood that they are to take Goodwood Road (Regional Road 21) and not travel through the Hamlet of Goodwood.
- **Wagg Road** is an east/west local rural roadway located north of the subject site. It has a rural two-lane cross-section, one lane for each direction of travel, and a posted speed limit of 70 km/h within the study area (i.e., between York-Durham Line and Concession 3 Road). The roadway is under the jurisdiction of the Township of Uxbridge and is signed as a permitted truck route between York Durham Line and Concession 3 Road.
- **Concession Road 3** is a north/south local roadway located directly west of the subject site. It has a rural two-lane cross-section, one lane for each direction of travel, and a posted speed limit of 50 km/h. The southern section of Concession 3 Road within the Hamlet of Goodwood, during school hours has a reduced speed limit of 40 km/h. Within the vicinity of the study area, the roadway is under the jurisdiction of the Town of Uxbridge.
- **Regional Highway 21/Goodwood Road** is an east/west Type A arterial roadway located south of the subject site. It has a rural two-lane cross-section, one lane for each direction of travel within the study area. The roadway is under the jurisdiction of the Region of

Durham. Within the study area, except for the westernmost section between Regional Highway 47 and Ridge Road (within the Hamlet of Goodwood), this roadway has a higher posted speed than 50 km/h - there is a short section of Goodwood Road (Regional Road 21), east of the Hamlet of Goodwood (between Ridge Road and Stonesthrow Crescent) as well as the section of the road within the Hamlet of Coppin's Corners, with a posted speed limit of 60 km/h and the remainder of Regional Road 21 within the study area has a posted speed limit of 80 km/h. Additionally, within the study area along this roadway, the section between Regional Highway 47 and Stonesthrow Crescent including the section within the Hamlet of Goodwood is designated as a Community Safety Zone where there is a permanent speed camera is installed.

- **Brock Road/ Regional Road 1** is a north/south regional roadway located west of the subject site. The section of Brock Road between Regional Highway 47 and Goodwood Road has a rural two-lane cross-section, one lane for each direction of travel, and a posted speed limit of 60 km/h. Within the vicinity of the study area, the roadway is under the jurisdiction of the Region of Durham.

2.5 Baseline (2022) Traffic Volumes

As part of this TIS, turning movement counts were commissioned and collected on August 24, 2021, for all study intersections. The TMC data has been included in **Appendix A** and includes peak operational traffic for the Goodwood Pit and the nearby Stouffville Pit as the counts were completed in August (i.e., peak operating month for the Pits). Note that only the intersection of York-Durham Line and Aurora Road (Regional Road 15) was surveyed on August 26 as there was a minor incident at the intersection which compromised the counts collected on August 24.

Traffic volumes surveyed during the peak hours for each intersection were utilized as part of this TIS for the purpose of conservative analysis. The surveyed 2021 existing traffic volumes have been illustrated in **Figure 2-5**.

It should be noted that, for undetermined reasons, traffic surveyed at Goodwood Pit accesses were almost nil as part of the August 24, 2021, data. However, any traffic surveyed entering or exiting the Goodwood Pit accesses would have been removed regardless and replaced by a trip generation based on the permitted tonnage limit to ensure a conservative analysis.

Accordingly, in the absence of significant trips surveyed at the Goodwood Pit accesses based on the collected traffic data, TYLin derived the trip generation associated with the Goodwood Pit based on the average tonnage and added it to the baseline survey data, as detailed in the below sections. The trip generation was completed for Goodwood Pit employees, aggregate shipment activity and material transfer activity (between Goodwood and Stouffville pits). The trip generation details have been documented below.

2.5.1 Existing Goodwood Pit Trip Generation

As stated above, TYLin derived all existing traffic generated by the Goodwood Pit and added these volumes to the surveyed 2021 existing traffic data to derive conservative volumes along the

roadway network (i.e., accounting for the maximum trip generation from the pit).

The following Goodwood Pit traffic was generated and added to the network as part of this exercise:

- The Goodwood pit employee trips;
- The transfer route traffic between Stouffville and Goodwood pits; and
- The truck route for Goodwood Pit to deliver aggregate to market.

2.5.1.1 Goodwood Pit Employee Trips

Currently, the standard employee day shifts are from 6:00 AM to 6:00 PM and night shifts are from 5:00 PM to 4:00 AM. There are 4 full-time employees that work at the Goodwood site. As employees coming in for the day shift would arrive prior to or at 6:00 AM, these trips were not included in the generation to add to existing conditions. However, a total of 4 outbound tips and 4 inbound trips were generated for the employees during the PM peak hour to be added to the existing surveyed traffic data. Existing traffic patterns at the intersection of Goodwood access to Regional Highway 47 were derived for the AM and PM peak hours and the employee trips were assigned accordingly along Highway 47. Please refer to **Figure 2-6** for the Goodwood employee trip assignment.

2.5.1.2 Transfer Truck Route Between Stouffville and Goodwood Pits

Based on input from the Lafarge Canada, 500,000 tonnes is transferred annually between the Goodwood and Stouffville Pits. Based on a truck capacity of 40 tonnes and a total of 155 days of operation (from April to mid-November, based on input from the Lafarge Canada), the transfer truck trip generation for 500,000 tonnes per year is equivalent to a total of 81 trucks per day. The hourly distribution for these trucks is detailed in Section 2.5.1.4 below.

2.5.1.3 Goodwood Pit Aggregate Daily Trips

Lafarge Canada confirmed that tri-axle dump trucks which can carry up to 25 tonnes and with pony trailer which can carry up to 15 tonnes will be used for delivery operations at the site. Therefore, the total capacity of the delivery truck is equal to 40 tonnes.

Based on a truck capacity of 40 tonnes, and a total of 155 days of operation (from April to mid-November, based on input from the Lafarge Canada), the aggregate truck trip generation (per the remaining tonnage per year) is equivalent to a total of 109 trucks per day. The hourly distribution for these trucks is detailed in Section 2.5.1.4 below.

2.5.1.4 Truck Hourly Distribution

Lafarge Canada provided TYLin with detailed hourly breakdowns of the aggregate truck generation for the nearby Stouffville Pit surveyed in July, August and September of 2020. This survey data took place during the high season for the Pit, and Lafarge Canada advised TYLin that the surveyed average hourly breakdown distribution would be applicable to all truck routes for both Stouffville and Goodwood pits. For the AM and PM peak hour, the percentage of daily total trips was identified from the hourly distribution as 12% from 8:00-9:00 AM and 2% from 4:00-5:00 PM.

Accordingly, the above hourly distribution was applied to all truck trip generation to derive the peak hour volumes.

2.5.1.5 Goodwood Pit Aggregate and Transfer Truck Hourly Trips

Based on the above sections, the trip generation for the Goodwood Pit transfer and aggregate trucks was derived for the weekday AM and PM peak hours. Note that the hourly truck distribution identifies the number of trucks accessing the site; because each truck makes one inbound and one outbound trip, the total number of trips is twice as high as the number of vehicles. The detailed hourly Goodwood truck trip generation added to the existing surveyed traffic volumes has been included in **Table 2-1** below.

Table 2-1 Goodwood Pit Site Truck Trip Generation

Site Truck Trip Generation	AM Peak Hour			PM Peak Hour		
	Inbound	Outbound	Total	Inbound	Outbound	Total
Goodwood Transfer Truck Trips	10	10	20	2	2	4
Goodwood Aggregate Truck Trips	13	13	26	2	2	4

The transfer truck trip distribution has been illustrated in **Figure 2-2** and the aggregate trip distribution is detailed in **Table 2-2** (note that detailed below is the overall directional distribution of trucks, which is different than the individual routing assignment within the immediate study area as illustrated previously in **Figure 2-3** and **Figure 2-4**).

Table 2-2 Aggregate Truck Trip Distribution

Trip Orientation	Distribution
North	5%
South	5%
East	20%
West	70%

The trip assignment for the transfer trucks (between the Goodwood and Stouffville pits) and the trucks shipping aggregate directly to market from the Goodwood pit have been illustrated in **Figure 2-7** and **Figure 2-8**, respectively.

2.5.2 Growth Adjustment for 2021 Volumes

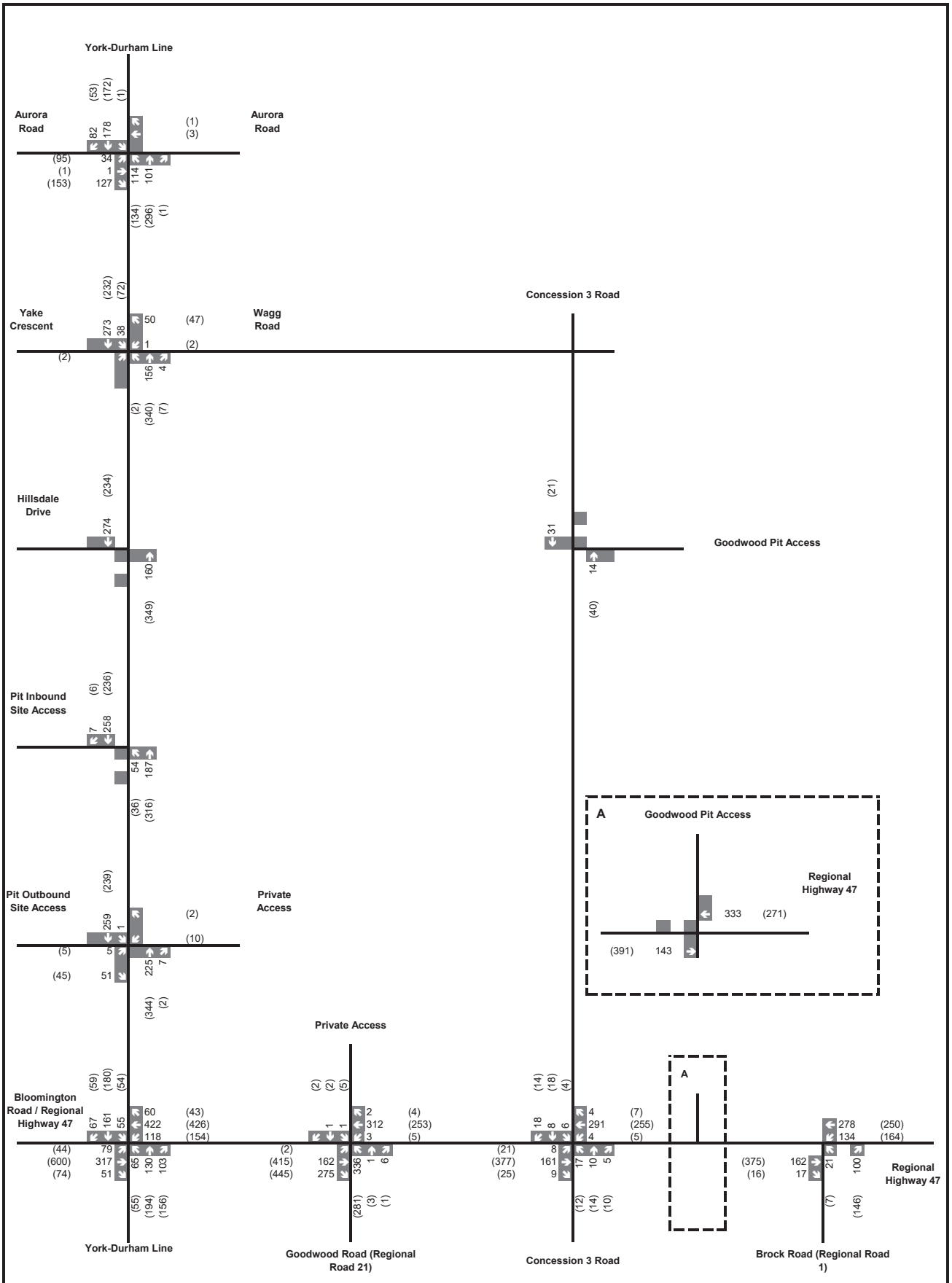
TYLin derived 2021 existing traffic data by adding the trip generation associated with the Goodwood Pit (transfer trucks, employees, and aggregate trucks) to the surveyed August 2021 traffic data as detailed above. 2022 conditions derived by applying growth rates along the resulting boundary road network volumes.

The growth rates used as part of this study detailed below and are based on a review of AADT data as well as input from the reviewing agencies:

- 1% growth rate for through movements along Regional Highway 47;
- 1% growth rate for through movements along York-Durham Line;
- 2% growth rate for movements to and from Aurora Road; and
- 2% growth rate on all turning movements at the York-Durham Line and Bloomington Road/Regional Highway 47 intersection.

2.5.3 Derived 2022 Existing Traffic Volumes

The 2022 existing traffic volumes were derived by adding the Goodwood Pit trip generation to the surveyed August 2021 traffic data and growing the resulting volumes to 2022 conditions. The derived 2022 existing traffic volumes are illustrated in **Figure 2-9**.

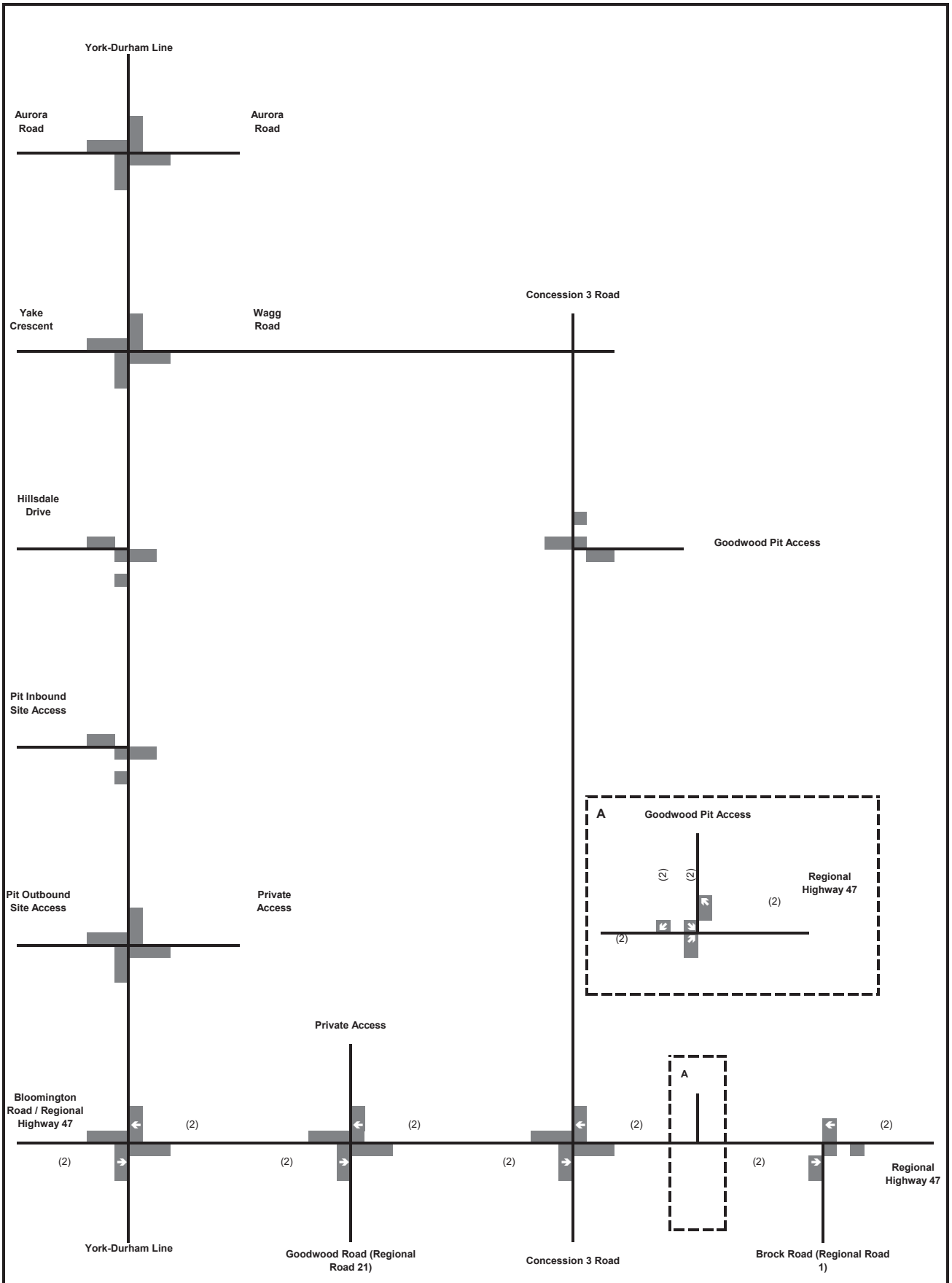


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Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 2-5
Surveyed Existing 2021
Traffic Volumes
Goodwood Pit TIS

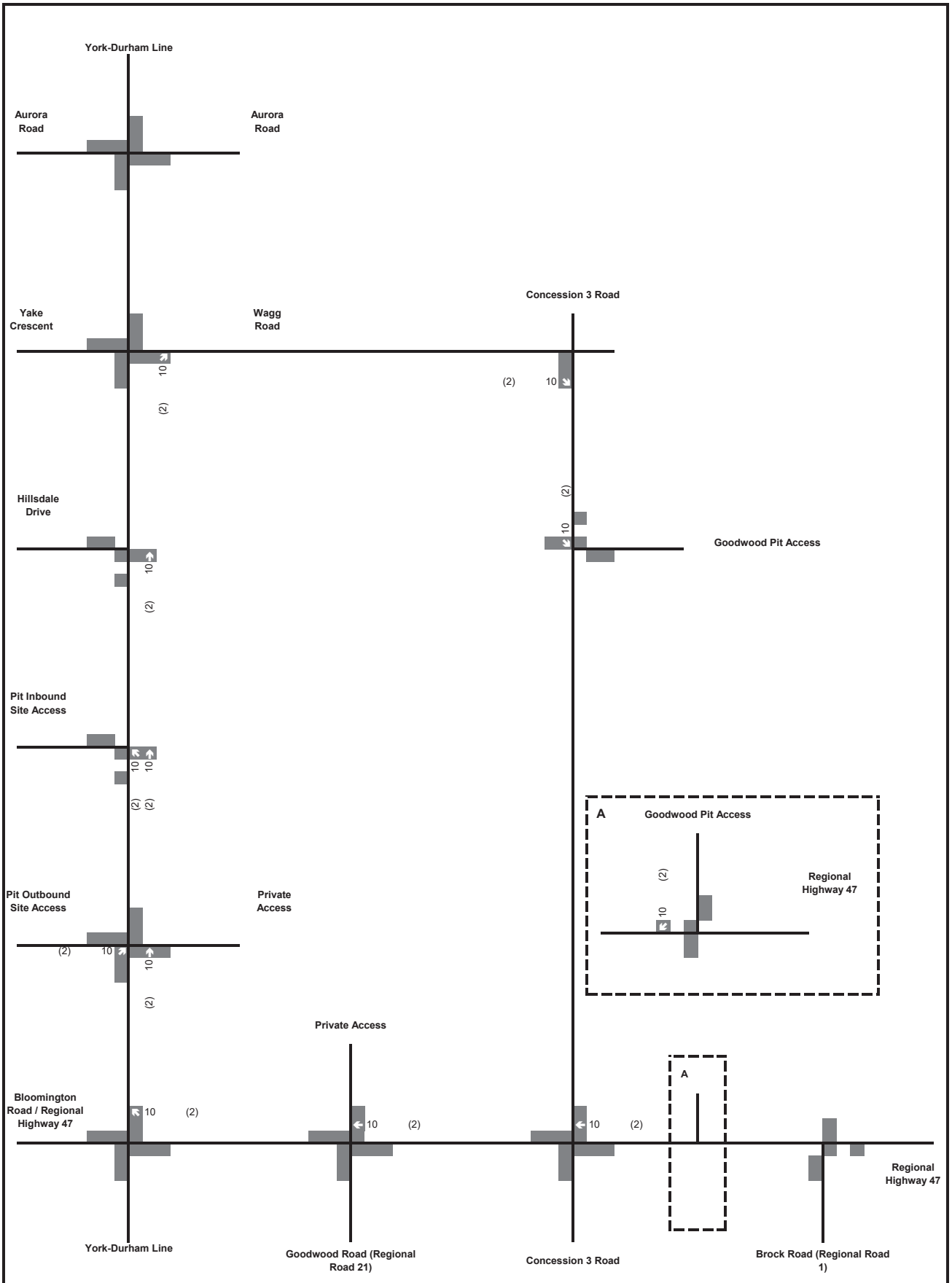


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Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 2-6
Goodwood Pit
Employee Trips
Goodwood Pit TIS

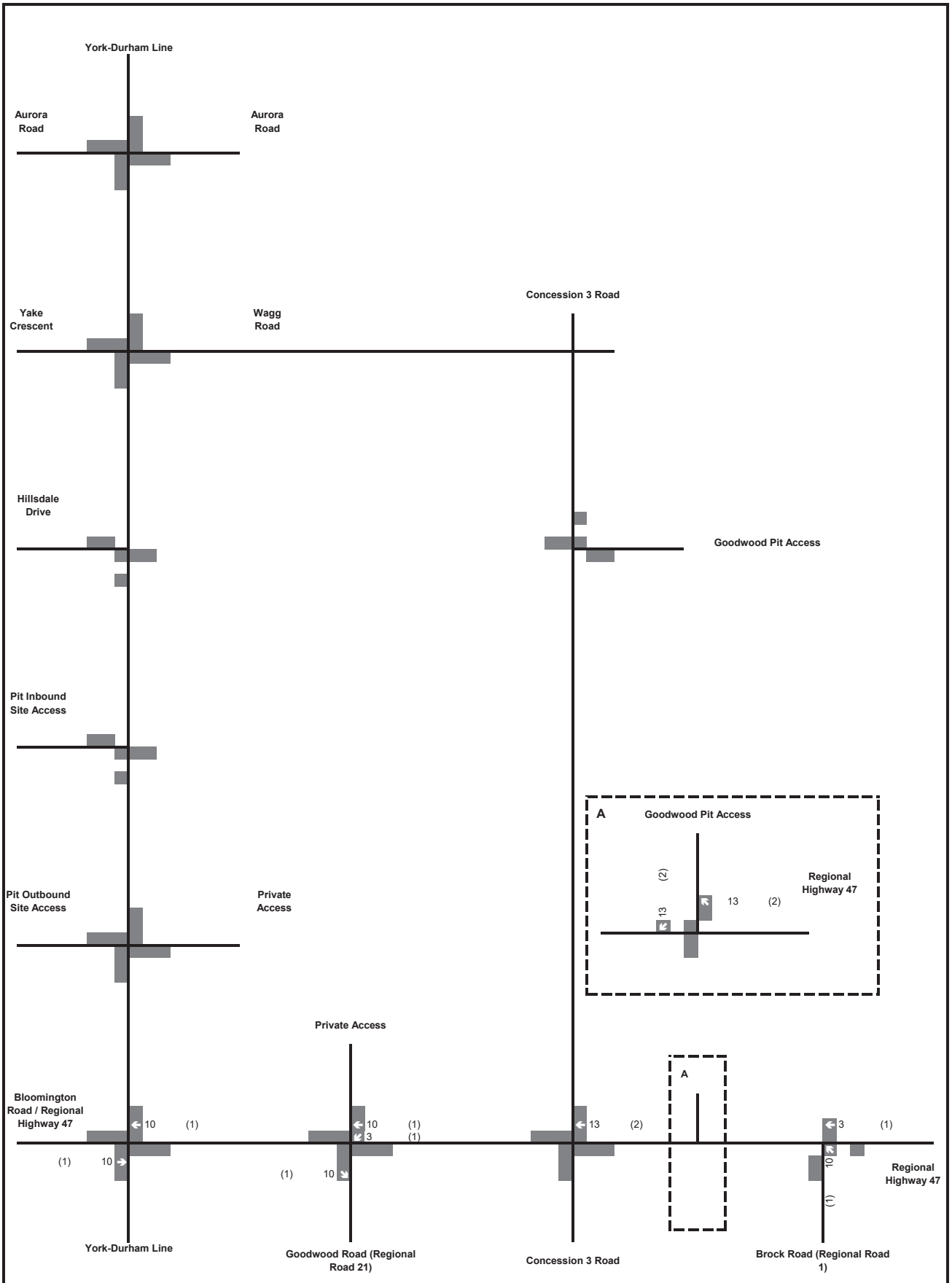


TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 2-7
Goodwood Pit
Transfer Trips
Goodwood Pit TIS

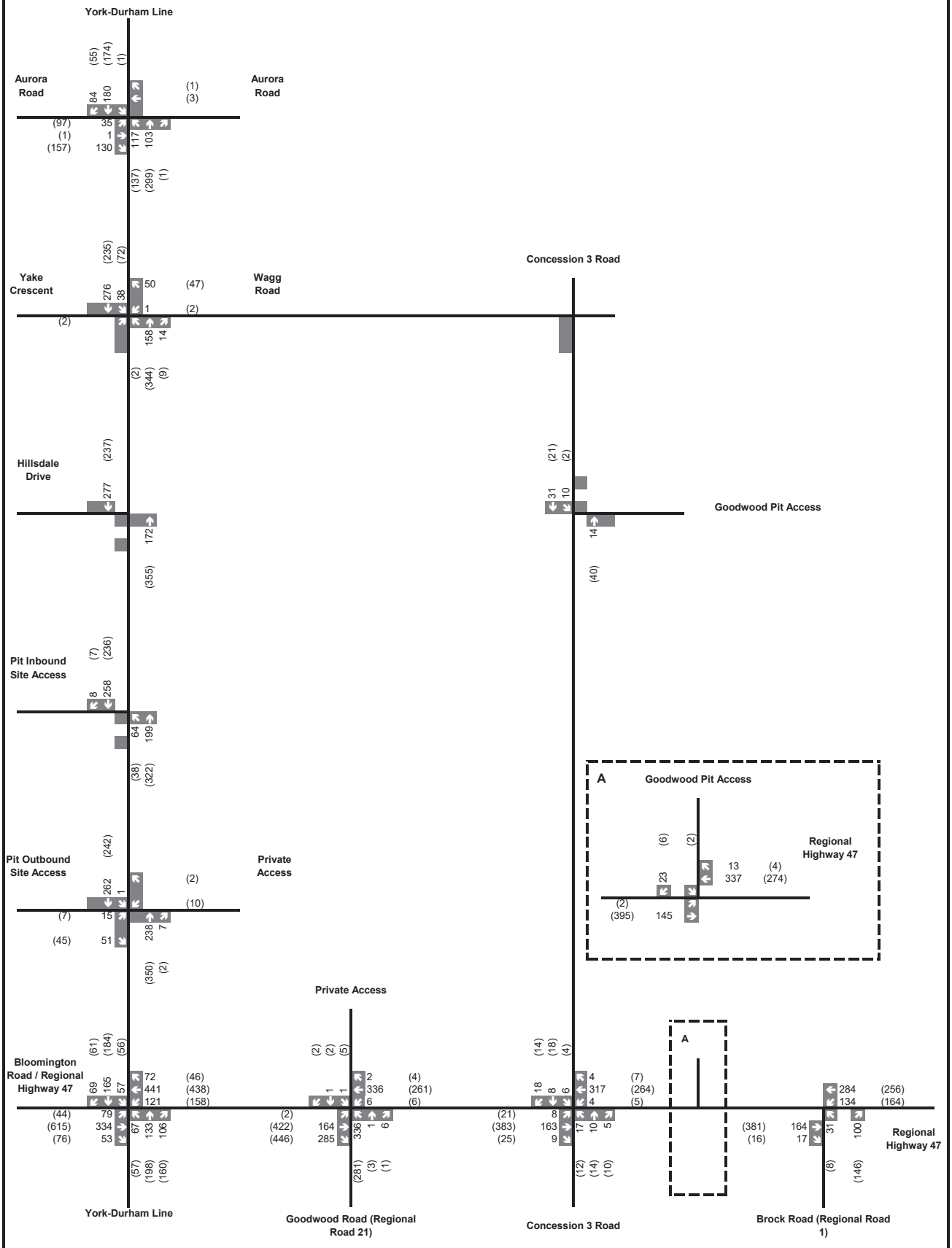


TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 2-8
Goodwood Pit
Aggregate Trips
Goodwood Pit TIS



TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 2-9
Derived 2022
Existing Volumes
Goodwood Pit TIS

3 Future Traffic Conditions

3.1 Study Horizon Years

The analysis considers future conditions at a 2028 and 2033 planning horizon year as confirmed with agency staff.

3.2 Study Area Road Network Improvements

The Region of Durham is planning to widen Regional Highway 47 to four lanes between York Durham Line and Goodwood Road, with construction currently proposed in 2027 (subject to change through future capital program forecasts). This road widening includes intersection improvements at the Regional Highway 47/Goodwood Road intersection. As per exhibit 5.1 of the Durham Region TMP (January 2018), the status of the Environmental Assessment Study for the Regional Highway 47 widening has not yet started.

Furthermore, in February 2023 Lafarge agreed to enter into a Cost Sharing Agreement with the Region of Durham to implement traffic management/calming measures in the Village of Goodwood to improve traffic safety on Regional Highway 47 and Regional Road 21. These traffic management and calming measures will be implemented by the Region of Durham to help alleviate the general impact of traffic through Goodwood.

York Region has long-term plans to widen Bloomington Road west of York-Durham Line, but there currently is no timeline for that project.

Based on the above, the widening of Regional Highway 47 was considered as part of the 2033 study horizon year as implementation would not be completed by the 2028 horizon year for the purpose of conservative analysis. As part of the widening, the following was applied based on input from Durham Region staff:

- The additional eastbound lane between York-Durham Line and Goodwood Road would be added to the network as a continuation of the channelized northbound right-turn lane at York Durham Line, which would then be forced off via the existing channelized eastbound right-turn lane at Goodwood Road.
- The additional westbound lane between York-Durham Line and Goodwood Road is already in place directly west of Goodwood Road and would continue along the roadway, to be forced off via a planned westbound right-turn lane at York-Durham Line.

Finally, as derived as part of the Stouffville Pit Reclamation TIS report completed by TYLin, the following roadway improvements were recommended for the 2028 horizon year:

- Provision of a northbound left-turn lane, southbound left-turn lane, and southbound right-turn lane at the intersection of York-Durham Line at Regional Highway 47, along with an optimization of the signal timing splits.
- Optimization of the signal timing splits at the intersection of Goodwood Road at Regional Highway 47.

- Provision of a northbound left-turn lane into the Stouffville Pit inbound site access.

The storage associated with the above additional auxiliary turning lanes was derived as part of the Stouffville Pit Reclamation TIS report.

3.3 Background Development Traffic

A residential development of 69-unit single detached dwellings located at Bloomington Road and 9th Line was considered as a background development for this study as agreed with the Region of York and Durham staff. The trip generation and assignment for this development, applied to the study intersections, was based on the Access Review Report completed for the application by Mark Engineering, dated May 2014.

Additionally, traffic associated with the fill operations for the 14395 Ninth Line Pit (located adjacent to the site), was also considered as part of our background developments. Note that the trip generation for this application was based on the 2012 study completed by BA Group (provided to TYLin by the Lafarge Canada), which is conservative as it considers a total of 800 fill trucks per day that since then reduced to 600 (as detailed in a subsequent 2017 submission by BA Group for the lands).

Finally, the proposed traffic associated with the Stouffville Pit Reclamation application was also included as background traffic for the future traffic forecast for this study.

Future trips generated by the background development detailed above were assigned to the study area road network for weekday AM and PM peak hours, considered for both study horizons. Please refer to **Figure 3-1** for the overall background development traffic. All study excerpts used to derive the background development trip assignments onto our roadway networks have been included in **Appendix B**.

3.4 Future Traffic Growth

As with existing conditions, traffic along the boundary road network was increased to future conditions using the following growth rates:

- 1% growth rate for through movements along Regional Highway 47;
- 1% growth rate for through movements along York-Durham Line;
- 2% growth rate for movements to and from Aurora Road; and
- 2% growth rate on all turning movements at the York-Durham Line and Bloomington Road/Regional Highway 47 intersection.

3.5 Future Traffic Volumes

There is no additional traffic projected from Goodwood Pit under future conditions as the existing site traffic will not be changing (the proposal is to extend the pit extraction application, but not to add additional annual tonnage). Accordingly, the derived 2022 existing traffic volumes were increased to future conditions and combined with the projected trips from the background

developments to derive future traffic conditions. The 2028 and 2033 future traffic volumes have been illustrated in **Figure 3-2** and **Figure 3-3**, respectively.

3.6 Turn Lane Analysis

The need for auxiliary turn lanes to facilitate access and egress to/from the subject site along Regional Highway 47 and Concession Road 3 was reviewed. It should be noted that the need for the turn lanes is not required to improve intersection capacity, as shown by the traffic operations review results detailed in later sections of this report.

3.6.1 Left-Turn Lane Requirements

As left-turns are prohibited for trucks at the intersection of the Goodwood Pit Site Access and Regional Highway 47, and since employee trips are nominal during the peak hours, left-turn warrants were not completed at the Regional Highway 47 access intersection as left-turn lanes were not deemed necessary.

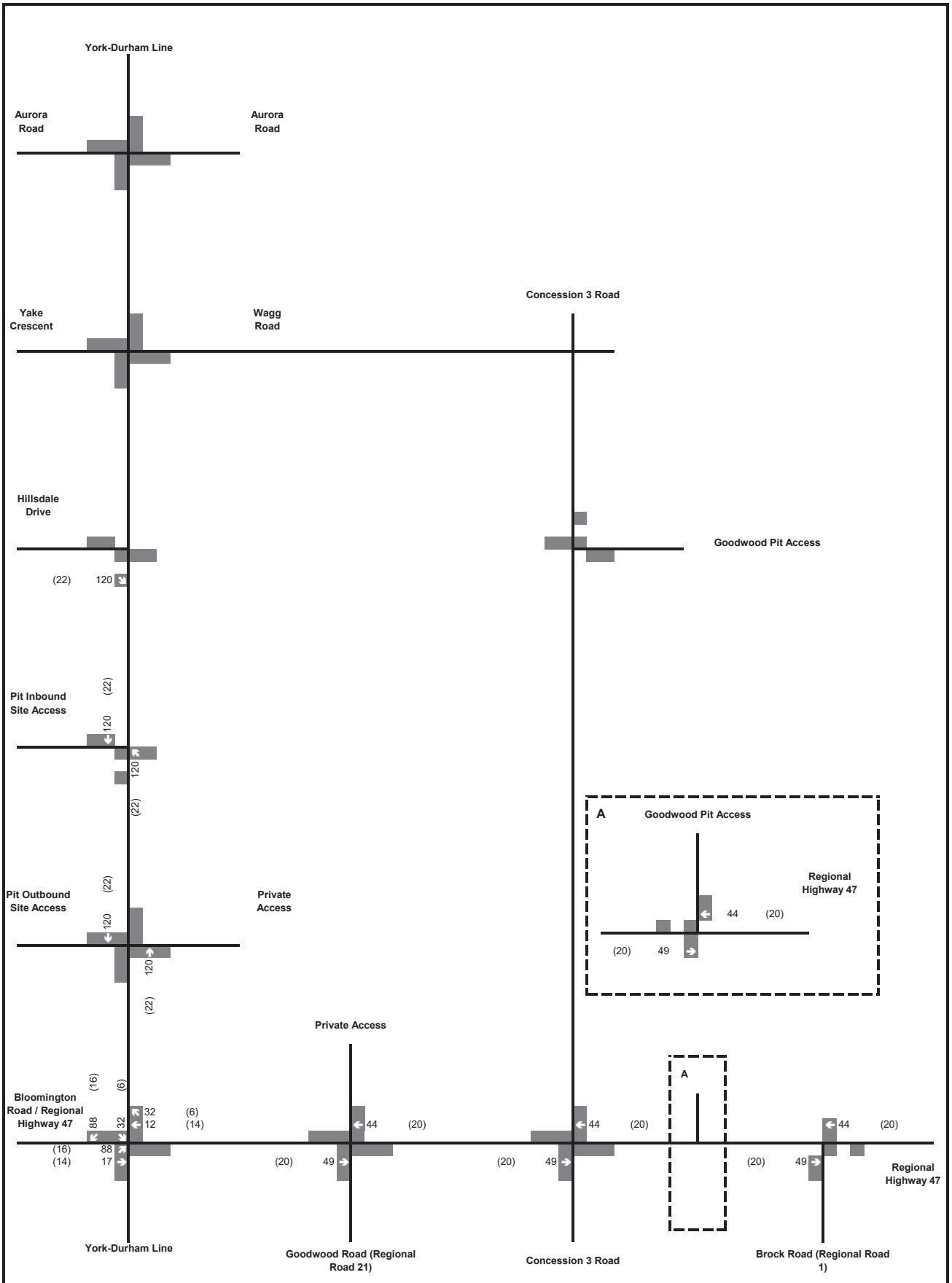
Based on the comments received from the Region, a proposed left-turn lane at the intersection of Goodwood Pit site access and Regional Highway 47 was evaluated. The potential benefits of the provision of this left-turn lane are that inbound trucks travelling from Regional Highway 47 would travel comparatively less distance to enter the site rather than travelling further west on Regional Road 21 and looping back into the site from opposite direction. The drawbacks of the provision of this left-turn lane are that it would require widening of the existing pavement, which is not a cost-effective solution and would only result in an increase in truck traffic on Regional Highway 47 travelling via Goodwood village. Furthermore, an eastbound left turn lane would generate a potential conflict point, that is not advisable from a safety perspective. Also, as per the letter dated June 18, 2025, the Township agreed to permit the trucks returning to the Goodwood pit from the Stouffville pit to travel via Wagg Road and prohibit any eastbound left-turn movement into the site via pit entrance/exit at Highway 47. Since the drawbacks of implementing an eastbound left-turn lane outweighs the benefits, therefore TYLin does not recommend this left-turn lane at the Goodwood pit site access on Regional Highway 47. The existing Goodwood Pit haul route that prohibits eastbound left-turning trucks into the pit was negotiated with the Township and Region several decades ago. The objective of the existing haul route is to reduce trucks travelling through Goodwood village and lessen impacts on residents. The proposed pit extension will not result in an increase or change in current haulage patterns from the existing pit.

The intersection of the Goodwood Pit Site Access and Concession Road 3 was analyzed to determine if the traffic volumes warranted the need for auxiliary left-lanes on the main line approaches. A review of intersection operations identified that there are minimal truck trips making inbound or outbound left turns at this intersection. Given the nominal left-turn volumes at this intersection, left-turn lanes are deemed not required.

3.6.2 Right-Turn Lane Requirements

Given the nominal number of right-turning volumes into the Goodwood Pit accesses, the industry standard threshold of 60 vehicles per hour (and 10% of the total approach volume) is not met. Accordingly, right-turn lanes were not deemed required at the site accesses.

Based on the above, it is TYLin's opinion that the existing site access configurations are acceptable, and no further improvements are required at the Pit accesses to accommodate pit operations.

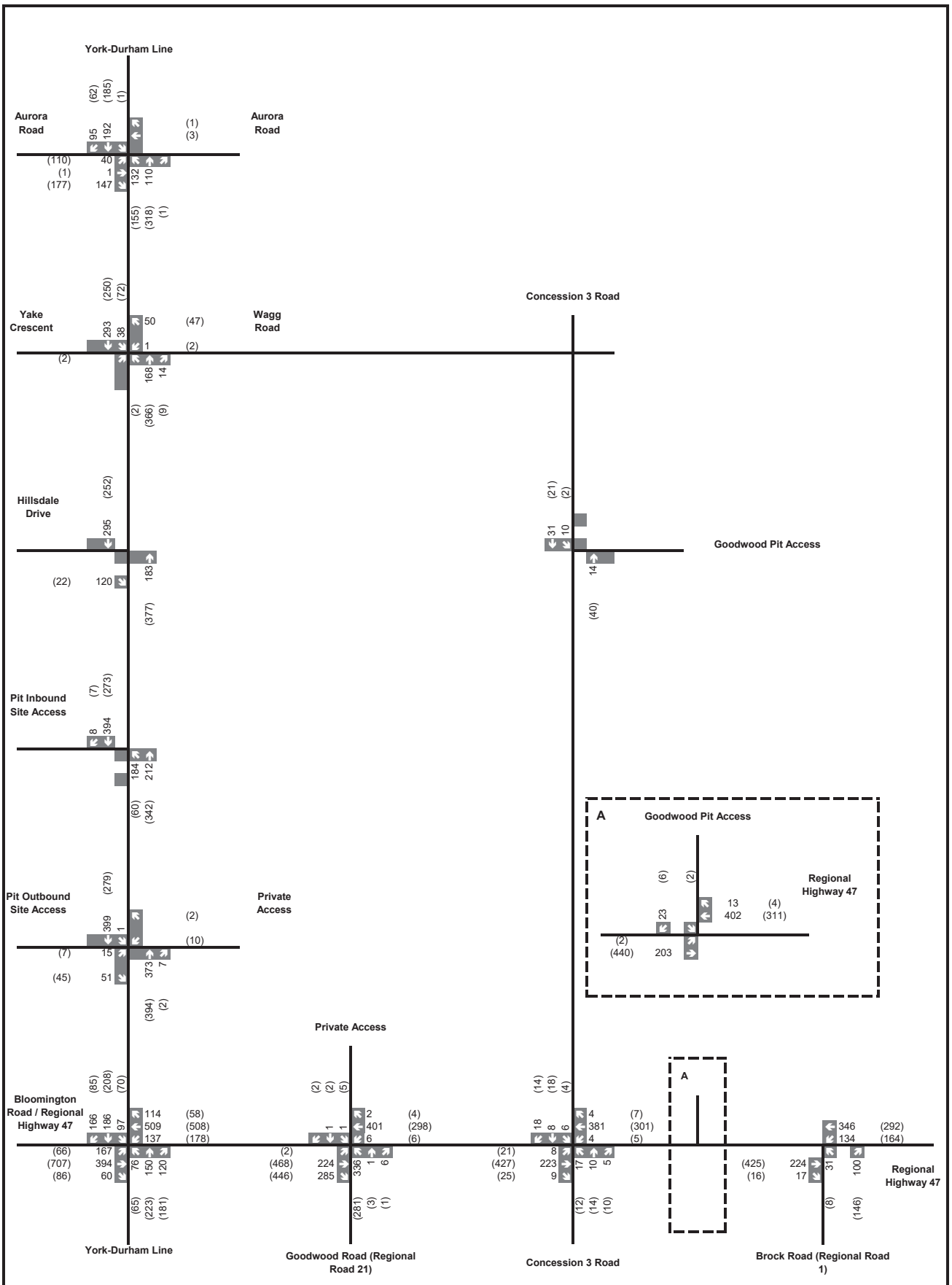


TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 3-1
Background Development
Traffic Volumes
Goodwood Pit TIS

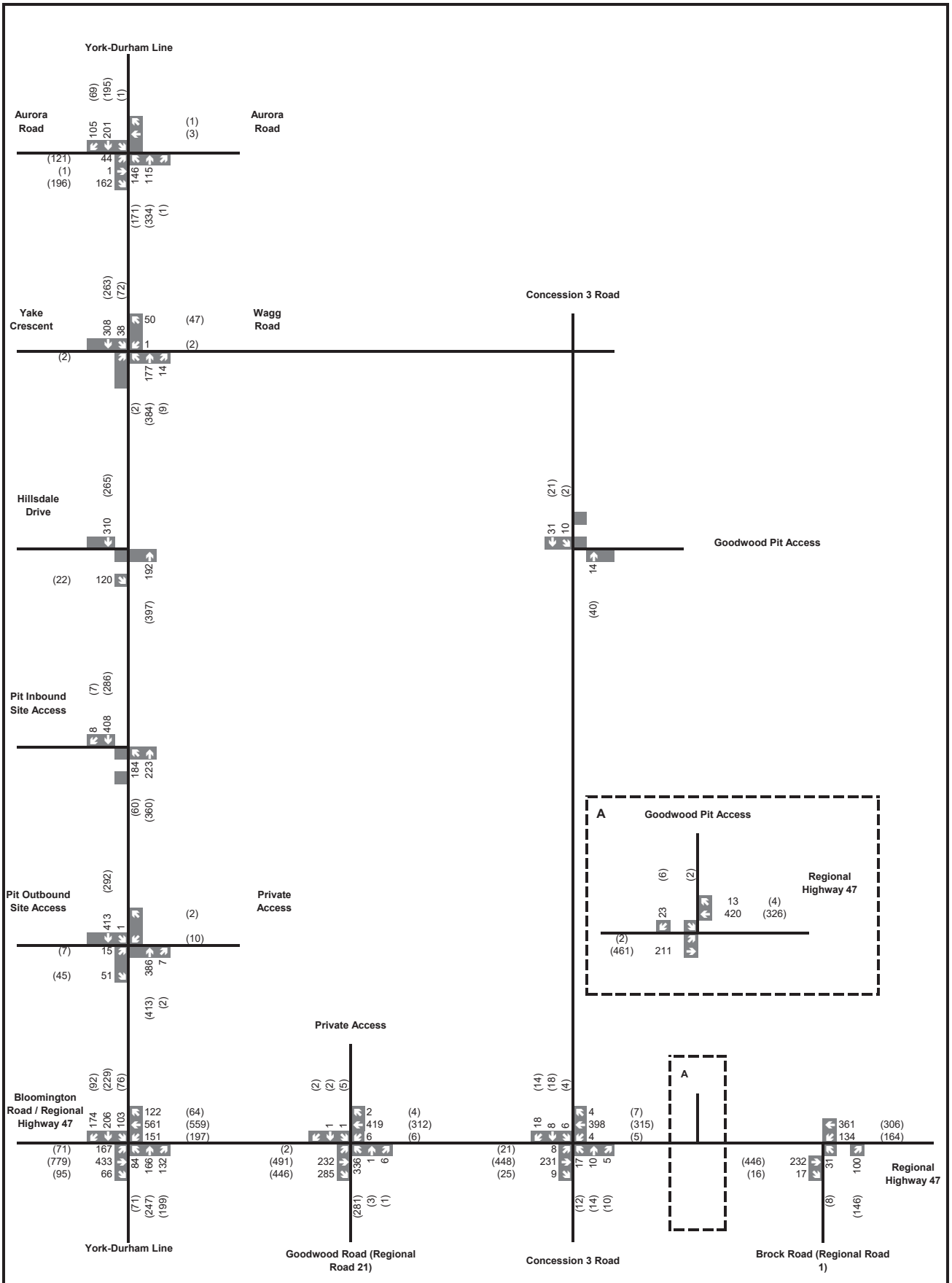


TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 3-2
2028 Future Conditions
Traffic Volumes
Goodwood Pit TIS



TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 3-3
2033 Future Conditions
Traffic Volumes
Goodwood Pit TIS

4 Capacity Analysis

The capacity analysis identifies how well the intersections and access driveways are operating and how they are expected to operate in the future. The analysis contained in this report utilized the Highway Capacity Manual (HCM) 2000 techniques within the Synchro Version 11 Software package. The reported intersection volume-to-capacity ratios (v/c) are a measure of the saturation volume for each turning movement, while the levels-of-service (LOS) are a measure of the average delay for each turning movement.

As part of this analysis, TYLin detailed only the critical movements at each intersection within the report. The traffic operations for all remaining movements have been detailed in the Synchro reports included in **Appendix C**. 'Critical' intersections and movements are classified as detailed below, as per the Durham Region and York Region Traffic Impact Study Guidelines/Mobility Plan Guidelines for a rural condition:

- Overall intersection operations, through movements or shared through/turning movements with a LOS 'D' or worse; and
- V/C ratios for movements increased to 0.70 or above.
- The following parameters were reflected in the existing Synchro analysis:
- Lane configurations, link speeds, storage lengths, and taper lengths, were applied to reflect existing conditions using aerial imagery;
- Saturation flow rates were set at 1,900 and 2,000 vehicles per hour per lane as per Durham and York Region guidelines, respectively;
- Signal timings for signalized intersections were taken directly from York and Durham Region signal timing plans **Appendix C**);
- Vehicular volumes, heavy vehicle percentages, and pedestrian volumes were adjusted to reflect turning movement count data (and any addition to the survey data); and
- Peak hour factors were calculated based on peak hour traffic counts.

4.1 Existing 2022 Capacity Analysis

Table 4-1 summarizes the Synchro/HCM capacity results for the study intersections during the weekday AM and PM peak hours under the derived 2022 existing traffic conditions, while **Appendix C** contains the detailed intersection capacity sheets. As previously stated, only critical turning movements were detailed below, along with key turning movements at Goodwood Pit accesses (i.e., movements with potential delay).

Table 4-1 Existing 2022 Capacity Analysis Summary

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Signalized							
York-Durham Line & Regional Highway 47 / Bloomington Road	***Overall***	***0.73***	***35***	***C***	***0.90***	***42***	***D***
	EBTR	0.53	23	C	0.89	41	D
	WBL	0.25	12	B	0.69	28	C
	WBTR	0.67	26	C	0.61	24	C
	NBLT	0.67	46	D	0.73	47	D
	SBLTR	0.92	74	E	0.96	83	F
Goodwood Road (Regional Road 21) / Private Access & Regional Highway 47	***Overall***	***0.53***	***29***	***C***	***0.58***	***18***	***B***
	NBL	0.97	68	E	0.85	47	D
Unsignalized							
York-Durham Line & Aurora Road (Regional Road 15)	EBL	0.11	16	C	0.50	35	E
Regional Highway 47 & Goodwood Pit Access	WBR	0.01	0	-	0.00	0	-
	SBLR	0.06	13	B	0.02	13	B
Concession 3 Road & Goodwood Pit Access	SBLT	0.01	2	A	0.00	1	A

Under 2022 existing conditions, all turning movements operate below capacity with LOS E or better except for shared southbound left through and right turn movement at the intersection of York Durham Line and Regional Highway 47/ Bloomington Road, which operates at with v/c of 0.96 and LOS F under PM peak hour condition. Accordingly, delays experienced under existing conditions are deemed acceptable with no need for remedial measures.

At the site access intersections, there are no operational constraints at the site accesses.

Note that all turning movements not listed in the above table, for both signalized and stop-controlled intersections, operate with LOS C or better and a v/c of 0.69 or below, showing good operations.

4.2 Future 2028 Capacity Analysis

Table 4-2 summarizes the Synchro/HCM capacity results for the critical movements during the weekday AM and PM peak hours under future 2028 traffic conditions, which takes into consideration the planned and derived road improvements detailed within Section 3.2 of this report. **Appendix C** contains detailed intersection capacity sheets, with only critical movement detailed below along with key turning movements at Goodwood Pit accesses (i.e., movements with

potential delay).

Table 4-2 Future 2028 Capacity Analysis Summary

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Signalized							
York-Durham Line & Regional Highway 47 / Bloomington Road	***Overall***	***0.76***	***31***	***C***	***0.81***	***34***	***C***
	EBTR	0.52	16	B	0.84	29	C
	WBTR	0.77	27	C	0.58	16	B
	NBL	0.53	51	D	0.57	56	E
	NBT	0.53	47	D	0.80	63	E
	NBR	0.08	41	D	0.19	43	D
	SBL	0.79	78	E	0.79	86	F
	SBT	0.65	52	D	0.75	59	E
	SBR	0.19	43	D	0.07	42	D
Goodwood Road (Regional Road 21) / Private Access & Regional Highway 47	***Overall***	***0.59***	***20***	***B***	***0.62***	***17***	***B***
	NBL	0.83	33	C	0.80	38	D
Unsignalized							
York-Durham Line & Aurora Road (Regional Road 15)	EBL	0.14	18	C	0.66	52	F
Regional Highway 47 & Goodwood Pit Access	WBR	0.01	0	-	0.00	0	0
	SBLR	0.07	14	B	0.02	13	B
Concession 3 Road & Goodwood Pit Access	SBLT	0.01	2	A	0.00	1	A

All movements are projected to operate with reserve capacity and acceptable delays under 2028 future conditions except for select critical movements.

The intersection of York-Durham Line at region Highway 47/ Bloomington Road is projected to operate with the southbound left-turn movement at LOS F during the PM peak hour. As the v/c for this movement is projected to operate at 0.79, which is still under capacity, TYLin does not recommend any changes to the intersection but recommends the Region to monitor the intersection to identify when potential remedial measures will be required.

The intersection of York-Durham Line at Aurora Road is projected to operate with the eastbound left-turn movement at LOS F during the PM peak hour. As the delay is projected to be below 1 minute per vehicle, and as there are no critical movements during the AM peak hour, TYLin does

not recommend any changes to the intersection but recommends the Region to monitor the intersection to identify when potential remedial measures will be required.

As there are no changes to the site trips between existing and future conditions, any increase in delay for the vehicles accessing the site is based on the increase in traffic volumes along the boundary road network (due to general traffic growth and background developments). Review of 2028 future traffic conditions show acceptable operations at the site accesses and surrounding intersections.

Finally, all turning movements not listed in the above table, for both signalized and stop-controlled intersections, are projected to operate with LOS C or better and a v/c of 0.69 or below, showing good operations.

4.3 Future 2033 Capacity Analysis

Table 4-3 summarizes the Synchro/HCM capacity results for the critical movements during the weekday AM and PM peak hours under future 2033 traffic conditions, which takes into consideration the planned and derived road improvements (as included in the 2028 conditions). **Appendix C** contains detailed intersection capacity sheets, with only critical movement detailed below along with key turning movements at Goodwood Pit accesses (i.e., movements with potential delay).

Table 4-3 Future 2033 Capacity Analysis Summary

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Signalized							
York-Durham Line & Regional Highway 47 / Bloomington Road	***Overall***	***0.70***	***28***	***C***	***0.94***	***43***	***D***
	EBTR	0.64	21	C	0.94	41	D
	WBL	0.33	12	B	0.87	56	E
	WBT	0.72	27	C	0.57	16	B
	NBL	0.48	41	D	0.67	65	E
	NBT	0.48	39	D	0.85	68	E
	NBR	0.09	34	C	0.26	44	D
	SBL	0.68	53	D	0.95	132	F
	SBT	0.59	41	D	0.79	62	E
	SBR	0.20	36	D	0.08	42	D
Goodwood Road (Regional Road 21) / Private Access & Regional Highway 47	***Overall***	***0.60***	***20***	***B***	***0.64***	***17***	***B***
	NBL	0.83	33	C	0.80	38	D
Unsignalized							
York-Durham Line	EBL	0.17	19	C	0.82	81	F

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
& Aurora Road (Regional Road 15)							
Regional Highway 47 & Goodwood Pit Access	WBR	0.01	0	-	0.00	0	-
	SBLR	0.07	15	B	0.02	13	B
Concession 3 Road & Goodwood Pit Access	SBLT	0.01	2	A	0.00	1	A

All movements are projected to operate with reserve capacity and acceptable delays under 2033 future conditions. At signalized intersections, all movements are projected below capacity with LOS D or better, except for select movements at the intersection of York-Durham Line at Regional Highway 47 intersection. The southbound left-turn movement in the PM is projected to operate at LOS F during PM peak hour. Additionally, westbound left-turn movement, northbound through and the southbound through movement in the PM, are projected at LOS E. As said, movements are projected to operate below capacity with delays of 132 seconds or below, it is TYLin's opinion that these operations are deemed acceptable as it is customary for auxiliary left-turn lanes to experience longer delays at a large intersection.

The intersection of York-Durham Line at Aurora Road is projected to operate with the eastbound left-turn movement at LOS F during the PM peak hour. As the delay is not projected to be very large (approximately 1 minute and 20 seconds per vehicle), and as there are no critical movements during the AM peak hour, TYLin does not recommend any changes to the intersection at this time. TYLin recommends that the Region monitor the intersection to identify when operations will become critical during the AM peak hour and worsen during the PM peak hour to provide remedial measures.

As previously stated, based on the lack of changes to the site trips between existing and future conditions, any increase in delay for the vehicles accessing the site is based on the increase in traffic volumes along the boundary road network (due to general traffic growth and background developments). Review of 2033 future traffic conditions show acceptable operations at the site accesses and surrounding intersections.

Finally, all turning movements not listed in the above table, for both signalized and stop-controlled intersections, are projected to operate with LOS C or better and a v/c of 0.69 or below, showing good operations.

Based on the above, it is TYLin's opinion that the operations of the Goodwood Pit extension, assuming maximum annual extraction, can be accommodated by the road network under both existing (2022) and as well future (2028 and 2033) conditions. In all scenarios for all movements, volumes do not exceed the available capacity based on the optimizations and roadway improvements derived and planned for the intersections (as detailed in Section 3.2). Overall, the intersections in the study network are expected to operate with acceptable conditions in the future.

5 Traffic Queuing Operations

The 50th (average) and 95th percentile queues for auxiliary turning movements are presented in **Table 5-1, Table 5-2** and **Table 5-3** for the Existing conditions, and 2028 and 2033 Future conditions, respectively. The queuing report was prepared using SimTraffic V.11 micro-simulation software and the following methodology: 10 minutes seeding time, one-hour recording, and 10 runs. The 95th percentile queue lengths that are bolded are predicted to extend beyond the available storage of a dedicated turn lane. All queues for the remaining turning movements have been detailed in the SimTraffic reports included in **Appendix C**.

Table 5-1 Queuing Summary – 2022 Existing Conditions

Intersection	Movement [Proposed Future Movement]	Available Existing [Proposed Future] Storage (m)	Existing			
			2022			
			AM		PM	
			50th	95th	50th	95th
York-Durham Line & Aurora Road (Regional Road 15)	EBL	80	6	13	10	18
	NBL	50	6	15	7	15
	SBL	50	-	-	0	1
	SBR	70	1	3	0	2
York-Durham Line & Regional Highway 47	EBL	55	20	49	17	**60**
	WBL	55	21	**59**	27	**56**
	NBR	40	19	**64**	21	**67**
Goodwood Road (Regional Road 21) /Private Access & Regional Highway 47	EBL	70	-	-	1	3
	WBL	50	1	7	2	7
	WBTR	25	14	**32**	9	22
	NBL	30	**44**	**57**	**38**	**55**
Brock Road (Regional Road 1) & Regional Highway 47	WBL	110	5	13	9	20
	NBL	-	10	25	2	9
Regional Highway 47 & Goodwood Pit Access	EBLT	-	-	-	1	4
	SBLR	-	9	21	3	12
Concession 3 Road & Goodwood Pit Access	SBLT	-	1	3	0	2

Under existing conditions, nearly all 50th percentile queues are contained within the available storage lengths, except for the northbound left movement at Goodwood Road at Regional Highway 47. Several movements have 95th percentile queues exceeding the available storage (at York-Durham Line and Regional Highway 47 as well as Goodwood Road at Regional Highway 47), however as the average queues are contained within the storage for most movements, the operations are deemed acceptable.

Table 5-2 Queuing Summary – 2028 Future Conditions

Intersection	Movement [Proposed Future Movement]	Available Existing [Proposed Future] Storage (m)	Queues (m)			
			Future Total 2028			
			AM		PM	
			50th	95th	50th	95th
York-Durham Line & Aurora Road (Regional Road 15)	EBL	80	6	15	13	24
	NBL	50	8	18	8	17
	SBL	50	-	-	0	1
	SBR	70	1	3	1	2
York-Durham Line & Pit Inbound Site Access	NBLT [NBL]	- [50]	21	43	7	22
York-Durham Line & Regional Highway 47	EBL	55	52	**85**	22	**62**
	WBL	55	36	**95**	26	**52**
	[NBL]	[50]	31	**68**	22	**51**
	NBR	40	5	32	11	**49**
	[SBL]	[50]	**54**	**102**	45	**92**
	[SBR]	[50]	37	**77**	15	50
Goodwood Road (Regional Road 21) /Private Access & Regional Highway 47	EBL	70	-	-	1	3
	EBR	50 [-]	-	-	-	-
	WBL	50	2	10	2	6
	WBTR	25	19	**40**	11	27
	NBL	30	**40**	**56**	**37**	**54**
Brock Road (Regional Road 1) & Regional Highway 47	WBL	110	6	16	10	20
	NBL	-	11	25	2	9
	NBR	70	-	-	-	-
Regional Highway 47 & Goodwood Pit Access	EBLT	-	-	-	1	2
	SBLR	-	8	22	4	13
Concession 3 Road & Goodwood Pit Access	SBLT	-	1	2	-	-

As detailed in the table, the northbound left-turn lane at the inbound Stouffville Pit site access is recommended with a 50m storage, along with the northbound left-turn lane at the York-Durham Line and Highway 47 intersection, while the southbound left and right-turn lanes at the York-Durham Line and Highway 47 intersection are recommended with a 70m storage in order to accommodate the projected queues.

Under 2028 future conditions, most movements are shown to have average queues contained within the available storage length. The average queue for the northbound left-turn movement at Goodwood Road and Regional Highway 47 is projected to exceed the available storage length (as under existing conditions) during the study periods. However, the average queue is only projected to exceed storage by a maximum of 10m (i.e., less than 2 vehicles) under 2028 future total AM, which would not significantly impact traffic along the adjacent lane. The average queue for the

southbound left-turn movement at York-Durham Line and Highway 47 intersection is projected to exceed the available storage length (as under existing conditions) during the study periods. However, the average queue is only projected to exceed storage by a maximum of 4m (i.e., less than 1 vehicles) under 2028 future total AM, which would not significantly impact traffic along the adjacent lane. As the average queue is projected to be contained within the available storage at the remaining movements for which the 95th percentile is projected to exceed storage, it is TYLin's opinion that the projected queues are deemed acceptable under 2028 future conditions. Queues at Goodwood Pit accesses are projected to be acceptable.

As previously stated, there is no projected increase in traffic volumes generated by Goodwood Pit as part of the extension application. Accordingly, any increase in queueing between existing and future conditions is based on general traffic and background growth. Overall, review of 2028 future conditions confirms that operations from the Pit will continue to be accommodated by the road network.

Table 5-3 Queuing Summary – 2033 Future Conditions

Intersection	Movement [Proposed Future Movement]	Available Existing [Proposed Future] Storage (m)	Queues (m)			
			Future Total 2033			
			AM		PM	
			50th	95th	50th	95th
York-Durham Line & Aurora Road (Regional Road 15)	EBL	80	7	16	12	24
	NBL	50	10	22	9	19
	SBL	50	-	-	0	1
	SBR	70	0	2	1	2
York-Durham Line & Pit Inbound Site Access	NBLT [NBL]	- [50]	2	9	6	19
York-Durham Line & Regional Highway 47	EBL	55	47	**83**	27	**71**
	WBL	55	36	**92**	31	**63**
	[WBR]	-	22	43	5	16
	[NBL]	[50]	20	37	38	**83**
	NBR	40	2	20	26	**74**
	[SBL]	[50]	38	**67**	**52**	**103**
	[SBR]	[50]	26	**54**	18	**57**
Goodwood Road (Regional Road 21) /Private Access & Regional Highway 47	EBL	70	-	-	1	3
	EBR	50 [-]	-	-	-	-
	WBL	50	2	9	2	7
	WBTR	25	22	**41**	13	**29**
	NBL	30	**40**	**55**	**38**	**54**
Brock Road (Regional Road 1) & Regional Highway 47	WBL	110	7	18	10	22
	NBL	-	13	31	2	10
	NBR	70	-	-	-	-
Regional Highway 47 & Goodwood Pit Access	EBLT	-	-	-	1	5
	SBLR	-	8	19	3	12

Intersection	Movement [Proposed Future Movement]	Available Existing [Proposed Future] Storage (m)	Queues (m)			
			Future Total 2033			
			AM		PM	
			50th	95th	50th	95th
Concession 3 Road & Goodwood Pit Access	SBLT	-	-	-	0	3

Under 2033 future conditions, most movements are shown to have average queues contained within the available storage length. The average queue for the northbound left-turn movement at Goodwood Road and Regional Highway 47 is projected to exceed the available storage length (as under existing and 2028 future conditions) during the study periods. However, the average queue is only projected to exceed storage by a maximum of 10m (i.e., less than 2 vehicles), which would not significantly impact traffic along the adjacent lane. The average queue for the southbound left-turn movement at York-Durham Line and Highway 47 intersection is projected to exceed the available storage length (as under existing conditions) during the study periods. However, the average queue is only projected to exceed storage by 2m (i.e., less than 1 vehicle) under 2033 future total PM, which would not significantly impact traffic along the adjacent lane. As the average queue is projected to be contained within the available storage at the remaining movements for which the 95th percentile is projected to exceed storage, it is TYLin's opinion that the projected queues are deemed acceptable under 2033 future conditions. Queues at Goodwood Pit accesses are projected to be acceptable.

As previously stated, there is no projected increase in traffic volumes generated by Goodwood Pit as part of the extension application. Accordingly, any increase in queueing between existing and future conditions is based on general traffic growth and background developments. Overall, review of 2033 future conditions confirms that operations from the Pit will continue to be accommodated by the road network.

6 Sightline Assessment

The horizontal stopping sight distance and intersection sight distance assessment was conducted for the two site accesses on Concession Road 3 and Regional Road 47. The sight distances were calculated based on the assumed design speed of 60 km/h at both Concession Road 3 and Regional Road 47. This would require a stopping sight distance of 85 meters as per TAC standards. The sight line assessments are provided in **Appendix D**.

Table 6-1 Required and Available Sight Distance

Location	Stopping Sight Distance	Required Intersection Sight Distance (m)		Available Intersection Sight Distance (m)		Stopping Sight Distance Criteria Satisfied		Intersection Sight Distance Criteria Satisfied (Yes/No)	
		Left Turn from stop	Right Turn from stop	Left Turn from stop	Right Turn from stop	Left Turn from stop	Right Turn from stop	Left Turn from stop	Right Turn from stop
Site Access at Concession Road 3	85	130	110	138	132	Yes	Yes	Yes	Yes
Site Access at Regional Road 47	85	130	110	155	110	Yes	Yes	Yes	Yes

Based on the table above, the available stopping and intersection sight distance meets the minimum required stopping and intersection sight distances as per the TAC standards at both site accesses.

7 Findings and Recommendations

TYLin was retained by Lafarge Canada (Lafarge) to prepare a Scoped Transportation Impact Study (TIS) in support of the Planning Act Applications to permit an extension of the Lafarge's Goodwood Pit north of the existing pit area. The subject site is located at 4900 Concession 4 Road, south of Wagg Road on the west side of Concession 4 Road and east side of Concession 3 Road in the Township of Uxbridge, Durham Region.

The Goodwood Pit site ("the Pit") has a maximum annual extraction license limit of 1,177,000 tonnes per year, and this tonnage limit is not proposed to be modified (i.e., increased or decreased) as part of the proposed extension application. Therefore, the application is not seeking an increase in the annual tonnage limit, which will remain at the current limit of 1,177,000 tonnes per year, but merely a continuation of production at the current levels. Accordingly, there are no new trips proposed to be generated by the Goodwood Pit Activity as part of this application. It is noted that Lafarge will be applying for a Class A license to allow the extraction of material from below the water table.

Under existing conditions, a large portion of material from the Goodwood Pit is transferred to the Stouffville Pit for processing and a portion of material is processed on-site at the Goodwood Pit via portable crushing and screening plants used to produce granular material. This configuration is not proposed to change as part of the extension. Overall, the Goodwood Pit traffic can be detailed in the following categories:

- The Goodwood pit employee trips;
- The transfer route truck traffic between the Stouffville and Goodwood pits
- The truck route for Goodwood Pit to deliver aggregate to market.

The overall trip generation for the lands consists of 0 and 8 two-way employee trips during the AM and PM peak hour, respectively, 20 and 4 two-way transfer truck trips during the AM and PM peak hour, respectively, and finally 26 and 4 two-way aggregate truck trips during the AM and PM peak hour, respectively.

Access to the subject site is proposed to be maintained via the existing inbound and outbound driveways on Concession Road 3 and Regional Highway 47. As per correspondence with Durham Region, left-turn restrictions are currently in place for trucks in and out of the Goodwood Pit Access to Regional Highway 47. Note that this restriction only applies to trucks as passenger vehicles are permitted to make left-turn movements at the intersection. The truck routes have been illustrated in Section 2 of his study.

For the purpose of this study, TMC data was collected in August 2021. A trip generation for the Goodwood Pit was then completed based on the permitted annual tonnage limit (as detailed above) and added to the surveyed traffic data to account for shipping operations of the pit. The resulting traffic volumes were then adjusted to 2022 conditions to derive existing traffic conditions. Similarly, 2028 and 2033 future conditions volumes were derived by adjusting the derived 2022 existing conditions volumes to the appropriate horizon years and adding traffic generated by the

study area background developments.

Accounting for the maximum trip generation for the Pit based on the annual tonnage (as detailed above), TYLin completed a review of the study intersection operations under 2022 existing conditions, as well as 2028 and 2033 future conditions. As trips from the site are not projected to change, the review of future conditions was completed to confirm that the Pit trips can still be accommodated by the boundary road network when accounting for general traffic growth and background developments.

The review confirms that the site trips are accommodated by the road network under both existing and future conditions. Review of queuing operations also confirms that the site trip will continue to be accommodated along the roadway under future conditions. Based on the request from the Region, TYLin evaluated the proposed left-turn lane at the intersection of Goodwood Pit site access and Regional Highway 47. Based on the review of potential benefits and drawbacks of the proposed left-turn lane, TYLin does not recommend this left-turn lane at the Goodwood Pit site access on Regional Highway 47.

Overall, based on the findings of the study, it is TYLin's opinion that the proposed development application is acceptable as it would not create any changes to the traffic volumes along the road network. Furthermore, in February 2023 Lafarge agreed to enter into a Cost Sharing Agreement with the Region of Durham to implement traffic management/calming measures in the Village of Goodwood to improve traffic safety on Regional Highway 47 and Regional Road 21. These traffic management and calming measures will be implemented by the Region of Durham to help alleviate the general impact of truck traffic through Goodwood.

Appendix A:
Traffic Data and Signal Timing Plans

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Turning Movement Count (8 . BROCK ROAD & REGIONAL HIGHWAY 47)

Start Time	E Approach REGIONAL HWY 47					S Approach BROCK RD					W Approach REGIONAL HWY 47					Int. Total (15 min)	Int. Total (1 hr)
	Left E:S	Thru E:W	UTurn E:E	Peds E:	Approach Total	Left S:W	Right S:E	UTurn S:S	Peds S:	Approach Total	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
06:00:00	30	59	0	0	89	5	12	0	0	17	13	0	0	0	13	119	
06:15:00	21	59	0	0	80	2	8	0	0	10	12	3	0	0	15	105	
06:30:00	25	66	0	0	91	2	4	0	0	6	19	4	0	0	23	120	
06:45:00	37	82	0	0	119	4	24	0	0	28	15	4	0	0	19	166	510
07:00:00	38	69	0	0	107	1	23	0	0	24	25	4	0	0	29	160	551
07:15:00	36	71	0	0	107	5	22	0	0	27	35	2	0	0	37	171	617
07:30:00	32	86	0	0	118	6	28	0	0	34	45	4	0	0	49	201	698
07:45:00	35	58	0	0	93	3	25	0	0	28	47	8	0	0	55	176	708
08:00:00	31	63	0	0	94	7	25	0	0	32	35	3	0	0	38	164	712
08:15:00	27	69	0	0	96	1	23	0	0	24	36	7	0	0	43	163	704
08:30:00	29	66	0	0	95	8	30	0	0	38	46	2	0	0	48	181	684
08:45:00	30	61	0	0	91	6	18	0	0	24	51	5	0	0	56	171	679
09:00:00	22	48	0	0	70	5	28	0	0	33	45	5	0	0	50	153	668
09:15:00	28	54	0	0	82	3	23	0	0	26	35	3	0	0	38	146	651
09:30:00	21	48	0	0	69	6	26	0	0	32	34	5	0	0	39	140	610
09:45:00	25	56	0	0	81	8	29	0	0	37	41	4	0	0	45	163	602
BREAK																	
10:00:00	28	48	0	0	76	5	18	0	0	23	47	7	0	0	54	153	
10:15:00	28	44	0	0	72	7	21	0	0	28	40	7	0	0	47	147	
10:30:00	24	37	0	0	61	3	26	0	0	29	35	3	0	0	38	128	
10:45:00	24	38	0	0	62	3	22	0	0	25	39	6	0	0	45	132	560
11:00:00	17	50	0	0	67	5	27	0	0	32	49	4	0	0	53	152	559
11:15:00	23	58	0	0	81	2	26	0	0	28	41	7	0	0	48	157	569
11:30:00	29	44	0	0	73	2	21	0	0	23	60	5	0	0	65	161	602
11:45:00	14	61	0	0	75	5	26	0	0	31	34	5	0	0	39	145	615
12:00:00	22	41	0	0	63	4	26	0	0	30	35	4	0	0	39	132	595
12:15:00	29	40	0	0	69	1	23	0	0	24	39	2	0	0	41	134	572
12:30:00	26	54	0	0	80	11	32	0	0	43	39	5	0	0	44	167	578
12:45:00	31	42	0	0	73	1	29	0	0	30	39	8	0	0	47	150	583
13:00:00	36	55	0	0	91	4	27	0	0	31	55	7	0	0	62	184	635
13:15:00	32	50	0	0	82	7	31	0	0	38	49	4	0	0	53	173	674
13:30:00	27	38	0	0	65	3	24	0	0	27	55	5	0	0	60	152	659
13:45:00	23	50	0	0	73	4	30	0	0	34	49	4	0	0	53	160	669
14:00:00	23	40	0	0	63	6	27	0	0	33	34	4	0	0	38	134	619

14:15:00	27	51	0	0	78	6	23	0	0	29	59	9	0	0	68	175	621
14:30:00	18	44	0	0	62	4	24	0	0	28	62	6	0	0	68	158	627
14:45:00	27	46	0	0	73	6	33	0	0	39	72	3	0	0	75	187	654
BREAK																	
15:00:00	34	57	0	0	91	7	38	0	0	45	71	3	0	0	74	210	
15:15:00	24	38	0	0	62	5	23	0	0	28	76	8	0	0	84	174	
15:30:00	29	43	0	0	72	3	40	0	0	43	75	7	0	0	82	197	
15:45:00	21	57	0	0	78	2	43	0	0	45	81	11	0	0	92	215	796
16:00:00	32	54	0	0	86	5	47	0	0	52	96	6	0	0	102	240	826
16:15:00	31	44	0	0	75	4	49	0	0	53	82	6	0	0	88	216	868
16:30:00	58	75	0	0	133	2	36	0	0	38	99	5	0	0	104	275	946
16:45:00	37	45	0	0	82	2	30	0	0	32	90	5	0	0	95	209	940
17:00:00	43	62	0	0	105	3	36	0	0	39	97	4	0	0	101	245	945
17:15:00	26	68	0	0	94	0	44	0	0	44	89	2	0	0	91	229	958
17:30:00	28	41	0	0	69	2	46	0	0	48	106	1	0	0	107	224	907
17:45:00	18	37	0	0	55	2	38	0	0	40	75	1	0	0	76	171	869
Grand Total	1356	2567	0	0	3923	198	1334	0	0	1532	2503	227	0	0	2730	**8185**	-
Approach%	34.6%	65.4%	0%		-	12.9%	87.1%	0%		-	91.7%	8.3%	0%		-	**-**	-
Totals %	16.6%	31.4%	0%		47.9%	2.4%	16.3%	0%		18.7%	30.6%	2.8%	0%		33.4%	**-**	-
Heavy	98	184	0		-	120	78	0		-	150	122	0		-	**-**	-
Heavy %	7.2%	7.2%	0%		-	60.6%	5.8%	0%		-	6%	53.7%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Peak Hour: 07:15 AM - 08:15 AM Weather:

Start Time	E Approach REGIONAL HWY 47					S Approach BROCK RD					W Approach REGIONAL HWY 47					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
07:15:00	36	71	0	0	107	5	22	0	0	27	35	2	0	0	37	171
07:30:00	32	86	0	0	118	6	28	0	0	34	45	4	0	0	49	201
07:45:00	35	58	0	0	93	3	25	0	0	28	47	8	0	0	55	176
08:00:00	31	63	0	0	94	7	25	0	0	32	35	3	0	0	38	164
Grand Total	134	278	0	0	412	21	100	0	0	121	162	17	0	0	179	**712**
Approach%	32.5%	67.5%	0%		-	17.4%	82.6%	0%		-	90.5%	9.5%	0%		-	-
Totals %	18.8%	39%	0%		57.9%	2.9%	14%	0%		17%	22.8%	2.4%	0%		25.1%	-
PHF	0.93	0.81	0		0.87	0.75	0.89	0		0.89	0.86	0.53	0		0.81	-
Heavy	9	18	0		27	15	8	0		23	17	11	0		28	-
Heavy %	6.7%	6.5%	0%		6.6%	71.4%	8%	0%		19%	10.5%	64.7%	0%		15.6%	-
Lights	125	260	0		385	6	92	0		98	145	6	0		151	-
Lights %	93.3%	93.5%	0%		93.4%	28.6%	92%	0%		81%	89.5%	35.3%	0%		84.4%	-
Single-Unit Trucks	4	6	0		10	3	6	0		9	2	0	0		2	-
Single-Unit Trucks %	3%	2.2%	0%		2.4%	14.3%	6%	0%		7.4%	1.2%	0%	0%		1.1%	-
Buses	0	1	0		1	0	0	0		0	3	0	0		3	-
Buses %	0%	0.4%	0%		0.2%	0%	0%	0%		0%	1.9%	0%	0%		1.7%	-
Articulated Trucks	1	3	0		4	1	0	0		1	7	0	0		7	-
Articulated Trucks %	0.7%	1.1%	0%		1%	4.8%	0%	0%		0.8%	4.3%	0%	0%		3.9%	-
Aggregate Trucks	4	8	0		12	11	2	0		13	5	11	0		16	-
Aggregate Trucks %	3%	2.9%	0%		2.9%	52.4%	2%	0%		10.7%	3.1%	64.7%	0%		8.9%	-

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

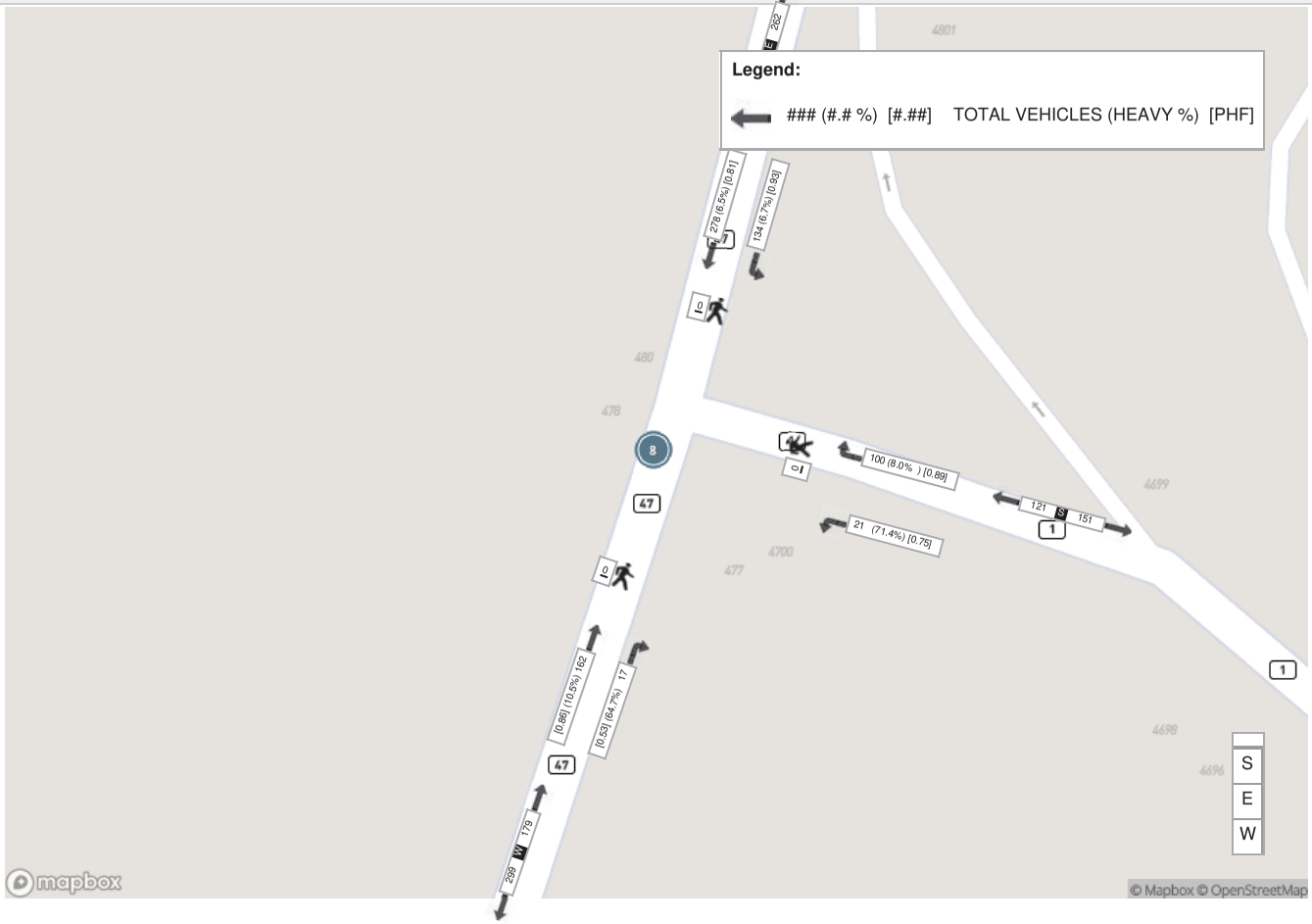
Peak Hour: 12:30 PM - 01:30 PM Weather:

Start Time	E Approach REGIONAL HWY 47					S Approach BROCK RD					W Approach REGIONAL HWY 47					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
12:30:00	26	54	0	0	80	11	32	0	0	43	39	5	0	0	44	167
12:45:00	31	42	0	0	73	1	29	0	0	30	39	8	0	0	47	150
13:00:00	36	55	0	0	91	4	27	0	0	31	55	7	0	0	62	184
13:15:00	32	50	0	0	82	7	31	0	0	38	49	4	0	0	53	173
Grand Total	125	201	0	0	326	23	119	0	0	142	182	24	0	0	206	**674**
Approach%	38.3%	61.7%	0%		-	16.2%	83.8%	0%		-	88.3%	11.7%	0%		-	**-**
Totals %	18.5%	29.8%	0%		48.4%	3.4%	17.7%	0%		21.1%	27%	3.6%	0%		30.6%	**-**
PHF	0.87	0.91	0		0.9	0.52	0.93	0		0.83	0.83	0.75	0		0.83	**-**
Heavy	10	11	0		21	15	2	0		17	12	12	0		24	**-**
Heavy %	8%	5.5%	0%		6.4%	65.2%	1.7%	0%		12%	6.6%	50%	0%		11.7%	**-**
Lights	115	190	0		305	8	117	0		125	170	12	0		182	**-**
Lights %	92%	94.5%	0%		93.6%	34.8%	98.3%	0%		88%	93.4%	50%	0%		88.3%	**-**
Single-Unit Trucks	6	5	0		11	2	1	0		3	3	0	0		3	**-**
Single-Unit Trucks %	4.8%	2.5%	0%		3.4%	8.7%	0.8%	0%		2.1%	1.6%	0%	0%		1.5%	**-**
Buses	0	1	0		1	0	0	0		0	1	0	0		1	**-**
Buses %	0%	0.5%	0%		0.3%	0%	0%	0%		0%	0.5%	0%	0%		0.5%	**-**
Articulated Trucks	1	3	0		4	0	0	0		0	3	0	0		3	**-**
Articulated Trucks %	0.8%	1.5%	0%		1.2%	0%	0%	0%		0%	1.6%	0%	0%		1.5%	**-**
Aggregate Trucks	3	2	0		5	13	1	0		14	5	12	0		17	**-**
Aggregate Trucks %	2.4%	1%	0%		1.5%	56.5%	0.8%	0%		9.9%	2.7%	50%	0%		8.3%	**-**

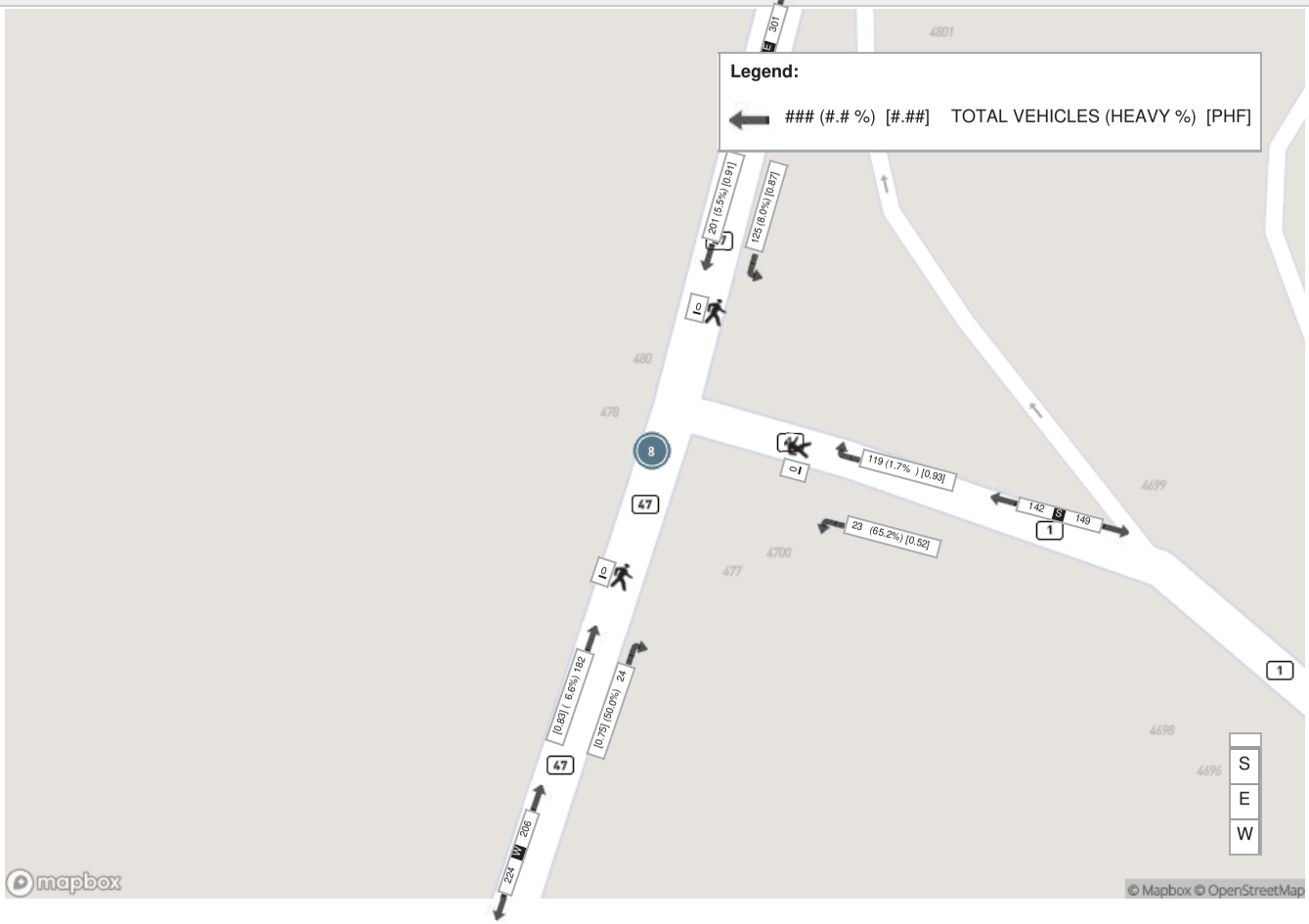
Peak Hour: 04:30 PM - 05:30 PM Weather:

Start Time	E Approach REGIONAL HWY 47					S Approach BROCK RD					W Approach REGIONAL HWY 47					Int. Total (15 min)
	Left	Thru	UTurn	Peds	Approach Total	Left	Right	UTurn	Peds	Approach Total	Thru	Right	UTurn	Peds	Approach Total	
16:30:00	58	75	0	0	133	2	36	0	0	38	99	5	0	0	104	275
16:45:00	37	45	0	0	82	2	30	0	0	32	90	5	0	0	95	209
17:00:00	43	62	0	0	105	3	36	0	0	39	97	4	0	0	101	245
17:15:00	26	68	0	0	94	0	44	0	0	44	89	2	0	0	91	229
Grand Total	164	250	0	0	414	7	146	0	0	153	375	16	0	0	391	**958**
Approach%	39.6%	60.4%	0%		-	4.6%	95.4%	0%		-	95.9%	4.1%	0%		-	-
Totals %	17.1%	26.1%	0%		43.2%	0.7%	15.2%	0%		16%	39.1%	1.7%	0%		40.8%	-
PHF	0.71	0.83	0		0.78	0.58	0.83	0		0.87	0.95	0.8	0		0.94	-
Heavy	12	8	0		20	1	2	0		3	7	2	0		9	-
Heavy %	7.3%	3.2%	0%		4.8%	14.3%	1.4%	0%		2%	1.9%	12.5%	0%		2.3%	-
Lights	152	242	0		394	6	144	0		150	368	14	0		382	-
Lights %	92.7%	96.8%	0%		95.2%	85.7%	98.6%	0%		98%	98.1%	87.5%	0%		97.7%	-
Single-Unit Trucks	6	3	0		9	1	1	0		2	2	1	0		3	-
Single-Unit Trucks %	3.7%	1.2%	0%		2.2%	14.3%	0.7%	0%		1.3%	0.5%	6.3%	0%		0.8%	-
Buses	6	1	0		7	0	0	0		0	1	0	0		1	-
Buses %	3.7%	0.4%	0%		1.7%	0%	0%	0%		0%	0.3%	0%	0%		0.3%	-
Articulated Trucks	0	1	0		1	0	1	0		1	1	0	0		1	-
Articulated Trucks %	0%	0.4%	0%		0.2%	0%	0.7%	0%		0.7%	0.3%	0%	0%		0.3%	-
Aggregate Trucks	0	3	0		3	0	0	0		0	3	1	0		4	-
Aggregate Trucks %	0%	1.2%	0%		0.7%	0%	0%	0%		0%	0.8%	6.3%	0%		1%	-

Peak Hour: 07:15 AM - 08:15 AM **Weather:**

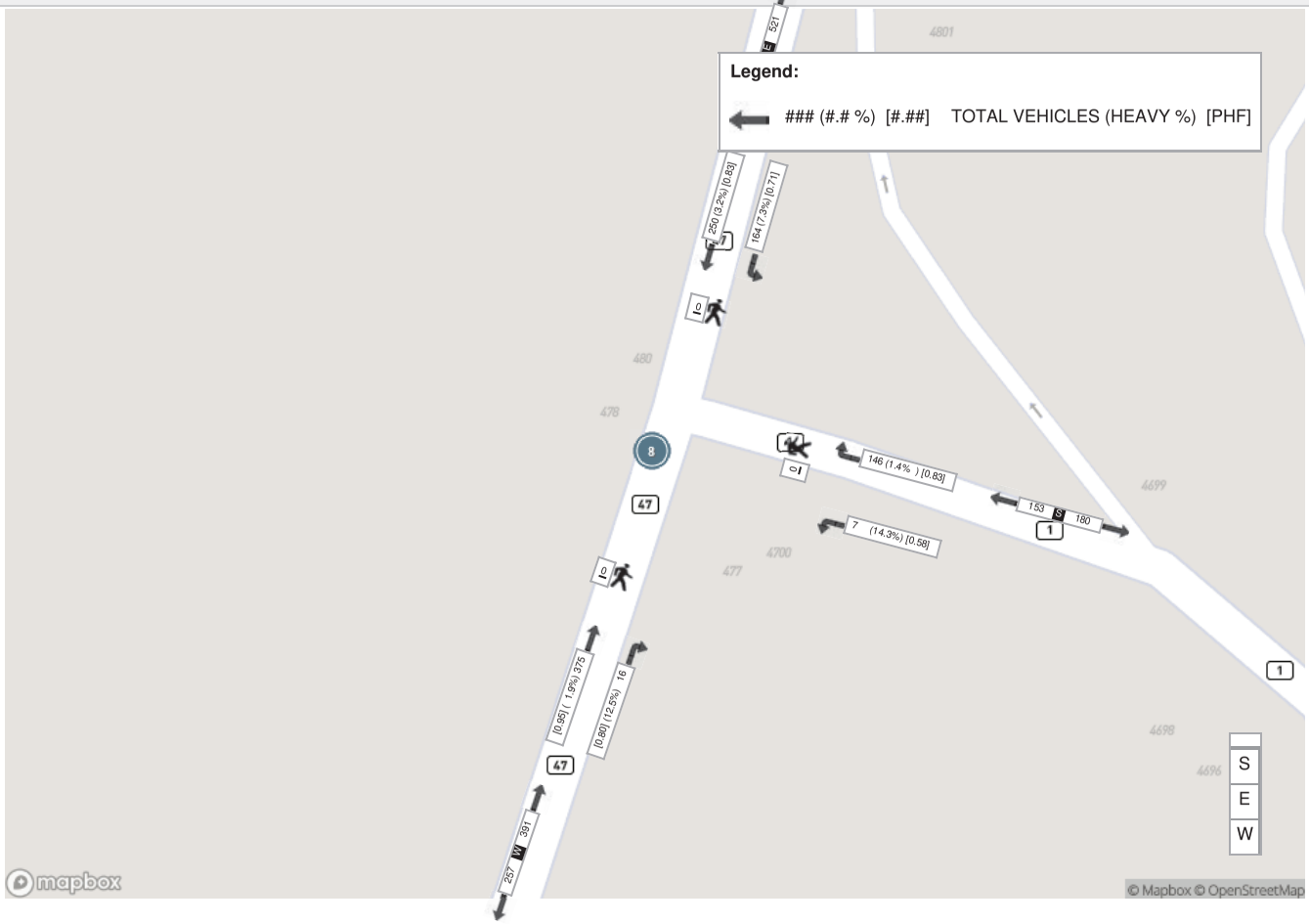


Peak Hour: 12:30 PM - 01:30 PM Weather:



TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Peak Hour: 04:30 PM - 05:30 PM **Weather:**



Turning Movement Count (9 . CONCESSION 3 ROAD & LAFARGE GOODWOOD ACCESS)

Start Time	N Approach REGRI OONEGALA H					E Approach WY4Y 7I A/ EEHB EEHAYRRI OO					S Approach REGRI OONEGALA H					Int. Total (15 min)	Int. Total (1 hr)
	WCKO Ge	f t :S GeO	Tf S:h GeG	r QuU Ge	Ynn:Pdst A PDdp	WCKO IeO	atD IeG	Tf S:h Ie	r QuU Ie	Ynn:Pdst A PDdp	f t :S OeG	atD Oe	Tf S:h OeO	r QuU Oe	Ynn:Pdst A PDdp		
cl ecccc	c	i	c	c	i	c	c	c	c	c	i	c	c	c	i	g	
cl e0ccc	c	g	c	c	g	c	c	c	c	c	g	c	c	c	g	6	
cl eLccc	c	3	c	c	3	c	c	c	c	c	i	c	c	c	i	5	
cl e60ccc	c	I	c	c	I	c	c	c	c	c	0	c	c	c	0	i i	gI
c9ecccc	c	0	c	c	0	c	c	c	c	c	6	c	c	c	6	5	LL
c9e0ccc	c	6	c	c	6	c	c	c	c	c	I	c	c	c	I	i c	L5
c9eLccc	c	I	c	c	I	c	c	c	c	c	L	c	c	c	L	5	L5
c9e60ccc	c	5	c	c	5	c	c	c	c	c	6	c	i	c	0	i 6	6g
c3ecccc	c	9	c	i	9	c	c	c	c	c	L	c	c	c	L	i c	6L
c3e0ccc	c	I	c	c	I	c	c	c	c	c	L	c	c	c	L	5	6g
c3eLccc	c	5	c	c	5	c	c	c	c	c	6	c	c	c	6	i L	6I
c3e60ccc	c	0	c	c	0	c	c	c	c	c	6	c	c	c	6	5	6i
c5ecccc	c	0	c	c	0	c	c	c	c	c	g	c	c	c	g	9	L3
c5e0ccc	c	9	c	c	9	c	c	c	c	c	I	c	c	c	I	i L	6g
c5eLccc	c	g	c	c	g	c	c	c	c	c	I	c	c	c	I	3	L9
c5e60ccc	c	3	i	c	5	c	c	c	c	c	L	c	c	c	L	i g	6c
8881 I Y2888																	
i ecccc	c	9	c	c	9	c	c	c	c	c	6	c	c	c	6	i i	
i e0ccc	c	9	c	c	9	c	c	c	c	c	I	c	c	c	I	i L	
i eLccc	c	I	c	c	I	c	c	c	c	c	3	c	c	c	3	i 6	
i e60ccc	c	9	i	c	3	c	c	c	c	c	6	c	c	c	6	i g	0c
i iecccc	c	0	c	c	0	c	c	c	c	c	6	c	c	c	6	5	63
i ie0ccc	c	I	c	c	I	c	c	c	c	c	I	c	c	c	I	i g	69
i ieLccc	c	I	c	c	I	c	c	c	c	c	3	c	c	c	3	i 6	69
i ie60ccc	c	3	c	c	3	c	c	c	c	c	3	c	c	c	3	i I	0i
i gecccc	c	I	c	c	I	c	c	c	c	c	5	c	c	c	5	i 0	09
i ge0ccc	c	i c	c	c	i c	c	c	c	c	c	0	c	c	c	0	i 0	I c
i geLccc	c	6	c	c	6	c	c	c	c	c	I	c	c	c	I	i c	0I
i ge60ccc	c	I	c	c	I	c	c	c	c	c	I	c	c	c	I	i g	0g
i Lecccc	c	6	c	c	6	c	c	c	c	c	9	c	c	c	9	i i	63
i Le0ccc	c	6	c	c	6	c	c	c	c	c	I	c	c	c	I	i c	6L
i LeLccc	c	0	c	c	0	c	c	c	c	c	5	c	c	c	5	i 6	69
i Le60ccc	c	g	c	c	g	c	c	c	c	c	0	c	c	c	0	9	6g
i 6ecccc	c	3	c	c	3	c	c	c	c	c	0	c	c	c	0	i L	66

i 6ei 0ccc	c	0	c	c	0	c	c	c	c	c	0	c	c	c	0	i c	66
i 6eLccc	c	L	c	c	L	c	c	c	c	c	6	c	c	c	6	9	L9
i 6e60ccc	c	l	c	c	l	c	c	c	c	c	9	c	c	c	9	i L	6L
8881 l Y2888																	
i 0eccccc	c	9	c	c	9	c	c	c	c	c	l	c	c	c	l	i L	
i 0ei 0ccc	c	3	c	c	3	c	c	c	c	c	3	c	c	c	3	i l	
i 0eLccc	c	i c	c	c	i c	c	c	c	c	c	3	c	c	c	3	i 3	
i 0e60ccc	c	L	c	c	L	c	c	c	c	c	0	c	c	c	0	3	00
i l eccccc	c	l	c	c	l	c	c	c	c	c	0	c	c	c	0	i i	0L
i l ei 0ccc	c	3	c	c	3	c	c	c	c	c	g	c	c	c	g	i c	69
i l eLccc	c	3	c	c	3	c	c	c	c	c	5	c	c	c	5	i 9	6l
i l e60ccc	c	6	c	c	6	c	c	c	c	c	3	c	c	c	3	i g	0c
i 9eccccc	c	3	c	c	3	c	c	c	c	c	3	c	c	c	3	i l	00
i 9ei 0ccc	c	9	c	c	9	c	c	c	c	c	9	c	c	c	9	i 6	05
i 9eLccc	c	L	c	c	L	c	c	c	c	c	i L	c	c	c	i L	i l	03
i 9e60ccc	c	L	c	c	L	c	c	c	c	c	i g	c	c	c	i g	i 0	l i
Grand Total	c	g3c	g	i	g3g	c	c	c	c	c	g9c	c	i	c	g9i	**553**	-
Approach%	c.	55%.	c%.		-	c.	c.	c.		-	55%.	c.	c%.		-	**-**	-
Totals %	c.	0c%.	c%.		0i .	c.	c.	c.		c.	63%.	c.	c%.		65.	**-**	-
Heavy	c	g9	c		-	c	c	c		-	i 5	c	c		-	**-**	-
Heavy %	c.	5%.	c.		-	c.	c.	c.		-	9.	c.	c.		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

Peak Hour: 07:45 AM - 08:45 AMAAAAWeather:

Start Time	N Approach REGRI OONEGALA H					E Approach WY4Y 7 I A7 EEHB EEHAYRRI OO					S Approach REGRI OONEGALA H					Int. Total (15 min)
	WCKO	f t :S	Tf S:h	r QuU	Ynn:Pdst A PDdp	WCKO	at D	Tf S:h	r QuU	Ynn:Pdst A PDdp	f t :S	at D	Tf S:h	r QuU	Ynn:Pdst A PDdp	
c9e60ecc	c	5	c	c	5	c	c	c	c	c	6	c	i	c	0	i 6
c3ecceec	c	9	c	i	9	c	c	c	c	c	L	c	c	c	L	i c
c3ei 0ecc	c	I	c	c	I	c	c	c	c	c	L	c	c	c	L	5
c3eLceec	c	5	c	c	5	c	c	c	c	c	6	c	c	c	6	i L
Grand Total	c	Li	c	i	Li	c	c	c	c	c	i 6	c	i	c	i 0	**46**
Approach%	c.	i cc.	c.		-	c.	c.	c.		-	5L%.	c.	I %.		-	**-**
Totals %	c.	I 9%.	c.		I 9%.	c.	c.	c.		c.	Lc%.	c.	g%.		Lg%.	**-**
PHF	c	c%I	c		c%I	c	c	c		c	c%3	c	c%0		c%0	**-**
Heavy	c	g	c		g	c	c	c		c	c	c	c		c	**-**
Heavy %	c.	I %.	c.		I %.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Lights	c	gI	c		gI	c	c	c		c	i L	c	i		i 6	**-**
Lights %	c.	3L%.	c.		3L%.	c.	c.	c.		c.	5g%.	c.	i cc.		5L%.	**-**
Single-Unit Trucks	c	i	c		i	c	c	c		c	c	c	c		c	**-**
Single-Unit Trucks %	c.	L%.	c.		L%.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Articulated Trucks	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Articulated Trucks %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Aggregate Trucks	c	i	c		i	c	c	c		c	c	c	c		c	**-**
Aggregate Trucks %	c.	L%.	c.		L%.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Bicycles on Road	c	L	c		L	c	c	c		c	i	c	c		i	**-**
Bicycles on Road %	c.	5%.	c.		5%.	c.	c.	c.		c.	9%.	c.	c.		I %.	**-**
Pedestrians	-	-	-	i	-	-	-	-	c	-	-	-	-	c	-	**-**
Pedestrians%	-	-	-	i cc.	A	-	-	-	c.	A	-	-	-	c.	A	**-**

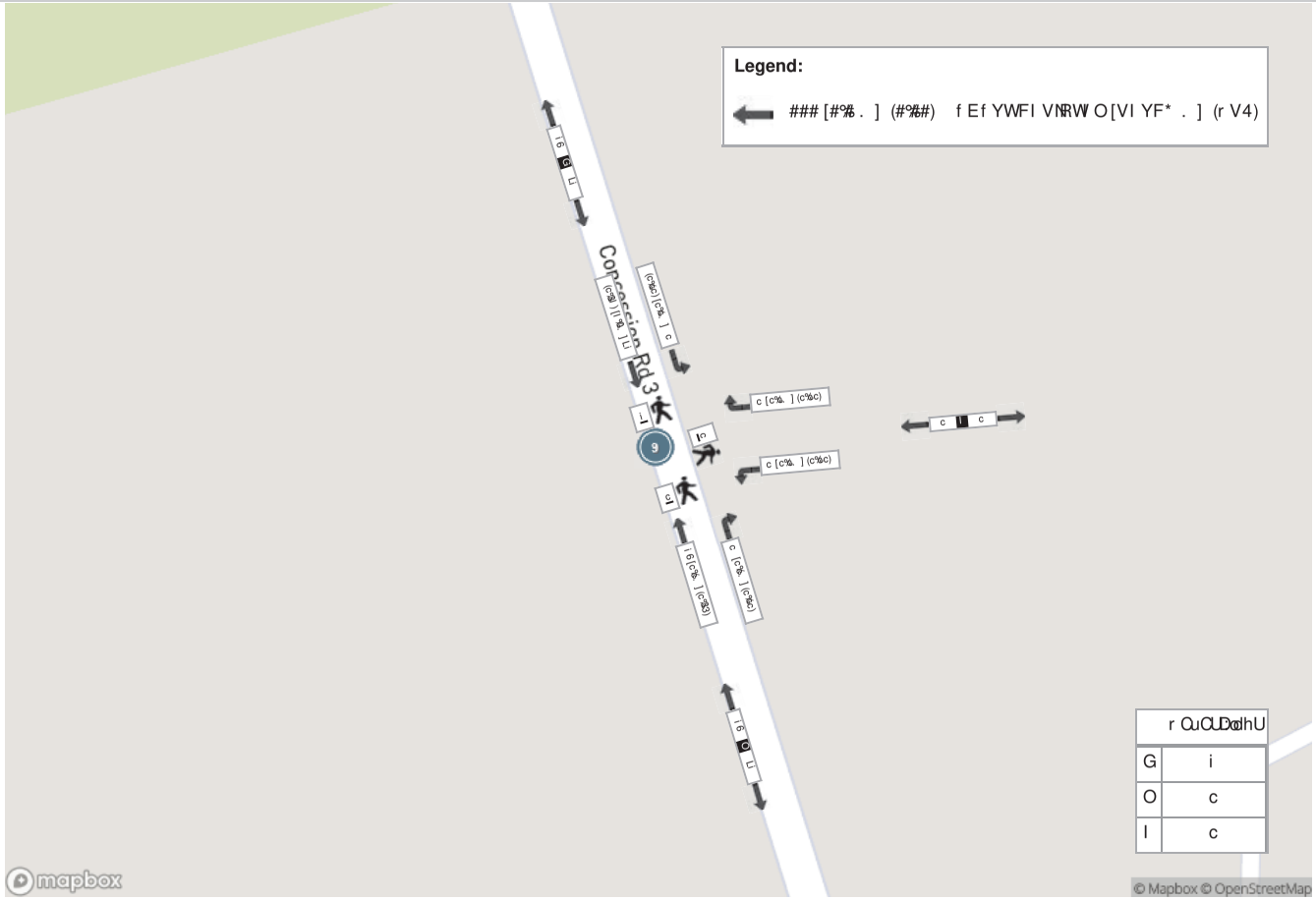
Peak Hour: 11:30 AM - 12:30 PMAAAAWeather:

Start Time	N Approach REGRI OONEGALA H					E Approach WY4Y 7I A/ EEHB EEHAYRRI OO					S Approach REGRI OONEGALA H					Int. Total (15 min)
	WCKO	f t :S	Tf S:h	r QuU	Ynn:Pdst A PDdp	WCKO	qat D	Tf S:h	r QuU	Ynn:Pdst A PDdp	f t :S	qat D	Tf S:h	r QuU	Ynn:Pdst A PDdp	
i i eLceccc	c	l	c	c	l	c	c	c	c	c	3	c	c	c	3	i 6
i i e60eccc	c	3	c	c	3	c	c	c	c	c	3	c	c	c	3	i l
i ge ccecc	c	l	c	c	l	c	c	c	c	c	5	c	c	c	5	i 0
i ge i 0eccc	c	i c	c	c	i c	c	c	c	c	c	0	c	c	c	0	i 0
Grand Total	c	Lc	c	c	Lc	c	c	c	c	c	Lc	c	c	c	Lc	**60**
Approach%	c.	i cc.	c.		-	c.	c.	c.		-	i cc.	c.	c.		-	**-**
Totals %	c.	0c.	c.		0c.	c.	c.	c.		c.	0c.	c.	c.		0c.	**-**
PHF	c	c%0	c		c%0	c	c	c		c	c%L	c	c		c%L	**-**
Heavy	c	g	c		g	c	c	c		c	i	c	c		i	**-**
Heavy %	c.	l %.	c.		l %.	c.	c.	c.		c.	L%.	c.	c.		L%.	**-**
Lights	c	g6	c		g6	c	c	c		c	g6	c	c		g6	**-**
Lights %	c.	3c.	c.		3c.	c.	c.	c.		c.	3c.	c.	c.		3c.	**-**
Single-Unit Trucks	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Single-Unit Trucks %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Articulated Trucks	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Articulated Trucks %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Aggregate Trucks	c	g	c		g	c	c	c		c	i	c	c		i	**-**
Aggregate Trucks %	c.	l %.	c.		l %.	c.	c.	c.		c.	L%.	c.	c.		L%.	**-**
Bicycles on Road	c	6	c		6	c	c	c		c	0	c	c		0	**-**
Bicycles on Road %	c.	i L%.	c.		i L%.	c.	c.	c.		c.	i l %.	c.	c.		i l %.	**-**
Pedestrians	-	-	-	c	-	-	-	-	c	-	-	-	-	c	-	**-**
Pedestrians%	-	-	-	c.	A	-	-	-	c.	A	-	-	-	c.	A	**-**

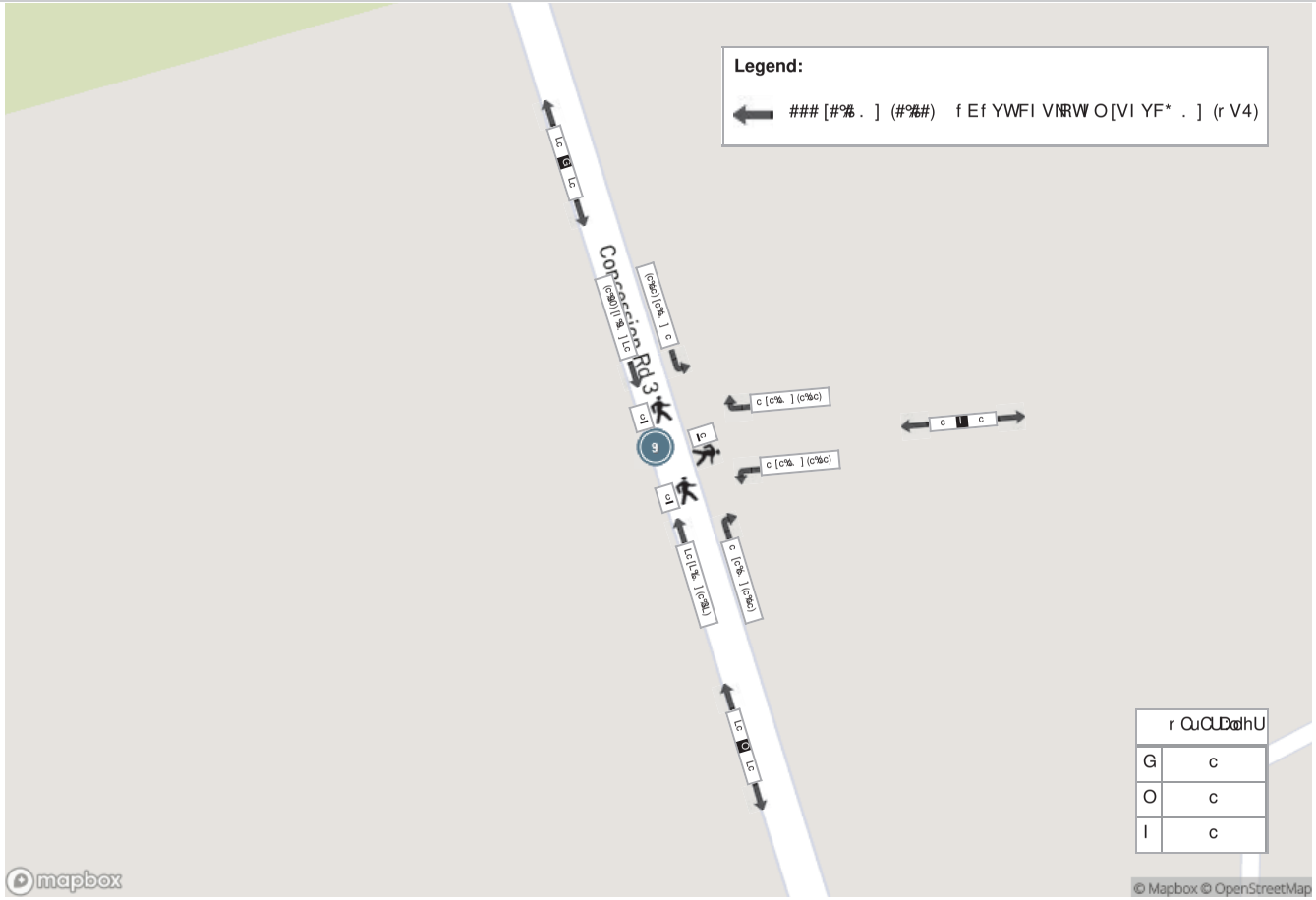
Peak Hour: 05:00 PM - 06:00 PM Weather:

Start Time	N Approach REGRI OONEGL H					E Approach WY4Y 7I 7EEHB EEH YRRI OO					S Approach REGRI OONEGL H					Int. Total (15 min)
	WCKO	f t :S	Tf S:h	r QuU	Ynn:Pdst f PtDdp	WCKO	qat D	Tf S:h	r QuU	Ynn:Pdst f PtDdp	f t :S	qat D	Tf S:h	r QuU	Ynn:Pdst f PtDdp	
i 9ecceec	c	3	c	c	3	c	c	c	c	c	3	c	c	c	3	i l
i 9ei 0eec	c	9	c	c	9	c	c	c	c	c	9	c	c	c	9	i 6
i 9eLceec	c	L	c	c	L	c	c	c	c	c	i L	c	c	c	i L	i l
i 9e60eec	c	L	c	c	L	c	c	c	c	c	i g	c	c	c	i g	i 0
Grand Total	c	gi	c	c	gi	c	c	c	c	c	6c	c	c	c	6c	**61**
Approach%	c.	i cc.	c.		-	c.	c.	c.		-	i cc.	c.	c.		-	**-**
Totals %	c.	L6%.	c.		L6%.	c.	c.	c.		c.	l 0%.	c.	c.		l 0%.	**-**
PHF	c	c%l	c		c%l	c	c	c		c	c%9	c	c		c%9	**-**
Heavy	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Heavy %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Lights	c	gc	c		gc	c	c	c		c	L3	c	c		L3	**-**
Lights %	c.	50%.	c.		50%.	c.	c.	c.		c.	50.	c.	c.		50.	**-**
Single-Unit Trucks	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Single-Unit Trucks %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Articulated Trucks	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Articulated Trucks %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Aggregate Trucks	c	c	c		c	c	c	c		c	c	c	c		c	**-**
Aggregate Trucks %	c.	c.	c.		c.	c.	c.	c.		c.	c.	c.	c.		c.	**-**
Bicycles on Road	c	i	c		i	c	c	c		c	g	c	c		g	**-**
Bicycles on Road %	c.	6%.	c.		6%.	c.	c.	c.		c.	0.	c.	c.		0.	**-**
Pedestrians	-	-	-	c	-	-	-	-	c	-	-	-	-	c	-	**-**
Pedestrians%	-	-	-	c.		-	-	-	c.		-	-	-	c.		**-**

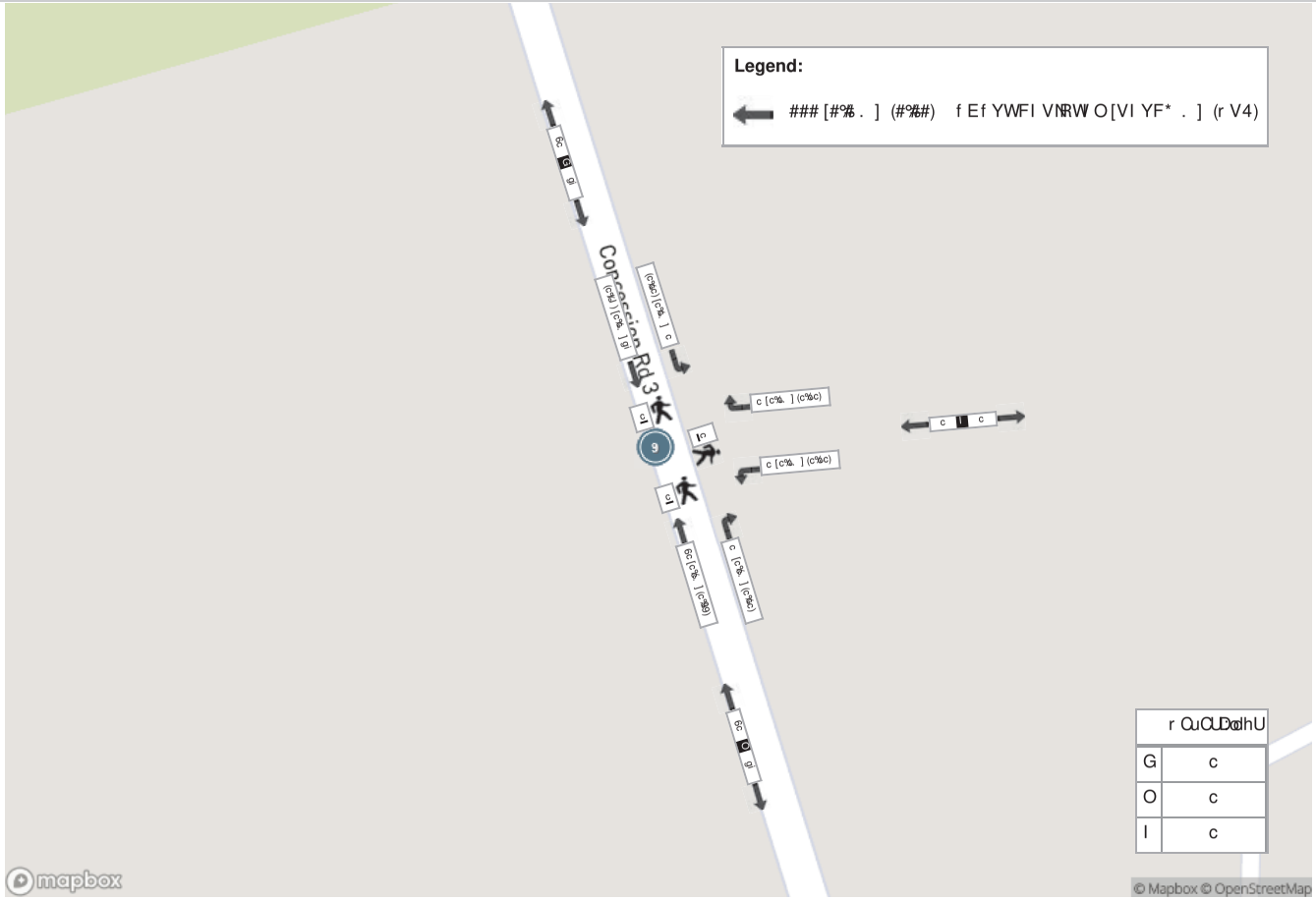
Peak Hour: 07:45 AM - 08:45 AM Weather:



Peak Hour: 11:30 AM - 12:30 PM Weather:



Peak Hour: 05:00 PM - 06:00 PM Weather:



TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Turning Movement Count (7 . FRONT STREET & REGIONAL HIGHWAY 47)

Start Time	N Approach FRONT ST						E Approach REGIONAL HWY 47						S Approach FRONT ST						W Approach REGIONAL HWY 47						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	UTurn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
06:00:00	1	0	0	0	0	1	1	52	1	0	0	54	0	0	0	0	0	0	0	21	0	0	0	21	76	
06:15:00	0	2	3	0	0	5	1	60	1	0	0	62	1	0	1	0	0	2	1	13	1	0	0	15	84	
06:30:00	3	3	2	0	0	8	0	66	0	0	0	66	4	2	1	0	1	7	2	22	1	0	0	25	106	
06:45:00	1	1	6	0	0	8	1	87	0	0	0	88	1	3	0	0	0	4	2	24	1	0	0	27	127	393
07:00:00	0	1	3	0	0	4	1	77	0	0	0	78	1	1	1	0	1	3	1	25	0	0	0	26	111	428
07:15:00	1	0	2	0	0	3	1	72	1	0	1	74	3	4	1	0	0	8	2	41	2	0	0	45	130	474
07:30:00	1	1	6	0	0	8	1	89	1	0	1	91	5	0	2	0	0	7	1	42	1	0	0	44	150	518
07:45:00	1	5	7	0	0	13	1	72	2	0	0	75	4	2	2	0	0	8	3	43	3	0	0	49	145	536
08:00:00	3	2	3	0	0	8	1	58	0	0	0	59	5	4	0	0	1	9	2	35	3	0	0	40	116	541
08:15:00	1	3	2	0	0	6	0	66	3	0	0	69	2	1	4	0	0	7	0	42	2	0	3	44	126	537
08:30:00	1	7	5	0	0	13	1	70	0	0	0	71	0	6	4	0	0	10	3	35	2	0	0	40	134	521
08:45:00	1	1	3	0	0	5	2	68	2	0	0	72	2	1	1	0	0	4	2	53	6	0	1	61	142	518
09:00:00	1	2	6	0	0	9	4	56	3	0	0	63	1	2	2	0	1	5	1	36	5	0	4	42	119	521
09:15:00	2	1	2	0	0	5	1	50	1	0	0	52	0	3	1	0	0	4	2	43	6	0	0	51	112	507
09:30:00	1	1	2	0	0	4	0	62	2	0	0	64	3	2	5	0	0	10	4	41	2	1	0	48	126	499
09:45:00	0	1	4	0	0	5	1	59	0	0	0	60	2	2	0	0	0	4	1	51	3	0	0	55	124	481
BREAK																										
10:00:00	3	1	3	0	0	7	0	51	1	0	0	52	3	3	1	0	0	7	2	45	1	0	0	48	114	
10:15:00	4	3	2	0	0	9	2	58	0	0	0	60	4	3	0	0	4	7	4	43	4	0	0	51	127	
10:30:00	0	3	3	0	0	6	1	44	3	0	0	48	2	1	1	0	2	4	1	38	4	0	2	43	101	
10:45:00	1	2	7	0	0	10	1	29	1	0	2	31	2	2	1	0	2	5	2	47	5	0	2	54	100	442
11:00:00	2	1	3	0	0	6	2	55	3	0	0	60	5	7	0	0	1	12	1	48	3	0	2	52	130	458
11:15:00	3	5	6	0	0	14	1	55	1	0	4	57	4	6	1	0	2	11	1	46	4	0	3	51	133	464
11:30:00	6	3	0	0	0	9	1	55	3	0	0	59	2	3	5	0	0	10	7	50	6	1	4	64	142	505
11:45:00	2	2	2	0	0	6	1	58	3	0	0	62	2	6	0	0	0	8	2	44	1	0	0	47	123	528
12:00:00	1	1	4	0	0	6	1	48	2	0	4	51	4	5	2	0	5	11	3	30	3	0	8	36	104	502
12:15:00	3	2	8	0	0	13	1	32	0	0	0	33	3	2	1	0	0	6	1	40	5	0	0	46	98	467
12:30:00	2	0	2	0	0	4	2	57	1	0	0	60	5	4	1	0	0	10	5	34	8	0	0	47	121	446
12:45:00	2	5	2	0	0	9	4	44	0	0	3	48	1	3	1	0	3	5	2	42	0	0	0	44	106	429
13:00:00	0	2	0	0	0	2	2	43	0	0	0	45	4	4	2	0	0	10	5	49	6	0	0	60	117	442
13:15:00	1	2	5	0	0	8	1	44	4	0	0	49	0	4	1	0	0	5	1	59	1	0	5	61	123	467
13:30:00	2	4	5	0	0	11	1	44	4	0	0	49	5	2	0	0	0	7	7	55	8	0	0	70	137	483
13:45:00	0	2	2	0	0	4	2	59	1	0	0	62	3	2	1	0	2	6	5	52	5	0	4	62	134	511
14:00:00	2	4	2	0	1	8	0	47	3	0	0	50	5	5	0	0	3	10	2	31	8	0	1	41	109	503
14:15:00	4	2	4	0	0	10	1	52	2	0	0	55	0	3	1	0	0	4	4	61	2	0	0	67	136	516
14:30:00	2	2	2	0	0	6	1	51	0	0	0	52	0	1	0	0	0	1	3	70	3	0	0	76	135	514
14:45:00	5	2	4	0	0	11	0	52	1	0	0	53	6	5	2	0	0	13	3	74	5	0	1	82	159	539
BREAK																										
15:00:00	1	5	3	0	2	9	3	43	3	0	0	49	1	1	2	0	6	4	4	77	0	0	10	81	143	
15:15:00	2	8	4	0	9	14	0	57	2	0	0	59	3	2	2	0	0	7	5	81	3	0	5	89	169	
15:30:00	1	2	5	0	0	8	0	49	3	0	0	52	1	3	0	0	0	4	4	92	4	0	3	100	164	
15:45:00	2	2	4	0	0	8	0	60	1	0	0	61	4	2	2	0	2	8	3	87	3	0	0	93	170	646
16:00:00	1	4	2	0	0	7	1	49	2	0	0	52	5	2	2	0	0	9	3	90	5	0	0	98	166	669
16:15:00	1	6	5	0	0	12	2	49	0	0	0	51	5	1	1	0	0	7	3	85	4	0	0	92	162	662
16:30:00	0	5	4	0	0	9	0	72	0	0	3	72	3	4	4	0	3	11	6	95	5	0	0	106	198	696

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

16:45:00	0	4	4	0	0	8	1	53	1	0	0	55	3	7	2	0	1	12	7	85	5	0	0	97	172	698
17:00:00	1	6	3	0	3	10	1	58	2	0	0	61	3	1	1	0	0	5	4	101	6	0	3	111	187	719
17:15:00	3	3	3	0	4	9	3	72	4	0	0	79	3	2	3	0	1	8	4	96	9	0	0	109	205	762
17:30:00	1	3	3	0	1	7	4	37	2	0	0	43	2	4	3	0	0	9	6	97	3	0	9	106	165	729
17:45:00	1	1	0	0	3	2	2	44	1	0	0	47	4	7	0	0	2	11	6	83	2	0	2	91	151	708
Grand Total	77	128	162	0	23	367	59	2685	71	0	18	2815	131	140	68	0	43	339	143	2594	169	2	72	2908	**6429**	-
Approach%	21%	34.9%	44.1%	0%		-	2.1%	95.4%	2.5%	0%		-	38.6%	41.3%	20.1%	0%		-	4.9%	89.2%	5.8%	0.1%		-	**-**	-
Totals %	1.2%	2%	2.5%	0%		5.7%	0.9%	41.8%	1.1%	0%		43.8%	2%	2.2%	1.1%	0%		5.3%	2.2%	40.3%	2.6%	0%		45.2%	**-**	-
Heavy	18	5	6	0		-	2	302	13	0		-	3	3	0	0		-	7	262	1	0		-	**-**	-
Heavy %	23.4%	3.9%	3.7%	0%		-	3.4%	11.2%	18.3%	0%		-	2.3%	2.1%	0%	0%		-	4.9%	10.1%	0.6%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Spectrum

Turning Movement Count
Location Name: FRONT STREET & REGIONAL HIGHWAY 47
Date: Tue, Aug 24, 2021 Deployment Lead: David Chu

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Peak Hour: 07:15 AM - 08:15 AM Weather:

Start Time	N Approach FRONT ST						E Approach REGIONAL HWY 47						S Approach FRONT ST						W Approach REGIONAL HWY 47						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:15:00	1	0	2	0	0	3	1	72	1	0	1	74	3	4	1	0	0	8	2	41	2	0	0	45	130
07:30:00	1	1	6	0	0	8	1	89	1	0	1	91	5	0	2	0	0	7	1	42	1	0	0	44	150
07:45:00	1	5	7	0	0	13	1	72	2	0	0	75	4	2	2	0	0	8	3	43	3	0	0	49	145
08:00:00	3	2	3	0	0	8	1	58	0	0	0	59	5	4	0	0	1	9	2	35	3	0	0	40	116
Grand Total	6	8	18	0	0	32	4	291	4	0	2	299	17	10	5	0	1	32	8	161	9	0	0	178	**541**
Approach%	18.8%	25%	56.3%	0%		-	1.3%	97.3%	1.3%	0%		-	53.1%	31.3%	15.6%	0%		-	4.5%	90.4%	5.1%	0%		-	**-**
Totals %	1.1%	1.5%	3.3%	0%		5.9%	0.7%	53.8%	0.7%	0%		55.3%	3.1%	1.8%	0.9%	0%		5.9%	1.5%	29.8%	1.7%	0%		32.9%	**-**
PHF	0.5	0.4	0.64	0		0.62	1	0.82	0.5	0		0.82	0.85	0.63	0.63	0		0.89	0.67	0.94	0.75	0		0.91	**-**
Heavy	2	0	0	0		2	1	22	0	0		23	0	0	0	0		0	0	23	0	0		23	**-**
Heavy %	33.3%	0%	0%	0%		6.3%	25%	7.6%	0%	0%		7.7%	0%	0%	0%	0%		0%	0%	14.3%	0%	0%		12.9%	**-**
Lights	4	7	18	0		29	3	269	4	0		276	16	9	5	0		30	8	138	9	0		155	**-**
Lights %	66.7%	87.5%	100%	0%		90.6%	75%	92.4%	100%	0%		92.3%	94.1%	90%	100%	0%		93.8%	100%	85.7%	100%	0%		87.1%	**-**
Single-Unit Trucks	0	0	0	0		0	0	6	0	0		6	0	0	0	0		0	0	2	0	0		2	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	2.1%	0%	0%		2%	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1.1%	**-**
Buses	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	2	0	0		2	**-**
Buses %	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1.1%	**-**
Articulated Trucks	0	0	0	0		0	0	3	0	0		3	0	0	0	0		0	0	7	0	0		7	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	1%	0%	0%		1%	0%	0%	0%	0%		0%	0%	4.3%	0%	0%		3.9%	**-**
Aggregate Trucks	2	0	0	0		2	1	12	0	0		13	0	0	0	0		0	0	12	0	0		12	**-**
Aggregate Trucks %	33.3%	0%	0%	0%		6.3%	25%	4.1%	0%	0%		4.3%	0%	0%	0%	0%		0%	0%	7.5%	0%	0%		6.7%	**-**
Bicycles on Road	0	1	0	0		1	0	0	0	0		0	1	1	0	0		2	0	0	0	0		0	**-**
Bicycles on Road %	0%	12.5%	0%	0%		3.1%	0%	0%	0%	0%		0%	5.9%	10%	0%	0%		6.3%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	66.7%		-	-	-	-	33.3%		-	-	-	-	0%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

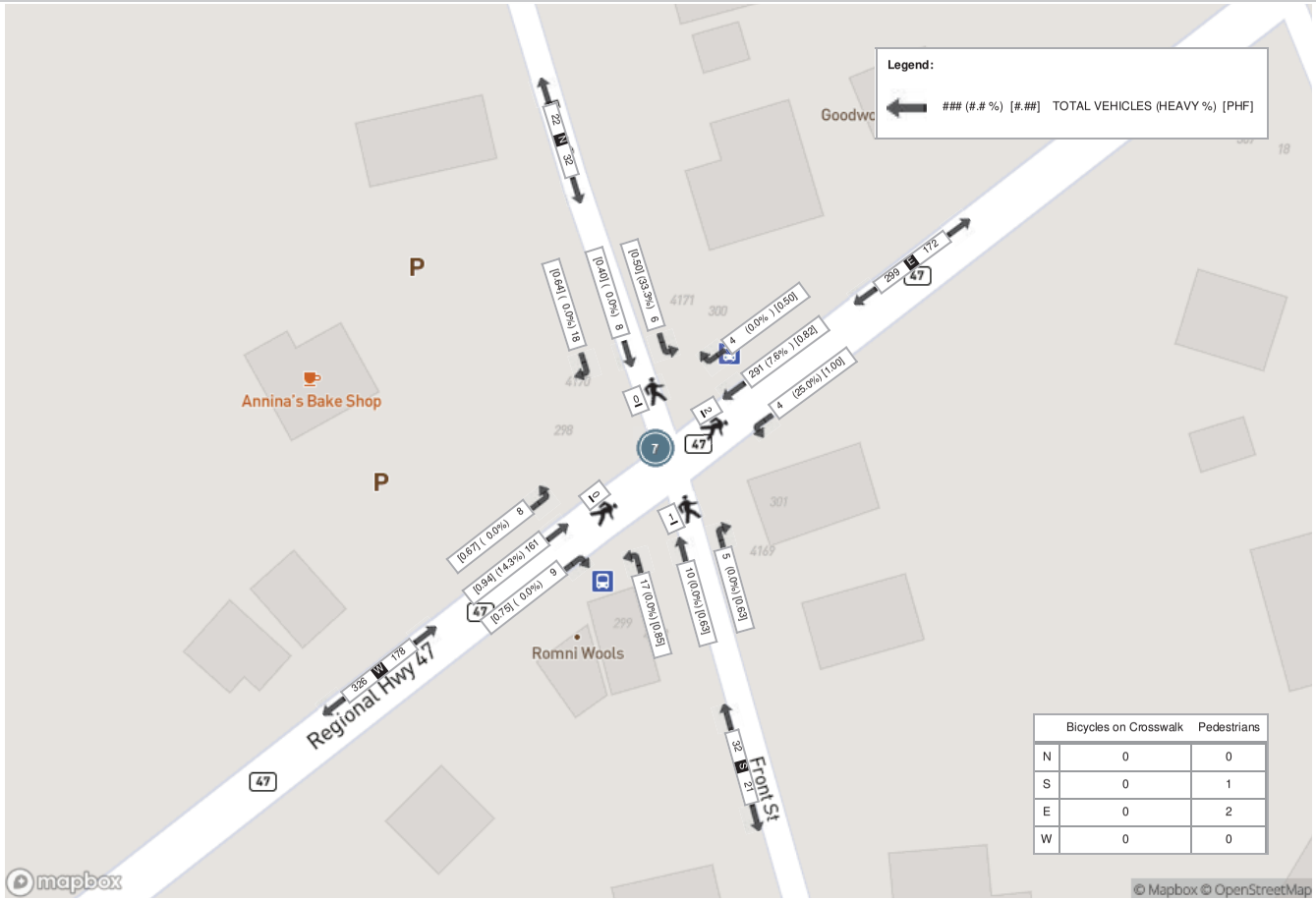
Peak Hour: 02:00 PM - 03:00 PM Weather:

Start Time	N Approach FRONT ST						E Approach REGIONAL HWY 47						S Approach FRONT ST						W Approach REGIONAL HWY 47						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
14:00:00	2	4	2	0	1	8	0	47	3	0	0	50	5	5	0	0	3	10	2	31	8	0	1	41	109
14:15:00	4	2	4	0	0	10	1	52	2	0	0	55	0	3	1	0	0	4	4	61	2	0	0	67	136
14:30:00	2	2	2	0	0	6	1	51	0	0	0	52	0	1	0	0	0	1	3	70	3	0	0	76	135
14:45:00	5	2	4	0	0	11	0	52	1	0	0	53	6	5	2	0	0	13	3	74	5	0	1	82	159
Grand Total	13	10	12	0	1	35	2	202	6	0	0	210	11	14	3	0	3	28	12	236	18	0	2	266	**539**
Approach%	37.1%	28.6%	34.3%	0%		-	1%	96.2%	2.9%	0%		-	39.3%	50%	10.7%	0%		-	4.5%	88.7%	6.8%	0%		-	**-**
Totals %	2.4%	1.9%	2.2%	0%		6.5%	0.4%	37.5%	1.1%	0%		39%	2%	2.6%	0.6%	0%		5.2%	2.2%	43.8%	3.3%	0%		49.4%	**-**
PHF	0.65	0.63	0.75	0		0.8	0.5	0.97	0.5	0		0.95	0.46	0.7	0.38	0		0.54	0.75	0.8	0.56	0		0.81	**-**
Heavy	4	2	0	0		6	0	24	1	0		25	0	1	0	0		1	1	19	0	0		20	**-**
Heavy %	30.8%	20%	0%	0%		17.1%	0%	11.9%	16.7%	0%		11.9%	0%	7.1%	0%	0%		3.6%	8.3%	8.1%	0%	0%		7.5%	**-**
Lights	9	8	12	0		29	2	178	5	0		185	11	13	3	0		27	11	217	18	0		246	**-**
Lights %	69.2%	80%	100%	0%		82.9%	100%	88.1%	83.3%	0%		88.1%	100%	92.9%	100%	0%		96.4%	91.7%	91.9%	100%	0%		92.5%	**-**
Single-Unit Trucks	1	1	0	0		2	0	13	0	0		13	0	1	0	0		1	1	9	0	0		10	**-**
Single-Unit Trucks %	7.7%	10%	0%	0%		5.7%	0%	6.4%	0%	0%		6.2%	0%	7.1%	0%	0%		3.6%	8.3%	3.8%	0%	0%		3.8%	**-**
Buses	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	1	0	0		1	**-**
Buses %	0%	0%	0%	0%		0%	0%	0.5%	0%	0%		0.5%	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.4%	**-**
Articulated Trucks	0	1	0	0		1	0	3	0	0		3	0	0	0	0		0	0	2	0	0		2	**-**
Articulated Trucks %	0%	10%	0%	0%		2.9%	0%	1.5%	0%	0%		1.4%	0%	0%	0%	0%		0%	0%	0.8%	0%	0%		0.8%	**-**
Aggregate Trucks	3	0	0	0		3	0	7	1	0		8	0	0	0	0		0	0	7	0	0		7	**-**
Aggregate Trucks %	23.1%	0%	0%	0%		8.6%	0%	3.5%	16.7%	0%		3.8%	0%	0%	0%	0%		0%	0%	3%	0%	0%		2.6%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	2	-	**-**
Pedestrians%	-	-	-	-	16.7%		-	-	-	-	0%		-	-	-	-	50%		-	-	-	-	33.3%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 04:30 PM - 05:30 PM Weather:

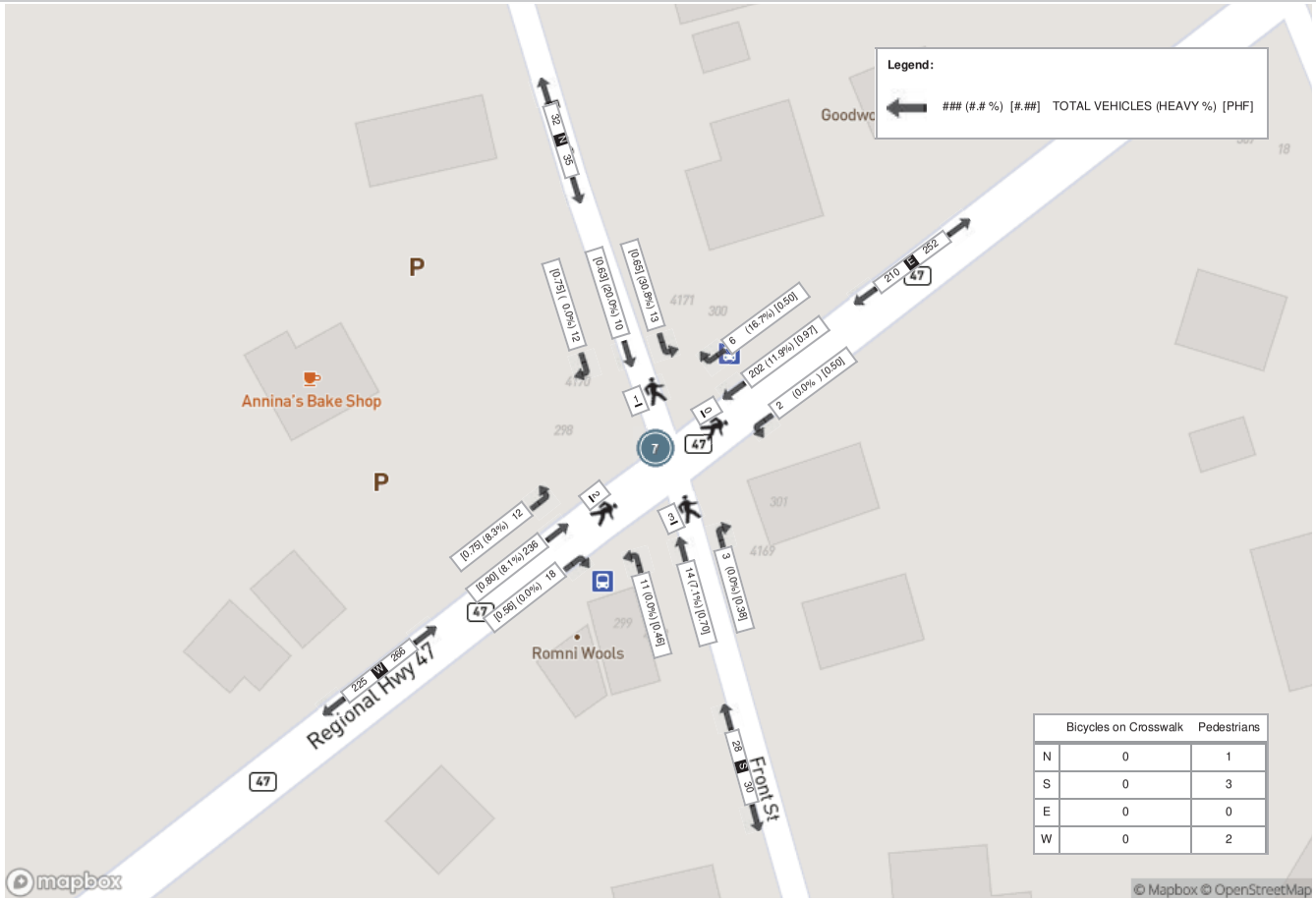
Start Time	N Approach FRONT ST						E Approach REGIONAL HWY 47						S Approach FRONT ST						W Approach REGIONAL HWY 47						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:30:00	0	5	4	0	0	9	0	72	0	0	3	72	3	4	4	0	3	11	6	95	5	0	0	106	198
16:45:00	0	4	4	0	0	8	1	53	1	0	0	55	3	7	2	0	1	12	7	85	5	0	0	97	172
17:00:00	1	6	3	0	3	10	1	58	2	0	0	61	3	1	1	0	0	5	4	101	6	0	3	111	187
17:15:00	3	3	3	0	4	9	3	72	4	0	0	79	3	2	3	0	1	8	4	96	9	0	0	109	205
Grand Total	4	18	14	0	7	36	5	255	7	0	3	267	12	14	10	0	5	36	21	377	25	0	3	423	**762**
Approach%	11.1%	50%	38.9%	0%		-	1.9%	95.5%	2.6%	0%		-	33.3%	38.9%	27.8%	0%		-	5%	89.1%	5.9%	0%		-	-
Totals %	0.5%	2.4%	1.8%	0%		4.7%	0.7%	33.5%	0.9%	0%		35%	1.6%	1.8%	1.3%	0%		4.7%	2.8%	49.5%	3.3%	0%		55.5%	-
PHF	0.33	0.75	0.88	0		0.9	0.42	0.89	0.44	0		0.84	1	0.5	0.63	0		0.75	0.75	0.93	0.69	0		0.95	-
Heavy	0	0	0	0		0	0	7	0	0		7	0	1	0	0		1	0	11	0	0		11	-
Heavy %	0%	0%	0%	0%		0%	0%	2.7%	0%	0%		2.6%	0%	7.1%	0%	0%		2.8%	0%	2.9%	0%	0%		2.6%	-
Lights	4	17	14	0		35	5	248	7	0		260	12	11	10	0		33	21	366	25	0		412	-
Lights %	100%	94.4%	100%	0%		97.2%	100%	97.3%	100%	0%		97.4%	100%	78.6%	100%	0%		91.7%	100%	97.1%	100%	0%		97.4%	-
Single-Unit Trucks	0	0	0	0		0	0	3	0	0		3	0	1	0	0		1	0	4	0	0		4	-
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1.1%	0%	7.1%	0%	0%		2.8%	0%	1.1%	0%	0%		0.9%	-
Buses	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	1	0	0		1	-
Buses %	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.4%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.2%	-
Articulated Trucks	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	2	0	0		2	-
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.4%	0%	0%		0.4%	0%	0%	0%	0%		0%	0%	0.5%	0%	0%		0.5%	-
Aggregate Trucks	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	0	4	0	0		4	-
Aggregate Trucks %	0%	0%	0%	0%		0%	0%	0.8%	0%	0%		0.7%	0%	0%	0%	0%		0%	0%	1.1%	0%	0%		0.9%	-
Bicycles on Road	0	1	0	0		1	0	0	0	0		0	0	2	0	0		2	0	0	0	0		0	-
Bicycles on Road %	0%	5.6%	0%	0%		2.8%	0%	0%	0%	0%		0%	0%	14.3%	0%	0%		5.6%	0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	-	7	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	3	-	-
Pedestrians%	-	-	-	-	38.9%		-	-	-	-	16.7%		-	-	-	-	27.8%		-	-	-	-	16.7%		-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Peak Hour: 07:15 AM - 08:15 AM **Weather:**



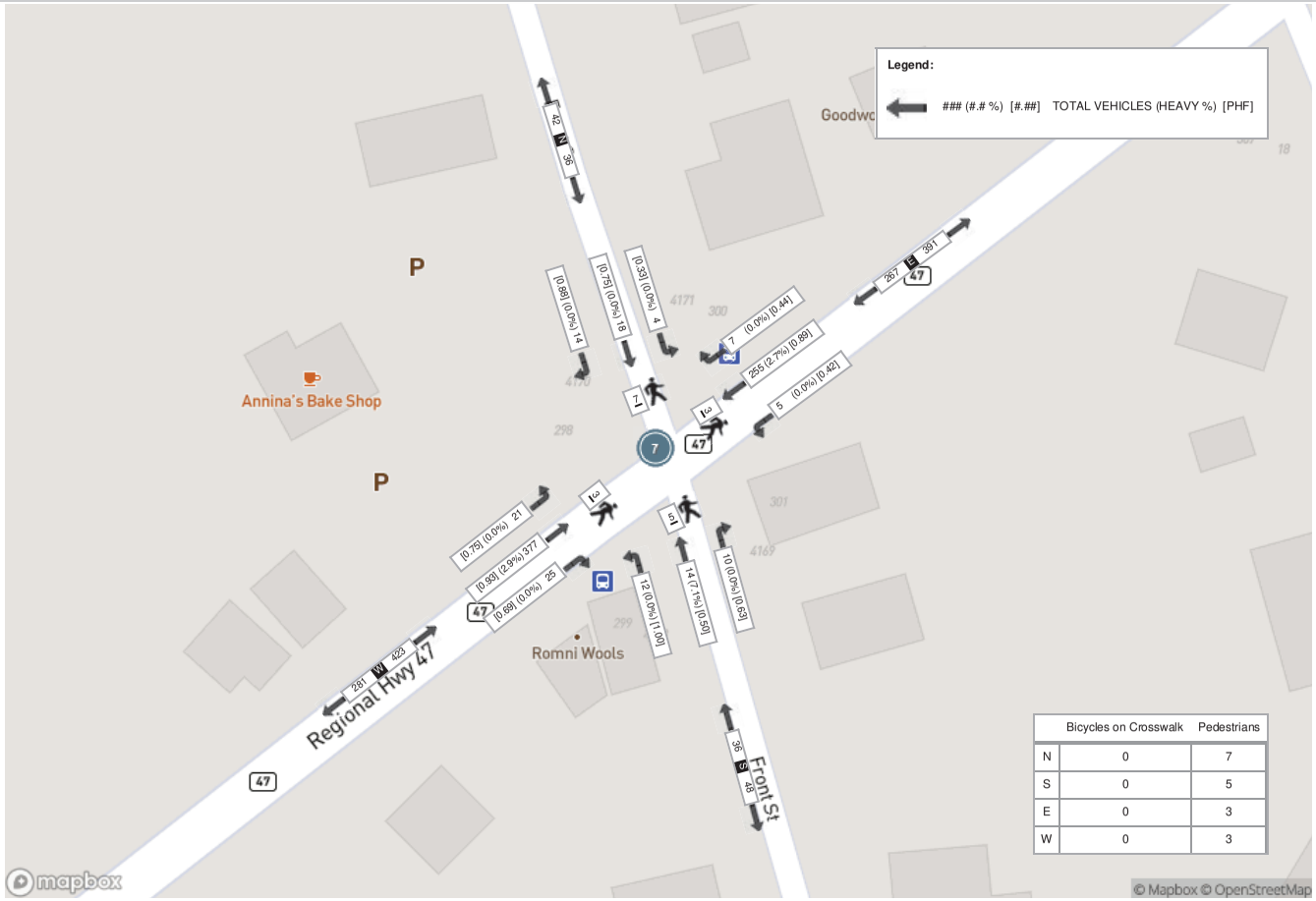
	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	1
E	0	2
W	0	0

Peak Hour: 02:00 PM - 03:00 PM **Weather:**



	Bicycles on Crosswalk	Pedestrians
N	0	1
S	0	3
E	0	0
W	0	2

Peak Hour: 04:30 PM - 05:30 PM Weather:



	Bicycles on Crosswalk	Pedestrians
N	0	7
S	0	5
E	0	3
W	0	3

Turning Movement Count (6 . GOODWOOD ROAD & REGIONAL HIGHWAY 47)

Start Time	N Approach FRONT SEGl ALNHWYN47						E Approach T SEGl ALNHWYN47						S Approach SGGeWGGeNTe						W Approach T SEGl ALNHWYN47						Int. Total (15 min)	Int. Total (1 hr)
	Lft: lh	ruig lhU	TnPu: lhW	drgis lh	pfoa lh	Accil 06uNl :01	Lft: hU	ruig hW	TnPu: h	drgis h	pfoa h	Accil 06uNl :01	Lft: UhW	ruig Uh	TnPu: Uh	drgis UhU	pfoa Uh	Accil 06uNl :01	Lft: Wh	ruig Wh	TnPu: WhU	drgis WhW	pfoa Wh	Accil 06uNl :01		
5Rh55l55	5	5	5	5	5	5	5	25	5	5	5	25	O5	5	5	5	5	O5	5	3O	FF	5	5	45	375	
5Rh32l55	5	5	5	5	5	5	3	R2	5	5	5	RR	OR	5	5	5	5	OR	5	38	88	5	5	4R	39O	
5Rh85l55	5	5	5	5	5	5	5	78	5	5	5	78	35O	5	3	5	5	359	5	FR	42	5	5	73	F28	
5Rh42l55	5	5	5	5	5	5	5	9F	5	5	5	9F	94	5	3	5	5	92	3	FO	8O	5	5	R7	F24	O72
57h55l55	5	3	5	5	5	3	5	OR	5	5	5	OR	2O	5	8	5	5	R3	5	F2	88	5	5	2O	F5R	933
57h32l55	3	5	5	5	5	3	5	72	5	5	5	72	7R	5	3	5	5	77	3	42	R8	5	5	359	FRF	972
57h85l55	5	5	5	5	5	5	5	98	5	5	5	98	O8	5	F	5	5	O8	5	43	R2	5	5	35R	FOF	3554
57h42l55	3	3	5	5	5	F	5	O8	F	5	5	O2	35F	5	F	5	5	354	5	43	79	5	5	3F5	833	35R3
5Oh55l55	5	5	5	5	5	5	F	R2	5	5	5	R7	75	5	5	5	5	75	5	84	2O	5	5	9F	FF9	35O4
5Oh32l55	5	5	5	5	5	5	3	73	5	5	5	7F	O8	3	F	5	5	OR	5	4R	78	5	5	339	F77	3599
5Oh85l55	3	5	3	5	5	F	5	75	F	5	5	7F	95	3	3	5	5	9F	3	82	R3	5	5	97	FR8	35O5
5Oh42l55	5	5	5	5	5	5	3	RO	5	5	5	R9	R8	5	5	5	5	R8	5	2O	22	5	5	338	F42	3534
59h55l55	5	F	5	5	5	F	5	RR	5	5	3	RR	73	3	F	5	5	74	5	45	R2	5	5	352	F47	358F
59h32l55	5	5	3	5	5	3	5	24	5	5	5	24	23	5	3	5	5	2F	3	47	27	5	5	352	F3F	9R7
59h85l55	5	5	5	5	5	5	5	R3	5	5	5	R3	R2	5	5	5	5	R2	5	48	25	5	5	98	F39	9F8
59h42l55	3	5	5	5	5	3	5	24	5	5	5	24	2R	5	3	5	5	27	5	42	RF	5	5	357	F39	O97
BT AK																										
35h55l55	5	5	5	5	5	5	3	R3	5	5	5	RF	23	5	3	5	5	2F	5	47	23	5	5	9O	F3F	
35h32l55	5	5	5	5	5	5	5	29	5	5	5	29	28	5	3	5	5	24	3	24	22	5	5	335	FF8	
35h85l55	5	5	F	5	5	F	F	4F	3	5	5	42	44	5	5	5	5	44	3	4F	27	5	5	355	393	
35h42l55	3	3	5	5	5	F	5	8O	3	5	5	89	22	5	F	5	5	27	5	28	74	5	5	3F7	FF2	O23
33h55l55	5	5	3	5	5	3	5	R4	5	5	5	R4	25	5	F	5	5	2F	3	22	R8	5	5	339	F8R	O72
33h32l55	F	5	3	5	5	8	5	R5	3	5	5	R3	4O	F	3	5	5	23	5	4R	R2	5	5	333	FFR	O7O
33h85l55	3	3	3	5	5	8	3	2O	3	5	5	R5	28	3	F	5	5	2R	3	2R	4O	5	5	352	FF4	933
33h42l55	F	5	F	5	5	4	F	R5	3	5	5	R8	4O	F	3	5	5	23	F	4F	2R	5	5	355	F3O	954
3Rh55l55	5	3	8	5	5	4	F	23	F	5	5	22	24	F	5	5	5	2R	5	84	24	5	5	OO	F58	O73
3Rh32l55	F	5	3	5	5	8	3	8R	F	5	5	89	29	3	3	5	5	R3	5	48	2O	5	5	353	F54	O49
3Rh85l55	3	3	F	5	5	4	F	R4	3	5	5	R7	43	F	F	5	5	42	5	42	27	5	5	35F	F3O	O48
3Rh42l55	5	5	5	5	5	5	3	2F	5	5	5	28	47	5	5	5	5	47	5	2F	2O	5	5	335	F35	O82
38h55l55	3	F	5	5	5	8	5	2F	3	5	5	28	49	F	F	5	5	28	3	23	R8	5	5	332	FF4	O2R
38h32l55	F	3	5	5	5	8	5	49	3	5	5	25	87	3	F	5	5	45	5	R9	R7	5	5	38R	FF9	OO8
38h85l55	3	5	5	5	5	3	5	42	F	5	5	47	22	5	R	5	5	R3	3	22	73	5	5	3F7	F8R	O99
38h42l55	5	5	F	5	5	F	3	R4	F	5	5	R7	R5	5	F	5	5	RF	5	4O	2F	5	5	355	F83	9F5
34h55l55	5	3	5	5	5	3	5	4O	5	5	5	4O	2R	5	F	5	5	2O	5	44	22	5	5	99	F5R	95F
34h32l55	8	5	3	5	5	4	8	4O	4	5	5	22	73	3	3	5	5	78	3	R7	74	5	5	34F	F74	947
34h85l55	8	5	F	5	3	2	3	24	5	5	3	22	22	F	3	5	5	2O	F	78	RO	5	5	348	FR8	97F
34h42l55	3	3	5	5	5	F	3	24	5	5	3	22	R5	3	8	5	3	R4	5	7O	98	5	3	373	F9F	3588
BT AK																										
32h55l55	F	3	5	5	5	8	3	49	F	5	5	2F	74	3	5	5	5	72	F	O8	O5	5	5	3R2	F92	
32h32l55	3	F	5	5	5	8	5	R3	5	5	5	R3	27	5	F	5	5	29	F	O8	O9	5	5	374	F97	
32h85l55	4	F	5	5	5	R	3	22	3	5	5	27	R4	5	5	5	5	R4	F	9R	33R	5	5	F34	843	
32h42l55	5	5	4	5	5	4	F	29	F	5	5	R8	R2	3	5	5	5	RR	F	O9	94	5	5	3O2	83O	3F23
3Rh55l55	4	3	5	5	5	2	4	49	F	5	5	22	7O	3	F	5	5	O3	F	358	33R	5	5	FF3	8RF	383O
3Rh32l55	5	3	3	5	5	F	F	2O	3	5	5	R3	R9	5	3	5	5	75	5	O3	35F	5	5	3O3	83R	3887
3Rh85l55	3	3	5	5	5	F	3	R7	5	5	5	RO	RO	3	5	5	F	R9	3	355	33R	5	5	F37	82R	382F

3FN42N55	3	3	3	5	5	8	5	27	F	5	5	29	R2	5	5	5	5	R2	3	O4	97	5	5	3OF	859	3848
37N55N55	F	5	5	5	5	F	3	RF	3	5	5	R4	R9	3	3	5	3	73	5	3F2	3F2	5	5	F25	8O7	38RO
37N82N55	3	5	3	5	5	F	8	R7	3	5	5	73	79	3	5	5	5	O5	5	35R	357	5	5	F38	8FR	343O
37N85N55	3	3	5	5	5	F	3	89	3	5	5	43	RF	5	F	5	5	R4	3	O9	334	5	5	F54	833	3878
37N42N55	F	3	5	5	5	8	8	48	F	5	5	4O	2R	5	8	5	5	29	F	OF	93	5	5	372	FO2	3849
Grand Total	48	F4	F7	5	3	94	4F	FO23	89	5	8	F98F	85OR	FR	R5	5	4	837F	85	F7R5	8842	5	3	R382	**12333**	-
Approach%	42%.	F2%.	FO%.	5.		-	3%.	97%.	3%.	5.		-	97%.	5%.	3%.	5.		-	5%.	42.	24%.	5.		-	**-**	-
Totals %	5%.	5%.	5%.	5.		5%.	5%.	F8%.	5%.	5.		F8%.	F2.	5%.	5%.	5.		F2%.	5%.	FP%.	F7%.	5.		49%.	**-**	-
Heavy	3	5	5	5		-	3	859	3	5		-	248	5	F	5		-	5	FRR	299	5		-	**-**	-
Heavy %	F%.	5.	5.	5.		-	F%.	35%.	F%.	5.		-	37%.	5.	8%.	5.		-	5.	9%.	37%.	5.		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Peak Hour: 07:30 AM - 08:30 AM NSSSWeather:

Start Time	N Approach FRONT SEGI ALNHWYN47						E Approach T SEGI ALNHWYN47						S Approach SGGeWGGeNTe						W Approach T SEGI ALNHWYN47						Int. Total (15 min)
	Lft:	ruig	TnPu:	drgis	pfoa	Accil 06uNI :01	Lft:	ruig	TnPu:	drgis	pfoa	Accil 06uNI :01	Lft:	ruig	TnPu:	drgis	pfoa	Accil 06uNI :01	Lft:	ruig	TnPu:	drgis	pfoa	Accil 06uNI :01	
57h85h55	5	5	5	5	5	5	5	98	5	5	5	98	C3	5	F	5	5	C3	5	43	R2	5	5	35R	FCF
57h42h55	3	3	5	5	5	F	5	C3	F	5	5	C2	35F	5	F	5	5	354	5	43	79	5	5	3F5	833
5C65h55	5	5	5	5	5	5	F	R2	5	5	5	R7	75	5	5	5	5	75	5	84	2C	5	5	9F	FF9
5C82h55	5	5	5	5	5	5	3	73	5	5	5	7F	C3	3	F	5	5	CR	5	4R	78	5	5	339	F77
Grand Total	3	3	5	5	5	F	8	83F	F	5	5	837	88R	3	R	5	5	848	5	3FF	F72	5	5	487	**1099**
Approach%	25.	25.	5.	5.		-	5%.	9C%.	5%.	5.		-	9C	5%.	3%.	5.		-	5.	87%.	FF%.	5.		-	**-**
Totals %	5%.	5%.	5.	5.		5%.	5%.	FC%.	5%.	5.		FC%Q	85%R	5%.	5%.	5.		83%5.	5.	34%.	F2.	5.		89%Q	**-**
PHF	5%2	5%2	5	5		5%2	5%O	5%4	5%2	5		5%Q2	5%QF	5%2	5%2	5		5%QF	5	5%QO	5%Q7	5		5%3	**-**
Heavy	5	5	5	5		5	5	F4	5	5		F4	4O	5	5	5		4O	5	F4	73	5		92	**-**
Heavy %	5.	5.	5.	5.		5.	5.	7%.	5.	5.		7%R.	34%.	5.	5.	5.		34.	5.	34%Q	F2%Q	5.		F3%.	**-**
Lights	3	3	5	5		F	8	FCD	F	5		F98	FCD	3	R	5		F92	5	38O	F54	5		84F	**-**
Lights %	355.	355.	5.	5.		355.	355.	9F%.	355.	5.		9F%4.	C2%.	355.	355.	5.		CR	5.	C2%.	74%.	5.		7C%.	**-**
Single-Unit Trucks	5	5	5	5		5	5	2	5	5		2	7	5	5	5		7	5	8	O	5		33	**-**
Single-Unit Trucks %	5.	5.	5.	5.		5.	5.	3%R.	5.	5.		3%R.	F%.	5.	5.	5.		F.	5.	3%.	F%.	5.		F%.	**-**
Buses	5	5	5	5		5	5	3	5	5		3	5	5	5	5		5	5	3	3	5		F	**-**
Buses %	5.	5.	5.	5.		5.	5.	5%.	5.	5.		5%.	5.	5.	5.	5.		5.	5.	5%R.	5%.	5.		5%.	**-**
Articulated Trucks	5	5	5	5		5	5	4	5	5		4	O	5	5	5		O	5	7	O	5		32	**-**
Articulated Trucks %	5.	5.	5.	5.		5.	5.	3%.	5.	5.		3%.	F%.	5.	5.	5.		F%.	5.	4%.	F%.	5.		8%.	**-**
Aggregate Trucks	5	5	5	5		5	5	34	5	5		34	88	5	5	5		88	5	38	24	5		R7	**-**
Aggregate Trucks %	5.	5.	5.	5.		5.	5.	4%.	5.	5.		4%.	9%.	5.	5.	5.		9%R.	5.	Q.	39%R.	5.		32%.	**-**
Bicycles on Road	5	5	5	5		5	5	5	5	5		5	5	5	5	5		5	5	5	5	5		5	**-**
Bicycles on Road %	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	**-**
Pedestrians	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	**-**
Pedestrians%	-	-	-	-	5.	N	-	-	-	-	5.	N	-	-	-	-	5.	N	-	-	-	-	5.	N	**-**
Bicycles on Crosswalk	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	**-**
Bicycles on Crosswalk%	-	-	-	-	5.	N	-	-	-	-	5.	N	-	-	-	-	5.	N	-	-	-	-	5.	N	**-**

Peak Hour: 02:00 PM - 03:00 PM NSSSNWeather:

Start Time	N Approach FRONT SEGl ALNHWYN47						E Approach T SEGl ALNHWYN47						S Approach SGGe WGGe NTe						W Approach T SEGl ALNHWYN47						Int. Total (15 min)
	Lft:	r uig	TnPu:	d r gis	pf oa	Accil 06uNl :01	Lft:	r uig	TnPu:	d r gis	pf oa	Accil 06uNl :01	Lft:	r uig	TnPu:	d r gis	pf oa	Accil 06uNl :01	Lft:	r uig	TnPu:	d r gis	pf oa	Accil 06uNl :01	
34h55l55	5	3	5	5	5	3	5	4O	5	5	5	4O	2R	5	F	5	5	2O	5	44	22	5	5	99	F5R
34h32l55	8	5	3	5	5	4	8	4O	4	5	5	22	73	3	3	5	5	78	3	R7	74	5	5	34F	F74
34h85l55	8	5	F	5	3	2	3	24	5	5	3	22	22	F	3	5	5	2O	F	78	RO	5	5	348	FR3
34h42l55	3	3	5	5	5	F	3	24	5	5	3	22	R5	3	8	5	3	R4	5	7O	98	5	3	373	F9F
Grand Total	7	F	8	5	3	3F	2	F54	4	5	F	F38	F4F	4	7	5	3	F28	8	FRF	F95	5	3	222	**1033**
Approach%	2O%.	3R%.	F2.	5.		-	F%.	92%O	3%.	5.		-	92%.	3%.	F%O	5.		-	5%.	47%.	2F%.	5.		-	**-**
Totals %	5%.	5%.	5%.	5.		3%.	5%.	39%.	5%.	5.		F5%.	F8%.	5%.	5%.	5.		F4%.	5%.	F2%.	FO%.	5.		28%.	**-**
PHF	5%O	5%.	5%O	5		5%.	5%4F	5%4	5%2	5		5%7	5%2	5%.	5%O	5		5%7	5%O	5%4	5%O	5		5%3	**-**
Heavy	3	5	5	5		3	5	F8	3	5		F4	27	5	5	5		27	5	F5	28	5		78	**-**
Heavy %	34%.	5.	5.	5.		O%.	5.	33%.	F2.	5.		33%.	F8%.	5.	5.	5.		FF%.	5.	7%.	3O%.	5.		38%.	**-**
Lights	R	F	8	5		33	2	3O	8	5		3O	3O	8	7	5		392	8	F4F	F87	5		4CF	**-**
Lights %	C2%.	355.	355.	5.		93%.	355.	CO%.	72.	5.		CO%.	7F%.	72.	355.	5.		77%.	355.	9P%.	C8%.	5.		CR%.	**-**
Single-Unit Trucks	3	5	5	5		3	5	3F	3	5		38	3F	5	5	5		3F	5	35	3	5		33	**-**
Single-Unit Trucks %	34%.	5.	5.	5.		O%.	5.	2%.	F2.	5.		R%.	2.	5.	5.	5.		4%.	5.	8%.	5%.	5.		F.	**-**
Buses	5	5	5	5		5	5	3	5	5		3	5	5	5	5		5	5	3	5	5		3	**-**
Buses %	5.	5.	5.	5.		5.	5.	5%.	5.	5.		5%.	5.	5.	5.	5.		5.	5.	5%.	5.	5.		5%.	**-**
Articulated Trucks	5	5	5	5		5	5	8	5	5		8	O	5	5	5		O	5	F	2	5		7	**-**
Articulated Trucks %	5.	5.	5.	5.		5.	5.	3%.	5.	5.		3%.	8%.	5.	5.	5.		8%.	5.	5%.	3%.	5.		3%.	**-**
Aggregate Trucks	5	5	5	5		5	5	7	5	5		7	87	5	5	5		87	5	7	47	5		24	**-**
Aggregate Trucks %	5.	5.	5.	5.		5.	5.	8%.	5.	5.		8%.	32%.	5.	5.	5.		34%.	5.	F%.	3R%.	5.		9%.	**-**
Bicycles on Road	5	5	5	5		5	5	5	5	5		5	5	3	5	5		3	5	5	5	5		5	**-**
Bicycles on Road %	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	5.	F2.	5.	5.		5%.	5.	5.	5.	5.		5.	**-**
Pedestrians	-	-	-	-	5	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	3	-	**-**
Pedestrians%	-	-	-	-	5.	N	-	-	-	-	F5.	N	-	-	-	-	5.	N	-	-	-	-	F5.	N	**-**
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	5	-	**-**
Bicycles on Crosswalk%	-	-	-	-	F5.	N	-	-	-	-	F5.	N	-	-	-	-	F5.	N	-	-	-	-	5.	N	**-**

Peak Hour: 04:30 PM - 05:30 PM Weather:

Start Time	N Approach FROT SEGl AL HWY 47						E Approach T SEGl AL HWY 47						S Approach SGGeWGGe Te						W Approach T SEGl AL HWY 47						Int. Total (15 min)
	Lft:	ruig	TrPu:	drgis	pfoa	Accil 06url :01	Lft:	ruig	TrPu:	drgis	pfoa	Accil 06url :01	Lft:	ruig	TrPu:	drgis	pfoa	Accil 06url :01	Lft:	ruig	TrPu:	drgis	pfoa	Accil 06url :01	
3Rh85l55	3	3	5	5	5	F	3	R7	5	5	5	RO	RO	3	5	5	F	R9	3	355	33R	5	5	F37	82R
3Rh42l55	3	3	3	5	5	8	5	27	F	5	5	29	R2	5	5	5	5	R2	3	O4	97	5	5	3OF	859
37h55l55	F	5	5	5	5	F	3	RF	3	5	5	R4	R9	3	3	5	3	73	5	3F2	3F2	5	5	F25	8O7
37h82l55	3	5	3	5	5	F	8	R7	3	5	5	73	79	3	5	5	5	O5	5	35R	357	5	5	F38	8RR
Grand Total	2	F	F	5	5	9	2	F28	4	5	5	FRF	FO3	8	3	5	8	FO2	F	432	442	5	5	OFF	**1418**
Approach%	22%R	FP%5.	FP%5.	5.		-	3%a.	9Rh8R	3%2.	5.		-	9O%R	3%a.	5%4.	5.		-	5%5.	4O%a.	23%R	5.		-	-
Totals %	5%4.	5%a.	5%a.	5.		5%R	5%4.	37%Q	5%a.	5.		3O%2.	39%Q	5%5.	5%a.	5.		F5%a.	5%a.	F9%8.	83%4.	5.		R5%Q	-
PHF	5%88	5%2	5%2	5		5%22	5%4F	5%94	5%2	5		5%aF	5%99	5%22	5%52	5		5%99	5%2	5%O8	5%99	5		5%QR	-
Heavy	5	5	5	5		5	5	O	5	5		O	F8	5	5	5		F8	5	35	FO	5		8O	-
Heavy %	5.	5.	5.	5.		5.	5.	8%5.	5.	5.		8%a.	O%5.	5.	5.	5.		O%a.	5.	F%4.	R%a.	5.		4%4.	-
Lights	2	F	F	5		9	2	F42	4	5		F24	F2O	8	3	5		FRF	F	452	437	5		OF4	-
Lights %	355.	355.	355.	5.		355.	355.	9Rh2Q	355.	5.		9Rh8.	93%Q	355.	355.	5.		93%8.	355.	97%R.	98%%.	5.		92%R.	-
Single-Unit Trucks	5	5	5	5		5	5	4	5	5		4	2	5	5	5		2	5	4	35	5		34	-
Single-Unit Trucks %	5.	5.	5.	5.		5.	5.	3%R.	5.	5.		3%2.	3%Q.	5.	5.	5.		3%Q.	5.	3.	F%5.	5.		3%R.	-
Buses	5	5	5	5		5	5	3	5	5		3	5	5	5	5		5	5	3	5	5		3	-
Buses %	5.	5.	5.	5.		5.	5.	5%4.	5.	5.		5%4.	5.	5.	5.	5.		5.	5.	5%5.	5.	5.		5%a.	-
Articulated Trucks	5	5	5	5		5	5	3	5	5		3	2	5	5	5		2	5	3	2	5		R	-
Articulated Trucks %	5.	5.	5.	5.		5.	5.	5%4.	5.	5.		5%4.	3%Q.	5.	5.	5.		3%Q.	5.	5%5.	3%a.	5.		5%5.	-
Aggregate Trucks	5	5	5	5		5	5	F	5	5		F	38	5	5	5		38	5	4	38	5		37	-
Aggregate Trucks %	5.	5.	5.	5.		5.	5.	5%Q.	5.	5.		5%Q.	4%R.	5.	5.	5.		4%R.	5.	3.	F%a.	5.		F.	-
Bicycles on Road	5	5	5	5		5	5	5	5	5		5	5	5	5	5		5	5	5	5	5		5	-
Bicycles on Road %	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	5.	5.	5.	5.		5.	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	8	-	-	-	-	-	5	-	-
Pedestrians%	-	-	-	-	5.		-	-	-	-	5.		-	-	-	-	355.		-	-	-	-	5.		-
Bicycles on Crosswalk	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	-
Bicycles on Crosswalk%	-	-	-	-	5.		-	-	-	-	5.		-	-	-	-	5.		-	-	-	-	5.		-

Peak Hour: 07:30 AM - 08:30 AM **Weather:**



	Br6y6f a l s Cil aaw0rk	pf of a:ir0sa
I	5	5
U	5	5
	5	5
W	5	5

Peak Hour: 02:00 PM - 03:00 PM **Weather:**



	Br6y6f a l s Cil aaw0rk	pf of a:ir0sa
I	3	5
U	3	5
	3	3
W	5	3

Peak Hour: 04:30 PM - 05:30 PM **Weather:**



	Br6y6f a l s Cil aaw0rk	pf of a:ir0sa
l	5	5
U	5	8
	5	5
W	5	5

Turning Movement Count (10 . REGIONAL HIGHWAY 47 & LAFARGE GOODWOOD PIT SITE ACCESS)

Start Time	N Approach REGEI ONAOLL HLL AAW4AY4NAEBBN77					E Approach I NOYL CERAKH DAef					W Approach I NOYL CERAKH DAef					Int. Total (15 min)	Int. Total (1 hr)
	Rt :S CTN	I hruS CTH	U4nRd CTC	Wt sp CT	EooPacl uA4aSci	4uPh NTH	I hruS NTC	U4nRd NTN	Wt sp NT	EooPacl uA4aSci	Rt :S HTC	4uPh HTN	U4nRd HTH	Wt sp HT	EooPacl uA4aSci		
g0Tgg Tgg	g	g	g	g	g	63	g	g	g	63	g	59	g	g	59	f 8	
g0T56Tgg	g	g	g	g	g	03	g	g	g	03	g	58	g	g	58	f 6	
g0T3gTgg	g	g	g	g	g	0f	g	g	g	0f	g	80	g	g	80	93	
g0Te6Tgg	g	g	g	g	g	9e	g	g	g	9e	g	8f	g	g	8f	585	305
gf Tgg Tgg	g	g	g	g	g	f g	g	g	g	f g	g	8f	g	g	8f	9f	310
gf T56Tgg	g	g	g	g	g	f g	g	g	g	f g	g	eg	g	g	eg	55g	e85
gf T3gTgg	g	g	g	g	g	99	g	g	g	99	g	e9	g	g	e9	5e1	ef 0
gf Te6Tgg	g	g	g	g	g	00	g	g	g	00	g	e6	g	g	e6	555	e00
g1Tgg Tgg	g	g	g	g	g	0g	g	g	g	0g	g	36	g	g	36	96	e0e
g1T56Tgg	g	g	g	g	g	01	g	g	g	01	g	e9	g	g	e9	55f	ef 5
g1T3gTgg	g	5	g	g	5	f 3	g	g	g	f 3	5	e3	g	g	ee	551	ee5
g1Te6Tgg	g	g	g	g	g	f g	g	g	g	f g	g	63	5	g	6e	58e	e6e
g9Tgg Tgg	g	g	g	g	g	60	g	g	g	60	g	3f	g	g	3f	93	e68
g9T56Tgg	g	g	g	g	g	68	g	g	g	68	g	e6	g	g	e6	9f	e38
g9T3gTgg	g	g	g	g	g	0g	g	g	g	0g	g	e1	g	g	e1	5g1	e88
g9Te6Tgg	g	g	g	g	g	0g	g	g	g	0g	g	65	g	g	65	555	eg9
222* I NEF222																	
5gTgg Tgg	g	g	g	g	g	68	g	g	g	68	g	e9	g	g	e9	5g5	
5gT56Tgg	g	g	g	g	g	60	g	g	g	60	g	e0	g	g	e0	5g8	
5gT3gTgg	g	g	g	g	g	e8	g	g	g	e8	g	3f	g	g	3f	f 9	
5gTe6Tgg	g	g	g	g	g	3f	g	g	g	3f	g	e0	g	g	e0	13	306
55Tgg Tgg	g	g	g	g	g	6f	g	g	g	6f	g	0g	g	g	0g	55f	315
55T56Tgg	g	g	g	g	g	6f	g	g	g	6f	g	ef	g	g	ef	5ge	313
55T3gTgg	g	g	g	g	g	6e	g	g	g	6e	g	08	g	g	08	550	e8g
55Te6Tgg	g	g	g	g	g	0e	g	g	g	0e	g	39	g	g	39	5g3	eeg
58Tgg Tgg	g	g	g	g	g	ef	g	g	g	ef	g	3g	g	g	3g	f f	egg
58T56Tgg	g	g	g	g	g	33	g	g	g	33	g	e6	g	g	e6	f 1	3f e
58T3gTgg	g	g	g	g	g	05	g	g	g	05	g	36	g	g	36	90	36e
58Te6Tgg	g	g	g	g	g	65	g	g	g	65	g	e6	g	g	e6	90	3ef
53Tgg Tgg	g	g	g	g	g	e6	g	g	g	e6	g	68	g	g	68	9f	30f
53T56Tgg	g	g	g	g	g	e1	g	g	g	e1	g	03	g	g	03	555	egg
53T3gTgg	g	g	g	g	g	65	g	g	g	65	g	68	g	g	68	5g3	egf
53Te6Tgg	g	g	g	g	g	60	g	g	g	60	5	68	g	g	63	5g9	e8g

5eTggTgg	g	g	g	g	g	e9	g	g	g	e9	g	33	g	g	33	18	eg6
5eT56Tgg	g	5	g	g	5	63	g	g	g	63	g	f 5	g	g	f 5	586	e59
5eT3gTgg	g	g	g	g	g	e1	g	g	g	e1	g	f 8	g	g	f 8	58g	e30
5eTe6Tgg	g	g	g	g	g	6f	5	g	g	61	g	f 1	g	g	f 1	530	e03
222* I NEF222																	
56TggTgg	g	g	g	g	g	6g	g	g	g	6g	g	f 6	g	g	f 6	586	
56T56Tgg	g	g	g	g	g	6e	g	g	g	6e	g	10	g	g	10	5eg	
56T3gTgg	g	g	g	g	g	63	g	g	g	63	g	1f	5	g	11	5e5	
56Te6Tgg	g	5	g	g	5	69	g	g	g	69	g	98	g	g	98	568	661
50TggTgg	g	g	g	g	g	6g	g	g	g	6g	g	98	g	g	98	5e8	6f 6
50T56Tgg	g	5	g	g	5	e9	5	g	g	6g	g	16	g	g	16	530	6f 5
50T3gTgg	g	g	g	g	g	f 9	g	g	g	f 9	g	5g8	g	g	5g8	515	055
50Te6Tgg	g	g	g	g	g	ef	g	g	g	ef	g	1e	g	g	1e	535	69g
5f TggTgg	g	g	g	g	g	0e	g	g	g	0e	g	555	g	g	555	5f 6	083
5f T56Tgg	g	g	g	g	g	15	g	g	g	15	g	9e	g	g	9e	5f 6	008
5f T3gTgg	g	g	g	g	g	30	g	g	g	30	g	5g3	g	g	5g3	539	08g
5f Te6Tgg	g	g	g	g	g	ee	g	g	g	ee	g	f 6	5	g	f 0	58g	0g9
Grand Total	g	e	g	g	e	8f 06	8	g	g	8f 0f	8	8f g0	3	g	8f 55	**5482**	-
Approach%	g.	5gg.	g.		-	99%.	g%.	g.		-	g%.	99%.	g%.		-	**-**	-
Totals %	g.	g%.	g.		g%.	6g%.	g.	g.		6g%.	g.	e9%.	g%.		e9%.	**-**	-
Heavy	g	5	g		-	35e	g	g		-	5	8f 0	g		-	**-**	-
Heavy %	g.	86.	g.		-	55%.	g.	g.		-	6g.	5g%.	g.		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

Peak Hour: 06:45 AM - 07:45 AMAWWWeather:

Start Time	N Approach REGEI ONAOLL HLL AWA4AYA4NAEBBN77					E Approach I NOYL CERAKH DAef					W Approach I NOYL CERAKH DAef					Int. Total (15 min)
	Rt :S	I hruS	U4nRd	Wt sp	EooPacl uA4aaSi	4uPh	I hruS	U4nRd	Wt sp	EooPacl uA4aaSi	Rt :S	4uPh	U4nRd	Wt sp	EooPacl uA4aaSi	
g0Te6Tgg	g	g	g	g	g	9e	g	g	g	9e	g	8f	g	g	8f	585
gf TggTgg	g	g	g	g	g	f g	g	g	g	f g	g	8f	g	g	8f	9f
gf T56Tgg	g	g	g	g	g	f g	g	g	g	f g	g	eg	g	g	eg	55g
gf T3gTgg	g	g	g	g	g	99	g	g	g	99	g	e9	g	g	e9	5e1
Grand Total	g	g	g	g	g	333	g	g	g	333	g	5e3	g	g	5e3	**476**
Approach%	g.	g.	g.		-	5gg.	g.	g.		-	g.	5gg.	g.		-	**-**
Totals %	g.	g.	g.		g.	f g.	g.	g.		f g.	g.	3g.	g.		3g.	**-**
PHF	g	g	g		g	g%e	g	g		g%e	g	g%3	g		g%3	**-**
Heavy	g	g	g		g	81	g	g		81	g	88	g		88	**-**
Heavy %	g.	g.	g.		g.	1%.	g.	g.		1%.	g.	56%.	g.		56%.	**-**
Lights	g	g	g		g	3g6	g	g		3g6	g	585	g		585	**-**
Lights %	g.	g.	g.		g.	95%.	g.	g.		95%.	g.	1e%.	g.		1e%.	**-**
Single-Unit Trucks	g	g	g		g	1	g	g		1	g	g	g		g	**-**
Single-Unit Trucks %	g.	g.	g.		g.	8%.	g.	g.		8%.	g.	g.	g.		g.	**-**
Buses	g	g	g		g	5	g	g		5	g	8	g		8	**-**
Buses %	g.	g.	g.		g.	g%.	g.	g.		g%.	g.	5%.	g.		5%.	**-**
Articulated Trucks	g	g	g		g	3	g	g		3	g	1	g		1	**-**
Articulated Trucks %	g.	g.	g.		g.	g%.	g.	g.		g%.	g.	6%.	g.		6%.	**-**
Aggregate Trucks	g	g	g		g	50	g	g		50	g	58	g		58	**-**
Aggregate Trucks %	g.	g.	g.		g.	e%.	g.	g.		e%.	g.	1%.	g.		1%.	**-**

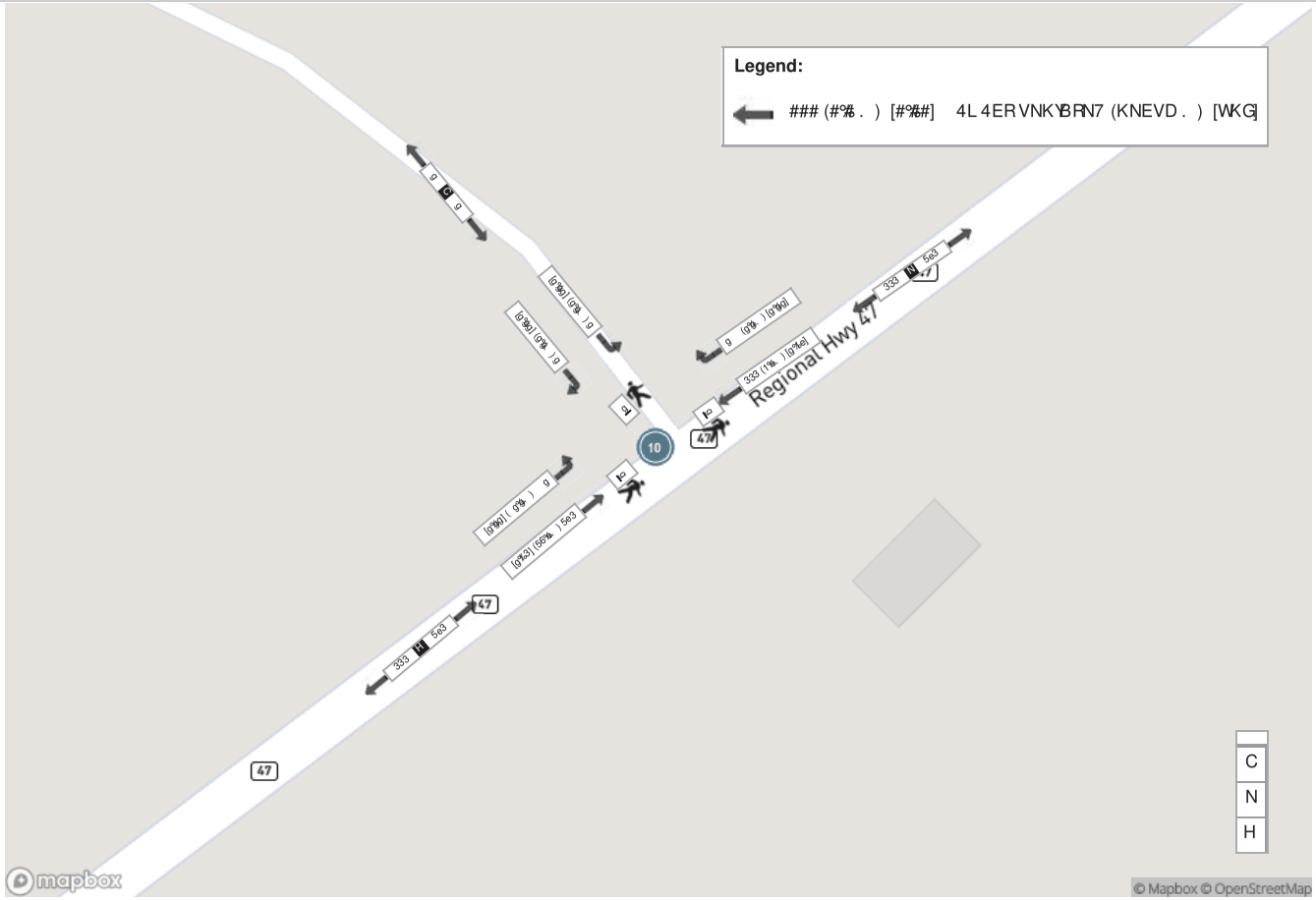
Peak Hour: 02:00 PM - 03:00 PMAWWWeather:

Start Time	N Approach REGEI ONAOLL HLL AWA4AY4NAEBBN77					E Approach I NOYL CERAKH DAef					W Approach I NOYL CERAKH DAef					Int. Total (15 min)
	Rt :S	I hruS	U4nRd	Wt sp	EooPacl uA4aSsi	4uPh	I hruS	U4nRd	Wt sp	EooPacl uA4aSsi	Rt :S	4uPh	U4nRd	Wt sp	EooPacl uA4aSsi	
5eTggTgg	g	g	g	g	g	e9	g	g	g	e9	g	33	g	g	33	18
5eT56Tgg	g	5	g	g	5	63	g	g	g	63	g	f 5	g	g	f 5	586
5eT3gTgg	g	g	g	g	g	e1	g	g	g	e1	g	f 8	g	g	f 8	58g
5eTe6Tgg	g	g	g	g	g	6f	5	g	g	61	g	f 1	g	g	f 1	530
Grand Total	g	5	g	g	5	8gf	5	g	g	8g1	g	86e	g	g	86e	**463**
Approach%	g.	5gg.	g.		-	99%.	g%.	g.		-	g.	5gg.	g.		-	-
Totals %	g.	g%.	g.		g%.	ee%.	g%.	g.		ee%.	g.	6e%.	g.		6e%.	-
PHF	g	g%6	g		g%6	g%5	g%6	g		g%a	g	g%5	g		g%5	-
Heavy	g	g	g		g	86	g	g		86	g	83	g		83	-
Heavy %	g.	g.	g.		g.	58%.	g.	g.		58.	g.	9%.	g.		9%.	-
Lights	g	5	g		5	518	5	g		513	g	835	g		835	-
Lights %	g.	5gg.	g.		5gg.	1f %.	5gg.	g.		11.	g.	9g%.	g.		9g%.	-
Single-Unit Trucks	g	g	g		g	5e	g	g		5e	g	5g	g		5g	-
Single-Unit Trucks %	g.	g.	g.		g.	0%.	g.	g.		0%.	g.	3%.	g.		3%.	-
Buses	g	g	g		g	5	g	g		5	g	5	g		5	-
Buses %	g.	g.	g.		g.	g%.	g.	g.		g%.	g.	g%.	g.		g%.	-
Articulated Trucks	g	g	g		g	6	g	g		6	g	8	g		8	-
Articulated Trucks %	g.	g.	g.		g.	8%.	g.	g.		8%.	g.	g%.	g.		g%.	-
Aggregate Trucks	g	g	g		g	6	g	g		6	g	5g	g		5g	-
Aggregate Trucks %	g.	g.	g.		g.	8%.	g.	g.		8%.	g.	3%.	g.		3%.	-

Peak Hour: 04:30 PM - 05:30 PM Weather:

Start Time	N Approach REGEI ON OLL HLL WY4-7Y4N EBBN77					E Approach I NOYL CERKHD ef					W Approach I NOYL CERKHD ef					Int. Total (15 min)
	Pt :S	I hruS	U4nPd	Wt sp	EooPacl u 4aSsi	4uPn	I hruS	U4nPd	Wt sp	EooPacl u 4aSsi	Pt :S	4uPn	U4nPd	Wt sp	EooPacl u 4aSsi	
50T3gTgg	g	g	g	g	g	f 9	g	g	g	f 9	g	5g8	g	g	5g8	515
50Te6Tgg	g	g	g	g	g	ef	g	g	g	ef	g	1e	g	g	1e	535
5f TggTgg	g	g	g	g	g	0e	g	g	g	0e	g	555	g	g	555	5f 6
5f T56Tgg	g	g	g	g	g	15	g	g	g	15	g	9e	g	g	9e	5f 6
Grand Total	g	g	g	g	g	8f 5	g	g	g	8f 5	g	395	g	g	395	**662**
Approach%	g.	g.	g.		-	5gg.	g.	g.		-	g.	5gg.	g.		-	**-**
Totals %	g.	g.	g.		g.	eg%.	g.	g.		eg%.	g.	69%.	g.		69%.	**-**
PHF	g	g	g		g	g%e	g	g		g%e	g	g%1	g		g%1	**-**
Heavy	g	g	g		g	f	g	g		f	g	5g	g		5g	**-**
Heavy %	g.	g.	g.		g.	8%.	g.	g.		8%.	g.	8%.	g.		8%.	**-**
Lights	g	g	g		g	80e	g	g		80e	g	315	g		315	**-**
Lights %	g.	g.	g.		g.	9f %.	g.	g.		9f %.	g.	9f %.	g.		9f %.	**-**
Single-Unit Trucks	g	g	g		g	3	g	g		3	g	e	g		e	**-**
Single-Unit Trucks %	g.	g.	g.		g.	5%.	g.	g.		5%.	g.	5.	g.		5.	**-**
Buses	g	g	g		g	5	g	g		5	g	5	g		5	**-**
Buses %	g.	g.	g.		g.	g%.	g.	g.		g%.	g.	g%.	g.		g%.	**-**
Articulated Trucks	g	g	g		g	5	g	g		5	g	5	g		5	**-**
Articulated Trucks %	g.	g.	g.		g.	g%.	g.	g.		g%.	g.	g%.	g.		g%.	**-**
Aggregate Trucks	g	g	g		g	8	g	g		8	g	e	g		e	**-**
Aggregate Trucks %	g.	g.	g.		g.	g%.	g.	g.		g%.	g.	5.	g.		5.	**-**

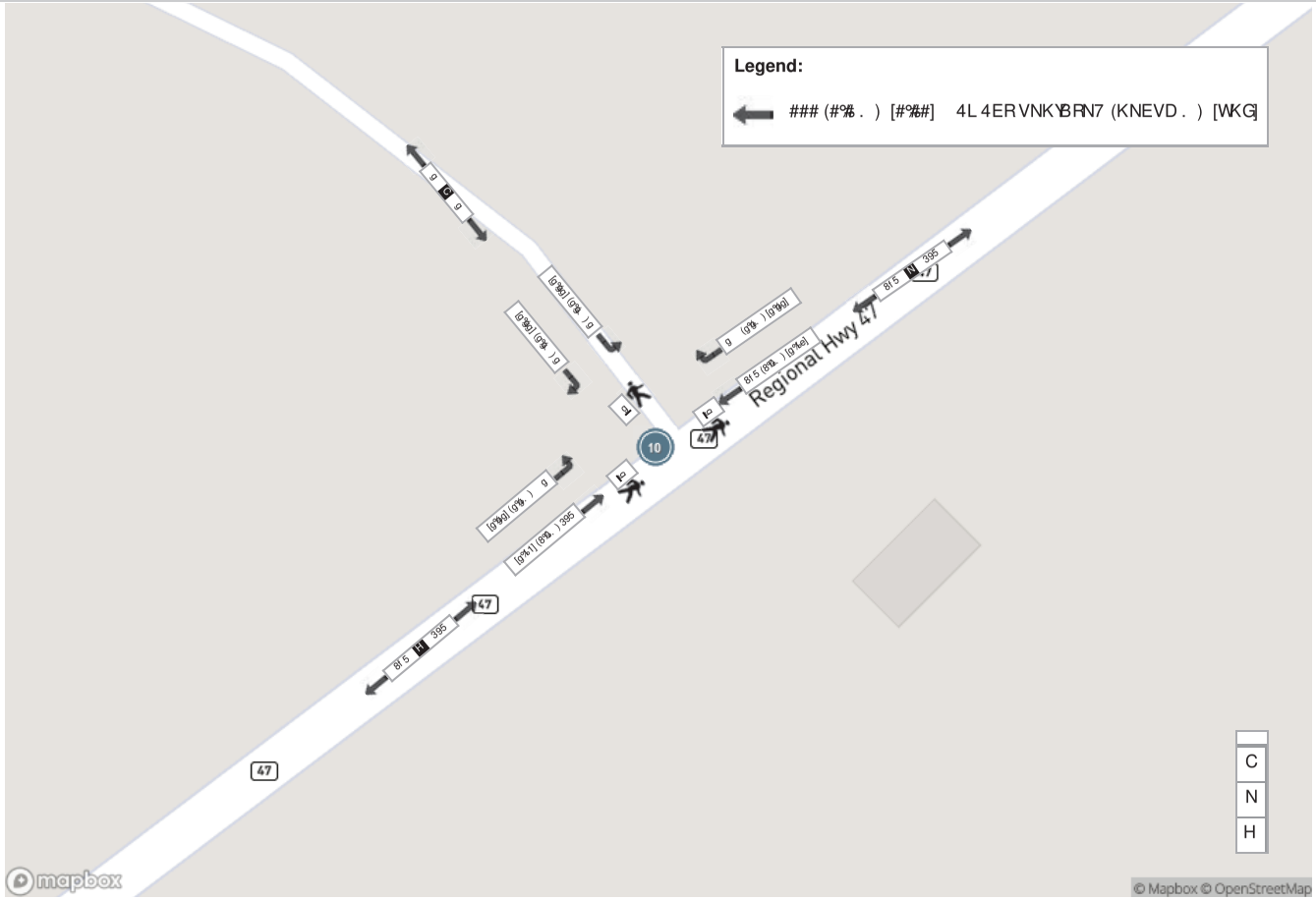
Peak Hour: 06:45 AM - 07:45 AM Weather:



Peak Hour: 02:00 PM - 03:00 PM Weather:



Peak Hour: 04:30 PM - 05:30 PM Weather:



Spectrum

Turning Movement Count
Location Name: YORK-DURHAM LINE & AURORA ROAD
Date: Thu, Aug 26, 2021 Deployment Lead: David Chu

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Turning Movement Count (3 . YORK-DURHAM LINE & AURORA ROAD)

Start Time	N Approach YORK DURHAM LINE						E Approach AURORA RD						S Approach YORK DURHAM LINE						W Approach AURORA RD						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	UTurn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
06:00:00	0	26	19	0	0	45	0	0	0	0	0	0	11	6	0	0	0	17	1	0	16	0	0	17	79	
06:15:00	0	45	18	0	0	63	0	0	0	0	0	0	17	18	0	0	0	35	1	2	20	0	0	23	121	
06:30:00	0	39	24	0	0	63	0	0	0	0	0	0	19	17	0	0	0	36	5	0	18	0	0	23	122	
06:45:00	0	48	22	0	0	70	0	0	0	0	0	0	31	20	0	0	0	51	6	0	26	0	0	32	153	475
07:00:00	1	40	13	0	0	54	0	0	0	0	0	0	14	23	1	0	0	38	8	0	21	0	0	29	121	517
07:15:00	0	45	21	0	0	66	0	0	0	0	0	0	25	30	0	0	0	55	8	0	32	0	0	40	161	557
07:30:00	0	45	23	0	0	68	0	0	0	0	0	0	25	19	0	0	0	44	9	0	29	0	0	38	150	585
07:45:00	0	51	22	0	0	73	0	0	0	0	0	0	39	27	0	0	0	66	6	0	39	0	0	45	184	616
08:00:00	0	37	16	0	0	53	0	0	0	0	0	0	25	25	0	0	0	50	11	1	27	0	0	39	142	637
08:15:00	1	37	19	0	0	57	0	0	0	0	0	0	29	21	0	0	0	50	13	2	18	0	0	33	140	616
08:30:00	0	37	23	0	0	60	0	0	0	0	0	0	19	40	0	0	0	59	9	1	33	0	0	43	162	628
08:45:00	0	36	11	0	0	47	0	0	0	0	0	0	29	31	0	0	0	60	15	0	27	0	0	42	149	593
09:00:00	0	26	9	0	0	35	0	0	0	0	0	0	15	34	0	0	0	49	7	1	34	0	0	42	126	577
09:15:00	0	22	8	0	0	30	0	0	0	0	0	0	14	31	1	0	0	46	11	1	24	0	0	36	112	549
09:30:00	0	29	14	0	0	43	0	0	0	0	0	0	20	28	0	0	0	48	16	0	27	0	0	43	134	521
09:45:00	1	37	17	0	0	55	0	0	0	0	0	0	18	32	1	0	0	51	9	0	26	0	0	35	141	513
BREAK																										
10:00:00	1	31	11	0	0	43	1	0	0	0	0	1	15	15	0	0	0	30	12	1	29	0	0	42	116	
10:15:00	0	35	9	0	0	44	0	0	0	0	0	0	19	34	1	0	0	54	25	0	28	0	0	53	151	
10:30:00	0	35	11	0	0	46	0	0	1	0	0	1	23	36	0	1	0	60	7	1	28	0	0	36	143	
10:45:00	0	27	13	0	0	40	0	0	0	0	0	0	21	27	1	0	0	49	8	0	21	0	0	29	118	528
11:00:00	0	22	7	0	0	29	0	0	0	0	0	0	14	31	0	0	0	45	14	0	17	0	0	31	105	517
11:15:00	0	23	7	0	0	30	0	0	2	0	0	2	12	38	0	0	0	50	9	1	21	0	0	31	113	479
11:30:00	0	33	16	0	0	49	1	0	0	0	0	1	21	21	1	0	0	43	11	4	28	0	0	43	136	472
11:45:00	0	36	12	0	0	48	0	2	1	0	0	3	17	29	2	0	0	48	11	1	22	0	0	34	133	487
12:00:00	1	21	16	0	0	38	1	0	0	0	0	1	21	27	0	0	0	48	17	4	26	1	0	48	135	517
12:15:00	0	20	14	0	0	34	0	0	0	0	0	0	19	33	1	1	0	54	9	2	21	0	0	32	120	524
12:30:00	0	30	9	0	0	39	0	0	0	0	0	0	21	41	0	0	0	62	13	0	30	0	0	43	144	532
12:45:00	0	27	5	0	0	32	0	0	0	0	0	0	34	32	0	0	0	66	10	1	26	0	0	37	135	534
13:00:00	0	22	15	0	0	37	0	1	0	0	0	1	18	25	0	0	0	43	15	1	17	0	0	33	114	513
13:15:00	0	37	9	0	0	46	0	0	0	0	0	0	28	38	1	0	0	67	15	0	23	0	0	38	151	544
13:30:00	0	33	13	0	0	46	0	1	0	0	0	1	14	25	1	0	0	40	12	0	22	0	0	34	121	521
13:45:00	0	28	20	0	0	48	0	0	0	0	0	0	39	43	0	0	0	82	19	1	29	0	0	49	179	565
14:00:00	0	24	14	0	0	38	0	0	0	0	0	0	20	31	0	0	0	51	11	1	35	0	0	47	136	587
14:15:00	0	31	9	0	0	40	0	1	0	0	0	1	22	27	0	0	0	49	19	1	32	0	0	52	142	578
14:30:00	0	26	7	0	0	33	0	2	0	0	0	2	26	45	0	0	0	71	17	0	27	0	0	44	150	607
14:45:00	0	28	9	0	0	37	0	0	0	0	0	0	30	47	0	0	0	77	17	0	27	0	0	44	158	586
BREAK																										
15:00:00	0	32	13	0	0	45	1	2	0	0	0	3	19	57	1	0	0	77	17	0	27	0	0	44	169	
15:15:00	0	32	13	0	0	45	0	1	1	0	0	2	25	43	0	0	0	68	17	0	39	0	0	56	171	
15:30:00	0	25	5	0	0	30	1	0	0	0	0	1	30	53	0	0	0	83	21	0	30	0	0	51	165	
15:45:00	0	29	14	0	0	43	0	2	0	0	0	2	31	57	0	0	0	88	24	0	28	0	0	52	185	690
16:00:00	0	40	18	0	0	58	0	0	0	0	0	0	28	57	0	0	0	85	24	0	32	0	0	56	199	720
16:15:00	0	38	13	0	0	51	0	0	0	0	0	0	33	66	0	0	0	99	21	0	46	0	0	67	217	766
16:30:00	1	43	16	0	0	60	0	0	0	0	0	0	48	93	1	0	0	142	25	0	44	0	0	69	271	872

16:45:00	0	45	7	0	0	52	0	0	0	0	0	0	26	70	0	0	0	96	30	0	33	0	0	63	211	898
17:00:00	0	46	17	0	0	63	0	3	1	0	0	4	27	67	0	0	0	94	19	1	30	0	0	50	211	910
17:15:00	0	37	15	0	0	52	2	2	1	0	0	5	34	52	1	0	0	87	27	0	40	0	0	67	211	904
17:30:00	0	37	9	0	0	46	0	3	0	0	0	3	30	63	0	0	0	93	23	0	25	0	0	48	190	823
17:45:00	0	39	7	0	0	46	0	2	1	0	0	3	27	55	0	0	0	82	19	0	24	0	0	43	174	786
Grand Total	6	1612	652	0	0	2270	7	22	8	0	0	37	1142	1780	14	2	0	2938	673	28	1324	1	0	2026	**7271**	-
Approach%	0.3%	71%	28.7%	0%		-	18.9%	59.5%	21.6%	0%		-	38.9%	60.6%	0.5%	0.1%		-	33.2%	1.4%	65.4%	0%		-	**-**	-
Totals %	0.1%	22.2%	9%	0%		31.2%	0.1%	0.3%	0.1%	0%		0.5%	15.7%	24.5%	0.2%	0%		40.4%	9.3%	0.4%	18.2%	0%		27.9%	**-**	-
Heavy	0	152	23	0		-	0	0	0	0		-	111	179	0	1		-	30	0	154	0		-	**-**	-
Heavy %	0%	9.4%	3.5%	0%		-	0%	0%	0%	0%		-	9.7%	10.1%	0%	50%		-	4.5%	0%	11.6%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Peak Hour: 07:15 AM - 08:15 AM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach AURORA RD						S Approach YORK DURHAM LINE						W Approach AURORA RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:15:00	0	45	21	0	0	66	0	0	0	0	0	0	25	30	0	0	0	55	8	0	32	0	0	40	161
07:30:00	0	45	23	0	0	68	0	0	0	0	0	0	25	19	0	0	0	44	9	0	29	0	0	38	150
07:45:00	0	51	22	0	0	73	0	0	0	0	0	0	39	27	0	0	0	66	6	0	39	0	0	45	184
08:00:00	0	37	16	0	0	53	0	0	0	0	0	0	25	25	0	0	0	50	11	1	27	0	0	39	142
Grand Total	0	178	82	0	0	260	0	0	0	0	0	0	114	101	0	0	0	215	34	1	127	0	0	162	**637**
Approach%	0%	68.5%	31.5%	0%		-	0%	0%	0%	0%		-	53%	47%	0%	0%		-	21%	0.6%	78.4%	0%		-	**-**
Totals %	0%	27.9%	12.9%	0%		40.8%	0%	0%	0%	0%		0%	17.9%	15.9%	0%	0%		33.8%	5.3%	0.2%	19.9%	0%		25.4%	**-**
PHF	0	0.87	0.89	0		0.89	0	0	0	0		0	0.73	0.84	0	0		0.81	0.77	0.25	0.81	0		0.9	**-**
Heavy	0	18	0	0		18	0	0	0	0		0	9	25	0	0		34	4	0	18	0		22	**-**
Heavy %	0%	10.1%	0%	0%		6.9%	0%	0%	0%	0%		0%	7.9%	24.8%	0%	0%		15.8%	11.8%	0%	14.2%	0%		13.6%	**-**
Lights	0	160	82	0		242	0	0	0	0		0	105	76	0	0		181	30	1	108	0		139	**-**
Lights %	0%	89.9%	100%	0%		93.1%	0%	0%	0%	0%		0%	92.1%	75.2%	0%	0%		84.2%	88.2%	100%	85%	0%		85.8%	**-**
Single-Unit Trucks	0	3	0	0		3	0	0	0	0		0	3	3	0	0		6	1	0	5	0		6	**-**
Single-Unit Trucks %	0%	1.7%	0%	0%		1.2%	0%	0%	0%	0%		0%	2.6%	3%	0%	0%		2.8%	2.9%	0%	3.9%	0%		3.7%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	1	0		1	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0.8%	0%		0.6%	**-**
Articulated Trucks	0	4	0	0		4	0	0	0	0		0	1	3	0	0		4	0	0	1	0		1	**-**
Articulated Trucks %	0%	2.2%	0%	0%		1.5%	0%	0%	0%	0%		0%	0.9%	3%	0%	0%		1.9%	0%	0%	0.8%	0%		0.6%	**-**
Aggregate Trucks	0	11	0	0		11	0	0	0	0		0	5	19	0	0		24	3	0	11	0		14	**-**
Aggregate Trucks %	0%	6.2%	0%	0%		4.2%	0%	0%	0%	0%		0%	4.4%	18.8%	0%	0%		11.2%	8.8%	0%	8.7%	0%		8.6%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	1	0		1	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0.8%	0%		0.6%	**-**

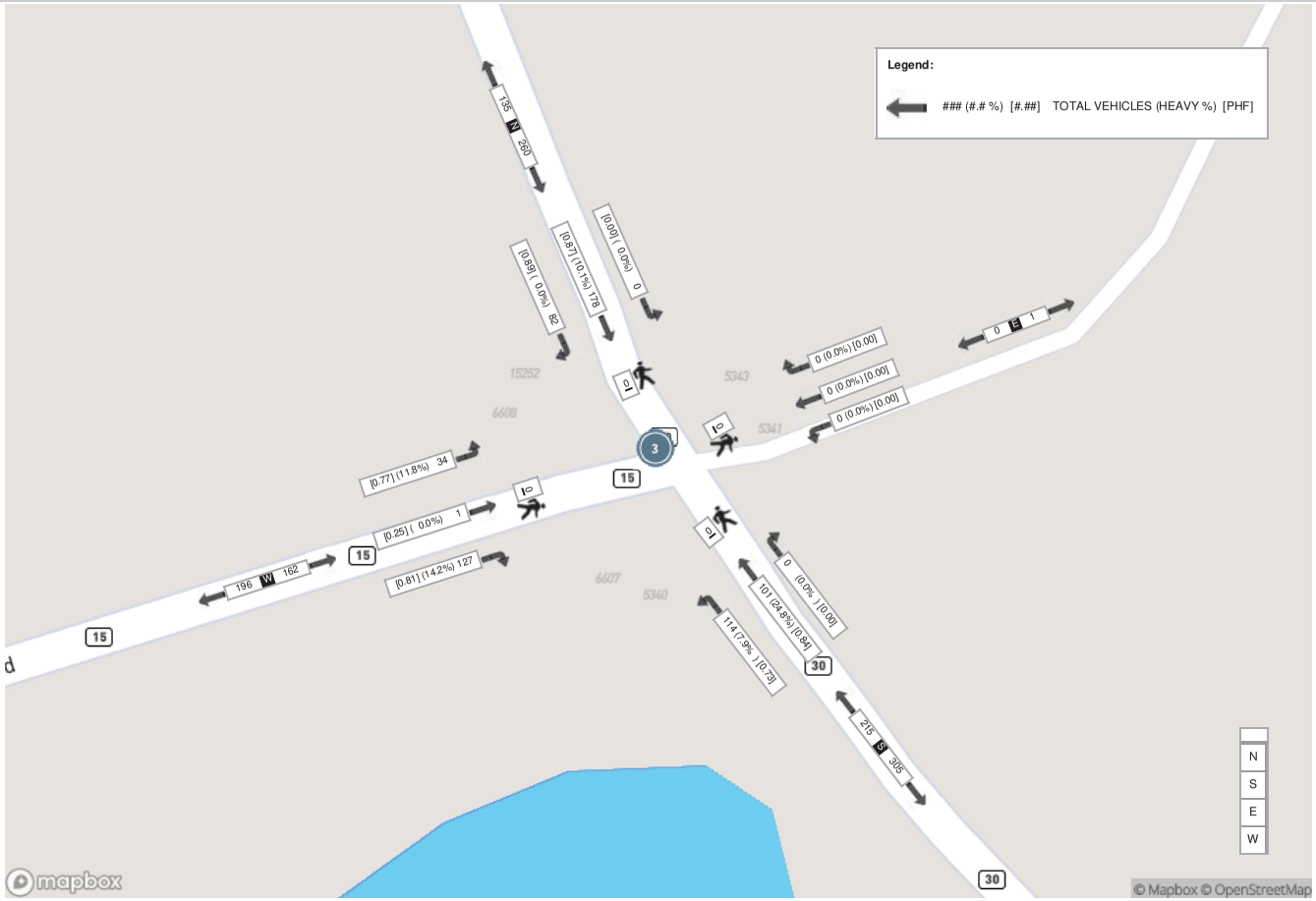
Peak Hour: 01:45 PM - 02:45 PM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach AURORA RD						S Approach YORK DURHAM LINE						W Approach AURORA RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
13:45:00	0	28	20	0	0	48	0	0	0	0	0	0	39	43	0	0	0	82	19	1	29	0	0	49	179
14:00:00	0	24	14	0	0	38	0	0	0	0	0	0	20	31	0	0	0	51	11	1	35	0	0	47	136
14:15:00	0	31	9	0	0	40	0	1	0	0	0	1	22	27	0	0	0	49	19	1	32	0	0	52	142
14:30:00	0	26	7	0	0	33	0	2	0	0	0	2	26	45	0	0	0	71	17	0	27	0	0	44	150
Grand Total	0	109	50	0	0	159	0	3	0	0	0	3	107	146	0	0	0	253	66	3	123	0	0	192	**607**
Approach%	0%	68.6%	31.4%	0%		-	0%	100%	0%	0%		-	42.3%	57.7%	0%	0%		-	34.4%	1.6%	64.1%	0%		-	**-**
Totals %	0%	18%	8.2%	0%		26.2%	0%	0.5%	0%	0%		0.5%	17.6%	24.1%	0%	0%		41.7%	10.9%	0.5%	20.3%	0%		31.6%	**-**
PHF	0	0.88	0.63	0		0.83	0	0.38	0	0		0.38	0.69	0.81	0	0		0.77	0.87	0.75	0.88	0		0.92	**-**
Heavy	0	16	5	0		21	0	0	0	0		0	11	6	0	0		17	1	0	18	0		19	**-**
Heavy %	0%	14.7%	10%	0%		13.2%	0%	0%	0%	0%		0%	10.3%	4.1%	0%	0%		6.7%	1.5%	0%	14.6%	0%		9.9%	**-**
Lights	0	93	45	0		138	0	3	0	0		3	96	140	0	0		236	65	3	105	0		173	**-**
Lights %	0%	85.3%	90%	0%		86.8%	0%	100%	0%	0%		100%	89.7%	95.9%	0%	0%		93.3%	98.5%	100%	85.4%	0%		90.1%	**-**
Single-Unit Trucks	0	3	2	0		5	0	0	0	0		0	6	4	0	0		10	0	0	7	0		7	**-**
Single-Unit Trucks %	0%	2.8%	4%	0%		3.1%	0%	0%	0%	0%		0%	5.6%	2.7%	0%	0%		4%	0%	0%	5.7%	0%		3.6%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	2	0	0		2	0	0	0	0		0	2	0	0	0		2	0	0	1	0		1	**-**
Articulated Trucks %	0%	1.8%	0%	0%		1.3%	0%	0%	0%	0%		0%	1.9%	0%	0%	0%		0.8%	0%	0%	0.8%	0%		0.5%	**-**
Aggregate Trucks	0	11	3	0		14	0	0	0	0		0	3	2	0	0		5	1	0	10	0		11	**-**
Aggregate Trucks %	0%	10.1%	6%	0%		8.8%	0%	0%	0%	0%		0%	2.8%	1.4%	0%	0%		2%	1.5%	0%	8.1%	0%		5.7%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**

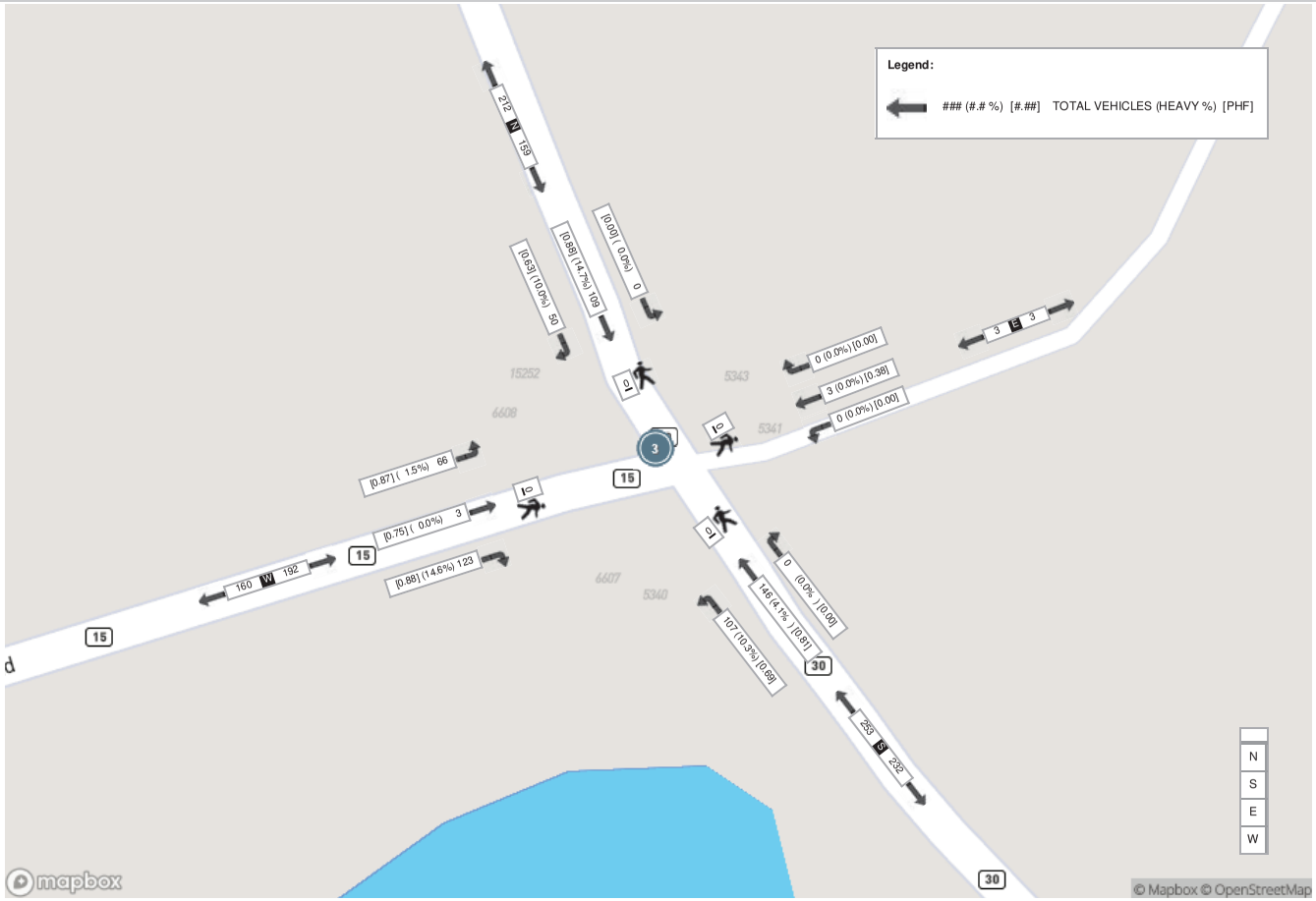
Peak Hour: 04:15 PM - 05:15 PM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach AURORA RD						S Approach YORK DURHAM LINE						W Approach AURORA RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:15:00	0	38	13	0	0	51	0	0	0	0	0	0	33	66	0	0	0	99	21	0	46	0	0	67	217
16:30:00	1	43	16	0	0	60	0	0	0	0	0	0	48	93	1	0	0	142	25	0	44	0	0	69	271
16:45:00	0	45	7	0	0	52	0	0	0	0	0	0	26	70	0	0	0	96	30	0	33	0	0	63	211
17:00:00	0	46	17	0	0	63	0	3	1	0	0	4	27	67	0	0	0	94	19	1	30	0	0	50	211
Grand Total	1	172	53	0	0	226	0	3	1	0	0	4	134	296	1	0	0	431	95	1	153	0	0	249	**910**
Approach%	0.4%	76.1%	23.5%	0%		-	0%	75%	25%	0%		-	31.1%	68.7%	0.2%	0%		-	38.2%	0.4%	61.4%	0%		-	**-**
Totals %	0.1%	18.9%	5.8%	0%		24.8%	0%	0.3%	0.1%	0%		0.4%	14.7%	32.5%	0.1%	0%		47.4%	10.4%	0.1%	16.8%	0%		27.4%	**-**
PHF	0.25	0.93	0.78	0		0.9	0	0.25	0.25	0		0.25	0.7	0.8	0.25	0		0.76	0.79	0.25	0.83	0		0.9	**-**
Heavy	0	7	1	0		8	0	0	0	0		0	4	8	0	0		12	4	0	8	0		12	**-**
Heavy %	0%	4.1%	1.9%	0%		3.5%	0%	0%	0%	0%		0%	3%	2.7%	0%	0%		2.8%	4.2%	0%	5.2%	0%		4.8%	**-**
Lights	1	165	52	0		218	0	3	1	0		4	130	288	1	0		419	91	1	145	0		237	**-**
Lights %	100%	95.9%	98.1%	0%		96.5%	0%	100%	100%	0%		100%	97%	97.3%	100%	0%		97.2%	95.8%	100%	94.8%	0%		95.2%	**-**
Single-Unit Trucks	0	5	1	0		6	0	0	0	0		0	2	3	0	0		5	0	0	3	0		3	**-**
Single-Unit Trucks %	0%	2.9%	1.9%	0%		2.7%	0%	0%	0%	0%		0%	1.5%	1%	0%	0%		1.2%	0%	0%	2%	0%		1.2%	**-**
Buses	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0.6%	0%	0%		0.4%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	1	0	3	0		4	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.3%	0%	0%		0.2%	1.1%	0%	2%	0%		1.6%	**-**
Aggregate Trucks	0	1	0	0		1	0	0	0	0		0	2	4	0	0		6	3	0	2	0		5	**-**
Aggregate Trucks %	0%	0.6%	0%	0%		0.4%	0%	0%	0%	0%		0%	1.5%	1.4%	0%	0%		1.4%	3.2%	0%	1.3%	0%		2%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**

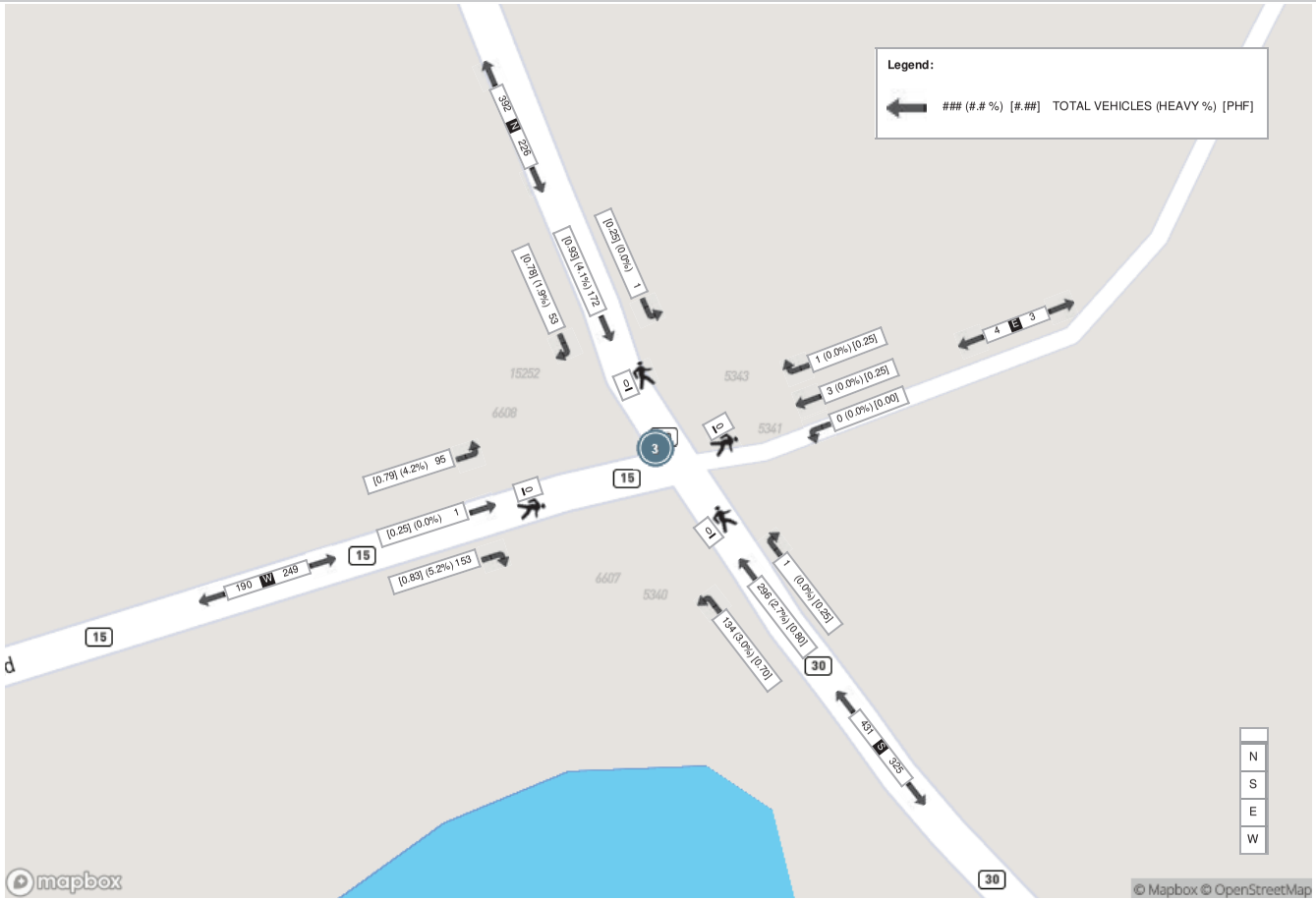
Peak Hour: 07:15 AM - 08:15 AM **Weather:**



Peak Hour: 01:45 PM - 02:45 PM Weather:



Peak Hour: 04:15 PM - 05:15 PM **Weather:**



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422 7722 DUVVERIN g t REEt
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Turning Movement Count (5 . YORK-DURHAM LINE & BLOOMINGTON ROAD)

Start Time	N Approach YORK DURHAM LINE						E Approach eLOOMINf t ON RD						S Approach YORK DURHAM LINE						W Approach eLOOMINf t ON RD						Int. Total (15 min)	Int. Total (1 hr)
	L: Th NrE	tuS Nrg	RWuh NrP	Uti St NrN	s: po Nr	AaaSt l 0u t ch 6	L: Th Erg	tuS ErP	RWuh ErN	Uti St ErE	s: po Er	AaaSt l 0u t ch 6	L: Th grP	tuS grN	RWuh grE	Uti St grg	s: po gr	AaaSt l 0u t ch 6	L: Th PrN	tuS PrE	RWuh Prg	Uti St PrP	s: po Pr	AaaSt l 0u t ch 6		
21r22/22	9	45	7	2	2	51	83	*4	5	2	2	82*	88	8B	*	2	2	5B	*	5B	82	2	2	91	457	
21r89/22	1	4B	88	2	2	33	81	842	88	2	2	83B	85	44	88	2	2	31	3	32	82	2	2	93	4*8	
21r52/22	81	51	88	2	2	15	82	83B	81	2	2	8B5	*	55	88	2	2	95	B	31	B	2	2	12	53*	
21r39/22	*	51	82	2	2	99	49	887	*	2	2	894	88	58	44	2	2	13	49	98	83	2	2	*2	518	845*
2Br22/22	9	54	7	2	2	39	45	859	82	2	2	817	83	58	42	2	2	19	7	3B	7	2	2	15	538	8534
2Br89/22	1	34	88	2	2	9*	8B	*B	84	2	2	841	82	4*	8*	2	2	97	83	71	7	2	2	827	598	8324
2Br52/22	83	51	83	2	2	13	41	854	83	2	2	8B4	89	45	4*	2	2	1B	42	**	81	2	2	859	357	83*8
2Br39/22	85	38	84	2	2	11	48	82*	82	2	2	832	83	59	49	2	2	B3	42	B1	7	2	2	823	573	8983
27r22/22	85	31	43	2	2	75	4B	829	42	2	2	894	83	4B	58	2	2	B4	87	B4	87	2	2	827	389	8977
27r89/22	84	59	*	2	2	91	47	822	83	2	2	834	81	5B	41	2	2	B*	8B	74	*	2	2	827	579	8144
27r52/22	85	5*	88	2	2	15	4B	859	B	2	2	81*	87	52	8B	2	2	19	41	78	7	2	2	889	384	89*1
27r39/22	8B	38	45	2	2	78	51	74	8*	2	2	85B	8B	51	4*	2	2	74	87	74	81	2	2	881	381	8147
2*r22/22	1	43	89	2	2	39	45	*9	42	2	2	857	82	41	42	2	2	91	83	B7	B	2	2	**	557	8998
2*r89/22	9	53	85	2	2	94	81	*9	88	2	2	844	B	45	44	2	2	94	7	78	*	2	2	*7	543	83*2
2*r52/22	1	52	*	2	2	39	41	7*	81	2	2	858	9	59	8B	2	2	9B	B	B2	*	2	2	71	58*	85*B
2*r39/22	85	47	84	2	2	95	87	1B	9	2	2	*2	3	41	83	2	2	33	8B	71	88	2	2	883	528	8474
fffe REAKfff																										
82r22/22	85	44	83	2	2	3*	49	75	83	2	2	844	1	52	43	2	2	12	42	B8	1	2	2	*B	547	
82r89/22	84	48	42	2	2	95	87	78	83	2	2	885	85	57	81	2	2	1B	8*	B8	9	2	2	*9	547	
82r52/22	89	47	8*	2	2	14	43	19	*	2	2	*7	1	49	45	2	2	93	82	B*	82	2	2	**	585	
82r39/22	87	55	83	2	2	19	87	1*	B	2	2	*3	9	57	8B	2	2	12	*	BB	B	2	2	*5	584	8478
88r22/22	89	54	7	2	2	99	83	75	7	2	2	829	7	47	48	2	2	9B	81	*3	*	2	2	88*	551	847*
88r89/22	85	4*	42	2	2	14	49	*8	89	2	2	858	7	57	8B	2	2	15	87	78	9	2	2	823	512	8548
88r52/22	84	51	83	2	2	14	45	72	85	2	2	881	*	45	53	2	2	11	88	92	*	2	2	B2	583	8544
88r39/22	88	4*	83	2	2	93	48	13	*	2	2	*3	B	49	4B	2	2	9*	87	B7	1	2	2	824	52*	858*
84r22/22	88	8*	88	2	2	38	5B	71	82	2	2	855	9	52	47	2	2	15	81	39	42	2	2	78	587	8528
84r89/22	8*	4*	B	2	2	99	41	B2	*	2	2	829	7	59	4*	2	2	B4	88	95	83	2	2	B7	582	8498
84r52/22	8B	55	*	2	2	9*	5B	98	83	2	2	824	1	57	59	2	2	B*	87	92	82	2	2	B7	587	8499
84r39/22	89	52	88	2	2	91	34	91	42	2	2	887	7	55	5*	2	2	72	89	B3	1	2	2	*9	53*	84*9
85r22/22	89	32	B	2	2	14	47	9*	84	2	2	**	88	51	52	2	2	BB	84	18	82	2	2	75	548	84*7
85r89/22	88	54	85	2	2	91	4*	9*	1	2	2	*3	7	4*	57	2	2	B9	83	883	B	2	2	859	512	8537
85r52/22	48	41	8*	2	2	11	45	19	88	2	2	**	8B	55	58	2	2	78	85	13	84	2	2	7*	559	8519
85r39/22	83	4B	8B	2	2	97	4B	*9	82	2	2	854	81	5B	45	2	2	B1	87	17	88	2	2	*B	515	85B*
83r22/22	84	45	42	2	2	99	48	72	B	2	2	827	82	55	53	2	2	BB	89	17	88	2	2	*3	553	85*4
83r89/22	B	43	84	2	2	35	47	77	82	2	2	841	82	47	49	2	2	15	89	82B	82	2	2	854	513	85*1
83r52/22	89	55	85	2	2	18	87	78	81	2	2	889	88	57	99	2	2	823	89	*4	*	2	2	881	5*1	839B
83r39/22	84	59	83	2	2	18	41	B7	*	2	2	885	7	32	44	2	2	B2	85	849	84	2	2	892	5*3	8377
fffe REAKfff																										
89r22/22	82	54	84	2	2	93	45	7B	81	2	2	841	89	33	52	2	2	7*	45	853	85	2	2	8B2	35*	
89r89/22	89	37	42	2	2	75	81	79	81	2	2	88B	1	38	5B	2	2	73	82	847	82	2	2	837	354	
89r52/22	85	92	8B	2	2	72	52	7*	83	2	2	855	82	3*	55	2	2	*4	8*	899	83	2	2	877	3*5	
89r39/22	*	5B	85	2	2	9*	4*	B*	81	2	2	843	89	92	31	2	2	888	88	844	88	2	2	833	357	8724
81r22/22	84	5*	84	2	2	15	5B	*5	8*	2	2	83*	85	31	53	2	2	*5	48	898	43	2	2	8*1	928	8713
81r89/22	82	5*	84	2	2	18	4B	74	84	2	2	848	42	37	39	2	2	885	87	847	8*	2	2	819	312	87*4
81r52/22	81	37	42	2	2	73	98	829	B	2	2	815	85	99	3B	2	2	889	85	897	8*	2	2	8*2	994	8*98

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81r39r22	82	53	81	2	2	12	4*	829	88	2	2	839	8B	39	59	2	2	*B	7	84B	8B	2	2	894	393	8*1B
8Br22r22	83	5*	81	2	2	1*	55	82B	84	2	2	894	85	3B	34	2	2	824	82	8B3	45	2	2	42B	952	8**1
8Br89r22	83	9*	B	2	2	72	38	82*	85	2	2	815	84	3B	54	2	2	*8	85	838	89	2	2	81*	925	425*
8Br52r22	81	33	48	2	2	78	4B	74	88	2	2	842	89	12	3B	2	2	844	7	859	83	2	2	89B	372	8*1B
8Br39r22	84	34	1	2	2	12	47	19	82	2	2	825	89	38	4B	2	2	75	1	853	87	2	2	897	323	8*8B
Grand Total	977	8134	13*	2	2	47B*	8453	34*2	9BB	2	2	1828	954	817*	8539	2	2	5911	177	3545	993	2	2	9919	**18111**	-
Approach%	42.3%	9B%	44.9%	2%		-	42.4%	B2.5%	*.9%	2%		-	83.*%	3B.3%	5B.B%	2%		-	84.3%	BB.B%	82%	2%		-	**-**	-
Totals %	5.4%	*.8%	5.1%	2%		89.*%	1.7%	45.B%	5.4%	2%		55.B%	4.*%	*.5%	B.3%	2%		8*.B%	5.7%	45.*%	5.8%	2%		52.B%	**-**	-
Heavy	8*4	817	589	2		-	79	149	485	2		-	93	81B	75	2		-	529	187	93	2		-	**-**	-
Heavy %	54.B%	82.4%	37.9%	2%		-	1.*%	83.1%	51.*%	2%		-	82.4%	*.*%	1.4%	2%		-	33.5%	83.5%	*.B%	2%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

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422 7722 DUVVERIN g t REEt
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Peak Hour: 08:00 AM - 09:00 AM **Weather:**

Start Time	N Approach YORK DURHAM LINE						E Approach eLOOMINf t ON RD						S Approach YORK DURHAM LINE						W Approach eLOOMINf t ON RD						Int. Total (15 min)
	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	
27r22r22	85	31	43	2	2	75	4B	829	42	2	2	894	83	4B	58	2	2	B4	87	B4	87	2	2	827	389
27r89r22	84	59	*	2	2	91	47	822	83	2	2	834	81	5B	41	2	2	B*	8B	74	*	2	2	827	579
27r52r22	85	5*	88	2	2	15	4B	859	B	2	2	81*	87	52	8B	2	2	19	41	78	7	2	2	889	384
27r39r22	8B	38	45	2	2	78	51	74	8*	2	2	85B	8B	51	4*	2	2	74	87	74	81	2	2	881	381
Grand Total	99	818	1B	2	2	475	887	344	12	2	2	122	19	852	825	2	2	4*7	B*	58B	98	2	2	33B	**1628**
Approach%	8*.3%	91.*%	45.B%	2%		-	8*.B%	B2.5%	82%	2%		-	48.7%	35.1%	53.1%	2%		-	8B.B%	B2.*%	88.3%	2%		-	-
Totals %	5.3%	*.*%	3.8%	2%		8B.3%	B.4%	49.*%	5.B%	2%		51.*%	3%	7%	1.5%	2%		87.5%	3.*%	8*.9%	5.8%	2%		4B.9%	-
PHF	2.78	2.77	2.B	2		2.79	2.74	2.B7	2.B9	2		2.7*	2.*	2.77	2.75	2		2.*8	2.B1	2.*B	2.B8	2		2.*1	-
Heavy	45	89	34	2		72	7	97	4B	2		*5	88	83	3	2		4*	5B	1*	7	2		883	-
Heavy %	38.7%	*.5%	14.B%	2%		47.5%	1.7%	85.B%	39%	2%		89.9%	81.*%	82.7%	5.*%	2%		*.B%	31.7%	48.7%	89.B%	2%		49.9%	-
Lights	54	831	49	2		425	882	513	55	2		92B	93	881	**	2		41*	34	437	35	2		555	-
Lights %	97.4%	*2.B%	5B.5%	2%		B8.B%	*5.4%	71.5%	99%	2%		73.9%	75.8%	7*.4%	*1.8%	2%		*2.5%	95.4%	B7.4%	73.5%	2%		B3.9%	-
Single-Unit Trucks	5	5	2	2		1	9	82	4	2		8B	3	5	4	2		*	5	84	8	2		81	-
Single-Unit Trucks %	9.9%	8.*%	2%	2%		4.8%	3.4%	4.3%	5.5%	2%		4.7%	1.4%	4.5%	8.*%	2%		5%	5.7%	5.7%	4%	2%		5.1%	-
Buses	2	8	2	2		8	4	2	2	2		4	8	2	2	2		8	2	2	2	2		2	-
Buses %	2%	2.1%	2%	2%		2.3%	8.B%	2%	2%	2%		2.5%	8.9%	2%	2%	2%		2.5%	2%	2%	2%	2%		2%	-
Articulated Trucks	5	8	4	2		1	2	9	5	2		7	8	2	2	2		8	4	83	2	2		81	-
Articulated Trucks %	9.9%	2.1%	5%	2%		4.8%	2%	8.4%	9%	2%		8.5%	8.9%	2%	2%	2%		2.5%	4.9%	3.3%	2%	2%		5.1%	-
Aggregate Trucks	8B	82	32	2		1B	8	35	44	2		11	9	88	4	2		87	54	35	B	2		74	-
Aggregate Trucks %	52.*%	1.4%	9*.B%	2%		45.B%	2.7%	82.4%	51.B%	2%		88%	B.B%	7.9%	8.*%	2%		1%	32.9%	85.1%	85.B%	2%		87.5%	-
Bicycles on Road	2	2	2	2		2	2	2	2	2		2	2	2	2	2		2	2	2	2	2		2	-
Bicycles on Road %	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	-

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Peak Hour: 02:00 PM - 03:00 PM **Weather:**

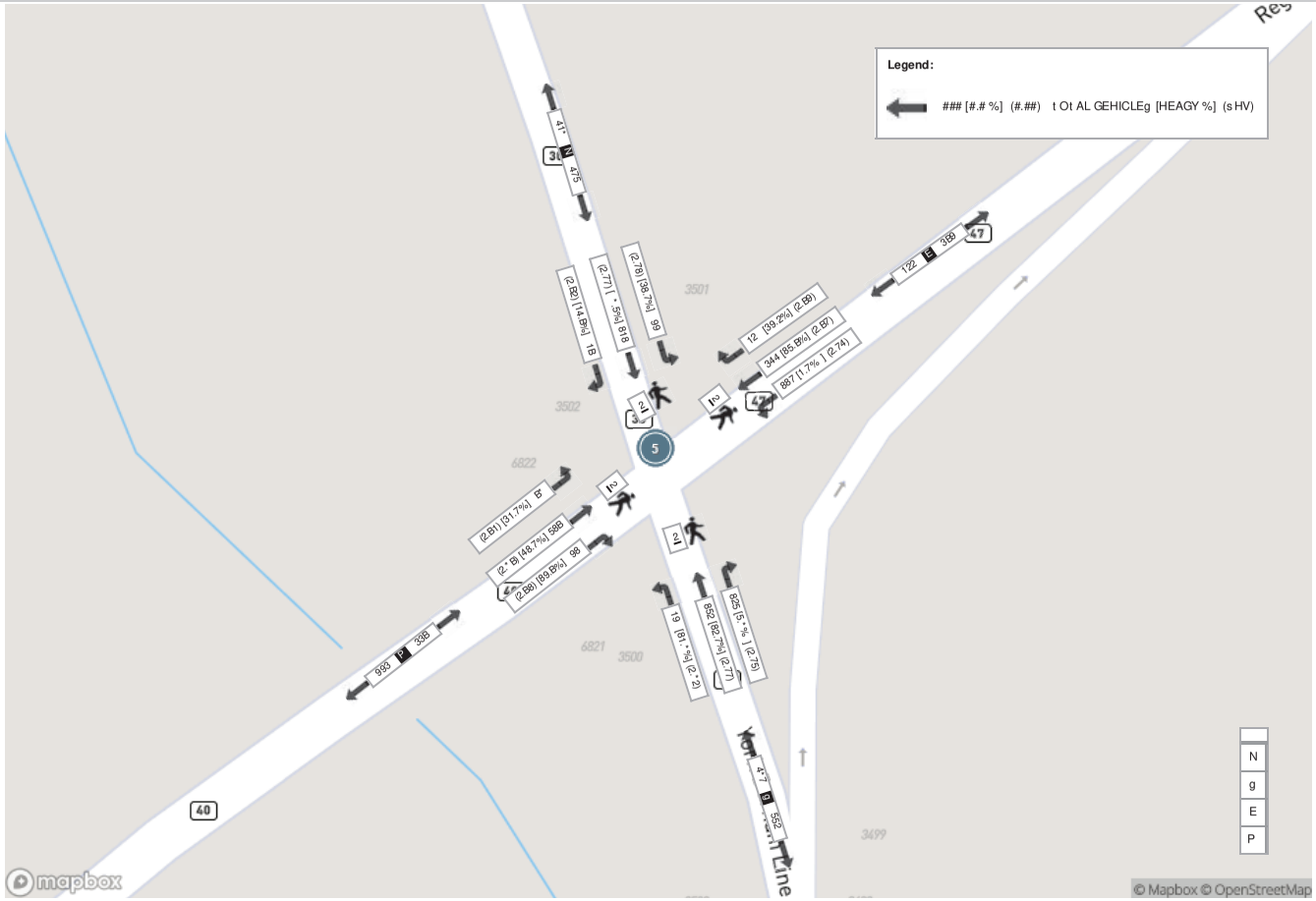
Start Time	N Approach YORK DURHAM LINE						E Approach eLOOMINf t ON RD						S Approach YORK DURHAM LINE						W Approach eLOOMINf t ON RD						Int. Total (15 min)
	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	
83r22r22	84	45	42	2	2	99	48	72	B	2	2	827	82	55	53	2	2	BB	89	17	88	2	2	*3	553
83r89r22	B	43	84	2	2	35	47	77	82	2	2	841	82	47	49	2	2	15	89	82B	82	2	2	854	513
83r52r22	89	55	85	2	2	18	87	78	81	2	2	889	88	57	99	2	2	823	89	*4	*	2	2	881	5*1
83r39r22	84	59	83	2	2	18	41	B7	*	2	2	885	7	32	44	2	2	B2	85	849	84	2	2	892	5*3
Grand Total	31	889	9*	2	2	442	*5	54B	34	2	2	314	5*	85*	851	2	2	583	97	5*4	34	2	2	3*4	**1488**
Approach%	42.*%	94.5%	41.7%	2%		-	42.8%	B2.7%	*.8%	2%		-	84.3%	33.5%	35.5%	2%		-	88.7%	B*.B%	7.9%	2%		-	**-**
Totals %	5.8%	B.B%	3%	2%		83.7%	1.5%	44%	4.7%	2%		58%	4.1%	*.5%	*.8%	2%		48.8%	5.*%	41.5%	4.7%	2%		55.8%	**-**
PHF	2.BB	2.74	2.B3	2		2.*	2.75	2.*5	2.11	2		2.*4	2.7*	2.7B	2.14	2		2.B9	2.*B	2.B7	2.77	2		2.74	**-**
Heavy	87	89	38	2		B3	7	19	89	2		77	8	83	B	2		44	55	37	3	2		79	**-**
Heavy %	5*.8%	85%	1*.9%	2%		55.1%	7.1%	8*.*%	59.B%	2%		8*%	4.1%	82.8%	9.8%	2%		B%	91.*%	84.4%	*.9%	2%		8B.5%	**-**
Lights	47	822	87	2		831	79	414	4B	2		5B3	57	849	84*	2		4*4	49	533	57	2		32B	**-**
Lights %	12.*%	7B%	52.9%	2%		11.3%	*8.3%	72.8%	13.5%	2%		78%	*B.3%	7*.*%	*3.*%	2%		*5%	35.8%	7B.7%	*2.9%	2%		74.B%	**-**
Single-Unit Trucks	8	8	4	2		3	9	44	5	2		52	2	8	5	2		3	3	9	8	2		82	**-**
Single-Unit Trucks %	4.4%	2.*%	5.3%	2%		8.7%	9.3%	1.B%	B.8%	2%		1.9%	2%	2.B%	4.4%	2%		8.5%	1.*%	8.5%	4.3%	2%		4%	**-**
Buses	2	4	2	2		4	8	2	2	2		8	2	2	8	2		8	2	2	2	2		2	**-**
Buses %	2%	8.B%	2%	2%		2.*%	8.8%	2%	2%	2%		2.4%	2%	2%	2.B%	2%		2.5%	2%	2%	2%	2%		2%	**-**
Articulated Trucks	2	8	2	2		8	8	85	2	2		83	2	4	2	2		4	8	*	4	2		84	**-**
Articulated Trucks %	2%	2.*%	2%	2%		2.9%	8.8%	3%	2%	2%		5%	2%	8.3%	2%	2%		2.1%	8.B%	4.5%	3.7%	2%		4.3%	**-**
Aggregate Trucks	8B	88	5*	2		1B	8	52	84	2		35	8	88	5	2		89	47	53	8	2		15	**-**
Aggregate Trucks %	5B%	*.1%	11.8%	2%		52.9%	8.8%	*.4%	47.1%	2%		*.5%	4.1%	B.*%	4.4%	2%		3.7%	37.5%	7.B%	4.3%	2%		84.7%	**-**
Bicycles on Road	2	2	2	2		2	2	2	2	2		2	2	2	2	2		2	2	2	2	2		2	**-**
Bicycles on Road %	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	**-**

t YLW
422 7722 DUVVERIN g t REEt
GAUf HAN ONt ARIO, L3K 2C9
CANADA

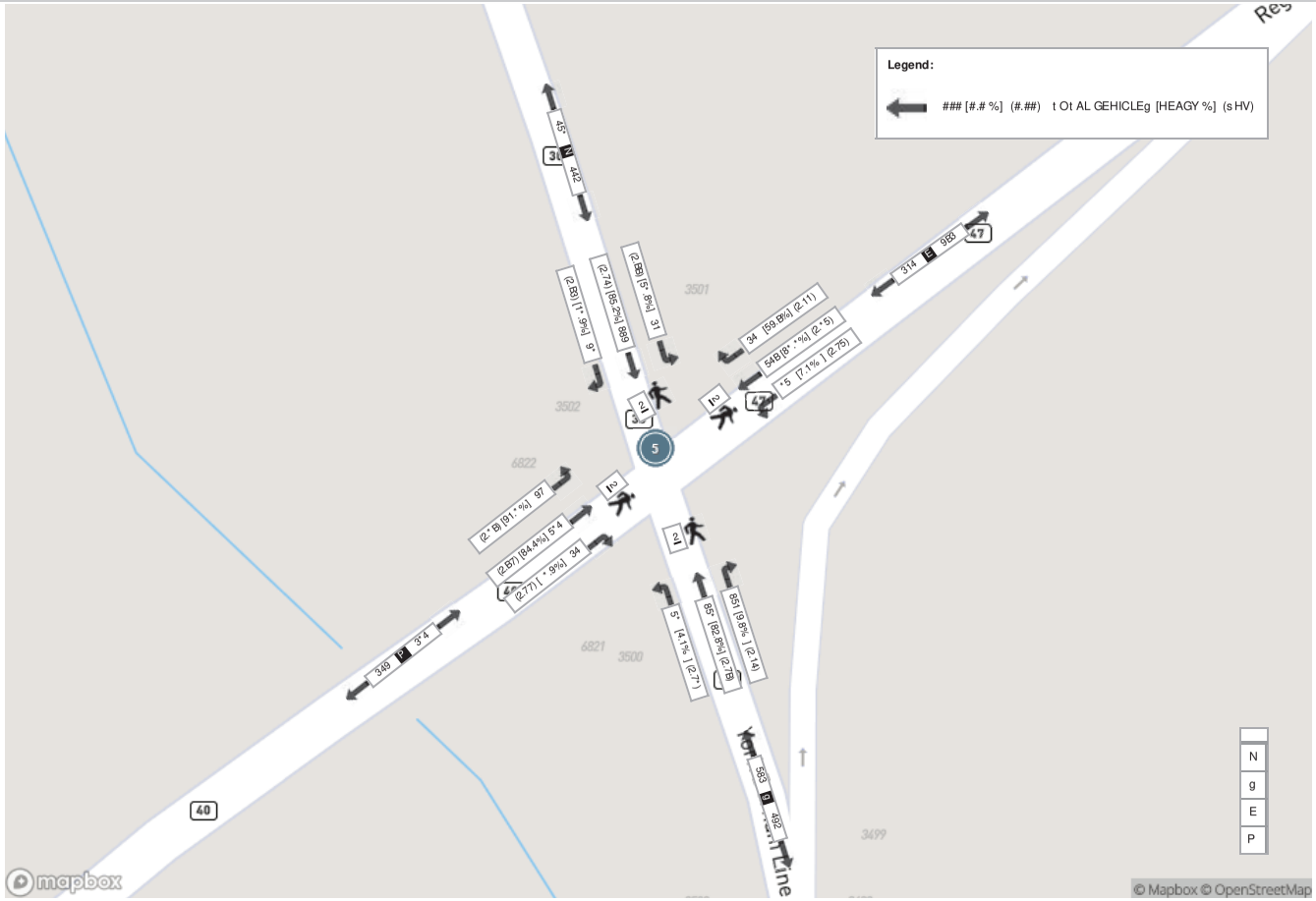
Peak Hour: 04:30 PM - 05:30 PM **Weather:**

Start Time	N Approach YORK DURHAM LINE						E Approach eLOOMINf t ON RD						S Approach YORK DURHAM LINE						W Approach eLOOMINf t ON RD						Int. Total (15 min)
	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	L: Th	t uS	RWuh	Ut i Sl	s: po	AaaSc l 0u t ch l 6	
81r52r22	81	37	42	2	2	73	98	829	B	2	2	815	85	99	3B	2	2	889	85	897	8*	2	2	8*2	994
81r39r22	82	53	81	2	2	12	4*	829	88	2	2	839	8B	39	59	2	2	*B	7	84B	8B	2	2	894	393
8Br22r22	83	5*	81	2	2	1*	55	82B	84	2	2	894	85	3B	34	2	2	824	82	8E3	45	2	2	42B	952
8Br89r22	83	9*	B	2	2	72	38	82*	85	2	2	815	84	3B	54	2	2	*8	85	838	89	2	2	81*	925
Grand Total	93	872	9*	2	2	4*5	893	341	35	2	2	145	99	8*3	891	2	2	329	33	122	B3	2	2	B87	**2039**
Approach%	87.3%	18.3%	42.8%	2%		-	43.B%	17.3%	1.*%	2%		-	85.1%	3B.*%	57.9%	2%		-	1.8%	75.1%	82.5%	2%		-	-
Totals %	4.1%	7.7%	4.*%	2%		83.3%	B.1%	42.*%	4.8%	2%		52.1%	4.B%	*.9%	B.B%	2%		8*.*%	4.4%	4*.3%	5.1%	2%		59.4%	-
PHF	2.73	2.B1	2.B3	2		2.7B	2.B9	2.*7	2.75	2		2.*1	2.78	2.77	2.75	2		2.77	2.79	2.71	2.7	2		2.7B	-
Heavy	7	9	B	2		42	8	52	4	2		55	5	3	3	2		88	4	58	9	2		57	-
Heavy %	83.7%	4.7%	88.*%	2%		1.7%	2.1%	B%	3.B%	2%		9.5%	9.9%	4.8%	4.1%	2%		4.B%	3.9%	9.4%	1.7%	2%		9.5%	-
Lights	31	8B9	94	2		4B5	895	5*1	38	2		9*2	94	8*2	894	2		5*3	34	91*	1*	2		172	-
Lights %	79.4%	*B.4%	77.8%	2%		*5.4%	**.3%	*5%	*9.5%	2%		*3.B%	*3.9%	*B.*%	*B.3%	2%		*B.5%	*9.9%	*3.7%	*5.4%	2%		*3.B%	-
Single-Unit Trucks	8	8	4	2		3	2	82	2	2		82	2	5	4	2		9	8	8B	8	2		8*	-
Single-Unit Trucks %	8.*%	2.1%	5.3%	2%		8.3%	2%	4.5%	2%	2%		8.1%	2%	8.9%	8.5%	2%		8.4%	4.5%	4.7%	8.3%	2%		4.1%	-
Buses	2	2	8	2		8	8	4	2	2		5	2	2	8	2		8	2	2	2	2		2	-
Buses %	2%	2%	8.B%	2%		2.5%	2.1%	2.9%	2%	2%		2.9%	2%	2%	2.1%	2%		2.4%	2%	2%	2%	2%		2%	-
Articulated Trucks	8	8	2	2		4	2	9	2	2		9	4	2	2	2		4	2	5	3	2		B	-
Articulated Trucks %	8.*%	2.1%	2%	2%		2.B%	2%	8.4%	2%	2%		2.7%	5.1%	2%	2%	2%		2.9%	2%	2.9%	9.3%	2%		8%	-
Aggregate Trucks	1	5	3	2		85	2	85	4	2		89	8	8	8	2		5	8	88	2	2		84	-
Aggregate Trucks %	88.8%	8.B%	1.7%	2%		3.3%	2%	5.8%	3.B%	2%		4.3%	8.7%	2.9%	2.1%	2%		2.B%	4.5%	8.7%	2%	2%		8.B%	-
Bicycles on Road	2	2	2	2		2	2	2	2	2		2	2	2	2	2		2	2	2	2	2		2	-
Bicycles on Road %	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	2%	2%	2%	2%		2%	-

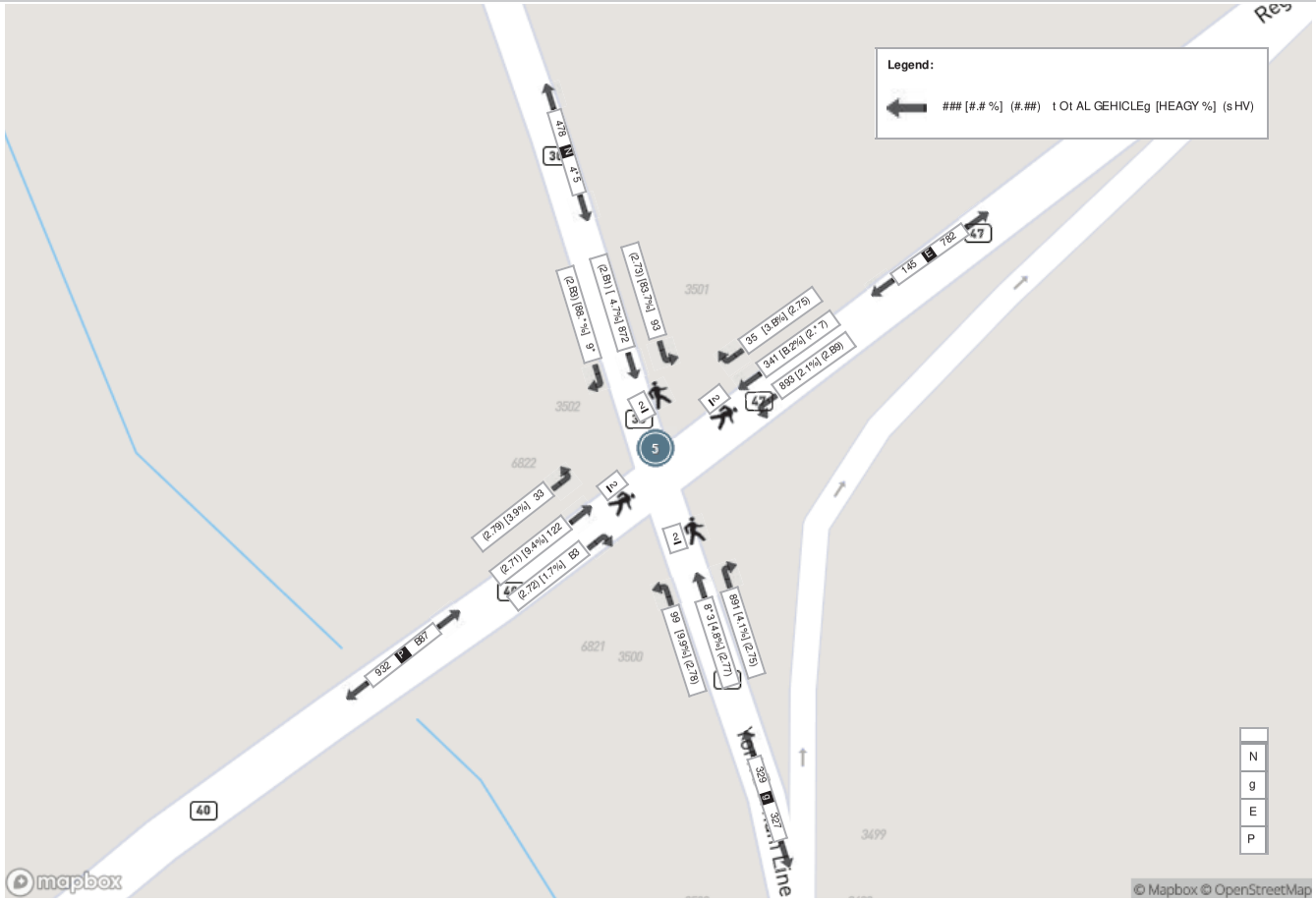
Peak Hour: 08:00 AM - 09:00 AM **Weather:**



Peak Hour: 02:00 PM - 03:00 PM **Weather:**



Peak Hour: 04:30 PM - 05:30 PM **Weather:**



Turning Movement Count (1 . YORK-DURHAM LINE & LAFARGE STOUFFVILLE PIT (NORTH))

Start Time	N Approach REGI ONAGL HOWW47					S Approach REGI ONAGL HOWW47					W Approach W B GC70KDEABBeYWW7 0 YDO4 EGDL :					Int. Total (15 min)	Int. Total (1 hr)
	DSTh 4rK	GuUSn 4rP	ADhTd 4r4	f spo 4r	aaTcl i SODcnl g	Ws0h KrP	DSTh Kr4	ADhTd KrK	f spo Kr	aaTcl i SODcnl g	Ws0h P r4	GuUSn P rK	ADhTd P rP	f spo P r	aaTcl i SODcnl g		
63r66r66	56	9	6	6	59	3	98	6	6	91	6	6	6	6	6	32	
63r8*r66	53	8	6	6	51	5	92	6	6	FF	6	6	6	6	6	V6	
63rF6r66	35	8	6	6	3*	1	F2	6	6	53	6	6	6	6	6	888	
63r5*r66	19	6	6	6	19	9	F1	6	6	F2	6	6	6	6	6	888	F18
61r66r66	5*	8	6	6	53	*	FV	6	6	5F	6	6	6	6	6	V2	F28
61r8*r66	35	9	6	6	33	8*	F8	6	6	53	6	6	6	6	6	889	59F
61rF6r66	32	6	6	6	32	8*	58	6	6	*3	6	6	6	6	6	89*	5F1
61r5*r66	1V	F	6	6	V8	8*	58	6	6	*3	6	6	6	6	6	8F1	53F
6Vr66r66	*2	8	6	6	36	2	*F	6	6	39	6	6	6	6	6	899	523
6Vr8*r66	*F	8	6	6	*5	88	51	6	6	*V	6	6	6	6	6	889	523
6VrF6r66	3V	9	6	6	16	82	53	6	6	3*	8	6	6	6	8	8F3	*61
6Vr5*r66	*2	8	6	6	36	8F	*F	6	6	33	6	6	6	6	6	893	523
62r66r66	F3	8	6	6	F1	89	*9	6	6	35	6	6	6	6	6	868	51*
62r8*r66	55	9	6	6	53	*	FV	6	6	5F	6	6	6	8	6	V2	5*9
62rF6r66	59	9	6	6	55	86	*F	6	6	3F	6	6	6	6	6	861	59F
62r5*r66	51	F	6	6	*6	8*	F1	6	6	*9	6	6	6	8	6	869	F22
,,,MG7 I,,,																	
86r66r66	F1	F	6	6	56	83	55	6	6	36	6	6	6	6	6	866	
86r8*r66	FV	8	6	6	F2	83	52	6	6	3*	6	6	6	6	6	865	
86rF6r66	59	5	6	6	53	3	58	6	6	51	6	6	6	6	6	2F	
86r5*r66	*2	5	6	6	3F	V	52	6	6	*1	6	6	6	6	6	896	581
88r66r66	**	8	6	6	*3	8*	58	6	6	*3	6	6	6	6	6	889	592
88r8*r66	F2	6	6	6	F2	89	36	6	6	19	6	6	6	6	6	888	5F3
88rF6r66	5V	8	6	6	52	8F	92	6	6	59	6	6	6	6	6	28	5F5
88r5*r66	56	F	6	6	5F	86	53	6	6	*3	6	6	6	6	6	22	58F
89r66r66	59	8	6	6	5F	3	*F	6	6	*2	6	6	6	6	6	869	56F
89r8*r66	51	8	6	6	5V	1	*9	6	6	*2	6	6	6	6	6	861	F22
89rF6r66	5F	5	6	6	51	81	*9	6	6	32	6	6	6	6	6	883	595
89r5*r66	35	F	6	6	31	8F	36	6	6	1F	6	6	6	6	6	856	53*
8Fr66r66	53	9	6	6	5V	86	36	6	6	16	6	6	6	6	6	88V	5V8
8Fr8*r66	*V	9	6	6	36	88	59	6	6	*F	6	6	6	6	6	88F	5V1
8FrF6r66	58	F	6	6	55	8F	58	6	6	*5	6	6	6	6	6	2V	532
8Fr5*r66	53	9	6	6	5V	81	51	6	6	35	6	6	6	6	6	889	558

85r66r66	FV	6	6	6	FV	83	55	6	6	36	6	6	6	6	6	2V	598
85r8*r66	92	6	6	6	92	88	51	6	6	*V	6	6	6	6	6	V1	F2*
85rF6r66	**	9	6	6	*1	88	**	6	6	33	6	6	6	6	6	89F	596
85r5*r66	52	8	6	6	*6	86	*6	6	6	36	6	6	6	6	6	886	58V
,,,MG7 I,,,																	
8*r66r66	*2	6	6	6	*2	83	18	6	6	V1	6	6	6	6	6	853	
8*r8*r66	16	6	6	6	16	1	33	6	6	1F	6	6	6	6	6	85F	
8*rF6r66	1F	6	6	6	1F	8*	11	6	6	29	6	6	6	6	6	83*	
8*r5*r66	59	9	6	6	55	3	V6	6	6	V3	6	6	6	6	6	8F6	*V5
83r66r66	*8	5	6	6	**	V	2F	6	6	868	6	6	6	6	6	8*3	*25
83r8*r66	*1	6	6	6	*1	9	12	6	6	V8	6	6	6	6	6	8FV	*V2
83rF6r66	*2	6	6	6	*2	6	21	6	6	21	6	6	6	6	6	8*3	*V6
83r5*r66	59	6	6	6	59	6	3V	6	6	3V	6	8	6	6	8	888	*38
81r66r66	18	6	6	6	18	8	2*	6	6	23	6	6	6	6	6	831	*19
81r8*r66	16	6	6	6	16	6	12	6	6	12	6	6	6	6	6	852	*VF
81rF6r66	3*	6	6	6	3*	6	V*	6	6	V*	6	6	6	6	6	8*6	*11
81r5*r66	*6	9	6	6	*9	9	36	6	6	39	6	6	6	6	6	885	*V6
Grand Total	9*88	32	6	6	9*V6	5*V	9*3V	6	6	F693	8	8	6	9	9	**5608**	Q
Approach%	21(F)	9(1)	6)		Q	8*(8)	V5(2)	6)		Q	*6)	*6)	6)		Q	-	Q
Totals %	55(V)	8(9)	6)		53)	V(9)	5*(V)	6)		*5)	6)	6)	6)		6)	-	Q
Heavy	915	51	6		Q	558	9VV	6		Q	6	6	6		Q	-	Q
Heavy %	86(2)	3V(8)	6)		Q	23(F)	88(9)	6)		Q	6)	6)	6)		Q	-	Q
Bicycles	Q	Q	Q		Q	Q	Q	Q		Q	Q	Q	Q		Q	-	Q
Bicycle %	Q	Q	Q		Q	Q	Q	Q		Q	Q	Q	Q		Q	-	Q

Peak Hour: 07:45 AM - 08:45 AMCCCCVeather:

Start Time	N Approach REGI ONAGL HOVW47					S Approach REGI ONAGL HOVW47					W Approach W B GC70XDEABBeYWV7 0 YDO4 EGDL:					Int. Total (15 min)
	DSTh	GuUSn	ADhTd	f spo	aaTcl i SODcnl g	Wt0h	DSTh	ADhTd	f spo	aaTcl i SODcnl g	Wt0h	GuUSn	ADhTd	f spo	aaTcl i SODcnl g	
61r5*r66	1V	F	6	6	V8	8*	58	6	6	*3	6	6	6	6	6	8F1
6Vr66r66	*2	8	6	6	36	2	*F	6	6	39	6	6	6	6	6	899
6Vr8*r66	*F	8	6	6	*5	88	51	6	6	*V	6	6	6	6	6	889
6VrF6r66	3V	9	6	6	16	82	53	6	6	3*	8	6	6	6	8	8F3
Grand Total	9*V	1	6	6	93*	*5	8V1	6	6	958	8	6	6	6	8	**507**
Approach%	21(5)	9(3)	6)		Q	99(5)	11(3)	6)		Q	866)	6)	6)		Q	-
Totals %	*6(2)	8(5)	6)		*9(F)	86(1)	F3(2)	6)		51(*)	6(9)	6)	6)		6(9)	-
PHF	6(VF	6(*V	6		6(V9	6(18	6(VV	6		6(2F	6(9*	6	6		6(9*	-
Heavy	9V	*	6		FF	*8	99	6		1F	6	6	6		6	-
Heavy %	86(2)	18(5)	6)		89(*)	25(5)	88(V)	6)		F6(F)	6)	6)	6)		6)	-
Lights	9F6	9	6		9F9	F	83*	6		83V	8	6	6		8	-
Lights %	V2(8)	9V(3)	6)		V1(*)	*(3)	VV(9)	6)		32(1)	866)	6)	6)		866)	-
Single-Unit Trucks	3	6	6		3	6	F	6		F	6	6	6		6	-
Single-Unit Trucks %	9(F)	6)	6)		9(F)	6)	8(3)	6)		8(9)	6)	6)	6)		6)	-
Buses	8	6	6		8	6	6	6		6	6	6	6		6	-
Buses %	6(5)	6)	6)		6(5)	6)	6)	6)		6)	6)	6)	6)		6)	-
Articulated Trucks	9	6	6		9	6	8	6		8	6	6	6		6	-
Articulated Trucks %	6(V)	6)	6)		6(V)	6)	6(*)	6)		6(5)	6)	6)	6)		6)	-
Aggregate Trucks	82	*	6		95	*8	8V	6		32	6	6	6		6	-
Aggregate Trucks %	1(5)	18(5)	6)		2(8)	25(5)	2(3)	6)		9V(3)	6)	6)	6)		6)	-
Bicycles on Road	6	6	6		6	6	6	6		6	6	6	6		6	-
Bicycles on Road %	6)	6)	6)		6)	6)	6)	6)		6)	6)	6)	6)		6)	-
Pedestrians	Q	Q	Q	6	Q	Q	Q	Q	6	Q	Q	Q	Q	6	Q	-
Pedestrians%	Q	Q	Q	6)	O	Q	Q	Q	6)	O	Q	Q	Q	6)	O	-

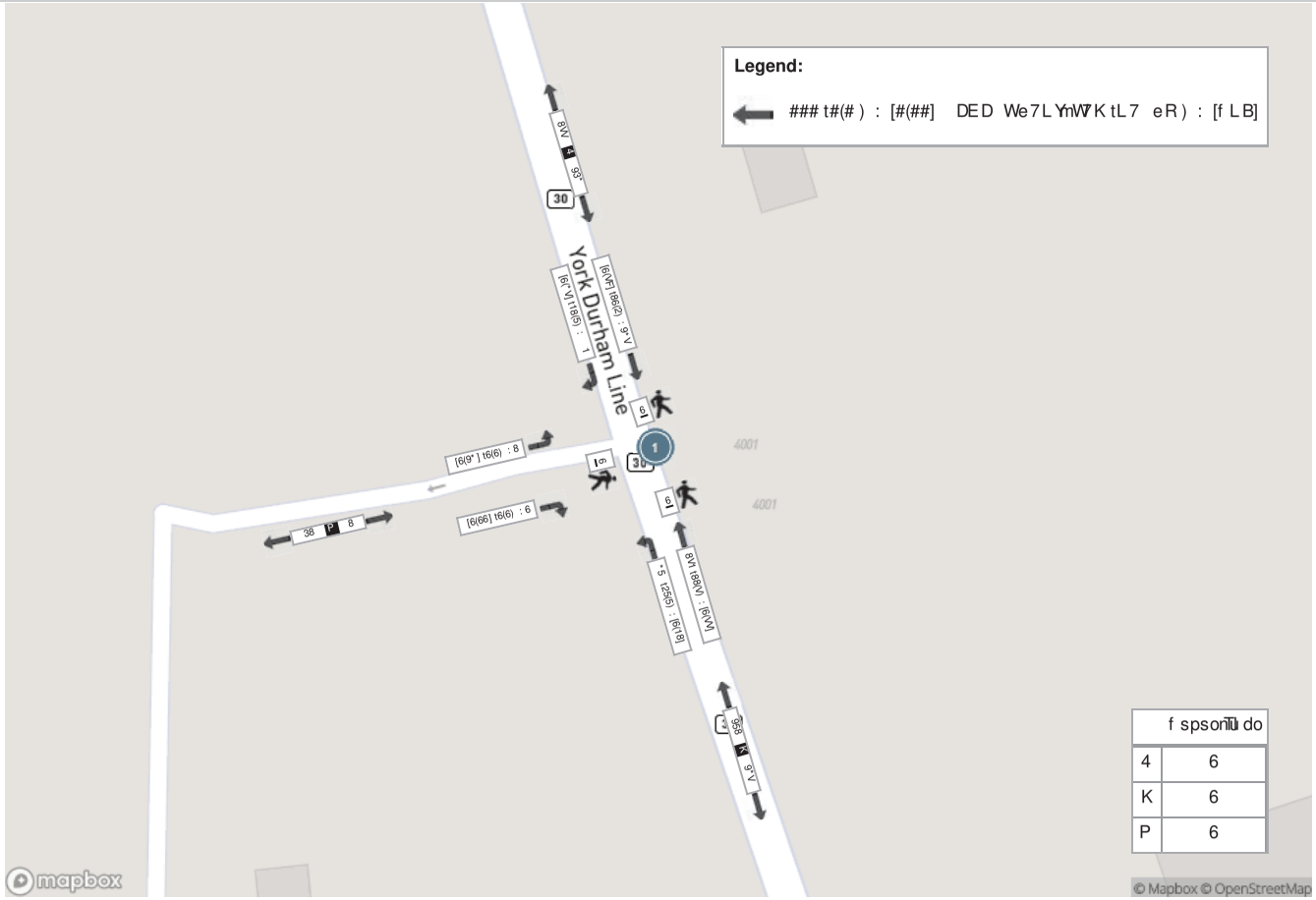
Peak Hour: 12:30 PM - 01:30 PMCCCCWeather:

Start Time	N Approach REGIONAGL HOWW47					S Approach REGIONAGL HOWW47					W Approach WB GC7CKDEABBeYWW7OYDO4EGDL:					Int. Total (15 min)
	DSTh	GuUSn	ADhTd	f spo	aaTcliSCDcnlg	Ws0n	DSTh	ADhTd	f spo	aaTcliSCDcnlg	Ws0n	GuUSn	ADhTd	f spo	aaTcliSCDcnlg	
89rF6r66	5F	5	6	6	51	81	*9	6	6	32	6	6	6	6	6	883
89r5*r66	35	F	6	6	31	8F	36	6	6	1F	6	6	6	6	6	856
8Fr66r66	53	9	6	6	5V	86	36	6	6	16	6	6	6	6	6	88V
8Fr8*r66	*V	9	6	6	36	88	59	6	6	*F	6	6	6	6	6	88F
Grand Total	988	88	6	6	999	*8	985	6	6	93*	6	6	6	6	6	**487**
Approach%	2*)	*)	6)		Q	82(9)	V6(V)	6)		Q	6)	6)	6)		Q	-
Totals %	5F(F)	9(F)	6)		5*(3)	86(*)	5F(2)	6)		*5(5)	6)	6)	6)		6)	-
PHF	6(V9	6(32	6		6(VF	6(1*	6(V2	6		6(28	6	6	6		6	-
Heavy	F8	86	6		58	52	59	6		28	6	6	6		6	-
Heavy %	85(1)	26(2)	6)		8V(*)	23(8)	82(3)	6)		F5(F)	6)	6)	6)		6)	-
Lights	8V6	8	6		8V8	9	819	6		815	6	6	6		6	-
Lights %	V*(F)	2(8)	6)		V8(*)	F(2)	V6(5)	6)		3*(1)	6)	6)	6)		6)	-
Single-Unit Trucks	V	8	6		2	3	V	6		85	6	6	6		6	-
Single-Unit Trucks %	F(V)	2(8)	6)		5(8)	88(V)	F(1)	6)		*(F)	6)	6)	6)		6)	-
Buses	6	6	6		6	6	6	6		6	6	6	6		6	-
Buses %	6)	6)	6)		6)	6)	6)	6)		6)	6)	6)	6)		6)	-
Articulated Trucks	3	6	6		3	6	*	6		*	6	6	6		6	-
Articulated Trucks %	9(V)	6)	6)		9(1)	6)	9(F)	6)		8(2)	6)	6)	6)		6)	-
Aggregate Trucks	81	2	6		93	5F	92	6		19	6	6	6		6	-
Aggregate Trucks %	V(8)	V8(V)	6)		88(1)	V5(F)	8F(3)	6)		91(9)	6)	6)	6)		6)	-
Bicycles on Road	6	6	6		6	6	6	6		6	6	6	6		6	-
Bicycles on Road %	6)	6)	6)		6)	6)	6)	6)		6)	6)	6)	6)		6)	-
Pedestrians	Q	Q	Q	6	Q	Q	Q	Q	6	Q	Q	Q	Q	6	Q	-
Pedestrians%	Q	Q	Q	6)	O	Q	Q	Q	6)	O	Q	Q	Q	6)	O	-

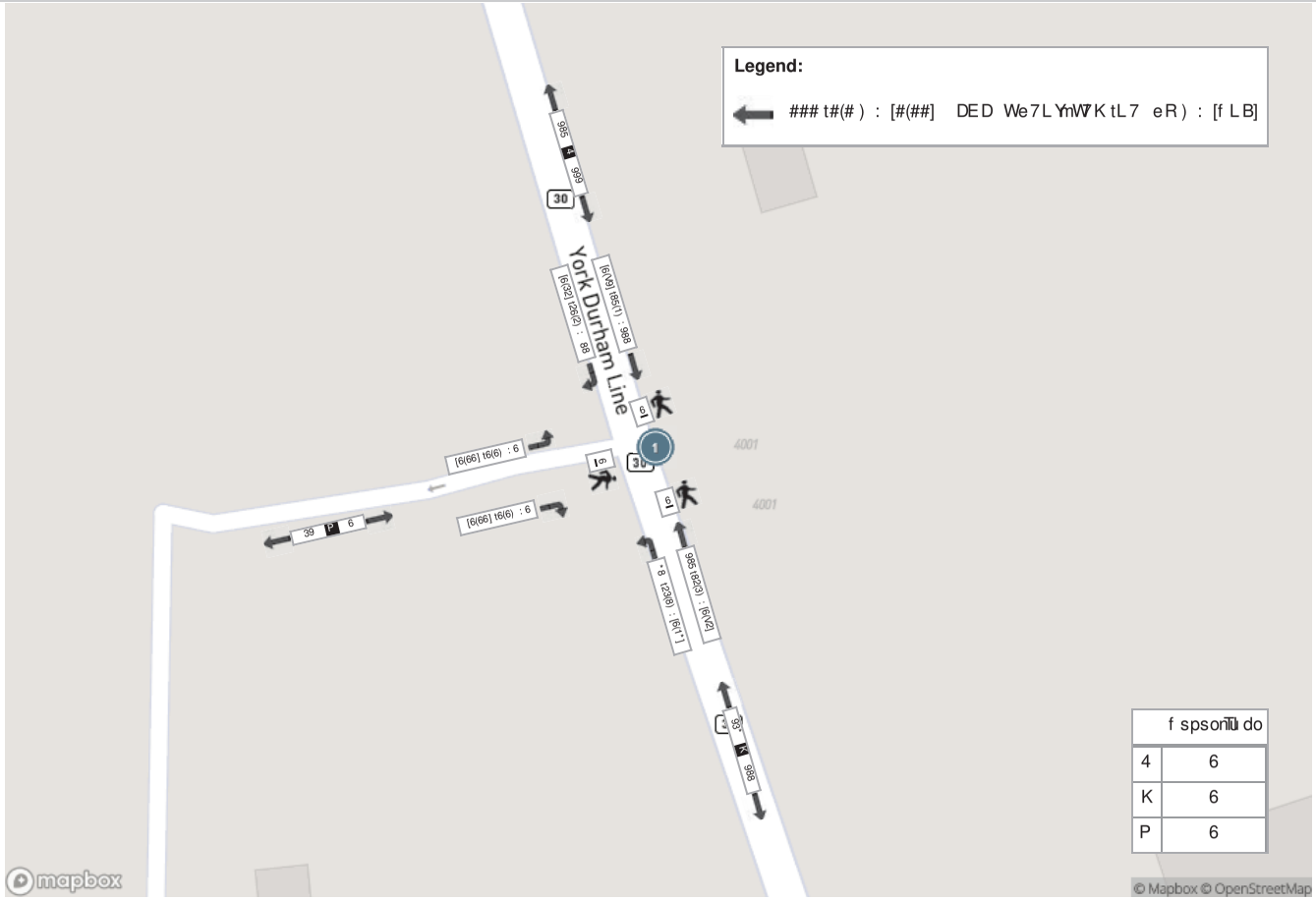
Peak Hour: 03:15 PM - 04:15 PM Weather:

Start Time	N Approach REGI NAGL H VW47					S Approach REGI NAGL H VW47					W Approach W B GC7 KDEABBeYWW7 f YDt4EGDL:					Int. Total (15 min)
	DSTh	GuUSn	ADhTd	f spo	aaTcl i S Dcnl g	Wd0n	DSTh	ADhTd	f spo	aaTcl i S Dcnl g	Wd0n	GuUSn	ADhTd	f spo	aaTcl i S Dcnl g	
8*r8*r66	16	6	6	6	16	1	33	6	6	1F	6	6	6	6	6	85F
8*rF6r66	1F	6	6	6	1F	8*	11	6	6	29	6	6	6	6	6	83*
8*r5*r66	59	9	6	6	55	3	V6	6	6	V3	6	6	6	6	6	8F6
83r66r66	*8	5	6	6	**	V	2F	6	6	868	6	6	6	6	6	8*3
Grand Total	9F3	3	6	6	959	F3	F83	6	6	F*9	6	6	6	6	6	**594**
Approach%	21(*)	9(*)	6)		Q	86(9)	V2(V)	6)		Q	6)	6)	6)		Q	-
Totals %	F2(1)	8)	6)		56(1)	3(8)	*F(9)	6)		*2(F)	6)	6)	6)		6)	-
PHF	6(V8	6(FV	6		6(VF	6(3	6(V*	6		6(V1	6	6	6		6	-
Heavy	96	*	6		9*	F*	91	6		39	6	6	6		6	-
Heavy %	V(*)	VF(F)	6)		86(F)	21(9)	V(*)	6)		81(3)	6)	6)	6)		6)	-
Lights	983	8	6		981	8	9V2	6		926	6	6	6		6	-
Lights %	28(*)	83(1)	6)		V2(1)	9(V)	28(*)	6)		V9(5)	6)	6)	6)		6)	-
Single-Unit Trucks	2	8	6		86	9	8F	6		8*	6	6	6		6	-
Single-Unit Trucks %	F(V)	83(1)	6)		5(8)	*(3)	5(8)	6)		5(F)	6)	6)	6)		6)	-
Buses	6	6	6		6	6	8	6		8	6	6	6		6	-
Buses %	6)	6)	6)		6)	6)	6(F)	6)		6(F)	6)	6)	6)		6)	-
Articulated Trucks	9	6	6		9	8	9	6		F	6	6	6		6	-
Articulated Trucks %	6(V)	6)	6)		6(V)	9(V)	6(3)	6)		6(2)	6)	6)	6)		6)	-
Aggregate Trucks	2	5	6		8F	F9	88	6		5F	6	6	6		6	-
Aggregate Trucks %	F(V)	33(1)	6)		*(5)	VV(2)	F(*)	6)		89(9)	6)	6)	6)		6)	-
Bicycles on Road	6	6	6		6	6	6	6		6	6	6	6		6	-
Bicycles on Road %	6)	6)	6)		6)	6)	6)	6)		6)	6)	6)	6)		6)	-
Pedestrians	Q	Q	Q	6	Q	Q	Q	Q	6	Q	Q	Q	Q	6	Q	-
Pedestrians%	Q	Q	Q	6)		Q	Q	Q	6)		Q	Q	Q	6)		-

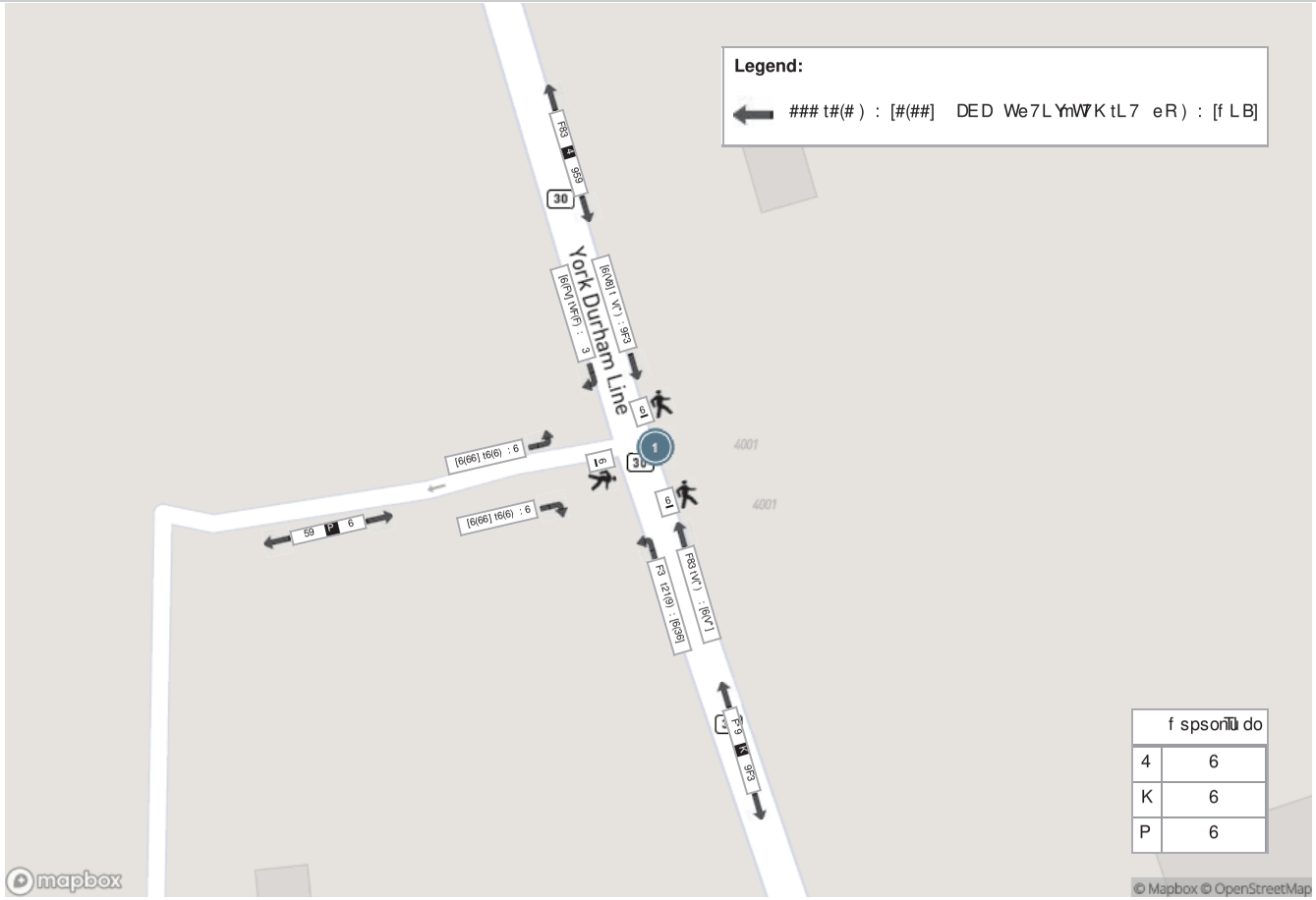
Peak Hour: 07:45 AM - 08:45 AM Weather:



Peak Hour: 12:30 PM - 01:30 PM Weather:



Peak Hour: 03:15 PM - 04:15 PM Weather:



Turning Movement Count (2 . YORK-DURHAM LINE & LAFARGE STOUFFVILLE PIT (SOUTH))

Start Time	N Approach YORK DURHAM LINE						E Approach eft : YORK DURHAM LINE						S Approach YORK DURHAM LINE						W Approach LATARh E r uOUTTSILLE i lu gr OUuHW						Int. Total (15 min)	Int. Total (1 hr)
	LnRl NsE	upca Nsr	Rt pd Ns0	Uuac6 NsN	i n21 Ns	A99o457p u4c58	LnRl Esr	upca Es0	Rt pd EsN	Uuac6 EsE	i n21 Es	A99o457p u4c58	LnRl r s0	upca r sN	Rt pd r sE	Uuac6 r sr	i n21 r s	A99o457p u4c58	LnRl 0 sN	upca 0 sE	Rt pd 0 sr	Uuac6 0 s0	i n21 0 s	A99o457p u4c58		
3*s33s83	B	eF	3	3	3	e:	3	3	3	3	V	3	3	Vf	V	3	3	V:	3	3	*	3	3	*	f G	
3*sBt s83	3	Gt	3	3	3	Gt	3	3	3	3	3	3	3	ee	V	3	3	et	3	3	G	3	3	G	FG	
3*se3s83	3	* *	3	3	3	* *	3	3	3	3	3	3	3	GB	e	3	3	GG	V	3	t	3	3	f	BBf	
3*sCl s83	3	f B	3	3	3	f B	3	3	3	3	3	3	3	G3	B	3	3	GB	B	3	t	3	3	*	BBF	e: e
3fs33s83	3	G*	3	3	3	G*	V	3	3	3	3	V	3	Ge	3	3	3	Ge	B	3	G	3	3	t	: *	GBt
3fsBt s83	B	* e	3	3	3	* G	3	3	3	3	3	3	3	Gt	3	3	3	Gt	B	3	V	3	3	e	BBV	GGe
3fse3s83	3	* F	3	3	3	* F	3	3	3	3	3	3	3	t t	B	3	3	t *	3	3	Bt	3	3	Bt	Be:	G*t
3fsCl s83	3	f :	3	3	3	f :	3	3	3	3	3	3	3	Gf	B	3	3	GF	B	3	BG	3	3	Bt	BGV	GF:
3Fs33s83	B	* 3	3	3	3	* B	3	3	3	3	3	3	3	* :	V	3	3	f B	e	3	B*	3	3	B:	Bt B	t GG
3FsBt s83	3	t V	3	3	3	t V	3	3	3	3	3	3	3	t G	e	3	3	t f	B	3	*	3	3	f	BB*	t GF
3Fse3s83	3	* V	3	3	3	* V	B	3	3	3	3	B	3	* G	V	3	3	* *	V	3	:	3	3	BB	BG8	t G
3FsCl s83	3	* t	3	3	3	* t	3	3	3	3	3	3	3	* *	B	3	3	* f	3	3	V3	3	3	V3	Bt V	t t :
3: s33s83	3	e*	3	3	3	e*	3	3	3	3	3	3	3	* B	V	3	3	* e	V	3	BB	3	3	Be	BBV	t V3
3: sBt s83	3	GG	3	3	3	GG	3	3	3	3	3	3	3	Gt	3	3	3	Gt	B	3	F	3	B	:	: F	t 3V
3: se3s83	3	GV	3	3	3	GV	B	3	3	3	V	B	3	t F	3	3	3	t F	e	3	:	3	3	BV	BBe	Gf t
3: sCl s83	3	Gt	3	3	3	Gt	B	3	3	3	3	B	3	t G	3	3	3	t G	3	3	f	3	B	f	B3f	Gs3
,,,CREAK,,,																										
B3s33s83	3	e:	3	3	3	e:	3	3	3	3	3	3	3	t :	3	3	3	t :	V	3	Bt	3	3	Bf	BBt	
B3sBt s83	3	eF	3	3	3	eF	3	3	3	3	3	3	3	* G	V	3	3	* *	B	3	BF	3	3	B:	BVe	
B3se3s83	3	GV	3	3	3	GV	B	3	3	3	3	B	3	Gf	3	3	3	Gf	V	3	Bt	3	3	Bf	B3f	
B3sCl s83	3	t F	3	3	3	t F	B	3	3	3	3	B	3	t 3	B	3	3	t B	G	3	:	3	3	Be	BVe	G* F
BBs33s83	3	t t	3	3	3	t t	3	3	3	3	3	3	3	t f	3	3	3	t f	B	3	f	3	3	F	BV3	Gf e
BBsBt s83	3	G3	3	3	3	G3	3	3	3	3	3	3	3	* :	3	3	3	* :	e	3	BV	3	3	Bt	BVG	Gf G
BBse3s83	3	Gf	3	3	3	Gf	B	3	3	3	3	B	3	GB	B	3	3	GV	B	3	Bt	3	3	B*	B3*	Gf e
BBsCl s83	3	GB	3	3	3	GB	3	3	3	3	3	3	3	t e	V	3	3	t t	V	3	BB	3	3	Be	B3:	Gt :
BVs33s83	3	e:	3	3	3	e:	3	3	V	3	3	V	3	t B	B	3	3	t V	V	3	BB	3	3	Be	B3*	GGt
BVsBt s83	3	G:	3	3	3	G:	B	3	3	3	3	B	3	* B	3	3	3	* B	V	3	F	3	3	B3	BVB	GGV
BVse3s83	3	GG	3	3	3	GG	B	3	3	3	3	B	3	* *	e	B	3	f 3	B	3	F	3	3	:	BVG	G*3
BVsCl s83	3	* e	3	3	3	* e	B	3	B	3	3	V	3	f V	3	3	3	f V	V	3	Bt	3	3	Bf	Bt G	t 3t
Bes33s83	3	Gf	3	3	3	Gf	3	3	3	3	3	3	3	* t	V	3	3	* f	f	3	BB	3	3	BF	BeV	t eB
BesBt s83	3	t *	3	3	3	t *	B	3	3	3	3	B	3	G*	B	3	3	Gf	t	3	F	3	3	Be	BBf	t Vf
Bese3s83	3	GG	3	3	3	GG	V	3	3	3	3	V	3	t e	3	3	3	t e	B	3	BV	3	3	Be	BBV	t Bt
BesCl s83	3	G*	3	3	3	G*	3	3	3	3	3	3	3	* f	3	3	3	* f	3	3	BV	3	3	BV	BVt	GF*
BG33s83	3	e*	3	3	3	e*	3	3	3	3	3	3	3	t f	3	3	3	t f	V	3	Bf	3	3	B:	BBV	G* *
BGsBt s83	3	eB	3	3	3	eB	3	3	3	3	3	3	3	t e	B	3	3	t G	t	3	Be	3	3	BF	B3e	Gt V
BGse3s83	3	t t	3	3	3	t t	3	3	3	3	3	3	3	* f	B	3	3	* F	3	3	BV	3	3	BV	Bet	Gf t
BGsCl s83	3	GF	3	3	3	GF	V	3	3	3	3	V	3	* 3	B	3	3	* B	B	3	BB	3	3	BV	BVe	Gf e
,,,CREAK,,,																										
Bts33s83	3	t :	3	3	3	t :	3	3	B	3	3	B	3	FB	B	3	3	FV	t	3	*	3	3	BB	Bt e	
BtsBt s83	3	* f	3	3	3	* f	B	3	3	3	3	B	3	f B	B	3	3	f V	3	3	BF	3	3	BF	Bt F	
Btse3s83	3	f e	3	3	3	f e	B	3	3	3	3	B	3	: e	3	3	3	: e	B	3	F	3	3	:	Bf *	
BtsCl s83	3	G:	3	3	3	G:	B	3	3	3	3	B	3	f F	B	3	3	f :	V	3	B3	3	3	BV	BGB	* VF
B*s33s83	3	t 3	3	3	3	t 3	f	3	V	3	3	:	3	B3V	3	3	3	B3V	V	3	:	3	3	BB	Bf V	* Gl
B*sBt s83	3	t F	3	3	3	t F	3	3	3	3	3	3	3	f f	B	3	3	f F	V	3	:	3	3	BB	BGl	* e*
B*se3s83	3	t f	3	3	3	t f	B	3	3	3	3	B	3	: :	3	3	3	: :	G	3	t	3	3	:	B* *	* V*

B* s0 s83	3	0t	3	3	3	0t	B	3	3	3	3	B	3	* *	B	3	3	* f	V	3	V	3	3	G	BBf	* 3V
Bf s33s83	3	f V	3	3	3	f V	*	3	3	3	3	*	3	: t	3	3	3	: t	3	3	3	3	3	3	Bf e	* 3e
Bf sBt s83	3	* G	3	3	3	* G	3	3	3	3	3	3	3	f f	3	3	3	f f	B	3	3	3	3	B	BGV	t : F
Bf se3s83	3	* *	3	3	3	* *	3	3	3	3	3	3	3	Ff	3	B	3	FF	3	3	V	3	3	V	Bt *	t FF
Bf s0 s83	3	t B	3	3	3	t B	3	3	3	3	3	3	3	t G	3	3	3	t G	B	3	t	3	3	*	BBB	t FV
Grand Total	e	Vt BB	3	3	3	Vt BG	eG	3	*	3	G	G3	3	V: G3	GB	V	3	V: Fe	FV	3	0t t	3	V	t ef	**6074**	y
Approach%	3[B]	: : [:]	3]	3]		y	Ft]	3]	Bt]	3]		y	3]	: F[*]	B[G]	3[B]		y	Bt [e]	3]	FG[f]	3]		y	-	y
Totals %	3]	GB[e]	3]	3]		GB[G]	3[*]	3]	3[B]	3]		3[f]	3]	GF[G]	3[f]	3]		G: [B]	B[G]	3]	f [t]	3]		F[F]	-	y
Heavy	3	Vf t	3	3		y	B	3	3	3		y	3	* f *	B	3		y	t F	3	Get	3		y	-	y
Heavy %	3]	BB]	3]	3]		y	V[:]	3]	3]	3]		y	3]	Ve]	V[G]	3]		y	f 3[f]	3]	: t [*]	3]		y	-	y
Bicycles	y	y	y	y		y	y	y	y	y		y	y	y	y	y		y	y	y	y	y		y	-	y
Bicycle %	y	y	y	y		y	y	y	y	y		y	y	y	y	y		y	y	y	y	y		y	-	y

Peak Hour: 08:00 AM - 09:00 AM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach eft : YORK DURHAM LINE						S Approach YORK DURHAM LINE						W Approach LATARh E r uOUTTSILLE i lu gr OUuHW						Int. Total (15 min)
	LnRtl	upca	Rt¢ pd	Uuac6	i n21	A99o457p u4c58	LnRtl	upca	Rt¢ pd	Uuac6	i n21	A99o457p u4c58	LnRtl	upca	Rt¢ pd	Uuac6	i n21	A99o457p u4c58	LnRtl	upca	Rt¢ pd	Uuac6	i n21	A99o457p u4c58	
3Fs33s33	B	*3	3	3	3	*B	3	3	3	3	3	3	3	*:	V	3	3	f B	e	3	B*	3	3	B:	Bt B
3FsBt s33	3	t V	3	3	3	t V	3	3	3	3	3	3	3	t G	e	3	3	t f	B	3	*	3	3	f	BB*
3Fse3s33	3	*V	3	3	3	*V	B	3	3	3	3	B	3	*G	V	3	3	**	V	3	:	3	3	BB	BG3
3FsGt s33	3	*t	3	3	3	*t	3	3	3	3	3	3	3	**	B	3	3	*f	3	3	V3	3	3	V3	Bt V
Grand Total	B	Ve:	3	3	3	VG3	B	3	3	3	3	B	3	Vt e	F	3	3	V*B	*	3	t B	3	3	t f	**559**
Approach%	3[G]	: : [*]	3]	3]		y	B33]	3]	3]	3]		y	3]	: *[:]	e[B]	3]		y	B3[t]	3]	F: [t]	3]		y	-
Totals %	3[V]	GM[F]	3]	3]		GM[:]	3[V]	3]	3]	3]		3[V]	3]	Gt [e]	B[G]	3]		G*[f]	B[B]	3]	: [B]	3]		B3[V]	-
PHF	3[Vt	3[: V	3	3		3[: V	3[Vt	3	3	3		3[Vt	3	3[: V	3[* f	3		3[: V	3[t	3	3[* G	3		3[f B	-
Heavy	3	Vt	3	3		Vt	3	3	3	3		3	3	f t	3	3		f t	*	3	t B	3		t f	-
Heavy %	3]	B3[t]	3]	3]		B3[G]	3]	3]	3]	3]		3]	3]	V: [*]	3]	3]		VF[f]	B33]	3]	B33]	3]		B33]	-
Lights	B	VBG	3	3		VBt	B	3	3	3		B	3	Bf F	F	3		BF*	3	3	3	3		3	-
Lights %	B33]	F: [t]	3]	3]		F: [*]	B33]	3]	3]	3]		B33]	3]	f 3[G]	B33]	3]		f B[e]	3]	3]	3]	3]		3]	-
Single-Unit Trucks	3	*	3	3		*	3	3	3	3		3	3	F	3	3		F	3	3	3	3		3	-
Single-Unit Trucks %	3]	V[t]	3]	3]		V[t]	3]	3]	3]	3]		3]	3]	e[V]	3]	3]		e[B]	3]	3]	3]	3]		3]	-
Buses	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	-
Buses %	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	-
Articulated Trucks	3	V	3	3		V	3	3	3	3		3	3	e	3	3		e	3	3	3	3		3	-
Articulated Trucks %	3]	3[F]	3]	3]		3[F]	3]	3]	3]	3]		3]	3]	B[V]	3]	3]		B[B]	3]	3]	3]	3]		3]	-
Aggregate Trucks	3	Bf	3	3		Bf	3	3	3	3		3	3	*G	3	3		*G	*	3	t B	3		t f	-
Aggregate Trucks %	3]	f [B]	3]	3]		f [B]	3]	3]	3]	3]		3]	3]	Vt [e]	3]	3]		VG[t]	B33]	3]	B33]	3]		B33]	-
Bicycles on Road	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	-
Bicycles on Road %	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	-
Pedestrians	y	y	y	y	3	y	y	y	y	y	3	y	y	y	y	y	3	y	y	y	y	y	3	y	-
Pedestrians%	y	y	y	y	3]		y	y	y	y	3]		y	y	y	y	3]		y	y	y	y	3]		-

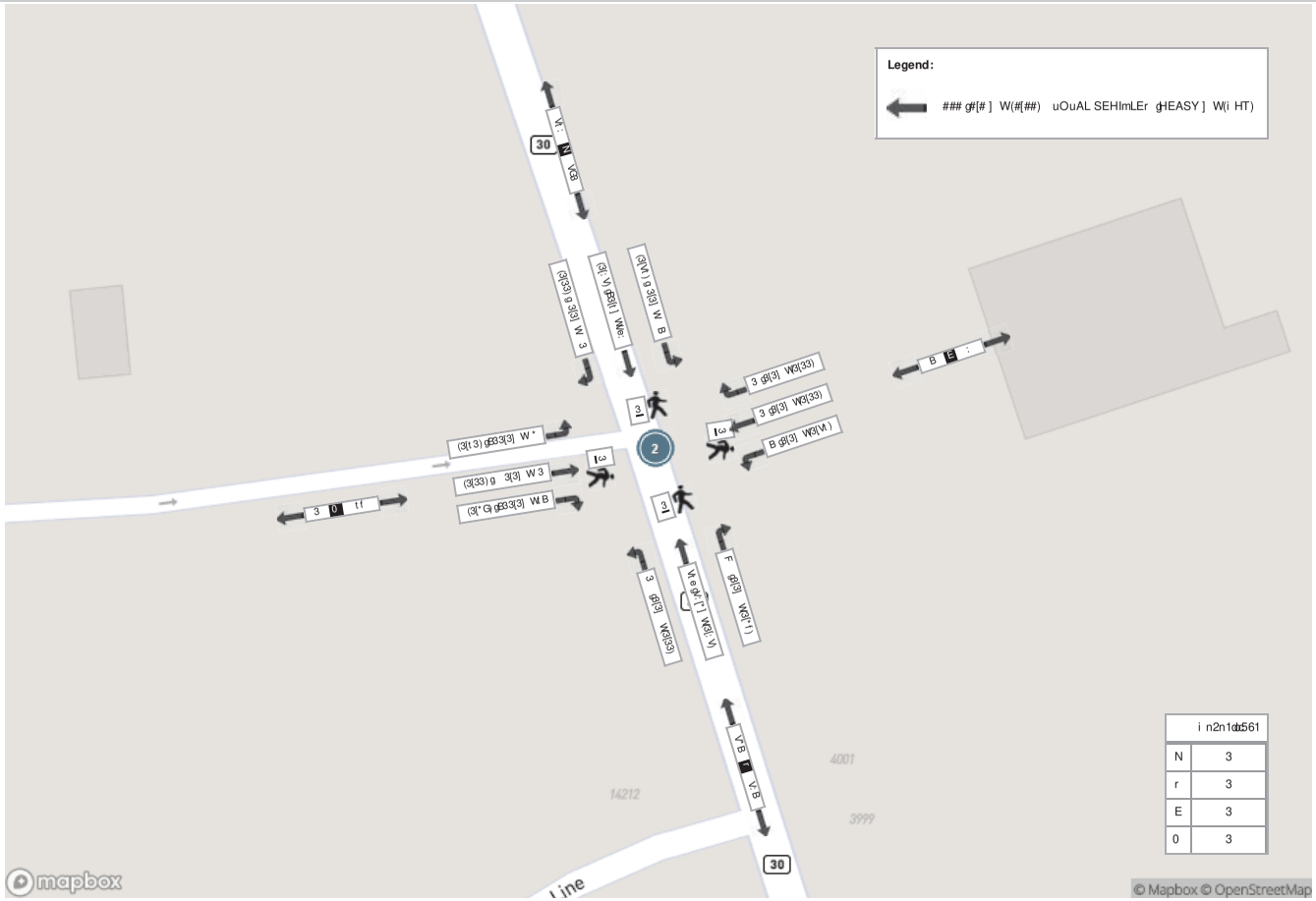
Peak Hour: 12:15 PM - 01:15 PM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach eft : YORK DURHAM LINE						S Approach YORK DURHAM LINE						W Approach LATARh E r uOUTTSILLE i lu gr OUuHW						Int. Total (15 min)
	LnRd	upca	Rd pd	Uuac6	i n21	A99o457p u4c58	LnRd	upca	Rd pd	Uuac6	i n21	A99o457p u4c58	LnRd	upca	Rd pd	Uuac6	i n21	A99o457p u4c58	LnRd	upca	Rd pd	Uuac6	i n21	A99o457p u4c58	
BVsBt s33	3	G:	3	3	3	G:	B	3	3	3	3	B	3	* B	3	3	3	* B	V	3	F	3	3	B3	BVB
BVse3s33	3	GG	3	3	3	GG	B	3	3	3	3	B	3	* *	e	B	3	f 3	B	3	F	3	3	:	BVG
BVsG1 s33	3	* e	3	3	3	* e	B	3	B	3	3	V	3	f V	3	3	3	f V	V	3	Bt	3	3	Bf	Bt G
Bes33s33	3	Gf	3	3	3	Gf	3	3	3	3	3	3	3	* t	V	3	3	* f	f	3	BB	3	3	BF	BeV
Grand Total	3	V3e	3	3	3	V3e	e	3	B	3	3	G	3	V* G	t	B	3	Vf 3	BV	3	GV	3	3	t G	**531**
Approach%	3]	B33]	3]	3]		y	f t]	3]	Vt]	3]		y	3]	: f [F]	B[:]	3[G]		y	VV[V]	3]	f f [F]	3]		y	-
Totals %	3]	eF[V]	3]	3]		eF[V]	3[*]	3]	3[V]	3]		3[F]	3]	G: [f]	3[:]	3[V]		t 3[F]	V[e]	3]	f [:]	3]		B3[V]	-
PHF	3	3[FB	3	3		3[FB	3[f t	3	3[Vt	3		3[t	3	3[: V	3[GV	3[Vt		3[: G	3[Ge	3	3[f	3		3[f t	-
Heavy	3	V*	3	3		V*	B	3	3	3		B	3	F3	B	3		FB	B3	3	eF	3		GF	-
Heavy %	3]	BV[F]	3]	3]		BV[F]	ee[e]	3]	3]	3]		Vt]	3]	e3[e]	V3]	3]		e3]	Fe[e]	3]	: 3[t]	3]		FF[:]	-
Lights	3	Bf f	3	3		Bf f	V	3	B	3		e	3	BFG	G	B		BF:	V	3	G	3		*	-
Lights %	3]	Ff [V]	3]	3]		Ff [V]	* *[f]	3]	B33]	3]		f t]	3]	* : [f]	F3]	B33]		f 3]	B* [f]	3]	: [t]	3]		BB[B]	-
Single-Unit Trucks	3	G	3	3		G	B	3	3	3		B	3	BV	B	3		Be	e	3	B	3		G	-
Single-Unit Trucks %	3]	V]	3]	3]		V]	ee[e]	3]	3]	3]		Vt]	3]	G[t]	V3]	3]		G[F]	Vt]	3]	V[G]	3]		f [G]	-
Buses	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	-
Buses %	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	-
Articulated Trucks	3	*	3	3		*	3	3	3	3		3	3	t	3	3		t	3	3	3	3		3	-
Articulated Trucks %	3]	e]	3]	3]		e]	3]	3]	3]	3]		3]	3]	B[:]	3]	3]		B[:]	3]	3]	3]	3]		3]	-
Aggregate Trucks	3	B*	3	3		B*	3	3	3	3		3	3	* e	3	3		* e	f	3	ef	3		GG	-
Aggregate Trucks %	3]	f [:]	3]	3]		f [:]	3]	3]	3]	3]		3]	3]	Ve[:]	3]	3]		Ve[e]	t F[e]	3]	FF[B]	3]		FB[t]	-
Bicycles on Road	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	-
Bicycles on Road %	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	-
Pedestrians	y	y	y	y	3	y	y	y	y	y	3	y	y	y	y	y	3	y	y	y	y	y	3	y	-
Pedestrians%	y	y	y	y	3]		y	y	y	y	3]		y	y	y	y	3]		y	y	y	y	3]		-

Peak Hour: 03:15 PM - 04:15 PM Weather:

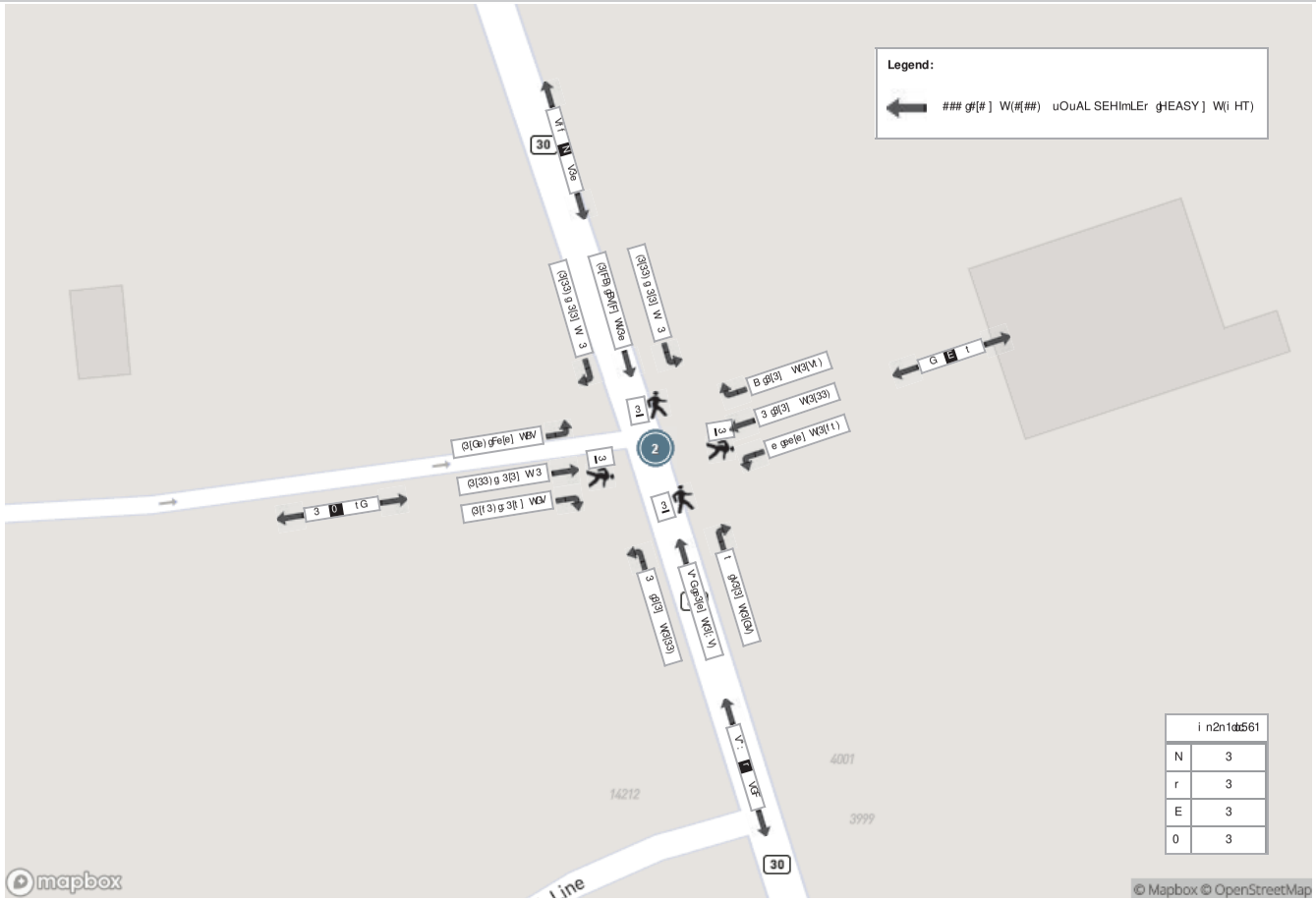
Start Time	N Approach YORK DURHAM LINE						E Approach eft : YORK DURHAM LINE						S Approach YORK DURHAM LINE						W Approach LATARh E r uOUTTSILLE i lu gr OUuHW						Int. Total (15 min)
	LnRl	upca	Rt pd	Uuac6	i n21	A99o457p u4c58	LnRl	upca	Rt pd	Uuac6	i n21	A99o457p u4c58	LnRl	upca	Rt pd	Uuac6	i n21	A99o457p u4c58	LnRl	upca	Rt pd	Uuac6	i n21	A99o457p u4c58	
Bt sBt s33	3	* f	3	3	3	* f	B	3	3	3	3	B	3	f B	B	3	3	f V	3	3	BF	3	3	BF	Bt F
Bt se3s33	3	f e	3	3	3	f e	B	3	3	3	3	B	3	: e	3	3	3	: e	B	3	F	3	3	:	Bf *
Bt sG1 s33	3	G:	3	3	3	G:	B	3	3	3	3	B	3	f F	B	3	3	f :	V	3	B3	3	3	BV	BGB
B* s33s33	3	t 3	3	3	3	t 3	f	3	V	3	3	:	3	B3V	3	3	3	B3V	V	3	:	3	3	BB	Bf V
Grand Total	3	Ve:	3	3	3	Ve:	B3	3	V	3	3	BV	3	eGG	V	3	3	eGt	t	3	Gt	3	3	t 3	**647**
Approach%	3]	B33]	3]	3]		y	Fe[e]	3]	B* [f]	3]		y	3]	: : [G]	3[*]	3]		y	B3]	3]	: 3]	3]		y	-
Totals %	3]	e* [:]	3]	3]		e* [:]	B[t]	3]	3[e]	3]		B[:]	3]	t e[V]	3[e]	3]		t e[t]	3[F]	3]	f]	3]		f [f]	-
PHF	3	3[FV	3	3		3[FV	3[e*	3	3[Vt	3		3[ee	3	3[FG	3[t	3		3[Ft	3[* e	3	3[* e	3		3[* :	-
Heavy	3	V3	3	3		V3	3	3	3	3		3	3	* B	3	3		* B	V	3	GV	3		GG	-
Heavy %	3]	F[G]	3]	3]		F[G]	3]	3]	3]	3]		3]	3]	Bf [f]	3]	3]		Bf [*]	G3]	3]	: e[e]	3]		FF]	-
Lights	3	VBF	3	3		VBF	B3	3	V	3		BV	3	VFe	V	3		VR	e	3	e	3		*	-
Lights %	3]	: B[V]	3]	3]		: B[V]	B33]	3]	B33]	3]		B33]	3]	FV[e]	B33]	3]		FV[G]	* 3]	3]	* [f]	3]		BV]	-
Single-Unit Trucks	3	f	3	3		f	3	3	3	3		3	3	Be	3	3		Be	3	3	V	3		V	-
Single-Unit Trucks %	3]	V[:]	3]	3]		V[:]	3]	3]	3]	3]		3]	3]	e[F]	3]	3]		e[F]	3]	3]	G[G]	3]		G]	-
Buses	3	3	3	3		3	3	3	3	3		3	3	B	3	3		B	3	3	3	3		3	-
Buses %	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3[e]	3]	3]		3[e]	3]	3]	3]	3]		3]	-
Articulated Trucks	3	V	3	3		V	3	3	3	3		3	3	e	3	3		e	3	3	B	3		B	-
Articulated Trucks %	3]	3[F]	3]	3]		3[F]	3]	3]	3]	3]		3]	3]	3[:]	3]	3]		3[:]	3]	3]	V[V]	3]		V]	-
Aggregate Trucks	3	BB	3	3		BB	3	3	3	3		3	3	GG	3	3		GG	V	3	e:	3		GB	-
Aggregate Trucks %	3]	G[*]	3]	3]		G[*]	3]	3]	3]	3]		3]	3]	BV[F]	3]	3]		BV[f]	G3]	3]	F* [f]	3]		FV]	-
Bicycles on Road	3	B	3	3		B	3	3	3	3		3	3	3	3	3		3	3	3	3	3		3	-
Bicycles on Road %	3]	3[G]	3]	3]		3[G]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	3]	3]	3]	3]		3]	-
Pedestrians	y	y	y	y	3	y	y	y	y	y	3	y	y	y	y	y	3	y	y	y	y	y	3	y	-
Pedestrians%	y	y	y	y	3]		y	y	y	y	3]		y	y	y	y	3]		y	y	y	y	3]		-

Peak Hour: 08:00 AM - 09:00 AM Weather:



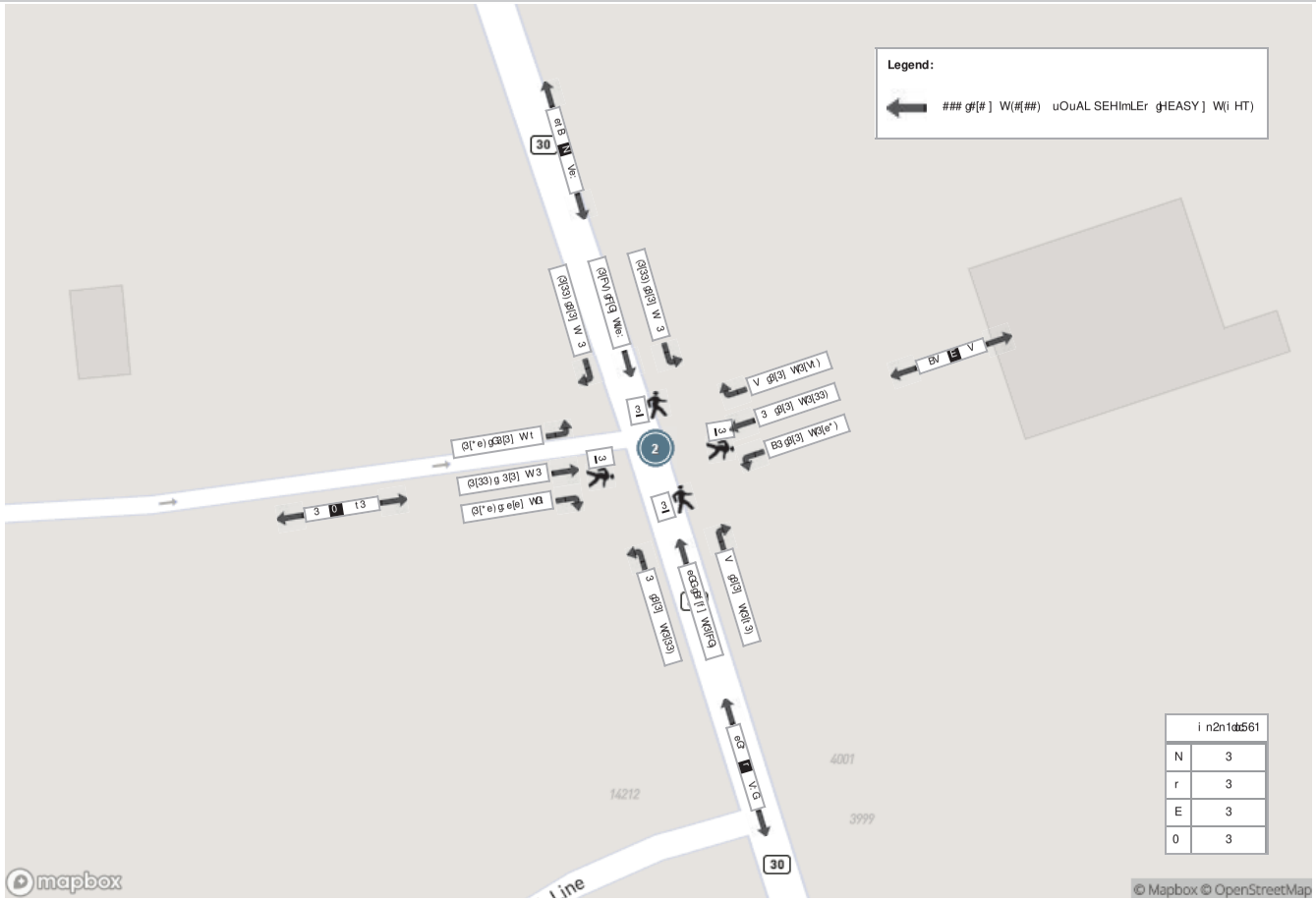
i n2n1dd561	
N	3
r	3
E	3
0	3

Peak Hour: 12:15 PM - 01:15 PM Weather:



	i n2n1dd561
N	3
r	3
E	3
0	3

Peak Hour: 03:15 PM - 04:15 PM Weather:



N	3
r	3
E	3
0	3

Spectrum

Turning Movement Count
Location Name: YORK-DURHAM LINE & WAGG ROAD / YAKES CRESCENT
Date: Tue, Aug 24, 2021 Deployment Lead: David Chu

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Turning Movement Count (4 . YORK-DURHAM LINE & WAGG ROAD / YAKES CRESCENT)

Start Time	N Approach YORK DURHAM LINE						E Approach WAGG RD						S Approach YORK DURHAM LINE						W Approach YAKES CRES						Int. Total (15 min)	Int. Total (1 hr)
	Left N:E	Thru N:S	Right N:W	UTurn N:N	Peds N:	Approach Total	Left E:S	Thru E:W	Right E:N	UTurn E:E	Peds E:	Approach Total	Left S:W	Thru S:N	Right S:E	UTurn S:S	Peds S:	Approach Total	Left W:N	Thru W:E	Right W:S	UTurn W:W	Peds W:	Approach Total		
06:00:00	6	42	0	0	0	48	0	0	4	0	0	4	0	17	1	0	0	18	0	0	0	0	0	0	70	
06:15:00	8	45	0	0	0	53	0	0	15	0	0	15	0	23	3	0	0	26	0	0	0	0	0	0	94	
06:30:00	6	67	0	0	0	73	1	0	12	0	0	13	0	34	1	0	0	35	0	0	0	0	0	0	121	
06:45:00	4	70	0	0	0	74	0	0	9	0	0	9	0	40	1	0	0	41	0	0	1	0	0	1	125	410
07:00:00	6	45	0	0	0	51	0	0	7	0	0	7	0	31	0	0	0	31	0	0	1	0	0	1	90	430
07:15:00	9	62	0	0	0	71	1	0	18	0	0	19	0	28	4	0	0	32	0	0	0	0	0	0	122	458
07:30:00	14	68	0	0	0	82	0	0	9	0	0	9	0	36	0	0	0	36	0	0	0	0	0	0	127	464
07:45:00	8	79	0	0	0	87	0	0	14	0	0	14	0	31	0	0	0	31	0	0	0	0	0	0	132	471
08:00:00	7	64	0	0	0	71	0	0	9	0	0	9	0	61	0	0	0	61	0	0	0	0	0	0	141	522
08:15:00	10	48	0	0	0	58	1	0	15	0	0	16	0	43	1	0	0	44	0	1	0	0	0	1	119	519
08:30:00	8	66	0	0	0	74	4	0	8	0	0	12	0	39	3	0	0	42	0	0	0	0	0	0	128	520
08:45:00	7	56	0	0	0	63	1	0	7	0	0	8	0	48	2	0	0	50	0	0	0	0	0	0	121	509
09:00:00	8	33	0	0	0	41	3	0	10	0	0	13	0	48	2	0	0	50	0	0	0	0	0	0	104	472
09:15:00	10	43	0	0	0	53	2	0	4	0	0	6	0	43	2	0	0	45	0	0	0	0	0	0	104	457
09:30:00	9	44	0	0	0	53	1	0	9	0	0	10	0	51	4	0	0	55	0	0	0	0	0	0	118	447
09:45:00	2	42	0	0	0	44	0	0	7	0	0	7	1	32	2	0	0	35	0	0	0	0	0	0	86	412
BREAK																										
10:00:00	9	46	0	0	0	55	0	0	7	0	0	7	0	50	0	1	0	51	0	0	0	0	0	0	113	
10:15:00	6	32	0	0	0	38	1	0	7	0	0	8	1	37	3	0	0	41	0	0	0	0	0	0	87	
10:30:00	9	49	0	0	0	58	1	0	8	0	0	9	0	39	2	0	0	41	0	0	0	0	0	0	108	
10:45:00	5	58	0	0	0	63	1	0	10	0	0	11	0	38	2	0	0	40	0	0	0	0	0	0	114	422
11:00:00	8	47	0	0	0	55	4	0	5	0	0	9	0	43	3	0	0	46	0	0	0	0	0	0	110	419
11:15:00	10	41	0	0	0	51	0	0	11	0	0	11	0	55	1	0	0	56	0	1	0	0	0	1	119	451
11:30:00	11	46	0	0	0	57	2	0	5	0	0	7	0	35	4	0	0	39	0	0	0	0	0	0	103	446
11:45:00	9	41	0	0	0	50	2	0	9	0	0	11	0	39	2	0	0	41	0	0	0	0	0	0	102	434
12:00:00	11	36	0	0	0	47	2	0	6	0	0	8	0	48	2	0	0	50	0	0	1	0	0	1	106	430
12:15:00	10	46	0	0	0	56	0	0	7	0	0	7	0	54	0	0	0	54	0	0	0	0	0	0	117	428
12:30:00	15	47	0	0	0	62	2	1	7	0	0	10	0	34	2	0	0	36	0	0	0	0	0	0	108	433
12:45:00	16	60	0	0	0	76	1	0	12	0	0	13	0	74	0	0	0	74	0	1	0	0	0	1	164	495
13:00:00	16	48	0	0	0	64	1	0	11	0	0	12	0	47	2	0	0	49	0	0	0	0	0	0	125	514
13:15:00	7	55	0	0	0	62	2	0	3	0	0	5	0	50	1	0	0	51	0	0	0	0	0	0	118	515
13:30:00	9	46	0	0	0	55	0	1	7	0	0	8	0	45	4	0	0	49	0	0	0	0	0	0	112	519
13:45:00	6	47	0	0	0	53	1	0	8	0	0	9	0	42	2	0	0	44	0	0	0	0	0	0	106	461
14:00:00	11	35	0	0	0	46	1	1	6	0	0	8	0	45	0	0	0	45	0	0	0	0	0	0	99	435
14:15:00	3	31	1	0	0	35	1	0	12	0	0	13	1	39	3	0	0	43	0	0	1	0	0	1	92	409
14:30:00	9	56	0	0	0	65	1	0	4	0	0	5	0	57	5	0	0	62	0	0	0	0	0	0	132	429
14:45:00	12	48	0	0	0	60	2	0	13	0	0	15	0	57	2	0	0	59	0	0	0	0	0	0	134	457
BREAK																										
15:00:00	9	47	0	0	0	56	3	0	6	0	0	9	0	60	3	0	0	63	0	0	0	0	0	0	128	
15:15:00	12	64	0	0	0	76	2	0	4	0	0	6	0	54	2	0	0	56	0	0	0	0	0	0	138	
15:30:00	12	75	0	0	0	87	3	0	9	0	0	12	0	73	2	0	0	75	0	0	0	0	0	0	174	
15:45:00	11	49	0	0	0	60	2	0	11	0	0	13	0	78	3	0	0	81	0	0	0	0	0	0	154	594
16:00:00	13	50	0	0	0	63	0	0	16	0	0	16	0	90	5	0	0	95	0	0	0	0	0	0	174	640
16:15:00	18	59	0	0	0	77	2	0	21	0	0	23	0	66	4	0	0	70	0	0	0	0	0	0	170	672
16:30:00	19	56	0	0	0	75	1	0	16	0	0	17	0	100	4	0	0	104	1	0	0	0	0	1	197	695

TYLin
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VAUGHAN ONTARIO, L4K 0C5
CANADA

16:45:00	19	42	0	0	0	61	0	0	9	0	0	9	2	73	0	0	0	75	1	0	0	0	0	1	146	687
17:00:00	21	70	0	0	0	91	0	0	8	0	0	8	0	83	1	0	0	84	0	0	0	0	0	0	183	696
17:15:00	13	64	0	0	0	77	1	0	14	0	0	15	0	84	2	0	0	86	0	0	0	0	0	0	178	704
17:30:00	9	60	0	0	0	69	2	0	11	0	0	13	1	83	2	0	0	86	0	0	0	0	0	0	168	675
17:45:00	12	52	0	0	0	64	2	0	4	0	0	6	0	59	1	0	0	60	0	0	0	0	0	0	130	659
Grand Total	482	2477	1	0	0	2960	57	3	444	0	0	504	6	2436	95	1	0	2538	2	3	4	0	0	9	**6011**	-
Approach%	16.3%	83.7%	0%	0%		-	11.3%	0.6%	88.1%	0%		-	0.2%	96%	3.7%	0%		-	22.2%	33.3%	44.4%	0%		-	**-**	-
Totals %	8%	41.2%	0%	0%		49.2%	0.9%	0%	7.4%	0%		8.4%	0.1%	40.5%	1.6%	0%		42.2%	0%	0%	0.1%	0%		0.1%	**-**	-
Heavy	34	285	0	0		-	9	0	35	0		-	0	243	22	0		-	0	1	0	0		-	**-**	-
Heavy %	7.1%	11.5%	0%	0%		-	15.8%	0%	7.9%	0%		-	0%	10%	23.2%	0%		-	0%	33.3%	0%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Peak Hour: 07:15 AM - 08:15 AM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach WAGG RD						S Approach YORK DURHAM LINE						W Approach YAKES CRES						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:15:00	9	62	0	0	0	71	1	0	18	0	0	19	0	28	4	0	0	32	0	0	0	0	0	0	122
07:30:00	14	68	0	0	0	82	0	0	9	0	0	9	0	36	0	0	0	36	0	0	0	0	0	0	127
07:45:00	8	79	0	0	0	87	0	0	14	0	0	14	0	31	0	0	0	31	0	0	0	0	0	0	132
08:00:00	7	64	0	0	0	71	0	0	9	0	0	9	0	61	0	0	0	61	0	0	0	0	0	0	141
Grand Total	38	273	0	0	0	311	1	0	50	0	0	51	0	156	4	0	0	160	0	0	0	0	0	0	**522**
Approach%	12.2%	87.8%	0%	0%		-	2%	0%	98%	0%		-	0%	97.5%	2.5%	0%		-	0%	0%	0%	0%		-	**-**
Totals %	7.3%	52.3%	0%	0%		59.6%	0.2%	0%	9.6%	0%		9.8%	0%	29.9%	0.8%	0%		30.7%	0%	0%	0%	0%		0%	**-**
PHF	0.68	0.86	0	0		0.89	0.25	0	0.69	0		0.67	0	0.64	0.25	0		0.66	0	0	0	0		0	**-**
Heavy	4	27	0	0		31	0	0	0	0		0	0	20	1	0		21	0	0	0	0		0	**-**
Heavy %	10.5%	9.9%	0%	0%		10%	0%	0%	0%	0%		0%	0%	12.8%	25%	0%		13.1%	0%	0%	0%	0%		0%	**-**
Lights	32	246	0	0		278	1	0	48	0		49	0	136	3	0		139	0	0	0	0		0	**-**
Lights %	84.2%	90.1%	0%	0%		89.4%	100%	0%	96%	0%		96.1%	0%	87.2%	75%	0%		86.9%	0%	0%	0%	0%		0%	**-**
Single-Unit Trucks	0	3	0	0		3	0	0	0	0		0	0	6	0	0		6	0	0	0	0		0	**-**
Single-Unit Trucks %	0%	1.1%	0%	0%		1%	0%	0%	0%	0%		0%	0%	3.8%	0%	0%		3.8%	0%	0%	0%	0%		0%	**-**
Buses	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0.4%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	1	1	0	0		2	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Articulated Trucks %	2.6%	0.4%	0%	0%		0.6%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Aggregate Trucks	3	22	0	0		25	0	0	0	0		0	0	14	1	0		15	0	0	0	0		0	**-**
Aggregate Trucks %	7.9%	8.1%	0%	0%		8%	0%	0%	0%	0%		0%	0%	9%	25%	0%		9.4%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	2	0	0	0		2	0	0	2	0		2	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	5.3%	0%	0%	0%		0.6%	0%	0%	4%	0%		3.9%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**

Spectrum

Turning Movement Count
Location Name: YORK-DURHAM LINE & WAGG ROAD / YAKES CRESCENT
Date: Tue, Aug 24, 2021 Deployment Lead: David Chu

TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

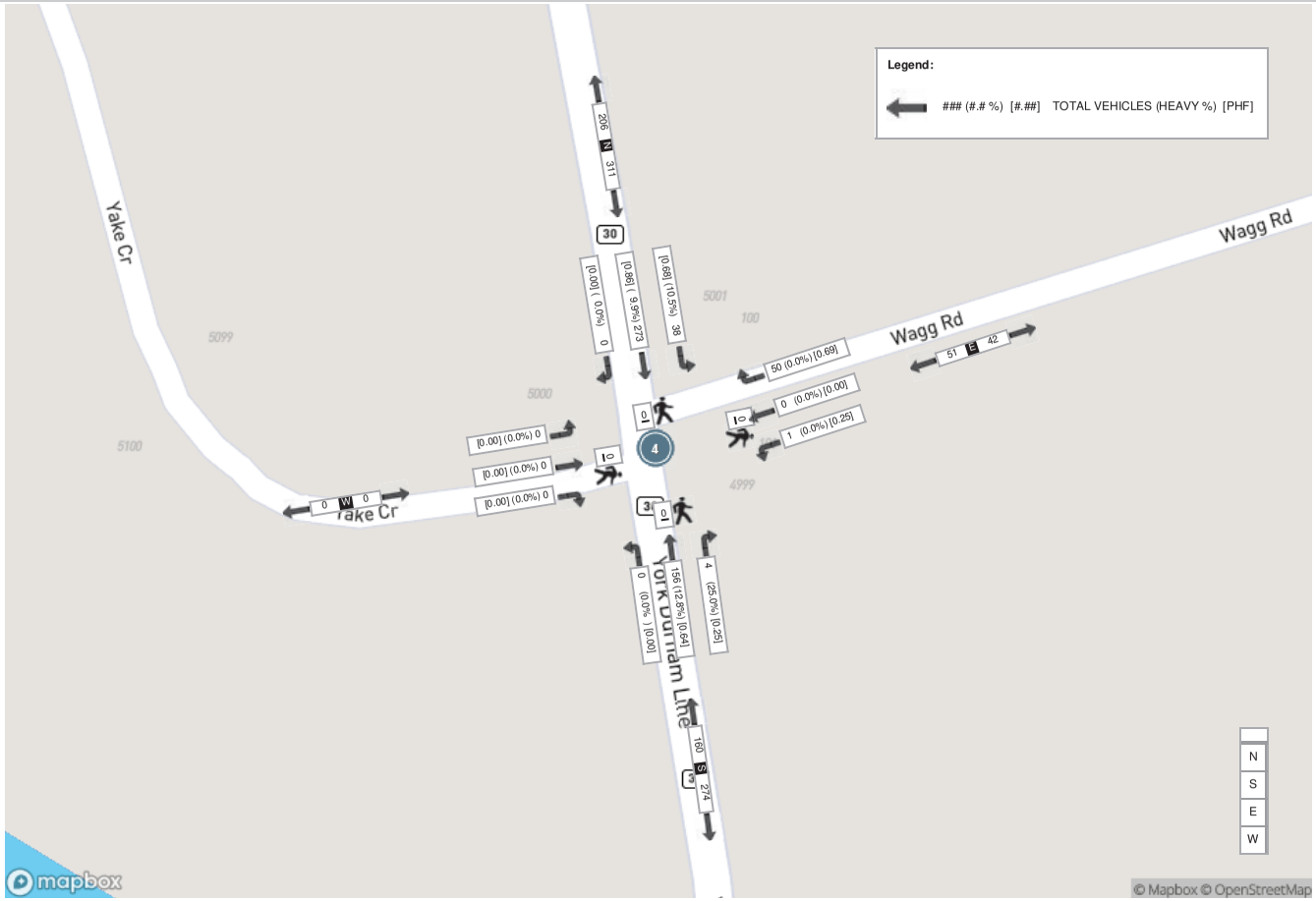
Peak Hour: 12:45 PM - 01:45 PM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach WAGG RD						S Approach YORK DURHAM LINE						W Approach YAKES CRES						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
12:45:00	16	60	0	0	0	76	1	0	12	0	0	13	0	74	0	0	0	74	0	1	0	0	0	1	164
13:00:00	16	48	0	0	0	64	1	0	11	0	0	12	0	47	2	0	0	49	0	0	0	0	0	0	125
13:15:00	7	55	0	0	0	62	2	0	3	0	0	5	0	50	1	0	0	51	0	0	0	0	0	0	118
13:30:00	9	46	0	0	0	55	0	1	7	0	0	8	0	45	4	0	0	49	0	0	0	0	0	0	112
Grand Total	48	209	0	0	0	257	4	1	33	0	0	38	0	216	7	0	0	223	0	1	0	0	0	1	**519**
Approach%	18.7%	81.3%	0%	0%		-	10.5%	2.6%	86.8%	0%		-	0%	96.9%	3.1%	0%		-	0%	100%	0%	0%		-	**-**
Totals %	9.2%	40.3%	0%	0%		49.5%	0.8%	0.2%	6.4%	0%		7.3%	0%	41.6%	1.3%	0%		43%	0%	0.2%	0%	0%		0.2%	**-**
PHF	0.75	0.87	0	0		0.85	0.5	0.25	0.69	0		0.73	0	0.73	0.44	0		0.75	0	0.25	0	0		0.25	**-**
Heavy	3	34	0	0		37	0	0	5	0		5	0	34	2	0		36	0	0	0	0		0	**-**
Heavy %	6.3%	16.3%	0%	0%		14.4%	0%	0%	15.2%	0%		13.2%	0%	15.7%	28.6%	0%		16.1%	0%	0%	0%	0%		0%	**-**
Lights	44	175	0	0		219	4	1	28	0		33	0	182	5	0		187	0	1	0	0		1	**-**
Lights %	91.7%	83.7%	0%	0%		85.2%	100%	100%	84.8%	0%		86.8%	0%	84.3%	71.4%	0%		83.9%	0%	100%	0%	0%		100%	**-**
Single-Unit Trucks	2	8	0	0		10	0	0	2	0		2	0	7	0	0		7	0	0	0	0		0	**-**
Single-Unit Trucks %	4.2%	3.8%	0%	0%		3.9%	0%	0%	6.1%	0%		5.3%	0%	3.2%	0%	0%		3.1%	0%	0%	0%	0%		0%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	5	0	0		5	0	0	0	0		0	0	5	0	0		5	0	0	0	0		0	**-**
Articulated Trucks %	0%	2.4%	0%	0%		1.9%	0%	0%	0%	0%		0%	0%	2.3%	0%	0%		2.2%	0%	0%	0%	0%		0%	**-**
Aggregate Trucks	1	21	0	0		22	0	0	3	0		3	0	22	2	0		24	0	0	0	0		0	**-**
Aggregate Trucks %	2.1%	10%	0%	0%		8.6%	0%	0%	9.1%	0%		7.9%	0%	10.2%	28.6%	0%		10.8%	0%	0%	0%	0%		0%	**-**
Bicycles on Road	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	2.1%	0%	0%	0%		0.4%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**

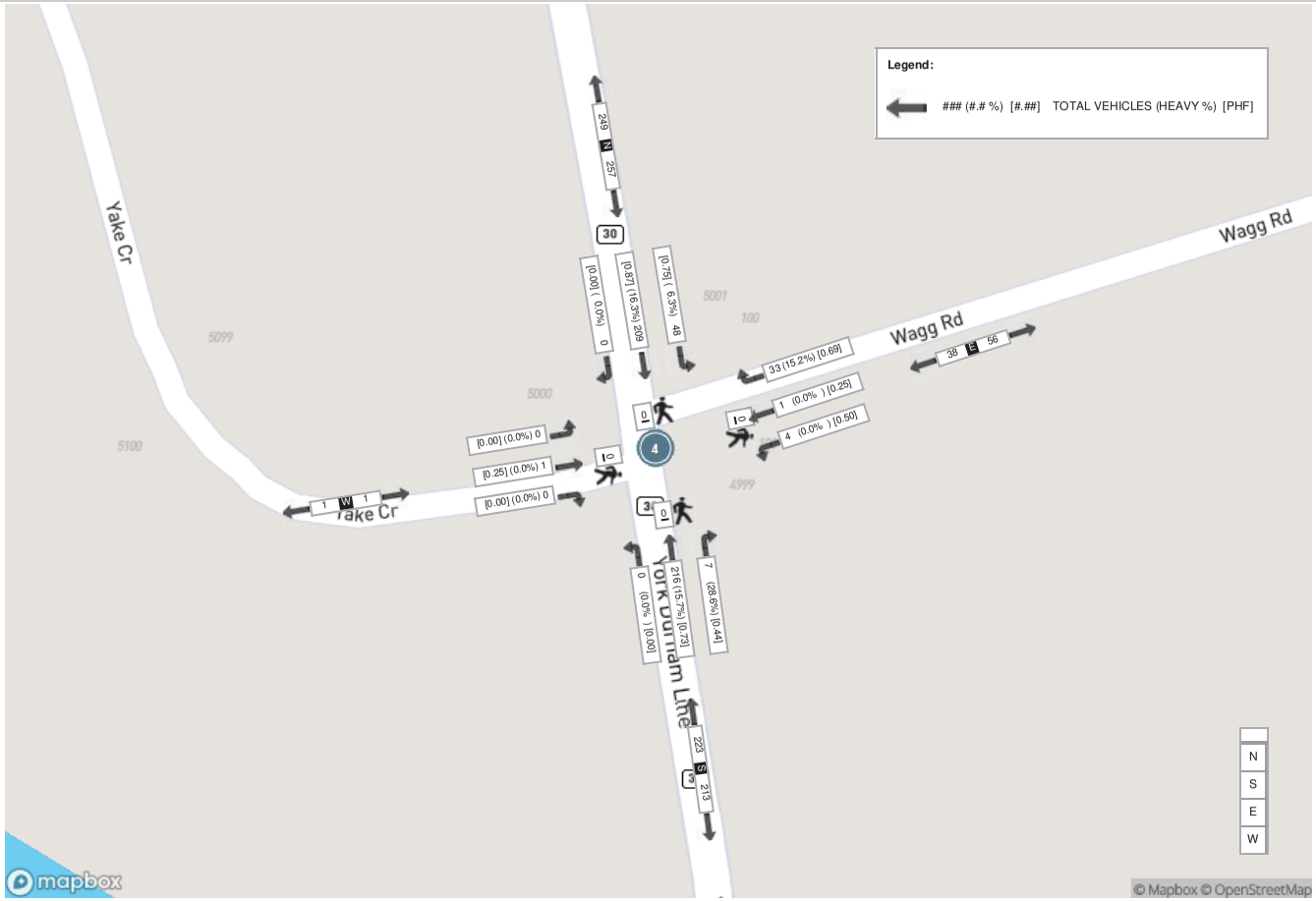
Peak Hour: 04:30 PM - 05:30 PM Weather:

Start Time	N Approach YORK DURHAM LINE						E Approach WAGG RD						S Approach YORK DURHAM LINE						W Approach YAKES CRES						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:30:00	19	56	0	0	0	75	1	0	16	0	0	17	0	100	4	0	0	104	1	0	0	0	0	1	197
16:45:00	19	42	0	0	0	61	0	0	9	0	0	9	2	73	0	0	0	75	1	0	0	0	0	1	146
17:00:00	21	70	0	0	0	91	0	0	8	0	0	8	0	83	1	0	0	84	0	0	0	0	0	0	183
17:15:00	13	64	0	0	0	77	1	0	14	0	0	15	0	84	2	0	0	86	0	0	0	0	0	0	178
Grand Total	72	232	0	0	0	304	2	0	47	0	0	49	2	340	7	0	0	349	2	0	0	0	0	2	**704**
Approach%	23.7%	76.3%	0%	0%		-	4.1%	0%	95.9%	0%		-	0.6%	97.4%	2%	0%		-	100%	0%	0%	0%		-	-
Totals %	10.2%	33%	0%	0%		43.2%	0.3%	0%	6.7%	0%		7%	0.3%	48.3%	1%	0%		49.6%	0.3%	0%	0%	0%		0.3%	-
PHF	0.86	0.83	0	0		0.84	0.5	0	0.73	0		0.72	0.25	0.85	0.44	0		0.84	0.5	0	0	0		0.5	-
Heavy	2	13	0	0		15	0	0	2	0		2	0	5	0	0		5	0	0	0	0		0	-
Heavy %	2.8%	5.6%	0%	0%		4.9%	0%	0%	4.3%	0%		4.1%	0%	1.5%	0%	0%		1.4%	0%	0%	0%	0%		0%	-
Lights	70	219	0	0		289	2	0	45	0		47	2	335	7	0		344	2	0	0	0		2	-
Lights %	97.2%	94.4%	0%	0%		95.1%	100%	0%	95.7%	0%		95.9%	100%	98.5%	100%	0%		98.6%	100%	0%	0%	0%		100%	-
Single-Unit Trucks	1	3	0	0		4	0	0	1	0		1	0	2	0	0		2	0	0	0	0		0	-
Single-Unit Trucks %	1.4%	1.3%	0%	0%		1.3%	0%	0%	2.1%	0%		2%	0%	0.6%	0%	0%		0.6%	0%	0%	0%	0%		0%	-
Buses	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Buses %	0%	0.4%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Articulated Trucks	0	3	0	0		3	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Articulated Trucks %	0%	1.3%	0%	0%		1%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Aggregate Trucks	1	6	0	0		7	0	0	1	0		1	0	3	0	0		3	0	0	0	0		0	-
Aggregate Trucks %	1.4%	2.6%	0%	0%		2.3%	0%	0%	2.1%	0%		2%	0%	0.9%	0%	0%		0.9%	0%	0%	0%	0%		0%	-
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-

Peak Hour: 07:15 AM - 08:15 AM **Weather:**

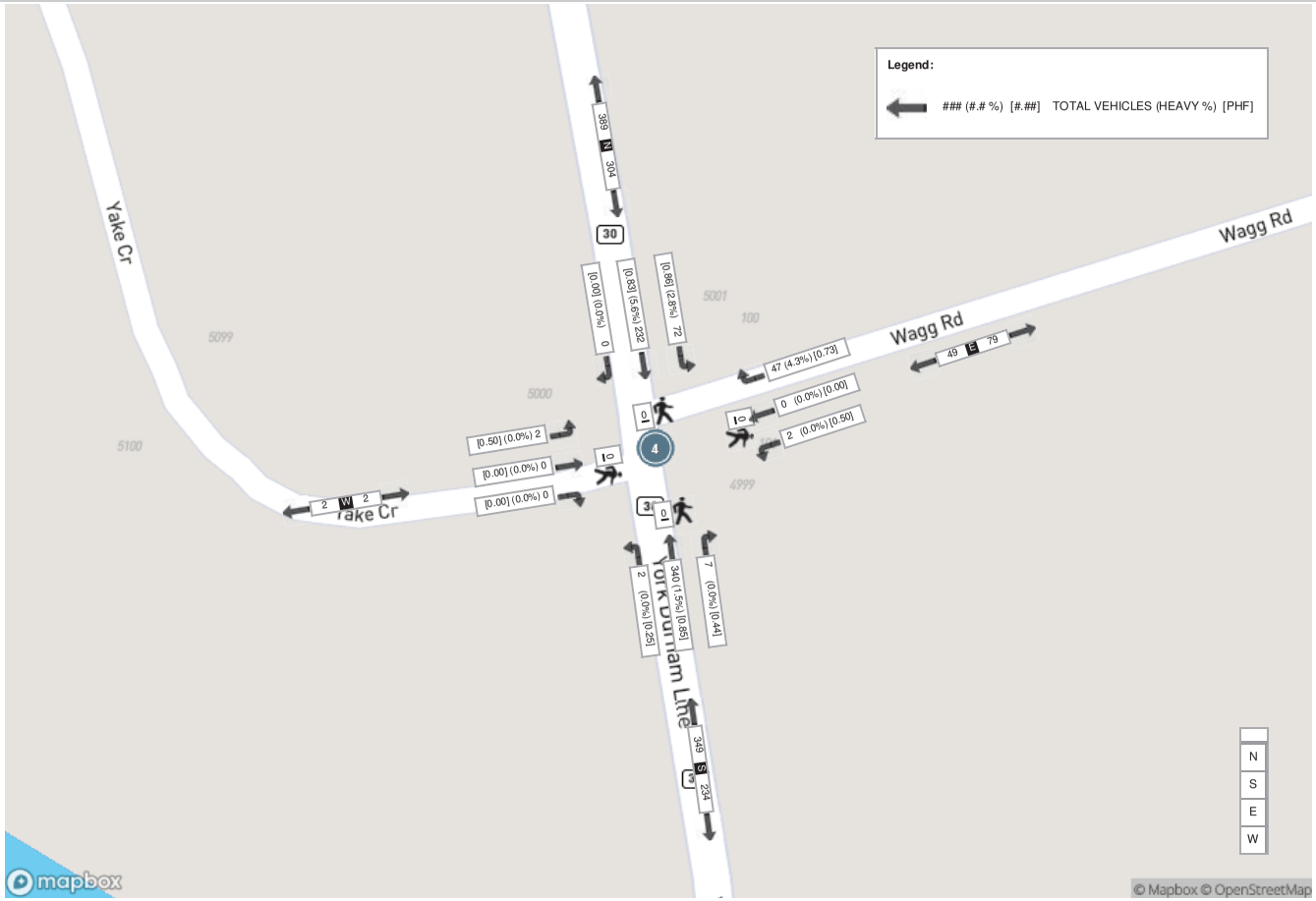


Peak Hour: 12:45 PM - 01:45 PM **Weather:**



TYLin
200 8800 DUFFERIN STREET
VAUGHAN ONTARIO, L4K 0C5
CANADA

Peak Hour: 04:30 PM - 05:30 PM **Weather:**



INTERSECTION SIGNAL TIMING REPORT

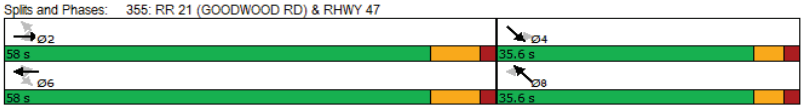
Location	Hwy. 47 and Goodwood Rd. (RR 21)				
Date	September 15/2020	**C&E No.**	33903368	**Prepared by**	C. Maw
Prepared for	The Municipal Infrastructure Group Ltd.				

Runs local at all times.

Phase Number	2	4	6	8
Movement	EBTL	SETL	WBTL	NWTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	Max	None	Max	None
Maximum Split (s)	58	35.6	58	35.6
Maximum Split (%)	62.0%	38.0%	62.0%	38.0%
Minimum Split (s)	35	25	35	25
Yellow Time (s)	5.9	3.7	5.9	3.7
All-Red Time (s)	2.1	1.9	2.1	1.9
Minimum Initial (s)	25	12	25	12
Vehicle Extension (s)	4.2	3	4.2	3
Minimum Gap (s)	0.2	0.2	0.2	0.2
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	20	14	20	14
Flash Dont Walk (s)	7	5	7	5

Intersection Summary	
Cycle Length	93.6
Control Type	Semi Act-Uncoord
Natural Cycle	70

Splits and Phases: 355: RR 21 (GOODWOOD RD) & RHWY 47



Dynamic max in use for E/W phases. Split time can fluctuate between min and max split times in 5 second intervals based on demand.

**Please note a concerted effort has been made to ensure the accuracy and completeness of the data provided, however, inadvertent errors or omissions can still occur. Please bring any errors or omissions to the Region's attention.*

LOCATION:	**Blooomington Rd (YR 40) & York Durham Line (YR 30)**	*MUNICIPALITY:*	**Stouffville**
CTCS:	**359**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**July 3, 2020**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.0 m/s)**
IMPLEMENTATION DATE:	**July 3, 2020**	*CHANNEL/DROP:*	

N

NEMA Phase (York)		PM 16:00-18:00 M-F	Free 18:00 - 16:00 M-F; 24 Hrs Sat & Sun	Phase Mode (Fixe/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 99		
	System Plan	Plan 1	Plan 99		
1. E/B Left Turn Arrow	WLK			Callable/Extendable by Setback Loop	
	FDW				
	MIN 7				
	EXT 3				
	MAX1 10				
	MAX2 0				
	AMB 3				
	ALR 1				
	SPLIT	**14**			
2. Westbound	WLK			Fixed	NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is served. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or MAX1 during Free operation.Unused extension time is given to the EWG.
	FDW				
	MIN 50				
	EXT 0				
	MAX1 50				
	MAX2 0				
	AMB 5.0				
	ALR 3.0				
Bloomington Rd	SPLIT	**65**	**0**		
3. NOT USED	WLK				
	FDW				
	MIN				
	EXT				
	MAX1				
	MAX2				
	AMB				
	ALR				
	SPLIT				
4. Southbound	WLK			Callable by stopbar loop Extendable by stopbar loop.	
	FDW				
	MIN 10				
	EXT 5				
	MAX1 35				
	MAX2 0				
	AMB 5.0				
	ALR 3.0				
York Durham Line	SPLIT	**41**	**0**		
5. W/B Left Turn Arrow	WLK			Callable/Extendable by Setback Loop	
	FDW				
	MIN 7				
	EXT 3				
	MAX1 10				
	MAX2 0				
	AMB 3				
	ALR 1				
	SPLIT	**14**			
6. Eastbound	WLK			Fixed	
	FDW				
	MIN 50				
	EXT 0				
	MAX1 50				
	MAX2 0				
	AMB 5.0				
	ALR 3.0				
Bloomington Rd	SPLIT	**65**	**0**		
7. NOT USED	WLK				
	FDW				
	MIN				
	EXT				
	MAX1				
	MAX2				
	AMB				
	ALR				
	SPLIT				
8. Northbound	WLK			Callable by stopbar loop Extendable by stopbar loop.	
	FDW				
	MIN 10				
	EXT 5				
	MAX1 35				
	MAX2 0				
	AMB 5				
	ALR 3.0				
York Durham Line	SPLIT	**41**	**0**		
	CL	**120**	**0 (FREE)**		
	OF	**0**	**0 (FREE)**		
	VP	0	0 (FREE)		

LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal

NOTES:

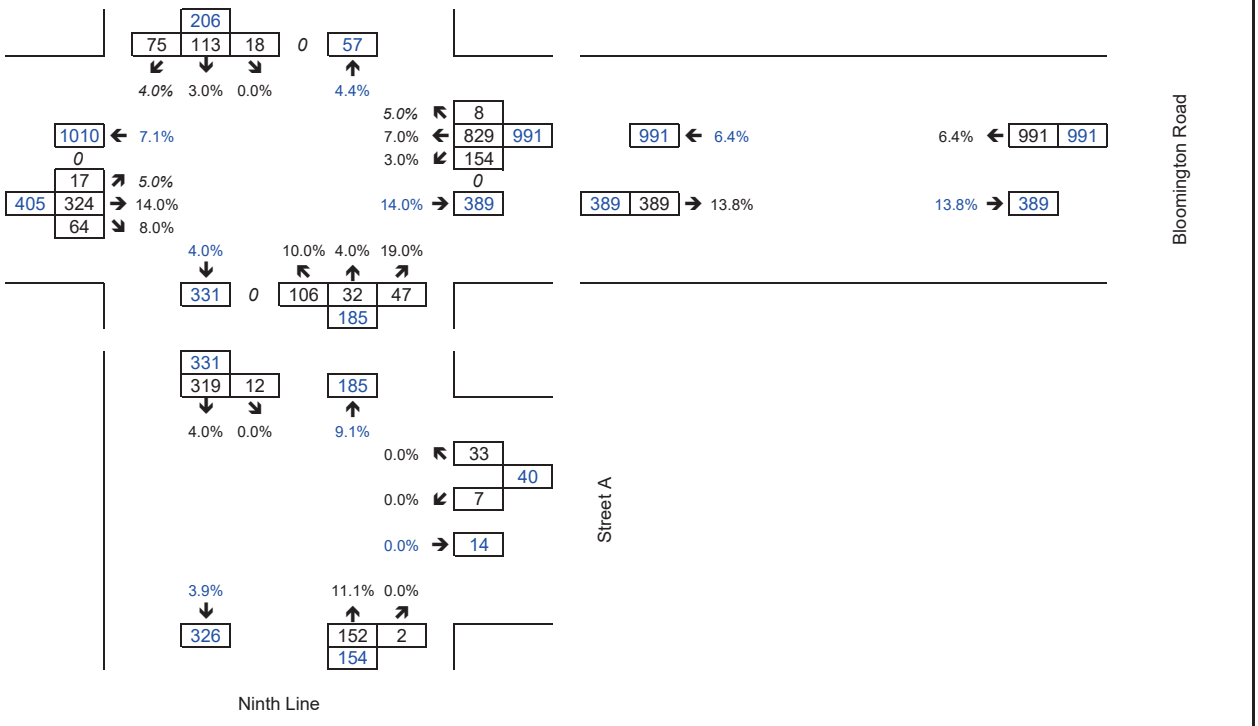
Appendix B:
Background Development Traffic

BLOOMINGTON SUBDIVISIONS
19T-86101 & 19T-83015 ACCESS REVIEW
BLOOMINGTON ROAD & NINTH LINE
WHITCHURCH-STOUFFVILLE, ONTARIO

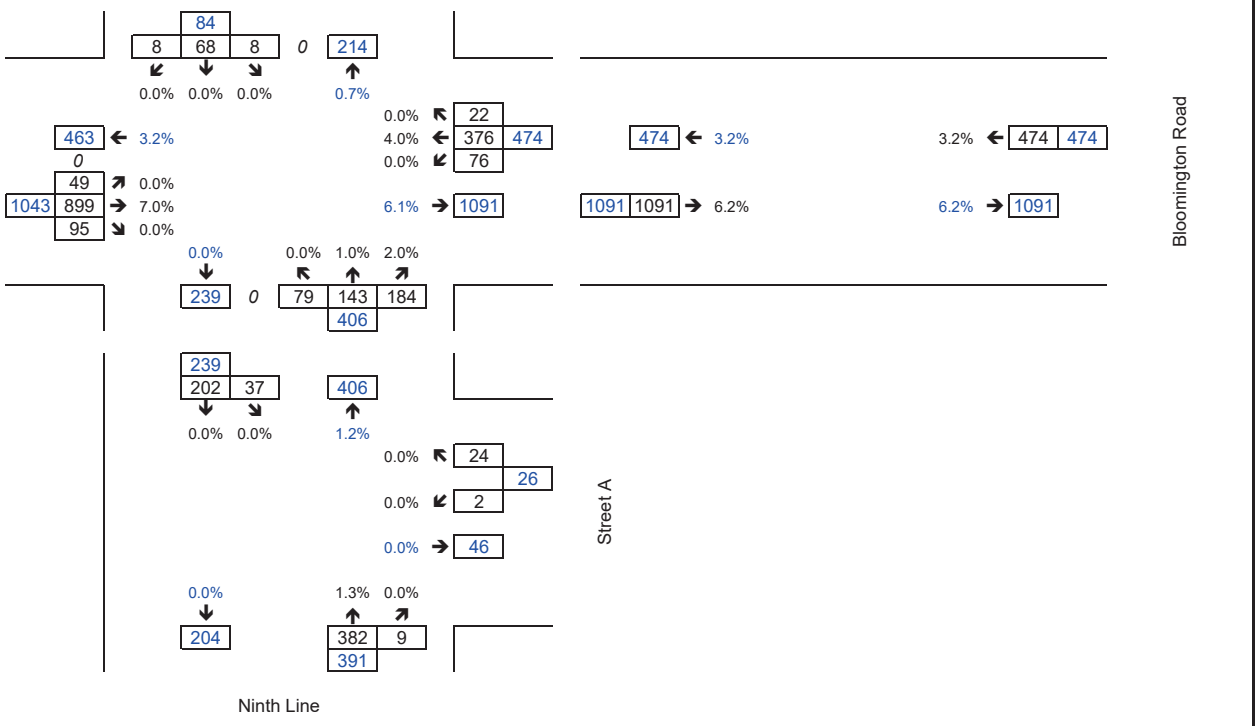
MARK ENGINEERING
MAY 2, 2014

2018 Total Peak Hour Traffic

Morning Peak Hour



Afternoon Peak Hour



UNITED SOILS MANAGEMENT
14245 NINTH LINE
TRAFFIC OPERATIONS ASSESSMENT
BLOOMINGTON ROAD & NINTH LINE
WHITCHURCH-STOUFFVILLE, ONTARIO

BA GROUP
DECEMBER 18, 2012.

2.3 Future Traffic Forecasts

2.3.1 Background Corridor Growth

A ten-year traffic forecast has been requested by staff at the Town of Whitchurch-Stouffville to better understand traffic operations in the future. BA Group reviewed historical growth trends along Ninth Line (south of Bloomington Road) based on several previous counts and determined that there has been a negative growth trend south of Ninth Line.

No historical traffic count information was able to be obtained for Bloomington Road so an assumption of 2% growth per year was made based on BA Group's experience with similar rural routes in York Region.

The proposed growth was applied to all movements at the Bloomington Road / Ninth Line intersection resulting in some carry-over growth on Ninth Line North of the Bloomington Road / Ninth Line intersection in front of the site.

2.3.2 Site Traffic Forecasts

There is currently no forecast available of how truck traffic at the pit will change going forward. However, for the purpose of estimating a ten-year forecast, we have conservatively assumed a potential growth in site traffic of up to 800 vehicles per day. This compares to existing volumes in the order of 175- 235 trips per day – or an assumed increase of over 350%.

The assumed increase in daily traffic was converted into hourly traffic volumes for the purpose of this analysis. Table 2 summaries the forecasted trip generation.

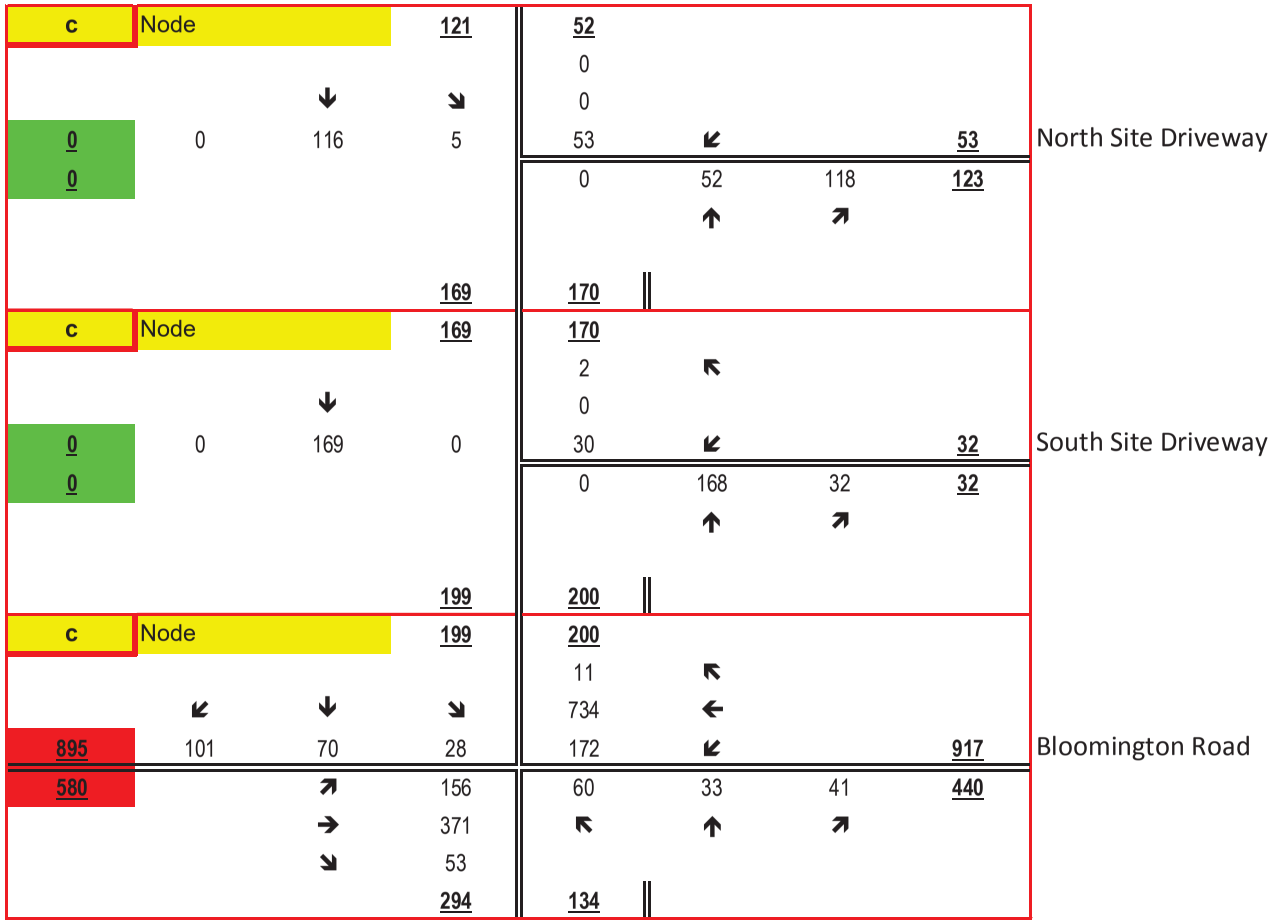
Table 2 Forecasted Peak Traffic Demand
Ninth Line / Bloomington Road

	Hourly Traffic											
	Observed Traffic Site Peak Volumes		Observed Traffic Street Peak Volumes		Forecasted Site Peak Volumes (800 vpd)		Forecasted Street Peak Volumes (800 vpd)		Net-New Hourly Trips (Site Peak)		Net-New Hourly Trips (Street Peak)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
North Driveway	70	39	39	19	320	181	176	88	250	142	137	69
South Driveway	10	1	14	0	44	3	64	0	34	2	50	0
Total Both Driveways	80	40	53	19	364	184	240	88	284	144	187	69
Total Daily Peak Period Traffic	120		72		548		328		428		256	

Net-new site traffic volumes were applied to the road network based on existing traffic patterns.

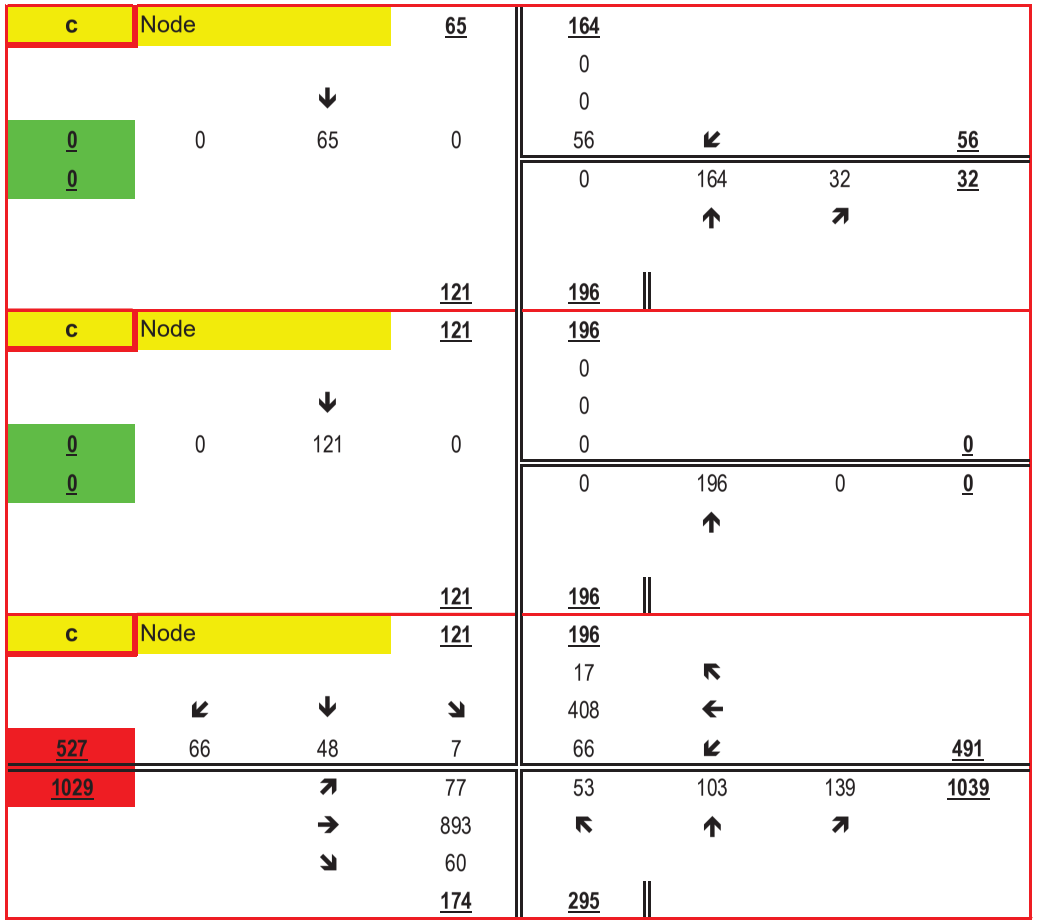
Project # 7272-02
17/12/2012
United Soils Management
(Lee Sand and Gravel)
10yr Horizon (Intersection Peak) AM

Ninth Line



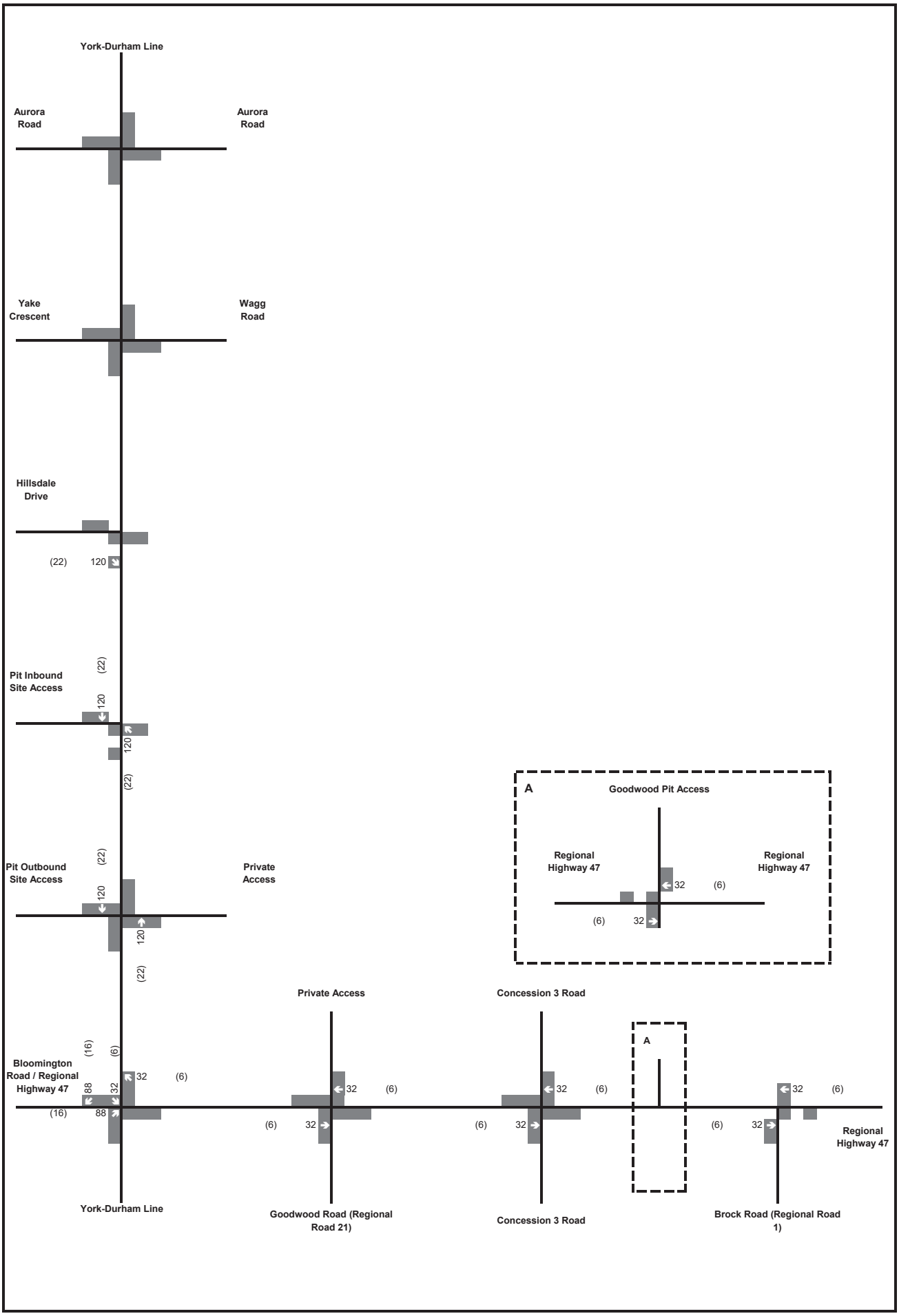
Project # 7272-02
17/12/2012
United Soils Management
(Lee Sand and Gravel)
10yr Horizon (Intersection Peak) PM

Ninth Line



LAFARGE
STOUFFVILLE PIT
TRANSPORTATION IMPACT STUDY
WHITCHURCH-STOUFFVILLE, ONTARIO

TMIG
APRIL 5, 2022.



TYLin

Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 4-1
Proposed New
Stouffville Pit Trips
Stouffville Pit TIS

Appendix C:
Synchro Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1	130	0	0	0	117	103	0	0	180	84
Future Volume (vph)	35	1	130	0	0	0	117	103	0	0	180	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851										0.850
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1594	1392	0	0	1879	0	1653	1503	1879	1879	1693	1597
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1594	1392	0	0	1879	0	1653	1503	1879	1879	1693	1597
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	12%	0%	15%	0%	0%	0%	8%	25%	0%	0%	11%	0%
Adj. Flow (vph)	40	1	149	0	0	0	134	118	0	0	207	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	150	0	0	0	0	134	118	0	0	207	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1	130	0	0	0	117	103	0	0	180	84
Future Volume (Veh/h)	35	1	130	0	0	0	117	103	0	0	180	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	40	1	149	0	0	0	134	118	0	0	207	97
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	593	593	207	742	690	118	304			118		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	593	593	207	742	690	118	304			118		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	89	100	81	100	100	100	89			100		
cM capacity (veh/h)	369	375	802	249	330	939	1223			1483		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	40	150	0	134	118	0	0	207	97
Volume Left	40	0	0	134	0	0	0	0	0
Volume Right	0	149	0	0	0	0	0	0	97
cSH	369	796	1700	1223	1700	1700	1700	1700	1700
Volume to Capacity	0.11	0.19	0.00	0.11	0.07	0.00	0.00	0.12	0.06
Queue Length 95th (m)	2.9	5.5	0.0	2.9	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	15.9	10.6	0.0	8.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B	A	A					
Approach Delay (s)	11.7		0.0	4.4			0.0		
Approach LOS	B		A						

Intersection Summary				
Average Delay		4.5		
Intersection Capacity Utilization		34.1%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	50	0	158	14	38	276	0
Future Volume (vph)	0	0	0	1	0	50	0	158	14	38	276	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.867			0.989				
Flt Protected					0.999						0.994	
Satd. Flow (prot)	0	1879	0	0	1627	0	0	1570	0	0	1696	0
Flt Permitted					0.999						0.994	
Satd. Flow (perm)	0	1879	0	0	1627	0	0	1570	0	0	1696	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1335.9			755.9	
Travel Time (s)		8.3			74.9			60.1			34.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	13%	79%	11%	10%	0%
Adj. Flow (vph)	0	0	0	1	0	54	0	170	15	41	297	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	55	0	0	185	0	0	338	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	50	0	158	14	38	276	0
Future Volume (Veh/h)	0	0	0	1	0	50	0	158	14	38	276	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	1	0	54	0	170	15	41	297	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	610	564	297	556	556	178	297			185		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	610	564	297	556	556	178	297			185		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	100	100	94	100			97		
cM capacity (veh/h)	375	424	747	434	428	871	1276			1337		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	55	185	338
Volume Left	0	1	0	41
Volume Right	0	54	15	0
cSH	1700	855	1276	1337
Volume to Capacity	0.00	0.06	0.00	0.03
Queue Length 95th (m)	0.0	1.6	0.0	0.8
Control Delay (s)	0.0	9.5	0.0	1.2
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.5	0.0	1.2
Approach LOS	A	A		

Intersection Summary					
Average Delay		1.6			
Intersection Capacity Utilization	39.1%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	64	199	258	8
Future Volume (vph)	0	0	64	199	258	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996	
Flt Protected				0.988		
Satd. Flow (prot)	0	0	0	1362	1657	0
Flt Permitted				0.988		
Satd. Flow (perm)	0	0	0	1362	1657	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1002.4	
Travel Time (s)	14.6			4.4	45.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	96%	17%	11%	72%
Adj. Flow (vph)	0	0	69	214	277	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	283	286	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	64	199	258	8
Future Volume (Veh/h)	0	0	64	199	258	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	69	214	277	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	634	282	286			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	634	282	286			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	92			
cM capacity (veh/h)	412	762	886			

Direction, Lane #	NB 1	SB 1
Volume Total	283	286
Volume Left	69	0
Volume Right	0	9
cSH	886	1700
Volume to Capacity	0.08	0.17
Queue Length 95th (m)	2.0	0.0
Control Delay (s)	2.9	0.0
Lane LOS	A	
Approach Delay (s)	2.9	0.0
Approach LOS		

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	34.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	0	51	0	0	0	0	238	7	1	262	0
Future Volume (vph)	15	0	51	0	0	0	0	238	7	1	262	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.996				
Flt Protected	0.950											
Satd. Flow (prot)	892	0	799	0	1842	0	0	1428	0	0	1709	0
Flt Permitted	0.950											
Satd. Flow (perm)	892	0	799	0	1842	0	0	1428	0	0	1709	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.0			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	100%	2%	100%	2%	2%	2%	0%	32%	0%	0%	10%	0%
Adj. Flow (vph)	16	0	56	0	0	0	0	262	8	1	288	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	0	56	0	0	0	0	270	0	0	289	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	51	0	0	0	0	238	7	1	262	0
Future Volume (Veh/h)	15	0	51	0	0	0	0	238	7	1	262	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	16	0	56	0	0	0	0	262	8	1	288	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	556	560	288	612	556	266	288			270		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556	560	288	612	556	266	288			270		
tC, single (s)	8.1	6.5	7.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.4	4.0	4.2	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	90	100	100	100	100			100		
cM capacity (veh/h)	323	437	567	365	439	773	1286			1305		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	16	56	0	270	289
Volume Left	16	0	0	0	1
Volume Right	0	56	0	8	0
cSH	323	567	1700	1700	1305
Volume to Capacity	0.05	0.10	0.00	0.16	0.00
Queue Length 95th (m)	1.2	2.6	0.0	0.0	0.0
Control Delay (s)	16.7	12.0	0.0	0.0	0.0
Lane LOS	C	B	A		A
Approach Delay (s)	13.1		0.0	0.0	0.0
Approach LOS	B		A		

Intersection Summary					
Average Delay		1.5			
Intersection Capacity Utilization		24.6%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Future Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		15.0	0.0		40.0	0.0		0.0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (m)	20.0			40.0			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.979				0.850		0.968	
Flt Protected	0.950			0.950				0.984			0.990	
Satd. Flow (prot)	1214	1486	0	1668	1518	0	0	1636	1536	0	1398	0
Flt Permitted	0.356			0.438				0.680			0.820	
Satd. Flow (perm)	455	1486	0	769	1518	0	0	1131	1536	0	1158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			9				108		13	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			2753.2			733.9			751.3	
Travel Time (s)		66.6			123.9			33.0			33.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	47%	25%	16%	7%	16%	53%	17%	11%	4%	42%	10%	63%
Adj. Flow (vph)	81	341	54	123	450	73	68	136	108	58	168	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	395	0	123	523	0	0	204	108	0	296	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		
Detector Phase	1	6		5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	58.0		11.0	58.0		18.0	18.0	18.0	18.0	18.0	
Total Split (s)	12.0	65.0		12.0	65.0		43.0	43.0	43.0	43.0	43.0	
Total Split (%)	10.0%	54.2%		10.0%	54.2%		35.8%	35.8%	35.8%	35.8%	35.8%	
Maximum Green (s)	8.0	57.0		8.0	57.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effct Green (s)	68.8	57.1		69.9	59.6			31.6	31.6		31.6	
Actuated g/C Ratio	0.59	0.49		0.60	0.51			0.27	0.27		0.27	
v/c Ratio	0.25	0.54		0.24	0.67			0.67	0.22		0.92	
Control Delay	11.8	24.3		10.8	28.0			49.3	7.1		73.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	11.8	24.3		10.8	28.0			49.3	7.1		73.0	
LOS	B	C		B	C			D	A		E	
Approach Delay		22.2			24.7			34.7			73.0	
Approach LOS		C			C			C			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 116.5			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 34.1		Intersection LOS: C	
Intersection Capacity Utilization 98.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Future Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.99	
Satd. Flow (prot)	1214	1487		1668	1518			1635	1536		1398	
Flt Permitted	0.36	1.00		0.44	1.00			0.68	1.00		0.82	
Satd. Flow (perm)	455	1487		768	1518			1131	1536		1158	
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)	81	341	54	123	450	73	68	136	108	58	168	70
RTOR Reduction (vph)	0	5	0	0	4	0	0	0	79	0	10	0
Lane Group Flow (vph)	81	390	0	123	519	0	0	204	29	0	286	0
Heavy Vehicles (%)	47%	25%	16%	7%	16%	53%	17%	11%	4%	42%	10%	63%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	64.2	58.0		67.4	59.6			31.6	31.6		31.6	
Effective Green, g (s)	64.2	58.0		67.4	59.6			31.6	31.6		31.6	
Actuated g/C Ratio	0.55	0.49		0.57	0.51			0.27	0.27		0.27	
Clearance Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Vehicle Extension (s)	3.0	0.2		3.0	0.2			5.0	5.0		5.0	
Lane Grp Cap (vph)	288	734		500	770			304	413		311	
v/s Ratio Prot	0.01	0.26		c0.02	c0.34							
v/s Ratio Perm	0.14			0.12				0.18	0.02		c0.25	
v/c Ratio	0.28	0.53		0.25	0.67			0.67	0.07		0.92	
Uniform Delay, d1	13.9	20.4		12.0	21.6			38.3	32.0		41.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.5	2.8		0.3	4.7			7.4	0.2		32.5	
Delay (s)	14.4	23.1		12.3	26.3			45.7	32.1		74.2	
Level of Service	B	C		B	C			D	C		E	
Approach Delay (s)		21.7			23.6			41.0			74.2	
Approach LOS		C			C			D			E	

Intersection Summary				
HCM 2000 Control Delay	34.9	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.73			
Actuated Cycle Length (s)	117.4	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	98.4%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Future Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.869				
Flt Protected				0.950			0.950				0.976	
Satd. Flow (prot)	1253	1634	1238	1190	3130	0	1552	1633	0	0	1834	0
Flt Permitted				0.640			0.757				0.956	
Satd. Flow (perm)	1253	1634	1238	802	3130	0	1237	1633	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324		1			7				
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		906.6			582.9			342.6			169.6	
Travel Time (s)		40.8			42.0			24.7			12.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	50%	15%	29%	50%	14%	0%	15%	0%	0%	0%	0%	75%
Adj. Flow (vph)	0	186	324	7	382	2	382	1	7	1	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	324	7	384	0	382	8	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	58.0	58.0	58.0	58.0	58.0		35.6	35.6		35.6	35.6	
Total Split (%)	62.0%	62.0%	62.0%	62.0%	62.0%		38.0%	38.0%		38.0%	38.0%	
Maximum Green (s)	50.0	50.0	50.0	50.0	50.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		50.0	50.0	50.0	50.0		29.9	29.9			29.9	
Actuated g/C Ratio		0.53	0.53	0.53	0.53		0.32	0.32			0.32	
v/c Ratio		0.21	0.40	0.02	0.23		0.97	0.02			0.00	
Control Delay		12.3	2.9	10.5	12.0		71.2	13.6			21.5	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		12.3	2.9	10.5	12.0		71.2	13.6			21.5	
LOS		B	A	B	B		E	B			C	
Approach Delay		6.3			11.9			70.0			21.5	
Approach LOS		A			B			E			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 93.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Future Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor		1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1634	1238	1190	3131		1552	1632			1833	
Flt Permitted		1.00	1.00	0.64	1.00		0.76	1.00			0.96	
Satd. Flow (perm)		1634	1238	802	3131		1236	1632			1797	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	186	324	7	382	2	382	1	7	1	1	0
RTOR Reduction (vph)	0	0	151	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	186	173	7	384	0	382	3	0	0	2	0
Heavy Vehicles (%)	50%	15%	29%	50%	14%	0%	15%	0%	0%	0%	0%	75%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)		50.0	50.0	50.0	50.0		29.9	29.9			29.9	
Effective Green, g (s)		50.0	50.0	50.0	50.0		29.9	29.9			29.9	
Actuated g/C Ratio		0.53	0.53	0.53	0.53		0.32	0.32			0.32	
Clearance Time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)		4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)		873	662	428	1674		395	521			574	
v/s Ratio Prot		0.11			0.12			0.00				
v/s Ratio Perm			c0.14	0.01			c0.31				0.00	
v/c Ratio		0.21	0.26	0.02	0.23		0.97	0.01			0.00	
Uniform Delay, d1		11.4	11.8	10.2	11.5		31.3	21.7			21.7	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.6	1.0	0.1	0.3		36.3	0.0			0.0	
Delay (s)		12.0	12.7	10.3	11.9		67.6	21.7			21.7	
Level of Service		B	B	B	B		E	C			C	
Approach Delay (s)		12.5			11.8			66.7			21.7	
Approach LOS		B			B			E			C	

Intersection Summary					
HCM 2000 Control Delay		28.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio		0.53			
Actuated Cycle Length (s)		93.5	Sum of lost time (s)	13.6	
Intersection Capacity Utilization		69.7%	ICU Level of Service	C	
Analysis Period (min)		15			
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	163	9	4	317	4	17	10	5	6	8	18
Future Volume (vph)	8	163	9	4	317	4	17	10	5	6	8	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.998			0.977			0.925	
Flt Protected		0.998			0.999			0.974			0.990	
Satd. Flow (prot)	0	1639	0	0	1630	0	0	1788	0	0	1614	0
Flt Permitted		0.998			0.999			0.974			0.990	
Satd. Flow (perm)	0	1639	0	0	1630	0	0	1788	0	0	1614	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1231.9	
Travel Time (s)		42.0			29.8			32.7			88.7	
Confl. Peds. (#/hr)			1	1					2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	15%	0%	25%	15%	0%	0%	0%	0%	34%	0%	0%
Adj. Flow (vph)	9	181	10	4	352	4	19	11	6	7	9	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	200	0	0	360	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	163	9	4	317	4	17	10	5	6	8	18
Future Volume (Veh/h)	8	163	9	4	317	4	17	10	5	6	8	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	181	10	4	352	4	19	11	6	7	9	20
Pedestrians					2			1				
Lane Width (m)					3.5			3.5				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	356			192			592	569	189	580	572	354
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	356			192			592	569	189	580	572	354
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.4	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.8	4.0	3.3
p0 queue free %	99			100			95	97	99	98	98	97
cM capacity (veh/h)	1214			1254			399	430	856	368	428	694

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	200	360	36	36
Volume Left	9	4	19	7
Volume Right	10	4	6	20
cSH	1214	1254	449	523
Volume to Capacity	0.01	0.00	0.08	0.07
Queue Length 95th (m)	0.2	0.1	2.1	1.8
Control Delay (s)	0.4	0.1	13.7	12.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.4	0.1	13.7	12.4
Approach LOS			B	B

Intersection Summary					
Average Delay		1.7			
Intersection Capacity Utilization		29.7%	ICU Level of Service		A
Analysis Period (min)		15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	145	337	13	0	23
Future Volume (vph)	0	145	337	13	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.865	
Flt Protected						
Satd. Flow (prot)	0	1620	1724	799	813	0
Flt Permitted						
Satd. Flow (perm)	0	1620	1724	799	813	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	100%	16%	9%	100%	100%	100%
Adj. Flow (vph)	0	181	421	16	0	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	181	421	16	29	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	145	337	13	0	23
Future Volume (Veh/h)	0	145	337	13	0	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	181	421	16	0	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	437				602	421
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	437				602	421
tC, single (s)	5.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	3.1				4.4	4.2
p0 queue free %	100				100	94
cM capacity (veh/h)	750				335	467

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	181	421	16	29
Volume Left	0	0	0	0
Volume Right	0	0	16	29
cSH	1700	1700	1700	467
Volume to Capacity	0.11	0.25	0.01	0.06
Queue Length 95th (m)	0.0	0.0	0.0	1.6
Control Delay (s)	0.0	0.0	0.0	13.2
Lane LOS				B
Approach Delay (s)	0.0	0.0		13.2
Approach LOS				B

Intersection Summary				
Average Delay		0.6		
Intersection Capacity Utilization		27.7%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	164	17	134	284	31	100
Future Volume (vph)	164	17	134	284	31	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1598	0	1668	1740	986	1479
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1598	0	1668	1740	986	1479
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	11%	65%	7%	8%	81%	8%
Adj. Flow (vph)	184	19	151	319	35	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	203	0	151	319	35	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	164	17	134	284	31	100
Future Volume (Veh/h)	164	17	134	284	31	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	184	19	151	319	35	112
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			203		814	194
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			203		814	194
tC, single (s)			4.2		7.2	6.3
tC, 2 stage (s)						
tF (s)			2.3		4.2	3.4
p0 queue free %			89		85	87
cM capacity (veh/h)			1339		230	833

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	203	151	319	147
Volume Left	0	151	0	35
Volume Right	19	0	0	112
cSH	1700	1339	1700	964
Volume to Capacity	0.12	0.11	0.19	0.15
Queue Length 95th (m)	0.0	3.0	0.0	4.3
Control Delay (s)	0.0	8.0	0.0	13.2
Lane LOS		A		B
Approach Delay (s)	0.0	2.6		13.2
Approach LOS				B

Intersection Summary				
Average Delay		3.8		
Intersection Capacity Utilization		30.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	172	277	0
Future Volume (vph)	0	0	0	172	277	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1879	0	0	1579	1708	0
Flt Permitted						
Satd. Flow (perm)	1879	0	0	1579	1708	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	150.4			1002.4	1335.9	
Travel Time (s)	10.8			45.1	60.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	19%	10%	0%
Adj. Flow (vph)	0	0	0	185	298	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	185	298	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	172	277	0
Future Volume (Veh/h)	0	0	0	172	277	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	185	298	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	483	298	298			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	483	298	298			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	546	746	1275			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	185	298
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1275	1700
Volume to Capacity	0.00	0.00	0.18
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary					
Average Delay		0.0			
Intersection Capacity Utilization		17.9%	ICU Level of Service		A
Analysis Period (min)		15			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	14	0	10	31
Future Volume (vph)	0	0	14	0	10	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.988
Satd. Flow (prot)	1842	0	1879	0	0	1435
Flt Permitted						0.988
Satd. Flow (perm)	1842	0	1879	0	0	1435
Link Speed (k/h)	50		50			50
Link Distance (m)	343.9		1231.9			394.4
Travel Time (s)	24.8		88.7			28.4
Confl. Peds. (#/hr)		1				
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	0%	2%	100%	7%
Adj. Flow (vph)	0	0	17	0	12	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	17	0	0	50
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	0	10	31
Future Volume (Veh/h)	0	0	14	0	10	31
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	17	0	12	38
Pedestrians						1
Lane Width (m)						3.5
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79	18			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79	18			17	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			99	
cM capacity (veh/h)	914	1060			1142	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	17	50
Volume Left	0	0	12
Volume Right	0	0	0
cSH	1700	1700	1142
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (m)	0.0	0.0	0.3
Control Delay (s)	0.0	0.0	2.0
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	2.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	NB	SB
Directions Served	L	TR	L	R
Maximum Queue (m)	17.0	23.3	18.7	3.2
Average Queue (m)	5.1	9.3	5.9	0.3
95th Queue (m)	12.5	17.9	14.8	2.4
Link Distance (m)		574.9		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	80.0		50.0	70.0
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: York-Durham Line & Wagg Road

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (m)	9.9	13.6
Average Queue (m)	6.5	1.5
95th Queue (m)	11.5	7.6
Link Distance (m)	1653.9	736.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	LT	TR
Maximum Queue (m)	30.9	0.7
Average Queue (m)	6.3	0.0
95th Queue (m)	21.8	0.7
Link Distance (m)	81.8	986.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	SB
Directions Served	L	R	LT
Maximum Queue (m)	24.3	30.6	1.3
Average Queue (m)	7.2	14.2	0.0
95th Queue (m)	21.4	27.5	1.3
Link Distance (m)	192.1	192.1	81.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	B29	NB	NB	SB
Directions Served	L	TR	L	TR	T	LT	R	LTR
Maximum Queue (m)	71.9	118.4	94.5	148.6	0.7	183.3	60.0	161.6
Average Queue (m)	19.9	52.9	20.3	68.7	0.0	65.7	18.3	77.2
95th Queue (m)	49.0	98.8	58.6	126.8	0.7	161.0	63.7	143.2
Link Distance (m)		1468.4		2731.9	888.7	720.3		726.6
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	55.0		55.0				40.0	
Storage Blk Time (%)	0	7		13		31	0	
Queuing Penalty (veh)	0	5		15		33	0	

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	B29	WB	WB	WB	NB	NB	SB
Directions Served	T	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	46.5	818.9	15.5	38.9	40.7	49.8	102.7	5.2
Average Queue (m)	14.2	36.4	1.0	14.2	13.6	43.2	30.9	0.4
95th Queue (m)	35.2	552.9	6.9	30.4	31.4	56.5	91.1	3.4
Link Distance (m)	888.7	2731.9		556.1			328.2	155.7
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (m)			50.0		25.0	30.0		
Storage Blk Time (%)	0			2	2	31		
Queuing Penalty (veh)	0			3	4	2		

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	21.9	8.4	10.5	20.7
Average Queue (m)	1.7	0.4	3.9	5.8
95th Queue (m)	11.7	5.5	9.1	14.5
Link Distance (m)	556.1	395.3	439.5	1208.7
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	23.7
Average Queue (m)	8.3
95th Queue (m)	20.9
Link Distance (m)	381.3
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	2.9	15.9	30.2
Average Queue (m)	0.1	4.1	9.9
95th Queue (m)	2.1	12.4	24.3
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

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

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

Movement	SB
Directions Served	LT
Maximum Queue (m)	4.8
Average Queue (m)	0.2
95th Queue (m)	2.8
Link Distance (m)	387.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 64

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	1	157	0	3	1	137	299	1	1	174	55
Future Volume (vph)	97	1	157	0	3	1	137	299	1	1	174	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851			0.973				0.850			0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1566
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1566
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	5%	0%	6%	0%	0%	0%	3%	3%	0%	0%	5%	2%
Adj. Flow (vph)	115	1	187	0	4	1	163	356	1	1	207	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	188	0	0	5	0	163	356	1	1	207	65
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1	157	0	3	1	137	299	1	1	174	55
Future Volume (Veh/h)	97	1	157	0	3	1	137	299	1	1	174	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	115	1	187	0	4	1	163	356	1	1	207	65
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	894	892	207	1078	956	356	272			357		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	894	892	207	1078	956	356	272			357		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	50	100	77	100	98	100	87			100		
cM capacity (veh/h)	230	247	823	138	227	693	1286			1213		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	115	188	5	163	356	1	1	207	65
Volume Left	115	0	0	163	0	0	1	0	0
Volume Right	0	187	1	0	0	1	0	0	65
cSH	230	813	262	1286	1700	1700	1213	1700	1700
Volume to Capacity	0.50	0.23	0.02	0.13	0.21	0.00	0.00	0.12	0.04
Queue Length 95th (m)	20.4	7.1	0.5	3.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	35.3	10.8	19.0	8.2	0.0	0.0	8.0	0.0	0.0
Lane LOS	E	B	C	A			A		
Approach Delay (s)	20.1		19.0	2.6			0.0		
Approach LOS	C		C						

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	2	0	47	2	344	9	72	235	0
Future Volume (vph)	2	0	0	2	0	47	2	344	9	72	235	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.870			0.997				
Flt Protected		0.950			0.998						0.988	
Satd. Flow (prot)	0	1785	0	0	1556	0	0	1827	0	0	1763	0
Flt Permitted		0.950			0.998						0.988	
Satd. Flow (perm)	0	1785	0	0	1556	0	0	1827	0	0	1763	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1337.2			755.9	
Travel Time (s)		8.3			74.9			60.2			34.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	2%	23%	3%	6%	0%
Adj. Flow (vph)	2	0	0	2	0	53	2	387	10	81	264	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	55	0	0	399	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	0	2	0	47	2	344	9	72	235	0
Future Volume (Veh/h)	2	0	0	2	0	47	2	344	9	72	235	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	0	0	2	0	53	2	387	10	81	264	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	875	827	264	822	822	392	264			397		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	875	827	264	822	822	392	264			397		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	99	100	92	100			93		
cM capacity (veh/h)	236	287	780	279	289	650	1312			1156		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	55	399	345
Volume Left	2	2	2	81
Volume Right	0	53	10	0
cSH	236	620	1312	1156
Volume to Capacity	0.01	0.09	0.00	0.07
Queue Length 95th (m)	0.2	2.3	0.0	1.8
Control Delay (s)	20.4	11.4	0.1	2.5
Lane LOS	C	B	A	A
Approach Delay (s)	20.4	11.4	0.1	2.5
Approach LOS	C	B		

Intersection Summary					
Average Delay		1.9			
Intersection Capacity Utilization	48.4%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	38	322	236	7
Future Volume (vph)	0	0	38	322	236	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996	
Flt Protected				0.995		
Satd. Flow (prot)	0	0	0	1568	1683	0
Flt Permitted				0.995		
Satd. Flow (perm)	0	0	0	1568	1683	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1001.1	
Travel Time (s)	14.6			4.4	45.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	98%	10%	9%	84%
Adj. Flow (vph)	0	0	42	358	262	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	400	270	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	38	322	236	7
Future Volume (Veh/h)	0	0	38	322	236	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	42	358	262	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	708	266	270			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	708	266	270			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	95			
cM capacity (veh/h)	385	778	894			

Direction, Lane #	NB 1	SB 1
Volume Total	400	270
Volume Left	42	0
Volume Right	0	8
cSH	894	1700
Volume to Capacity	0.05	0.16
Queue Length 95th (m)	1.2	0.0
Control Delay (s)	1.5	0.0
Lane LOS	A	
Approach Delay (s)	1.5	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	45	10	0	2	0	350	2	0	242	0
Future Volume (vph)	7	0	45	10	0	2	0	350	2	0	242	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.979			0.999				
Flt Protected	0.950				0.959							
Satd. Flow (prot)	1130	0	823	0	1764	0	0	1579	0	0	1724	0
Flt Permitted	0.950				0.959							
Satd. Flow (perm)	1130	0	823	0	1764	0	0	1579	0	0	1724	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.2			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	58%	2%	94%	0%	2%	0%	0%	19%	0%	2%	9%	0%
Adj. Flow (vph)	8	0	49	11	0	2	0	380	2	0	263	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	0	49	0	13	0	0	382	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	45	10	0	2	0	350	2	0	242	0
Future Volume (Veh/h)	7	0	45	10	0	2	0	350	2	0	242	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	49	11	0	2	0	380	2	0	263	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	646	645	263	693	644	381	263			382		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	646	645	263	693	644	381	263			382		
tC, single (s)	7.7	6.5	7.1	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.0	4.0	4.1	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	92	97	100	100	100			100		
cM capacity (veh/h)	316	391	597	331	391	671	1313			1176		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	8	49	13	382	263
Volume Left	8	0	11	0	0
Volume Right	0	49	2	2	0
cSH	316	597	359	1700	1176
Volume to Capacity	0.03	0.08	0.04	0.22	0.00
Queue Length 95th (m)	0.6	2.1	0.9	0.0	0.0
Control Delay (s)	16.7	11.6	15.4	0.0	0.0
Lane LOS	C	B	C		
Approach Delay (s)	12.3		15.4	0.0	0.0
Approach LOS	B		C		

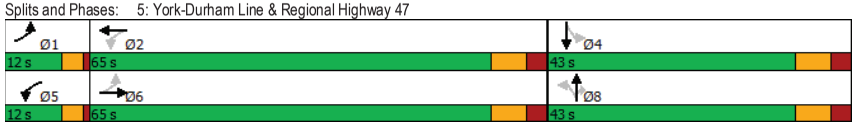
Intersection Summary					
Average Delay		1.3			
Intersection Capacity Utilization		32.6%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Future Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		15.0	0.0		40.0	0.0		0.0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (m)	20.0			40.0			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.986				0.850		0.973	
Flt Protected	0.950			0.950				0.989			0.991	
Satd. Flow (prot)	1700	1741	0	1767	1714	0	0	1792	1551	0	1692	0
Flt Permitted	0.353			0.138				0.745			0.691	
Satd. Flow (perm)	632	1741	0	257	1714	0	0	1350	1551	0	1180	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			6				160		11	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			2753.8			733.9			751.3	
Travel Time (s)		66.6			123.9			33.0			33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	6%	7%	1%	8%	9%	6%	3%	3%	15%	3%	12%
Adj. Flow (vph)	48	668	83	172	476	50	62	215	174	61	200	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	751	0	172	526	0	0	277	174	0	327	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		
Detector Phase	1	6		5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	58.0		11.0	58.0		18.0	18.0	18.0	18.0	18.0	
Total Split (s)	12.0	65.0		12.0	65.0		43.0	43.0	43.0	43.0	43.0	
Total Split (%)	10.0%	54.2%		10.0%	54.2%		35.8%	35.8%	35.8%	35.8%	35.8%	
Maximum Green (s)	8.0	57.0		8.0	57.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effct Green (s)	68.3	57.0		70.4	60.1			33.5	33.5		33.5	
Actuated g/C Ratio	0.58	0.48		0.59	0.51			0.28	0.28		0.28	
v/c Ratio	0.11	0.89		0.68	0.60			0.73	0.31		0.96	
Control Delay	10.2	43.0		25.4	25.5			50.6	7.9		80.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	10.2	43.0		25.4	25.5			50.6	7.9		80.7	
LOS	B	D		C	C			D	A		F	
Approach Delay		41.0			25.5			34.1			80.7	
Approach LOS		D			C			C			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 118.6			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 40.6		Intersection LOS: D	
Intersection Capacity Utilization 103.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	48	751	172	526	277	174	327
v/c Ratio	0.11	0.89	0.68	0.60	0.73	0.31	0.96
Control Delay	10.2	43.0	25.4	25.5	50.6	7.9	80.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	43.0	25.4	25.5	50.6	7.9	80.7
Queue Length 50th (m)	4.5	165.7	17.4	93.3	61.2	2.5	76.5
Queue Length 95th (m)	9.6	#248.6	#31.4	134.6	94.2	19.6	#135.4
Internal Link Dist (m)		1456.5		2729.8	709.9		727.3
Turn Bay Length (m)	55.0		55.0			40.0	
Base Capacity (vph)	439	840	254	871	398	570	355
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	0.11	0.89	0.68	0.60	0.70	0.31	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Future Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.99	
Satd. Flow (prot)	1700	1741		1767	1713			1792	1551		1691	
Flt Permitted	0.35	1.00		0.14	1.00			0.75	1.00		0.69	
Satd. Flow (perm)	632	1741		258	1713			1351	1551		1180	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	668	83	172	476	50	62	215	174	61	200	66
RTOR Reduction (vph)	0	4	0	0	3	0	0	0	115	0	8	0
Lane Group Flow (vph)	48	747	0	172	523	0	0	277	59	0	319	0
Heavy Vehicles (%)	5%	6%	7%	1%	8%	9%	6%	3%	3%	15%	3%	12%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	63.7	57.9		68.1	60.1			33.5	33.5		33.5	
Effective Green, g (s)	63.7	57.9		68.1	60.1			33.5	33.5		33.5	
Actuated g/C Ratio	0.53	0.48		0.57	0.50			0.28	0.28		0.28	
Clearance Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Vehicle Extension (s)	3.0	0.2		3.0	0.2			5.0	5.0		5.0	
Lane Grp Cap (vph)	389	844		248	862			379	435		331	
v/s Ratio Prot	0.01	c0.43		c0.05	0.31							
v/s Ratio Perm	0.06			0.35				0.21	0.04		c0.27	
v/c Ratio	0.12	0.89		0.69	0.61			0.73	0.14		0.96	
Uniform Delay, d1	14.3	27.8		20.3	21.2			38.9	32.1		42.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.1	13.1		8.1	3.2			8.6	0.3		40.2	
Delay (s)	14.4	40.9		28.4	24.4			47.4	32.4		82.5	
Level of Service	B	D		C	C			D	C		F	
Approach Delay (s)		39.3			25.4			41.6			82.5	
Approach LOS		D			C			D			F	

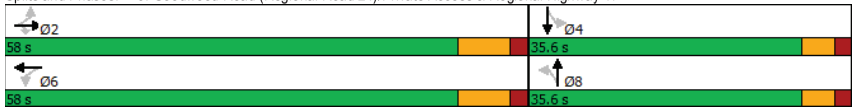
Intersection Summary				
HCM 2000 Control Delay	41.7	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.90			
Actuated Cycle Length (s)	119.4	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	103.8%	ICU Level of Service	G	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Future Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.97	1.00								
Frt			0.850		0.998			0.962			0.970	
Flt Protected	0.950			0.950			0.950				0.973	
Satd. Flow (prot)	1785	1824	1493	1526	3395	0	1638	1807	0	0	1773	0
Flt Permitted	0.575			0.449			0.752				0.924	
Satd. Flow (perm)	1080	1824	1455	719	3395	0	1296	1807	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			485		2			1			2	
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		906.0			582.9			342.6			169.6	
Travel Time (s)		40.8			42.0			24.7			12.2	
Confl. Peds. (#/hr)			3	3								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	7%	17%	5%	0%	9%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	459	485	7	284	4	305	3	1	5	2	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	459	485	7	288	0	305	4	0	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	58.0	58.0	58.0	58.0	58.0		35.6	35.6		35.6	35.6	
Total Split (%)	62.0%	62.0%	62.0%	62.0%	62.0%		38.0%	38.0%		38.0%	38.0%	
Maximum Green (s)	50.0	50.0	50.0	50.0	50.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	50.2	50.2	50.2	50.2	50.2		24.5	24.5			24.5	
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.28	0.28			0.28	
v/c Ratio	0.00	0.44	0.47	0.02	0.15		0.85	0.01			0.02	
Control Delay	10.0	13.7	2.7	10.3	10.0		52.0	20.0			19.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	10.0	13.7	2.7	10.3	10.0		52.0	20.0			19.9	
LOS	A	B	A	B	B		D	B			B	
Approach Delay		8.1			10.0			51.6			19.9	
Approach LOS		A			B			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 88.4			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 17.2		Intersection LOS: B	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

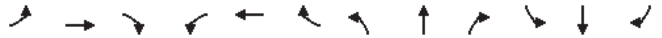




Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	2	459	485	7	288	305	4	9
v/c Ratio	0.00	0.44	0.47	0.02	0.15	0.85	0.01	0.02
Control Delay	10.0	13.7	2.7	10.3	10.0	52.0	20.0	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	13.7	2.7	10.3	10.0	52.0	20.0	19.9
Queue Length 50th (m)	0.2	46.5	0.0	0.5	12.4	51.1	0.4	0.9
Queue Length 95th (m)	1.2	76.7	14.4	2.7	20.6	#90.6	2.7	4.5
Internal Link Dist (m)		882.0			558.9		318.6	145.6
Turn Bay Length (m)	70.0		50.0	50.0		30.0		
Base Capacity (vph)	613	1035	1035	408	1928	441	616	575
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	0.00	0.44	0.47	0.02	0.15	0.69	0.01	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Future Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1785	1824	1456	1522	3395		1638	1808			1773	
Flt Permitted	0.58	1.00	1.00	0.45	1.00		0.75	1.00			0.92	
Satd. Flow (perm)	1081	1824	1456	719	3395		1296	1808			1684	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	459	485	7	284	4	305	3	1	5	2	2
RTOR Reduction (vph)	0	0	209	0	1	0	0	1	0	0	1	0
Lane Group Flow (vph)	2	459	276	7	287	0	305	3	0	0	8	0
Confl. Peds. (#/hr)			3	3								
Heavy Vehicles (%)	0%	3%	7%	17%	5%	0%	9%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	50.2	50.2	50.2	50.2	50.2		24.5	24.5			24.5	
Effective Green, g (s)	50.2	50.2	50.2	50.2	50.2		24.5	24.5			24.5	
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.28	0.28			0.28	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)	614	1036	827	408	1930		359	501			467	
v/s Ratio Prot		c0.25			0.08			0.00				
v/s Ratio Perm	0.00		0.19	0.01			c0.24				0.00	
v/c Ratio	0.00	0.44	0.33	0.02	0.15		0.85	0.01			0.02	
Uniform Delay, d1	8.2	11.0	10.1	8.3	9.0		30.2	23.1			23.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	1.4	1.1	0.1	0.2		16.9	0.0			0.0	
Delay (s)	8.2	12.4	11.2	8.4	9.1		47.0	23.1			23.2	
Level of Service	A	B	B	A	A		D	C			C	
Approach Delay (s)		11.8			9.1			46.7			23.2	
Approach LOS		B			A			D			C	

Intersection Summary					
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio	0.58				
Actuated Cycle Length (s)	88.3	Sum of lost time (s)		13.6	
Intersection Capacity Utilization	76.8%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	383	25	5	264	7	12	14	10	4	18	14
Future Volume (vph)	21	383	25	5	264	7	12	14	10	4	18	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.996			0.962			0.947	
Flt Protected		0.998			0.999			0.984			0.995	
Satd. Flow (prot)	0	1812	0	0	1784	0	0	1725	0	0	1770	0
Flt Permitted		0.998			0.999			0.984			0.995	
Satd. Flow (perm)	0	1812	0	0	1784	0	0	1725	0	0	1770	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1219.6	
Travel Time (s)		42.0			29.8			32.7			87.8	
Confl. Peds. (#/hr)	7		5	5		7	3		3	3		3
Confl. Bikes (#/hr)									2			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	3%	0%	0%	5%	0%	0%	8%	0%	0%	0%	0%
Adj. Flow (vph)	23	412	27	5	284	8	13	15	11	4	19	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	462	0	0	297	0	0	39	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	383	25	5	264	7	12	14	10	4	18	14
Future Volume (Veh/h)	21	383	25	5	264	7	12	14	10	4	18	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	23	412	27	5	284	8	13	15	11	4	19	15
Pedestrians		3			3			5			7	
Lane Width (m)		3.5			3.5			3.5			3.5	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	299			444			802	786	434	798	795	298
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	299			444			802	786	434	798	795	298
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	95	98	99	94	98
cM capacity (veh/h)	1266			1122			276	307	623	280	312	740

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	462	297	39	38
Volume Left	23	5	13	4
Volume Right	27	8	11	15
cSH	1266	1122	343	398
Volume to Capacity	0.02	0.00	0.11	0.10
Queue Length 95th (m)	0.4	0.1	3.0	2.5
Control Delay (s)	0.6	0.2	16.8	15.0
Lane LOS	A	A	C	B
Approach Delay (s)	0.6	0.2	16.8	15.0
Approach LOS			C	B

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	45.2%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	395	274	4	2	6
Future Volume (vph)	2	395	274	4	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.895	
Flt Protected					0.989	
Satd. Flow (prot)	0	1816	1824	799	832	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1816	1824	799	832	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	100%	3%	3%	100%	100%	100%
Adj. Flow (vph)	2	434	301	4	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	436	301	4	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	395	274	4	2	6
Future Volume (Veh/h)	2	395	274	4	2	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	2	434	301	4	2	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	305				739	301
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	305				739	301
tC, single (s)	5.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	3.1				4.4	4.2
p0 queue free %	100				99	99
cM capacity (veh/h)	857				271	557

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	436	301	4	9
Volume Left	2	0	0	2
Volume Right	0	0	4	7
cSH	857	1700	1700	451
Volume to Capacity	0.00	0.18	0.00	0.02
Queue Length 95th (m)	0.1	0.0	0.0	0.5
Control Delay (s)	0.1	0.0	0.0	13.1
Lane LOS	A			B
Approach Delay (s)	0.1	0.0		13.1
Approach LOS				B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		32.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	381	16	164	256	8	146
Future Volume (vph)	381	16	164	256	8	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1825	0	1653	1807	1428	1566
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1825	0	1653	1807	1428	1566
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	13%	8%	4%	25%	2%
Adj. Flow (vph)	438	18	189	294	9	168
Shared Lane Traffic (%)						
Lane Group Flow (vph)	456	0	189	294	9	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	381	16	164	256	8	146
Future Volume (Veh/h)	381	16	164	256	8	146
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	438	18	189	294	9	168
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			456		1119	447
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			456		1119	447
tC, single (s)			4.2		6.6	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.7	3.3
p0 queue free %			82		95	73
cM capacity (veh/h)			1074		170	612

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	456	189	294	177
Volume Left	0	189	0	9
Volume Right	18	0	0	168
cSH	1700	1074	1700	644
Volume to Capacity	0.27	0.18	0.17	0.27
Queue Length 95th (m)	0.0	5.1	0.0	8.9
Control Delay (s)	0.0	9.1	0.0	13.8
Lane LOS		A		B
Approach Delay (s)	0.0	3.5		13.8
Approach LOS				B

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		43.4%	ICU Level of Service	A
Analysis Period (min)		15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	355	237	0
Future Volume (vph)	0	0	0	355	237	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1879	0	0	1842	1773	0
Flt Permitted						
Satd. Flow (perm)	1879	0	0	1842	1773	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	152.3			1001.1	1337.2	
Travel Time (s)	11.0			45.0	60.2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	2%	6%	0%
Adj. Flow (vph)	0	0	0	399	266	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	399	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	355	237	0
Future Volume (Veh/h)	0	0	0	355	237	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	0	399	266	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	665	266	266			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	665	266	266			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	428	778	1310			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	399	266
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1310	1700
Volume to Capacity	0.00	0.00	0.16
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	40	0	2	21
Future Volume (vph)	0	0	40	0	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.996
Satd. Flow (prot)	1842	0	1879	0	0	1727
Flt Permitted						0.996
Satd. Flow (perm)	1842	0	1879	0	0	1727
Link Speed (k/h)	50		50			50
Link Distance (m)	351.2		1219.6			398.7
Travel Time (s)	25.3		87.8			28.7
Confl. Bikes (#/hr)				2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	100%	0%
Adj. Flow (vph)	0	0	42	0	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	42	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	40	0	2	21
Future Volume (Veh/h)	0	0	40	0	2	21
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	42	0	2	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	68	42			42	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	68	42			42	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			100	
cM capacity (veh/h)	935	1029			1114	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	42	24
Volume Left	0	0	2
Volume Right	0	0	0
cSH	1700	1700	1114
Volume to Capacity	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	WB	NB	SB	SB	SB
Directions Served	L	TR	LTR	L	L	T	R
Maximum Queue (m)	22.1	18.4	5.1	18.2	1.4	0.6	3.6
Average Queue (m)	9.5	7.9	0.6	6.1	0.0	0.0	0.1
95th Queue (m)	17.6	15.3	3.1	14.9	1.0	0.6	2.0
Link Distance (m)		574.9	230.8			659.9	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	80.0			50.0	50.0		70.0
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: York-Durham Line & Wagg Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	7.8	16.2	2.0	17.7
Average Queue (m)	0.5	7.0	0.1	4.2
95th Queue (m)	4.0	13.2	1.3	13.4
Link Distance (m)	104.9	1653.9	1318.6	736.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	LT	TR
Maximum Queue (m)	25.6	4.0
Average Queue (m)	3.6	0.1
95th Queue (m)	16.0	3.9
Link Distance (m)	82.0	985.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	WB
Directions Served	L	R	LTR
Maximum Queue (m)	16.2	29.1	8.2
Average Queue (m)	1.7	13.8	2.7
95th Queue (m)	9.4	27.2	9.0
Link Distance (m)	192.1	192.1	105.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	LT	R	LTR
Maximum Queue (m)	74.9	231.6	75.6	117.8	158.3	60.0	142.0
Average Queue (m)	16.8	122.3	26.1	51.2	63.5	20.2	63.9
95th Queue (m)	59.4	213.7	55.9	95.5	137.8	66.5	118.8
Link Distance (m)		1468.4		2732.5	720.3		726.3
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	55.0		55.0			40.0	
Storage Blk Time (%)		32	0	6	27		
Queuing Penalty (veh)		14	1	10	43		

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	EB	B29	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	4.6	69.5	1916.5	10.8	24.3	27.8	49.8	85.9	11.7
Average Queue (m)	0.3	29.5	91.2	1.2	8.9	8.2	38.0	14.9	1.6
95th Queue (m)	2.8	57.0	901.4	6.2	20.0	21.3	54.4	61.2	7.4
Link Distance (m)		888.2	2732.5		556.1			328.2	155.7
Upstream Blk Time (%)			0						
Queuing Penalty (veh)			2						
Storage Bay Dist (m)	70.0			50.0		25.0	30.0		
Storage Blk Time (%)		1			0	1	21		
Queuing Penalty (veh)		6			0	1	1		

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	26.2	14.1	15.2	10.9
Average Queue (m)	3.2	1.0	5.0	5.1
95th Queue (m)	17.0	7.1	11.2	10.7
Link Distance (m)	556.1	395.5	439.5	1196.6
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	5.9	17.1
Average Queue (m)	0.2	2.6
95th Queue (m)	3.5	11.4
Link Distance (m)	395.5	381.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	1.7	24.7	13.7
Average Queue (m)	0.1	8.9	1.9
95th Queue (m)	1.7	19.4	8.3
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

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

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

Movement	SB
Directions Served	LT
Maximum Queue (m)	1.5
Average Queue (m)	0.0
95th Queue (m)	1.5
Link Distance (m)	391.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 78

Appendix C1:
Existing Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1	130	0	0	0	117	103	0	0	180	84
Future Volume (vph)	35	1	130	0	0	0	117	103	0	0	180	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851										0.850
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1594	1392	0	0	1879	0	1653	1503	1879	1879	1693	1597
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1594	1392	0	0	1879	0	1653	1503	1879	1879	1693	1597
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	12%	0%	15%	0%	0%	0%	8%	25%	0%	0%	11%	0%
Adj. Flow (vph)	40	1	149	0	0	0	134	118	0	0	207	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	150	0	0	0	0	134	118	0	0	207	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1	130	0	0	0	117	103	0	0	180	84
Future Volume (Veh/h)	35	1	130	0	0	0	117	103	0	0	180	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	40	1	149	0	0	0	134	118	0	0	207	97
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	593	593	207	742	690	118	304			118		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	593	593	207	742	690	118	304			118		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	89	100	81	100	100	100	89			100		
cM capacity (veh/h)	369	375	802	249	330	939	1223			1483		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	40	150	0	134	118	0	0	207	97
Volume Left	40	0	0	134	0	0	0	0	0
Volume Right	0	149	0	0	0	0	0	0	97
cSH	369	796	1700	1223	1700	1700	1700	1700	1700
Volume to Capacity	0.11	0.19	0.00	0.11	0.07	0.00	0.00	0.12	0.06
Queue Length 95th (m)	2.9	5.5	0.0	2.9	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	15.9	10.6	0.0	8.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B	A	A					
Approach Delay (s)	11.7		0.0	4.4			0.0		
Approach LOS	B		A						

Intersection Summary				
Average Delay		4.5		
Intersection Capacity Utilization		34.1%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	50	0	158	14	38	276	0
Future Volume (vph)	0	0	0	1	0	50	0	158	14	38	276	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.867			0.989				
Flt Protected					0.999						0.994	
Satd. Flow (prot)	0	1879	0	0	1627	0	0	1570	0	0	1696	0
Flt Permitted					0.999						0.994	
Satd. Flow (perm)	0	1879	0	0	1627	0	0	1570	0	0	1696	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1335.9			755.9	
Travel Time (s)		8.3			74.9			60.1			34.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	13%	79%	11%	10%	0%
Adj. Flow (vph)	0	0	0	1	0	54	0	170	15	41	297	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	55	0	0	185	0	0	338	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	50	0	158	14	38	276	0
Future Volume (Veh/h)	0	0	0	1	0	50	0	158	14	38	276	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	1	0	54	0	170	15	41	297	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	610	564	297	556	556	178	297			185		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	610	564	297	556	556	178	297			185		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	100	100	94	100			97		
cM capacity (veh/h)	375	424	747	434	428	871	1276			1337		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	55	185	338
Volume Left	0	1	0	41
Volume Right	0	54	15	0
cSH	1700	855	1276	1337
Volume to Capacity	0.00	0.06	0.00	0.03
Queue Length 95th (m)	0.0	1.6	0.0	0.8
Control Delay (s)	0.0	9.5	0.0	1.2
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.5	0.0	1.2
Approach LOS	A	A		

Intersection Summary					
Average Delay		1.6			
Intersection Capacity Utilization	39.1%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	64	199	258	8
Future Volume (vph)	0	0	64	199	258	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996	
Flt Protected				0.988		
Satd. Flow (prot)	0	0	0	1362	1657	0
Flt Permitted				0.988		
Satd. Flow (perm)	0	0	0	1362	1657	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1002.4	
Travel Time (s)	14.6			4.4	45.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	96%	17%	11%	72%
Adj. Flow (vph)	0	0	69	214	277	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	283	286	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	64	199	258	8
Future Volume (Veh/h)	0	0	64	199	258	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	69	214	277	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	634	282	286			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	634	282	286			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	92			
cM capacity (veh/h)	412	762	886			

Direction, Lane #	NB 1	SB 1
Volume Total	283	286
Volume Left	69	0
Volume Right	0	9
cSH	886	1700
Volume to Capacity	0.08	0.17
Queue Length 95th (m)	2.0	0.0
Control Delay (s)	2.9	0.0
Lane LOS	A	
Approach Delay (s)	2.9	0.0
Approach LOS		

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	34.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	0	51	0	0	0	0	238	7	1	262	0
Future Volume (vph)	15	0	51	0	0	0	0	238	7	1	262	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.996				
Flt Protected	0.950											
Satd. Flow (prot)	892	0	799	0	1842	0	0	1428	0	0	1709	0
Flt Permitted	0.950											
Satd. Flow (perm)	892	0	799	0	1842	0	0	1428	0	0	1709	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.0			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	100%	2%	100%	2%	2%	2%	0%	32%	0%	0%	10%	0%
Adj. Flow (vph)	16	0	56	0	0	0	0	262	8	1	288	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	0	56	0	0	0	0	270	0	0	289	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	51	0	0	0	0	238	7	1	262	0
Future Volume (Veh/h)	15	0	51	0	0	0	0	238	7	1	262	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	16	0	56	0	0	0	0	262	8	1	288	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	556	560	288	612	556	266	288			270		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556	560	288	612	556	266	288			270		
tC, single (s)	8.1	6.5	7.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.4	4.0	4.2	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	90	100	100	100	100			100		
cM capacity (veh/h)	323	437	567	365	439	773	1286			1305		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	16	56	0	270	289
Volume Left	16	0	0	0	1
Volume Right	0	56	0	8	0
cSH	323	567	1700	1700	1305
Volume to Capacity	0.05	0.10	0.00	0.16	0.00
Queue Length 95th (m)	1.2	2.6	0.0	0.0	0.0
Control Delay (s)	16.7	12.0	0.0	0.0	0.0
Lane LOS	C	B	A		A
Approach Delay (s)	13.1		0.0	0.0	0.0
Approach LOS	B		A		

Intersection Summary					
Average Delay		1.5			
Intersection Capacity Utilization		24.6%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Future Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		15.0	0.0		40.0	0.0		0.0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (m)	20.0			40.0			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.979				0.850		0.968	
Flt Protected	0.950			0.950				0.984			0.990	
Satd. Flow (prot)	1214	1486	0	1668	1518	0	0	1636	1536	0	1398	0
Flt Permitted	0.356			0.438				0.680			0.820	
Satd. Flow (perm)	455	1486	0	769	1518	0	0	1131	1536	0	1158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			9				108		13	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			2753.2			733.9			751.3	
Travel Time (s)		66.6			123.9			33.0			33.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	47%	25%	16%	7%	16%	53%	17%	11%	4%	42%	10%	63%
Adj. Flow (vph)	81	341	54	123	450	73	68	136	108	58	168	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	395	0	123	523	0	0	204	108	0	296	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		
Detector Phase	1	6		5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	58.0		11.0	58.0		18.0	18.0	18.0	18.0	18.0	
Total Split (s)	12.0	65.0		12.0	65.0		43.0	43.0	43.0	43.0	43.0	
Total Split (%)	10.0%	54.2%		10.0%	54.2%		35.8%	35.8%	35.8%	35.8%	35.8%	
Maximum Green (s)	8.0	57.0		8.0	57.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effct Green (s)	68.8	57.1		69.9	59.6			31.6	31.6		31.6	
Actuated g/C Ratio	0.59	0.49		0.60	0.51			0.27	0.27		0.27	
v/c Ratio	0.25	0.54		0.24	0.67			0.67	0.22		0.92	
Control Delay	11.8	24.3		10.8	28.0			49.3	7.1		73.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	11.8	24.3		10.8	28.0			49.3	7.1		73.0	
LOS	B	C		B	C			D	A		E	
Approach Delay		22.2			24.7			34.7			73.0	
Approach LOS		C			C			C			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 116.5			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 34.1		Intersection LOS: C	
Intersection Capacity Utilization 98.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Future Volume (vph)	79	334	53	121	441	72	67	133	106	57	165	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.99	
Satd. Flow (prot)	1214	1487		1668	1518			1635	1536		1398	
Flt Permitted	0.36	1.00		0.44	1.00			0.68	1.00		0.82	
Satd. Flow (perm)	455	1487		768	1518			1131	1536		1158	
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)	81	341	54	123	450	73	68	136	108	58	168	70
RTOR Reduction (vph)	0	5	0	0	4	0	0	0	79	0	10	0
Lane Group Flow (vph)	81	390	0	123	519	0	0	204	29	0	286	0
Heavy Vehicles (%)	47%	25%	16%	7%	16%	53%	17%	11%	4%	42%	10%	63%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	64.2	58.0		67.4	59.6			31.6	31.6		31.6	
Effective Green, g (s)	64.2	58.0		67.4	59.6			31.6	31.6		31.6	
Actuated g/C Ratio	0.55	0.49		0.57	0.51			0.27	0.27		0.27	
Clearance Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Vehicle Extension (s)	3.0	0.2		3.0	0.2			5.0	5.0		5.0	
Lane Grp Cap (vph)	288	734		500	770			304	413		311	
v/s Ratio Prot	0.01	0.26		c0.02	c0.34							
v/s Ratio Perm	0.14			0.12				0.18	0.02		c0.25	
v/c Ratio	0.28	0.53		0.25	0.67			0.67	0.07		0.92	
Uniform Delay, d1	13.9	20.4		12.0	21.6			38.3	32.0		41.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.5	2.8		0.3	4.7			7.4	0.2		32.5	
Delay (s)	14.4	23.1		12.3	26.3			45.7	32.1		74.2	
Level of Service	B	C		B	C			D	C		E	
Approach Delay (s)		21.7			23.6			41.0			74.2	
Approach LOS		C			C			D			E	

Intersection Summary				
HCM 2000 Control Delay	34.9	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.73			
Actuated Cycle Length (s)	117.4	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	98.4%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Future Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.869				
Flt Protected				0.950			0.950				0.976	
Satd. Flow (prot)	1253	1634	1238	1190	3130	0	1552	1633	0	0	1834	0
Flt Permitted				0.640			0.757				0.956	
Satd. Flow (perm)	1253	1634	1238	802	3130	0	1237	1633	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324		1			7				
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		906.6			582.9			342.6			169.6	
Travel Time (s)		40.8			42.0			24.7			12.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	50%	15%	29%	50%	14%	0%	15%	0%	0%	0%	0%	75%
Adj. Flow (vph)	0	186	324	7	382	2	382	1	7	1	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	324	7	384	0	382	8	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	58.0	58.0	58.0	58.0	58.0		35.6	35.6		35.6	35.6	
Total Split (%)	62.0%	62.0%	62.0%	62.0%	62.0%		38.0%	38.0%		38.0%	38.0%	
Maximum Green (s)	50.0	50.0	50.0	50.0	50.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		50.0	50.0	50.0	50.0		29.9	29.9			29.9	
Actuated g/C Ratio		0.53	0.53	0.53	0.53		0.32	0.32			0.32	
v/c Ratio		0.21	0.40	0.02	0.23		0.97	0.02			0.00	
Control Delay		12.3	2.9	10.5	12.0		71.2	13.6			21.5	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		12.3	2.9	10.5	12.0		71.2	13.6			21.5	
LOS		B	A	B	B		E	B			C	
Approach Delay		6.3			11.9			70.0			21.5	
Approach LOS		A			B			E			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 93.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Future Volume (vph)	0	164	285	6	336	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor		1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1634	1238	1190	3131		1552	1632			1833	
Flt Permitted		1.00	1.00	0.64	1.00		0.76	1.00			0.96	
Satd. Flow (perm)		1634	1238	802	3131		1236	1632			1797	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	186	324	7	382	2	382	1	7	1	1	0
RTOR Reduction (vph)	0	0	151	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	186	173	7	384	0	382	3	0	0	2	0
Heavy Vehicles (%)	50%	15%	29%	50%	14%	0%	15%	0%	0%	0%	0%	75%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)		50.0	50.0	50.0	50.0		29.9	29.9			29.9	
Effective Green, g (s)		50.0	50.0	50.0	50.0		29.9	29.9			29.9	
Actuated g/C Ratio		0.53	0.53	0.53	0.53		0.32	0.32			0.32	
Clearance Time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)		4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)		873	662	428	1674		395	521			574	
v/s Ratio Prot		0.11			0.12			0.00				
v/s Ratio Perm			c0.14	0.01			c0.31				0.00	
v/c Ratio		0.21	0.26	0.02	0.23		0.97	0.01			0.00	
Uniform Delay, d1		11.4	11.8	10.2	11.5		31.3	21.7			21.7	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.6	1.0	0.1	0.3		36.3	0.0			0.0	
Delay (s)		12.0	12.7	10.3	11.9		67.6	21.7			21.7	
Level of Service		B	B	B	B		E	C			C	
Approach Delay (s)		12.5			11.8			66.7			21.7	
Approach LOS		B			B			E			C	

Intersection Summary					
HCM 2000 Control Delay		28.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio		0.53			
Actuated Cycle Length (s)		93.5	Sum of lost time (s)	13.6	
Intersection Capacity Utilization		69.7%	ICU Level of Service	C	
Analysis Period (min)		15			
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	163	9	4	317	4	17	10	5	6	8	18
Future Volume (vph)	8	163	9	4	317	4	17	10	5	6	8	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.998			0.977			0.925	
Flt Protected		0.998			0.999			0.974			0.990	
Satd. Flow (prot)	0	1639	0	0	1630	0	0	1788	0	0	1614	0
Flt Permitted		0.998			0.999			0.974			0.990	
Satd. Flow (perm)	0	1639	0	0	1630	0	0	1788	0	0	1614	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1231.9	
Travel Time (s)		42.0			29.8			32.7			88.7	
Confl. Peds. (#/hr)			1	1					2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	15%	0%	25%	15%	0%	0%	0%	0%	34%	0%	0%
Adj. Flow (vph)	9	181	10	4	352	4	19	11	6	7	9	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	200	0	0	360	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	163	9	4	317	4	17	10	5	6	8	18
Future Volume (Veh/h)	8	163	9	4	317	4	17	10	5	6	8	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	181	10	4	352	4	19	11	6	7	9	20
Pedestrians					2			1				
Lane Width (m)					3.5			3.5				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	356			192			592	569	189	580	572	354
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	356			192			592	569	189	580	572	354
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.4	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.8	4.0	3.3
p0 queue free %	99			100			95	97	99	98	98	97
cM capacity (veh/h)	1214			1254			399	430	856	368	428	694

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	200	360	36	36
Volume Left	9	4	19	7
Volume Right	10	4	6	20
cSH	1214	1254	449	523
Volume to Capacity	0.01	0.00	0.08	0.07
Queue Length 95th (m)	0.2	0.1	2.1	1.8
Control Delay (s)	0.4	0.1	13.7	12.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.4	0.1	13.7	12.4
Approach LOS			B	B

Intersection Summary					
Average Delay		1.7			
Intersection Capacity Utilization		29.7%	ICU Level of Service		A
Analysis Period (min)		15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	145	337	13	0	23
Future Volume (vph)	0	145	337	13	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.865	
Flt Protected						
Satd. Flow (prot)	0	1620	1724	799	813	0
Flt Permitted						
Satd. Flow (perm)	0	1620	1724	799	813	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	100%	16%	9%	100%	100%	100%
Adj. Flow (vph)	0	181	421	16	0	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	181	421	16	29	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	145	337	13	0	23
Future Volume (Veh/h)	0	145	337	13	0	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	181	421	16	0	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	437				602	421
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	437				602	421
tC, single (s)	5.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	3.1				4.4	4.2
p0 queue free %	100				100	94
cM capacity (veh/h)	750				335	467

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	181	421	16	29
Volume Left	0	0	0	0
Volume Right	0	0	16	29
cSH	1700	1700	1700	467
Volume to Capacity	0.11	0.25	0.01	0.06
Queue Length 95th (m)	0.0	0.0	0.0	1.6
Control Delay (s)	0.0	0.0	0.0	13.2
Lane LOS				B
Approach Delay (s)	0.0	0.0		13.2
Approach LOS				B

Intersection Summary				
Average Delay		0.6		
Intersection Capacity Utilization		27.7%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	164	17	134	284	31	100
Future Volume (vph)	164	17	134	284	31	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1598	0	1668	1740	986	1479
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1598	0	1668	1740	986	1479
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	11%	65%	7%	8%	81%	8%
Adj. Flow (vph)	184	19	151	319	35	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	203	0	151	319	35	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	164	17	134	284	31	100
Future Volume (Veh/h)	164	17	134	284	31	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	184	19	151	319	35	112
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			203		814	194
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			203		814	194
tC, single (s)			4.2		7.2	6.3
tC, 2 stage (s)						
tF (s)			2.3		4.2	3.4
p0 queue free %			89		85	87
cM capacity (veh/h)			1339		230	833

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	203	151	319	147
Volume Left	0	151	0	35
Volume Right	19	0	0	112
cSH	1700	1339	1700	964
Volume to Capacity	0.12	0.11	0.19	0.15
Queue Length 95th (m)	0.0	3.0	0.0	4.3
Control Delay (s)	0.0	8.0	0.0	13.2
Lane LOS		A		B
Approach Delay (s)	0.0	2.6		13.2
Approach LOS				B

Intersection Summary				
Average Delay		3.8		
Intersection Capacity Utilization		30.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	172	277	0
Future Volume (vph)	0	0	0	172	277	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1879	0	0	1579	1708	0
Flt Permitted						
Satd. Flow (perm)	1879	0	0	1579	1708	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	150.4			1002.4	1335.9	
Travel Time (s)	10.8			45.1	60.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	19%	10%	0%
Adj. Flow (vph)	0	0	0	185	298	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	185	298	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	172	277	0
Future Volume (Veh/h)	0	0	0	172	277	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	185	298	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	483	298	298			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	483	298	298			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	546	746	1275			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	185	298
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1275	1700
Volume to Capacity	0.00	0.00	0.18
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary					
Average Delay		0.0			
Intersection Capacity Utilization		17.9%	ICU Level of Service		A
Analysis Period (min)		15			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	14	0	10	31
Future Volume (vph)	0	0	14	0	10	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.988
Satd. Flow (prot)	1842	0	1879	0	0	1435
Flt Permitted						0.988
Satd. Flow (perm)	1842	0	1879	0	0	1435
Link Speed (k/h)	50		50			50
Link Distance (m)	343.9		1231.9			394.4
Travel Time (s)	24.8		88.7			28.4
Confl. Peds. (#/hr)		1				
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	0%	2%	100%	7%
Adj. Flow (vph)	0	0	17	0	12	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	17	0	0	50
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	0	10	31
Future Volume (Veh/h)	0	0	14	0	10	31
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	17	0	12	38
Pedestrians						1
Lane Width (m)						3.5
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79	18			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79	18			17	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			99	
cM capacity (veh/h)	914	1060			1142	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	17	50
Volume Left	0	0	12
Volume Right	0	0	0
cSH	1700	1700	1142
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (m)	0.0	0.0	0.3
Control Delay (s)	0.0	0.0	2.0
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	2.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	NB	SB
Directions Served	L	TR	L	R
Maximum Queue (m)	17.0	23.3	18.7	3.2
Average Queue (m)	5.1	9.3	5.9	0.3
95th Queue (m)	12.5	17.9	14.8	2.4
Link Distance (m)		574.9		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	80.0		50.0	70.0
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: York-Durham Line & Wagg Road

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (m)	9.9	13.6
Average Queue (m)	6.5	1.5
95th Queue (m)	11.5	7.6
Link Distance (m)	1653.9	736.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	LT	TR
Maximum Queue (m)	30.9	0.7
Average Queue (m)	6.3	0.0
95th Queue (m)	21.8	0.7
Link Distance (m)	81.8	986.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	SB
Directions Served	L	R	LT
Maximum Queue (m)	24.3	30.6	1.3
Average Queue (m)	7.2	14.2	0.0
95th Queue (m)	21.4	27.5	1.3
Link Distance (m)	192.1	192.1	81.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	B29	NB	NB	SB
Directions Served	L	TR	L	TR	T	LT	R	LTR
Maximum Queue (m)	71.9	118.4	94.5	148.6	0.7	183.3	60.0	161.6
Average Queue (m)	19.9	52.9	20.3	68.7	0.0	65.7	18.3	77.2
95th Queue (m)	49.0	98.8	58.6	126.8	0.7	161.0	63.7	143.2
Link Distance (m)		1468.4		2731.9	888.7	720.3		726.6
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	55.0		55.0				40.0	
Storage Blk Time (%)	0	7		13		31	0	
Queuing Penalty (veh)	0	5		15		33	0	

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	B29	WB	WB	WB	NB	NB	SB
Directions Served	T	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	46.5	818.9	15.5	38.9	40.7	49.8	102.7	5.2
Average Queue (m)	14.2	36.4	1.0	14.2	13.6	43.2	30.9	0.4
95th Queue (m)	35.2	552.9	6.9	30.4	31.4	56.5	91.1	3.4
Link Distance (m)	888.7	2731.9		556.1			328.2	155.7
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (m)			50.0		25.0	30.0		
Storage Blk Time (%)	0			2	2	31		
Queuing Penalty (veh)	0			3	4	2		

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	21.9	8.4	10.5	20.7
Average Queue (m)	1.7	0.4	3.9	5.8
95th Queue (m)	11.7	5.5	9.1	14.5
Link Distance (m)	556.1	395.3	439.5	1208.7
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	23.7
Average Queue (m)	8.3
95th Queue (m)	20.9
Link Distance (m)	381.3
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	2.9	15.9	30.2
Average Queue (m)	0.1	4.1	9.9
95th Queue (m)	2.1	12.4	24.3
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

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

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

Movement	SB
Directions Served	LT
Maximum Queue (m)	4.8
Average Queue (m)	0.2
95th Queue (m)	2.8
Link Distance (m)	387.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 64

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	1	157	0	3	1	137	299	1	1	174	55
Future Volume (vph)	97	1	157	0	3	1	137	299	1	1	174	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851			0.973				0.850			0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1566
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1566
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	5%	0%	6%	0%	0%	0%	3%	3%	0%	0%	5%	2%
Adj. Flow (vph)	115	1	187	0	4	1	163	356	1	1	207	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	188	0	0	5	0	163	356	1	1	207	65
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1	157	0	3	1	137	299	1	1	174	55
Future Volume (Veh/h)	97	1	157	0	3	1	137	299	1	1	174	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	115	1	187	0	4	1	163	356	1	1	207	65
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	894	892	207	1078	956	356	272			357		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	894	892	207	1078	956	356	272			357		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	50	100	77	100	98	100	87			100		
cM capacity (veh/h)	230	247	823	138	227	693	1286			1213		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	115	188	5	163	356	1	1	207	65
Volume Left	115	0	0	163	0	0	1	0	0
Volume Right	0	187	1	0	0	1	0	0	65
cSH	230	813	262	1286	1700	1700	1213	1700	1700
Volume to Capacity	0.50	0.23	0.02	0.13	0.21	0.00	0.00	0.12	0.04
Queue Length 95th (m)	20.4	7.1	0.5	3.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	35.3	10.8	19.0	8.2	0.0	0.0	8.0	0.0	0.0
Lane LOS	E	B	C	A			A		
Approach Delay (s)	20.1		19.0	2.6			0.0		
Approach LOS	C		C						

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	2	0	47	2	344	9	72	235	0
Future Volume (vph)	2	0	0	2	0	47	2	344	9	72	235	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.870			0.997				
Flt Protected		0.950			0.998						0.988	
Satd. Flow (prot)	0	1785	0	0	1556	0	0	1827	0	0	1763	0
Flt Permitted		0.950			0.998						0.988	
Satd. Flow (perm)	0	1785	0	0	1556	0	0	1827	0	0	1763	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1337.2			755.9	
Travel Time (s)		8.3			74.9			60.2			34.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	2%	23%	3%	6%	0%
Adj. Flow (vph)	2	0	0	2	0	53	2	387	10	81	264	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	55	0	0	399	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	0	2	0	47	2	344	9	72	235	0
Future Volume (Veh/h)	2	0	0	2	0	47	2	344	9	72	235	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	0	0	2	0	53	2	387	10	81	264	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	875	827	264	822	822	392	264			397		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	875	827	264	822	822	392	264			397		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	99	100	92	100			93		
cM capacity (veh/h)	236	287	780	279	289	650	1312			1156		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	55	399	345
Volume Left	2	2	2	81
Volume Right	0	53	10	0
cSH	236	620	1312	1156
Volume to Capacity	0.01	0.09	0.00	0.07
Queue Length 95th (m)	0.2	2.3	0.0	1.8
Control Delay (s)	20.4	11.4	0.1	2.5
Lane LOS	C	B	A	A
Approach Delay (s)	20.4	11.4	0.1	2.5
Approach LOS	C	B		

Intersection Summary					
Average Delay		1.9			
Intersection Capacity Utilization	48.4%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	38	322	236	7
Future Volume (vph)	0	0	38	322	236	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996	
Flt Protected				0.995		
Satd. Flow (prot)	0	0	0	1568	1683	0
Flt Permitted				0.995		
Satd. Flow (perm)	0	0	0	1568	1683	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1001.1	
Travel Time (s)	14.6			4.4	45.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	98%	10%	9%	84%
Adj. Flow (vph)	0	0	42	358	262	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	400	270	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	38	322	236	7
Future Volume (Veh/h)	0	0	38	322	236	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	42	358	262	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	708	266	270			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	708	266	270			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	95			
cM capacity (veh/h)	385	778	894			

Direction, Lane #	NB 1	SB 1
Volume Total	400	270
Volume Left	42	0
Volume Right	0	8
cSH	894	1700
Volume to Capacity	0.05	0.16
Queue Length 95th (m)	1.2	0.0
Control Delay (s)	1.5	0.0
Lane LOS	A	
Approach Delay (s)	1.5	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	45	10	0	2	0	350	2	0	242	0
Future Volume (vph)	7	0	45	10	0	2	0	350	2	0	242	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.979			0.999				
Flt Protected	0.950				0.959							
Satd. Flow (prot)	1130	0	823	0	1764	0	0	1579	0	0	1724	0
Flt Permitted	0.950				0.959							
Satd. Flow (perm)	1130	0	823	0	1764	0	0	1579	0	0	1724	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.2			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	58%	2%	94%	0%	2%	0%	0%	19%	0%	2%	9%	0%
Adj. Flow (vph)	8	0	49	11	0	2	0	380	2	0	263	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	0	49	0	13	0	0	382	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	45	10	0	2	0	350	2	0	242	0
Future Volume (Veh/h)	7	0	45	10	0	2	0	350	2	0	242	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	49	11	0	2	0	380	2	0	263	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	646	645	263	693	644	381	263			382		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	646	645	263	693	644	381	263			382		
tC, single (s)	7.7	6.5	7.1	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.0	4.0	4.1	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	92	97	100	100	100			100		
cM capacity (veh/h)	316	391	597	331	391	671	1313			1176		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	8	49	13	382	263
Volume Left	8	0	11	0	0
Volume Right	0	49	2	2	0
cSH	316	597	359	1700	1176
Volume to Capacity	0.03	0.08	0.04	0.22	0.00
Queue Length 95th (m)	0.6	2.1	0.9	0.0	0.0
Control Delay (s)	16.7	11.6	15.4	0.0	0.0
Lane LOS	C	B	C		
Approach Delay (s)	12.3		15.4	0.0	0.0
Approach LOS	B		C		

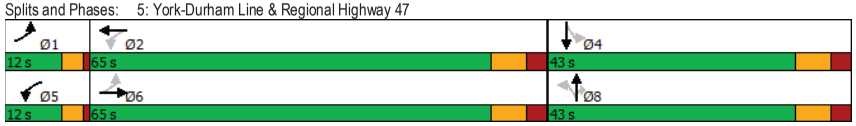
Intersection Summary					
Average Delay		1.3			
Intersection Capacity Utilization		32.6%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Future Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		15.0	0.0		40.0	0.0		0.0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (m)	20.0			40.0			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.986				0.850		0.973	
Flt Protected	0.950			0.950				0.989			0.991	
Satd. Flow (prot)	1700	1741	0	1767	1714	0	0	1792	1551	0	1692	0
Flt Permitted	0.353			0.138				0.745			0.691	
Satd. Flow (perm)	632	1741	0	257	1714	0	0	1350	1551	0	1180	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			6				160		11	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			2753.8			733.9			751.3	
Travel Time (s)		66.6			123.9			33.0			33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	6%	7%	1%	8%	9%	6%	3%	3%	15%	3%	12%
Adj. Flow (vph)	48	668	83	172	476	50	62	215	174	61	200	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	751	0	172	526	0	0	277	174	0	327	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		
Detector Phase	1	6		5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	58.0		11.0	58.0		18.0	18.0	18.0	18.0	18.0	
Total Split (s)	12.0	65.0		12.0	65.0		43.0	43.0	43.0	43.0	43.0	
Total Split (%)	10.0%	54.2%		10.0%	54.2%		35.8%	35.8%	35.8%	35.8%	35.8%	
Maximum Green (s)	8.0	57.0		8.0	57.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Act Effct Green (s)	68.3	57.0		70.4	60.1			33.5	33.5		33.5	
Actuated g/C Ratio	0.58	0.48		0.59	0.51			0.28	0.28		0.28	
v/c Ratio	0.11	0.89		0.68	0.60			0.73	0.31		0.96	
Control Delay	10.2	43.0		25.4	25.5			50.6	7.9		80.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	10.2	43.0		25.4	25.5			50.6	7.9		80.7	
LOS	B	D		C	C			D	A		F	
Approach Delay		41.0			25.5			34.1			80.7	
Approach LOS		D			C			C			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 118.6			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 40.6		Intersection LOS: D	
Intersection Capacity Utilization 103.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	48	751	172	526	277	174	327
v/c Ratio	0.11	0.89	0.68	0.60	0.73	0.31	0.96
Control Delay	10.2	43.0	25.4	25.5	50.6	7.9	80.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	43.0	25.4	25.5	50.6	7.9	80.7
Queue Length 50th (m)	4.5	165.7	17.4	93.3	61.2	2.5	76.5
Queue Length 95th (m)	9.6	#248.6	#31.4	134.6	94.2	19.6	#135.4
Internal Link Dist (m)		1456.5		2729.8	709.9		727.3
Turn Bay Length (m)	55.0		55.0			40.0	
Base Capacity (vph)	439	840	254	871	398	570	355
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	0.11	0.89	0.68	0.60	0.70	0.31	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Future Volume (vph)	44	615	76	158	438	46	57	198	160	56	184	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.99	
Satd. Flow (prot)	1700	1741		1767	1713			1792	1551		1691	
Flt Permitted	0.35	1.00		0.14	1.00			0.75	1.00		0.69	
Satd. Flow (perm)	632	1741		258	1713			1351	1551		1180	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	668	83	172	476	50	62	215	174	61	200	66
RTOR Reduction (vph)	0	4	0	0	3	0	0	0	115	0	8	0
Lane Group Flow (vph)	48	747	0	172	523	0	0	277	59	0	319	0
Heavy Vehicles (%)	5%	6%	7%	1%	8%	9%	6%	3%	3%	15%	3%	12%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	63.7	57.9		68.1	60.1			33.5	33.5		33.5	
Effective Green, g (s)	63.7	57.9		68.1	60.1			33.5	33.5		33.5	
Actuated g/C Ratio	0.53	0.48		0.57	0.50			0.28	0.28		0.28	
Clearance Time (s)	4.0	8.0		4.0	8.0			8.0	8.0		8.0	
Vehicle Extension (s)	3.0	0.2		3.0	0.2			5.0	5.0		5.0	
Lane Grp Cap (vph)	389	844		248	862			379	435		331	
v/s Ratio Prot	0.01	c0.43		c0.05	0.31							
v/s Ratio Perm	0.06			0.35				0.21	0.04		c0.27	
v/c Ratio	0.12	0.89		0.69	0.61			0.73	0.14		0.96	
Uniform Delay, d1	14.3	27.8		20.3	21.2			38.9	32.1		42.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.1	13.1		8.1	3.2			8.6	0.3		40.2	
Delay (s)	14.4	40.9		28.4	24.4			47.4	32.4		82.5	
Level of Service	B	D		C	C			D	C		F	
Approach Delay (s)		39.3			25.4			41.6			82.5	
Approach LOS		D			C			D			F	

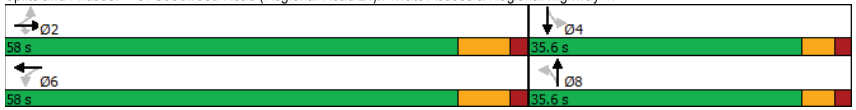
Intersection Summary				
HCM 2000 Control Delay	41.7	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.90			
Actuated Cycle Length (s)	119.4	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	103.8%	ICU Level of Service	G	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Future Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.97	1.00								
Frt			0.850		0.998			0.962			0.970	
Flt Protected	0.950			0.950			0.950				0.973	
Satd. Flow (prot)	1785	1824	1493	1526	3395	0	1638	1807	0	0	1773	0
Flt Permitted	0.575			0.449			0.752				0.924	
Satd. Flow (perm)	1080	1824	1455	719	3395	0	1296	1807	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			485		2			1			2	
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		906.0			582.9			342.6			169.6	
Travel Time (s)		40.8			42.0			24.7			12.2	
Confl. Peds. (#/hr)			3	3								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	7%	17%	5%	0%	9%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	459	485	7	284	4	305	3	1	5	2	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	459	485	7	288	0	305	4	0	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	58.0	58.0	58.0	58.0	58.0		35.6	35.6		35.6	35.6	
Total Split (%)	62.0%	62.0%	62.0%	62.0%	62.0%		38.0%	38.0%		38.0%	38.0%	
Maximum Green (s)	50.0	50.0	50.0	50.0	50.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	50.2	50.2	50.2	50.2	50.2		24.5	24.5			24.5	
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.28	0.28			0.28	
v/c Ratio	0.00	0.44	0.47	0.02	0.15		0.85	0.01			0.02	
Control Delay	10.0	13.7	2.7	10.3	10.0		52.0	20.0			19.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	10.0	13.7	2.7	10.3	10.0		52.0	20.0			19.9	
LOS	A	B	A	B	B		D	B			B	
Approach Delay		8.1			10.0			51.6			19.9	
Approach LOS		A			B			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 88.4			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 17.2		Intersection LOS: B	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

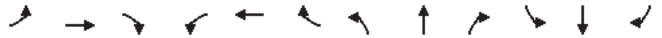




Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	2	459	485	7	288	305	4	9
v/c Ratio	0.00	0.44	0.47	0.02	0.15	0.85	0.01	0.02
Control Delay	10.0	13.7	2.7	10.3	10.0	52.0	20.0	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	13.7	2.7	10.3	10.0	52.0	20.0	19.9
Queue Length 50th (m)	0.2	46.5	0.0	0.5	12.4	51.1	0.4	0.9
Queue Length 95th (m)	1.2	76.7	14.4	2.7	20.6	#90.6	2.7	4.5
Internal Link Dist (m)		882.0			558.9		318.6	145.6
Turn Bay Length (m)	70.0		50.0	50.0		30.0		
Base Capacity (vph)	613	1035	1035	408	1928	441	616	575
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	0.00	0.44	0.47	0.02	0.15	0.69	0.01	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Future Volume (vph)	2	422	446	6	261	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1785	1824	1456	1522	3395		1638	1808			1773	
Flt Permitted	0.58	1.00	1.00	0.45	1.00		0.75	1.00			0.92	
Satd. Flow (perm)	1081	1824	1456	719	3395		1296	1808			1684	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	459	485	7	284	4	305	3	1	5	2	2
RTOR Reduction (vph)	0	0	209	0	1	0	0	1	0	0	1	0
Lane Group Flow (vph)	2	459	276	7	287	0	305	3	0	0	8	0
Confl. Peds. (#/hr)			3	3								
Heavy Vehicles (%)	0%	3%	7%	17%	5%	0%	9%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	50.2	50.2	50.2	50.2	50.2		24.5	24.5			24.5	
Effective Green, g (s)	50.2	50.2	50.2	50.2	50.2		24.5	24.5			24.5	
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57		0.28	0.28			0.28	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)	614	1036	827	408	1930		359	501			467	
v/s Ratio Prot		c0.25			0.08			0.00				
v/s Ratio Perm	0.00		0.19	0.01			c0.24				0.00	
v/c Ratio	0.00	0.44	0.33	0.02	0.15		0.85	0.01			0.02	
Uniform Delay, d1	8.2	11.0	10.1	8.3	9.0		30.2	23.1			23.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	1.4	1.1	0.1	0.2		16.9	0.0			0.0	
Delay (s)	8.2	12.4	11.2	8.4	9.1		47.0	23.1			23.2	
Level of Service	A	B	B	A	A		D	C			C	
Approach Delay (s)		11.8			9.1			46.7			23.2	
Approach LOS		B			A			D			C	

Intersection Summary					
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio	0.58				
Actuated Cycle Length (s)	88.3	Sum of lost time (s)		13.6	
Intersection Capacity Utilization	76.8%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	383	25	5	264	7	12	14	10	4	18	14
Future Volume (vph)	21	383	25	5	264	7	12	14	10	4	18	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.996			0.962			0.947	
Flt Protected		0.998			0.999			0.984			0.995	
Satd. Flow (prot)	0	1812	0	0	1784	0	0	1725	0	0	1770	0
Flt Permitted		0.998			0.999			0.984			0.995	
Satd. Flow (perm)	0	1812	0	0	1784	0	0	1725	0	0	1770	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1219.6	
Travel Time (s)		42.0			29.8			32.7			87.8	
Confl. Peds. (#/hr)	7		5	5		7	3		3	3		3
Confl. Bikes (#/hr)									2			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	3%	0%	0%	5%	0%	0%	8%	0%	0%	0%	0%
Adj. Flow (vph)	23	412	27	5	284	8	13	15	11	4	19	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	462	0	0	297	0	0	39	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	383	25	5	264	7	12	14	10	4	18	14
Future Volume (Veh/h)	21	383	25	5	264	7	12	14	10	4	18	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	23	412	27	5	284	8	13	15	11	4	19	15
Pedestrians		3			3			5			7	
Lane Width (m)		3.5			3.5			3.5			3.5	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	299			444			802	786	434	798	795	298
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	299			444			802	786	434	798	795	298
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	95	98	99	94	98
cM capacity (veh/h)	1266			1122			276	307	623	280	312	740

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	462	297	39	38
Volume Left	23	5	13	4
Volume Right	27	8	11	15
cSH	1266	1122	343	398
Volume to Capacity	0.02	0.00	0.11	0.10
Queue Length 95th (m)	0.4	0.1	3.0	2.5
Control Delay (s)	0.6	0.2	16.8	15.0
Lane LOS	A	A	C	B
Approach Delay (s)	0.6	0.2	16.8	15.0
Approach LOS			C	B

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	45.2%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	395	274	4	2	6
Future Volume (vph)	2	395	274	4	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.895	
Flt Protected					0.989	
Satd. Flow (prot)	0	1816	1824	799	832	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1816	1824	799	832	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	100%	3%	3%	100%	100%	100%
Adj. Flow (vph)	2	434	301	4	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	436	301	4	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	395	274	4	2	6
Future Volume (Veh/h)	2	395	274	4	2	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	2	434	301	4	2	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	305				739	301
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	305				739	301
tC, single (s)	5.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	3.1				4.4	4.2
p0 queue free %	100				99	99
cM capacity (veh/h)	857				271	557

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	436	301	4	9
Volume Left	2	0	0	2
Volume Right	0	0	4	7
cSH	857	1700	1700	451
Volume to Capacity	0.00	0.18	0.00	0.02
Queue Length 95th (m)	0.1	0.0	0.0	0.5
Control Delay (s)	0.1	0.0	0.0	13.1
Lane LOS	A			B
Approach Delay (s)	0.1	0.0		13.1
Approach LOS				B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		32.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	381	16	164	256	8	146
Future Volume (vph)	381	16	164	256	8	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1825	0	1653	1807	1428	1566
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1825	0	1653	1807	1428	1566
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	13%	8%	4%	25%	2%
Adj. Flow (vph)	438	18	189	294	9	168
Shared Lane Traffic (%)						
Lane Group Flow (vph)	456	0	189	294	9	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	381	16	164	256	8	146
Future Volume (Veh/h)	381	16	164	256	8	146
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	438	18	189	294	9	168
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			456		1119	447
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			456		1119	447
tC, single (s)			4.2		6.6	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.7	3.3
p0 queue free %			82		95	73
cM capacity (veh/h)			1074		170	612

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	456	189	294	177
Volume Left	0	189	0	9
Volume Right	18	0	0	168
cSH	1700	1074	1700	644
Volume to Capacity	0.27	0.18	0.17	0.27
Queue Length 95th (m)	0.0	5.1	0.0	8.9
Control Delay (s)	0.0	9.1	0.0	13.8
Lane LOS		A		B
Approach Delay (s)	0.0	3.5		13.8
Approach LOS				B

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		43.4%	ICU Level of Service	A
Analysis Period (min)		15		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	355	237	0
Future Volume (vph)	0	0	0	355	237	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1879	0	0	1842	1773	0
Flt Permitted						
Satd. Flow (perm)	1879	0	0	1842	1773	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	152.3			1001.1	1337.2	
Travel Time (s)	11.0			45.0	60.2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	2%	6%	0%
Adj. Flow (vph)	0	0	0	399	266	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	399	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	355	237	0
Future Volume (Veh/h)	0	0	0	355	237	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	0	399	266	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	665	266	266			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	665	266	266			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	428	778	1310			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	399	266
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1310	1700
Volume to Capacity	0.00	0.00	0.16
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	40	0	2	21
Future Volume (vph)	0	0	40	0	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.996
Satd. Flow (prot)	1842	0	1879	0	0	1727
Flt Permitted						0.996
Satd. Flow (perm)	1842	0	1879	0	0	1727
Link Speed (k/h)	50		50			50
Link Distance (m)	351.2		1219.6			398.7
Travel Time (s)	25.3		87.8			28.7
Confl. Bikes (#/hr)				2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	100%	0%
Adj. Flow (vph)	0	0	42	0	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	42	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	40	0	2	21
Future Volume (Veh/h)	0	0	40	0	2	21
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	42	0	2	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	68	42			42	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	68	42			42	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			100	
cM capacity (veh/h)	935	1029			1114	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	42	24
Volume Left	0	0	2
Volume Right	0	0	0
cSH	1700	1700	1114
Volume to Capacity	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	WB	NB	SB	SB	SB
Directions Served	L	TR	LTR	L	L	T	R
Maximum Queue (m)	22.1	18.4	5.1	18.2	1.4	0.6	3.6
Average Queue (m)	9.5	7.9	0.6	6.1	0.0	0.0	0.1
95th Queue (m)	17.6	15.3	3.1	14.9	1.0	0.6	2.0
Link Distance (m)		574.9	230.8			659.9	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	80.0			50.0	50.0		70.0
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: York-Durham Line & Wagg Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	7.8	16.2	2.0	17.7
Average Queue (m)	0.5	7.0	0.1	4.2
95th Queue (m)	4.0	13.2	1.3	13.4
Link Distance (m)	104.9	1653.9	1318.6	736.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	LT	TR
Maximum Queue (m)	25.6	4.0
Average Queue (m)	3.6	0.1
95th Queue (m)	16.0	3.9
Link Distance (m)	82.0	985.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	WB
Directions Served	L	R	LTR
Maximum Queue (m)	16.2	29.1	8.2
Average Queue (m)	1.7	13.8	2.7
95th Queue (m)	9.4	27.2	9.0
Link Distance (m)	192.1	192.1	105.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	LT	R	LTR
Maximum Queue (m)	74.9	231.6	75.6	117.8	158.3	60.0	142.0
Average Queue (m)	16.8	122.3	26.1	51.2	63.5	20.2	63.9
95th Queue (m)	59.4	213.7	55.9	95.5	137.8	66.5	118.8
Link Distance (m)		1468.4		2732.5	720.3		726.3
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	55.0		55.0			40.0	
Storage Blk Time (%)		32	0	6	27		
Queuing Penalty (veh)		14	1	10	43		

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	EB	B29	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	4.6	69.5	1916.5	10.8	24.3	27.8	49.8	85.9	11.7
Average Queue (m)	0.3	29.5	91.2	1.2	8.9	8.2	38.0	14.9	1.6
95th Queue (m)	2.8	57.0	901.4	6.2	20.0	21.3	54.4	61.2	7.4
Link Distance (m)		888.2	2732.5		556.1			328.2	155.7
Upstream Blk Time (%)			0						
Queuing Penalty (veh)			2						
Storage Bay Dist (m)	70.0			50.0		25.0	30.0		
Storage Blk Time (%)		1			0	1	21		
Queuing Penalty (veh)		6			0	1	1		

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	26.2	14.1	15.2	10.9
Average Queue (m)	3.2	1.0	5.0	5.1
95th Queue (m)	17.0	7.1	11.2	10.7
Link Distance (m)	556.1	395.5	439.5	1196.6
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	5.9	17.1
Average Queue (m)	0.2	2.6
95th Queue (m)	3.5	11.4
Link Distance (m)	395.5	381.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	1.7	24.7	13.7
Average Queue (m)	0.1	8.9	1.9
95th Queue (m)	1.7	19.4	8.3
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

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

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

Movement	SB
Directions Served	LT
Maximum Queue (m)	1.5
Average Queue (m)	0.0
95th Queue (m)	1.5
Link Distance (m)	391.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 78

Appendix C2:
Future 2028 Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1	147	0	0	0	132	110	0	0	192	95
Future Volume (vph)	40	1	147	0	0	0	132	110	0	0	192	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851										0.850
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1580	1391	0	0	1879	0	1653	1503	1879	1879	1693	1597
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1580	1391	0	0	1879	0	1653	1503	1879	1879	1693	1597
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	13%	0%	15%	0%	0%	0%	8%	25%	0%	0%	11%	0%
Adj. Flow (vph)	46	1	169	0	0	0	152	126	0	0	221	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	170	0	0	0	0	152	126	0	0	221	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1	147	0	0	0	132	110	0	0	192	95
Future Volume (Veh/h)	40	1	147	0	0	0	132	110	0	0	192	95
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	46	1	169	0	0	0	152	126	0	0	221	109
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	651	651	221	820	760	126	330			126		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	651	651	221	820	760	126	330			126		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	86	100	79	100	100	100	87			100		
cM capacity (veh/h)	331	341	787	209	295	930	1197			1473		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	46	170	0	152	126	0	0	221	109
Volume Left	46	0	0	152	0	0	0	0	0
Volume Right	0	169	0	0	0	0	0	0	109
cSH	331	781	1700	1197	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.22	0.00	0.13	0.07	0.00	0.00	0.13	0.06
Queue Length 95th (m)	3.8	6.6	0.0	3.5	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	17.6	10.9	0.0	8.4	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B	A	A					
Approach Delay (s)	12.3		0.0	4.6			0.0		
Approach LOS	B		A						

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	50	0	168	14	38	293	0
Future Volume (vph)	0	0	0	1	0	50	0	168	14	38	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.867			0.990				
Flt Protected					0.999						0.994	
Satd. Flow (prot)	0	1879	0	0	1627	0	0	1576	0	0	1696	0
Flt Permitted					0.999						0.994	
Satd. Flow (perm)	0	1879	0	0	1627	0	0	1576	0	0	1696	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1335.9			755.9	
Travel Time (s)		8.3			74.9			60.1			34.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	13%	79%	11%	10%	0%
Adj. Flow (vph)	0	0	0	1	0	54	0	181	15	41	315	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	55	0	0	196	0	0	356	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	50	0	168	14	38	293	0
Future Volume (Veh/h)	0	0	0	1	0	50	0	168	14	38	293	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	1	0	54	0	181	15	41	315	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	640	593	315	586	586	188	315			196		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	640	593	315	586	586	188	315			196		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	100	100	94	100			97		
cM capacity (veh/h)	358	408	730	415	412	859	1257			1325		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	55	196	356
Volume Left	0	1	0	41
Volume Right	0	54	15	0
cSH	1700	842	1257	1325
Volume to Capacity	0.00	0.07	0.00	0.03
Queue Length 95th (m)	0.0	1.7	0.0	0.8
Control Delay (s)	0.0	9.6	0.0	1.2
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.6	0.0	1.2
Approach LOS	A	A		

Intersection Summary					
Average Delay	1.5				
Intersection Capacity Utilization	40.5%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	184	212	394	8
Future Volume (vph)	0	0	184	212	394	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	70.0			0.0
Storage Lanes	0	0	1			0
Taper Length (m)	7.5		25.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997	
Flt Protected			0.950			
Satd. Flow (prot)	0	0	901	1606	1350	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	901	1606	1350	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1002.4	
Travel Time (s)	14.6			4.4	45.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	98%	17%	38%	75%
Adj. Flow (vph)	0	0	198	228	424	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	198	228	433	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	184	212	394	8
Future Volume (Veh/h)	0	0	184	212	394	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	198	228	424	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1052	428	433			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1052	428	433			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	74			
cM capacity (veh/h)	187	631	759			

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	198	228	433
Volume Left	198	0	0
Volume Right	0	0	9
cSH	759	1700	1700
Volume to Capacity	0.26	0.13	0.25
Queue Length 95th (m)	8.3	0.0	0.0
Control Delay (s)	11.4	0.0	0.0
Lane LOS	B		
Approach Delay (s)	5.3		0.0
Approach LOS			

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	0	51	0	0	0	0	373	7	1	399	0
Future Volume (vph)	15	0	51	0	0	0	0	373	7	1	399	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.997				
Flt Protected	0.950											
Satd. Flow (prot)	892	0	799	0	1879	0	0	1225	0	0	1372	0
Flt Permitted	0.950											
Satd. Flow (perm)	892	0	799	0	1879	0	0	1225	0	0	1372	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.0			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	100%	0%	100%	0%	0%	0%	0%	54%	0%	0%	37%	0%
Adj. Flow (vph)	16	0	56	0	0	0	0	410	8	1	438	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	0	56	0	0	0	0	418	0	0	439	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	51	0	0	0	0	373	7	1	399	0
Future Volume (Veh/h)	15	0	51	0	0	0	0	373	7	1	399	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	16	0	56	0	0	0	0	410	8	1	438	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	854	858	438	910	854	414	438			418		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	854	858	438	910	854	414	438			418		
tC, single (s)	8.1	6.5	7.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.4	4.0	4.2	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	100	88	100	100	100	100			100		
cM capacity (veh/h)	193	296	456	226	298	643	1133			1152		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	16	56	0	418	439
Volume Left	16	0	0	0	1
Volume Right	0	56	0	8	0
cSH	193	456	1700	1700	1152
Volume to Capacity	0.08	0.12	0.00	0.25	0.00
Queue Length 95th (m)	2.1	3.3	0.0	0.0	0.0
Control Delay (s)	25.4	14.0	0.0	0.0	0.0
Lane LOS	D	B	A		A
Approach Delay (s)	16.5		0.0	0.0	0.0
Approach LOS	C		A		

Intersection Summary					
Average Delay		1.3			
Intersection Capacity Utilization		31.8%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	394	60	137	509	114	76	150	120	97	186	166
Future Volume (vph)	167	394	60	137	509	114	76	150	120	97	186	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		15.0	50.0		40.0	50.0		50.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	20.0			40.0			50.0			50.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.973				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1020	1486	0	1668	1461	0	1526	1693	1536	1109	1708	873
Flt Permitted	0.276			0.468			0.529			0.626		
Satd. Flow (perm)	296	1486	0	822	1461	0	850	1693	1536	731	1708	873
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			14				122			169
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			2753.2			733.9			751.3	
Travel Time (s)		66.6			123.9			33.0			33.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	75%	25%	17%	7%	16%	66%	17%	11%	4%	61%	10%	83%
Adj. Flow (vph)	170	402	61	140	519	116	78	153	122	99	190	169
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	463	0	140	635	0	78	153	122	99	190	169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		4
Detector Phase	1	6		5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	58.0		11.0	58.0		18.0	18.0	18.0	18.0	18.0	18.0
Total Split (s)	18.0	78.0		11.0	71.0		31.0	31.0	31.0	31.0	31.0	31.0
Total Split (%)	15.0%	65.0%		9.2%	59.2%		25.8%	25.8%	25.8%	25.8%	25.8%	25.8%
Maximum Green (s)	14.0	70.0		7.0	63.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	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	8.0		4.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	Max		None	Max		None	None	None	None	None	None
Act Effct Green (s)	84.2	70.1		76.6	65.5		20.2	20.2	20.2	20.2	20.2	20.2
Actuated g/C Ratio	0.72	0.60		0.65	0.56		0.17	0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.60	0.52		0.24	0.77		0.54	0.53	0.33	0.79	0.65	0.58
Control Delay	15.0	16.5		6.8	29.0		58.4	51.0	9.9	85.8	56.0	15.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	16.5		6.8	29.0		58.4	51.0	9.9	85.8	56.0	15.1
LOS	B	B		A	C		E	D	A	F	E	B
Approach Delay		16.1			25.0			38.4			47.3	
Approach LOS		B			C			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 117.3			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 29.2		Intersection LOS: C	
Intersection Capacity Utilization 92.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	170	463	140	635	78	153	122	99	190	169
v/c Ratio	0.60	0.52	0.24	0.77	0.54	0.53	0.33	0.79	0.65	0.58
Control Delay	15.0	16.5	6.8	29.0	58.4	51.0	9.9	85.8	56.0	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	16.5	6.8	29.0	58.4	51.0	9.9	85.8	56.0	15.1
Queue Length 50th (m)	13.2	64.0	9.9	120.6	17.4	34.0	0.0	23.2	43.3	0.0
Queue Length 95th (m)	22.3	94.1	16.5	#185.4	34.5	56.0	16.6	#51.6	68.6	22.0
Internal Link Dist (m)		1456.5		2729.2		709.9			727.3	
Turn Bay Length (m)	55.0		55.0		50.0		40.0	50.0		50.0
Base Capacity (vph)	301	892	587	822	166	332	399	143	335	306
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	0.56	0.52	0.24	0.77	0.47	0.46	0.31	0.69	0.57	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	394	60	137	509	114	76	150	120	97	186	166
Future Volume (vph)	167	394	60	137	509	114	76	150	120	97	186	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.97		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)	1020	1486		1668	1460		1526	1693	1536	1109	1708	873
Flt Permitted	0.28	1.00		0.47	1.00		0.53	1.00	1.00	0.63	1.00	1.00
Satd. Flow (perm)	296	1486		823	1460		849	1693	1536	731	1708	873
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)	170	402	61	140	519	116	78	153	122	99	190	169
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	101	0	0	140
Lane Group Flow (vph)	170	459	0	140	629	0	78	153	21	99	190	29
Heavy Vehicles (%)	75%	25%	17%	7%	16%	66%	17%	11%	4%	61%	10%	83%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	81.1	70.1		72.5	65.5		20.2	20.2	20.2	20.2	20.2	20.2
Effective Green, g (s)	81.1	70.1		72.5	65.5		20.2	20.2	20.2	20.2	20.2	20.2
Actuated g/C Ratio	0.69	0.60		0.62	0.56		0.17	0.17	0.17	0.17	0.17	0.17
Clearance Time (s)	4.0	8.0		4.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	276	888		559	815		146	291	264	125	294	150
v/s Ratio Prot	c0.06	0.31		0.01	c0.43			0.09			0.11	
v/s Ratio Perm	0.36			0.14			0.09		0.01	c0.14		0.03
v/c Ratio	0.62	0.52		0.25	0.77		0.53	0.53	0.08	0.79	0.65	0.19
Uniform Delay, d1	10.7	13.7		9.4	20.1		44.3	44.2	40.7	46.5	45.2	41.6
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	4.0	2.1		0.2	7.0		6.7	3.2	0.3	31.6	6.5	1.3
Delay (s)	14.7	15.9		9.6	27.1		51.0	47.4	41.0	78.1	51.8	42.9
Level of Service	B	B		A	C		D	D	D	E	D	D
Approach Delay (s)		15.6			23.9			46.0			54.2	
Approach LOS		B			C			D			D	

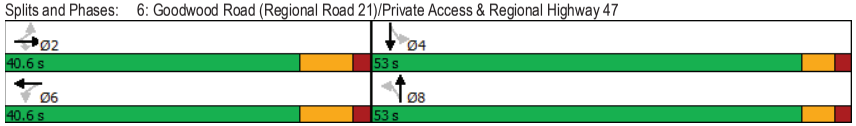
Intersection Summary				
HCM 2000 Control Delay	31.3	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.76			
Actuated Cycle Length (s)	117.3	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	92.4%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	224	285	6	401	2	336	1	6	1	1	0
Future Volume (vph)	0	224	285	6	401	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.869				
Flt Protected				0.950			0.950				0.976	
Satd. Flow (prot)	1879	1479	1238	1190	2950	0	1552	1633	0	0	1834	0
Flt Permitted				0.601			0.757				0.955	
Satd. Flow (perm)	1879	1479	1238	753	2950	0	1237	1633	0	0	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324					7				
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		906.6			582.9			342.6			169.6	
Travel Time (s)		40.8			42.0			24.7			12.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	27%	29%	50%	21%	0%	15%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	255	324	7	456	2	382	1	7	1	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	324	7	458	0	382	8	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.6	40.6	40.6	40.6	40.6		53.0	53.0		53.0	53.0	
Total Split (%)	43.4%	43.4%	43.4%	43.4%	43.4%		56.6%	56.6%		56.6%	56.6%	
Maximum Green (s)	32.6	32.6	32.6	32.6	32.6		47.4	47.4		47.4	47.4	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		33.1	33.1	33.1	33.1		27.6	27.6			27.6	
Actuated g/C Ratio		0.44	0.44	0.44	0.44		0.37	0.37			0.37	
v/c Ratio		0.39	0.44	0.02	0.35		0.83	0.01			0.00	
Control Delay		18.6	4.5	16.3	16.5		37.2	8.0			12.5	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		18.6	4.5	16.3	16.5		37.2	8.0			12.5	
LOS		B	A	B	B		D	A			B	
Approach Delay		10.7			16.5			36.6			12.5	
Approach LOS		B			B			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 74.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 19.6		Intersection LOS: B	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	255	324	7	458	382	8	2
v/c Ratio	0.39	0.44	0.02	0.35	0.83	0.01	0.00
Control Delay	18.6	4.5	16.3	16.5	37.2	8.0	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	4.5	16.3	16.5	37.2	8.0	12.5
Queue Length 50th (m)	23.9	0.0	0.5	22.0	49.4	0.1	0.2
Queue Length 95th (m)	55.5	15.9	3.6	44.4	79.2	2.4	1.4
Internal Link Dist (m)	882.6			558.9		318.6	145.6
Turn Bay Length (m)		50.0	50.0		30.0		
Base Capacity (vph)	656	729	334	1309	798	1056	1157
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	0.39	0.44	0.02	0.35	0.48	0.01	0.00

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	224	285	6	401	2	336	1	6	1	1	0
Future Volume (vph)	0	224	285	6	401	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor		1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1479	1238	1190	2951		1552	1632			1833	
Flt Permitted		1.00	1.00	0.60	1.00		0.76	1.00			0.96	
Satd. Flow (perm)		1479	1238	753	2951		1236	1632			1795	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	255	324	7	456	2	382	1	7	1	1	0
RTOR Reduction (vph)	0	0	180	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	255	144	7	458	0	382	4	0	0	2	0
Heavy Vehicles (%)	0%	27%	29%	50%	21%	0%	15%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)		33.1	33.1	33.1	33.1		27.6	27.6			27.6	
Effective Green, g (s)		33.1	33.1	33.1	33.1		27.6	27.6			27.6	
Actuated g/C Ratio		0.45	0.45	0.45	0.45		0.37	0.37			0.37	
Clearance Time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)		4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)		658	551	335	1314		459	606			666	
v/s Ratio Prot		c0.17			0.16			0.00				
v/s Ratio Perm			0.12	0.01			c0.31				0.00	
v/c Ratio		0.39	0.26	0.02	0.35		0.83	0.01			0.00	
Uniform Delay, d1		13.8	12.9	11.5	13.5		21.2	14.7			14.7	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		1.7	1.2	0.1	0.7		12.2	0.0			0.0	
Delay (s)		15.5	14.1	11.6	14.3		33.4	14.7			14.7	
Level of Service		B	B	B	B		C	B			B	
Approach Delay (s)		14.7			14.2			33.1			14.7	
Approach LOS		B			B			C			B	

Intersection Summary				
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.59			
Actuated Cycle Length (s)	74.3	Sum of lost time (s)	13.6	
Intersection Capacity Utilization	69.7%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

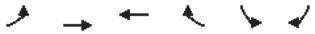
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	223	9	4	381	4	17	10	5	6	8	18
Future Volume (vph)	8	223	9	4	381	4	17	10	5	6	8	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.999			0.977			0.925	
Flt Protected		0.998						0.974			0.990	
Satd. Flow (prot)	0	1492	0	0	1541	0	0	1788	0	0	1617	0
Flt Permitted		0.998						0.974			0.990	
Satd. Flow (perm)	0	1492	0	0	1541	0	0	1788	0	0	1617	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1219.6	
Travel Time (s)		42.0			29.8			32.7			87.8	
Confl. Peds. (#/hr)			1	1					2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	27%	0%	25%	22%	0%	0%	0%	0%	33%	0%	0%
Adj. Flow (vph)	9	248	10	4	423	4	19	11	6	7	9	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	267	0	0	431	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	223	9	4	381	4	17	10	5	6	8	18
Future Volume (Veh/h)	8	223	9	4	381	4	17	10	5	6	8	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	248	10	4	423	4	19	11	6	7	9	20
Pedestrians					2			1				
Lane Width (m)					3.5			3.5				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	427			259			730	707	256	718	710	425
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	427			259			730	707	256	718	710	425
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.4	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.8	4.0	3.3
p0 queue free %	99			100			94	97	99	98	97	97
cM capacity (veh/h)	1143			1182			320	358	786	295	357	634

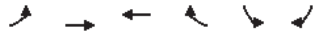
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	267	431	36	36
Volume Left	9	4	19	7
Volume Right	10	4	6	20
cSH	1143	1182	369	447
Volume to Capacity	0.01	0.00	0.10	0.08
Queue Length 95th (m)	0.2	0.1	2.6	2.1
Control Delay (s)	0.3	0.1	15.8	13.8
Lane LOS	A	A	C	B
Approach Delay (s)	0.3	0.1	15.8	13.8
Approach LOS			C	B

Intersection Summary					
Average Delay	1.6				
Intersection Capacity Utilization	33.3%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	203	402	13	0	23
Future Volume (vph)	0	203	402	13	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.865	
Flt Protected						
Satd. Flow (prot)	0	1457	1620	799	813	0
Flt Permitted						
Satd. Flow (perm)	0	1457	1620	799	813	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	29%	16%	100%	0%	100%
Adj. Flow (vph)	0	254	503	16	0	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	254	503	16	29	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	203	402	13	0	23
Future Volume (Veh/h)	0	203	402	13	0	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	254	502	16	0	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	518				756	502
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	518				756	502
tC, single (s)	4.1				6.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	4.2
p0 queue free %	100				100	93
cM capacity (veh/h)	1058				379	415

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	254	502	16	29
Volume Left	0	0	0	0
Volume Right	0	0	16	29
cSH	1700	1700	1700	415
Volume to Capacity	0.15	0.30	0.01	0.07
Queue Length 95th (m)	0.0	0.0	0.0	1.8
Control Delay (s)	0.0	0.0	0.0	14.3
Lane LOS				B
Approach Delay (s)	0.0	0.0		14.3
Approach LOS				B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	224	17	134	346	31	100
Future Volume (vph)	224	17	134	346	31	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1468	0	1668	1620	986	1479
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1468	0	1668	1620	986	1479
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	24%	65%	7%	16%	81%	8%
Adj. Flow (vph)	252	19	151	389	35	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	271	0	151	389	35	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	224	17	134	346	31	100
Future Volume (Veh/h)	224	17	134	346	31	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	252	19	151	389	35	112
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			271		952	262
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			271		952	262
tC, single (s)			4.2		7.2	6.3
tC, 2 stage (s)						
tF (s)			2.3		4.2	3.4
p0 queue free %			88		81	85
cM capacity (veh/h)			1264		185	763

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	271	151	389	147
Volume Left	0	151	0	35
Volume Right	19	0	0	112
cSH	1700	1264	1700	776
Volume to Capacity	0.16	0.12	0.23	0.19
Queue Length 95th (m)	0.0	3.2	0.0	5.6
Control Delay (s)	0.0	8.2	0.0	14.9
Lane LOS		A		B
Approach Delay (s)	0.0	2.3		14.9
Approach LOS				B

Intersection Summary				
Average Delay		3.6		
Intersection Capacity Utilization		33.6%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	120	0	183	295	0
Future Volume (vph)	0	120	0	183	295	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	813	0	0	1579	1708	0
Flt Permitted						
Satd. Flow (perm)	813	0	0	1579	1708	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	150.4			1002.4	1335.9	
Travel Time (s)	10.8			45.1	60.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	100%	0%	19%	10%	0%
Adj. Flow (vph)	0	129	0	197	317	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	129	0	0	197	317	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	120	0	183	295	0
Future Volume (Veh/h)	0	120	0	183	295	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	129	0	197	317	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	514	317	317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	514	317	317			
tC, single (s)	6.4	7.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	4.2	2.2			
p0 queue free %	100	76	100			
cM capacity (veh/h)	524	544	1255			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	129	197	317
Volume Left	0	0	0
Volume Right	129	0	0
cSH	544	1255	1700
Volume to Capacity	0.24	0.00	0.19
Queue Length 95th (m)	7.3	0.0	0.0
Control Delay (s)	13.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.7	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	14	0	10	31
Future Volume (vph)	0	0	14	0	10	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.988
Satd. Flow (prot)	1879	0	1879	0	0	1444
Flt Permitted						0.988
Satd. Flow (perm)	1879	0	1879	0	0	1444
Link Speed (k/h)	50		50			50
Link Distance (m)	350.6		1219.6			401.4
Travel Time (s)	25.2		87.8			28.9
Confl. Peds. (#/hr)		1				
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	100%	6%
Adj. Flow (vph)	0	0	17	0	12	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	17	0	0	50
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	0	10	31
Future Volume (Veh/h)	0	0	14	0	10	31
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	17	0	12	38
Pedestrians						1
Lane Width (m)						3.5
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79	18			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79	18			17	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			99	
cM capacity (veh/h)	919	1065			1142	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	17	50
Volume Left	0	0	12
Volume Right	0	0	0
cSH	1700	1700	1142
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (m)	0.0	0.0	0.3
Control Delay (s)	0.0	0.0	2.0
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	2.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	NB	SB
Directions Served	L	TR	L	R
Maximum Queue (m)	19.2	26.3	23.0	3.5
Average Queue (m)	5.6	10.3	7.1	0.2
95th Queue (m)	14.1	19.8	17.7	2.2
Link Distance (m)		574.9		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	80.0		50.0	70.0
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: York-Durham Line & Wagg Road

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (m)	12.5	14.7
Average Queue (m)	6.8	1.6
95th Queue (m)	11.8	8.2
Link Distance (m)	1653.9	736.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	L	TR
Maximum Queue (m)	54.5	4.6
Average Queue (m)	20.6	0.2
95th Queue (m)	42.5	2.8
Link Distance (m)		986.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)	70.0	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	SB
Directions Served	L	R	LT
Maximum Queue (m)	27.1	33.3	4.6
Average Queue (m)	6.8	14.7	0.2
95th Queue (m)	21.5	28.5	3.3
Link Distance (m)	190.3	190.3	82.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	R	L	T	R
Maximum Queue (m)	74.8	200.0	94.9	236.9	68.6	88.8	53.9	95.1	249.0	93.4
Average Queue (m)	51.1	71.3	35.8	126.5	30.8	35.8	4.8	53.5	82.6	36.7
95th Queue (m)	84.4	161.6	94.2	229.1	67.8	74.0	31.3	101.3	259.8	76.5
Link Distance (m)		1467.0		2730.0		719.9			726.2	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	55.0		55.0		50.0		40.0	50.0		50.0
Storage Blk Time (%)	15	5	0	27	14	8		35	9	5
Queuing Penalty (veh)	66	9	0	37	38	16		122	23	14

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	B29	WB	WB	WB	NB	NB	SB
Directions Served	T	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	59.3	1095.0	17.5	45.9	45.0	49.8	90.3	4.9
Average Queue (m)	23.4	63.8	1.7	19.6	18.2	39.4	19.0	0.3
95th Queue (m)	47.4	744.5	9.6	38.9	39.3	56.0	71.1	2.6
Link Distance (m)	888.7	2730.0		556.1			328.2	155.7
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		1						
Storage Bay Dist (m)			50.0		25.0	30.0		
Storage Blk Time (%)	1			4	4	18	0	
Queuing Penalty (veh)	1			7	8	1	0	

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	12.6	15.9	10.2	17.6
Average Queue (m)	0.9	0.9	4.2	5.4
95th Queue (m)	6.3	8.4	9.5	12.7
Link Distance (m)	556.1	395.4	439.5	1196.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	26.7
Average Queue (m)	7.9
95th Queue (m)	21.4
Link Distance (m)	381.3
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	1.4	21.0	28.4
Average Queue (m)	0.0	5.7	10.1
95th Queue (m)	1.4	15.1	24.5
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

Movement	EB
Directions Served	LR
Maximum Queue (m)	52.6
Average Queue (m)	23.2
95th Queue (m)	40.2
Link Distance (m)	141.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

Movement	SB
Directions Served	LT
Maximum Queue (m)	2.0
Average Queue (m)	0.1
95th Queue (m)	2.0
Link Distance (m)	394.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 344

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	1	177	0	3	1	155	318	1	1	185	62
Future Volume (vph)	110	1	177	0	3	1	155	318	1	1	185	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851			0.973				0.850			0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1566
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1566
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	5%	0%	6%	0%	0%	0%	3%	3%	0%	0%	5%	2%
Adj. Flow (vph)	131	1	211	0	4	1	185	379	1	1	220	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	131	212	0	0	5	0	185	379	1	1	220	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1	177	0	3	1	155	318	1	1	185	62
Future Volume (Veh/h)	110	1	177	0	3	1	155	318	1	1	185	62
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	131	1	211	0	4	1	185	379	1	1	220	74
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	974	972	220	1182	1045	379	294			380		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	974	972	220	1182	1045	379	294			380		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	34	100	74	100	98	100	85			100		
cM capacity (veh/h)	199	217	810	110	197	672	1262			1190		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	131	212	5	185	379	1	1	220	74
Volume Left	131	0	0	185	0	0	1	0	0
Volume Right	0	211	1	0	0	1	0	0	74
cSH	199	799	229	1262	1700	1700	1190	1700	1700
Volume to Capacity	0.66	0.27	0.02	0.15	0.22	0.00	0.00	0.13	0.04
Queue Length 95th (m)	31.6	8.5	0.5	4.1	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	52.3	11.1	21.1	8.3	0.0	0.0	8.0	0.0	0.0
Lane LOS	F	B	C	A			A		
Approach Delay (s)	26.9		21.1	2.7			0.0		
Approach LOS	D		C						

Intersection Summary			
Average Delay	9.0		
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	2	0	47	2	366	9	72	250	0
Future Volume (vph)	2	0	0	2	0	47	2	366	9	72	250	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.870			0.997				
Flt Protected		0.950			0.998						0.989	
Satd. Flow (prot)	0	1785	0	0	1571	0	0	1828	0	0	1764	0
Flt Permitted		0.950			0.998						0.989	
Satd. Flow (perm)	0	1785	0	0	1571	0	0	1828	0	0	1764	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1337.2			755.9	
Travel Time (s)		8.3			74.9			60.2			34.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	22%	3%	6%	0%
Adj. Flow (vph)	2	0	0	2	0	53	2	411	10	81	281	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	55	0	0	423	0	0	362	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	0	2	0	47	2	366	9	72	250	0
Future Volume (Veh/h)	2	0	0	2	0	47	2	366	9	72	250	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	0	0	2	0	53	2	411	10	81	281	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	916	868	281	863	863	416	281			421		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	916	868	281	863	863	416	281			421		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	99	100	92	100			93		
cM capacity (veh/h)	221	271	763	262	273	632	1293			1133		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	55	423	362
Volume Left	2	2	2	81
Volume Right	0	53	10	0
cSH	221	601	1293	1133
Volume to Capacity	0.01	0.09	0.00	0.07
Queue Length 95th (m)	0.2	2.4	0.0	1.8
Control Delay (s)	21.5	11.6	0.1	2.4
Lane LOS	C	B	A	A
Approach Delay (s)	21.5	11.6	0.1	2.4
Approach LOS	C	B		

Intersection Summary					
Average Delay		1.9			
Intersection Capacity Utilization	50.4%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	60	342	273	7
Future Volume (vph)	0	0	60	342	273	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	70.0			0.0
Storage Lanes	0	0	1			0
Taper Length (m)	7.5		25.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997	
Flt Protected			0.950			
Satd. Flow (prot)	0	0	901	1708	1590	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	901	1708	1590	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1001.1	
Travel Time (s)	14.6			4.4	45.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	98%	10%	16%	86%
Adj. Flow (vph)	0	0	67	380	303	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	67	380	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	60	342	273	7
Future Volume (Veh/h)	0	0	60	342	273	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	67	380	303	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	821	307	311			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	821	307	311			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	92			
cM capacity (veh/h)	320	738	858			

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	67	380	311
Volume Left	67	0	0
Volume Right	0	0	8
cSH	858	1700	1700
Volume to Capacity	0.08	0.22	0.18
Queue Length 95th (m)	2.0	0.0	0.0
Control Delay (s)	9.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	1.4		0.0
Approach LOS			

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	45	10	0	2	0	394	2	0	279	0
Future Volume (vph)	7	0	45	10	0	2	0	394	2	0	279	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.979			0.999				
Flt Protected	0.950				0.959							
Satd. Flow (prot)	1137	0	827	0	1764	0	0	1515	0	0	1620	0
Flt Permitted	0.950				0.959							
Satd. Flow (perm)	1137	0	827	0	1764	0	0	1515	0	0	1620	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.2			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	57%	0%	93%	0%	0%	0%	0%	24%	0%	0%	16%	0%
Adj. Flow (vph)	8	0	49	11	0	2	0	428	2	0	303	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	0	49	0	13	0	0	430	0	0	303	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	45	10	0	2	0	394	2	0	279	0
Future Volume (Veh/h)	7	0	45	10	0	2	0	394	2	0	279	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	49	11	0	2	0	428	2	0	303	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	734	733	303	781	732	429	303			430		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	734	733	303	781	732	429	303			430		
tC, single (s)	7.7	6.5	7.1	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.0	4.0	4.1	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	91	96	100	100	100			100		
cM capacity (veh/h)	274	350	565	287	351	630	1269			1140		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	8	49	13	430	303
Volume Left	8	0	11	0	0
Volume Right	0	49	2	2	0
cSH	274	565	314	1700	1140
Volume to Capacity	0.03	0.09	0.04	0.25	0.00
Queue Length 95th (m)	0.7	2.3	1.0	0.0	0.0
Control Delay (s)	18.5	12.0	17.0	0.0	0.0
Lane LOS	C	B	C		
Approach Delay (s)	12.9		17.0	0.0	0.0
Approach LOS	B		C		

Intersection Summary					
Average Delay		1.2			
Intersection Capacity Utilization	34.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	707	86	178	508	58	65	223	181	70	208	85
Future Volume (vph)	66	707	86	178	508	58	65	223	181	70	208	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		15.0	50.0		40.0	50.0		50.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	20.0			40.0			50.0			50.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1384	1742	0	1767	1696	0	1684	1824	1551	1451	1824	1248
Flt Permitted	0.360			0.152			0.423			0.381		
Satd. Flow (perm)	524	1742	0	283	1696	0	750	1824	1551	582	1824	1248
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			9				178			92
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			2753.8			733.9			751.3	
Travel Time (s)		66.6			123.9			33.0			33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	29%	6%	7%	1%	8%	19%	6%	3%	3%	23%	3%	28%
Adj. Flow (vph)	72	768	93	193	552	63	71	242	197	76	226	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	861	0	193	615	0	71	242	197	76	226	92
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		4
Detector Phase	1	6		5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	58.0		11.0	58.0		18.0	18.0	18.0	18.0	18.0	18.0
Total Split (s)	11.0	76.0		15.0	80.0		29.0	29.0	29.0	29.0	29.0	29.0
Total Split (%)	9.2%	63.3%		12.5%	66.7%		24.2%	24.2%	24.2%	24.2%	24.2%	24.2%
Maximum Green (s)	7.0	68.0		11.0	72.0		21.0	21.0	21.0	21.0	21.0	21.0
Yellow Time (s)	3.0	5.0		3.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	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	8.0		4.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	Max		None	Max		None	None	None	None	None	None
Act Effct Green (s)	80.0	68.9		85.4	73.7		19.8	19.8	19.8	19.8	19.8	19.8
Actuated g/C Ratio	0.68	0.58		0.72	0.62		0.17	0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.18	0.84		0.60	0.58		0.57	0.79	0.48	0.78	0.74	0.32
Control Delay	6.0	30.1		13.5	16.6		64.2	66.8	12.8	95.1	62.4	11.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	30.1		13.5	16.6		64.2	66.8	12.8	95.1	62.4	11.9
LOS	A	C		B	B		E	E	B	F	E	B
Approach Delay		28.3			15.8			45.6			56.9	
Approach LOS		C			B			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 118.1			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 32.1		Intersection LOS: C	
Intersection Capacity Utilization 95.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	707	86	178	508	58	65	223	181	70	208	85
Future Volume (vph)	66	707	86	178	508	58	65	223	181	70	208	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.98		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)	1384	1742		1767	1695		1684	1824	1551	1451	1824	1248
Flt Permitted	0.36	1.00		0.15	1.00		0.42	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	524	1742		283	1695		749	1824	1551	582	1824	1248
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	768	93	193	552	63	71	242	197	76	226	92
RTOR Reduction (vph)	0	3	0	0	3	0	0	0	148	0	0	77
Lane Group Flow (vph)	72	858	0	193	612	0	71	242	49	76	226	15
Heavy Vehicles (%)	29%	6%	7%	1%	8%	19%	6%	3%	3%	23%	3%	28%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	75.3	69.8		83.1	73.7		19.8	19.8	19.8	19.8	19.8	19.8
Effective Green, g (s)	75.3	69.8		83.1	73.7		19.8	19.8	19.8	19.8	19.8	19.8
Actuated g/C Ratio	0.63	0.59		0.70	0.62		0.17	0.17	0.17	0.17	0.17	0.17
Clearance Time (s)	4.0	8.0		4.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0
Vehicle Extension (s)	3.0	0.2		3.0	0.2		5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	371	1021		314	1049		124	303	258	96	303	207
v/s Ratio Prot	0.01	c0.49		c0.05	0.36			c0.13			0.12	
v/s Ratio Perm	0.11			0.38			0.09		0.03	0.13		0.01
v/c Ratio	0.19	0.84		0.61	0.58		0.57	0.80	0.19	0.79	0.75	0.07
Uniform Delay, d1	9.1	20.1		16.2	13.5		45.7	47.7	42.7	47.6	47.2	41.9
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	0.3	8.3		3.5	2.4		9.8	15.5	0.7	38.8	11.4	0.3
Delay (s)	9.4	28.4		19.8	15.9		55.5	63.2	43.4	86.4	58.6	42.2
Level of Service	A	C		B	B		E	E	D	F	E	D
Approach Delay (s)		26.9			16.8			54.5			60.1	
Approach LOS		C			B			D			E	

Intersection Summary				
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.81			
Actuated Cycle Length (s)	119.0	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	95.7%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	468	446	6	298	4	281	3	1	5	2	2
Future Volume (vph)	2	468	446	6	298	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.97	1.00								
Frt			0.850		0.998			0.962			0.970	
Flt Protected	0.950			0.950			0.950				0.973	
Satd. Flow (prot)	1785	1807	1493	1526	3332	0	1638	1807	0	0	1773	0
Flt Permitted	0.554			0.402			0.752				0.925	
Satd. Flow (perm)	1041	1807	1455	644	3332	0	1296	1807	0	0	1686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			485		2			1			2	
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		906.0			582.9			342.6			169.6	
Travel Time (s)		40.8			42.0			24.7			12.2	
Confl. Peds. (#/hr)			3	3								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	7%	17%	7%	0%	9%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	509	485	7	324	4	305	3	1	5	2	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	509	485	7	328	0	305	4	0	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	51.6	51.6	51.6	51.6	51.6		42.0	42.0		42.0	42.0	
Total Split (%)	55.1%	55.1%	55.1%	55.1%	55.1%		44.9%	44.9%		44.9%	44.9%	
Maximum Green (s)	43.6	43.6	43.6	43.6	43.6		36.4	36.4		36.4	36.4	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	44.0	44.0	44.0	44.0	44.0		24.0	24.0			24.0	
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54		0.29	0.29			0.29	
v/c Ratio	0.00	0.52	0.48	0.02	0.18		0.80	0.01			0.02	
Control Delay	12.0	16.3	3.2	12.3	11.3		42.5	16.8			16.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	12.0	16.3	3.2	12.3	11.3		42.5	16.8			16.8	
LOS	B	B	A	B	B		D	B			B	
Approach Delay		9.9			11.3			42.2			16.8	
Approach LOS		A			B			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 81.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	468	446	6	298	4	281	3	1	5	2	2
Future Volume (vph)	2	468	446	6	298	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1785	1807	1456	1523	3333		1638	1808			1773	
Flt Permitted	0.55	1.00	1.00	0.40	1.00		0.75	1.00			0.92	
Satd. Flow (perm)	1040	1807	1456	645	3333		1296	1808			1686	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	509	485	7	324	4	305	3	1	5	2	2
RTOR Reduction (vph)	0	0	223	0	1	0	0	1	0	0	1	0
Lane Group Flow (vph)	2	509	262	7	327	0	305	3	0	0	8	0
Confl. Peds. (#/hr)			3	3								
Heavy Vehicles (%)	0%	4%	7%	17%	7%	0%	9%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	44.0	44.0	44.0	44.0	44.0		24.0	24.0			24.0	
Effective Green, g (s)	44.0	44.0	44.0	44.0	44.0		24.0	24.0			24.0	
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54		0.29	0.29			0.29	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)	560	974	785	347	1797		381	531			495	
v/s Ratio Prot		c0.28			0.10			0.00				
v/s Ratio Perm	0.00		0.18	0.01			c0.24				0.00	
v/c Ratio	0.00	0.52	0.33	0.02	0.18		0.80	0.01			0.02	
Uniform Delay, d1	8.7	12.1	10.6	8.8	9.6		26.6	20.4			20.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	2.0	1.1	0.1	0.2		11.4	0.0			0.0	
Delay (s)	8.7	14.1	11.7	8.9	9.8		38.0	20.4			20.4	
Level of Service	A	B	B	A	A		D	C			C	
Approach Delay (s)		12.9			9.8			37.8			20.4	
Approach LOS		B			A			D			C	

Intersection Summary					
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio	0.62				
Actuated Cycle Length (s)	81.6	Sum of lost time (s)		13.6	
Intersection Capacity Utilization	76.8%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

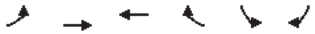
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	427	25	5	301	7	12	14	10	4	18	14
Future Volume (vph)	21	427	25	5	301	7	12	14	10	4	18	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.997			0.962			0.947	
Flt Protected		0.998			0.999			0.984			0.995	
Satd. Flow (prot)	0	1797	0	0	1753	0	0	1732	0	0	1770	0
Flt Permitted		0.998			0.999			0.984			0.995	
Satd. Flow (perm)	0	1797	0	0	1753	0	0	1732	0	0	1770	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1221.4	
Travel Time (s)		42.0			29.8			32.7			87.9	
Confl. Peds. (#/hr)	7		5	5		7	3		3	3		3
Confl. Bikes (#/hr)									2			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	4%	0%	0%	7%	0%	0%	7%	0%	0%	0%	0%
Adj. Flow (vph)	23	459	27	5	324	8	13	15	11	4	19	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	509	0	0	337	0	0	39	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	427	25	5	301	7	12	14	10	4	18	14
Future Volume (Veh/h)	21	427	25	5	301	7	12	14	10	4	18	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	23	459	27	5	324	8	13	15	11	4	19	15
Pedestrians		3			3			5			7	
Lane Width (m)		3.5			3.5			3.5			3.5	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	339			491			889	872	480	885	882	338
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	339			491			889	872	480	885	882	338
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	95	98	98	93	98
cM capacity (veh/h)	1224			1078			239	274	586	244	278	703

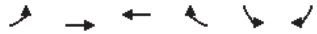
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	509	337	39	38
Volume Left	23	5	13	4
Volume Right	27	8	11	15
cSH	1224	1078	305	358
Volume to Capacity	0.02	0.00	0.13	0.11
Queue Length 95th (m)	0.5	0.1	3.5	2.8
Control Delay (s)	0.6	0.2	18.5	16.2
Lane LOS	A	A	C	C
Approach Delay (s)	0.6	0.2	18.5	16.2
Approach LOS			C	C

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	47.9%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	440	311	4	2	6
Future Volume (vph)	2	440	311	4	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.895	
Flt Protected					0.989	
Satd. Flow (prot)	0	1807	1789	799	935	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1807	1789	799	935	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	4%	5%	100%	0%	100%
Adj. Flow (vph)	2	484	342	4	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	486	342	4	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	440	311	4	2	6
Future Volume (Veh/h)	2	440	311	4	2	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	2	484	342	4	2	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	346				830	342
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	346				830	342
tC, single (s)	4.1				6.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	4.2
p0 queue free %	100				99	99
cM capacity (veh/h)	1224				342	525

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	486	342	4	9
Volume Left	2	0	0	2
Volume Right	0	0	4	7
cSH	1224	1700	1700	469
Volume to Capacity	0.00	0.20	0.00	0.02
Queue Length 95th (m)	0.0	0.0	0.0	0.5
Control Delay (s)	0.1	0.0	0.0	12.8
Lane LOS	A			B
Approach Delay (s)	0.1	0.0		12.8
Approach LOS				B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		34.7%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	425	16	164	292	8	146
Future Volume (vph)	425	16	164	292	8	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1809	0	1653	1773	1428	1566
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1809	0	1653	1773	1428	1566
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	3%	13%	8%	6%	25%	2%
Adj. Flow (vph)	489	18	189	336	9	168
Shared Lane Traffic (%)						
Lane Group Flow (vph)	507	0	189	336	9	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	425	16	164	292	8	146
Future Volume (Veh/h)	425	16	164	292	8	146
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	489	18	189	336	9	168
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			507		1212	498
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			507		1212	498
tC, single (s)			4.2		6.6	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.7	3.3
p0 queue free %			82		94	71
cM capacity (veh/h)			1028		148	572

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	507	189	336	177
Volume Left	0	189	0	9
Volume Right	18	0	0	168
cSH	1700	1028	1700	603
Volume to Capacity	0.30	0.18	0.20	0.29
Queue Length 95th (m)	0.0	5.4	0.0	9.8
Control Delay (s)	0.0	9.3	0.0	14.8
Lane LOS		A		B
Approach Delay (s)	0.0	3.3		14.8
Approach LOS				B

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	22	0	377	252	0
Future Volume (vph)	0	22	0	377	252	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	813	0	0	1842	1773	0
Flt Permitted						
Satd. Flow (perm)	813	0	0	1842	1773	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	152.3			1001.1	1337.2	
Travel Time (s)	11.0			45.0	60.2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	100%	0%	2%	6%	0%
Adj. Flow (vph)	0	25	0	424	283	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	424	283	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	22	0	377	252	0
Future Volume (Veh/h)	0	22	0	377	252	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	25	0	424	283	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	707	283	283			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	707	283	283			
tC, single (s)	6.4	7.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	4.2	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	405	571	1291			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	25	424	283
Volume Left	0	0	0
Volume Right	25	0	0
cSH	571	1291	1700
Volume to Capacity	0.04	0.00	0.17
Queue Length 95th (m)	1.1	0.0	0.0
Control Delay (s)	11.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	11.6	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	40	0	2	21
Future Volume (vph)	0	0	40	0	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.996
Satd. Flow (prot)	1879	0	1879	0	0	1727
Flt Permitted						0.996
Satd. Flow (perm)	1879	0	1879	0	0	1727
Link Speed (k/h)	50		50			50
Link Distance (m)	347.6		1221.4			427.4
Travel Time (s)	25.0		87.9			30.8
Confl. Bikes (#/hr)				2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	100%	0%
Adj. Flow (vph)	0	0	42	0	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	42	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	40	0	2	21
Future Volume (Veh/h)	0	0	40	0	2	21
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	42	0	2	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	68	42			42	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	68	42			42	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			100	
cM capacity (veh/h)	940	1034			1114	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	42	24
Volume Left	0	0	2
Volume Right	0	0	0
cSH	1700	1700	1114
Volume to Capacity	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	WB	NB	SB	SB	SB
Directions Served	L	TR	LTR	L	L	T	R
Maximum Queue (m)	31.7	22.8	5.3	20.9	0.7	0.6	2.0
Average Queue (m)	12.2	9.5	0.6	7.2	0.0	0.0	0.1
95th Queue (m)	24.0	18.0	3.1	16.6	0.7	0.6	1.5
Link Distance (m)		574.9	230.8			659.9	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)	80.0			50.0	50.0		70.0
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: York-Durham Line & Wagg Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.9	16.0	4.6	17.8
Average Queue (m)	0.7	6.9	0.2	4.4
95th Queue (m)	4.5	13.6	2.4	14.0
Link Distance (m)	104.9	1653.9	1318.6	736.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	L	TR
Maximum Queue (m)	29.3	1.9
Average Queue (m)	6.2	0.1
95th Queue (m)	21.2	1.4
Link Distance (m)		985.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)	70.0	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	WB
Directions Served	L	R	LTR
Maximum Queue (m)	18.5	31.3	9.0
Average Queue (m)	2.5	14.3	2.6
95th Queue (m)	11.4	27.8	8.8
Link Distance (m)	190.3	190.3	103.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	R	L	T	R
Maximum Queue (m)	74.8	214.8	66.9	106.1	71.6	109.8	60.0	84.8	173.4	64.9
Average Queue (m)	21.5	115.6	25.7	49.7	21.7	45.9	10.9	44.5	63.2	14.4
95th Queue (m)	61.4	201.0	51.1	91.9	50.8	84.9	48.7	91.5	159.4	49.2
Link Distance (m)		1467.0		2730.7		719.9			725.8	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	55.0		55.0		50.0		40.0	50.0		50.0
Storage Blk Time (%)	0	25	0	6	3	16		28	14	0
Queuing Penalty (veh)	0	16	3	10	14	39		83	22	1

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	EB	B29	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	3.6	71.9	2189.9	10.2	35.3	34.8	49.8	84.2	10.5
Average Queue (m)	0.2	32.8	145.8	1.1	11.8	10.6	36.8	14.3	1.8
95th Queue (m)	2.4	58.3	1159.2	6.0	25.9	26.1	54.0	58.2	7.5
Link Distance (m)		888.2	2730.7		556.1			328.2	155.7
Upstream Blk Time (%)			0						
Queuing Penalty (veh)			3						
Storage Bay Dist (m)	70.0			50.0		25.0	30.0		
Storage Blk Time (%)		1			1	1	20	0	
Queuing Penalty (veh)		7			2	2	1	0	

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	38.2	20.2	14.4	12.9
Average Queue (m)	4.2	1.6	4.6	5.0
95th Queue (m)	20.0	10.9	10.7	10.7
Link Distance (m)	556.1	395.3	439.5	1198.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	2.6	17.7
Average Queue (m)	0.1	3.1
95th Queue (m)	1.5	12.6
Link Distance (m)	395.3	381.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	0.7	23.9	14.4
Average Queue (m)	0.0	9.5	1.9
95th Queue (m)	0.7	19.8	8.6
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

Movement	EB
Directions Served	LR
Maximum Queue (m)	24.8
Average Queue (m)	7.9
95th Queue (m)	22.2
Link Distance (m)	143.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

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

Network Summary

Network wide Queuing Penalty: 201

Appendix C3:
Future 2033 Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	1	162	0	0	0	146	115	0	0	201	105
Future Volume (vph)	44	1	162	0	0	0	146	115	0	0	201	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851										0.850
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1608	1391	0	0	1879	0	1653	1503	1879	1879	1693	1597
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1608	1391	0	0	1879	0	1653	1503	1879	1879	1693	1597
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	11%	0%	15%	0%	0%	0%	8%	25%	0%	0%	11%	0%
Adj. Flow (vph)	51	1	186	0	0	0	168	132	0	0	231	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	187	0	0	0	0	168	132	0	0	231	121
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1	162	0	0	0	146	115	0	0	201	105
Future Volume (Veh/h)	44	1	162	0	0	0	146	115	0	0	201	105
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	51	1	186	0	0	0	168	132	0	0	231	121
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	699	699	231	886	820	132	352			132		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	699	699	231	886	820	132	352			132		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	83	100	76	100	100	100	86			100		
cM capacity (veh/h)	305	314	777	181	267	923	1174			1466		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	51	187	0	168	132	0	0	231	121
Volume Left	51	0	0	168	0	0	0	0	0
Volume Right	0	186	0	0	0	0	0	0	121
cSH	305	771	1700	1174	1700	1700	1700	1700	1700
Volume to Capacity	0.17	0.24	0.00	0.14	0.08	0.00	0.00	0.14	0.07
Queue Length 95th (m)	4.7	7.6	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	19.1	11.2	0.0	8.6	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B	A	A					
Approach Delay (s)	12.9		0.0	4.8			0.0		
Approach LOS	B		A						

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	50	0	177	14	38	308	0
Future Volume (vph)	0	0	0	1	0	50	0	177	14	38	308	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.867			0.990				
Flt Protected					0.999						0.995	
Satd. Flow (prot)	0	1879	0	0	1627	0	0	1579	0	0	1698	0
Flt Permitted					0.999						0.995	
Satd. Flow (perm)	0	1879	0	0	1627	0	0	1579	0	0	1698	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1335.9			755.9	
Travel Time (s)		8.3			74.9			60.1			34.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	13%	79%	11%	10%	0%
Adj. Flow (vph)	0	0	0	1	0	54	0	190	15	41	331	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	55	0	0	205	0	0	372	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	50	0	177	14	38	308	0
Future Volume (Veh/h)	0	0	0	1	0	50	0	177	14	38	308	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	1	0	54	0	190	15	41	331	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	664	618	331	610	610	198	331			205		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	664	618	331	610	610	198	331			205		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	100	100	94	100			97		
cM capacity (veh/h)	344	395	715	399	399	849	1240			1315		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	55	205	372
Volume Left	0	1	0	41
Volume Right	0	54	15	0
cSH	1700	832	1240	1315
Volume to Capacity	0.00	0.07	0.00	0.03
Queue Length 95th (m)	0.0	1.7	0.0	0.8
Control Delay (s)	0.0	9.6	0.0	1.1
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.6	0.0	1.1
Approach LOS	A	A		

Intersection Summary					
Average Delay	1.5				
Intersection Capacity Utilization	41.8%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	184	223	408	8
Future Volume (vph)	0	0	184	223	408	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	70.0			0.0
Storage Lanes	0	0	1			0
Taper Length (m)	7.5		25.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997	
Flt Protected			0.950			
Satd. Flow (prot)	0	0	901	1606	1360	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	901	1606	1360	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1002.4	
Travel Time (s)	14.6			4.4	45.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	98%	17%	37%	75%
Adj. Flow (vph)	0	0	198	240	439	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	198	240	448	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	184	223	408	8
Future Volume (Veh/h)	0	0	184	223	408	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	198	240	439	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1080	444	448			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1080	444	448			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	74			
cM capacity (veh/h)	179	619	747			

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	198	240	448
Volume Left	198	0	0
Volume Right	0	0	9
cSH	747	1700	1700
Volume to Capacity	0.26	0.14	0.26
Queue Length 95th (m)	8.5	0.0	0.0
Control Delay (s)	11.5	0.0	0.0
Lane LOS	B		
Approach Delay (s)	5.2		0.0
Approach LOS			

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	0	51	0	0	0	0	386	7	1	413	0
Future Volume (vph)	15	0	51	0	0	0	0	386	7	1	413	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.997				
Flt Protected	0.950											
Satd. Flow (prot)	892	0	799	0	1879	0	0	1232	0	0	1382	0
Flt Permitted	0.950											
Satd. Flow (perm)	892	0	799	0	1879	0	0	1232	0	0	1382	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.0			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	100%	0%	100%	0%	0%	0%	0%	53%	0%	0%	36%	0%
Adj. Flow (vph)	16	0	56	0	0	0	0	424	8	1	454	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	0	56	0	0	0	0	432	0	0	455	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary				
Area Type:	Other			
Control Type: Unsignalized				
Intersection Capacity Utilization	32.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	51	0	0	0	0	386	7	1	413	0
Future Volume (Veh/h)	15	0	51	0	0	0	0	386	7	1	413	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	16	0	56	0	0	0	0	424	8	1	454	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	884	888	454	940	884	428	454			432		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	884	888	454	940	884	428	454			432		
tC, single (s)	8.1	6.5	7.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.4	4.0	4.2	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	100	87	100	100	100	100			100		
cM capacity (veh/h)	183	285	445	215	286	631	1117			1138		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	16	56	0	432	455
Volume Left	16	0	0	0	1
Volume Right	0	56	0	8	0
cSH	183	445	1700	1700	1138
Volume to Capacity	0.09	0.13	0.00	0.25	0.00
Queue Length 95th (m)	2.3	3.4	0.0	0.0	0.0
Control Delay (s)	26.5	14.2	0.0	0.0	0.0
Lane LOS	D	B	A		A
Approach Delay (s)	17.0		0.0	0.0	0.0
Approach LOS	C		A		

Intersection Summary					
Average Delay		1.3			
Intersection Capacity Utilization		32.5%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	433	66	151	561	122	84	166	132	103	206	174
Future Volume (vph)	167	433	66	151	561	122	84	166	132	103	206	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		0.0	50.0		40.0	50.0		50.0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (m)	20.0			40.0			50.0			50.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1020	1486	0	1668	1620	962	1526	1693	1536	1116	1708	878
Flt Permitted	0.281			0.414			0.541			0.632		
Satd. Flow (perm)	302	1486	0	727	1620	962	869	1693	1536	742	1708	878
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				124			135			178
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			3659.8			733.9			751.3	
Travel Time (s)		66.6			164.7			33.0			33.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	75%	25%	17%	7%	16%	66%	17%	11%	4%	60%	10%	82%
Adj. Flow (vph)	170	442	67	154	572	124	86	169	135	105	210	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	509	0	154	572	124	86	169	135	105	210	178
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2		2	8		8	4		4
Detector Phase	1	6		5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0	50.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	58.0		11.0	58.0	58.0	18.0	18.0	18.0	18.0	18.0	18.0
Total Split (s)	17.0	64.0		11.0	58.0	58.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	14.8%	55.7%		9.6%	50.4%	50.4%	34.8%	34.8%	34.8%	34.8%	34.8%	34.8%
Maximum Green (s)	13.0	56.0		7.0	50.0	50.0	32.0	32.0	32.0	32.0	32.0	32.0
Yellow Time (s)	3.0	5.0		3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	3.0		1.0	3.0	3.0	3.0	3.0	3.0	3.0	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	0.0
Total Lost Time (s)	4.0	8.0		4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	0.2		3.0	0.2	0.2	5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	Max		None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	70.6	56.2		62.8	51.8	51.8	22.0	22.0	22.0	22.0	22.0	22.0
Actuated g/C Ratio	0.67	0.53		0.60	0.49	0.49	0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.61	0.64		0.31	0.72	0.23	0.48	0.48	0.32	0.68	0.59	0.55
Control Delay	18.0	23.1		9.6	29.6	4.6	45.0	40.7	7.6	60.0	44.1	11.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	23.1		9.6	29.6	4.6	45.0	40.7	7.6	60.0	44.1	11.9
LOS	B	C		A	C	A	D	D	A	E	D	B
Approach Delay		21.8			22.3			30.2			35.9	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 105.3			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 93.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	433	66	151	561	122	84	166	132	103	206	174
Future Volume (vph)	167	433	66	151	561	122	84	166	132	103	206	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1020	1486		1668	1620	962	1526	1693	1536	1116	1708	878
Flt Permitted	0.28	1.00		0.41	1.00	1.00	0.54	1.00	1.00	0.63	1.00	1.00
Satd. Flow (perm)	302	1486		726	1620	962	869	1693	1536	742	1708	878
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)	170	442	67	154	572	124	86	169	135	105	210	178
RTOR Reduction (vph)	0	4	0	0	0	63	0	0	107	0	0	141
Lane Group Flow (vph)	170	505	0	154	572	61	86	169	28	105	210	37
Heavy Vehicles (%)	75%	25%	17%	7%	16%	66%	17%	11%	4%	60%	10%	82%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2		2	8		8	4		4
Actuated Green, G (s)	67.3	56.3		58.8	51.8	51.8	22.0	22.0	22.0	22.0	22.0	22.0
Effective Green, g (s)	67.3	56.3		58.8	51.8	51.8	22.0	22.0	22.0	22.0	22.0	22.0
Actuated g/C Ratio	0.64	0.53		0.56	0.49	0.49	0.21	0.21	0.21	0.21	0.21	0.21
Clearance Time (s)	4.0	8.0		4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Vehicle Extension (s)	3.0	0.2		3.0	0.2	0.2	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	271	794		468	796	473	181	353	320	155	356	183
v/s Ratio Prot	c0.07	0.34		0.02	c0.35			0.10			0.12	
v/s Ratio Perm	0.33			0.16		0.06	0.10		0.02	c0.14		0.04
v/c Ratio	0.63	0.64		0.33	0.72	0.13	0.48	0.48	0.09	0.68	0.59	0.20
Uniform Delay, d1	11.4	17.3		11.6	21.0	14.5	36.6	36.6	33.6	38.4	37.6	34.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.5	3.9		0.4	5.5	0.6	4.1	2.1	0.2	14.3	3.8	1.2
Delay (s)	15.9	21.1		12.0	26.6	15.1	40.7	38.7	33.8	52.7	41.4	35.6
Level of Service	B	C		B	C	B	D	D	C	D	D	D
Approach Delay (s)		19.8			22.2			37.5			41.7	
Approach LOS		B			C			D			D	

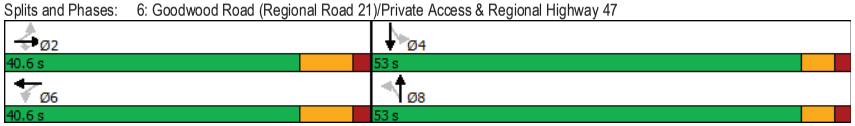
Intersection Summary				
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.70			
Actuated Cycle Length (s)	105.3	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	93.4%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	232	285	6	419	2	336	1	6	1	1	0
Future Volume (vph)	0	232	285	6	419	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		0.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.869				
Flt Protected				0.950			0.950				0.976	
Satd. Flow (prot)	1879	1479	1238	1190	2950	0	1552	1633	0	0	1834	0
Flt Permitted				0.596			0.757				0.955	
Satd. Flow (perm)	1879	1479	1238	747	2950	0	1237	1633	0	0	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324					7				
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		3659.8			582.9			342.6			169.6	
Travel Time (s)		164.7			42.0			24.7			12.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	27%	29%	50%	21%	0%	15%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	264	324	7	476	2	382	1	7	1	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	264	324	7	478	0	382	8	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	40.6	40.6	40.6	40.6	40.6		53.0	53.0		53.0	53.0	
Total Split (%)	43.4%	43.4%	43.4%	43.4%	43.4%		56.6%	56.6%		56.6%	56.6%	
Maximum Green (s)	32.6	32.6	32.6	32.6	32.6		47.4	47.4		47.4	47.4	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		33.1	33.1	33.1	33.1		27.6	27.6			27.6	
Actuated g/C Ratio		0.44	0.44	0.44	0.44		0.37	0.37			0.37	
v/c Ratio		0.40	0.44	0.02	0.37		0.83	0.01			0.00	
Control Delay		18.8	4.5	16.3	16.6		37.2	8.0			12.5	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		18.8	4.5	16.3	16.6		37.2	8.0			12.5	
LOS		B	A	B	B		D	A			B	
Approach Delay		11.0			16.6			36.6			12.5	
Approach LOS		B			B			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 74.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 19.7		Intersection LOS: B	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	232	285	6	419	2	336	1	6	1	1	0
Future Volume (vph)	0	232	285	6	419	2	336	1	6	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor		1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)		1479	1238	1190	2951		1552	1632			1833	
Flt Permitted		1.00	1.00	0.60	1.00		0.76	1.00			0.96	
Satd. Flow (perm)		1479	1238	747	2951		1236	1632			1795	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	264	324	7	476	2	382	1	7	1	1	0
RTOR Reduction (vph)	0	0	180	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	264	144	7	478	0	382	4	0	0	2	0
Heavy Vehicles (%)	0%	27%	29%	50%	21%	0%	15%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)		33.1	33.1	33.1	33.1		27.6	27.6			27.6	
Effective Green, g (s)		33.1	33.1	33.1	33.1		27.6	27.6			27.6	
Actuated g/C Ratio		0.45	0.45	0.45	0.45		0.37	0.37			0.37	
Clearance Time (s)		8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)		4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)		658	551	332	1314		459	606			666	
v/s Ratio Prot		c0.18			0.16			0.00				
v/s Ratio Perm			0.12	0.01			c0.31				0.00	
v/c Ratio		0.40	0.26	0.02	0.36		0.83	0.01			0.00	
Uniform Delay, d1		13.9	12.9	11.5	13.6		21.2	14.7			14.7	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		1.8	1.2	0.1	0.8		12.2	0.0			0.0	
Delay (s)		15.7	14.1	11.6	14.4		33.4	14.7			14.7	
Level of Service		B	B	B	B		C	B			B	
Approach Delay (s)		14.8			14.4			33.1			14.7	
Approach LOS		B			B			C			B	

Intersection Summary					
HCM 2000 Control Delay		19.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio		0.60			
Actuated Cycle Length (s)		74.3	Sum of lost time (s)	13.6	
Intersection Capacity Utilization		69.7%	ICU Level of Service	C	
Analysis Period (min)		15			
c Critical Lane Group					

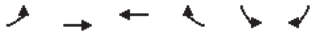
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	231	9	4	398	4	17	10	5	6	8	18
Future Volume (vph)	8	231	9	4	398	4	17	10	5	6	8	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.999			0.977			0.925	
Flt Protected		0.998						0.974			0.990	
Satd. Flow (prot)	0	1491	0	0	1541	0	0	1788	0	0	1617	0
Flt Permitted		0.998						0.974			0.990	
Satd. Flow (perm)	0	1491	0	0	1541	0	0	1788	0	0	1617	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1219.9	
Travel Time (s)		42.0			29.8			32.7			87.8	
Confl. Peds. (#/hr)			1	1					2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	27%	0%	25%	22%	0%	0%	0%	0%	33%	0%	0%
Adj. Flow (vph)	9	257	10	4	442	4	19	11	6	7	9	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	276	0	0	450	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	231	9	4	398	4	17	10	5	6	8	18
Future Volume (Veh/h)	8	231	9	4	398	4	17	10	5	6	8	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	257	10	4	442	4	19	11	6	7	9	20
Pedestrians					2			1				
Lane Width (m)					3.5			3.5				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	446			268			758	735	265	746	738	444
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	446			268			758	735	265	746	738	444
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.4	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.8	4.0	3.3
p0 queue free %	99			100			94	97	99	98	97	97
cM capacity (veh/h)	1125			1173			306	345	777	281	344	618

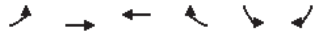
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	276	450	36	36
Volume Left	9	4	19	7
Volume Right	10	4	6	20
cSH	1125	1173	354	432
Volume to Capacity	0.01	0.00	0.10	0.08
Queue Length 95th (m)	0.2	0.1	2.7	2.2
Control Delay (s)	0.3	0.1	16.3	14.1
Lane LOS	A	A	C	B
Approach Delay (s)	0.3	0.1	16.3	14.1
Approach LOS			C	B

Intersection Summary					
Average Delay	1.6				
Intersection Capacity Utilization	34.3%	ICU Level of Service		A	
Analysis Period (min)	15				



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	211	420	13	0	23
Future Volume (vph)	0	211	420	13	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.865	
Flt Protected						
Satd. Flow (prot)	0	1457	1620	799	813	0
Flt Permitted						
Satd. Flow (perm)	0	1457	1620	799	813	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	29%	16%	100%	0%	100%
Adj. Flow (vph)	0	264	525	16	0	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	264	525	16	29	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	211	420	13	0	23
Future Volume (Veh/h)	0	211	420	13	0	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	264	525	16	0	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	541				789	525
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	541				789	525
tC, single (s)	4.1				6.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	4.2
p0 queue free %	100				100	93
cM capacity (veh/h)	1038				362	401

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	264	525	16	29
Volume Left	0	0	0	0
Volume Right	0	0	16	29
cSH	1700	1700	1700	401
Volume to Capacity	0.16	0.31	0.01	0.07
Queue Length 95th (m)	0.0	0.0	0.0	1.9
Control Delay (s)	0.0	0.0	0.0	14.7
Lane LOS				B
Approach Delay (s)	0.0	0.0		14.7
Approach LOS				B

Intersection Summary				
Average Delay		0.5		
Intersection Capacity Utilization		32.1%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	232	17	134	361	31	100
Future Volume (vph)	232	17	134	361	31	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1480	0	1668	1620	986	1479
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1480	0	1668	1620	986	1479
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	23%	65%	7%	16%	81%	8%
Adj. Flow (vph)	261	19	151	406	35	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	280	0	151	406	35	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	232	17	134	361	31	100
Future Volume (Veh/h)	232	17	134	361	31	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	261	19	151	406	35	112
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			280		978	270
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			280		978	270
tC, single (s)			4.2		7.2	6.3
tC, 2 stage (s)						
tF (s)			2.3		4.2	3.4
p0 queue free %			88		80	85
cM capacity (veh/h)			1254		178	754

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	280	151	406	147
Volume Left	0	151	0	35
Volume Right	19	0	0	112
cSH	1700	1254	1700	746
Volume to Capacity	0.16	0.12	0.24	0.20
Queue Length 95th (m)	0.0	3.3	0.0	5.8
Control Delay (s)	0.0	8.3	0.0	15.3
Lane LOS		A		C
Approach Delay (s)	0.0	2.2		15.3
Approach LOS				C

Intersection Summary				
Average Delay		3.5		
Intersection Capacity Utilization		34.0%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	120	0	192	310	0
Future Volume (vph)	0	120	0	192	310	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	813	0	0	1579	1708	0
Flt Permitted						
Satd. Flow (perm)	813	0	0	1579	1708	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	150.4			1002.4	1335.9	
Travel Time (s)	10.8			45.1	60.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	100%	0%	19%	10%	0%
Adj. Flow (vph)	0	129	0	206	333	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	129	0	0	206	333	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	120	0	192	310	0
Future Volume (Veh/h)	0	120	0	192	310	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	129	0	206	333	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	539	333	333			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	539	333	333			
tC, single (s)	6.4	7.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	4.2	2.2			
p0 queue free %	100	76	100			
cM capacity (veh/h)	507	531	1238			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	129	206	333
Volume Left	0	0	0
Volume Right	129	0	0
cSH	531	1238	1700
Volume to Capacity	0.24	0.00	0.20
Queue Length 95th (m)	7.6	0.0	0.0
Control Delay (s)	13.9	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.9	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	14	0	10	31
Future Volume (vph)	0	0	14	0	10	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.988
Satd. Flow (prot)	1879	0	1879	0	0	1444
Flt Permitted						0.988
Satd. Flow (perm)	1879	0	1879	0	0	1444
Link Speed (k/h)	50		50			50
Link Distance (m)	344.6		1219.9			407.9
Travel Time (s)	24.8		87.8			29.4
Confl. Peds. (#/hr)		1				
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	100%	6%
Adj. Flow (vph)	0	0	17	0	12	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	17	0	0	50
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	14	0	10	31
Future Volume (Veh/h)	0	0	14	0	10	31
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	17	0	12	38
Pedestrians						1
Lane Width (m)						3.5
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79	18			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79	18			17	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			99	
cM capacity (veh/h)	919	1065			1142	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	17	50
Volume Left	0	0	12
Volume Right	0	0	0
cSH	1700	1700	1142
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (m)	0.0	0.0	0.3
Control Delay (s)	0.0	0.0	2.0
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	2.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	NB
Directions Served	L	TR	L
Maximum Queue (m)	21.3	28.7	34.4
Average Queue (m)	6.7	9.5	9.6
95th Queue (m)	15.5	18.1	21.4
Link Distance (m)		574.9	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)	80.0		50.0
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: York-Durham Line & Wagg Road

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (m)	15.5	22.1
Average Queue (m)	6.3	1.7
95th Queue (m)	12.1	9.8
Link Distance (m)	1653.9	736.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB	SB
Directions Served	L	TR
Maximum Queue (m)	61.8	20.8
Average Queue (m)	21.4	1.3
95th Queue (m)	49.2	9.0
Link Distance (m)		986.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)	70.0	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB
Directions Served	L	R
Maximum Queue (m)	23.6	20.2
Average Queue (m)	6.5	12.6
95th Queue (m)	21.2	23.4
Link Distance (m)	190.3	190.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	R	L	T	R
Maximum Queue (m)	74.9	179.8	94.9	174.8	45.6	54.4	62.0	60.0	75.5	62.7	68.7
Average Queue (m)	46.6	85.1	35.6	98.9	21.5	19.2	25.2	2.0	37.1	38.8	25.2
95th Queue (m)	82.8	151.2	91.3	146.1	42.6	36.1	46.4	19.8	66.9	64.4	53.4
Link Distance (m)		1467.0		3634.3	3634.3		719.9			722.5	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (m)	55.0		55.0			50.0		40.0	50.0		50.0
Storage Blk Time (%)	8	15		27		0	2		9	3	2
Queuing Penalty (veh)	41	24		41		1	4		35	8	5

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	WB	WB	WB	NB	NB
Directions Served	T	L	T	TR	L	TR
Maximum Queue (m)	78.6	19.3	43.0	46.2	49.8	87.7
Average Queue (m)	24.1	1.4	19.9	22.0	39.9	14.0
95th Queue (m)	57.0	8.8	35.9	40.3	54.7	59.9
Link Distance (m)	3634.3		556.1			328.2
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)		50.0		25.0	30.0	
Storage Blk Time (%)	0		4	6	18	
Queuing Penalty (veh)	0		9	13	1	

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	8.2	11.8	21.2
Average Queue (m)	0.5	4.2	4.7
95th Queue (m)	3.8	9.2	13.2
Link Distance (m)	556.1	439.5	1197.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	SB
Directions Served	LR
Maximum Queue (m)	18.0
Average Queue (m)	8.0
95th Queue (m)	19.0
Link Distance (m)	381.3
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	6.5	26.8	41.7
Average Queue (m)	0.2	7.0	13.0
95th Queue (m)	2.2	17.4	30.4
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

Movement	EB
Directions Served	LR
Maximum Queue (m)	66.2
Average Queue (m)	22.2
95th Queue (m)	42.8
Link Distance (m)	141.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

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

Network Summary

Network wide Queuing Penalty: 182

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	1	196	0	3	1	171	334	1	1	195	69
Future Volume (vph)	121	1	196	0	3	1	171	334	1	1	195	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	0.0		0.0	50.0		45.0	50.0		70.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	45.0			7.5			45.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851			0.973				0.850			0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1581
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1700	1509	0	0	1828	0	1733	1824	1597	1785	1789	1581
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		589.1			245.3			755.9			670.3	
Travel Time (s)		26.5			11.0			34.0			30.2	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	5%	0%	6%	0%	0%	0%	3%	3%	0%	0%	5%	1%
Adj. Flow (vph)	144	1	233	0	4	1	204	398	1	1	232	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	234	0	0	5	0	204	398	1	1	232	82
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	1	196	0	3	1	171	334	1	1	195	69
Future Volume (Veh/h)	121	1	196	0	3	1	171	334	1	1	195	69
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	144	1	233	0	4	1	204	398	1	1	232	82
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1043	1041	232	1274	1122	398	314			399		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1043	1041	232	1274	1122	398	314			399		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	18	99	71	100	98	100	84			100		
cM capacity (veh/h)	175	194	797	90	173	656	1241			1171		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	144	234	5	204	398	1	1	232	82
Volume Left	144	0	0	204	0	0	1	0	0
Volume Right	0	233	1	0	0	1	0	0	82
cSH	175	787	203	1241	1700	1700	1171	1700	1700
Volume to Capacity	0.82	0.30	0.02	0.16	0.23	0.00	0.00	0.14	0.05
Queue Length 95th (m)	45.1	10.0	0.6	4.7	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	81.2	11.5	23.2	8.5	0.0	0.0	8.1	0.0	0.0
Lane LOS	F	B	C	A			A		
Approach Delay (s)	38.0		23.2	2.9			0.0		
Approach LOS	E		C						

Intersection Summary			
Average Delay	12.5		
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	2	0	47	2	384	9	72	263	0
Future Volume (vph)	2	0	0	2	0	47	2	384	9	72	263	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.870			0.997				
Flt Protected		0.950			0.998						0.989	
Satd. Flow (prot)	0	1785	0	0	1571	0	0	1829	0	0	1764	0
Flt Permitted		0.950			0.998						0.989	
Satd. Flow (perm)	0	1785	0	0	1571	0	0	1829	0	0	1764	0
Link Speed (k/h)		50			80			80			80	
Link Distance (m)		115.6			1663.8			1337.2			755.9	
Travel Time (s)		8.3			74.9			60.2			34.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	22%	3%	6%	0%
Adj. Flow (vph)	2	0	0	2	0	53	2	431	10	81	296	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	55	0	0	443	0	0	377	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	0	2	0	47	2	384	9	72	263	0
Future Volume (Veh/h)	2	0	0	2	0	47	2	384	9	72	263	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	0	0	2	0	53	2	431	10	81	296	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	951	903	296	898	898	436	296			441		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	951	903	296	898	898	436	296			441		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	99	100	91	100			93		
cM capacity (veh/h)	208	259	748	248	260	616	1277			1114		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	55	443	377
Volume Left	2	2	2	81
Volume Right	0	53	10	0
cSH	208	584	1277	1114
Volume to Capacity	0.01	0.09	0.00	0.07
Queue Length 95th (m)	0.2	2.5	0.0	1.9
Control Delay (s)	22.5	11.8	0.1	2.4
Lane LOS	C	B	A	A
Approach Delay (s)	22.5	11.8	0.1	2.4
Approach LOS	C	B		

Intersection Summary					
Average Delay		1.9			
Intersection Capacity Utilization	52.0%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	60	360	286	7
Future Volume (vph)	0	0	60	360	286	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	70.0			0.0
Storage Lanes	0	0	1			0
Taper Length (m)	7.5		25.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997	
Flt Protected			0.950			
Satd. Flow (prot)	0	0	901	1708	1591	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	901	1708	1591	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	203.3			96.8	1001.1	
Travel Time (s)	14.6			4.4	45.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	98%	10%	16%	86%
Adj. Flow (vph)	0	0	67	400	318	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	67	400	326	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	60	360	286	7
Future Volume (Veh/h)	0	0	60	360	286	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	67	400	318	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	856	322	326			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	856	322	326			
tC, single (s)	6.4	6.2	5.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	3.1			
p0 queue free %	100	100	92			
cM capacity (veh/h)	305	724	845			

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	67	400	326
Volume Left	67	0	0
Volume Right	0	0	8
cSH	845	1700	1700
Volume to Capacity	0.08	0.24	0.19
Queue Length 95th (m)	2.1	0.0	0.0
Control Delay (s)	9.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	1.4		0.0
Approach LOS			

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	45	10	0	2	0	413	2	0	292	0
Future Volume (vph)	7	0	45	10	0	2	0	413	2	0	292	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.979			0.999				
Flt Protected	0.950				0.959							
Satd. Flow (prot)	1137	0	827	0	1764	0	0	1527	0	0	1620	0
Flt Permitted	0.950				0.959							
Satd. Flow (perm)	1137	0	827	0	1764	0	0	1527	0	0	1620	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		200.7			114.2			751.3			96.8	
Travel Time (s)		14.5			8.2			33.8			4.4	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	57%	0%	93%	0%	0%	0%	0%	23%	0%	0%	16%	0%
Adj. Flow (vph)	8	0	49	11	0	2	0	449	2	0	317	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	0	49	0	13	0	0	451	0	0	317	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	45	10	0	2	0	413	2	0	292	0
Future Volume (Veh/h)	7	0	45	10	0	2	0	413	2	0	292	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	49	11	0	2	0	449	2	0	317	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	769	768	317	816	767	450	317			451		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	769	768	317	816	767	450	317			451		
tC, single (s)	7.7	6.5	7.1	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.0	4.0	4.1	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	91	96	100	100	100			100		
cM capacity (veh/h)	259	334	554	272	335	613	1255			1120		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	8	49	13	451	317
Volume Left	8	0	11	0	0
Volume Right	0	49	2	2	0
cSH	259	554	297	1700	1120
Volume to Capacity	0.03	0.09	0.04	0.27	0.00
Queue Length 95th (m)	0.8	2.3	1.1	0.0	0.0
Control Delay (s)	19.4	12.1	17.7	0.0	0.0
Lane LOS	C	B	C		
Approach Delay (s)	13.1		17.7	0.0	0.0
Approach LOS	B		C		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	779	95	197	559	64	71	247	199	76	229	92
Future Volume (vph)	71	779	95	197	559	64	71	247	199	76	229	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		15.0	55.0		0.0	50.0		40.0	50.0		50.0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (m)	20.0			40.0			50.0			50.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1405	1742	0	1767	1740	1365	1684	1824	1551	1463	1824	1258
Flt Permitted	0.364			0.089			0.374			0.327		
Satd. Flow (perm)	539	1742	0	166	1740	1365	663	1824	1551	504	1824	1258
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				82			176			100
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1480.5			3659.8			733.9			751.3	
Travel Time (s)		66.6			164.7			33.0			33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	27%	6%	7%	1%	8%	17%	6%	3%	3%	22%	3%	27%
Adj. Flow (vph)	77	847	103	214	608	70	77	268	216	83	249	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	950	0	214	608	70	77	268	216	83	249	100
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2		2	8		8	4		4
Detector Phase	1	6		5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	50.0		7.0	50.0	50.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	58.0		11.0	58.0	58.0	18.0	18.0	18.0	18.0	18.0	18.0
Total Split (s)	11.0	77.0		14.0	80.0	80.0	29.0	29.0	29.0	29.0	29.0	29.0
Total Split (%)	9.2%	64.2%		11.7%	66.7%	66.7%	24.2%	24.2%	24.2%	24.2%	24.2%	24.2%
Maximum Green (s)	7.0	69.0		10.0	72.0	72.0	21.0	21.0	21.0	21.0	21.0	21.0
Yellow Time (s)	3.0	5.0		3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	3.0		1.0	3.0	3.0	3.0	3.0	3.0	3.0	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	0.0
Total Lost Time (s)	4.0	8.0		4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	0.2		3.0	0.2	0.2	5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	Max		None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	80.0	69.0		86.2	74.2	74.2	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.67	0.58		0.72	0.62	0.62	0.18	0.18	0.18	0.18	0.18	0.18
v/c Ratio	0.19	0.95		0.85	0.57	0.08	0.66	0.84	0.52	0.94	0.78	0.33
Control Delay	6.2	42.4		48.2	16.6	1.8	74.3	71.1	15.5	131.8	65.1	11.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	42.4		48.2	16.6	1.8	74.3	71.1	15.5	131.8	65.1	11.4
LOS	A	D		D	B	A	E	E	B	F	E	B
Approach Delay		39.7			23.0			50.1			65.5	
Approach LOS		D			C			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 40.4		Intersection LOS: D	
Intersection Capacity Utilization 102.3%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 5: York-Durham Line & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	779	95	197	559	64	71	247	199	76	229	92
Future Volume (vph)	71	779	95	197	559	64	71	247	199	76	229	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0		4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1405	1742		1767	1740	1365	1684	1824	1551	1463	1824	1258
Flt Permitted	0.36	1.00		0.09	1.00	1.00	0.37	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	538	1742		166	1740	1365	662	1824	1551	503	1824	1258
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	847	103	214	608	70	77	268	216	83	249	100
RTOR Reduction (vph)	0	4	0	0	0	27	0	0	145	0	0	83
Lane Group Flow (vph)	77	946	0	214	608	43	77	268	71	83	249	17
Heavy Vehicles (%)	27%	6%	7%	1%	8%	17%	6%	3%	3%	22%	3%	27%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2		2	8		8	4		4
Actuated Green, G (s)	75.4	69.8		83.8	74.2	74.2	21.0	21.0	21.0	21.0	21.0	21.0
Effective Green, g (s)	75.4	69.8		83.8	74.2	74.2	21.0	21.0	21.0	21.0	21.0	21.0
Actuated g/C Ratio	0.62	0.58		0.69	0.61	0.61	0.17	0.17	0.17	0.17	0.17	0.17
Clearance Time (s)	4.0	8.0		4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Vehicle Extension (s)	3.0	0.2		3.0	0.2	0.2	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	375	1006		247	1068	838	115	317	269	87	317	218
v/s Ratio Prot	0.01	c0.54		c0.07	0.35			0.15			0.14	
v/s Ratio Perm	0.12			0.53		0.03	0.12		0.05	c0.17		0.01
v/c Ratio	0.21	0.94		0.87	0.57	0.05	0.67	0.85	0.26	0.95	0.79	0.08
Uniform Delay, d1	9.6	23.6		30.1	13.8	9.3	46.7	48.3	43.2	49.4	47.7	41.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	17.2		25.7	2.2	0.1	17.9	20.0	1.1	82.1	13.8	0.3
Delay (s)	9.9	40.8		55.8	16.0	9.4	64.5	68.3	44.3	131.5	61.6	42.1
Level of Service	A	D		E	B	A	E	E	D	F	E	D
Approach Delay (s)		38.5			25.0			58.5			70.5	
Approach LOS		D			C			E			E	

Intersection Summary				
HCM 2000 Control Delay	43.0	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.94			
Actuated Cycle Length (s)	120.8	Sum of lost time (s)	20.0	
Intersection Capacity Utilization	102.3%	ICU Level of Service	G	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	491	446	6	312	4	281	3	1	5	2	2
Future Volume (vph)	2	491	446	6	312	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	70.0		50.0	50.0		25.0	30.0		0.0	0.0		0.0
Storage Lanes	1		0	1		1	1		0	0		0
Taper Length (m)	100.0			75.0			20.0			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.97	1.00								
Frt			0.850		0.998			0.962			0.970	
Flt Protected	0.950			0.950			0.950				0.973	
Satd. Flow (prot)	1785	1807	1493	1526	3332	0	1638	1807	0	0	1773	0
Flt Permitted	0.546			0.382			0.752				0.925	
Satd. Flow (perm)	1026	1807	1455	612	3332	0	1296	1807	0	0	1686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			485		2			1			2	
Link Speed (k/h)		80			50			50			50	
Link Distance (m)		3659.8			582.9			342.6			169.6	
Travel Time (s)		164.7			42.0			24.7			12.2	
Confl. Peds. (#/hr)			3	3								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	7%	17%	7%	0%	9%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	534	485	7	339	4	305	3	1	5	2	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	534	485	7	343	0	305	4	0	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	25.0	25.0	25.0	25.0	25.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	35.0	35.0	35.0	35.0	35.0		25.0	25.0		25.0	25.0	
Total Split (s)	51.6	51.6	51.6	51.6	51.6		42.0	42.0		42.0	42.0	
Total Split (%)	55.1%	55.1%	55.1%	55.1%	55.1%		44.9%	44.9%		44.9%	44.9%	
Maximum Green (s)	43.6	43.6	43.6	43.6	43.6		36.4	36.4		36.4	36.4	
Yellow Time (s)	5.9	5.9	5.9	5.9	5.9		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1		1.9	1.9		1.9	1.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None		None	None	
Walk Time (s)	20.0	20.0	20.0	20.0	20.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)	7.0	7.0	7.0	7.0	7.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	44.0	44.0	44.0	44.0	44.0		24.0	24.0			24.0	
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54		0.29	0.29			0.29	
v/c Ratio	0.00	0.55	0.48	0.02	0.19		0.80	0.01			0.02	
Control Delay	12.0	16.8	3.2	12.3	11.4		42.5	16.8			16.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	12.0	16.8	3.2	12.3	11.4		42.5	16.8			16.8	
LOS	B	B	A	B	B		D	B			B	
Approach Delay		10.3			11.4			42.2			16.8	
Approach LOS		B			B			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 93.6			
Actuated Cycle Length: 81.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	491	446	6	312	4	281	3	1	5	2	2
Future Volume (vph)	2	491	446	6	312	4	281	3	1	5	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1785	1807	1456	1523	3333		1638	1808			1773	
Flt Permitted	0.55	1.00	1.00	0.38	1.00		0.75	1.00			0.92	
Satd. Flow (perm)	1025	1807	1456	613	3333		1296	1808			1686	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	534	485	7	339	4	305	3	1	5	2	2
RTOR Reduction (vph)	0	0	223	0	1	0	0	1	0	0	1	0
Lane Group Flow (vph)	2	534	262	7	342	0	305	3	0	0	8	0
Confl. Peds. (#/hr)			3	3								
Heavy Vehicles (%)	0%	4%	7%	17%	7%	0%	9%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	44.0	44.0	44.0	44.0	44.0		24.0	24.0			24.0	
Effective Green, g (s)	44.0	44.0	44.0	44.0	44.0		24.0	24.0			24.0	
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54		0.29	0.29			0.29	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0		5.6	5.6			5.6	
Vehicle Extension (s)	4.2	4.2	4.2	4.2	4.2		3.0	3.0			3.0	
Lane Grp Cap (vph)	552	974	785	330	1797		381	531			495	
v/s Ratio Prot		c0.30			0.10			0.00				
v/s Ratio Perm	0.00		0.18	0.01			c0.24				0.00	
v/c Ratio	0.00	0.55	0.33	0.02	0.19		0.80	0.01			0.02	
Uniform Delay, d1	8.7	12.3	10.6	8.8	9.7		26.6	20.4			20.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	2.2	1.1	0.1	0.2		11.4	0.0			0.0	
Delay (s)	8.7	14.5	11.7	8.9	9.9		38.0	20.4			20.4	
Level of Service	A	B	B	A	A		D	C			C	
Approach Delay (s)		13.2			9.9			37.8			20.4	
Approach LOS		B			A			D			C	

Intersection Summary					
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio	0.64				
Actuated Cycle Length (s)	81.6	Sum of lost time (s)		13.6	
Intersection Capacity Utilization	76.8%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

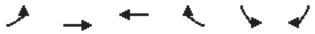
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	448	25	5	315	7	12	14	10	4	18	14
Future Volume (vph)	21	448	25	5	315	7	12	14	10	4	18	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.997			0.962			0.947	
Flt Protected		0.998			0.999			0.984			0.995	
Satd. Flow (prot)	0	1797	0	0	1753	0	0	1732	0	0	1770	0
Flt Permitted		0.998			0.999			0.984			0.995	
Satd. Flow (perm)	0	1797	0	0	1753	0	0	1732	0	0	1770	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		582.9			414.1			453.8			1180.4	
Travel Time (s)		42.0			29.8			32.7			85.0	
Confl. Peds. (#/hr)	7		5	5		7	3		3	3		3
Confl. Bikes (#/hr)									2			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	4%	0%	0%	7%	0%	0%	7%	0%	0%	0%	0%
Adj. Flow (vph)	23	482	27	5	339	8	13	15	11	4	19	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	532	0	0	352	0	0	39	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	448	25	5	315	7	12	14	10	4	18	14
Future Volume (Veh/h)	21	448	25	5	315	7	12	14	10	4	18	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	23	482	27	5	339	8	13	15	11	4	19	15
Pedestrians		3			3			5			7	
Lane Width (m)		3.5			3.5			3.5			3.5	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	354			514			927	910	504	923	920	353
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	354			514			927	910	504	923	920	353
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.3
p0 queue free %	98			100			94	94	98	98	93	98
cM capacity (veh/h)	1209			1058			225	260	569	229	264	690

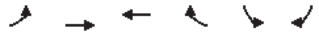
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	532	352	39	38
Volume Left	23	5	13	4
Volume Right	27	8	11	15
cSH	1209	1058	289	342
Volume to Capacity	0.02	0.00	0.13	0.11
Queue Length 95th (m)	0.5	0.1	3.7	3.0
Control Delay (s)	0.6	0.2	19.4	16.9
Lane LOS	A	A	C	C
Approach Delay (s)	0.6	0.2	19.4	16.9
Approach LOS			C	C

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	49.2%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱	↰↑	
Traffic Volume (vph)	2	461	326	4	2	6
Future Volume (vph)	2	461	326	4	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			100.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.895	
Flt Protected					0.989	
Satd. Flow (prot)	0	1807	1789	799	935	0
Flt Permitted					0.989	
Satd. Flow (perm)	0	1807	1789	799	935	0
Link Speed (k/h)		50	80		50	
Link Distance (m)		414.1	3724.8		393.5	
Travel Time (s)		29.8	167.6		28.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	4%	5%	100%	0%	100%
Adj. Flow (vph)	2	507	358	4	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	509	358	4	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱	↰↑	
Traffic Volume (veh/h)	2	461	326	4	2	6
Future Volume (Veh/h)	2	461	326	4	2	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	2	507	358	4	2	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	362				869	358
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				869	358
tC, single (s)	4.1				6.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	4.2
p0 queue free %	100				99	99
cM capacity (veh/h)	1208				324	512

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	509	358	4	9
Volume Left	2	0	0	2
Volume Right	0	0	4	7
cSH	1208	1700	1700	454
Volume to Capacity	0.00	0.21	0.00	0.02
Queue Length 95th (m)	0.0	0.0	0.0	0.5
Control Delay (s)	0.1	0.0	0.0	13.1
Lane LOS	A			B
Approach Delay (s)	0.1	0.0		13.1
Approach LOS				B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		35.9%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	446	16	164	306	8	146
Future Volume (vph)	446	16	164	306	8	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	110.0		0.0	70.0
Storage Lanes		0	1		1	1
Taper Length (m)			75.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1809	0	1653	1773	1428	1566
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1809	0	1653	1773	1428	1566
Link Speed (k/h)	80			80	80	
Link Distance (m)	3724.8			353.6	1055.2	
Travel Time (s)	167.6			15.9	47.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	3%	13%	8%	6%	25%	2%
Adj. Flow (vph)	513	18	189	352	9	168
Shared Lane Traffic (%)						
Lane Group Flow (vph)	531	0	189	352	9	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	446	16	164	306	8	146
Future Volume (Veh/h)	446	16	164	306	8	146
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	513	18	189	352	9	168
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						9
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			531		1252	522
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			531		1252	522
tC, single (s)			4.2		6.6	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.7	3.3
p0 queue free %			81		94	70
cM capacity (veh/h)			1007		139	555

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	531	189	352	177
Volume Left	0	189	0	9
Volume Right	18	0	0	168
cSH	1700	1007	1700	584
Volume to Capacity	0.31	0.19	0.21	0.30
Queue Length 95th (m)	0.0	5.5	0.0	10.2
Control Delay (s)	0.0	9.4	0.0	15.2
Lane LOS		A		C
Approach Delay (s)	0.0	3.3		15.2
Approach LOS				C

Intersection Summary				
Average Delay		3.6		
Intersection Capacity Utilization		46.9%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	22	0	397	265	0
Future Volume (vph)	0	22	0	397	265	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	813	0	0	1842	1773	0
Flt Permitted						
Satd. Flow (perm)	813	0	0	1842	1773	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	152.3			1001.1	1337.2	
Travel Time (s)	11.0			45.0	60.2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	100%	0%	2%	6%	0%
Adj. Flow (vph)	0	25	0	446	298	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	446	298	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	22	0	397	265	0
Future Volume (Veh/h)	0	22	0	397	265	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	25	0	446	298	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	744	298	298			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	744	298	298			
tC, single (s)	6.4	7.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	4.2	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	385	559	1275			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	25	446	298
Volume Left	0	0	0
Volume Right	25	0	0
cSH	559	1275	1700
Volume to Capacity	0.04	0.00	0.18
Queue Length 95th (m)	1.1	0.0	0.0
Control Delay (s)	11.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	11.7	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	40	0	2	21
Future Volume (vph)	0	0	40	0	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						0.996
Satd. Flow (prot)	1879	0	1879	0	0	1727
Flt Permitted						0.996
Satd. Flow (perm)	1879	0	1879	0	0	1727
Link Speed (k/h)	50		50			50
Link Distance (m)	349.9		1180.4			398.2
Travel Time (s)	25.2		85.0			28.7
Confl. Bikes (#/hr)				2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	100%	0%
Adj. Flow (vph)	0	0	42	0	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	42	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.5		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	40	0	2	21
Future Volume (Veh/h)	0	0	40	0	2	21
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	42	0	2	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	68	42			42	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	68	42			42	
tC, single (s)	6.4	6.2			5.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			3.1	
p0 queue free %	100	100			100	
cM capacity (veh/h)	940	1034			1114	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	42	24
Volume Left	0	0	2
Volume Right	0	0	0
cSH	1700	1700	1114
Volume to Capacity	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: York-Durham Line & Aurora Road (Regional Road 15)/Aurora Road

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	L	L	R
Maximum Queue (m)	34.9	25.4	4.8	23.0	0.7	1.3
Average Queue (m)	12.1	10.1	0.6	8.3	0.0	0.1
95th Queue (m)	25.4	19.7	3.0	18.3	0.7	1.3
Link Distance (m)		574.9	230.8			
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	80.0			50.0	50.0	70.0
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: York-Durham Line & Wagg Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	7.0	16.9	3.5	27.3
Average Queue (m)	0.5	7.2	0.1	5.3
95th Queue (m)	3.8	13.5	2.4	18.1
Link Distance (m)	104.9	1653.9	1318.6	736.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: York-Durham Line & Pit Inbound Site Access

Movement	NB
Directions Served	L
Maximum Queue (m)	22.4
Average Queue (m)	5.9
95th Queue (m)	19.0
Link Distance (m)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	70.0
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: York-Durham Line & Pit Outbound Site Access/Private Access

Movement	EB	EB	WB
Directions Served	L	R	LTR
Maximum Queue (m)	17.4	28.6	8.3
Average Queue (m)	2.9	14.0	2.3
95th Queue (m)	12.6	25.8	8.2
Link Distance (m)	190.3	190.3	103.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: York-Durham Line & Regional Highway 47

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	R	L	T	R
Maximum Queue (m)	74.9	278.9	83.6	123.3	26.2	95.3	200.6	60.0	85.7	234.4	68.2
Average Queue (m)	26.5	164.6	30.7	50.0	4.6	37.5	89.0	25.5	51.3	95.4	17.4
95th Queue (m)	71.0	282.7	62.8	97.6	15.6	82.4	218.1	74.0	102.8	297.2	56.5
Link Distance (m)		1467.0		3634.3	3634.3		719.9			722.0	
Upstream Blk Time (%)										0	
Queuing Penalty (veh)										0	
Storage Bay Dist (m)	55.0		55.0			50.0		40.0	50.0		50.0
Storage Blk Time (%)	0	32	1	5		11	35		41	18	0
Queuing Penalty (veh)	1	23	8	10		48	95		130	30	0

Intersection: 6: Goodwood Road (Regional Road 21)/Private Access & Regional Highway 47

Movement	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	L	T	TR	L	TR	LTR
Maximum Queue (m)	5.0	76.1	12.8	34.1	36.0	49.8	73.5	9.3
Average Queue (m)	0.2	34.0	1.1	11.2	12.3	37.3	13.4	1.5
95th Queue (m)	2.2	65.3	6.5	26.9	28.4	53.8	54.7	6.6
Link Distance (m)		3634.3		556.1			328.2	155.7
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	70.0		50.0		25.0	30.0		
Storage Blk Time (%)		0		1	2	19	0	
Queuing Penalty (veh)		0		2	3	1	0	

Intersection: 7: Concession Road 3 & Regional Highway 47

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	30.1	23.8	15.0	14.8
Average Queue (m)	4.3	1.7	4.8	5.2
95th Queue (m)	19.0	11.4	11.7	11.7
Link Distance (m)	556.1	395.2	439.5	1157.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Regional Highway 47 & Goodwood Pit Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	6.9	18.1
Average Queue (m)	0.2	2.8
95th Queue (m)	4.1	11.7
Link Distance (m)	395.2	381.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Brock Road (Regional Road 1) & Regional Highway 47

Movement	EB	WB	NB
Directions Served	TR	L	L
Maximum Queue (m)	1.3	28.4	16.8
Average Queue (m)	0.0	9.7	2.0
95th Queue (m)	0.9	21.7	9.5
Link Distance (m)	3705.4		1045.3
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		110.0	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: York-Durham Line & Hillsdale Drive

Movement	EB
Directions Served	LR
Maximum Queue (m)	22.8
Average Queue (m)	8.6
95th Queue (m)	22.4
Link Distance (m)	143.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Concession Road 3 & Goodwood Pit Site Access

Movement	SB
Directions Served	LT
Maximum Queue (m)	3.1
Average Queue (m)	0.1
95th Queue (m)	2.2
Link Distance (m)	391.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 350

Appendix D:
Sightline Assessment





NOTES:

-85m REQUIRED STOPPING SIGHT DISTANCE FOR A DESIGN SPEED OF 60 km/hr BASED ON THE TRANSPORTATION ASSOCIATION OF CANADA GUIDELINE.

-AVAILABLE STOPPING SIGHT DISTANCE FOR DRIVERS LOOKING NORTH IS 106m WHICH SATISFIES THE REQUIRED STOPPING SIGHT DISTANCE OF 85m.

-AVAILABLE STOPPING SIGHT DISTANCE FOR DRIVERS LOOKING SOUTH IS 113m WHICH SATISFIES THE REQUIRED STOPPING SIGHT DISTANCE OF 85m.

LEGEND

SIGHT LINE

AVAILABLE STOPPING SIGHT DISTANCE

TYLin
3381 Steeles Avenue East,
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Toronto, ON
M2H 3S7
p: 905.738.5700

GOODWOOD PIT
CONCESSION ROAD 3 SITE ACCESS REVIEW- STOPPING SIGHT DISTANCE

SCALE
N.T.S

DRAWING No.
001

DATE
NOV 2024





NOTES:

-130m REQUIRED INTERSECTION SIGHT DISTANCE- CASE B1 LEFT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr BASED ON THE TRANSPORTATION ASSOCIATION OF CANADA GUIDELINE.

-AVAILABLE INTERSECTION SIGHT DISTANCE CASE B1 LEFT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr IS 138m WHICH DOES SATISFIES THE REQUIRED INTERSECTION SIGHT DISTANCE OF 130m

-110m REQUIRED INTERSECTION SIGHT DISTANCE- CASE B2 RIGHT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr BASED ON THE TRANSPORTATION ASSOCIATION OF CANADA GUIDELINE.

-AVAILABLE INTERSECTION SIGHT DISTANCE CASE B2 RIGHT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr IS 132m WHICH DOES NOT SATISFY THE REQUIRED INTERSECTION SIGHT DISTANCE OF 110m

-1.08m DRIVER EYE HEIGHT AND 0.60m OBJECT HEIGHT ARE BASED ON TRANSPORTATION ASSOCIATION OF CANADA GUIDELINES

LEGEND

SIGHT LINE

AVAILABLE INTERSECTION SIGHT DISTANCE

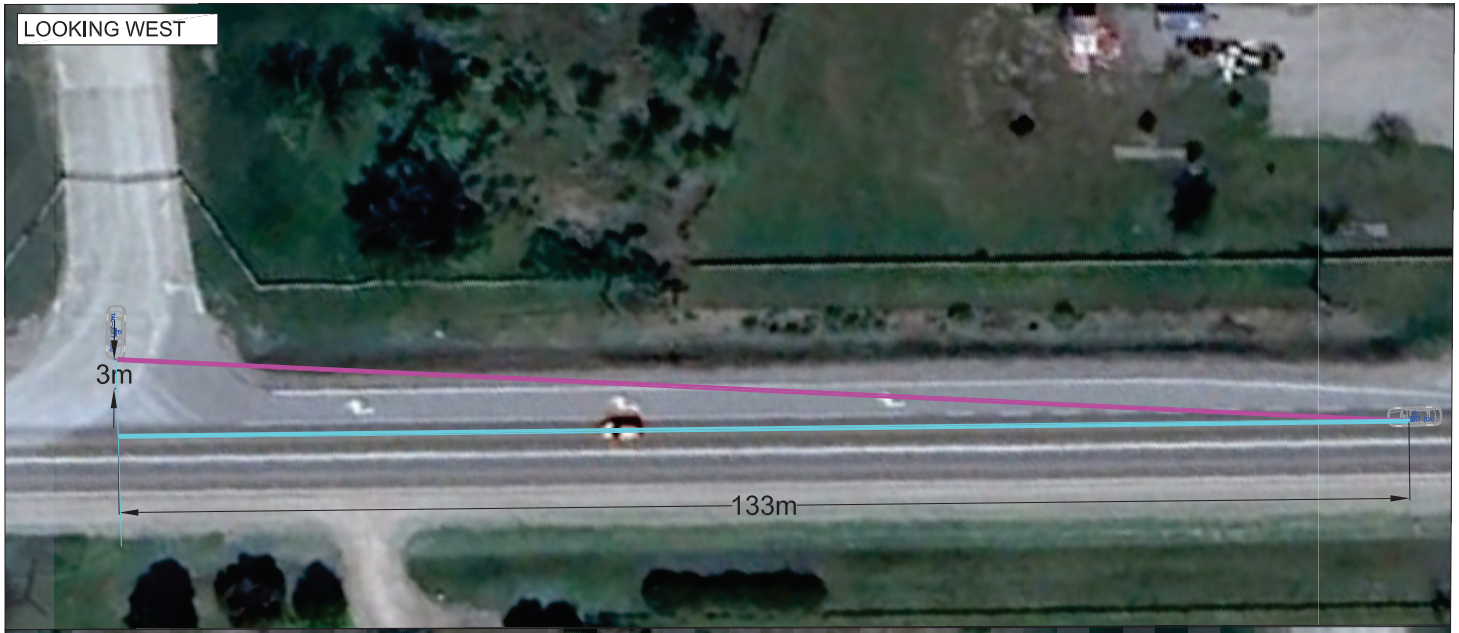
TYLin
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GOODWOOD PIT
CONCESSION ROAD 3 ACCESS REVIEW- INTERSECTION SIGHT DISTANCE

SCALE
N.T.S

DRAWING No.
002

DATE
FEB 2025





NOTES:

-85m REQUIRED STOPPING SIGHT DISTANCE FOR A DESIGN SPEED OF 60 km/hr BASED ON THE TRANSPORTATION ASSOCIATION OF CANADA GUIDELINE.

-AVAILABLE STOPPING SIGHT DISTANCE FOR DRIVERS LOOKING WEST IS 133m WHICH SATISFIES THE REQUIRED STOPPING SIGHT DISTANCE OF 85m.

-AVAILABLE STOPPING SIGHT DISTANCE FOR DRIVERS LOOKING EAST IS 132m WHICH SATISFIES THE REQUIRED STOPPING SIGHT DISTANCE OF 85m.

LEGEND

SIGHT LINE

AVAILABLE STOPPING SIGHT DISTANCE

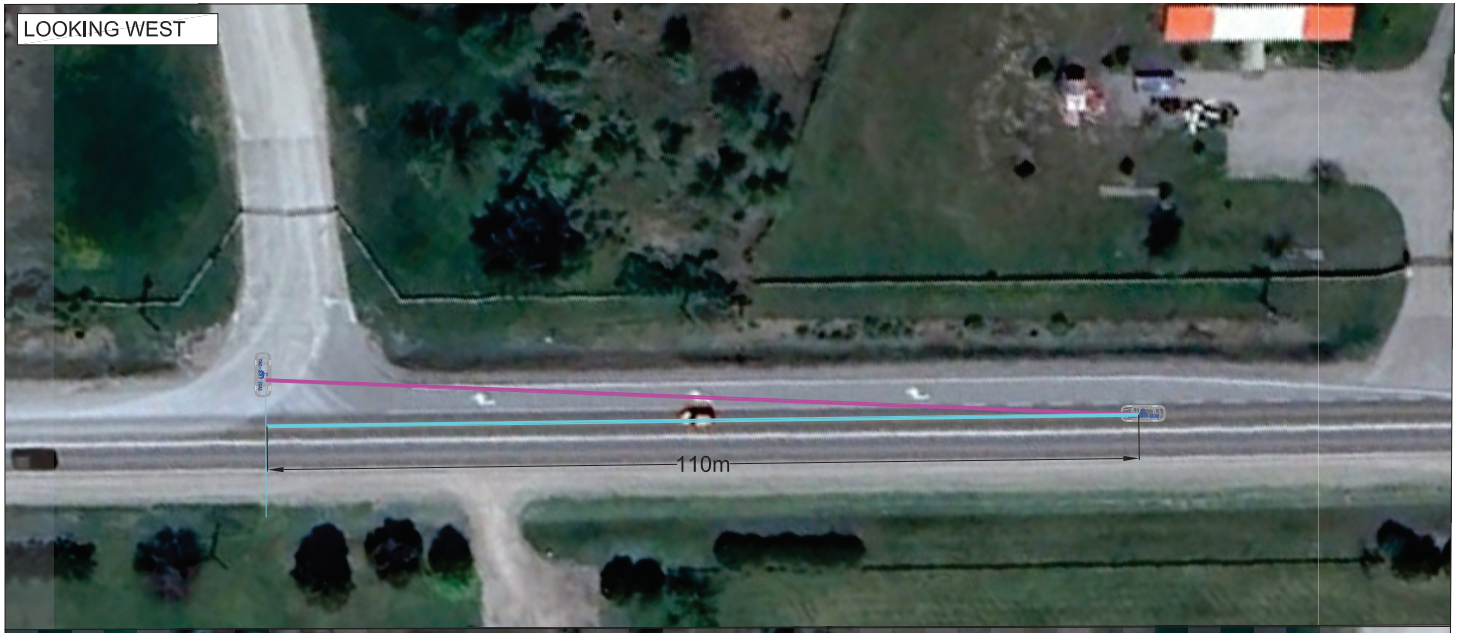
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GOODWOOD PIT
REGIONAL HIGHWAY 47 ACCESS REVIEW- STOPPING SIGHT DISTANCE

SCALE
N.T.S

DRAWING No.
001

DATE
JAN 2025





NOTES:

-110m REQUIRED INTERSECTION SIGHT DISTANCE- CASE B1 LEFT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr BASED ON THE TRANSPORTATION ASSOCIATION OF CANADA GUIDELINE.

-AVAILABLE INTERSECTION SIGHT DISTANCE CASE B1 LEFT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr IS 155m WHICH DOES SATISFIES THE REQUIRED INTERSECTION SIGHT DISTANCE OF 110m

-110m REQUIRED INTERSECTION SIGHT DISTANCE- CASE B2 RIGHT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr BASED ON THE TRANSPORTATION ASSOCIATION OF CANADA GUIDELINE.

-AVAILABLE INTERSECTION SIGHT DISTANCE CASE B2 RIGHT TURN FROM STOP FOR A DESIGN SPEED OF 60 km/hr IS 110m WHICH SATISFIES THE REQUIRED INTERSECTION SIGHT DISTANCE OF 110m

-1.08m DRIVER EYE HEIGHT AND 0.60m OBJECT HEIGHT ARE BASED ON TRANSPORTATION ASSOCIATION OF CANADA GUIDELINES

LEGEND

SIGHT LINE

AVAILABLE INTERSECTION SIGHT DISTANCE

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GOODWOOD PIT
REGIONAL HIGHWAY 47 ACCESS REVIEW- INTERSECTION SIGHT DISTANCE

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002

DATE
JAN 2025