

# 2147925 ONTARIO INC.

## TRAFFIC IMPACT STUDY

Glen Williams, West of Oak Ridge Drive,  
Town of Halton Hills

Project No. 2018-0242



# COLE

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**COLE**

August 15, 2018  
Reference No. 2018-0242

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**Attention: Mr. Michael Hall**

**Traffic Impact Study  
Glen Williams, West of Oak Ridge Drive  
Town of Halton Hills**

Cole Engineering Group Ltd. (COLE) is pleased to submit this Traffic Impact Study (TIS) for the above-noted subject property in support of a proposed plan of subdivision located north-west of Oak Ridge Drive, north of Wildwood Road and east of 8 Line, in the Town of Halton Hills (the "Town"), in the Regional Municipality of Halton (the "Region").

This TIS report documents the methodologies, conclusions from the traffic analysis and recommendations, transportation demand management plan. The study has determined that the proposed development will have minimal impact on the operation of study area intersections in the future and no boundary roadway improvements are required to support the proposed development.

If you have any questions regarding this study, please do not hesitate to contact the undersigned.

Best Regards,  
**COLE ENGINEERING GROUP LTD.**

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**Issues and Revisions Registry**

Identification	Date	Description of issued and/or revision
Draft Report	August 2018	For Client review
Final Report	August 2018	For Submission

**Statement of Conditions**

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## 1 Introduction

Cole Engineering Group Ltd. (COLE) was retained by 2147925 Ontario Inc. to undertake a Traffic Impact Study in support of a proposed plan of subdivision.

The subject site is located at north-west of Oak Ridge Drive, north of Wildwood Road and east of 8 Line (the "Site"), as illustrated in **Figure 1-1** following the report, in the Town of Halton Hills (the "Town") within the Regional Municipality of Halton (the "Region").

The subject site currently is vacant. Based on the preliminary plan of subdivision, the intention is to provide 32 lots (single detached houses). Vehicular access to the subject site will be provided via two (2) site accesses to / from the east side of the proposed residential development via Meagan Drive and McMaster Street to Oak Ridge Drive.

The latest proposed Site Plan provided by Condeland Engineering Ltd. illustrated in **Figure 1-2** following the report.

The purpose of this study is to:

- Assess the existing and future background traffic operations within the study area to identify any operational / safety concerns, as well as to identify any mitigation measures that may be required to improve operations;
- Forecast traffic from the proposed development and assign it onto the surrounding road network based on the traffic patterns extracted from the 2016 Transportation Tomorrow Survey (TTS) data and existing traffic flow pattern;
- Assess the impact of the proposed development for a five (5)-year (2023) time horizon and recommend any improvements required to alleviate any operational / safety concerns that may arise because of the addition of site-generated traffic; and,
- Provide Transportation Demand Management (TDM) Plan in order to complement the existing availability of transit and potentially decrease single occupant vehicle split by promoting transit, pedestrian modes, and cycling modes.

## 2 Existing Traffic Conditions

The study area for this analysis includes the following key intersections:

- Wildwood Road and Oak Ridge Drive (Unsignalized);
- Oak Ridge Drive and Meagan Drive (Unsignalized);
- Oak Ridge Drive and McMaster Street (Unsignalized); and,
- Wildwood Road and 8 Line (Unsignalized).

## 2.1 Existing Road Network

The existing road network and lane configurations are illustrated in **Figure 2-1** following the report.

The details of the road network are described as follows:

- **Wildwood Road** is an east-west major arterial road with a two (2) lane cross-section, under the jurisdiction of the Town. It maintains a posted speed limit of 40km/h within the study area;
- **Oak Ridge Drive** is a north-south local road with a two (2) lane cross-section, under the jurisdiction of the Town. It maintains an unposted speed limit of 50km/h within the study area;
- **Meagan Drive** is an east-west local road with a two (2) lane cross-section, under the jurisdiction of the Town. It maintains an unposted speed limit of 50km/h within the study area;
- **McMaster Street** is an east-west local road with a two (2) lane cross-section, under the jurisdiction of the Town. It maintains an unposted speed limit of 50km/h within the study area; and,
- **8 Line** is a north-south major arterial road with a two (2) lane cross-section, under the jurisdiction of the Town. It maintains a posted speed limit of 50km/h within the study area.

The intersections of Wildwood Road / Oak Ridge Drive, Oak Ridge Drive / Meagan Drive, Oak Ridge Drive / McMaster Street, and Wildwood Road / 8 Line are currently operating as unsignalized intersections. The intersections of Wildwood Road / Oak Ridge Drive, and Wildwood Road / 8 Line are operating with all-way 'Stop' control. The intersection of Oak Ridge Drive / Meagan Drive is operating with 'Stop' control on the minor street approaches. The intersection of Oak Ridge Drive / McMaster Street is operating with 'Stop' control on the Oak Ridge Drive approach only.

## 2.2 Existing Traffic Analysis

Existing weekday turning movement counts (TMCs) for Wildwood Road / Oak Ridge Drive, Oak Ridge Drive / Meagan Drive, Oak Ridge Drive / McMaster Street, Wildwood Road / 8 Line, bicycle counts for the intersection of 8 Line / Wildwood Road and Wildwood Road / Oak Ridge Drive, and 24 hours counts at the midpoint of Oak Ridge Drive between Wildwood Road and Meagan Drive were undertaken on Tuesday, June 12, 2018 by Accu-Traffic Inc. on behalf of COLE during both the morning and afternoon peak periods. Details of the intersection TMCs used in this analysis are summarized in **Table 2.1** below. TMCs, bicycle counts, and 24 hours counts are provided in **Appendix A**.

**Table 2.1 Intersection Turning Movement Count Details**

Intersection	Count Date	Count Hours	Peak Hours
Wildwood Road / Oak Ridge Drive	Tuesday, June 12, 2018	7:00am to 9:00am	7:15am to 8:15am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	4:45pm to 5:45pm
Oak Ridge Drive / Meagan Drive	Tuesday, June 12, 2018	7:00am to 9:00am	7:15am to 8:15am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	4:00pm to 5:00pm
Oak Ridge Drive / McMaster Street	Tuesday, June 12, 2018	7:00am to 9:00am	8:00am to 9:00am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	5:00pm to 6:00pm
Wildwood Road / 8 Line	Tuesday, June 12, 2018	7:00am to 9:00am	7:30am to 8:30am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	4:45pm to 5:45pm



The existing balanced traffic volumes, illustrated in **Figure 2-2** following the report, were analyzed using *Synchro 9.0* software which is based on the Highway Capacity Manual (HCM) methodologies. Detailed results are provided in **Appendix B** and are summarized in **Table 2.2**. Volume / Capacity (v/c) ratios for overall intersection operations, through movements, or shared through / turning movements equal to 0.85 or above; and v/c ratios for exclusive movements equal to 0.95 or above have been shown in bold. For unsignalized intersections, level of service (LOS), based on average delay per vehicle, on individual movements exceeding LOS “D” has also been shown in bold.

**Table 2.2 Level of Service – Existing Traffic Analysis**

Intersections	Key Movements	AM Peak Hour		PM Peak Hour	
		LOS (v/c)	Delay (s)	LOS (v/c)	Delay (s)
Wildwood Road / Oak Ridge Drive (Unsignalized)	EB left-through	A (0.40)	9.9	A (0.23)	8.5
	WB through-right	A (0.16)	8.1	A (0.35)	9.4
	SB left-right	A (0.04)	7.9	A (0.03)	7.8
Oak Ridge Drive / Meagan Drive (Unsignalized)	EB left-through-right	A (0.00)	8.4	A (0.00)	0.0
	WB left-through-right	A (0.03)	8.9	- (0.02)	8.8
	NB left-through-right	- (0.00)	0.0	- (0.00)	0.0
	SB left-through-right	- (0.00)	0.0	- (0.00)	0.0
Oak Ridge Drive / McMaster Street (Unsignalized)	EB through-right	- (0.00)	0.0	- (0.00)	0.0
	WB through-left	A (0.01)	7.3	A (0.01)	7.2
	NB left-right	A (0.01)	8.3	A (0.02)	8.4
Wildwood Road / 8 Line (Unsignalized)	EB left-through	A (0.17)	8.8	A (0.15)	8.4
	WB through-right	A (0.19)	8.5	A (0.34)	9.1
	SB left-right	B (0.32)	10.0	A (0.16)	8.9

The results of the analysis of the existing conditions indicate that all of the intersections are currently operating at good levels of service (LOS) with v/c ratios below 0.95 (in other words: below roadway capacity). No additional mitigation measures are recommended. The detailed intersection analysis results are provided in **Appendix B**.

### 3 Future (2023) Background Traffic Conditions

For this study, it is assumed the development will be constructed and occupied by 2023. Future background traffic volumes for the 2023 horizon year consists of the following components:

- Background traffic growth from outside the study area; and,
- Traffic generated within the study area from other proposed developments.

#### 3.1 Background Traffic Growth

Based upon our research and communication with the Town, it was found that there are no available annual average daily traffic (AADT) data to estimate traffic growth in the study area. As response to our submitted Terms of Reference dated May 18, 2018 from the Town, an annual background growth rate of 2.0% was used for through movements. The email regarding response to our Terms of Reference from the Town clarifying the growth rate is provided in **Appendix C**.

### 3.2 Background Developments

Based upon our research and communication with the Town, there are no background developments with possible major traffic impact to be considered in the analysis within the vicinity of the Site.

### 3.3 Future (2023) Background Traffic Analysis

Based on the above noted information, the estimated future (2023) background traffic volumes are illustrated in **Figure 3-1** following the report. Future background traffic operations for the study area intersections were assessed using *Synchro 9.0* software with detailed calculations provided in **Appendix D** and summarized in **Table 3.1** with the Volume / Capacity (v/c) ratios for overall intersection operations, through movements, or shared through / turning movements equal to 0.85 or above; and v/c ratios for exclusive movements equal 0.95 or above have been shown in bold. For unsignalized intersections, level of service (LOS), based on average delay per vehicle, on individual movements exceeding LOS “D” has also been shown in bold.

**Table 3.1 Level of Service – Future (2023) Background Traffic Analysis**

Intersections	Key Movements	AM Peak Hour		PM Peak Hour	
		LOS (v/c)	Delay (s)	LOS (v/c)	Delay (s)
Wildwood Road / Oak Ridge Drive (Unsignalized)	EB left-through	B (0.44)	10.4	A (0.25)	8.7
	WB through-right	A (0.17)	8.3	A (0.39)	9.8
	SB left-right	A (0.04)	8.1	A (0.03)	7.9
Oak Ridge Drive / Meagan Drive (Unsignalized)	EB left-through-right	A (0.00)	8.4	A (0.00)	0.0
	WB left-through-right	- (0.03)	8.9	A (0.02)	8.8
	NB left-through-right	- (0.00)	0.0	- (0.00)	0.0
	SB left-through-right	- (0.00)	0.0	- (0.00)	0.0
Oak Ridge Drive / McMaster Street (Unsignalized)	EB through-right	- (0.00)	0.0	- (0.00)	0.0
	WB through-left	A (0.01)	7.3	A (0.01)	7.2
	NB left-right	A (0.01)	8.3	A (0.02)	8.4
Wildwood Road / 8 Line (Unsignalized)	EB left-through	A (0.18)	8.9	A (0.16)	8.5
	WB through-right	A (0.20)	8.6	A (0.36)	9.3
	SB left-right	B (0.32)	10.1	A (0.16)	8.9

The results of the analysis of the future (2023) background conditions indicate that all of the intersections are currently operating at good levels of service (LOS) with v/c ratios below 0.95 (in other words: below roadway capacity). No additional mitigation measures are recommended. The detailed intersection analysis results are provided in **Appendix D**.

## 4 Site Traffic

The proposed residential development will include 32 lots of single detached houses.

### 4.1 Trip Generation

Trip generation for the residential development was undertaken using information contained in the Trip Generation Manual, 10<sup>th</sup> Edition published by the Institute of Transportation Engineers (ITE) for Single-Family Detached Housing (land use code 210). The trip generation calculations are summarized in **Table 4.1**. The detailed trip generation estimations are provided in **Appendix E**.

To recognize the multi-modal supportive environment near the Site, the information on primary modes of transportation was extracted from the 2016 TTS for traffic zones 4163, 4164, 4166 and 4195 (the subject zone) located in the Town. The closest bus stop to the site is approximately 1.5km. away. Given the long distances, it is assumed that most patrons accessing public transit will either drive to the nearest bus stop or be dropped off by a family member. Therefore, the non-modal split is not applied in the Trip Generation.

Currently, the Metrolinx operates a Go bus transit service in the vicinity of the site, and the Town has retained WSP Canada Group Ltd. to develop the Transit Service Strategy which will be completed by spring 2019.

**Table 4.1 Site Trip Generation**

Land Use	Units	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Single-Family Detached Housing (Land Use Code 210)	32	Gross Vehicular Trips	7	21	28	21	13	34
		Gross Trip Rates (trips/unit)	0.22	0.66	0.88	0.66	0.40	1.06

The proposed development is expected to generate 28 new vehicular two (2) way trips in the morning peak hour (7 trips in and 21 trips out), 34 new vehicular two (2) way trips in the afternoon peak hour (21 trips in and 13 trips out).

### 4.2 Trip Distribution

The trip distribution for the proposed development is based on traffic patterns extracted from the 2016 TTS (i.e. based on TTS zones 4163, 4164, 4166 and 4195 (the subject zone) located in the Town. The trip distribution results are summarized in **Table 4.2**, with the assignment of site trips illustrated in **Figure 4-1** following the report. Trip distribution estimations are attached in **Appendix E**.

**Table 4.2 Site Trip Distribution**

Direction (From / To)	Via	AM Trip Distribution		PM Trip Distribution	
		Inbound	Outbound	Inbound	Outbound
East	Wildwood Road	25%	50%	35%	45%
West	Wildwood Road	75%	50%	65%	55%
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### 4.3 Trip Assignment

The proposed site development traffic volumes noted in **Section 4.1** were assigned to the study area intersections based on the trip distribution presented in **Table 4.2**. The resulting Total Site Traffic volumes are provided in **Figure 4-1** following the report.

## 5 Future Total Traffic Conditions

The future total traffic conditions consist of the summation of future background traffic volumes and the expected site traffic volumes.

### 5.1 Future (2023) Total Traffic Analysis

Based on the above noted information, the estimated future (2023) total traffic volumes are illustrated in **Figure 5-1** following the report. Future total traffic operations for the study area intersections were assessed using *Synchro 9.0* software with detailed calculations provided in **Appendix F** and summarized in **Table 5.1** with the Volume / Capacity (v/c) ratios for overall intersection operations, through movements, or shared through / turning movements equal to 0.85 or above; and v/c ratios for exclusive movements equal to 0.95 or above have been shown in bold. For unsignalized intersections, level of service (LOS), based on average delay per vehicle, on individual movements exceeding LOS "D" has also been shown in bold.

**Table 5.1 Level of Service – Future (2023) Total Traffic Analysis**

Intersections	Key Movements	AM Peak Hour		PM Peak Hour	
		LOS (v/c)	Delay (s)	LOS (v/c)	Delay (s)
Wildwood Road / Oak Ridge Drive (Unsignalized)	EB left-through	B (0.46)	10.8	A (0.27)	9.0
	WB through-right	A (0.18)	8.4	A (0.40)	10.0
	SB left-right	A (0.08)	8.3	A (0.05)	8.1
Oak Ridge Drive / Meagan Drive (Unsignalized)	EB left-through-right	A (0.02)	8.6	A (0.01)	8.4
	WB left-through-right	A (0.03)	9.4	A (0.03)	9.2
	NB left-through-right	A (0.01)	2.6	A (0.01)	1.1
	SB left-through-right	- (0.00)	0.0	- (0.00)	0.0
Oak Ridge Drive / McMaster Street (Unsignalized)	EB through-right	- (0.01)	0.0	- (0.01)	0.0
	WB through-left	A (0.01)	7.3	A (0.01)	7.2
	NB left-right	A (0.01)	8.4	A (0.04)	8.6

Intersections	Key Movements	AM Peak Hour		PM Peak Hour	
		LOS (v/c)	Delay (s)	LOS (v/c)	Delay (s)
Wildwood Road / 8 Line (Unsignalized)	EB left-through	A (0.19)	9.0	A (0.18)	8.6
	WB through-right	A (0.22)	8.8	A (0.37)	9.4
	SB left-right	B (0.33)	10.2	A (0.16)	9.0

The results of the analysis of the future (2023) total conditions indicate that all of the intersections are currently operating at good levels of service (LOS) with v/c ratios below 0.95 (in other words: below roadway capacity). No additional mitigation measures are recommended. The detailed intersection analysis results are provided in **Appendix F**.

## 6 Transportation Demand Management (TDM)

The subject property is located at north-west of Oak Ridge Drive, north of Wildwood Road and east of 8 Line. Vehicular access to the subject lands will be provided via Meagan Drive and McMaster Street to Oak Ridge Drive. Within the site's proximity, there are other residential developments, the Joseph Gibbons Public School and the Georgetown Hospital to the south-west, the Glen Williams Town Hall and the Glen Williams Public School to the east, restaurants.

The site is served by public transit operated by Metrolinx although it is relatively distant to be accessible by walking or cycling.

The subject site is situated near the Georgetown GO Station which is approximately 3.5km away from the site located near the intersection of King Street and Queen Street on south of the site. Additionally, it is located within approximately 2.5km of Ewing Street Park to the south and within approximately 1.8km of Glen Williams Park, both of which are easily accessible by walking or bicycle.

The primary objectives of this TDM plan are as follows:

- Promote behavioural change for reduced automobile uses and encourage the use of alternative sustainable transportation modes aside from single-occupancy vehicle (SOV);
- Encourage the use of alternative transportation options, particularly transit, walking and cycling;
- Maximize average auto occupancies, with the intent of a net minimization of site-related auto trips; and,
- Create and support opportunities for an inclusive transportation system to accommodate and facilitate all potential road users in a safe and efficient manner.

TDM refers to variety of strategies to reduce congestion, minimize the number of single-occupant vehicle, encourage non-auto modes of travel, and reduce vehicle dependency to create a sustainable transportation system. In short, TDM works to change how, when, where, and why people travel.

The above combined benefits will assist in creating a more active and liveable community through improvements to the overall living standards for the local residents.

This report will be divided into three (3) main sections:

1. TDM Strategies Identification;
2. TDM programs implementation; and,
3. TDM monitoring, management, and implementation timing.

Traffic generated within the study area from other proposed developments.

## 6.1 TDM Strategies Identification

### 6.1.1 Public Transit

The subject site is located within the Town and is served by GO transit operated by Metrolinx. There are two (2) Go bus stops located at the southwest side of the site at Highway 7 and Bethel Road, Main Street North and Moore Park Crescent. Both transit stops are 1.5km away from the site, and both of which are easily accessible by bicycle. Attached in **Appendix G** demonstrates available bus stops and the Georgetown GO Station within the vicinity of the site. Also, the available bus routes are provided in **Appendix G**. The following transit services are currently provided in the vicinity of the subject site:

- **31 GO Bus – Guelph - Georgetown - Brampton - Toronto:** This route serves at the stops which are approximately 1.5km away from the site at Highway 7 and Bethel Road, Main Street North and Moore Park Crescent between the Toronto Union Station and University of Guelph. There is a subway connection at Bloor and the Toronto Union Station. This route operates between 4:05 a.m. and 03:45 a.m. during the week and between 5:00 a.m. and 03:55 a.m. on Saturdays and Sundays, with a headway of approximately 30 minutes;
- **33 GO Bus – Guelph - Georgetown - Brampton - Yorkdale - York Mills:** This route serves at the stops which are approximately 1.5km away from the site at Highway 7 and Bethel Road, Main Street North and Moore Park Crescent between the York Mills Bus Terminal and University of Guelph. There is a subway connection at York Mills and Yorkdale Bus Terminals. This route operates between 4:35 a.m. and 02:15 a.m. during the week, with a headway of approximately 30 minutes, and there is no bus service for this route on Saturdays and Sundays; and,
- **Go Train - Kitchener - Guelph - Georgetown - Brampton - Bramalea - Toronto:** This GO train route serves at the Georgetown GO train station which is approximately 3.0 km away from the site at King Street and Union Street between the Toronto Union Station and Kitchener GO station. There is a subway connection at the Toronto Union Station. This route operates between 5:24 a.m. and 08:57 p.m. during the week, with a headway of approximately 30 minutes to one (1) hour, and there is no train service for this route on Saturdays and Sundays.

These bus routes provide easy access to the rest of the GTA as well as multiple stores and shopping centers located in the City of Toronto.

One of the challenges to increased transit ridership is inconvenient transfers and questionable connections between municipal borders. The MoveOntario 2020 vision was a breakthrough with its promise to replace this fragmentation with a properly integrated transit network, giving commuters the seamless service across municipal borders and convenient connection points.

As stated in the Transit Service Strategy of Town's website, they are currently exploring opportunities towards providing a "Made-in-Halton Hills" solution that meets the current and future mobility needs of the community. The Town's Strategic Action Plan consists of improving existing ActiVAN specialized transit service and the Regional Go Train services. ActiVAN specialized transportation is an accessible transportation service provided to senior's age 65+ and persons with physical and cognitive disabilities living within Halton Hills. Registered riders are able to travel within the municipal boundaries of Halton Hills. Currently, Taxi Scrip / Youth Taxi Scrip programs are available as current Transit in Halton Hills in order to provide subsidized taxi rides at 60% of the face value. Taxi Scrip program is available to use for registered ActiVan members only while Youth Taxi Scrip program is available to registered youth residing in Halton Hills only. Transit related goals from Town of Halton Hills Official Plan (2008) providing guidance for transportation objectives are:

- Establishing an integrated transportation system that safely and efficiently accommodates various modes of transportation including trains, automobiles, trucks, public transit, cycling and walking;
- Promoting public transit, cycling and walking as energy efficient, affordable and accessible forms of travel;
- Ensuring that new roads in urban development areas are constructed safely, designed in a grid-oriented street network to help distribute car and truck traffic evenly and provide access for the future operation of an efficient public transit system; and,
- Encouraging the efficient use of land along transportation corridors to maximize the use of public transit.

GTA West Transportation Corridor Route Planning and Environmental Assessment Study intends to provide the transportation infrastructure needed to accommodate projected population and employment growth identified in the Growth Plan for the Greater Golden Horseshoe (2006), and this will improve greater connectivity between urban growth centres, enhance people and goods movement, enhance commuting, and increase economic vitality. As part of the GO Transit Kitchener Waterloo Expansion which will improve service and reliability, and protect for planned future expansion on the corridor, GO Transit and CN will begin the next phase of work to complete upgrades to the Kitchener Line near Georgetown GO Station which is near the site.

Moreover, based on the census information extracted from the Town's Transportation Master Plan, the Town has residential and industrial lands in the urban areas of Acton, Georgetown, the Hamlets of Glen Williams, Stewarttown, Norval and the Highway 401/407 Gateway Business Park with an established community of over 58,000 persons. It is forecasted that the population of the Town will increase to 94,000 persons by 2031 with employment levels expected to double to 43,000 employees. During this period by 2031, 54% increase in population growth and 75% increase in employment in the Town is expected, which statistically validates the shift of travel-modes preference gearing towards the uses of the comprehensive and continually growing transit network system as the primary traveling options.

### 6.1.2 Traffic Calming

In purpose of mitigating the adverse impacts of vehicular traffic, traffic calming measures in both new developments and existing neighbourhoods are applied. As stated in the Town's Transportation Master Plan, traffic calming reduces vehicle speeds and decreases cut-through traffic on local roads to acceptable levels, while maintaining or improving the aesthetics of the roadway. Traffic calming features may be permitted based on the evaluation of functional, operational, servicing and financial factors associated with their use by the Town.

As stated in the Town's Traffic Calming Protocol, the road which is considered for traffic calming measures to be applied goes through an initial screen to determine whether traffic calming measures are necessary or not. The concern regarding the traffic calming is evaluated based on the existing traffic data, such as, Turning Movement Counts (TMC), Automatic Traffic Recordings (ATR), Spot Speed Radar Studies (S.S.R.S.), Origin / Destination studies and Motor Vehicle Accident (MVA) history, etc. Hence, 24 hours ATR speed and vehicle class counts for 15 minutes and 60 minutes intervals collected at the midpoint of Oak Ridge Drive between Wildwood Road and Meagan Drive by Accu-Traffic Inc. on behalf of COLE and presented in **Appendix H** at the end of the report. Details of the ATR data used in this analysis are summarized in **Table 6.1** below.

**Table 6.1 Automatic Traffic Recordings Details**

Intersection	Count Date	Count Type	Movement	Count Hours
Oak Ridge Drive between Wildwood Road and Meagan Drive	Tuesday, June 12, 2018	Speed – 15 minutes	Northbound and Southbound	8:00am to 11:45am
	Tuesday, June 12, 2018	Speed – 15 minutes	Northbound and Southbound	12:00pm to 11:45pm
Oak Ridge Drive between Wildwood Road and Meagan Drive	Tuesday, June 12, 2018	Speed – 60 minutes	Northbound and Southbound	1:00am to 11:00pm
Oak Ridge Drive between Wildwood Road and Meagan Drive	Tuesday, June 12, 2018	Vehicle Class – 15 minutes	Northbound and Southbound	12:15am to 11:45am
	Tuesday, June 12, 2018	Vehicle Class – 15 minutes	Northbound and Southbound	12:00pm to 11:45pm
Oak Ridge Drive between Wildwood Road and Meagan Drive	Tuesday, June 12, 2018	Vehicle Class – 60 minutes	Northbound and Southbound	1:00am to 11:00pm

Based on the initial screening to determine whether traffic calming measures are applicable for the Oak Ridge Drive or not using the Town's Traffic Calming Protocol, it is determined that traffic calming measures are not required for the Oak Ridge Drive. The analysis results are summarized in the **Table 6.2**.



**Table 6.2 Traffic Calming Measures Warrant 1 – Initial Screening**

Intersection	Road Classification	Condition 1	Condition 2 (Speed and Volume)	
			Speed (85 <sup>th</sup> percentile)	Minimum Volume (AADT)
Oak Ridge Drive between Wildwood Road and Meagan Drive	Local Street	Infiltrating Traffic AM = 13 < 121 (30% of through traffic)	Max 85 <sup>th</sup> Percentile Speed 55 < 65	496 < 1500
		Infiltrating Traffic PM = 24 < 134 (30% of through traffic)		

Based on the Turning Movement Counts attached in **Appendix A**, there are total of 402 vehicles as through traffic on the Wildwood Road during AM peak period, while there are 446 vehicles as through traffic on the Wildwood Road during PM peak period. 30% of the through traffic is 121 vehicles for AM peak period and 134 vehicles for PM peak period. As infiltrating traffic of 13 for AM peak period and 24 for PM peak period do not exceed 30% of the through traffic, therefore Condition 1 of the Warrant Criterion is not satisfied.

As the speed condition of the Condition 2 criterion, the highest 85<sup>th</sup> percentile recorded speed is 55km/hour based on the 24 hours ATR speed counts presented in **Appendix H**, and it is lower than the threshold of 65km/hour shown in the Town's Traffic Calming Protocol. The speed condition for the Condition 2 of the Warrant Criterion is not satisfied.

For the minimum volume condition of the Condition 2 criterion, the total daily traffic recorded is 496 vehicles including bicycles based on the 24 hours ATR counts presented in **Appendix H**, and it is lower than the threshold of 1500 vehicles shown in the Town's Traffic Calming Protocol. The minimum volume condition for the Condition 2 of the Warrant Criterion is not satisfied.

As a result of the warrant 1 - initial screening, traffic calming measures are not warranted for Oak Ridge Drive since for a Local classification street to be considered for implementation of physical traffic calming measures both Conditions 1 and 2 of the Warrant Criterion are required to be fully satisfied.

### 6.1.3 Walking / Cycling

Active transportation involves any form of human-powered transportation, including walking, cycling, roller-blading, skateboarding and moving with mobility devices. An Active Transportation Master Plan Study to the year 2031 to develop the required strategy, infrastructure, initiatives and programs to promote non-motorized travel throughout the Region, as recommended in the Region's Transportation Master Plan (2031) – The Road to Change. The Active Transportation Master Plan must guide the Region to meet the mode share target for active transportation of 5% of all PM peak hour trips by 2031 from less than 2% in 2011. This represents a seven-fold increase over the 1,600 PM peak hour trips made by cycling and walking in 2011 to 11,500 trips by 2031.

The Town has developed a comprehensive Cycling Master Plan to guide the Town in implementing a Town-wide cycling network and cycling supportive programs over the next 10 + years. The Town's Official Plan Consolidation (2008) calls for the consideration of non-motorized movement in existing and new development and promotes connectivity, mobility and pedestrian and transit oriented development. A key component of the study process of the Halton Hills Cycling Master Plan (HHCP) was the development of an integrated cycling network.

The Hamlet of Glen Williams Secondary Plan with the Official Plan Amendment No. 113 (the "Plan") provides a long term vision that will provide guidance and direction in the management of land and the environment within the Hamlet of Glen Williams. The Hamlet of Glen Williams is located north of the Georgetown Urban Area, situated along the banks of the Credit River, in the Town, which also covers the location of the proposed development. The Plan therefore provides for the possibility of an extensive network of public pathways intended to link new and existing residential areas with the community core and provides a complement to the Halton Hills Trails and Cycling Master Plan. Conceptual alignments for potential new trails are shown on Schedule A. The Town of Halton Hills Glen Williams Secondary Plan Schedule A is provided in **Appendix I**. Schedule A also illustrates the potential trails and on-road linkages within the vicinity of the proposed development. Based on the above noted information, proposed sidewalks, on-boulevard linkages and potential trails and on-road linkages (Glen Williams Secondary Plan SCHEDULE A) are illustrated in **Figure 6-1** following the report.

The Region's existing and proposed regional cycling and walking network maps from the Halton Active Transportation Master Plan are provided in **Appendix J**. The Town's map of recommended facility types from the Town's Cycling Master Plan is provided in **Appendix K**, and the Town's trail map is provided in **Appendix L**.

24 hours ATR vehicle class counts illustrating also bicycle counts for 15 minutes and 60 minutes intervals collected at the midpoint of Oak Ridge Drive between Wildwood Road and Meagan Drive by Accu-Traffic Inc. on behalf of COLE and presented in **Appendix H** at the end of the report. Existing weekday bicycle turning movement counts (TMCs) for Wildwood Road / Oak Ridge Drive, Oak Ridge Drive / Meagan Drive, Oak Ridge Drive / McMaster Street, Wildwood Road / 8 Line were undertaken on Tuesday, June 12, 2018 by Accu-Traffic Inc. on behalf of COLE during both the morning and afternoon peak periods. Details of the intersection bicycle TMCs used in this analysis are summarized in **Table 6.3** below. Bicycle TMCs are provided in **Appendix A**. Bicycle TMCs are illustrated in **Figure 6-2** following the report.

**Table 6.3 Intersection Bicycle Turning Movement Count Details**

Intersection	Count Date	Count Hours	Peak Hours
Wildwood Road / Oak Ridge Drive	Tuesday, June 12, 2018	7:00am to 9:00am	7:15am to 8:15am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	4:45pm to 5:45pm
Oak Ridge Drive / Meagan Drive	Tuesday, June 12, 2018	7:00am to 9:00am	7:15am to 8:15am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	4:15pm to 5:15pm
Oak Ridge Drive / McMaster Street	Tuesday, June 12, 2018	7:00am to 9:00am	8:00am to 9:00am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	4:15pm to 5:15pm
Wildwood Road / 8 Line	Tuesday, June 12, 2018	7:00am to 9:00am	7:30am to 8:30am
	Tuesday, June 12, 2018	3:00pm to 6:00pm	3:00pm to 4:00pm

As per the bicycle storage, the bicycle parking for proposed single detached houses is assumed to be covered with the provided garages due to safety and heavy winter conditions.

## **6.2 TDM Strategies Implementation**

TDM programs nationally have experienced a wide range of implementation success. This TDM Plan will be site focused to achieve the desired outcome at reduced dependency on single occupant vehicle (SOV) from a holistic perspective. It will be important for any TDM actions taken by the Town to be coordinated with the Province, Metrolinx and especially the Region, as TDM is generally more effective when applied at a broader scale. Many of the actions will require intervention and leadership to be successful, and may not be completely viable in the immediate term (e.g. transit service). But steps should be taken at this time to ensure future TDM opportunities are not precluded. The Town's TDM policy is to develop and implement, in conjunction with the Region, Metrolinx and the Province, Transportation Demand Management initiatives to reduce single-occupant vehicle travel, lessen congestion on the Town's road system, especially during peak periods, and facilitate more sustainable travel behaviour.

### **6.2.1 Transit Incentive**

An increase in transit use is fundamental to the overall reduction of automobile use. In general, people associate utilities with each mode of transportation (such as safety, reliability, comfort, accessibility, speed, cost and travel time), and their mode choice is based on the relative costs associated with one versus another mode. The two (2) characteristics of travel modes most likely to influence mode choice are monetary cost and travel time.

Based on the Region's Transportation Impact Study Guidelines, promotion of transit and employer subsidized transit programs is one of the suggested initiatives for TDM.

As stated in the Town's Transportation Master Plan report, an efficient and effective public transit system can contribute to long-term economic, environmental and community sustainability; enable access to the community for all residents, and is essential to achieving more efficient land use patterns. The Town's policy is to review the need for a municipal transit system, as permitted by its financial capability and desire of the residents to the policy, and if and when provided, integrate and support other transit systems and co-ordinate transportation planning efforts with Regional, Provincial and Federal transportation initiative, encourage improvements to inter-municipal and inter-regional transit services, in particular the GO Transit system, and encourage transit-supportive land uses in Nodes, Corridors and new development areas.

Transit productivity is a measure of return on investment in the transit system. It measures how much travelers use the transit service provided in a municipality and a region. Local buses with few passengers, suggests that transit systems are not providing transportation benefits consistent with their capital and operating costs. Having more passengers on each bus generates more revenue for transit agencies and can result in better air quality and less congestion. Section F6.3 of the Town's Official Plan contemplates the provision of a public transit system, as permitted by the financial capability of the municipality. Moreover, transit service level (i.e. network coverage and frequency) have strong positive correlation with transit demand (i.e. ridership). There are also transit initiatives under consideration by other levels of government, such as expansion of service on the GO Georgetown route and Bus Rapid Transit on Trafalgar Road, which the Town will continue to encourage and support. These initiatives will help to build market demand locally and provide important connections in the system and opportunities for modal integration in the future.

### 6.2.2 Coordination with Land Use Planning

To encourage active transportation, the design of the road network within the proposed residential neighbourhood is suggested to be oriented towards walking, transit, and biking. This may include shared lanes for vehicles and bicycles, and working with the Town to create multi-use trails throughout the site.

### 6.3 TDM Monitor Plan

TDM programs are not static, but must change as the needs of commuters change or as transportation services available to a project change. As such, it is important to monitor the effectiveness of the TDM program.


## 7 Conclusions

The findings and conclusions of our analysis are represented as follows:

- Under existing traffic conditions, with the existing road conditions, majority of study area intersections operate with acceptable LOS and v/c ratios during the weekday a.m. peak hour, p.m. peak hour;
- The future background traffic analysis (2023 horizon), using a 2.0% growth rate per annum for all through movements and when taking into consideration the existing road conditions, majority of intersections will operate at acceptable LOS and v/c ratios;
- Access to the subject site is proposed via two (2) site accesses to / from the east side of the proposed residential development via Meagan Drive and McMaster Street to Oak Ridge Drive;
- The proposed development is expected to generate 28 new vehicular two (2) way trips in the morning peak hour (7 trips in and 21 trips out), 34 new vehicular two (2) way trips in the afternoon peak hour (21 trips in and 13 trips out);
- Based on the future total traffic analysis (2023 horizon), the site traffic has an insignificant impact on majority of the study area intersections, which will continue to operate similarly to the future background conditions with acceptable LOS and v/c ratios. Site traffic does not generate the need for any further road improvements; and,
- TDM strategies do not work in isolation, but instead they would work together synergistically as one (1) integrated plan specifically focused to the identified study area. In short, TDM works best when complementary strategies are organized together (i.e. transit incentive and efficient transit system). Similarly, the objectives of the TDM plan cannot be achieved alone, but instead they require the cooperation between different stakeholders including the Developers, Town / Region authorities, transit providers, and other involved / impacted partners. The Owner covenants and agrees to provide necessary support for the Initial TDM Measures. However, the responsibility for the on-going operation will require co-operation between the residents and the Town / Region TDM authorities.



LEGEND

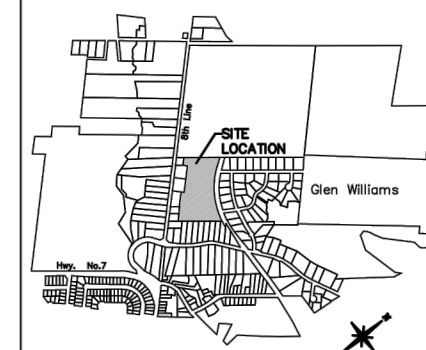
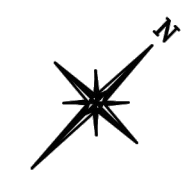
 SITE LOCATION

SITE LOCATION  
 PROPOSED RESIDENTIAL DEVELOPMENT  
 GLEN WILLIAMS, WEST OF OAK RIDGE DRIVE  
 TOWN OF HALTON HILLS

DATE: AUGUST 2018  
 SCALE: N.T.S.

PROJECT No.: 2018-0242  
 FIGURE No.: FIGURE 1-1

8TH LINE  
ROAD ALLOWANCE BETWEEN CONCESSIONS 8 AND 9



**KEY PLAN**  
NOT TO SCALE

**DRAFT PLAN OF SUBDIVISION**  
OF  
PART OF LOT 21  
CONCESSION 9  
(GEOGRAPHIC TOWNSHIP OF ESQUESING)  
TOWN OF HALTON HILLS  
REGIONAL MUNICIPALITY OF HALTON  
SCALE: 1:750

25m 0 25 50m

**METRIC:**  
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

**GENERAL NOTES**

LAND USE	LOTS/BLOCKS	AREA(Ha.)
SINGLE-DETACHED RESIDENTIAL (5 UNITS/NET Ha.)	LOTS 1-32	5.488
STORMWATER MANAGEMENT POND	BLOCK 33	0.438
ROAD 20m RIGHT-OF-WAY x 472m LENGTH		.959
<b>TOTAL AREA</b>		<b>6.886 Hectares</b>

FRONTAGES SHOWN AT 4.5m SETBACK LINE

**ADDITIONAL NOTES**  
(UNDER SECTION 51 (2) OF THE PLANNING ACT)  
INFORMATION REQUIRED BY CLAUSES 4.3.1(a) & 4.3.1(b) SHOWN ON DRAFT PLAN AND KEY PLAN.

- (a) RESIDENTIAL, SIM POND
- (b) MUNICIPAL SUPPLY TO BE MADE AVAILABLE
- (c) CLAY LOAM
- (d) FULL MUNICIPAL SERVICES TO BE MADE AVAILABLE

**OWNERS CERTIFICATE**  
2147925 ONTARIO INC. BEING THE REGISTERED OWNERS OF THE SUBJECT LANDS HEREBY AUTHORIZES MATTHEWS PLANNING & MANAGEMENT LTD. TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION FOR APPROVAL.

**2147925 ONTARIO INC.**  
MAY 15, 2009 SIGNATURE ON FILE

**SURVEYORS CERTIFICATE**  
I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

JUNE 1, 2009 SIGNATURE ON FILE  
DAY C. DOLLNER, ONTARIO LAND SURVEYOR  
DOLLNER SURVEYING INC.

**MATTHEWS PLANNING & MANAGEMENT LTD.**  
Consultants in Planning and Land Economics  
1287 Dorval Drive, Unit 47 Oakville, Ontario  
L6M 3Z5 (416) 565-7480



REVISED JUNE 22, 2018  
REVISED MAY 10, 2018

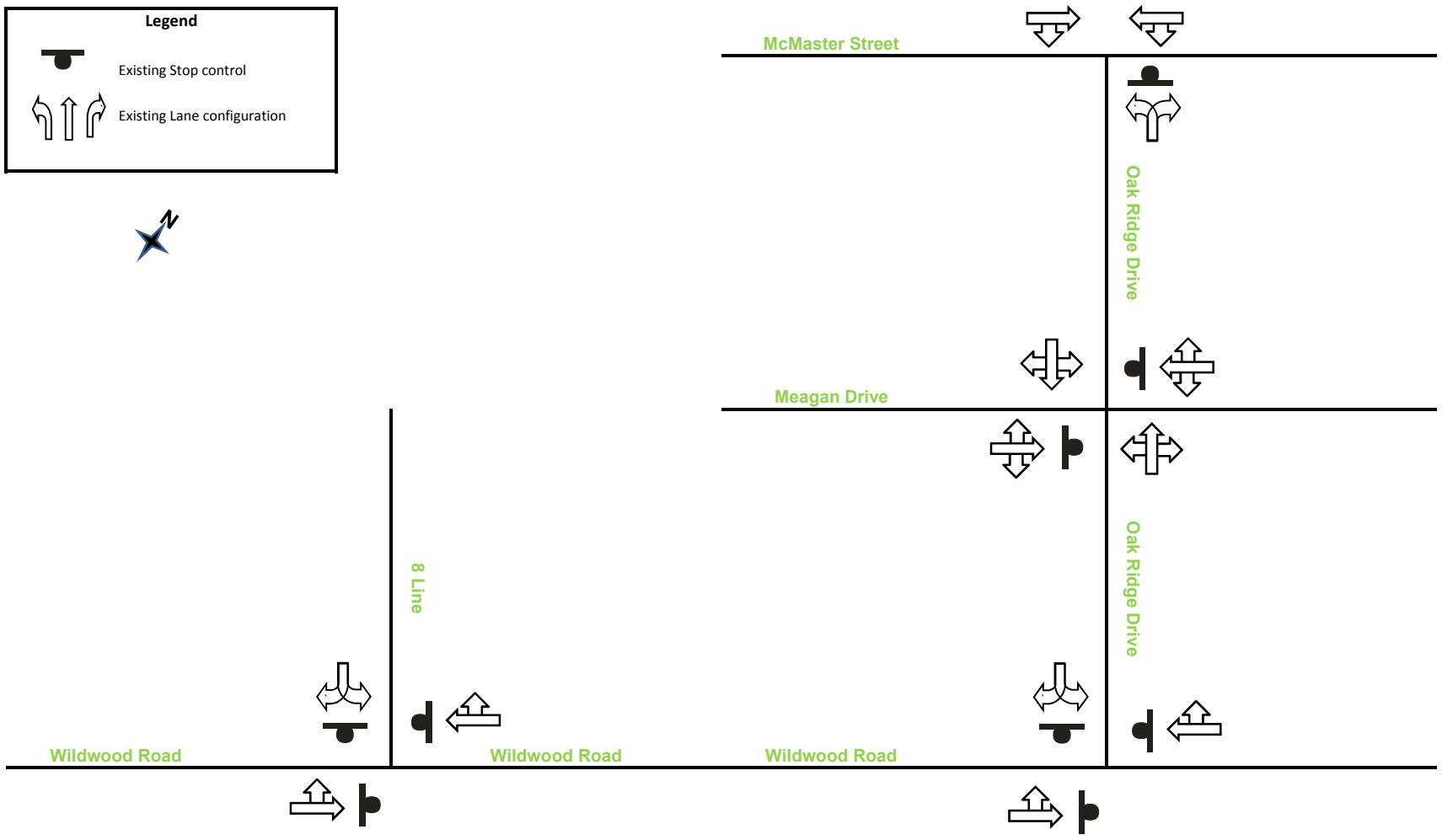


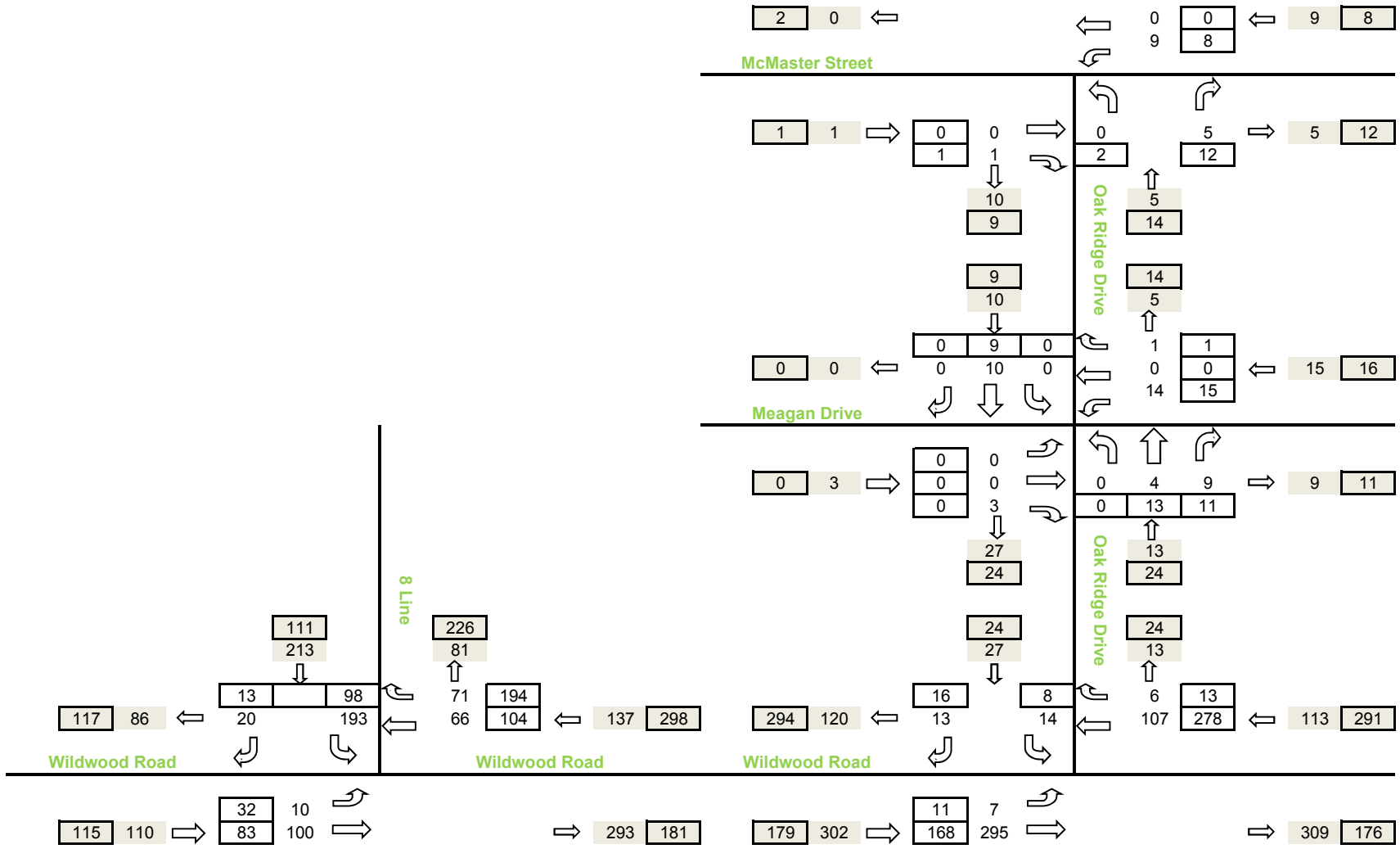
PROPOSED SITE PLAN  
PROPOSED RESIDENTIAL DEVELOPMENT  
GLEN WILLIAMS, WEST OF OAK RIDGE DRIVE  
TOWN OF HALTON HILLS

DATE:	AUGUST 2018	PROJECT No.:	2018-0242
SCALE:	N.T.S.	FIGURE No.:	FIGURE 1-2

**Legend**

-  Existing Stop control
-  Existing Lane configuration



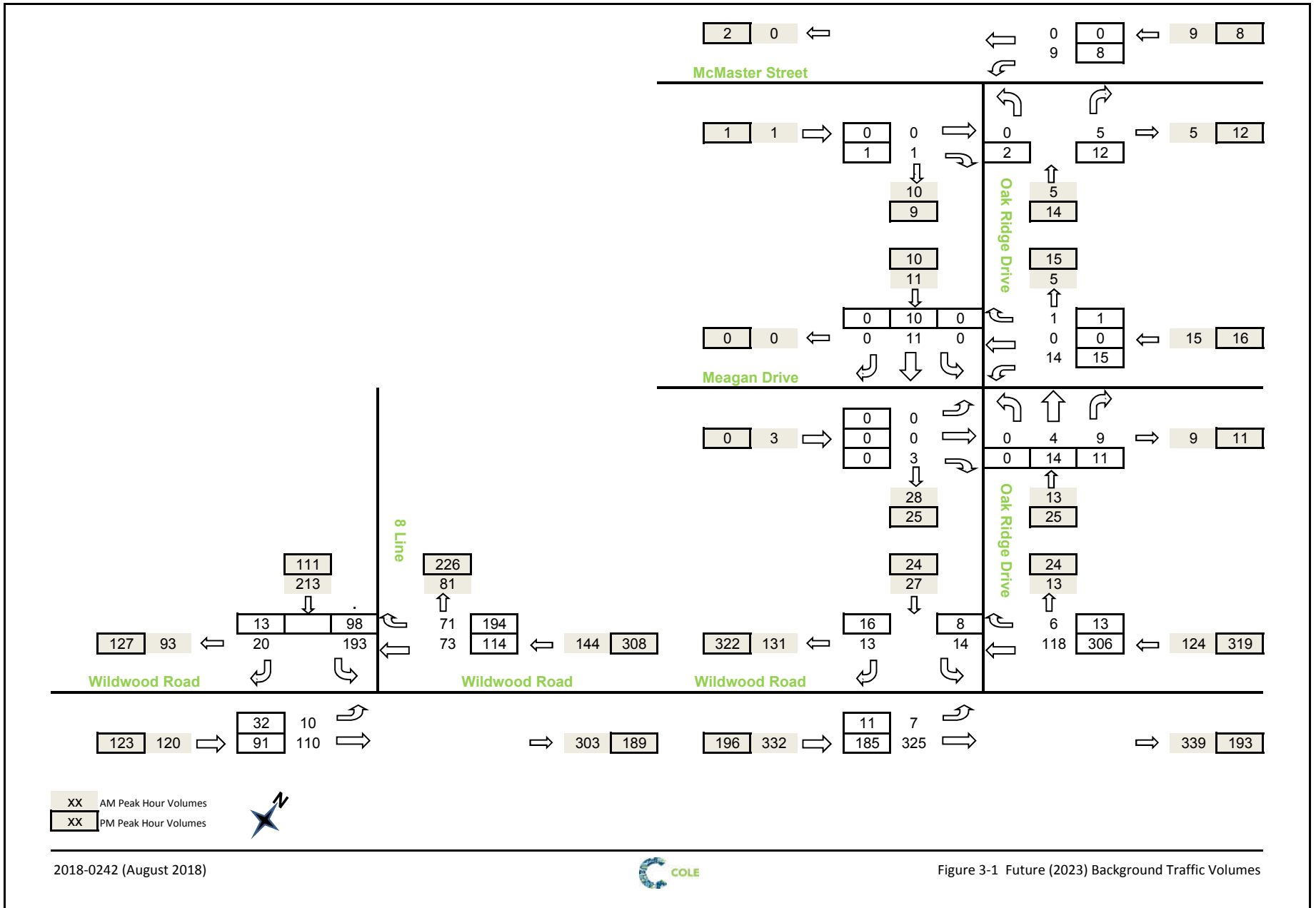


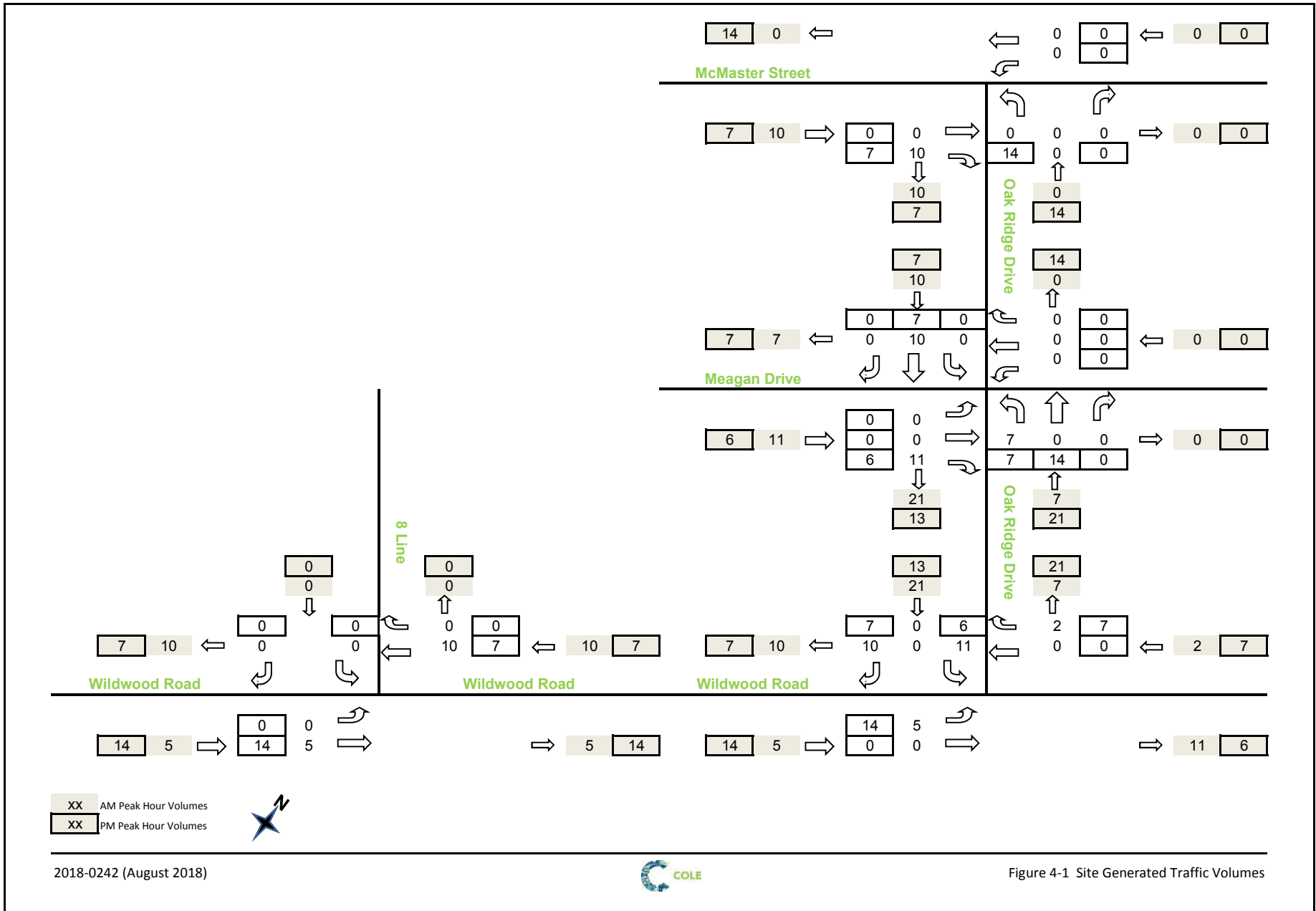
XX AM Peak Hour Volumes  
XX PM Peak Hour Volumes

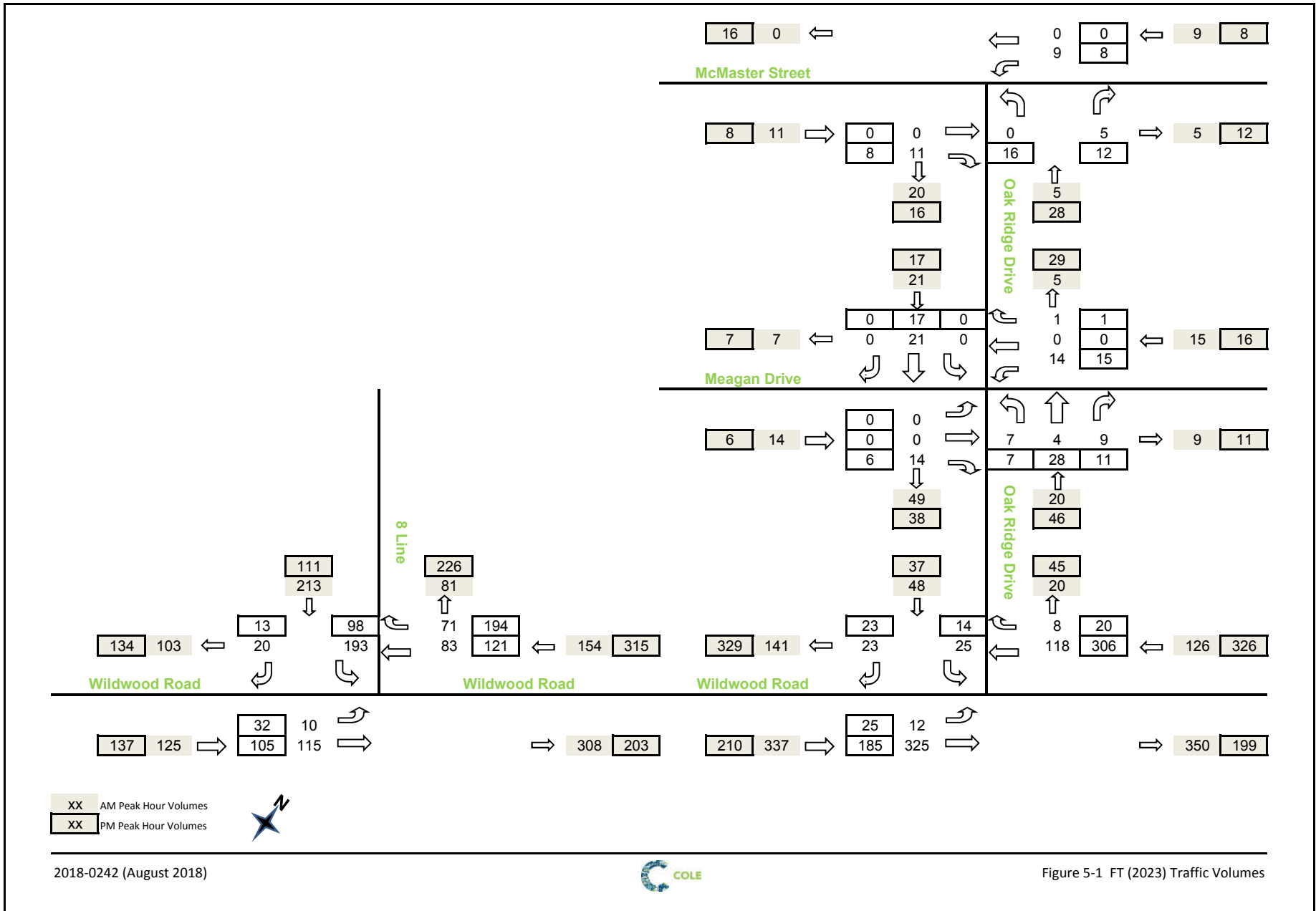


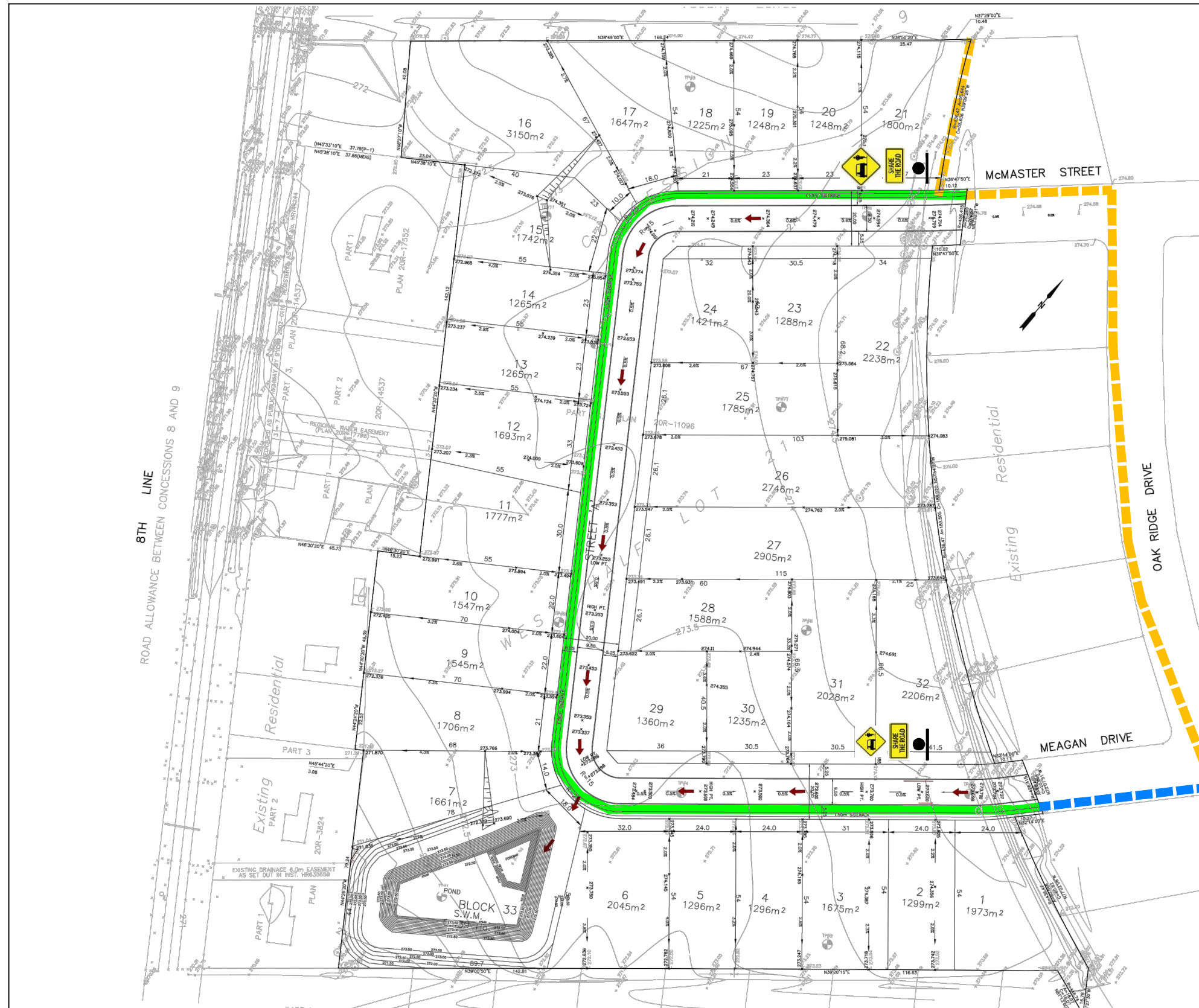
Figure 2-2 Existing Balanced Traffic Volumes











**LEGEND**

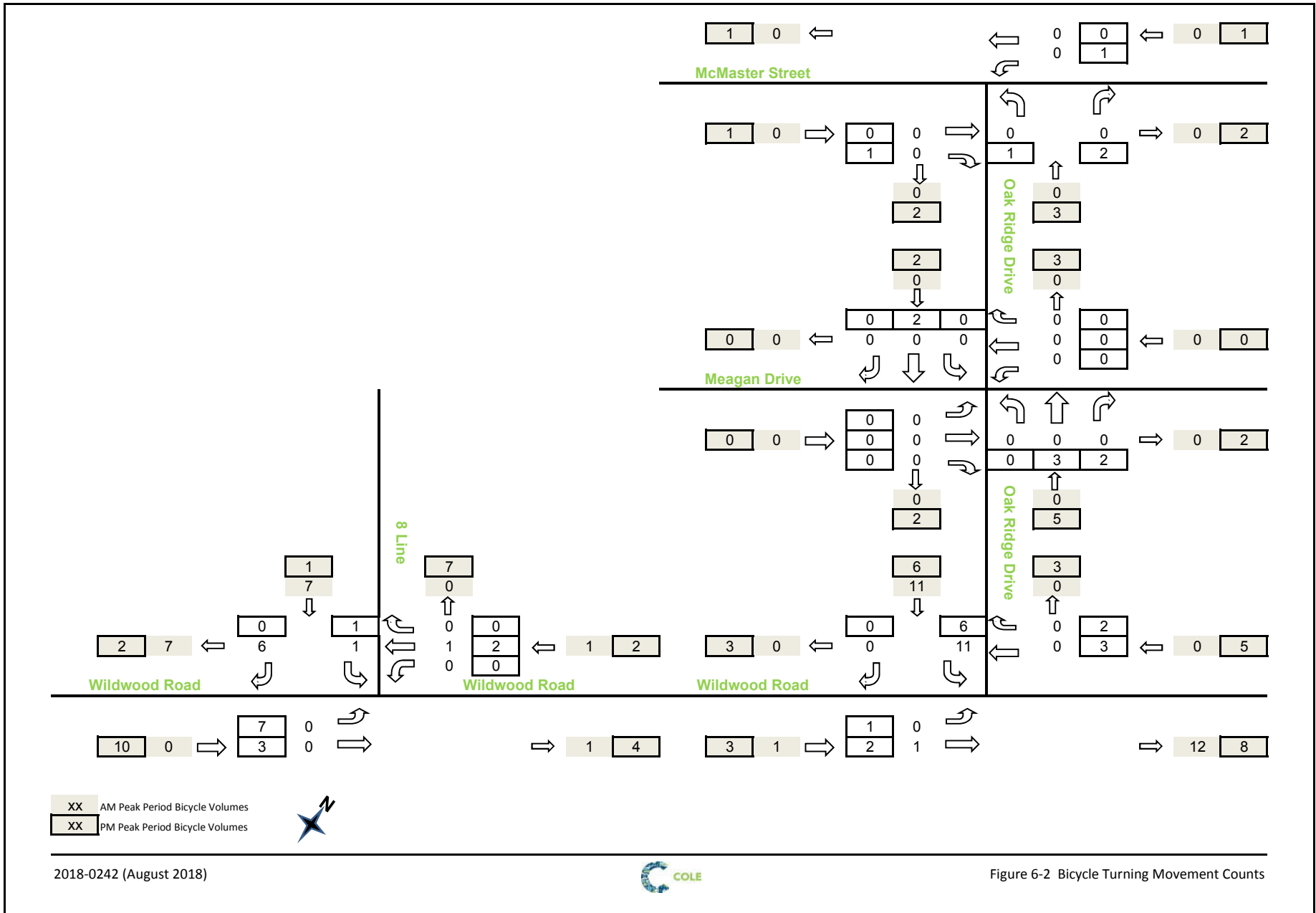
- PROPOSED SIDEWALKS
- ON BOULEVARD LINKAGES
- POTENTIAL TRAILS AND ON-ROAD LINKAGES (GLEN WILLIAMS SECONDARY PLAN SCHEDULE A)
- SIGN SYMBOL
- Share the Road Wc-19 (OTM) (600 mm x 600 mm)
- Share the Road Wc-19t (OTM) (300 mm x 600 mm)

**PROPOSED SITE PLAN, SIDEWALKS AND TRAIL CONNECTIONS  
PROPOSED RESIDENTIAL DEVELOPMENT  
GLEN WILLIAMS, WEST OF OAK RIDGE DRIVE  
TOWN OF HALTON HILLS**

DATE: AUGUST 2018  
SCALE: N.T.S.

PROJECT No.: 2018-0242  
FIGURE No.: FIGURE 6-1







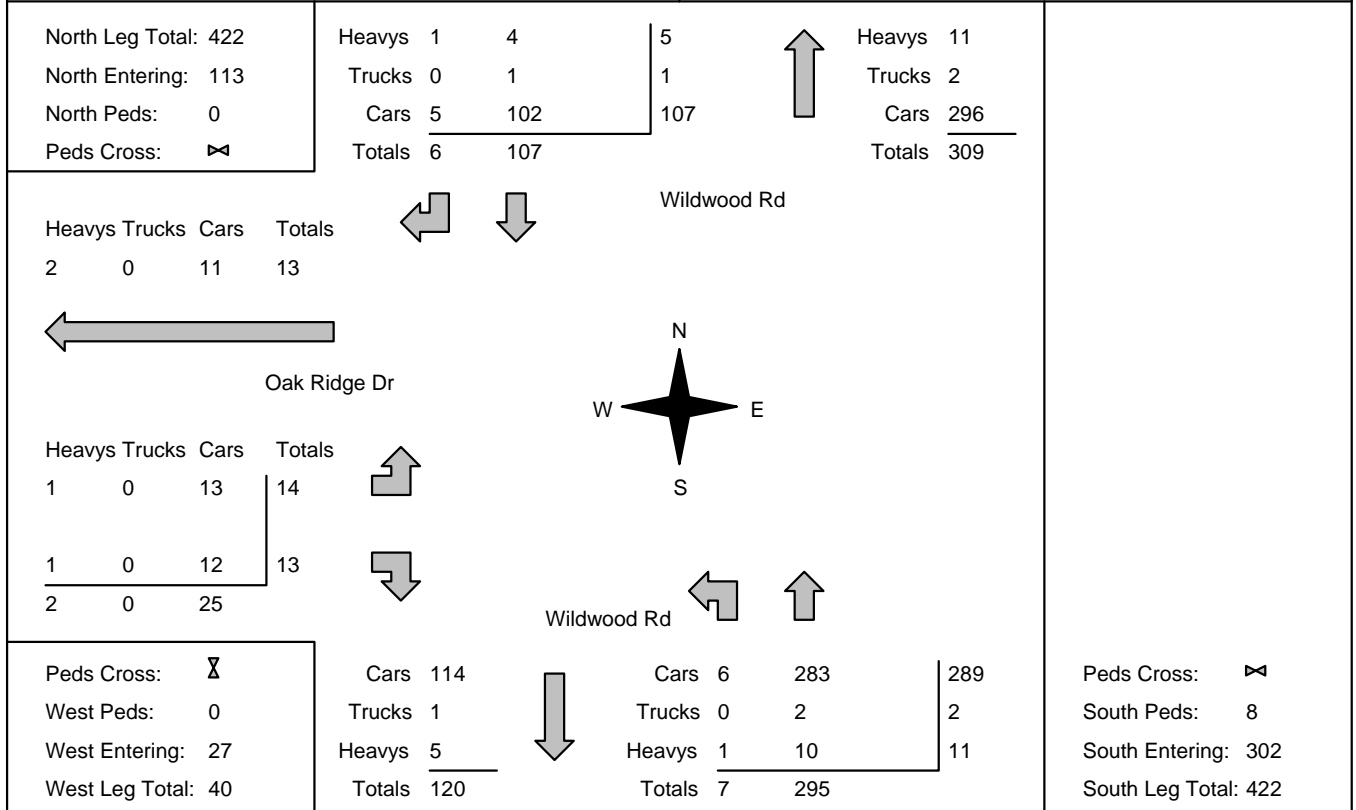
**APPENDIX A**  
**Turning Movement Counts, Bicycle Counts**

# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 7:15:00 <b>To:</b> 8:15:00
-----------------------------	---	--

<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700001 <b>Intersection:</b> Wildwood Rd & Oak Ridge Dr <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> Wildwood Rd runs N/S
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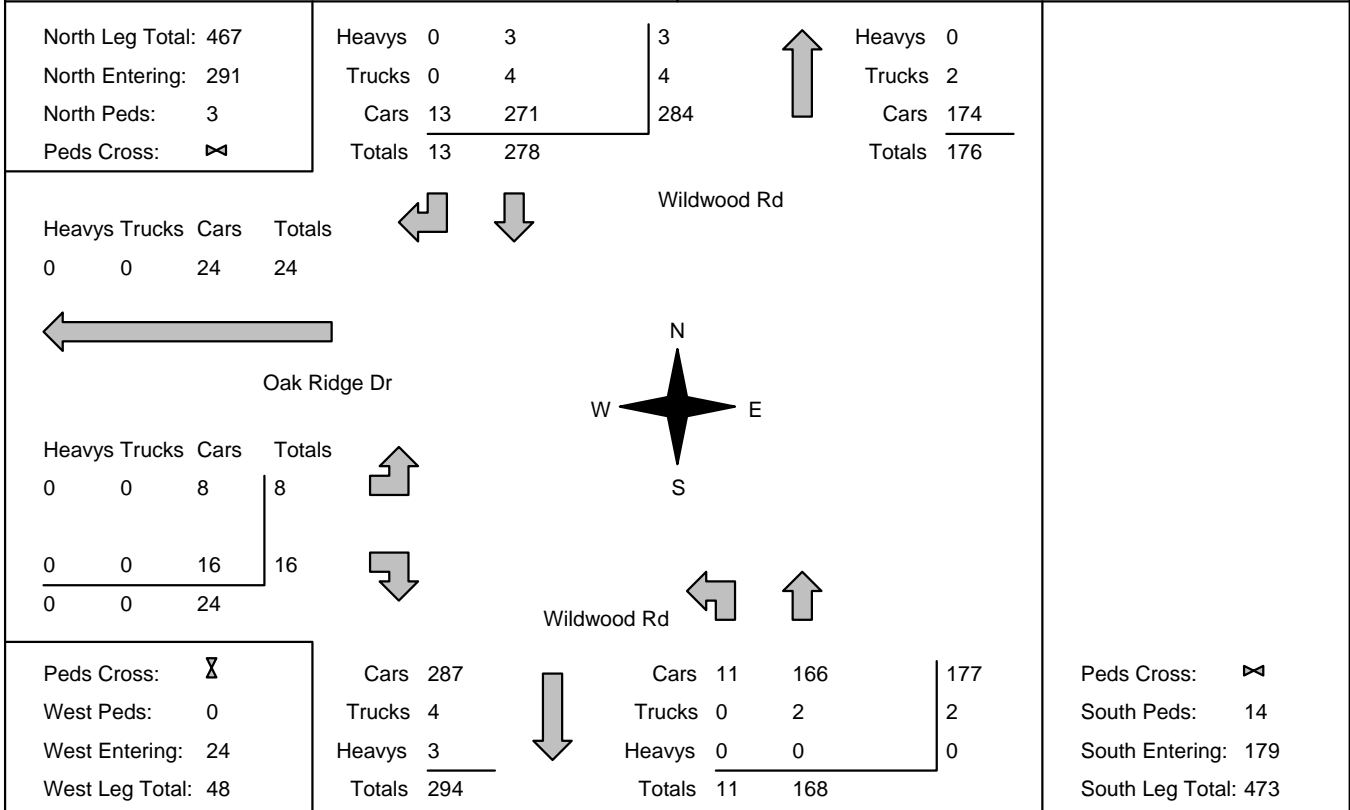
## Comments

# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 15:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
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<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700001 <b>Intersection:</b> Wildwood Rd & Oak Ridge Dr <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
---	---

<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> Wildwood Rd runs N/S
--	---



## Comments



# Accu-Traffic Inc.

## Total Count Diagram

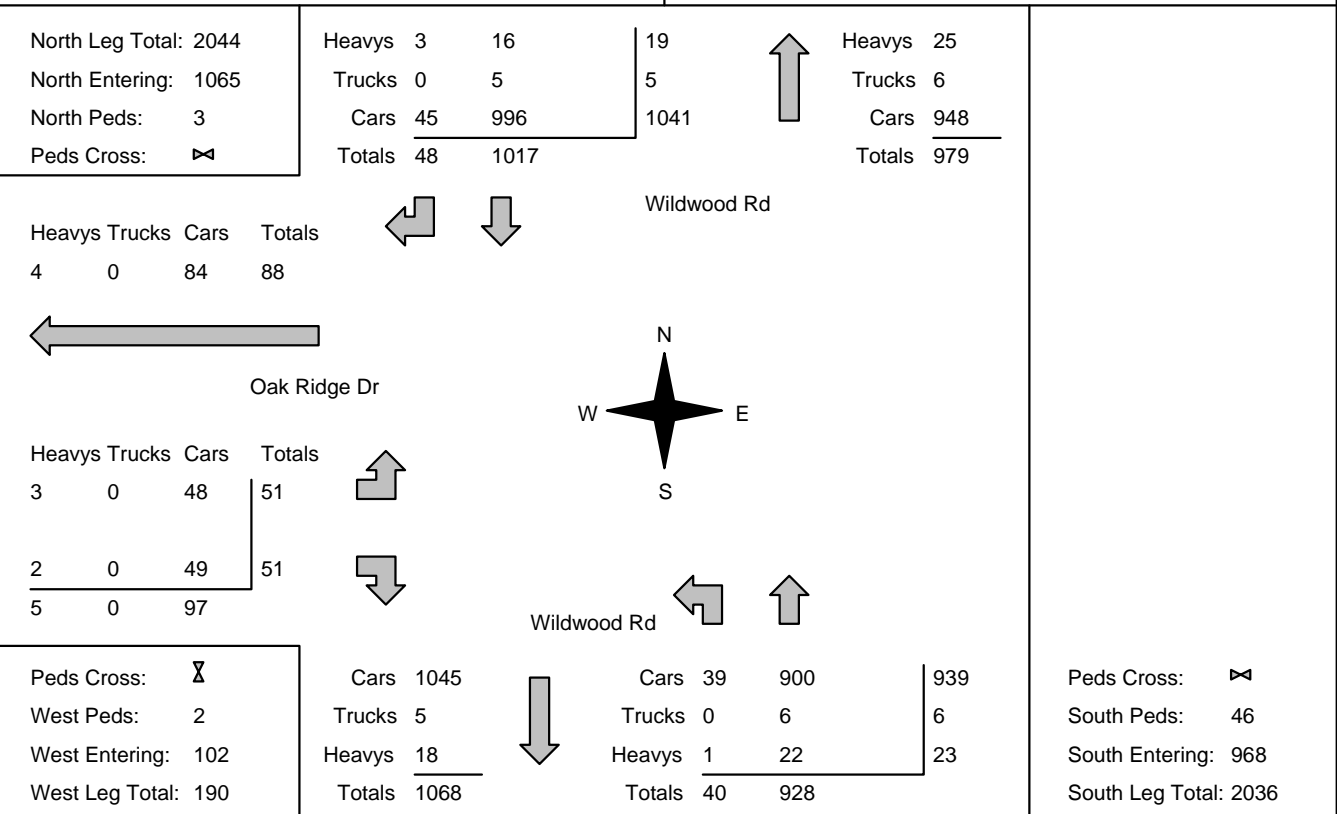
**Municipality:** Halton Hills  
**Site #:** 1807700001  
**Intersection:** Wildwood Rd & Oak Ridge Dr  
**TFR File #:** 1  
**Count date:** 12-Jun-18

**Weather conditions:**

**Person counted:**  
**Person prepared:**  
**Person checked:**

**\*\* Non-Signalized Intersection \*\***

**Major Road:** Wildwood Rd runs N/S



### Comments



**Accu-Traffic Inc.**  
Traffic Monitoring & Data Analysis

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Wildwood Rd & Oak Ridge Dr      Count Date: 12-Jun-18      Municipality: Halton Hills

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	91	4	95	0	396	8:00:00	5	296	0	301	3
9:00:00	0	109	5	114	0	332	9:00:00	6	212	0	218	15
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	0	251	8	259	0	384	16:00:00	8	117	0	125	4
17:00:00	0	289	17	306	0	454	17:00:00	11	137	0	148	4
18:00:00	0	277	14	291	3	467	18:00:00	10	166	0	176	20
<b>Totals:</b>	0	1017	48	1065	3	2033	<b>S Totals:</b>	40	928	0	968	46
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	23	8:00:00	13	0	10	23	0
9:00:00	0	0	0	0	0	26	9:00:00	15	0	11	26	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	14	16:00:00	8	0	6	14	0
17:00:00	0	0	0	0	0	16	17:00:00	5	0	11	16	2
18:00:00	0	0	0	0	0	23	18:00:00	10	0	13	23	0
<b>Totals:</b>	0	0	0	0	0	102	<b>W Totals:</b>	51	0	51	102	2
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	15:00		16:00	17:00	18:00	0:00			
Crossing Values:	0	16	30	0		12	9	33	0			







# Accu-Traffic Inc.

**Count Date: 12-Jun-18 Site #: 1807700001**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	3	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	8	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	10	2	0	0	7	6	0	0	0	0	0	0	0	0	0	0	1	1	0	0
8:00:00	13	3	0	0	9	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15:00	16	3	0	0	13	4	0	0	0	0	0	0	1	1	0	0	1	0	0	0
8:30:00	20	4	0	0	15	2	0	0	0	0	0	0	1	0	0	0	1	0	0	0
8:45:00	23	3	0	0	20	5	0	0	0	0	0	0	1	0	0	0	1	0	0	0
9:00:00	27	4	0	0	20	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
9:15:00	27	0	0	0	20	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
15:00:00	27	0	0	0	20	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
15:15:00	29	2	0	0	22	2	0	0	0	0	0	0	1	0	0	0	2	1	0	0
15:30:00	31	2	0	0	23	1	0	0	0	0	0	0	1	0	0	0	2	0	0	0
15:45:00	31	0	0	0	23	0	0	0	0	0	0	0	2	1	0	0	2	0	0	0
16:00:00	34	3	0	0	25	2	0	0	0	0	0	0	2	0	0	0	2	0	0	0
16:15:00	37	3	0	0	27	2	0	0	0	0	0	0	2	0	0	0	2	0	2	2
16:30:00	37	0	0	0	30	3	0	0	0	0	0	0	3	1	0	0	2	0	2	0
16:45:00	38	1	0	0	32	2	0	0	0	0	0	0	3	0	0	0	2	0	2	0
17:00:00	38	0	0	0	36	4	0	0	0	0	0	0	3	0	0	0	2	0	2	0
17:15:00	40	2	0	0	40	4	0	0	0	0	0	0	3	0	0	0	2	0	2	0
17:30:00	43	3	0	0	46	6	0	0	0	0	0	0	3	0	0	0	2	0	2	0
17:45:00	46	3	0	0	48	2	0	0	0	0	0	0	3	0	0	0	2	0	2	0
18:00:00	48	2	0	0	49	1	0	0	0	0	0	0	3	0	0	0	2	0	2	0
18:15:00	48	0	0	0	49	0	0	0	0	0	0	0	3	0	0	0	2	0	2	0
18:15:15	48	0	0	0	49	0	0	0	0	0	0	0	3	0	0	0	2	0	2	0

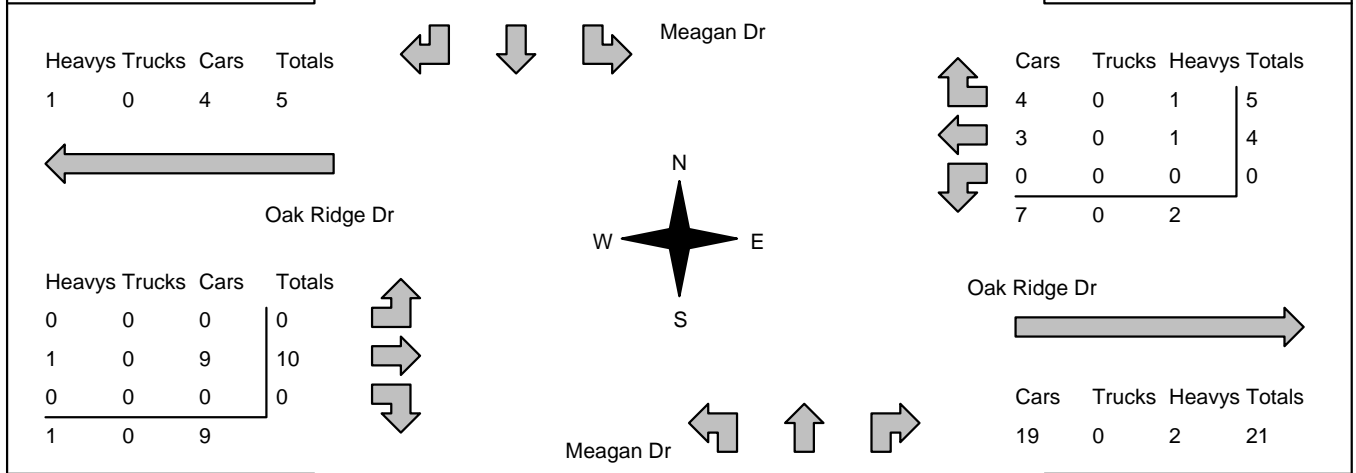
# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 7:15:00 <b>To:</b> 8:15:00
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<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700002 <b>Intersection:</b> Oak Ridge Dr & Meagan Dr <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> Oak Ridge Dr runs W/E
--	--

North Leg Total: 14 North Entering: 9 North Peds: 0 Peds Cross: $\boxtimes$	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Cars</td><td>1</td><td>0</td><td>7</td><td style="border-left: 1px solid black;">8</td></tr> <tr><td>Totals</td><td>1</td><td>0</td><td>8</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	0	0	1	1	Trucks	0	0	0	0	Cars	1	0	7	8	Totals	1	0	8		<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>4</td></tr> <tr><td>Totals</td><td style="border-top: 1px solid black;">5</td></tr> </table>	Heavys	1	Trucks	0	Cars	4	Totals	5	East Leg Total: 30 East Entering: 9 East Peds: 1 Peds Cross: $\boxtimes$
Heavys	0	0	1	1																											
Trucks	0	0	0	0																											
Cars	1	0	7	8																											
Totals	1	0	8																												
Heavys	1																														
Trucks	0																														
Cars	4																														
Totals	5																														



Peds Cross: $\boxtimes$ West Peds: 0 West Entering: 10 West Leg Total: 15	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>0</td><td style="border-left: 1px solid black;">3</td></tr> <tr><td>Trucks</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Heavys</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Totals</td><td>0</td><td style="border-left: 1px solid black;">3</td></tr> </table>	Cars	0	3	Trucks	0	0	Heavys	0	0	Totals	0	3	Peds Cross: $\boxtimes$ South Peds: 1 South Entering: 3 South Leg Total: 3
Cars	0	3												
Trucks	0	0												
Heavys	0	0												
Totals	0	3												

**Comments**

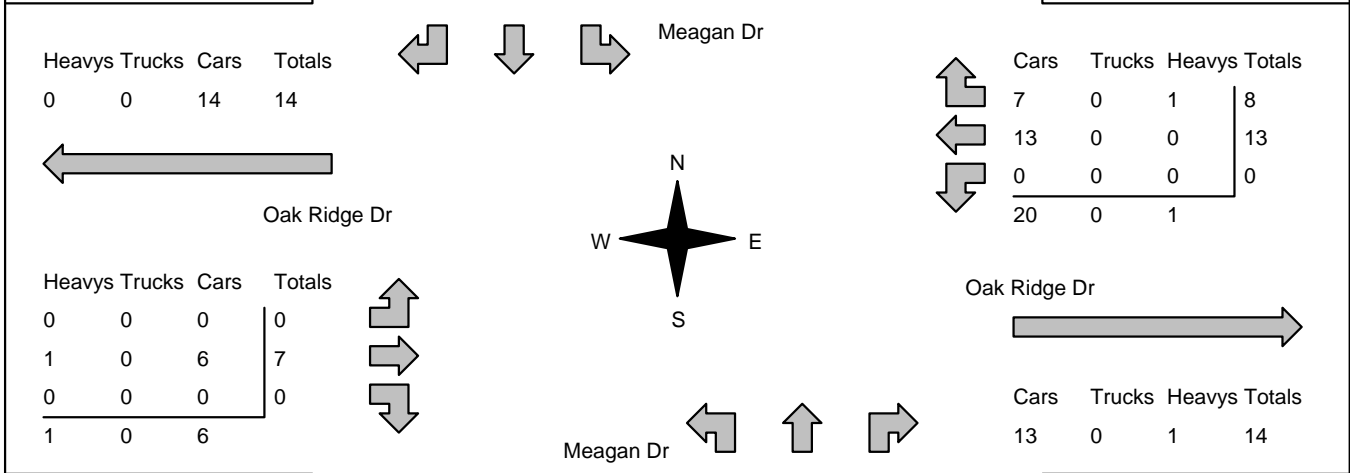
# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 15:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:00:00 <b>To:</b> 17:00:00
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<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700002 <b>Intersection:</b> Oak Ridge Dr & Meagan Dr <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> Oak Ridge Dr runs W/E
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North Leg Total: 16 North Entering: 8 North Peds: 0 Peds Cross: $\boxtimes$	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>1</td><td>0</td><td>7</td><td>8</td></tr> <tr><td>Totals</td><td>1</td><td>0</td><td>7</td><td></td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	1	0	7	8	Totals	1	0	7		↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>7</td></tr> <tr><td>Totals</td><td>8</td></tr> </table>	Heavys	1	Trucks	0	Cars	7	Totals	8	East Leg Total: 35 East Entering: 21 East Peds: 1 Peds Cross: $\boxtimes$
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	1	0	7	8																												
Totals	1	0	7																													
Heavys	1																															
Trucks	0																															
Cars	7																															
Totals	8																															



Peds Cross: $\boxtimes$ West Peds: 0 West Entering: 7 West Leg Total: 21	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>0</td></tr> </table>	Cars	0	Trucks	0	Heavys	0	Totals	0	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Cars	0	0	0	0	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	0	0	0	0	Peds Cross: $\boxtimes$ South Peds: 1 South Entering: 0 South Leg Total: 0
Cars	0																															
Trucks	0																															
Heavys	0																															
Totals	0																															
Cars	0	0	0	0																												
Trucks	0	0	0	0																												
Heavys	0	0	0	0																												
Totals	0	0	0	0																												

**Comments**



# Accu-Traffic Inc.

## Total Count Diagram

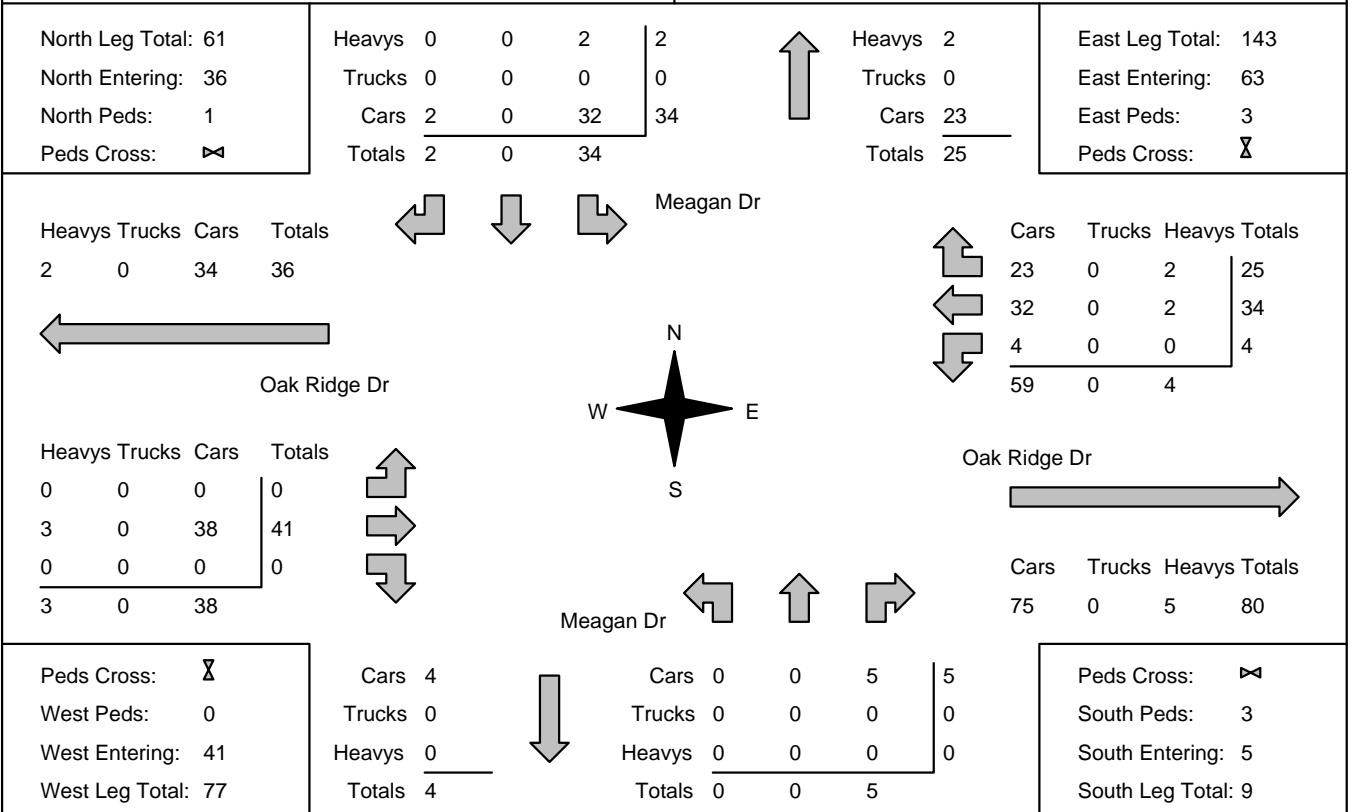
**Municipality:** Halton Hills  
**Site #:** 1807700002  
**Intersection:** Oak Ridge Dr & Meagan Dr  
**TFR File #:** 1  
**Count date:** 12-Jun-18

**Weather conditions:**

**Person counted:**  
**Person prepared:**  
**Person checked:**

**\*\* Non-Signalized Intersection \*\***

**Major Road:** Oak Ridge Dr runs W/E



### Comments



**Accu-Traffic Inc.**  
Traffic Monitoring & Data Analysis

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Oak Ridge Dr & Meagan Dr      Count Date: 12-Jun-18      Municipality: Halton Hills

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	7	0	1	8	0	11	8:00:00	0	0	3	3	1
9:00:00	9	0	0	9	0	9	9:00:00	0	0	0	0	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	6	0	0	6	0	6	16:00:00	0	0	0	0	0
17:00:00	7	0	1	8	0	8	17:00:00	0	0	0	0	1
18:00:00	5	0	0	5	1	7	18:00:00	0	0	2	2	1
<b>Totals:</b>	<b>34</b>	<b>0</b>	<b>2</b>	<b>36</b>	<b>1</b>	<b>41</b>	<b>S Totals:</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>3</b>
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	3	2	5	1	11	8:00:00	0	6	0	6	0
9:00:00	0	4	5	9	0	22	9:00:00	0	13	0	13	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	1	5	5	11	0	19	16:00:00	0	8	0	8	0
17:00:00	0	13	8	21	1	28	17:00:00	0	7	0	7	0
18:00:00	3	9	5	17	1	24	18:00:00	0	7	0	7	0
<b>Totals:</b>	<b>4</b>	<b>34</b>	<b>25</b>	<b>63</b>	<b>3</b>	<b>104</b>	<b>W Totals:</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>41</b>	<b>0</b>
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	15:00		16:00	17:00	18:00	0:00			
Crossing Values:	0	8	9	0		6	8	6	0			









# Accu-Traffic Inc.

Count Date: 12-Jun-18 Site #: 1807700002

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	10	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
8:30:00	0	0	13	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:45:00	0	0	15	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:00:00	0	0	18	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:15:00	0	0	18	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
15:00:00	0	0	18	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
15:15:00	0	0	21	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
15:30:00	0	0	23	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
15:45:00	0	0	24	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0
16:00:00	0	0	25	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
16:15:00	0	0	27	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
16:30:00	0	0	27	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0
16:45:00	0	0	28	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
17:00:00	0	0	31	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
17:15:00	0	0	34	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
17:30:00	0	0	35	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
17:45:00	0	0	36	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
18:00:00	0	0	38	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
18:15:00	0	0	38	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
18:15:15	0	0	38	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0

# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
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<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700003 <b>Intersection:</b> McMaster St & Oak Ridge Dr <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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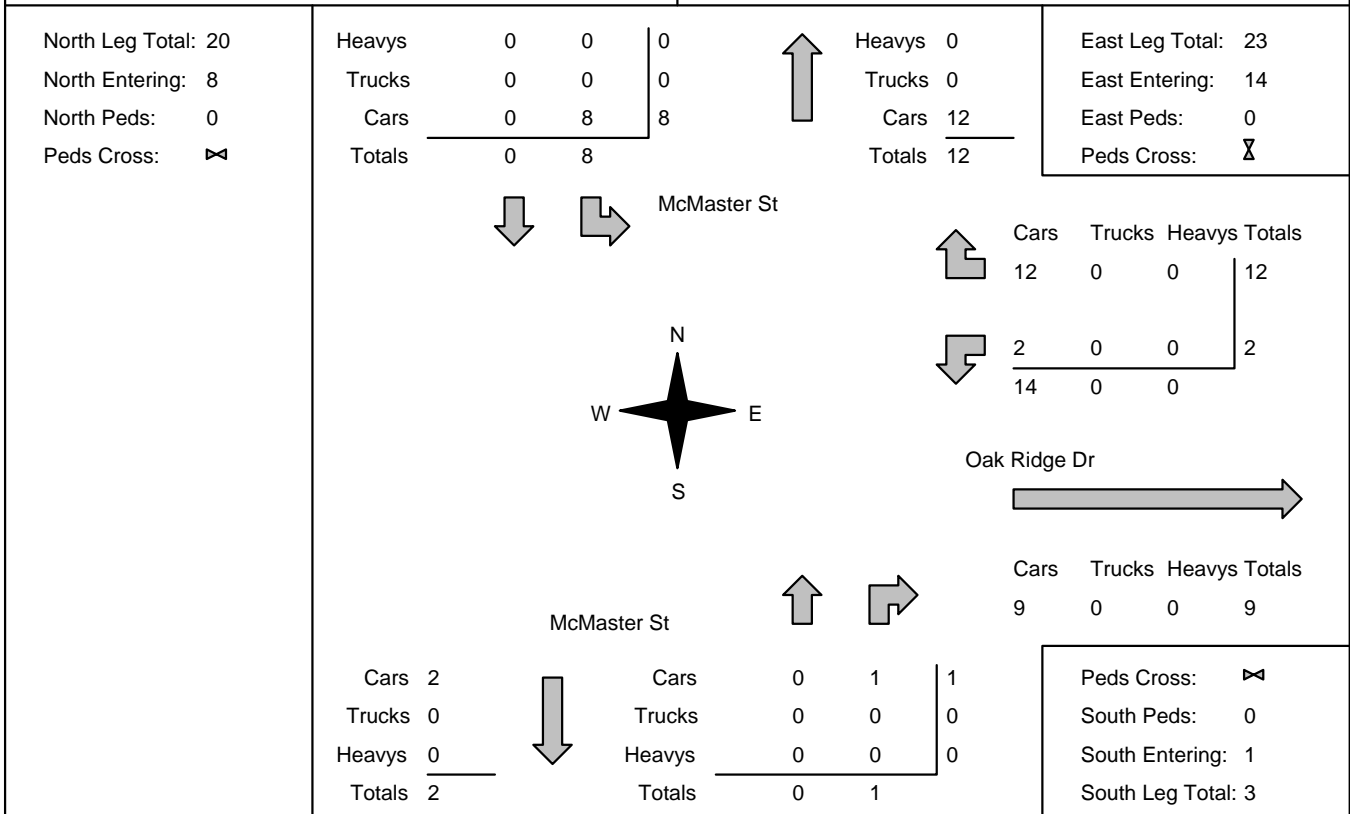
<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> McMaster St runs N/S
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North Leg Total: 14 North Entering: 9 North Peds: 0 Peds Cross: ☒	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Heavys</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 10%; text-align: center;">1</td> <td style="width: 10%; text-align: center;"> </td> <td style="width: 10%; text-align: center;">1</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: center;">Heavys</td> <td style="width: 10%; text-align: center;">0</td> </tr> <tr> <td>Trucks</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;"> </td> <td style="text-align: center;">0</td> <td></td> <td>Trucks</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Cars</td> <td style="text-align: center;">0</td> <td style="text-align: center;">8</td> <td style="text-align: center;"> </td> <td style="text-align: center;">8</td> <td></td> <td>Cars</td> <td style="text-align: center;">5</td> </tr> <tr> <td><b>Totals</b></td> <td style="text-align: center;"><b>0</b></td> <td style="text-align: center;"><b>9</b></td> <td style="text-align: center;"><b> </b></td> <td style="text-align: center;"><b>8</b></td> <td></td> <td><b>Totals</b></td> <td style="text-align: center;"><b>5</b></td> </tr> </table> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">   </div> <div style="text-align: center;"> <b>McMaster St</b> </div> <div style="text-align: center;">   </div> </div> <div style="display: flex; justify-content: center; align-items: center;"> <div style="text-align: center; margin-right: 20px;"> </div> <div style="text-align: center;"> <b>Oak Ridge Dr</b>  </div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <b>McMaster St</b>    </div> <div style="text-align: center;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cars</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 10%; text-align: center;">1</td> <td style="width: 10%; text-align: center;"> </td> <td style="width: 10%; text-align: center;">1</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: center;">Cars</td> <td style="width: 10%; text-align: center;">0</td> </tr> <tr> <td>Trucks</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;"> </td> <td style="text-align: center;">0</td> <td></td> <td>Trucks</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Heavys</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;"> </td> <td style="text-align: center;">0</td> <td></td> <td>Heavys</td> <td style="text-align: center;">0</td> </tr> <tr> <td><b>Totals</b></td> <td style="text-align: center;"><b>0</b></td> <td style="text-align: center;"><b>1</b></td> <td style="text-align: center;"><b> </b></td> <td style="text-align: center;"><b>0</b></td> <td></td> <td><b>Totals</b></td> <td style="text-align: center;"><b>1</b></td> </tr> </table> </div> </div>	Heavys	0	1		1		Heavys	0	Trucks	0	0		0		Trucks	0	Cars	0	8		8		Cars	5	<b>Totals</b>	<b>0</b>	<b>9</b>	<b> </b>	<b>8</b>		<b>Totals</b>	<b>5</b>	Cars	0	1		1		Cars	0	Trucks	0	0		0		Trucks	0	Heavys	0	0		0		Heavys	0	<b>Totals</b>	<b>0</b>	<b>1</b>	<b> </b>	<b>0</b>		<b>Totals</b>	<b>1</b>
Heavys	0	1		1		Heavys	0																																																										
Trucks	0	0		0		Trucks	0																																																										
Cars	0	8		8		Cars	5																																																										
<b>Totals</b>	<b>0</b>	<b>9</b>	<b> </b>	<b>8</b>		<b>Totals</b>	<b>5</b>																																																										
Cars	0	1		1		Cars	0																																																										
Trucks	0	0		0		Trucks	0																																																										
Heavys	0	0		0		Heavys	0																																																										
<b>Totals</b>	<b>0</b>	<b>1</b>	<b> </b>	<b>0</b>		<b>Totals</b>	<b>1</b>																																																										

## Comments

# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 15:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 17:00:00 <b>To:</b> 18:00:00
<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700003 <b>Intersection:</b> McMaster St & Oak Ridge Dr <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>	
<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> McMaster St runs N/S	



## Comments



# Accu-Traffic Inc.

## Total Count Diagram

**Municipality:** Halton Hills  
**Site #:** 1807700003  
**Intersection:** McMaster St & Oak Ridge Dr  
**TFR File #:** 1  
**Count date:** 12-Jun-18

**Weather conditions:**

**Person counted:**  
**Person prepared:**  
**Person checked:**

**\*\* Non-Signalized Intersection \*\***

**Major Road:** McMaster St runs N/S

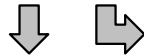
North Leg Total: 68  
 North Entering: 33  
 North Peds: 0  
 Peds Cross:

Heavys	0	3	3
Trucks	0	0	0
Cars	1	29	30
Totals	1	32	

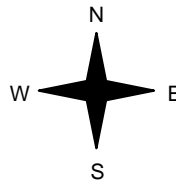


Heavys	3
Trucks	0
Cars	32
Totals	35

East Leg Total: 74  
 East Entering: 38  
 East Peds: 1  
 Peds Cross:



McMaster St



Cars	Trucks	Heavys	Totals
31	0	2	33

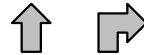


Cars	Trucks	Heavys	Totals
5	0	0	5
36	0	2	

Oak Ridge Dr



McMaster St



Cars	6
Trucks	0
Heavys	0
Totals	6



Cars	1	4	5
Trucks	0	0	0
Heavys	1	0	1
Totals	2	4	

Cars	Trucks	Heavys	Totals
33	0	3	36

Peds Cross:   
 South Peds: 1  
 South Entering: 6  
 South Leg Total: 12

### Comments



**Accu-Traffic Inc.**  
Traffic Monitoring & Data Analysis

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: **McMaster St & Oak Ridge Dr**      Count Date: **12-Jun-18**      Municipality: **Halton Hills**

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	4	1	0	5	0	6	8:00:00	0	1	0	1	1
9:00:00	9	0	0	9	0	10	9:00:00	0	0	1	1	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	6	0	0	6	0	8	16:00:00	0	1	1	2	0
17:00:00	5	0	0	5	0	6	17:00:00	0	0	1	1	0
18:00:00	8	0	0	8	0	9	18:00:00	0	0	1	1	0
<b>Totals:</b>	<b>32</b>	<b>1</b>	<b>0</b>	<b>33</b>	<b>0</b>	<b>39</b>	<b>S Totals:</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>1</b>
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	4	4	0	4	8:00:00	0	0	0	0	0
9:00:00	0	0	5	5	0	5	9:00:00	0	0	0	0	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	1	0	3	4	0	4	16:00:00	0	0	0	0	0
17:00:00	2	0	9	11	1	11	17:00:00	0	0	0	0	0
18:00:00	2	0	12	14	0	14	18:00:00	0	0	0	0	0
<b>Totals:</b>	<b>5</b>	<b>0</b>	<b>33</b>	<b>38</b>	<b>1</b>	<b>38</b>	<b>W Totals:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	15:00		16:00	17:00	18:00	0:00			
Crossing Values:	0	1	0	0		1	2	2	0			





# Accu-Traffic Inc.

Count Date: 12-Jun-18      Site #: 1807700003

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
8:00:00	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15:00	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:30:00	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:45:00	0	0	0	0	6	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0
9:00:00	0	0	0	0	8	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0
9:15:00	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
15:00:00	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
15:15:00	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0
15:30:00	0	0	0	0	9	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0
15:45:00	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
16:00:00	1	1	0	0	10	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0
16:15:00	3	2	0	0	13	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0
16:30:00	3	0	0	0	17	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0
16:45:00	3	0	0	0	17	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
17:00:00	3	0	0	0	19	2	0	0	0	0	0	0	0	0	0	2	0	1	1	0
17:15:00	5	2	0	0	23	4	0	0	0	0	0	0	0	0	0	2	0	1	0	0
17:30:00	5	0	0	0	27	4	0	0	0	0	0	0	0	0	0	2	0	1	0	0
17:45:00	5	0	0	0	27	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
18:00:00	5	0	0	0	31	4	0	0	0	0	0	0	0	0	0	2	0	1	0	0
18:15:00	5	0	0	0	31	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
18:15:15	5	0	0	0	31	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0



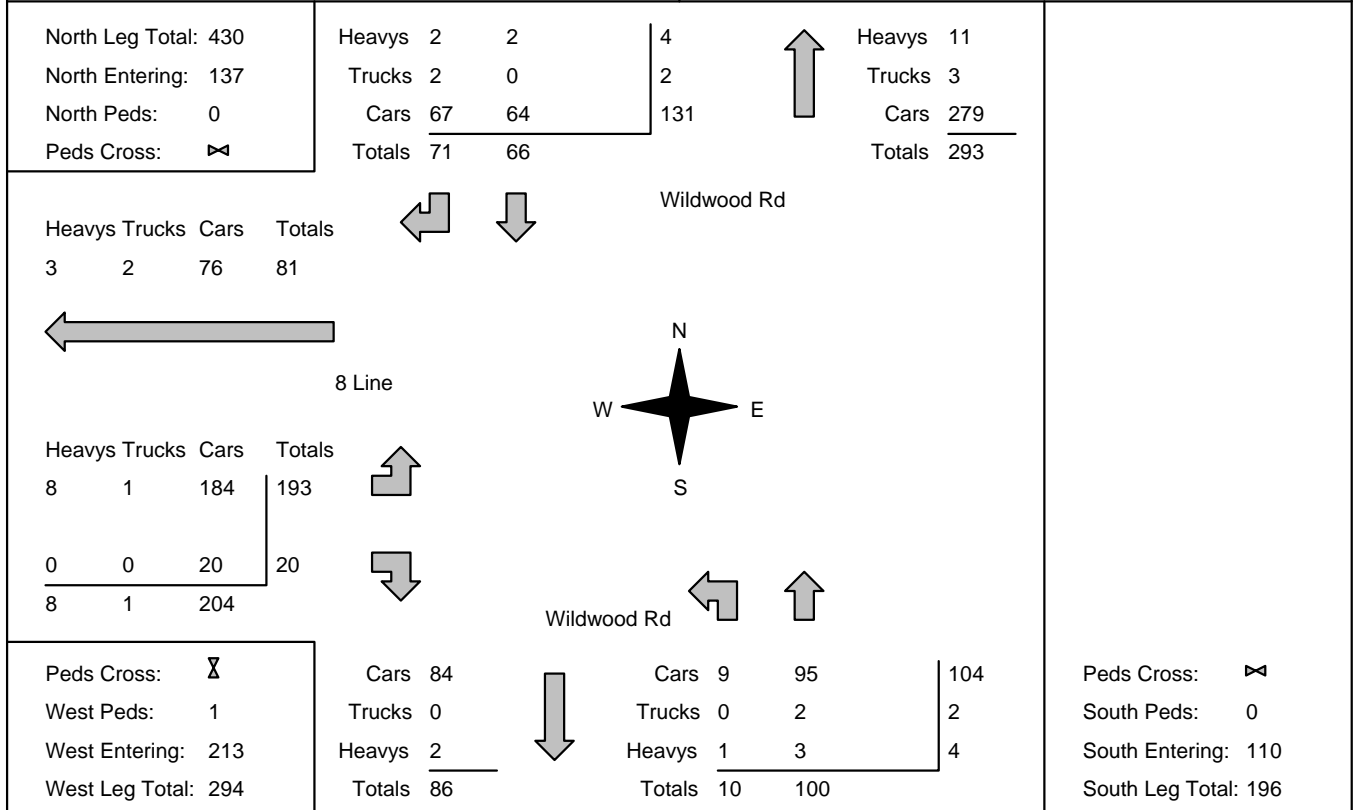


# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 7:30:00 <b>To:</b> 8:30:00
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<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700004 <b>Intersection:</b> Wildwood Rd & 8 Line <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> Wildwood Rd runs N/S
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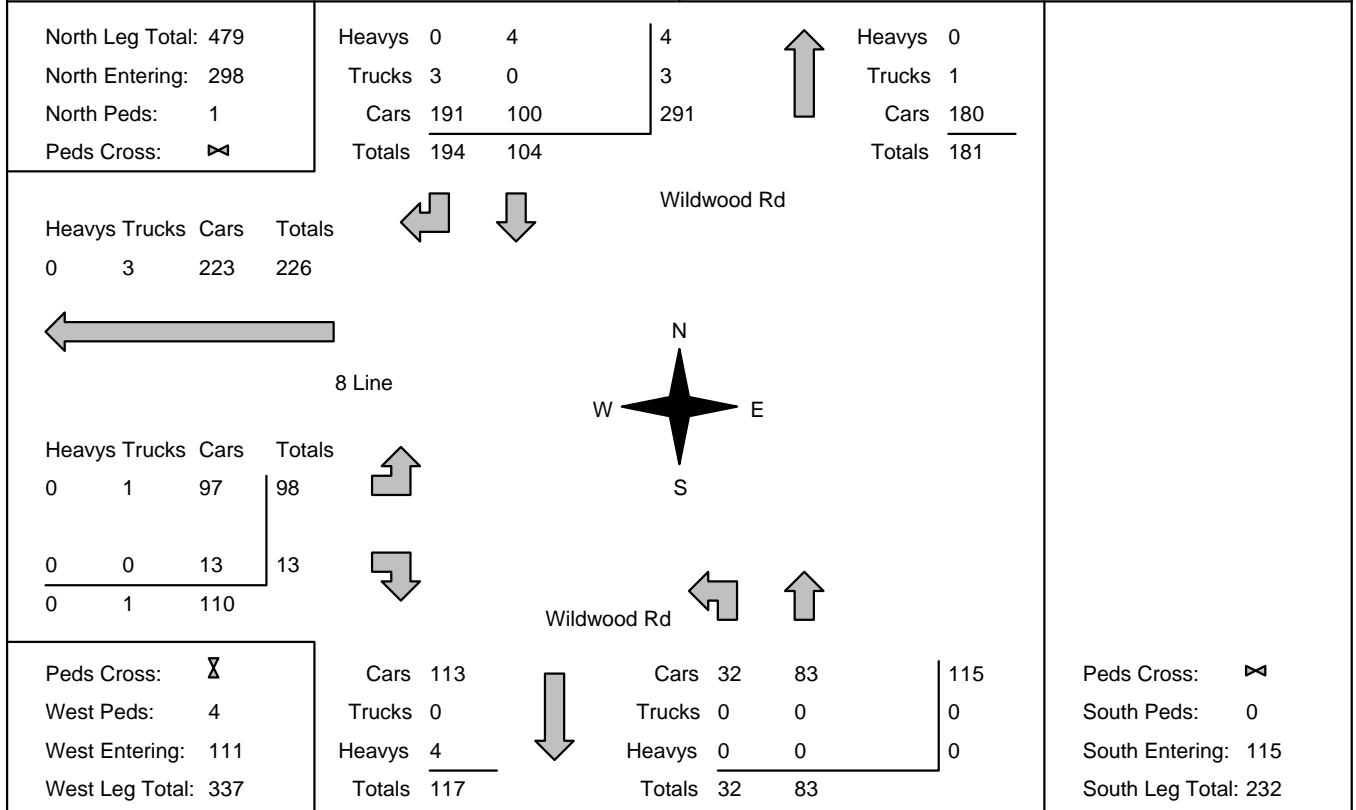
## Comments

# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 15:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
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<b>Municipality:</b> Halton Hills <b>Site #:</b> 1807700004 <b>Intersection:</b> Wildwood Rd & 8 Line <b>TFR File #:</b> 1 <b>Count date:</b> 12-Jun-18	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Non-Signalized Intersection **</b>	<b>Major Road:</b> Wildwood Rd runs N/S
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## Comments



# Accu-Traffic Inc.

## Total Count Diagram

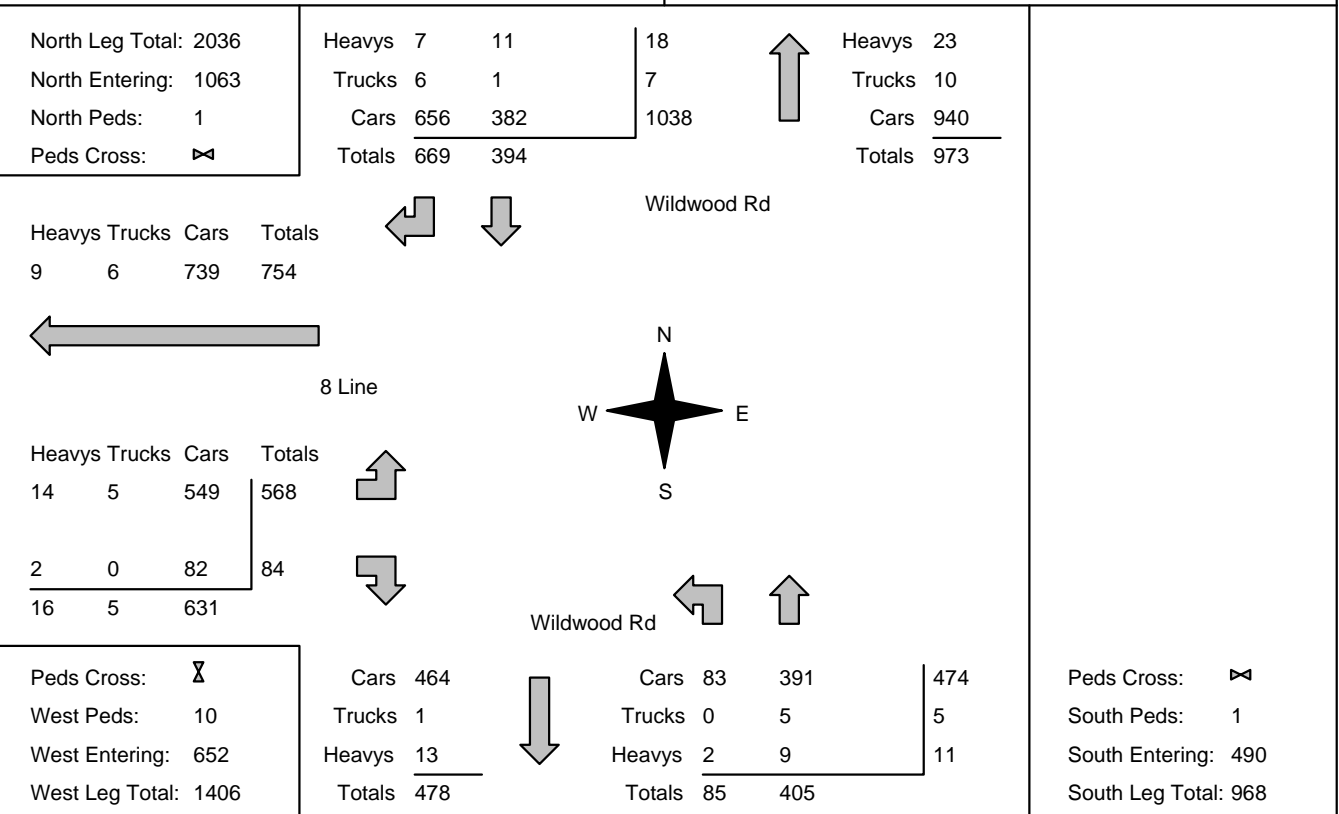
**Municipality:** Halton Hills  
**Site #:** 1807700004  
**Intersection:** Wildwood Rd & 8 Line  
**TFR File #:** 1  
**Count date:** 12-Jun-18

**Weather conditions:**

**Person counted:**  
**Person prepared:**  
**Person checked:**

**\*\* Non-Signalized Intersection \*\***

**Major Road:** Wildwood Rd runs N/S



### Comments



**Accu-Traffic Inc.**  
Traffic Monitoring & Data Analysis

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Wildwood Rd & 8 Line      Count Date: 12-Jun-18      Municipality: Halton Hills

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	51	50	101	0	206	8:00:00	7	98	0	105	0
9:00:00	0	66	64	130	0	215	9:00:00	11	74	0	85	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	0	81	175	256	0	341	16:00:00	11	74	0	85	0
17:00:00	0	96	198	294	0	389	17:00:00	24	71	0	95	1
18:00:00	0	100	182	282	1	402	18:00:00	32	88	0	120	0
<b>Totals:</b>	0	394	669	1063	1	1553	<b>S Totals:</b>	85	405	0	490	1
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	217	8:00:00	199	0	18	217	0
9:00:00	0	0	0	0	0	167	9:00:00	144	0	23	167	4
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	75	16:00:00	56	0	19	75	1
17:00:00	0	0	0	0	0	88	17:00:00	78	0	10	88	1
18:00:00	0	0	0	0	0	105	18:00:00	91	0	14	105	4
<b>Totals:</b>	0	0	0	0	0	652	<b>W Totals:</b>	568	0	84	652	10
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	15:00		16:00	17:00	18:00	0:00			
Crossing Values:	0	199	144	0		56	79	92	0			



# Accu-Traffic Inc.

Count Date: 12-Jun-18 Site #: 1807700004

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	15	7	16	8	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7:45:00	0	0	33	18	36	20	0	0	0	0	1	1	0	0	1	0	0	0	0	0
8:00:00	0	0	49	16	48	12	0	0	0	0	2	1	0	0	2	1	0	0	0	0
8:15:00	0	0	68	19	63	15	0	0	0	0	2	0	0	0	3	1	2	2	0	0
8:30:00	0	0	79	11	83	20	0	0	0	0	2	0	0	0	3	0	2	0	0	0
8:45:00	0	0	98	19	97	14	0	0	0	0	2	0	0	0	3	0	2	0	0	0
9:00:00	0	0	114	16	110	13	0	0	0	0	2	0	0	0	3	0	2	0	0	0
9:15:00	0	0	114	0	110	0	0	0	0	0	2	0	0	0	3	0	2	0	0	0
15:00:00	0	0	114	0	110	0	0	0	0	0	2	0	0	0	3	0	2	0	0	0
15:15:00	0	0	131	17	153	43	0	0	0	0	2	0	0	0	4	1	3	1	0	0
15:30:00	0	0	148	17	194	41	0	0	0	0	3	1	0	0	5	1	3	0	0	0
15:45:00	0	0	169	21	236	42	0	0	0	0	3	0	0	0	6	1	3	0	0	0
16:00:00	0	0	192	23	282	46	0	0	0	0	3	0	0	0	6	0	4	1	0	0
16:15:00	0	0	217	25	318	36	0	0	0	0	3	0	0	0	6	0	6	2	0	0
16:30:00	0	0	236	19	378	60	0	0	0	0	3	0	0	0	6	0	6	0	0	0
16:45:00	0	0	261	25	427	49	0	0	0	0	3	0	0	0	7	1	6	0	0	0
17:00:00	0	0	284	23	477	50	0	0	0	0	4	1	0	0	10	3	6	0	0	0
17:15:00	0	0	308	24	519	42	0	0	0	0	4	0	0	0	10	0	6	0	0	0
17:30:00	0	0	339	31	570	51	0	0	0	0	6	2	0	0	11	1	6	0	0	0
17:45:00	0	0	361	22	618	48	0	0	0	0	6	0	0	0	11	0	6	0	1	1
18:00:00	0	0	382	21	656	38	0	0	1	1	6	0	0	0	11	0	7	1	1	0
18:15:00	0	0	382	0	656	0	0	0	1	0	6	0	0	0	11	0	7	0	1	0
18:15:15	0	0	382	0	656	0	0	0	1	0	6	0	0	0	11	0	7	0	1	0





# Accu-Traffic Inc.

**Count Date: 12-Jun-18    Site #: 1807700004**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	4	4	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	4	0	45	24	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
7:45:00	4	0	75	30	0	0	0	0	2	1	0	0	0	0	3	2	0	0	0	0
8:00:00	7	3	93	18	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0
8:15:00	7	0	115	22	0	0	0	0	3	1	0	0	0	0	3	0	0	0	0	0
8:30:00	13	6	140	25	0	0	0	0	3	0	0	0	1	1	4	1	0	0	0	0
8:45:00	15	2	154	14	0	0	0	0	3	0	0	0	1	0	5	1	0	0	0	0
9:00:00	17	2	164	10	0	0	0	0	3	0	0	0	1	0	5	0	0	0	0	0
9:15:00	17	0	164	0	0	0	0	0	3	0	0	0	1	0	5	0	0	0	0	0
15:00:00	17	0	164	0	0	0	0	0	3	0	0	0	1	0	5	0	0	0	0	0
15:15:00	18	1	180	16	0	0	0	0	4	1	0	0	1	0	5	0	0	0	0	0
15:30:00	20	2	191	11	0	0	0	0	4	0	0	0	1	0	6	1	0	0	0	0
15:45:00	24	4	209	18	0	0	0	0	4	0	0	0	1	0	7	1	0	0	0	0
16:00:00	27	3	235	26	0	0	0	0	4	0	0	0	2	1	7	0	0	0	0	0
16:15:00	30	3	251	16	0	0	0	0	4	0	0	0	2	0	7	0	0	0	0	0
16:30:00	35	5	271	20	0	0	0	0	4	0	0	0	2	0	9	2	0	0	1	1
16:45:00	40	5	286	15	0	0	0	0	4	0	0	0	2	0	9	0	0	0	1	0
17:00:00	51	11	304	18	0	0	0	0	4	0	0	0	2	0	9	0	0	0	1	0
17:15:00	61	10	324	20	0	0	0	0	4	0	0	0	2	0	9	0	0	0	1	0
17:30:00	70	9	341	17	0	0	0	0	4	0	0	0	2	0	9	0	0	0	1	0
17:45:00	72	2	369	28	0	0	0	0	4	0	0	0	2	0	9	0	0	0	1	0
18:00:00	83	11	391	22	0	0	0	0	5	1	0	0	2	0	9	0	0	0	1	0
18:15:00	83	0	391	0	0	0	0	0	5	0	0	0	2	0	9	0	0	0	1	0
18:15:15	83	0	391	0	0	0	0	0	5	0	0	0	2	0	9	0	0	0	1	0



1\_Wildwood Rd & Oak Ridge Dr\_bikes

Time	East Left	South Left	West Left	North Left	East Right	South Right	West Right	North Right	East Thru	South Thru	West Thru	North Thru
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	1	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0
Sum:	0	0	0	0	0	0	0	0	0	0	1	0
15:00:00	0	0	0	0	0	0	0	0	1	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	1	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	2	0	0	0	2	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	2	0
Sum:	0	0	1	0	2	0	0	0	3	0	2	0

2\_Oak Ridge Dr & Meagan Dr\_bikes

Time	East Left	South Left	West Left	North Left	East Right	South Right	West Right	North Right	East Thru	South Thru	West Thru	North Thru
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0
Sum:	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	1	0	1
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	1	0	0	0	0	0	1
17:15:00	0	0	0	0	0	0	0	0	0	2	0	0
17:30:00	0	0	0	0	0	1	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0
Sum:	0	0	0	0	0	2	0	0	0	3	0	2



3\_Oak Ridge Dr & McMaster St\_bikes

Time	East Left	South Left	West Left	North Left	East Right	South Right	West Right	North Right	East Thru	South Thru	West Thru	North Thru
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0
Sum:	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	1	0	0	0	0	1	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	1	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	2	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0
Sum:	1	1	0	0	0	2	1	0	0	0	0	0

4\_8 Line & Wildwood Rd\_bikes

Time	East Left	South Left	West Left	North Left	East Right	South Right	West Right	North Right	East Thru	South Thru	West Thru	North Thru
7:00:00	0	0	0	0	0	0	0	1	0	0	0	0
7:15:00	0	0	0	1	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	2	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	1	0	0	0
8:15:00	0	0	0	0	0	0	0	2	0	0	0	0
8:30:00	0	0	0	0	0	0	0	1	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0
Sum:	0	0	0	1	0	0	0	6	1	0	0	0
15:00:00	0	0	2	0	0	0	0	0	0	0	0	0
15:15:00	0	0	1	0	0	0	0	0	1	0	1	0
15:30:00	0	0	1	0	0	0	0	0	0	0	0	0
15:45:00	0	0	3	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	1	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	1	0	2	0
Sum:	0	0	7	1	0	0	0	0	2	0	3	0



**APPENDIX B**  
**Detailed Synchro Reports**  
Existing (2018) Conditions

# HCM Unsignalized Intersection Capacity Analysis

## 1: Wildwood Road & Oak Ridge Drive

AM Peak Hour  
Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	7	295	107	6	14	13
Future Volume (vph)	7	295	107	6	14	13
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	8	343	124	7	16	15

















Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	351	131	31
Volume Left (vph)	8	0	16
Volume Right (vph)	0	7	15
Hadj (s)	0.02	-0.02	-0.19
Departure Headway (s)	4.1	4.3	4.7
Degree Utilization, x	0.40	0.16	0.04
Capacity (veh/h)	859	808	686
Control Delay (s)	9.9	8.1	7.9
Approach Delay (s)	9.9	8.1	7.9
Approach LOS	A	A	A

Intersection Summary			
Delay		9.3	
Level of Service		A	
Intersection Capacity Utilization		33.5%	ICU Level of Service
Analysis Period (min)		15	A

# HCM Unsignalized Intersection Capacity Analysis

## 2: Oak Ridge Drive & Meagan Drive

AM Peak Hour  
Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	3	14	0	1	0	4	9	0	10	0
Future Volume (Veh/h)	0	0	3	14	0	1	0	4	9	0	10	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Hourly flow rate (vph)	0	0	5	23	0	2	0	7	15	0	17	0
Pedestrians		1						1				
Lane Width (m)		3.6						3.6				
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	34	40	19	38	32	14	18			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	34	40	19	38	32	14	18			22		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	974	855	1063	937	863	1071	1611			1607		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	5	25	22	17								
Volume Left	0	23	0	0								
Volume Right	5	2	15	0								
cSH	1063	947	1611	1607								
Volume to Capacity	0.00	0.03	0.00	0.00								
Queue Length 95th (m)	0.1	0.7	0.0	0.0								
Control Delay (s)	8.4	8.9	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	8.4	8.9	0.0	0.0								
Approach LOS	A	A										
<b>Intersection Summary</b>												
Average Delay			3.8									
Intersection Capacity Utilization			17.8%		ICU Level of Service					A		
Analysis Period (min)			15									

# HCM Unsignalized Intersection Capacity Analysis

## 3: Oak Ridge Drive & McMaster Street

AM Peak Hour  
Existing



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶	↷
Traffic Volume (veh/h)	0	1	9	0	0	5
Future Volume (Veh/h)	0	1	9	0	0	5
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	1	12	0	0	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			1		24	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1		24	0
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			1565		989	1090
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	1	12	7			
Volume Left	0	12	0			
Volume Right	1	0	7			
cSH	1700	1565	1090			
Volume to Capacity	0.00	0.01	0.01			
Queue Length 95th (m)	0.0	0.2	0.2			
Control Delay (s)	0.0	7.3	8.3			
Lane LOS		A	A			
Approach Delay (s)	0.0	7.3	8.3			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			7.3			
Intersection Capacity Utilization			17.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 4: Wildwood Road & 8 Line

AM Peak Hour  
 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	10	100	66	71	193	20
Future Volume (vph)	10	100	66	71	193	20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	11	114	75	81	219	23

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	125	156	242
Volume Left (vph)	11	0	219
Volume Right (vph)	0	81	23
Hadj (s)	0.11	-0.23	0.20
Departure Headway (s)	4.8	4.5	4.8
Degree Utilization, x	0.17	0.19	0.32
Capacity (veh/h)	699	758	720
Control Delay (s)	8.8	8.5	10.0
Approach Delay (s)	8.8	8.5	10.0
Approach LOS	A	A	B

Intersection Summary			
Delay		9.3	
Level of Service		A	
Intersection Capacity Utilization	32.2%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
 1: Wildwood Road & Oak Ridge Drive

PM Peak Hour  
 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	11	168	278	13	8	16
Future Volume (vph)	11	168	278	13	8	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	12	177	293	14	8	17

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	189	307	25
Volume Left (vph)	12	0	8
Volume Right (vph)	0	14	17
Hadj (s)	0.03	-0.01	-0.34
Departure Headway (s)	4.3	4.1	4.6
Degree Utilization, x	0.23	0.35	0.03
Capacity (veh/h)	822	849	702
Control Delay (s)	8.5	9.4	7.8
Approach Delay (s)	8.5	9.4	7.8
Approach LOS	A	A	A

















Intersection Summary			
Delay		9.0	
Level of Service		A	
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		



# HCM Unsignalized Intersection Capacity Analysis

## 2: Oak Ridge Drive & Meagan Drive

PM Peak Hour  
Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	15	0	1	0	13	11	0	9	0
Future Volume (Veh/h)	0	0	0	15	0	1	0	13	11	0	9	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Hourly flow rate (vph)	0	0	0	22	0	1	0	19	16	0	13	0
Pedestrians		1						1				
Lane Width (m)		3.6						3.6				
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	42	49	15	41	41	27	14			35		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	42	49	15	41	41	27	14			35		
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 %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	964	846	1069	966	854	1054	1616			1589		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	0	23	35	13								
Volume Left	0	22	0	0								
Volume Right	0	1	16	0								
cSH	1700	970	1616	1589								
Volume to Capacity	0.00	0.02	0.00	0.00								
Queue Length 95th (m)	0.0	0.6	0.0	0.0								
Control Delay (s)	0.0	8.8	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	8.8	0.0	0.0								
Approach LOS	A	A										
<b>Intersection Summary</b>												
Average Delay			2.9									
Intersection Capacity Utilization			14.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis  
 3: Oak Ridge Drive & McMaster Street

PM Peak Hour  
 Existing



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷		↶
Traffic Volume (veh/h)	0	1	8	0	2	12
Future Volume (Veh/h)	0	1	8	0	2	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Hourly flow rate (vph)	0	1	11	0	3	17
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			1		22	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1		22	0
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	98
cM capacity (veh/h)			1635		992	1090
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	1	11	20			
Volume Left	0	11	3			
Volume Right	1	0	17			
cSH	1700	1635	1074			
Volume to Capacity	0.00	0.01	0.02			
Queue Length 95th (m)	0.0	0.2	0.5			
Control Delay (s)	0.0	7.2	8.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	7.2	8.4			
Approach LOS			A			
Intersection Summary						
Average Delay			7.7			
Intersection Capacity Utilization			16.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 4: Wildwood Road & 8 Line

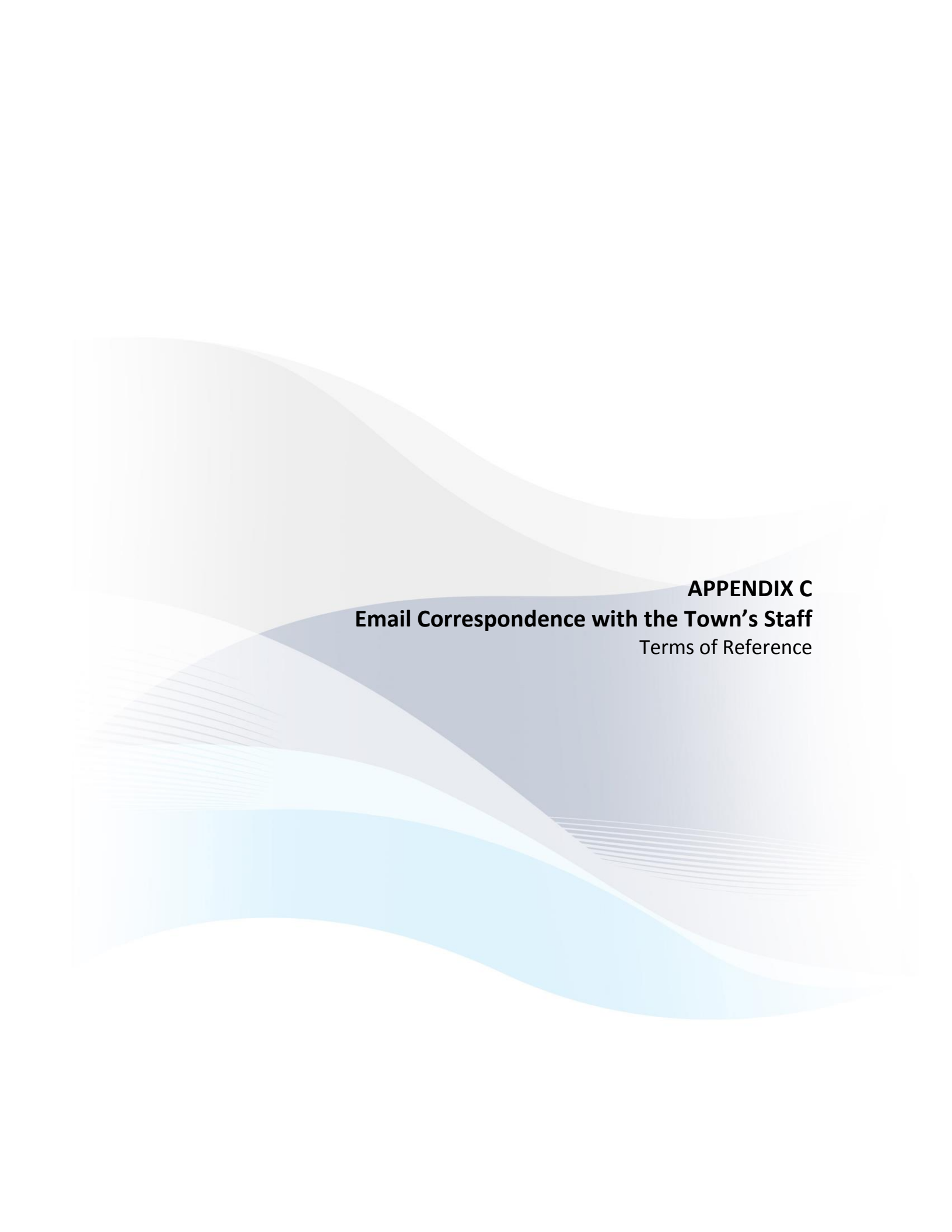
PM Peak Hour  
 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↩	↩		↩	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	32	83	104	194	98	13
Future Volume (vph)	32	83	104	194	98	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	33	86	108	202	102	14

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	119	310	116
Volume Left (vph)	33	0	102
Volume Right (vph)	0	202	14
Hadj (s)	0.06	-0.35	0.12
Departure Headway (s)	4.6	4.0	4.9
Degree Utilization, x	0.15	0.34	0.16
Capacity (veh/h)	755	868	675
Control Delay (s)	8.4	9.1	8.9
Approach Delay (s)	8.4	9.1	8.9
Approach LOS	A	A	A

Intersection Summary			
Delay		8.9	
Level of Service		A	
Intersection Capacity Utilization	40.0%		ICU Level of Service A
Analysis Period (min)		15	



**APPENDIX C**  
**Email Correspondence with the Town's Staff**  
Terms of Reference



May 18, 2018  
Our Ref: 2018-0242

Mr. Matt Roj  
Traffic Coordinator  
Halton Hills Civic Centre  
1 Halton Hills Drive  
Halton Hills, ON L7G 5G2

Dear Mr. Roj

**Re: Terms of Reference for a Traffic Impact Study  
Glen Williams, West of Oak Ridge Drive  
Town of Halton Hills**

Cole Engineering Group Ltd. (COLE) is pleased to submit a proposed Terms of Reference (TOR) to prepare a Traffic Impact Study (TIS) in support of a proposed plan of subdivision located north-west of Oak Ridge Drive, north of Wildwood Road and east of 8 Line, in the Town of Halton Hills (the “Town”), in the Regional Municipality of Halton (the “Region”).

The subject site currently consists of a vacant land. Based on the preliminary plan of subdivision, the intention is to provide 32 lots (single detached houses). Vehicular access to the subject lands will be provided via Meagan Drive and McMaster Street to Oak Ridge Drive.

The TIS procedures will comply with the Region’s Transportation Impact Study Guidelines published in 2015 and will focus on determining the incremental impact of site traffic on the operations of nearby intersections.

Please review the TOR outlined in this letter and provide comments or approval and requested information at your earliest convenience.

**COLE ENGINEERING GROUP LTD.**

HEAD OFFICE

70 Valleywood Drive, Markham, ON Canada L3R 4T5

T. 905 940 6161 | 416 987 6161 F. 905 940 2064

[www.coleengineering.ca](http://www.coleengineering.ca)



## 1. Study Area Intersections

The subject site is shown in **Figure 1** below in red:



**Figure 1 Site Location**

As part of the study, we are planning to include the following intersections in the analysis:

- Wildwood Road and Oak Ridge Drive (Unsignalized);
- Oak Ridge Drive and Meagan Drive (Unsignalized); and,
- Oak Ridge Drive and McMaster Street (Unsignalized).

***We would like to obtain weekday morning (7:00 – 9:00 AM) and afternoon (4:00 – 6:00 PM) traffic turning movement counts at the above noted existing intersections if available.***

## 2. Analysis Periods and Study Horizons

The weekday AM and PM peak hours for 2018 existing conditions, 2023 background conditions and 2023 total traffic conditions are proposed to be analyzed and the development is expected to be completed in one (1) phase.

### 3. Traffic Analysis

Intersection capacity analysis for the weekday AM and PM peak hours will be analyzed using the *Synchro 9.0* analysis package and Highway Capacity Manual procedures.

#### 3.1 Unsignalized Intersections

The unsignalized intersections operational analysis in this report will be completed using the *Synchro 9.0* software, which employs the 2000 Highway Capacity Methodology for the intersection analysis. All parameters for the unsignalized intersection analysis are based on Synchro default values. Synchro results for the unsignalized intersections will be provided in Highway Capacity Manual (HCM) format.

#### 3.2 Traffic Growth Rate

***Please provide the historic AADT count volumes available within the site area.***

We will review the historic AADT count volumes to confirm the background growth rate. Future background traffic volume will be estimated for the study area to ensure that the analysis includes background traffic growth and growth from other developments in the area.

#### 3.3 Background Developments

***Please provide us the details of any planned developments in the study area and any available traffic impact studies associated with the development(s).***

#### 3.4 Roadway Improvements

***Please provide details of any planned roadway improvements in the study area that are to be included in the analysis.***

#### 3.5 Trip Generation

Trip generation for the proposed development will be based on *Trip Generation Manual, 10<sup>th</sup> Edition prepared by the Institute of Transportation Engineers (ITE)* for 'Single Family Detached Housing' (land use code 210). To be more conservative, the fitted curve equation will be used.

The information contained in the 2016 Transportation Tomorrow Survey (TTS) for zone 4195 (the Subject Zone) 4163, 4164, and 4166 have been reviewed and included in the calculations. The summary of the non-auto modal split calculation is provided in Table 1. The closest bus stop to the site is approximately 1.5km away. Given the long distances, it is assumed that most patrons accessing public transit will either drive to the nearest bus stop or be dropped off by a family member. Therefore, only cycling, walking, and school buses are included in the non-modal split.

**Table 1 TTS Modal Split**

	Transit excluding GO rail	Cycle	Auto driver	GO rail only	Joint GO rail and local transit	Motor cycle	Other	Auto passenger	School bus	Taxi passenger	Walk	TOTAL
4163	113	0	7495	114	36	0	0	608	0	128	214	8708
4164	0	57	7705	41	213	0	0	631	0	28	462	9137
4166	0	36	7862	39	23	20	0	565	0	39	70	8654
4195	0	0	4375	23	16	0	34	369	75	75	40	5007
<b>TOTAL</b>	113	93	27437	217	288	20	34	2173	75	270	786	31506
<b>%</b>	0.4%	<b>0.3%</b>	87.1%	0.7%	0.9%	0.1%	0.1%	6.9%	<b>0.2%</b>	0.9%	<b>2.5%</b>	100.0%
	<b>Non-Auto Reduction</b>											<b>3%</b>

The subject zone and adjacent TTS Zones have an existing non-auto modal split of approximately 3%.

Trip distribution and assignments will be based on the latest 2016 Transportation Tomorrow Survey (TTS) and existing traffic patterns.

### 3.6 Transportation Demand Assessment

We will include several Transportation Demand Management (TDM) measures to reduce single occupant vehicle usage and also include the cost of each TDM measure and indicates whether it is the applicant's or Town's responsibility.

Additionally, we will review the proposed location of the pedestrian and bicycle routes within the site. In order to enhance safety and promote pedestrian connectivity through the site, location of crosswalks will be recommended as well. We will review the locations of the bicycle storage facilities and provide recommendations on the preferred locations of wayfinding signage.

We will also review and recommend potential traffic calming measures to enhance safety. Lastly, we will review and comment on active transportation and connectivity within the existing community.



#### 4. Traffic Impact Study Submission

COLE will adopt the TIS submission requirements provided in the Region's Traffic Impact Study Guidelines. Thank you in advance for your review, comments and requested information. I would appreciate if you could respond at your earliest convenience.

Please provide any comments you may have on the above TOR and provide the following information for inclusion in the study:

- Weekday morning (7:00 – 9:00 AM) and afternoon (4:00 – 6:00 PM) traffic turning movement counts at the intersections noted in **Section 1** if available;
- Details of any planned developments in the vicinity of the study area and any available Traffic Impact Studies associated with the development(s);
- Details of any planned roadway / transit improvement in the study area within the next five (5) years; and,
- Historical annual average daily traffic (AADT) count volumes on for the roadways within the study area.

Yours sincerely,

**COLE ENGINEERING GROUP LTD.**



Sevim Coskun, C.E.T  
Senior Transportation Analyst  
Traffic, Urban Development (ICI)

KS/SC/JAY

**From:** Sevim Coskun  
**Sent:** July-10-18 3:49 PM  
**To:** Mustafa Ersin Sarier  
**Cc:** Kailing Qiao  
**Subject:** FW: Proposed subdivision - Terms of Reference for Traffic Impact Study

FYI

Regards,

Sevim Coskun, C.E.T.  
Senior Transportation Analyst, Traffic  
Traffic- (ICI)

**Cole Engineering Group Ltd.**

151 Superior Boulevard, Unit 1 & 2, Mississauga, ON L5T 2L1

T: 905-754-8060 Ext: 618 Tor. Line: 416-987-6161

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**From:** Sevim Coskun  
**Sent:** May-30-18 3:40 PM  
**To:** Kavleen Sachdeva <[ksachdeva@coleengineering.ca](mailto:ksachdeva@coleengineering.ca)>  
**Cc:** Kim Nystrom <[KNystrom@coleengineering.ca](mailto:KNystrom@coleengineering.ca)>  
**Subject:** RE: Proposed subdivision - Terms of Reference for Traffic Impact Study

Hi Kavleen,

I had a phone call with Town staff regarding our ToR. Here is the outcome:

- Add the intersection of 8 Line and Wildwood Road (Traffic counts can be only counted on a typical weekday Tuesday, Wednesday, Thursday)
- Request bicycle counts for the intersection of 8 Line / Wildwood Road and Wildwood Road / Oak Ridge Drive ( include the figures and appendix)
- 24 hours counts requested at the midpoint of Oak Ridge Drive between Wildwood Road and Meagan Drive
- Afternoon count should be collected between 3 – 6 pm
- Apply 2% annual compounded growth rate all the roadways in the study area
- Site access analysis based TAC guidelines
- On-street parking allowed for 5 hrs
- Possible sidewalks in the study area.

Please get quotes based on the new information provided above.

Regards,

Sevim Coskun, C.E.T.  
Senior Transportation Analyst, Traffic  
Urban Development (IC1)

**Cole Engineering Group Ltd.**

151 Superior Boulevard, Unit 1 & 2, Mississauga, ON L5T 2L1  
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**From:** Matthew Roj [<mailto:MatthewR@haltonhills.ca>]

**Sent:** May-22-18 6:45 PM

**To:** Kavleen Sachdeva <[ksachdeva@coleengineering.ca](mailto:ksachdeva@coleengineering.ca)>

**Cc:** Sevim Coskun <[SCoskun@coleengineering.ca](mailto:SCoskun@coleengineering.ca)>

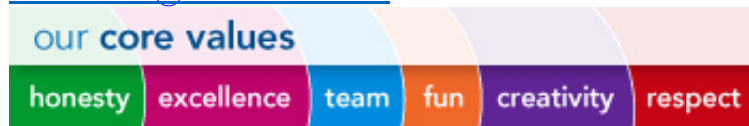
**Subject:** RE: Proposed subdivision - Terms of Reference for Traffic Impact Study

Hi Kavleen,

Please give me a call when you are back in the office, so we can discuss the Terms of Reference for the Traffic Impact Study (TIS).

Regards,

Matt Roj  
Traffic Coordinator  
Town of Halton Hills  
Ph:905-873-2601 ext. 2215  
Toll Free: 1-877-712-2205  
Fax: 905-873-3036  
[matthewr@haltonhills.ca](mailto:matthewr@haltonhills.ca)



---

**From:** Kavleen Sachdeva [<mailto:ksachdeva@coleengineering.ca>]

**Sent:** Friday, May 18, 2018 2:00 PM

**To:** Matthew Roj

**Cc:** Sevim Coskun

**Subject:** Proposed subdivision Terms of Reference

Good Afternoon Matt.

Please find attached our Terms of Reference for a proposed Plan of Subdivision located north west of Wildwood Road and 8 Line.

Feel free to contact me if you have any questions.

Thanks,

**Please note I will be out of office from May 22-May 25.**

**Kavleen Sachdeva, B.Eng., E.I.T.**

Transportation Analyst

**Cole Engineering Group Ltd.**

70 Valleywood Dr., Markham, ON L3R 4T5

Main Line: 905-364-6161, Direct Line: 905-754-8060 Ext. 393


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**APPENDIX D**  
**Detailed Synchro Reports**  
Future (2023) Background Traffic Conditions

HCM Unsignalized Intersection Capacity Analysis  
 1: Wildwood Road & Oak Ridge Drive

AM Peak Hour  
 FB 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↷	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	7	325	118	6	14	13
Future Volume (vph)	7	325	118	6	14	13
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	8	378	137	7	16	15

















Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	386	144	31
Volume Left (vph)	8	0	16
Volume Right (vph)	0	7	15
Hadj (s)	0.02	-0.01	-0.19
Departure Headway (s)	4.1	4.3	4.8
Degree Utilization, x	0.44	0.17	0.04
Capacity (veh/h)	856	801	668
Control Delay (s)	10.4	8.3	8.1
Approach Delay (s)	10.4	8.3	8.1
Approach LOS	B	A	A

Intersection Summary			
Delay		9.7	
Level of Service		A	
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)		15	

# HCM Unsignalized Intersection Capacity Analysis

## 2: Oak Ridge Drive & Meagan Drive

AM Peak Hour  
FB 2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	3	14	0	1	0	4	9	0	11	0
Future Volume (Veh/h)	0	0	3	14	0	1	0	4	9	0	11	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Hourly flow rate (vph)	0	0	5	23	0	2	0	7	15	0	18	0
Pedestrians		1						1				
Lane Width (m)		3.6						3.6				
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	36	41	20	38	34	14	19			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	36	41	20	38	34	14	19			22		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	972	854	1062	936	862	1071	1609			1607		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	5	25	22	18								
Volume Left	0	23	0	0								
Volume Right	5	2	15	0								
cSH	1062	945	1609	1607								
Volume to Capacity	0.00	0.03	0.00	0.00								
Queue Length 95th (m)	0.1	0.7	0.0	0.0								
Control Delay (s)	8.4	8.9	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	8.4	8.9	0.0	0.0								
Approach LOS	A	A										
<b>Intersection Summary</b>												
Average Delay			3.8									
Intersection Capacity Utilization			17.8%		ICU Level of Service				A			
Analysis Period (min)			15									

# HCM Unsignalized Intersection Capacity Analysis

## 3: Oak Ridge Drive & McMaster Street

AM Peak Hour  
FB 2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶	↷
Traffic Volume (veh/h)	0	1	9	0	0	5
Future Volume (Veh/h)	0	1	9	0	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	1	12	0	0	7
<b>Pedestrians</b>						
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			1			24
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1			24
tC, single (s)			4.2			6.4
tC, 2 stage (s)						
tF (s)			2.3			3.5
p0 queue free %			99			100
cM capacity (veh/h)			1565			989
						1090
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	1	12	7			
Volume Left	0	12	0			
Volume Right	1	0	7			
cSH	1700	1565	1090			
Volume to Capacity	0.00	0.01	0.01			
Queue Length 95th (m)	0.0	0.2	0.2			
Control Delay (s)	0.0	7.3	8.3			
Lane LOS		A	A			
Approach Delay (s)	0.0	7.3	8.3			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			7.3			
Intersection Capacity Utilization			17.2%	ICU Level of Service	A	
Analysis Period (min)			15			



HCM Unsignalized Intersection Capacity Analysis  
 4: Wildwood Road & 8 Line

AM Peak Hour  
 FB 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	10	110	73	71	193	20
Future Volume (vph)	10	110	73	71	193	20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	11	125	83	81	219	23

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	136	164	242
Volume Left (vph)	11	0	219
Volume Right (vph)	0	81	23
Hadj (s)	0.11	-0.22	0.20
Departure Headway (s)	4.8	4.5	4.8
Degree Utilization, x	0.18	0.20	0.32
Capacity (veh/h)	697	753	712
Control Delay (s)	8.9	8.6	10.1
Approach Delay (s)	8.9	8.6	10.1
Approach LOS	A	A	B

Intersection Summary			
Delay		9.4	
Level of Service		A	
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis  
 1: Wildwood Road & Oak Ridge Drive

PM Peak Hour  
 FB 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	11	185	306	13	8	16
Future Volume (vph)	11	185	306	13	8	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	12	195	322	14	8	17

















Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	207	336	25
Volume Left (vph)	12	0	8
Volume Right (vph)	0	14	17
Hadj (s)	0.03	-0.01	-0.34
Departure Headway (s)	4.3	4.2	4.7
Degree Utilization, x	0.25	0.39	0.03
Capacity (veh/h)	816	845	683
Control Delay (s)	8.7	9.8	7.9
Approach Delay (s)	8.7	9.8	7.9
Approach LOS	A	A	A

Intersection Summary			
Delay		9.3	
Level of Service		A	
Intersection Capacity Utilization	32.5%		ICU Level of Service A
Analysis Period (min)		15	

# HCM Unsignalized Intersection Capacity Analysis

## 2: Oak Ridge Drive & Meagan Drive

PM Peak Hour  
FB 2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	15	0	1	0	14	11	0	10	0
Future Volume (Veh/h)	0	0	0	15	0	1	0	14	11	0	10	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Hourly flow rate (vph)	0	0	0	22	0	1	0	20	16	0	14	0
Pedestrians		1						1				
Lane Width (m)		3.6						3.6				
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	44	51	16	43	43	28	15			36		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	44	51	16	43	43	28	15			36		
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 %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	961	844	1067	963	852	1053	1615			1588		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	0	23	36	14								
Volume Left	0	22	0	0								
Volume Right	0	1	16	0								
cSH	1700	967	1615	1588								
Volume to Capacity	0.00	0.02	0.00	0.00								
Queue Length 95th (m)	0.0	0.6	0.0	0.0								
Control Delay (s)	0.0	8.8	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	8.8	0.0	0.0								
Approach LOS	A	A										
<b>Intersection Summary</b>												
Average Delay			2.8									
Intersection Capacity Utilization			14.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis  
 3: Oak Ridge Drive & McMaster Street

PM Peak Hour  
 FB 2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶	↷
Traffic Volume (veh/h)	0	1	8	0	2	12
Future Volume (Veh/h)	0	1	8	0	2	12
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Hourly flow rate (vph)	0	1	11	0	3	17
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			1		22	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1		22	0
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	98
cM capacity (veh/h)			1635		992	1090
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	1	11	20			
Volume Left	0	11	3			
Volume Right	1	0	17			
cSH	1700	1635	1074			
Volume to Capacity	0.00	0.01	0.02			
Queue Length 95th (m)	0.0	0.2	0.5			
Control Delay (s)	0.0	7.2	8.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	7.2	8.4			
Approach LOS			A			
Intersection Summary						
Average Delay			7.7			
Intersection Capacity Utilization			16.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 4: Wildwood Road & 8 Line

PM Peak Hour  
 FB 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	32	91	114	194	98	13
Future Volume (vph)	32	91	114	194	98	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	33	95	119	202	102	14

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	128	321	116
Volume Left (vph)	33	0	102
Volume Right (vph)	0	202	14
Hadj (s)	0.05	-0.33	0.12
Departure Headway (s)	4.6	4.0	5.0
Degree Utilization, x	0.16	0.36	0.16
Capacity (veh/h)	753	861	667
Control Delay (s)	8.5	9.3	8.9
Approach Delay (s)	8.5	9.3	8.9
Approach LOS	A	A	A

Intersection Summary			
Delay		9.0	
Level of Service		A	
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		



**APPENDIX E**  
**Trip Generation and Trip Distribution Estimations**

AM

Land Use: Residential Condominium/Townhouse - Freehold  
 Variable: 32 Units

Land Use 210 AM Peak Hour Avg. Rate 0.74  
 Eqn  $T = 0.71(X) + 4.80$   
 IN 25%  
 Out 75%  
 Transit 0%  
 Internal C 0%  
 Pass-by 0%  
 Visitor 0%

	IN	Out	Total	Eqn	Avg Rate
Gross	7	21	28	28	24
Gross Ra	0.22	0.66	0.88		
Transit	0	0	0		
Internal C	0	0	0		
Pass-by	0	0	0		
Visitors	0	0	0		
New	7	21	28		
Rate	0.22	0.66	0.88		

PM

Land Use: Residential Condominium/Townhouse - Freehold  
 Variable: 32 Units

Land Use 210 PM Peak Hour 4 - 6 z Avg. Rate 0.99  
 Eqn  $\ln(T) = 0.96 \ln(X) + 0.20$   
 IN 63%  
 Out 37%  
 Transit 0%  
 Internal C 0%  
 Pass-by 0%  
 Visitor 0%

	IN	Out	Total	Eqn	Avg Rate
Gross	21	13	34	34	32
Gross Ra	0.66	0.40	1.06		
Transit	0	0	0		
Internal C	0	0	0		
Pass-by	0	0	0		
Visitors	0	0	0		
New	21	13	34		
Rate	0.66	0.40	1.06		

To/From	Proportions		Trips			Check	
	Inbound	Outbound	In	Out	Total	OK	OK
North	0%	0%	0	0	0		
South	0%	0%	0	0	0		
West	75%	50%	5	10	15		-1
East	25%	50%	2	11	13		
Total	100%	100%	7	21	28		

To/From	Proportions		Trips			Check	
	Inbound	Outbound	In	Out	Total	OK	OK
North	0%	0%	0	0	0		
South	0%	0%	0	0	0		
West	65%	55%	14	7	21		
East	35%	45%	7	6	13		
Total	100%	100%	21	13	34		

Trip 2016														
Table:	AM Inbound			To/From North		To/From South		To/From West		To/From East		TOTAL	CHECK	
	4195	Total	Percent	%	#	%	#	%	#	%	#			
Pickering	13	13	3%	0	0	60%	8	40%	5			13	TRUE	
Caledon	32	32	8%	0	0		0	100%	32			32	TRUE	
Brampton	12	12	3%	0	0		0	100%	12			12	TRUE	
Mississauga	9	9	2%	0	0	60%	6	40%	3			9	TRUE	
<b>Halton Hills</b>	<b>1453</b>	<b>1453</b>	<b>362%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>FALSE</b>	
4007	11	11	3%	0	0	70%	8	30%	3			11	TRUE	
4119	12	12	3%	0	0	100%	12		0			12	TRUE	
4149	35	35	9%	0	0	100%	35		0			35	TRUE	
4158	14	14	3%	0	0	60%	9	40%	5			14	TRUE	
4160	54	54	13%	0	0	80%	44	20%	10			54	TRUE	
4162	60	60	15%	0	0	90%	54	10%	6			60	TRUE	
4163	49	49	12%	0	0	100%	49		0			49	TRUE	
4172	8	8	2%	0	0	100%	8		0			8	TRUE	
4174	7	7	2%	0	0	50%	4	50%	3			7	TRUE	
4193	8	8	2%	0	0	50%	4	50%	4			8	TRUE	
4194	43	43	11%	0	0	50%	22	50%	21			43	TRUE	
<b>4195</b>	<b>111</b>	<b>111</b>	<b>28%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>FALSE</b>	
4197	34	34	8%	0	0	100%	34		0			34	TRUE	
Total	401	401	100%	0%	0	0%	0	74%	297	26%	104	100%	401	TRUE

To/From		Via	
North	0%		0%
South	0%		0%
West	75%	Wildwood Road	75%
East	25%	Wildwood Road	25%
Total	100%		100%



Trip 2016														
Table:	AM Outbound			To/From North		To/From South		To/From West		To/From East		TOTAL	CHECK	
	4195	Total	Percent	%	#	%	#	%	#	%	#			
PD 1 of Toronto	80	80	7%	0	0	50%	40	50%	40			80	TRUE	
PD 2 of Toronto	15	15	1%	0	0	50%	7	50%	8			15	TRUE	
PD 8 of Toronto	60	60	5%	0	0	60%	36	40%	24			60	TRUE	
PD 9 of Toronto	37	37	3%	0	0	60%	23	40%	14			37	TRUE	
PD 10 of Toronto	19	19	2%	0	0	70%	14	30%	5			19	TRUE	
PD 16 of Toronto	13	13	1%	0	0	80%	11	20%	2			13	TRUE	
Pickering	13	13	1%	0	0	70%	10	30%	3			13	TRUE	
Ajax	15	15	1%	0	0	70%	11	30%	4			15	TRUE	
Markham	3	3	0%	0	0	60%	2	40%	1			3	TRUE	
Caledon	21	21	2%	0	0		0	100%	21			21	TRUE	
Brampton	120	120	10%	0	0		0	100%	120			120	TRUE	
Mississauga	243	243	20%	0	0	30%	72	70%	171			243	TRUE	
Halton Hills	817	817	68%	0	0		0		0			0	FALSE	
4024	12	12	1%	0	0	70%	9	30%	3			12	TRUE	
4053	19	19	2%	0	0	70%	13	30%	6			19	TRUE	
4158	14	14	1%	0	0	50%	7	50%	7			14	TRUE	
4159	39	39	3%	0	0	40%	16	60%	23			39	TRUE	
4160	81	81	7%	0	0	60%	49	40%	32			81	TRUE	
4162	113	113	9%	0	0	60%	68	40%	45			113	TRUE	
4163	151	151	13%	0	0	100%	151		0			151	TRUE	
4166	27	27	2%	0	0	80%	22	20%	5			27	TRUE	
4177	9	9	1%	0	0	100%	9		0			9	TRUE	
4185	8	8	1%	0	0	70%	5	30%	3			8	TRUE	
4193	24	24	2%	0	0	40%	10	60%	14			24	TRUE	
4194	6	6	0%	0	0	50%	3	50%	3			6	TRUE	
4195	111	111	9%	0	0		0		0			0	FALSE	
Oakville	19	19	2%	0	0	60%	12	40%	7			19	TRUE	
Burlington	19	19	2%	0	0	60%	12	40%	7			19	TRUE	
Orangeville	25	25	2%	0	0	20%	5	80%	20			25	TRUE	
Total	1205	1205	100%	0%	0	0%	0	51%	617	49%	588	100%	1205	TRUE


To/From		Via	
North	0%		0%
South	0%		0%
West	50%	Wildwood Road	50%
East	50%	Wildwood Road	50%
Total	100%		100%

Trip 2016														
Table:	PM Inbound			To/From North		To/From South		To/From West		To/From East			TOTAL	CHECK
	4195	Total	Percent	%	#	%	#	%	#	%	#			
PD 1 of Toronto	184	184	8%	0	0	70%	129	30%	55			184	TRUE	
PD 2 of Toronto	15	15	1%	0	0	100%	15		0			15	TRUE	
PD 7 of Toronto	12	12	1%	0	0	60%	8	40%	4			12	TRUE	
PD 8 of Toronto	60	60	3%	0	0	70%	42	30%	18			60	TRUE	
PD 9 of Toronto	50	50	2%	0	0	50%	25	50%	25			50	TRUE	
PD 10 of Toronto	66	66	3%	0	0	55%	37	45%	29			66	TRUE	
PD 16 of Toronto	26	26	1%	0	0	65%	17	35%	9			26	TRUE	
Ajax	15	15	1%	0	0	60%	9	40%	6			15	TRUE	
Markham	12	12	1%	0	0	70%	9	30%	3			12	TRUE	
Caledon	23	23	1%	0	0		0	100%	23			23	TRUE	
Brampton	126	126	6%	0	0		0	100%	126			126	TRUE	
Mississauga	475	475	21%	0	0	60%	285	40%	190			475	TRUE	
Halton Hills	1839	1839	83%	0	0		0		0			0	FALSE	
4020	16	16	1%	0	0	60%	10	40%	6			16	TRUE	
4024	12	12	1%	0	0	60%	8	40%	4			12	TRUE	
4053	19	19	1%	0	0	60%	12	40%	7			19	TRUE	
4123	33	33	1%	0	0	70%	24	30%	9			33	TRUE	
4159	119	119	5%	0	0	50%	59	50%	60			119	TRUE	
4160	81	81	4%	0	0	80%	65	20%	16			81	TRUE	
4162	175	175	8%	0	0	70%	123	30%	52			175	TRUE	
4163	234	234	11%	0	0	100%	234		0			234	TRUE	
4165	29	29	1%	0	0		0	100%	29			29	TRUE	
4166	48	48	2%	0	0	100%	48		0			48	TRUE	
4168	19	19	1%	0	0	100%	19		0			19	TRUE	
4177	9	9	0%	0	0	100%	9		0			9	TRUE	
4184	10	10	0%	0	0	60%	6	40%	4			10	TRUE	
4192	8	8	0%	0	0	100%	8		0			8	TRUE	
4193	119	119	5%	0	0	60%	72	40%	47			119	TRUE	
4194	81	81	4%	0	0	60%	49	40%	32			81	TRUE	
4195	75	75	3%	0	0		0		0			0	FALSE	
4197	7	7	0%	0	0	100%	7		0			7	TRUE	
Oakville	45	45	2%	0	0	60%	27	40%	18			45	TRUE	
Burlington	19	19	1%	0	0	60%	12	40%	7			19	TRUE	
St. Catharines	16	16	1%	0	0	100%	16		0			16	TRUE	
Orangeville	25	25	1%	0	0	30%	8	70%	17			25	TRUE	
External	24	24	1%	0	0	50%	12	50%	12			24	TRUE	
Total	2212	2212	100%	0%	0	0%	0	63%	1404	37%	808	100%	2212	TRUE

To/From		Via	
North	0%		0%
South	0%		0%
West	65%	Wildwood Road	65%
East	35%	Wildwood Road	35%
Total	100%		100%

Trip 2016														
Table:	PM Outbound			To/From North		To/From South		To/From West		To/From East		TOTAL	CHECK	
	4195	Total	Percent	%	#	%	#	%	#	%	#			
PD 1 of Toronto	72	72	6%	0	0	90%	65	10%	7			72	TRUE	
PD 7 of Toronto	12	12	1%	0	0	90%	11	10%	1			12	TRUE	
PD 9 of Toronto	13	13	1%	0	0	70%	10	30%	3			13	TRUE	
PD 10 of Toronto	13	13	1%	0	0	70%	10	30%	3			13	TRUE	
PD 16 of Toronto	13	13	1%	0	0	40%	6	60%	7			13	TRUE	
Vaughan	20	20	2%	0	0	60%	12	40%	8			20	TRUE	
Caledon	23	23	2%	0	0		0	100%	23			23	TRUE	
Brampton	24	24	2%	0	0		0	100%	24			24	TRUE	
Mississauga	153	153	13%	0	0	50%	77	50%	76			153	TRUE	
<b>Halton Hills</b>	<b>2650</b>	<b>2650</b>	<b>224%</b>	<b>0</b>	<b>0</b>		<b>0</b>		<b>0</b>			<b>0</b>	<b>FALSE</b>	
4005	11	11	1%	0	0	50%	5	50%	6			11	TRUE	
4021	16	16	1%	0	0	50%	8	50%	8			16	TRUE	
4119	12	12	1%	0	0	70%	9	30%	3			12	TRUE	
4149	35	35	3%	0	0	100%	35	0%	0			35	TRUE	
4152	25	25	2%	0	0	100%	25	0%	0			25	TRUE	
4158	6	6	1%	0	0	60%	4	40%	2			6	TRUE	
4160	70	70	6%	0	0	100%	70	0%	0			70	TRUE	
4162	128	128	11%	0	0	10%	12	90%	116			128	TRUE	
4163	163	163	14%	0	0	10%	16	90%	147			163	TRUE	
4165	58	58	5%	0	0	100%	58	0%	0			58	TRUE	
4166	46	46	4%	0	0	10%	4	90%	42			46	TRUE	
4168	19	19	2%	0	0	100%	19	0%	0			19	TRUE	
4172	8	8	1%	0	0	100%	8	0%	0			8	TRUE	
4174	27	27	2%	0	0	100%	27	0%	0			27	TRUE	
4185	16	16	1%	0	0	50%	8	50%	8			16	TRUE	
4193	48	48	4%	0	0	80%	39	20%	9			48	TRUE	
4194	110	110	9%	0	0	80%	88	20%	22			110	TRUE	
<b>4195</b>	<b>75</b>	<b>75</b>	<b>6%</b>	<b>0</b>	<b>0</b>		<b>0</b>		<b>0</b>			<b>0</b>	<b>FALSE</b>	
Oakville	26	26	2%	0	0	60%	16	40%	10			26	TRUE	
St. Catharines	16	16	1%	0	0		0	100%	16			16	TRUE	
<b>Total</b>	<b>1258</b>	<b>1183</b>	<b>100%</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>54%</b>	<b>642</b>	<b>46%</b>	<b>541</b>	<b>100%</b>	<b>1183</b>	<b>TRUE</b>

To/From		Via	
North	0%		0%
South	0%		0%
West	55%	Wildwood Road	55%
East	45%	Wildwood Road	45%
<b>Total</b>	<b>100%</b>		<b>100%</b>



**APPENDIX F**  
**Detailed Synchro Reports**  
Future (2023) Total Traffic Conditions

HCM Unsignalized Intersection Capacity Analysis  
 1: Wildwood Road & Oak Ridge Drive

AM Peak Hour  
 FT 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↩	↩		↩	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	12	325	118	8	25	24
Future Volume (vph)	12	325	118	8	25	24
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	14	378	137	9	29	28

















Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	392	146	57
Volume Left (vph)	14	0	29
Volume Right (vph)	0	9	28
Hadj (s)	0.02	-0.02	-0.19
Departure Headway (s)	4.2	4.4	4.9
Degree Utilization, x	0.46	0.18	0.08
Capacity (veh/h)	838	782	664
Control Delay (s)	10.8	8.4	8.3
Approach Delay (s)	10.8	8.4	8.3
Approach LOS	B	A	A

Intersection Summary			
Delay		10.0	
Level of Service		A	
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

# HCM Unsignalized Intersection Capacity Analysis

## 2: Oak Ridge Drive & Meagan Drive

AM Peak Hour  
FT 2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	14	0	1	7	4	9	0	22	0
Future Volume (Veh/h)	0	0	14	14	0	1	7	4	9	0	22	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Hourly flow rate (vph)	0	0	23	23	0	2	12	7	15	0	37	0
Pedestrians		1						1				
Lane Width (m)		3.6						3.6				
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	78	84	39	100	76	14	38			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	78	84	39	100	76	14	38			22		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	97	100	100	99			100		
cM capacity (veh/h)	907	803	1037	834	811	1071	1584			1607		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	23	25	34	37								
Volume Left	0	23	12	0								
Volume Right	23	2	15	0								
cSH	1037	849	1584	1607								
Volume to Capacity	0.02	0.03	0.01	0.00								
Queue Length 95th (m)	0.5	0.7	0.2	0.0								
Control Delay (s)	8.6	9.4	2.6	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	9.4	2.6	0.0								
Approach LOS	A	A										
<b>Intersection Summary</b>												
Average Delay			4.4									
Intersection Capacity Utilization			21.6%		ICU Level of Service				A			
Analysis Period (min)			15									

# HCM Unsignalized Intersection Capacity Analysis

## 3: Oak Ridge Drive & McMaster Street

AM Peak Hour  
FT 2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	0	12	9	0	0	5
Future Volume (Veh/h)	0	12	9	0	0	5
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	16	12	0	0	7
<b>Pedestrians</b>						
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			16		32	8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			16		32	8
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			1545		979	1080
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	16	12	7			
Volume Left	0	12	0			
Volume Right	16	0	7			
cSH	1700	1545	1080			
Volume to Capacity	0.01	0.01	0.01			
Queue Length 95th (m)	0.0	0.2	0.2			
Control Delay (s)	0.0	7.3	8.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	7.3	8.4			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			4.2			
Intersection Capacity Utilization			17.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 4: Wildwood Road & 8 Line

AM Peak Hour  
 FT 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	10	115	84	71	193	20
Future Volume (vph)	10	115	84	71	193	20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	11	131	95	81	219	23

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	142	176	242
Volume Left (vph)	11	0	219
Volume Right (vph)	0	81	23
Hadj (s)	0.11	-0.20	0.20
Departure Headway (s)	4.9	4.5	4.9
Degree Utilization, x	0.19	0.22	0.33
Capacity (veh/h)	694	748	704
Control Delay (s)	9.0	8.8	10.2
Approach Delay (s)	9.0	8.8	10.2
Approach LOS	A	A	B

Intersection Summary			
Delay		9.5	
Level of Service		A	
Intersection Capacity Utilization	32.9%		ICU Level of Service A
Analysis Period (min)		15	



HCM Unsignalized Intersection Capacity Analysis  
 1: Wildwood Road & Oak Ridge Drive

PM Peak Hour  
 FT 2023




















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	25	185	306	20	14	23
Future Volume (vph)	25	185	306	20	14	23
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	26	195	322	21	15	24

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	221	343	39
Volume Left (vph)	26	0	15
Volume Right (vph)	0	21	24
Hadj (s)	0.04	-0.02	-0.29
Departure Headway (s)	4.4	4.2	4.8
Degree Utilization, x	0.27	0.40	0.05
Capacity (veh/h)	803	834	666
Control Delay (s)	9.0	10.0	8.1
Approach Delay (s)	9.0	10.0	8.1
Approach LOS	A	A	A

Intersection Summary		
Delay		9.5
Level of Service		A
Intersection Capacity Utilization	44.5%	ICU Level of Service A
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis  
2: Oak Ridge Drive & Meagan Drive

PM Peak Hour  
FT 2023

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	0	0	6	15	0	1	7	28	11	0	17	0	
Future Volume (Veh/h)	0	0	6	15	0	1	7	28	11	0	17	0	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	
Hourly flow rate (vph)	0	0	9	22	0	1	10	41	16	0	25	0	
Pedestrians		1						1					
Lane Width (m)		3.6						3.6					
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	96	103	27	104	95	49	26			57			
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	96	103	27	104	95	49	26			57			
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 %	100	100	99	97	100	100	99			100			
cM capacity (veh/h)	885	785	1053	868	793	1025	1600			1560			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>									
Volume Total	9	23	67	25									
Volume Left	0	22	10	0									
Volume Right	9	1	16	0									
cSH	1053	874	1600	1560									
Volume to Capacity	0.01	0.03	0.01	0.00									
Queue Length 95th (m)	0.2	0.6	0.2	0.0									
Control Delay (s)	8.4	9.2	1.1	0.0									
Lane LOS	A	A	A										
Approach Delay (s)	8.4	9.2	1.1	0.0									
Approach LOS	A	A											
<b>Intersection Summary</b>													
Average Delay			2.9										
Intersection Capacity Utilization			22.5%		ICU Level of Service					A			
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis  
 3: Oak Ridge Drive & McMaster Street

PM Peak Hour  
 FT 2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	0	8	8	0	16	12
Future Volume (Veh/h)	0	8	8	0	16	12
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Hourly flow rate (vph)	0	11	11	0	22	17
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			11		28	6
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			11		28	6
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	98
cM capacity (veh/h)			1621		986	1083

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	11	11	39
Volume Left	0	11	22
Volume Right	11	0	17
cSH	1700	1621	1026
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (m)	0.0	0.2	0.9
Control Delay (s)	0.0	7.2	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	7.2	8.6
Approach LOS			A

Intersection Summary			
Average Delay			6.8
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis  
 4: Wildwood Road & 8 Line


PM Peak Hour  
 FT 2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	32	105	121	194	98	13
Future Volume (vph)	32	105	121	194	98	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	33	109	126	202	102	14

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	142	328	116
Volume Left (vph)	33	0	102
Volume Right (vph)	0	202	14
Hadj (s)	0.05	-0.32	0.12
Departure Headway (s)	4.6	4.1	5.0
Degree Utilization, x	0.18	0.37	0.16
Capacity (veh/h)	753	855	659
Control Delay (s)	8.6	9.4	9.0
Approach Delay (s)	8.6	9.4	9.0
Approach LOS	A	A	A

Intersection Summary		
Delay		9.1
Level of Service		A
Intersection Capacity Utilization	42.0%	ICU Level of Service A
Analysis Period (min)		15






**APPENDIX G**  
**Bus Stop Locations Near the Subject Site and Available Bus Routes**

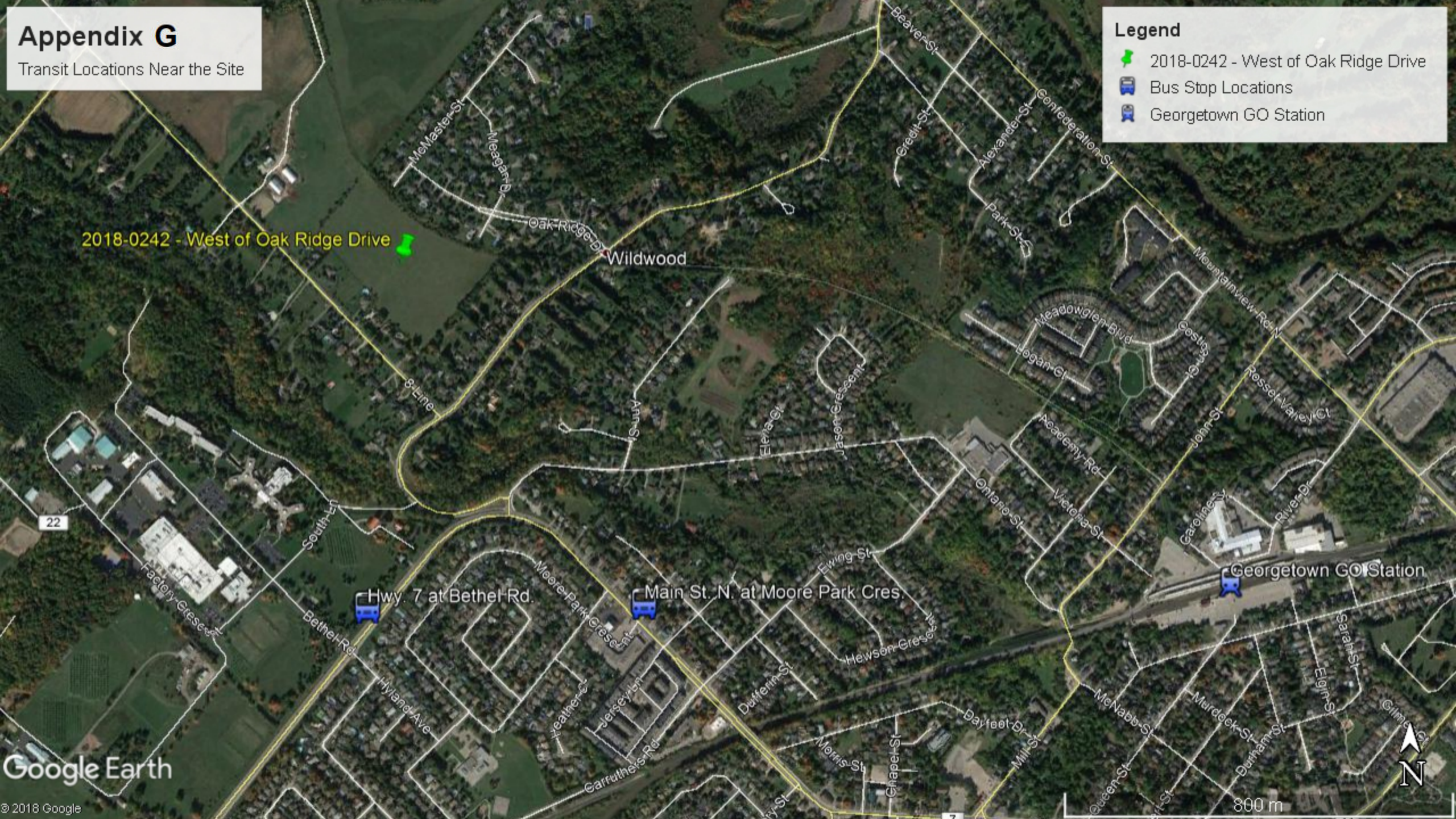
# Appendix G

Transit Locations Near the Site

**Legend**

-  2018-0242 - West of Oak Ridge Drive
-  Bus Stop Locations
-  Georgetown GO Station

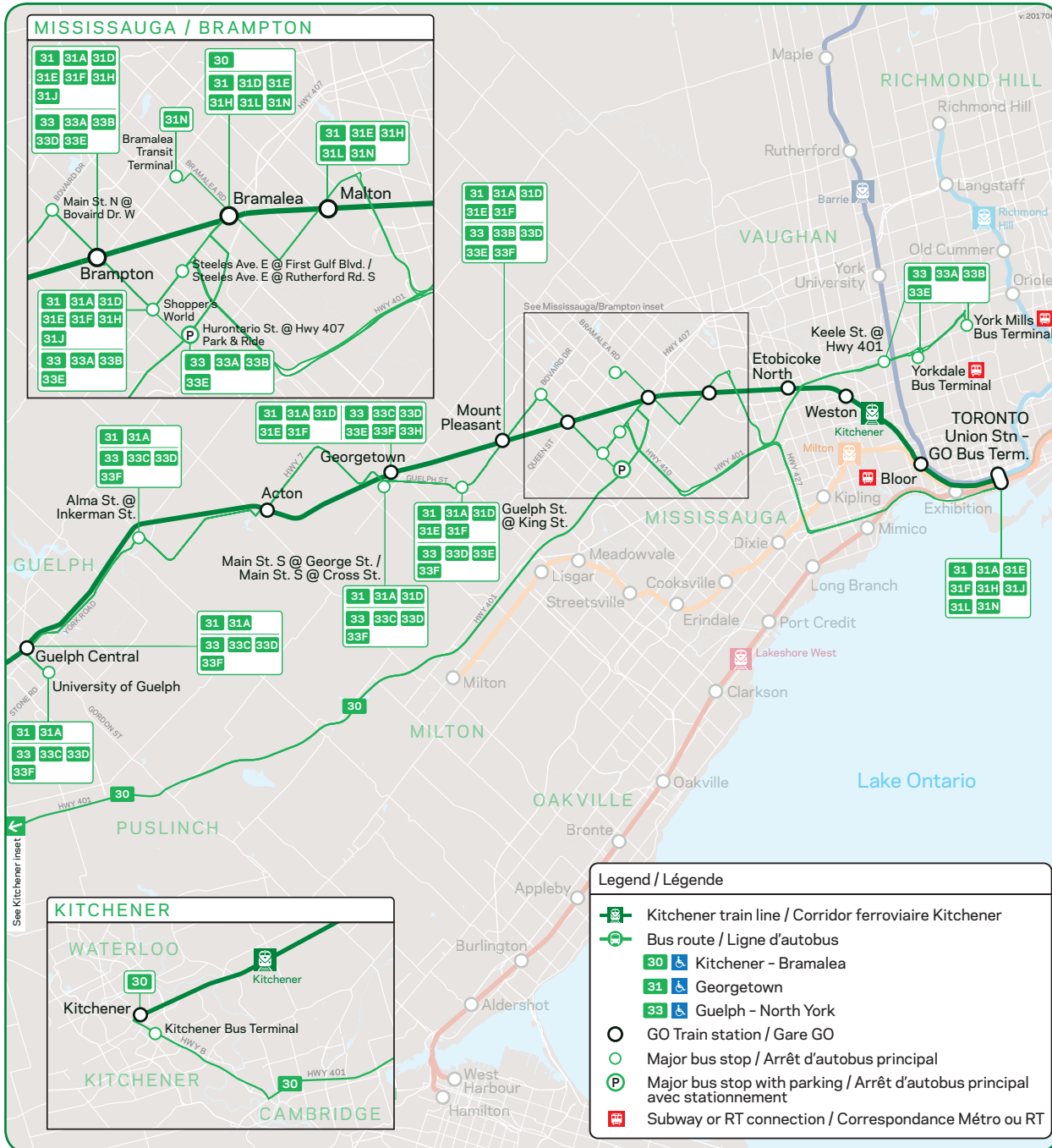
2018-0242 - West of Oak Ridge Drive 



# 30-31-33

Route numbers  
Nombre d'itinéraire

## Kitchener



### ALL GOOD TO GO

**gotransit.com** – Desktop and mobile website for everything you need to know about GO.

**On The GO alerts** – Customized service and delay updates sent right to your inbox. Sign up at [gotransit.com/OnTheGO](http://gotransit.com/OnTheGO)

**PRESTO** – Tap into convenience and savings with a PRESTO card. Get one at [prestocard.ca](http://prestocard.ca)

**Triplinx** – The official transit trip planner for the Greater Toronto & Hamilton area, at [triplinx.ca](http://triplinx.ca)

### BON DÉPART EN TOUT TEMPS AVEC GO

**gotransit.com** – site Web accessible d'un ordinateur de bureau ou d'un appareil mobile fournissant tous les renseignements sur GO

**Alertes On The GO** – nouvelles personnalisées sur le service et les retards envoyées directement dans votre boîte de réception; inscrivez-vous sur [gotransit.com/OnTheGOFR](http://gotransit.com/OnTheGOFR)

**PRESTO** – économies et aspect pratique assurés avec une carte PRESTO; obtenez la vôtre sur [prestocard.ca](http://prestocard.ca)

**Triplinx** – planificateur de trajet de transport en commun officiel de la région du grand Toronto et de Hamilton, sur [triplinx.ca](http://triplinx.ca)

416 869 3200

1 888 GET ON GO (438 6646)

1 800 387 3652 TTY/ATS

[gotransit.com/schedules](http://gotransit.com/schedules)



25-5-2018

## Kitchener

GO Train and Bus Schedule

Horaires des trains et des autobus GO

**Route 30** - Kitchener - Bramalea

**Route 31** - Guelph - Georgetown - Brampton - Toronto

**Route 33** - Guelph - Georgetown - Brampton - Yorkdale - York Mills



Daily

Quotidiennement

Includes GO Bus routes 30, 31, and 33  
Inclut les routes 30, 31, et 33 d'autobus GO

Effective/ À partir de:

**23 JUNE**  
**23 JUIN 2018**



METROLINX

## How to read our schedules

### Step 1

Find the station or terminal you are departing from. Stops are listed across the top in the order they are served.

### Step 2

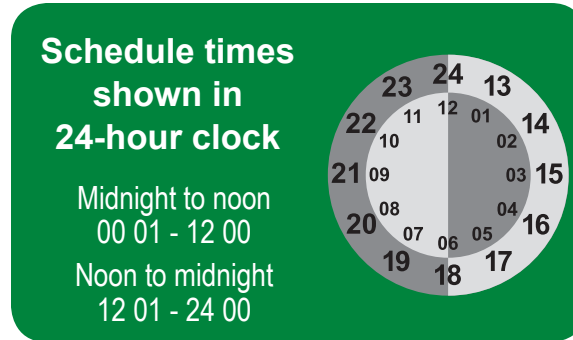
The top of the schedule tells you what day the schedule is for and the direction of travel.

### Step 3

Look across the rows for available departure times.

### Step 4

Not all trains or buses stop at every station. If you see → the train or bus will not stop at that station.



## Legend

 Train trips

 Bus trips



Trip does not serve this location.



Check below for connecting trips.



GO Train service is accessible to passengers using mobility devices at this location.



GO Bus service is accessible to passengers using mobility devices at this location.



GO Train & GO Bus service is accessible to passengers using mobility devices at this location.



Parking available.

For the latest schedule information and updates, please visit [gotransit.com/schedules](http://gotransit.com/schedules).

## Comment lire nos horaires

### Étape 1

Trouvez votre gare ou terminus de départ. La liste des arrêts est donnée en haut dans l'ordre dans lequel ils sont desservis.

### Étape 2

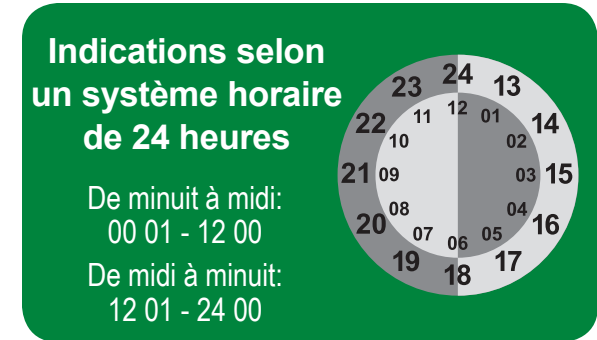
Le coin supérieur gauche vous indique le jour pour lequel l'horaire est donné et la direction de circulation.

### Étape 3


Regardez dans les rangées pour obtenir les heures de départ offertes.

### Étape 4

Les trains ou les autobus ne s'arrêtent pas tous à chaque gare. Si vous voyez le symbole → le train ou l'autobus ne s'arrêtera pas à cette gare.



## Légende

 Horaire des trains

 Horaire des autobus



Trajet ne sert pas cette station.



Vérifiez les trajets de correspondance cidessous.



Service de trains GO accessible aux personnes utilisant des aides à la mobilité à cet endroit.



Service d'autobus GO accessible aux personnes utilisant des aides à la mobilité à cet endroit.



Les services de trains et d'autobus GO sont accessibles aux utilisateurs d'un appareil d'aide à la mobilité à cet endroit.



Stationnement disponible.

Pour consulter les horaires les plus récents et les mises à jour, veuillez visiter [gotransit.com/schedules](http://gotransit.com/schedules).

## Notes

- D** Stops to let off passengers on request only.
- h** Trip holds for connection.
- b** Trip holds for connection from bus.
- S** GO Bus services GO Station from bus stop on street.
- c** Trip continues to and terminates at Bramalea Transit Terminal.

**Sat** Trip operates on Saturdays ONLY.

**Sun** Trip operates on Sundays ONLY.

## Bicycles

1. Bicycles are not allowed in Union Station or on-board eastbound trains during morning rush hour (6:30-9:30) and westbound trains during evening rush hour (15:30-18:30).
2. Foldable bicycles are allowed on-board trains at all times.

## Notes

- D** Arrêt sur demande seulement.
- h** Le départ de l'autobus est retardé pour assurer la correspondance.
- b** Le départ de l'autobus est retardé pour assurer la connexion de l'autobus.
- S** Les autobus GO desservent la gare à partir de l'arrêt situé sur la rue.
- c** Le parcours s'arrête au terminus Bramalea Transit Terminal.

**Sat** Service offert les samedis SEULEMENT.

**Sun** Service offert les dimanche SEULEMENT.

## Vélos

1. Les vélos ne sont pas permis à la gare Union ou dans les trains en direction est durant les heures de pointe du matin (entre 6 h 30 et 9 h 30) et dans les trains en direction ouest durant les heures de pointe de la soirée (entre 15 h 30 et 18 h 30).
2. Les vélos pliables sont permis à bord des trains en tout temps.



Monday to Friday (except holidays)  
Du lundi au vendredi (sauf les jours fériés)

Monday to Friday (except holidays)  
Du lundi au vendredi (sauf les jours fériés)

EASTBOUND EN DIRECTION EST												EASTBOUND EN DIRECTION EST															
Route Number Nombre d'itinéraire	Zone → Trips Number N° du trajet	Kitchener 27 Kitchener GO	Kitchener 27 Kitchener Bus Terminal	Guelph 38 University of Guelph	Guelph 38 Guelph Central GO	Rockwood 38 Alma St. @ Inkerman St.	Acton 37 Acton GO	Georgetown 35 Main St. S. @ George St.	Georgetown 35 Georgetown GO	Dp Georgetown 35 Guelph St. @ King St.	Brampton 34 Mount Pleasant GO	Brampton 33 Main St. N @ Bovaird Dr. W.	Brampton 33 Brampton GO	Dp Brampton 33 Shopper's World	Brampton 22 Huronario St. @ Hwy. 407	Brampton 33 Steeles Ave. E. @ First Gulf Blvd.	Brampton 32 Ar Bramalea GO	Mississauga 31 Malton GO	Toronto 5 Keele St. @ Hwy. 401	North York 5 Ar Yorkdale Bus Terminal	North York 5 Ar York Mills Bus Terminal	Etobicoke 4 Etobicoke North GO	Etobicoke 4 Weston GO	Toronto 2 Bloor GO	Toronto 2 Ar Union Station		
31E	31020								04 05	04 12	04 20	04 26															
31E	31030								04 25	04 32	04 40	04 46															
30	30020	04 39	04 44	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	
31D	31050							04 39	04 49	04 56	05 04	05 10															
	250																										
33A	33050																										
33	33070			04 35	04 40	04 53	05 04S	05 16	05 25	05 33	0540↓	05 48															
	260																										
33A	33100																										
33E	33110									06 00	06 08	06 18	06 27														
	204	05 24	→	→	05 48	→	06 05	→	06 23	→	06 32	→															
33A	33120																										
33	33140			05 35	05 45	05 58	06 09S	06 21	06 30↓	06 38	06 48	06 57															
	206								06 48	→	06 57	→															
33A	33160																										
33E	33170								07 00	07 08	07 18	07 27															
	208	06 04	→	→	06 28	→	06 45	→	07 03	→	07 12	→															
	210								07 16	→	07 25	→															
33	33200			06 30	06 40	06 53	07 04S	07 18	07 30↓	07 38	07 50	07 59															
	212	06 47	→	→	07 11	→	07 28	→	07 46	→	07 55	→															
	214	07 10	→	→	07 34	→	07 51	→	08 09	→	08 18	→															
33	33240			07 25	07 35	07 48	07 59S	08 13	08 25	08 33	08 45↓	08 54															
30	30180	07 41	07 48	→	→	→	→	→	→	→	→	→															
	268																										
33	33280			08 25	08 35	08 48	08 59S	09 11	09 20	09 28	09 40↓	09 49															
30	30230	08 41	08 48	→	→	→	→	→	→	→	→	→															
	270																										
33	33320			09 30	09 40	09 53	10 04S	10 16	10 25	10 33	10 45↓	10 54															
30	30270	09 46	09 53	→	→	→	→	→	→	→	→	→															
	272																										
33	33360			10 30	10 40	10 53	11 04S	11 16	11 25	11 33	11 45↓	11 54															
30	30310	10 46	10 53	→	→	→	→	→	→	→	→	→															
	274																										
33	33400			11 30	11 40	11 53	12 04S	12 16	12 25	12 33	12 45↓	12 54															
30	30350	11 46	11 53	→	→	→	→	→	→	→	→	→															
	276																										
33	33440			12 30	12 40	12 53	13 04S	13 16	13 25	13 33	13 45↓	13 54															
30	30390	12 46	12 53	→	→	→	→	→	→	→	→	→															
	278																										
33	33480			13 30	13 40	13 53	14 04S	14 16	14 25	14 33	14 45↓	14 54															
30	30430	13 41	13 48	→	→	→	→	→	→	→	→	→															
	280																										
33A	33520																										
33D	33530			14 20	14 30	14 43	14 54S	15 06	15 15	15 23	15 37↓	15 46															
30	30460	14 34	14 41	→	→	→	→	→	→	→	→	→															



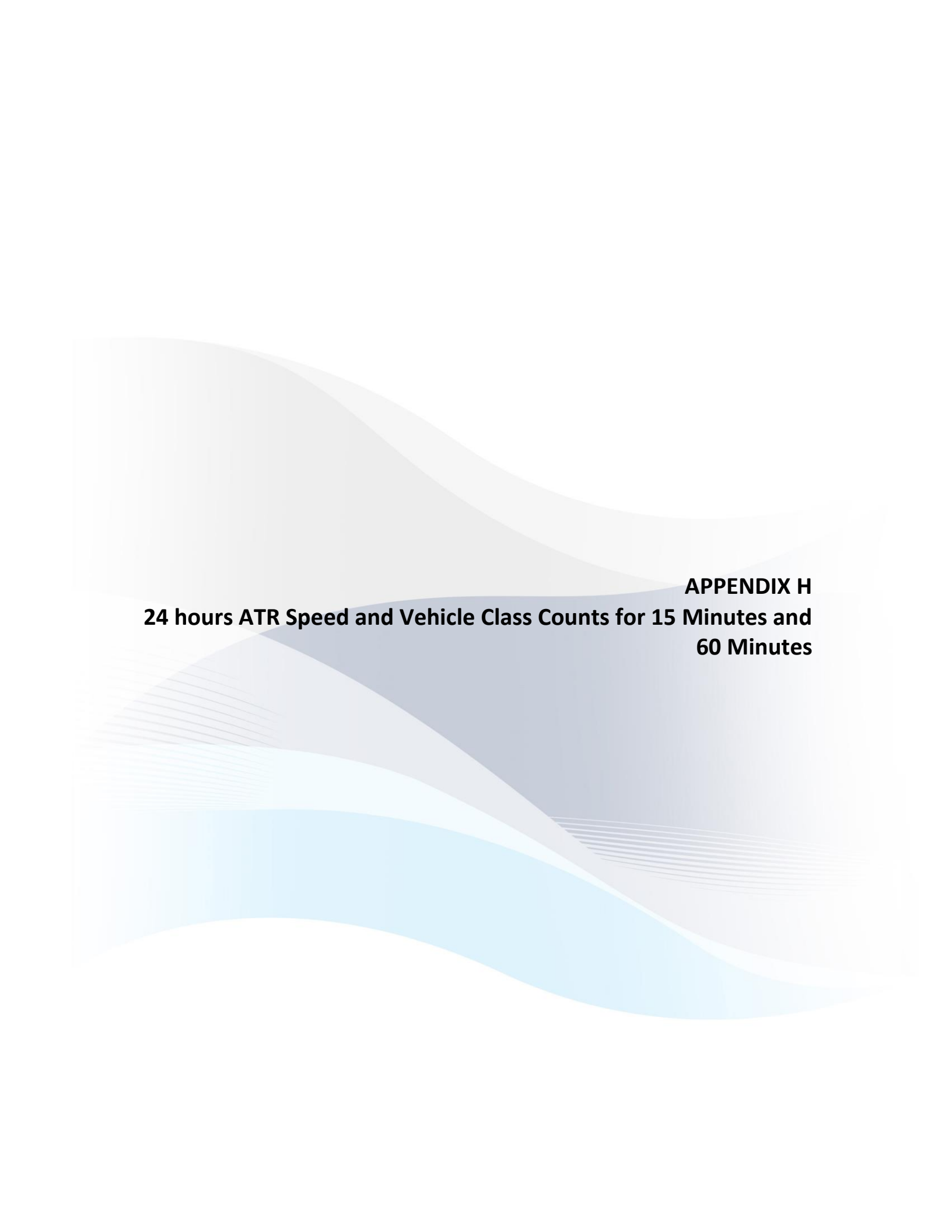




		Saturday and Sunday Samedi et dimanche																
		EASTBOUND / EN DIRECTION EST																
Route Number Nombre d'itinéraire	Zone → Trip Number N° du trajet	Exception 1	Guelph 39 University of Guelph	Guelph 39 Guelph Central GO	Rockwood 38 Alma St. @ Inkerman St.	Acton 37 Acton GO	Georgetown 35 Main St. S. @ George St.	Georgetown 35 Georgetown GO	Georgetown 35 Guelph St. @ King St.	Brampton 34 Mount Pleasant GO	Brampton 33 Main St. N @ Bovaird Dr. W.	Brampton 33 Brampton GO	Brampton 33 Shopper's World	Brampton 33 Steeles Ave. E. @ First Gulf Blvd.	Brampton 32 Bramalea GO	Mississauga 31 Malton GO	Toronto 2 Union Station Bus Terminal	Ar
31E	31090							05 00	05 07	05 12	05 19	05 30	05 35	05 40	05 45	05 55	06 20	
31E	31150							06 00	06 07	06 12	06 19	06 30	06 35	06 40	06 45	06 55	07 20	
31F	31170	Sat						06 30	06 37	06 42	06 49	07 00	07 05	07 10	→	→	07 40	
31F	31202							07 00	07 07	07 12	07 19	07 30	07 35	07 40	→	→	08 10	
31L	31210														07 45	07 55	08 25	
31F	31222							07 30	07 37	07 42	07 49	08 00	08 05	08 10	→	→	08 45	
31L	31230														08 15	08 25	08 55	
31A	31242		07 00	07 10	07 23	07 34S	07 46	07 55	08 03	08 10	08 17	08 30	08 35	08 40	→	→	09 15	
31L	31250														08 45	08 55	09 25	
31F	31270							08 25	08 33	08 40	08 47	09 00	09 05	09 10	→	→	09 45	
31L	31280														09 15	09 25	09 55	
31F	31292							08 55	09 03	09 10	09 17	09 30	09 35	09 40	→	→	10 20	
31L	31300														09 45	09 55	10 30	
31F	31310							09 25	09 33	09 40	09 47	10 00	10 05	10 15	→	→	10 55	
31L	31320														10 15	10 25	11 05	
31A	31332		08 55	09 05	09 18	09 29S	09 41	09 50	09 58	10 06	10 15	10 30	10 35	10 45	→	→	11 30	
31L	31340														10 45	10 55	11 35	
31F	31350							10 20	10 28	10 36	10 45	11 00	11 05	11 15	→	→	12 00	
31L	31360														11 15	11 25	12 05	
31F	31372							10 50	10 58	11 06	11 15	11 30	11 35	11 45	→	→	12 30	
31L	31380														11 45	11 55	12 35	
31F	31390							11 20	11 28	11 36	11 45	12 00	12 05	12 15	→	→	13 00	
31L	31400														12 15	12 25	13 05	
31A	31412		10 55	11 05	11 18	11 29S	11 41	11 50	11 58	12 06	12 15	12 30	12 35	12 45	→	→	13 30	
31L	31420														12 45	12 55	13 35	
31F	31430							12 20	12 28	12 36	12 45	13 00	13 05	13 15	→	→	14 00	
31L	31450														13 15	13 25	14 05	
31F	31452							12 50	12 58	13 06	13 15	13 30	13 35	13 45	→	→	14 30	
31L	31460														13 45	13 55	14 35	

		Saturday and Sunday Samedi et dimanche																
		EASTBOUND / EN DIRECTION EST																
Route Number Nombre d'itinéraire	Zone → Trip Number N° du trajet	Exception 1	Guelph 39 University of Guelph	Guelph 39 Guelph Central GO	Rockwood 38 Alma St. @ Inkerman St.	Acton 37 Acton GO	Georgetown 35 Main St. S. @ George St.	Georgetown 35 Georgetown GO	Georgetown 35 Guelph St. @ King St.	Brampton 34 Mount Pleasant GO	Brampton 33 Main St. N @ Bovaird Dr. W.	Brampton 33 Brampton GO	Brampton 33 Shopper's World	Brampton 33 Steeles Ave. E. @ First Gulf Blvd.	Brampton 32 Bramalea GO	Mississauga 31 Malton GO	Toronto 2 Union Station Bus Terminal	Ar
31F	31472																	
31L	31480																	
31A	31492		12 50	13 00	13 13	13 24S	13 38	13 50	13 58	14 06	14 15	14 30	14 35	14 45	→	→	15 30	
31L	31510																	
31F	31522							14 20	14 28	14 36	14 45	15 00	15 05	15 15	→	→	16 00	
31L	31540																	
31F	31552							14 50	14 58	15 06	15 15	15 30	15 35	15 45	→	→	16 30	
31L	31570																	
31F	31582							15 20	15 28	15 36	15 45	16 00	16 05	16 15	→	→	17 00	
31L	31600																	
31A	31612		14 50	15 00	15 13	15 24S	15 38	15 50	15 58	16 06	16 15	16 30	16 35	16 45	→	→	17 30	
31L	31630																	
31F	31640							16 20	16 28	16 36	16 45	17 00	17 05	17 15	→	→	18 00	
31L	31660																	
31F	31672							16 50	16 58	17 06	17 15	17 30	17 35	17 45	→	→	18 30	
31L	31680																	
31F	31690							17 20	17 28	17 36	17 45	18 00	18 05	18 15	→	→	19 00	
31L	31700																	
31A	31712		16 55	17 05	17 18	17 29S	17 43	17 55	18 03	18 10	18 18	18 30	18 35	18 45	→	→	19 30	
31L	31720																	
31F	31742							18 55	19 03	19 10	19 18	19 30	19 35	19 45	→	→	20 25	
31L	31750																	
31A	31782		19 00	19 10	19 23	19 34S	19 46	19 55	20 03	20 10	20 18	20 30	20 35	20 40	→	→	21 20	
31L	31790																	
31E	31830							20 55	21 03	21 10	21 18	21 30	21 35	21 40	21 50	22 00	22 30	
31	31860		21 00	21 10	21 23	21 34S	21 46	21 55	22 03	22 10	22 18	22 30	22 35	22 40	22 45	22 55	23 25	
31E	31890							23 00	23 07	23 12	23 19	23 30	23 35	23 40	23 45	23 55	00 25	
31E	31920							24 00	00 07	00 12	00 19	00 30	00 35	00 40	00 45	00 55	01 25	





**APPENDIX H**  
**24 hours ATR Speed and Vehicle Class Counts for 15 Minutes and 60 Minutes**













**Accu-Traffic Inc.**  
**85 West Wilmot St., Unit 13,**  
**Richmond Hill, ON, L4B 1K7**  
**Tel: 1-416-910-0171 Fax: 1-888-711-3125**  
**E-mail: solutions@accu-traffic.ca**  
**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC08/MC11  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
06/12/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
05:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
06:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
06:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
07:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0
07:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
07:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0
07:45	0	5	0	1	0	0	0	0	0	0	0	0	0	6	1
08:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0
08:15	0	18	1	1	0	0	0	0	0	0	0	0	0	20	1
08:30	0	7	1	1	0	0	0	0	0	0	0	0	0	9	1
08:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0
09:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0
09:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
09:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
09:45	0	21	2	1	0	0	0	0	0	0	0	0	0	24	1
10:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
10:15	0	1	3	0	0	0	0	0	0	0	0	0	0	4	0
10:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
10:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
11:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13	0
11:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0
11:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	0
11:45	0	2	2	0	0	0	0	0	0	0	0	0	0	4	0
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	15	0
Percent	0.0%	87.1%	10.9%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	101	2.0%

**Accu-Traffic Inc.**  
**85 West Wilmot St., Unit 13,**  
**Richmond Hill, ON, L4B 1K7**  
**Tel: 1- 416-910-0171 Fax: 1-888-711-3125**  
**E-mail: solutions@accu-traffic.ca**  
**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC08/MC11  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

SB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
12 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	3	0
12:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0
12:30	0	2	3	0	0	0	0	0	0	0	0	0	0	5	0
12:45	0	7	2	0	0	0	0	0	0	0	0	0	0	9	0
	0	12	7	0	0	0	0	0	0	0	0	0	0	19	0
13:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4	1
13:15	0	6	2	0	0	0	0	0	0	0	0	0	0	8	0
13:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0
13:45	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0
	0	11	6	0	1	0	0	0	0	0	0	0	0	18	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
14:30	0	3	2	0	1	0	0	0	0	0	0	0	0	6	1
14:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0
	0	9	3	0	1	0	0	0	0	0	0	0	0	13	1
15:00	0	2	2	1	0	0	0	0	0	0	0	0	0	5	1
15:15	0	1	2	0	0	0	0	0	0	0	0	0	0	3	0
15:30	0	1	0	0	0	1	0	0	0	0	0	0	0	2	1
15:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0
	0	8	5	1	0	1	0	0	0	0	0	0	0	15	2
16:00	0	1	3	0	0	0	0	0	0	0	0	0	0	4	0
16:15	1	2	1	1	0	0	0	0	0	0	0	0	0	5	1
16:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
16:45	0	3	2	0	0	0	0	0	0	0	0	0	0	5	0
	1	7	6	1	0	0	0	0	0	0	0	0	0	15	1
17:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5	0
17:15	1	4	3	0	0	0	0	0	0	0	0	0	0	8	0
17:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
17:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
	1	15	5	0	0	0	0	0	0	0	0	0	0	21	0
18:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
18:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0
18:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
18:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
	0	14	0	0	0	0	0	0	0	0	0	0	0	14	0
19:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
19:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
	0	9	1	0	0	0	0	0	0	0	0	0	0	10	0
20:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
20:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0
20:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
20:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
	0	9	1	0	0	0	0	0	0	0	0	0	0	10	0
21:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0
21:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
21:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
21:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	0	10	1	0	0	0	0	0	0	0	0	0	0	11	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
22:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>106</b>	<b>35</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>148</b>	<b>5</b>
<b>Percent</b>	<b>1.4%</b>	<b>71.6%</b>	<b>23.6%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>0.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>		<b>3.4%</b>
<b>Grand Total</b>	<b>2</b>	<b>194</b>	<b>46</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>249</b>	<b>7</b>
<b>Percent</b>	<b>0.8%</b>	<b>77.9%</b>	<b>18.5%</b>	<b>1.6%</b>	<b>0.8%</b>	<b>0.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>		<b>2.8%</b>









**Accu-Traffic Inc.**  
**85 West Wilmot St., Unit 13,**  
**Richmond Hill, ON, L4B 1K7**  
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**E-mail: solutions@accu-traffic.ca**  
**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC02/MC18  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

**NB**

Start Time	1 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 9999	Total
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	5
12:30	1	0	1	3	2	1	0	0	0	0	0	0	0	0	0	8
12:45	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	5
	4	2	4	5	2	1	0	0	0	0	0	0	0	0	0	18
13:00	0	1	3	1	2	0	0	0	0	0	0	0	0	0	0	7
13:15	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
13:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
13:45	0	2	0	0	2	1	1	0	0	0	0	0	0	0	0	6
	0	5	4	3	4	1	1	0	0	0	0	0	0	0	0	18
14:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:15	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
14:30	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	6
14:45	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	2	2	5	3	4	0	0	0	0	0	0	0	0	0	0	16
15:00	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	3
15:15	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4
15:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15:45	0	0	2	2	0	1	0	0	0	0	0	0	0	0	0	5
	1	0	5	4	1	2	0	0	0	0	0	0	0	0	0	13
16:00	1	1	2	3	1	1	0	0	0	0	0	0	0	0	0	9
16:15	0	0	3	0	2	1	0	0	0	0	0	0	0	0	0	6
16:30	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	4
16:45	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	5
	1	3	5	8	5	2	0	0	0	0	0	0	0	0	0	24
17:00	0	1	3	2	3	0	0	0	0	0	0	0	0	0	0	9
17:15	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	6
17:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
17:45	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	6
	0	4	7	6	5	1	0	0	0	0	0	0	0	0	0	23
18:00	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4
18:15	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	8
18:30	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	5
18:45	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	5
	0	2	5	6	8	1	0	0	0	0	0	0	0	0	0	22
19:00	0	2	0	1	0	2	0	0	0	0	0	0	0	0	0	5
19:15	0	3	1	2	0	0	0	0	0	0	0	0	0	0	0	6
19:30	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4
19:45	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	4
	1	7	3	6	0	2	0	0	0	0	0	0	0	0	0	19
20:00	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4
20:15	0	1	3	3	1	1	0	0	0	0	0	0	0	0	0	9
20:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
20:45	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4
	1	3	3	9	2	1	0	0	0	0	0	0	0	0	0	19
21:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
21:15	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
21:30	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
21:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	4	4	2	0	0	0	0	0	0	0	0	0	0	0	10
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
23:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
23:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
Total	10	33	49	52	33	11	1	0	0	0	0	0	0	0	0	
Total	15	45	63	64	42	15	3	0	0	0	0	0	0	0	0	

15th Percentile : 32 KPH  
 50th Percentile : 40 KPH  
 85th Percentile : 47 KPH  
 95th Percentile : 51 KPH

Stats  
 Mean Speed(Average) : 40 KPH  
 15 KPH Pace Speed : 31-45 KPH  
 Number in Pace : 172  
 Percent in Pace : 69.6%

Number of Vehicles > 40 KPH : 124

Percent of Vehicles > 40 KPH : 50.2%



**Accu-Traffic Inc.**  
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**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC02/MC18  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

SB

Start Time	1 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 9999	Total
12 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3
12:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	5
12:45	1	1	3	2	0	2	0	0	0	0	0	0	0	0	0	9
13:00	1	3	7	3	2	3	0	0	0	0	0	0	0	0	0	19
13:15	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	4
13:30	0	1	3	1	3	0	0	0	0	0	0	0	0	0	0	8
13:45	0	0	1	2	0	1	0	0	0	0	0	0	0	0	0	4
14:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
14:15	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
14:30	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	6
14:45	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5
15:00	0	1	3	5	4	0	0	0	0	0	0	0	0	0	0	13
15:15	0	0	0	3	1	0	1	0	0	0	0	0	0	0	0	5
15:30	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3
15:45	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
16:00	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	5
16:15	1	1	3	5	3	0	2	0	0	0	0	0	0	0	0	15
16:30	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4
16:45	0	0	2	0	2	0	1	0	0	0	0	0	0	0	0	5
17:00	1	0	4	2	4	2	2	0	0	0	0	0	0	0	0	15
17:15	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	5
17:30	0	1	2	4	1	0	0	0	0	0	0	0	0	0	0	8
17:45	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4
18:00	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4
18:15	2	4	3	9	3	0	0	0	0	0	0	0	0	0	0	21
18:30	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
18:45	0	1	0	1	2	1	0	0	0	0	0	0	0	0	0	5
19:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
19:15	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
19:30	0	1	5	3	2	3	0	0	0	0	0	0	0	0	0	14
19:45	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
20:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
20:45	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
21:00	3	4	1	2	0	0	0	0	0	0	0	0	0	0	0	10
21:15	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
21:30	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	4
21:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
22:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
22:30	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	4
22:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	5	0	4	2	0	0	0	0	0	0	0	0	0	0	11
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	23	35	38	26	10	5	0	0	0	0	0	0	0	0	0
Total	14	39	54	65	47	18	12	0	0	0	0	0	0	0	0	0

15th Percentile : 32 KPH  
 50th Percentile : 41 KPH  
 85th Percentile : 49 KPH  
 95th Percentile : 54 KPH

Stats Mean Speed(Average) : 41 KPH  
 15 KPH Pace Speed : 36-50 KPH  
 Number in Pace : 166  
 Percent in Pace : 66.7%

Number of Vehicles > 40 KPH : 142

Percent of Vehicles > 40 KPH : 57.0%



**Accu-Traffic Inc.**  
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**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC02/MC18  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

**NB, SB**

Start Time	1 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 9999	Total
12 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3
12:15	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	7
12:30	1	0	3	4	3	2	0	0	0	0	0	0	0	0	0	13
12:45	3	2	4	3	0	2	0	0	0	0	0	0	0	0	0	14
	5	5	11	8	4	4	0	0	0	0	0	0	0	0	0	37
13:00	1	2	5	1	2	0	0	0	0	0	0	0	0	0	0	11
13:15	0	1	4	3	3	0	0	0	0	0	0	0	0	0	0	11
13:30	0	2	1	2	0	1	0	0	0	0	0	0	0	0	0	6
13:45	0	2	0	1	3	1	1	0	0	0	0	0	0	0	0	8
	1	7	10	7	8	2	1	0	0	0	0	0	0	0	0	36
14:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:15	2	0	0	1	5	0	0	0	0	0	0	0	0	0	0	8
14:30	0	3	3	4	2	0	0	0	0	0	0	0	0	0	0	12
14:45	0	0	4	3	1	0	0	0	0	0	0	0	0	0	0	8
	2	3	8	8	8	0	0	0	0	0	0	0	0	0	0	29
15:00	1	0	1	3	1	1	1	0	0	0	0	0	0	0	0	8
15:15	0	0	1	2	3	0	1	0	0	0	0	0	0	0	0	7
15:30	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3
15:45	0	1	5	3	0	1	0	0	0	0	0	0	0	0	0	10
	2	1	8	9	4	2	2	0	0	0	0	0	0	0	0	28
16:00	1	1	2	4	3	2	0	0	0	0	0	0	0	0	0	13
16:15	0	0	5	0	4	1	1	0	0	0	0	0	0	0	0	11
16:30	0	1	0	1	2	0	1	0	0	0	0	0	0	0	0	5
16:45	1	1	2	5	0	1	0	0	0	0	0	0	0	0	0	10
	2	3	9	10	9	4	2	0	0	0	0	0	0	0	0	39
17:00	1	2	4	4	3	0	0	0	0	0	0	0	0	0	0	14
17:15	0	2	4	5	2	1	0	0	0	0	0	0	0	0	0	14
17:30	1	2	0	1	2	0	0	0	0	0	0	0	0	0	0	6
17:45	0	2	2	5	1	0	0	0	0	0	0	0	0	0	0	10
	2	8	10	15	8	1	0	0	0	0	0	0	0	0	0	44
18:00	0	0	3	2	2	1	0	0	0	0	0	0	0	0	0	8
18:15	0	2	2	3	4	2	0	0	0	0	0	0	0	0	0	13
18:30	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	6
18:45	0	0	4	3	2	0	0	0	0	0	0	0	0	0	0	9
	0	3	10	9	10	4	0	0	0	0	0	0	0	0	0	36
19:00	1	3	0	2	0	2	0	0	0	0	0	0	0	0	0	8
19:15	2	5	1	2	0	0	0	0	0	0	0	0	0	0	0	10
19:30	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4
19:45	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	7
	4	11	4	8	0	2	0	0	0	0	0	0	0	0	0	29
20:00	1	1	0	3	0	1	0	0	0	0	0	0	0	0	0	6
20:15	0	1	5	3	2	1	1	0	0	0	0	0	0	0	0	13
20:30	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	4
20:45	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	6
	3	4	5	10	4	2	1	0	0	0	0	0	0	0	0	29
21:00	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	6
21:15	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
21:30	0	4	1	1	1	0	0	0	0	0	0	0	0	0	0	7
21:45	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
	0	9	4	6	2	0	0	0	0	0	0	0	0	0	0	21
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
22:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
23:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
Total	21	56	84	90	59	21	6	0	0	0	0	0	0	0	0	
Total	29	84	117	129	89	33	15	0	0	0	0	0	0	0	0	

15th Percentile : 32 KPH  
 50th Percentile : 40 KPH  
 85th Percentile : 48 KPH  
 95th Percentile : 53 KPH

Stats  
 Mean Speed(Average) : 41 KPH  
 15 KPH Pace Speed : 36-50 KPH  
 Number in Pace : 335  
 Percent in Pace : 67.5%



Number of Vehicles > 40 KPH : 266

Percent of Vehicles > 40 KPH : 53.6%

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**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC02/MC18  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

NB

Start Time	1	31	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
06/12/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	34	34
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	1	3	1	1	<b>2</b>	0	0	0	0	0	0	0	0	0	8	52	54
08:00	0	<b>4</b>	2	<b>4</b>	1	0	0	0	0	0	0	0	0	0	0	11	44	47
09:00	<b>2</b>	2	2	2	2	1	<b>2</b>	0	0	0	0	0	0	0	0	<b>13</b>	55	58
10:00	1	3	<b>4</b>	2	<b>3</b>	0	0	0	0	0	0	0	0	0	0	13	46	48
11:00	2	1	3	3	2	1	0	0	0	0	0	0	0	0	0	12	47	51
12 PM	<b>4</b>	2	4	5	2	1	0	0	0	0	0	0	0	0	0	18	45	50
13:00	0	5	4	3	4	1	<b>1</b>	0	0	0	0	0	0	0	0	18	49	55
14:00	2	2	5	3	4	0	0	0	0	0	0	0	0	0	0	16	47	48
15:00	1	0	5	4	1	<b>2</b>	0	0	0	0	0	0	0	0	0	13	50	53
16:00	1	3	5	8	5	2	0	0	0	0	0	0	0	0	0	<b>24</b>	48	51
17:00	0	4	<b>7</b>	6	5	1	0	0	0	0	0	0	0	0	0	23	47	49
18:00	0	2	5	6	<b>8</b>	1	0	0	0	0	0	0	0	0	0	22	48	49
19:00	1	<b>7</b>	3	6	0	2	0	0	0	0	0	0	0	0	0	19	44	52
20:00	1	3	3	<b>9</b>	2	1	0	0	0	0	0	0	0	0	0	19	45	50
21:00	0	4	4	2	0	0	0	0	0	0	0	0	0	0	0	10	41	43
22:00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3	38	39
23:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4	48	49
<b>Total</b>	<b>15</b>	<b>45</b>	<b>63</b>	<b>64</b>	<b>42</b>	<b>15</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>247</b>		
<b>Percent</b>	<b>6.1%</b>	<b>18.2%</b>	<b>25.5%</b>	<b>25.9%</b>	<b>17.0%</b>	<b>6.1%</b>	<b>1.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>			
AM Peak	09:00	08:00	10:00	08:00	10:00	07:00	09:00											
Vol.	2	4	4	4	3	2	2											
PM Peak	12:00	19:00	17:00	20:00	18:00	15:00	13:00											
Vol.	4	7	7	9	8	2	1											

15th Percentile : 32 KPH  
 50th Percentile : 40 KPH  
 85th Percentile : 47 KPH  
 95th Percentile : 51 KPH

Stats  
 Mean Speed(Average) : 40 KPH  
 15 KPH Pace Speed : 31-45 KPH  
 Number in Pace : 172  
 Percent in Pace : 69.6%  
 Number of Vehicles > 40 KPH : 124  
 Percent of Vehicles > 40 KPH : 50.2%

**Accu-Traffic Inc.**  
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**URL: http://www.accu-traffic.ca**

Site Code: 01  
 Station ID: MC02/MC18  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

SB

Start Time	1	31	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
06/12/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	39	39
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	44	44
05:00	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	4	52	54
06:00	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	6	50	53
07:00	0	2	<b>6</b>	8	3	0	1	0	0	0	0	0	0	0	0	20	46	55
08:00	1	3	3	<b>9</b>	<b>6</b>	1	1	0	0	0	0	0	0	0	0	<b>24</b>	48	54
09:00	0	2	1	2	3	<b>3</b>	<b>2</b>	0	0	0	0	0	0	0	0	13	55	58
10:00	<b>2</b>	3	4	3	2	1	2	0	0	0	0	0	0	0	0	17	52	57
11:00	0	<b>4</b>	3	2	4	1	1	0	0	0	0	0	0	0	0	15	49	56
12 PM	1	3	<b>7</b>	3	2	<b>3</b>	0	0	0	0	0	0	0	0	0	19	50	53
13:00	1	2	6	4	<b>4</b>	1	0	0	0	0	0	0	0	0	0	18	47	50
14:00	0	1	3	5	4	0	0	0	0	0	0	0	0	0	0	13	47	49
15:00	1	1	3	5	3	0	<b>2</b>	0	0	0	0	0	0	0	0	15	49	58
16:00	1	0	4	2	4	2	2	0	0	0	0	0	0	0	0	15	54	58
17:00	2	4	3	<b>9</b>	3	0	0	0	0	0	0	0	0	0	0	<b>21</b>	44	48
18:00	0	1	5	3	2	3	0	0	0	0	0	0	0	0	0	14	51	53
19:00	<b>3</b>	4	1	2	0	0	0	0	0	0	0	0	0	0	0	10	41	43
20:00	2	1	2	1	2	1	1	0	0	0	0	0	0	0	0	10	52	57
21:00	0	<b>5</b>	0	4	2	0	0	0	0	0	0	0	0	0	0	11	45	48
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	38	39
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
<b>Total</b>	<b>14</b>	<b>39</b>	<b>54</b>	<b>65</b>	<b>47</b>	<b>18</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>249</b>		
Percent	5.6%	15.7%	21.7%	26.1%	18.9%	7.2%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	07:00	08:00	08:00	09:00	09:00									08:00		
Vol.	2	4	6	9	6	3	2									24		
PM Peak	19:00	21:00	12:00	17:00	13:00	12:00	15:00									17:00		
Vol.	3	5	7	9	4	3	2									21		

15th Percentile : 32 KPH  
 50th Percentile : 41 KPH  
 85th Percentile : 49 KPH  
 95th Percentile : 54 KPH

Stats  
 Mean Speed(Average) : 41 KPH  
 15 KPH Pace Speed : 36-50 KPH  
 Number in Pace : 166  
 Percent in Pace : 66.7%  
 Number of Vehicles > 40 KPH : 142  
 Percent of Vehicles > 40 KPH : 57.0%

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Site Code: 01  
 Station ID: MC02/MC18  
 Oak Ridge Drive between  
 Wildwood Road and Meagan Drive  
 Latitude: 0' 0.0000 Undefined

NB, SB

Start Time	1	31	36	41	46	51	56	61	66	71	76	81	86	91	96	9999	Total	85th Percent	95th Percent
06/12/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	38	39
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	44	44
05:00	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	4	52	54
06:00	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	6	50	53
07:00	0	3	9	9	4	2	1	0	0	0	0	0	0	0	0	0	28	48	54
08:00	1	7	5	13	7	1	1	0	0	0	0	0	0	0	0	0	35	47	51
09:00	2	4	3	4	5	4	4	0	0	0	0	0	0	0	0	0	26	55	58
10:00	3	6	8	5	5	1	2	0	0	0	0	0	0	0	0	0	30	48	56
11:00	2	5	6	5	6	2	1	0	0	0	0	0	0	0	0	0	27	49	54
12 PM	5	5	11	8	4	4	0	0	0	0	0	0	0	0	0	0	37	48	52
13:00	1	7	10	7	8	2	1	0	0	0	0	0	0	0	0	0	36	48	53
14:00	2	3	8	8	8	0	0	0	0	0	0	0	0	0	0	0	29	47	49
15:00	2	1	8	9	4	2	2	0	0	0	0	0	0	0	0	0	28	49	56
16:00	2	3	9	10	9	4	2	0	0	0	0	0	0	0	0	0	39	50	55
17:00	2	8	10	15	8	1	0	0	0	0	0	0	0	0	0	0	44	46	49
18:00	0	3	10	9	10	4	0	0	0	0	0	0	0	0	0	0	36	49	52
19:00	4	11	4	8	0	2	0	0	0	0	0	0	0	0	0	0	29	43	51
20:00	3	4	5	10	4	2	1	0	0	0	0	0	0	0	0	0	29	48	53
21:00	0	9	4	6	2	0	0	0	0	0	0	0	0	0	0	0	21	44	47
22:00	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	38	39
23:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4	48	49
<b>Total</b>	<b>29</b>	<b>84</b>	<b>117</b>	<b>129</b>	<b>89</b>	<b>33</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>496</b>		
Percent	5.8%	16.9%	23.6%	26.0%	17.9%	6.7%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	07:00	08:00	08:00	09:00	09:00										08:00		
Vol.	3	7	9	13	7	4	4										35		
PM Peak	12:00	19:00	12:00	17:00	18:00	12:00	15:00										17:00		
Vol.	5	11	11	15	10	4	2										44		

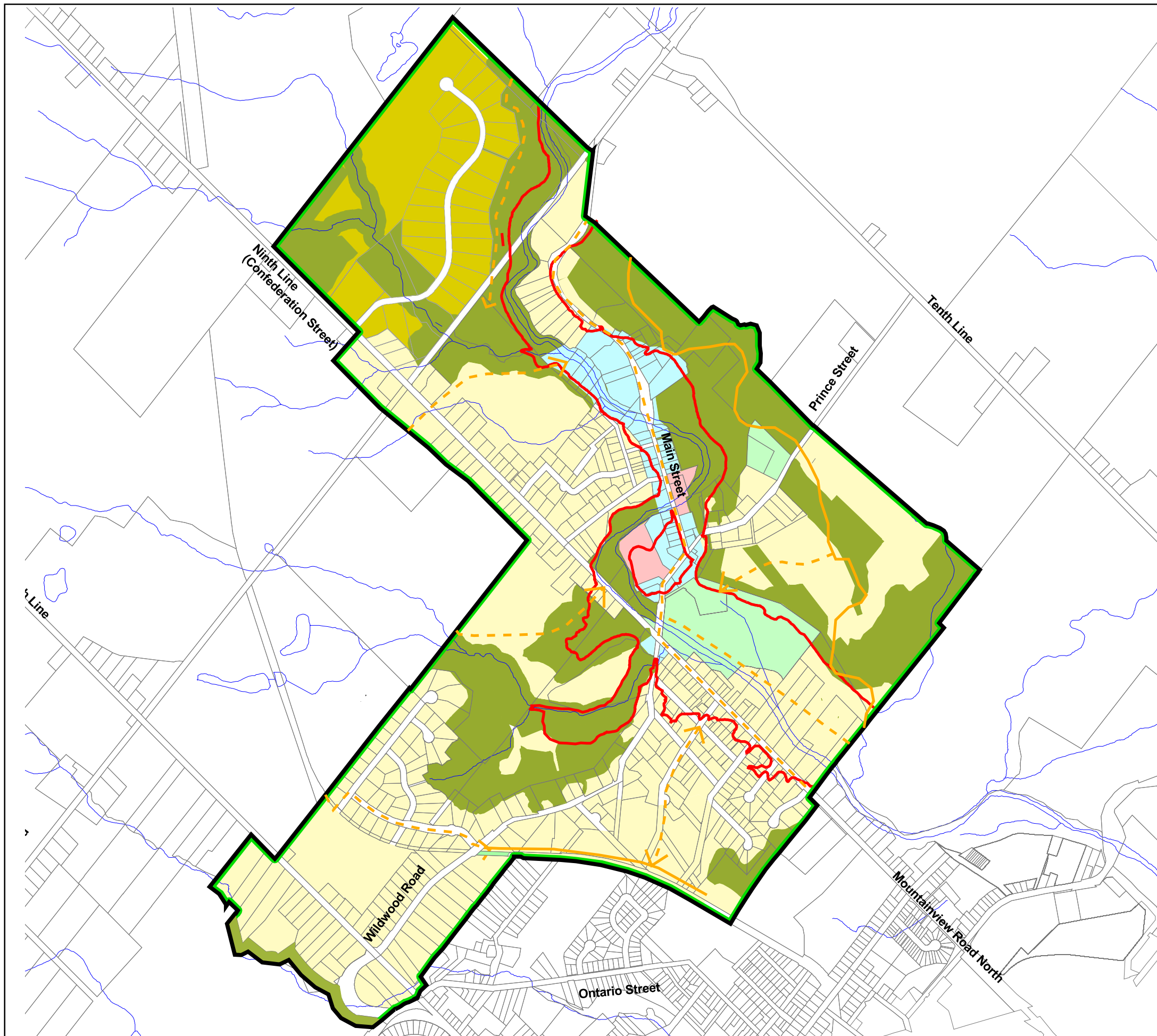
15th Percentile : 32 KPH  
 50th Percentile : 40 KPH  
 85th Percentile : 48 KPH  
 95th Percentile : 53 KPH






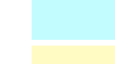


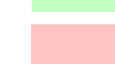



Stats  
 Mean Speed(Average) : 41 KPH  
 15 KPH Pace Speed : 36-50 KPH  
 Number in Pace : 335  
 Percent in Pace : 67.5%  
 Number of Vehicles > 40 KPH : 266  
 Percent of Vehicles > 40 KPH : 53.6%

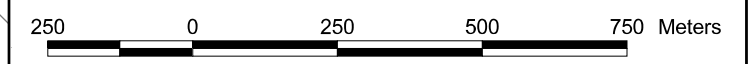


**APPENDIX I**  
**The Town of Halton Hills Glen Williams Secondary Plan**  
**Schedule A**

The Town of Halton Hills  
**Glen Williams Secondary Plan**  
**Schedule A**




-  Hamlet Boundary
-  Watercourses
-  Limit of Regulatory Flood
-  Potential Trails and On-Road Linkages
-  Existing Trails
-  Hamlet Community Core
-  Hamlet Residential
-  Hamlet Estate Residential
-  Open Space
-  Institutional
-  Greenlands Categories (Refer to Schedule B)
-  Hamlet Buffer



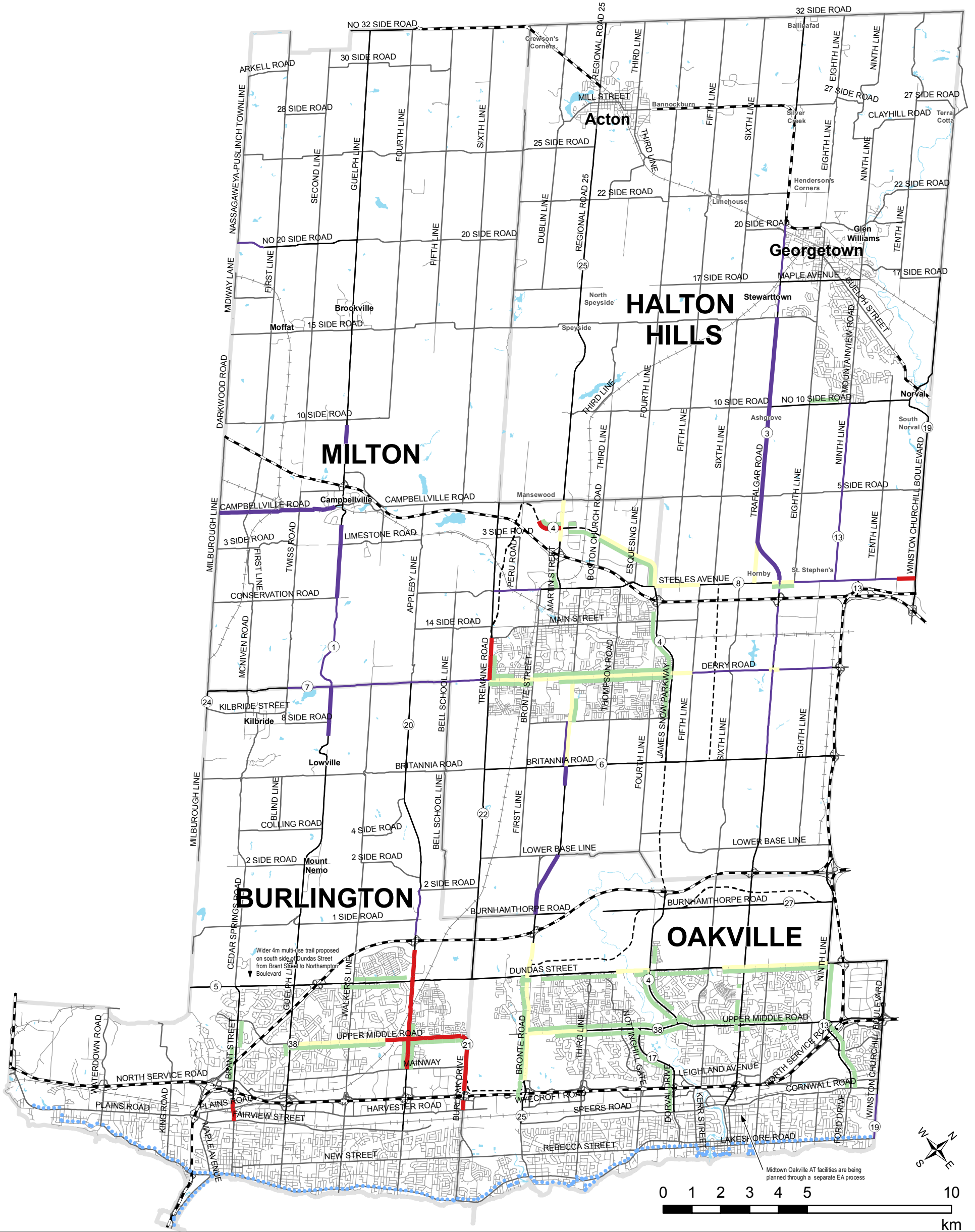
PREPARED BY:  
 CONSULTING ENGINEERS  
 CONSULTANTS  
 1000 SHEPPARD AVENUE EAST  
 SUITE 100  
 SCARBOROUGH, ONTARIO M1S 1T7  
 TEL: (416) 291-1111  
 FAX: (416) 291-1112  
 WWW: WWW.CECCO.COM



June 10, 2003



**APPENDIX J**  
**The Region's Existing and Proposed Regional Cycling & Walking**  
**Network Maps**



## Legend

### Existing Regional Cycling Network\*

- Bike Lanes
- Boulevard Multi-Use Trail
- Wide Shared Use Lane
- Paved Shoulders
- Partially Paved Shoulders
- Waterfront Trail

### Regional Road Network\*

- Existing Regional Road
- - - - Proposed Regional Road

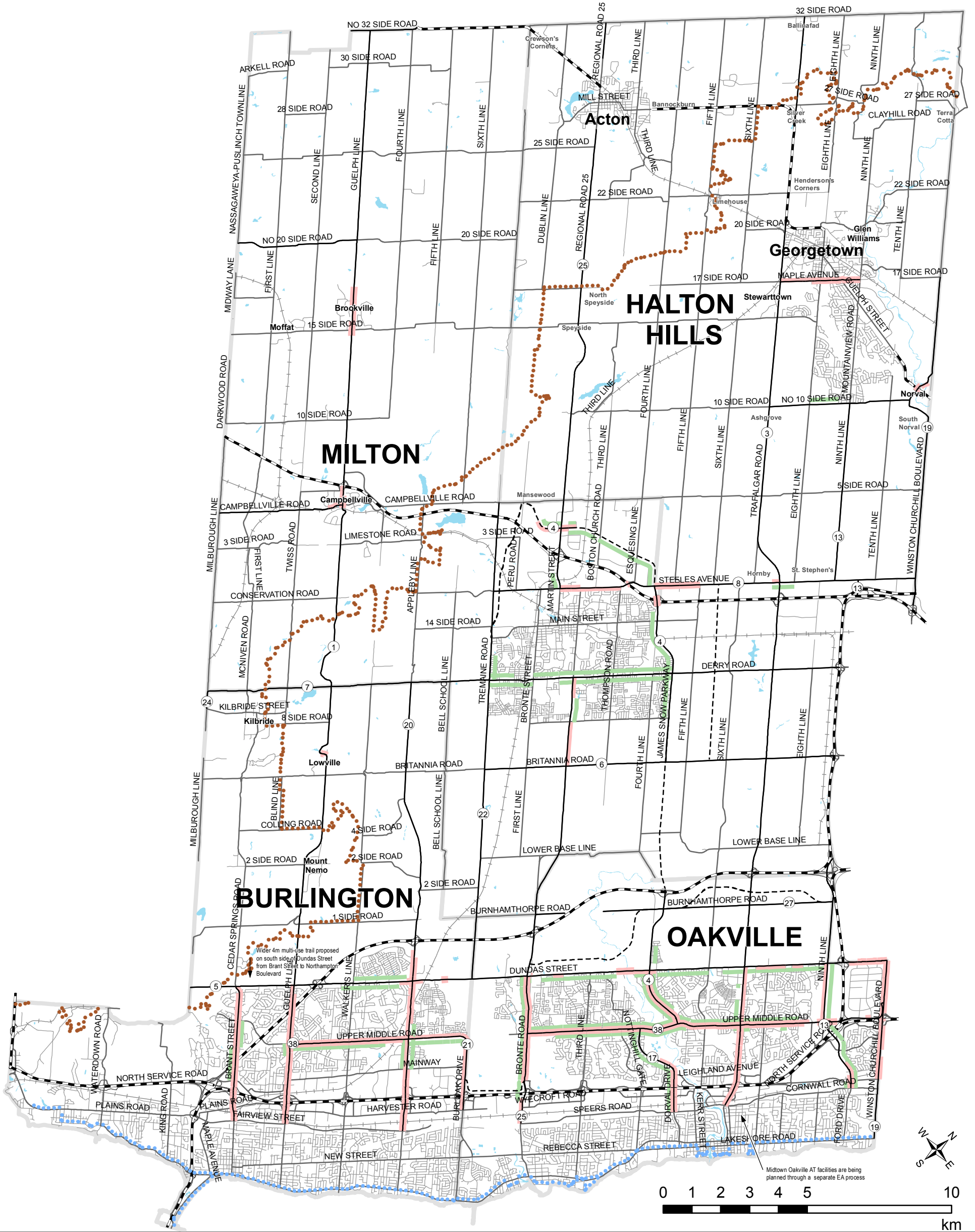
## Active Transportation Master Plan

### MAP 1

## Existing Regional Cycling Network

\*Note: Existing cycling facilities are shown only for Regional Roads, which are shown in black on the map





## Legend

### Existing Regional Walk Network

- Sidewalk
- Boulevard Multi-Use Trail
- Bruce Trail
- Waterfront Trail

### Regional Road Network

- Existing Regional Road
- - - Proposed Regional Road

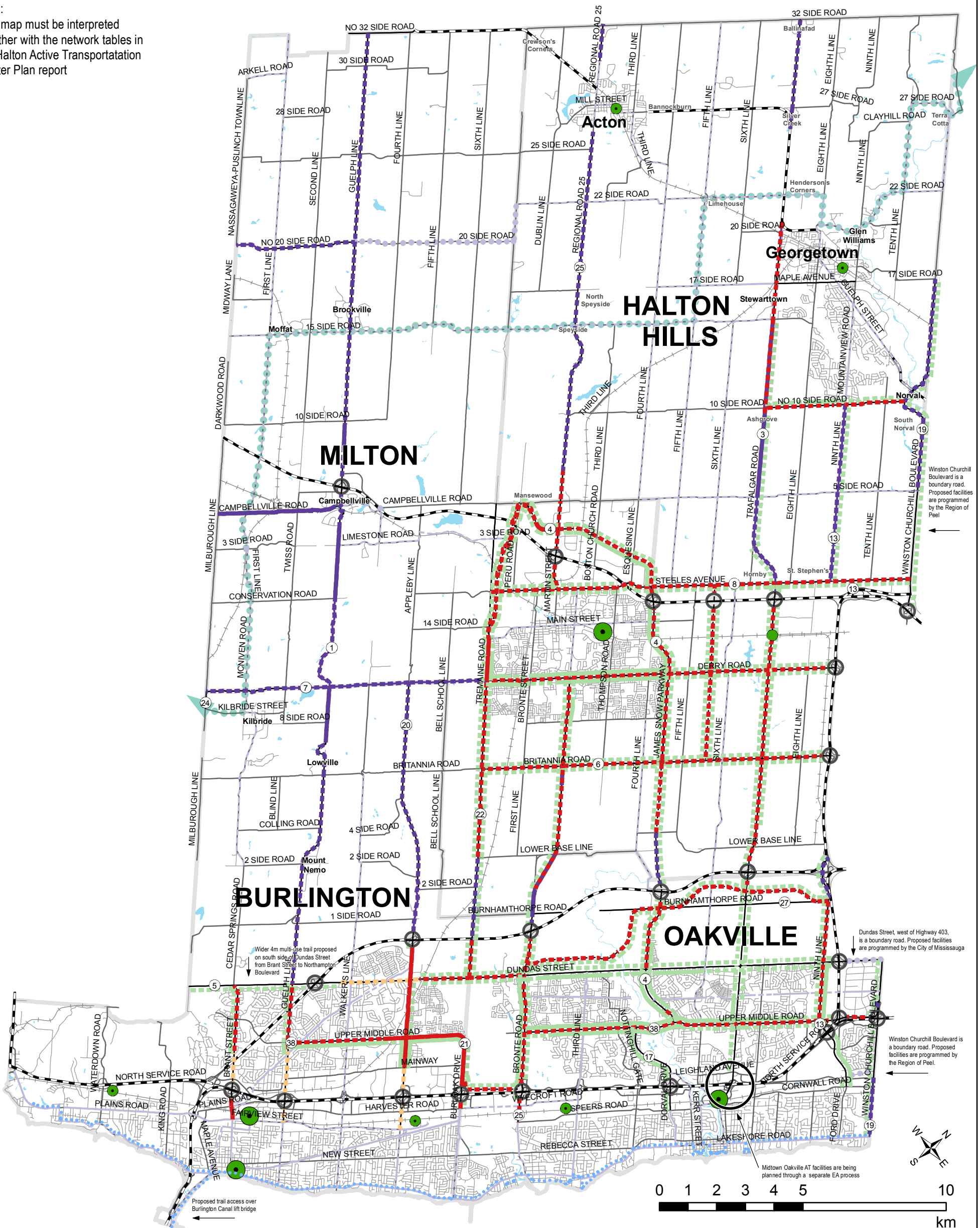
## Active Transportation Master Plan

### MAP 2

## Existing Regional Walking Network

Note: Existing walking facilities are shown only for Regional Roads, which are shown in black on the map.

Note:  
This map must be interpreted together with the network tables in the Halton Active Transportation Master Plan report



## Legend

### Proposed Regional Bike Network

- Buffered Bike Lanes
- Bike Lanes
- Boulevard Multi-Use Trail
- Paved Shoulders
- Interchange Improvement\*

### Routes not on Regional Roads

- Existing Routes that are Regionally Significant
- - - Planned Routes that are Regionally Significant
- Proposed Routes that are Regionally Significant
- Greenbelt Cycling Route

### Existing Regional Bike Network

- Bike Lane
- Boulevard Trail
- Waterfront Trail

### Existing and Proposed Major Transit Stations\*\*

- Mobility Hub
- Major Transit Stations
- Proposed GO Stations

## Active Transportation Master Plan

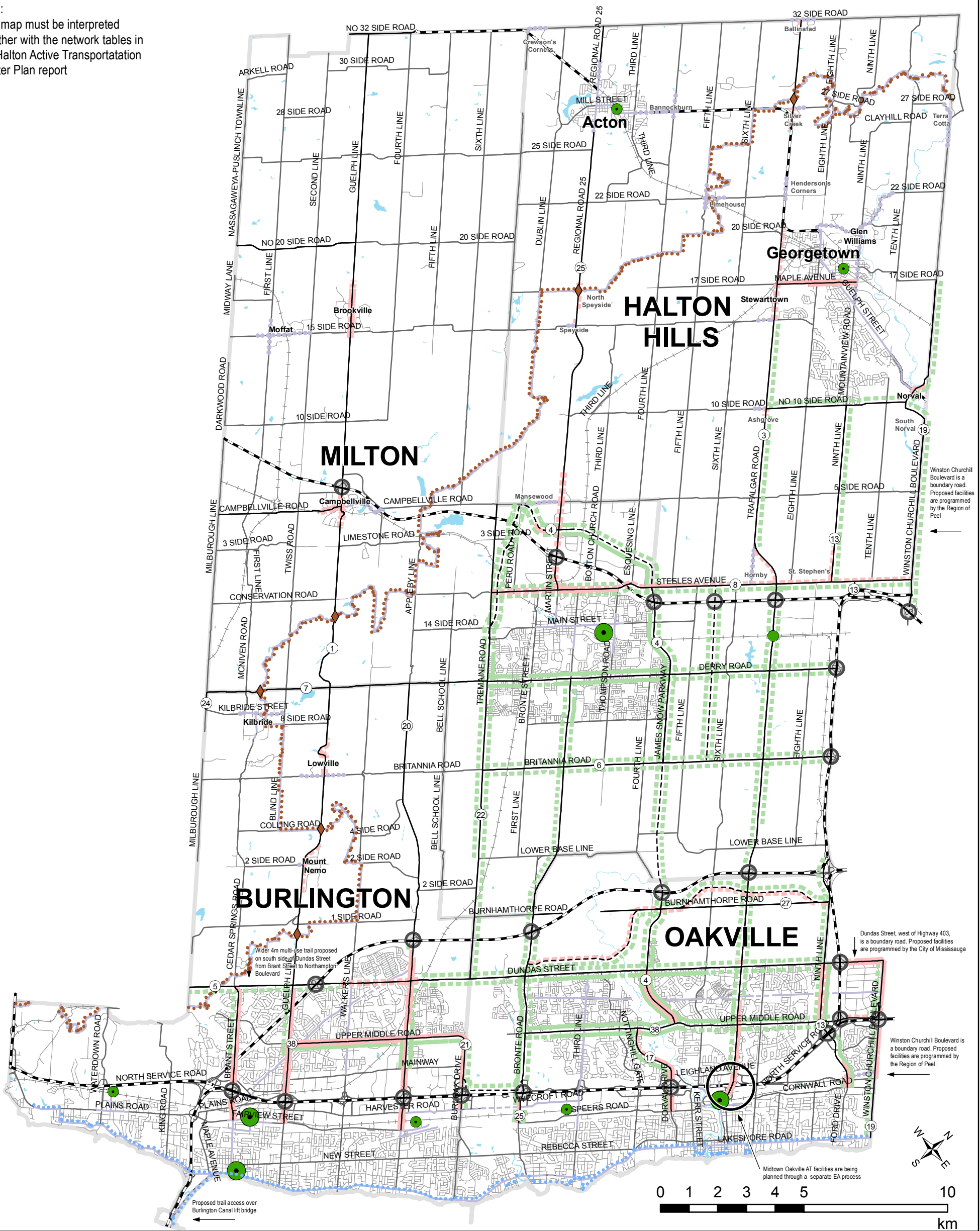
### MAP 3

### Proposed Regional Cycling Network



\*Note active transportation facilities at interchanges to be determined in consultation with the MTO.  
\*\*Note that some Routes that are Regionally Significant are located near transit stations. Connections to transit are an important part of the Regional Cycling and Walking Network. Transit stations are shown on the map to provide contextual information.

Note:  
This map must be interpreted together with the network tables in the Halton Active Transportation Master Plan report



## Legend

### Proposed Regional Walk Network

- Sidewalk
- Boulevard Multi-Use Trail
- Interchange Improvement\*
- ◆ Bruce Trail Crossing

### Routes not on Regional Roads

- Existing Routes that are Regionally Significant
- - - Planned Routes that are Regionally Significant
- Proposed Routes that are Regionally Significant

### Existing Regional Walk Network

- Sidewalk
- Boulevard Multi-Use Trail
- Bruce Trail
- Waterfront Trail

### Existing and Proposed Major Transit Stations\*\*

- Mobility Hub
- Existing GO Stations
- Proposed GO Stations

## Active Transportation Master Plan

### MAP 4

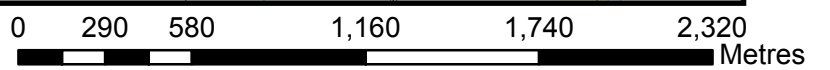
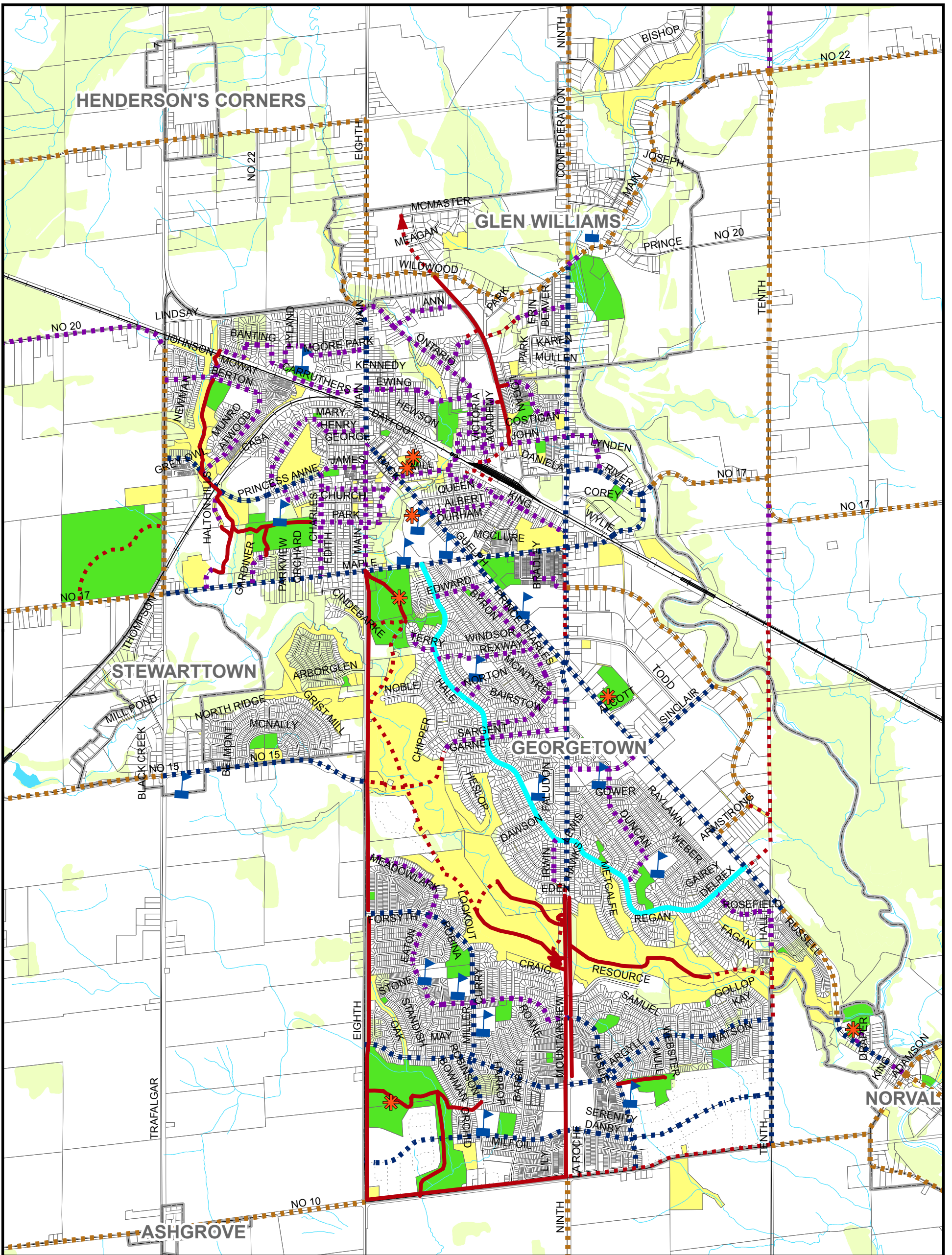
## Proposed Regional Walking Network

\*Note active transportation facilities at interchanges to be determined in consultation with the MTO.

\*\*Note that some Routes that are Regionally Significant are located near transit stations. Connections to transit are an important part of the Regional Cycling and Walking Network. Transit stations are shown on the map to provide contextual information.



**APPENDIX K**  
**The Town's Map of Recommended Facility Types**



**Town of Halton Hills  
Cycling Master Plan**

November 2010

**FIGURE 4-17  
Recommended Facility Types**

**GEORGETOWN**

- Community Facility
- School
- Road
- Proposed Road
- Rail Line
- Municipal Park
- Municipal Property
- Wooded Area / Wetland
- Watercourse
- Desired Network Connection

**On Road Cycling Routes**

- Existing Signed Route
- Proposed Signed Route
- Existing Bike Lane
- Proposed Bike Lane
- Existing Edge Line
- Proposed Edge Line

**Off Road Cycling Routes**

- Existing Off Road Route
- Proposed Off Road Route (includes routes from previous studies and other routes identified by Study Team)



\* Some existing trails (e.g. Bruce Trail, Guelph Radial Trail, trails in some Conservation Areas and some CVC regulated areas) do not permit cycling.



**APPENDIX L**  
**The Town of Halton Hills Trail Map**



## Interesting Places to Visit in Halton Hills

**3 Musketeers Skatepark**  
415 Queen Street East, Acton  
Featuring several rails, ramps, a challenging bowl as well as big open spaces for great flow. While skateboarding is the traditional method to enjoy this park, you'll also find riders choosing BMX, scooters and in-line skates. Also on-site is a multi-sport court with basketball nets and the option to flood in the winter for an outdoor skating rink. Located on the site of the Acton Arena & Community Centre.



3 Musketeers Skatepark (Acton)

**Prospect Park (Fairy Lake)**  
30 Park Avenue, Acton  
Home of the Acton Fall Fair, Prospect Park offers a variety of sports fields, children's play equipment and the Superior Glove splash pad. Surrounded by scenic Fairy Lake, there is something for the whole family to enjoy.

**Scotsdale Farm**  
13607 Trafalgar Road North, Ballinafad  
Scotsdale Farm is a 531 acre park that includes heritage buildings, rolling hay fields, ecologically sensitive forests and wetland, and First Nations archeological sites. The Bruce Trail, Bennett Heritage Trail, and Maureen Smith Side Trail all wind through this beautiful park on the Niagara Escarpment.

**Remembrance Park**  
29 James Street, Georgetown  
This park is dedicated in memory of those who served. A fountain, benches and floral gardens maintained with assistance from the Dutch Canadian Remembrance Committee makes the park a special place to visit.



Old Seedhouse Garden (Georgetown)

**Dominion Gardens Park (Old Seedhouse Garden)**  
135 Maple Avenue, Georgetown  
Built on the site of the former Dominion Seed House operation, the garden contains many of the plants once propagated on the property. During summer months, visitors enjoy the splash pad and playground areas.

**Lucy Maud Montgomery Children's Garden of the Senses and Willow Park Ecology Centre**  
477 Guelph Street (Hwy 7), Norval  
Garden of the Senses, inspired by Canadian author Lucy Maud Montgomery's children's storybooks (Anne of Green Gables and others) is located in beautiful Norval, Ontario and uses plants and other elements with distinct sensory qualities to stimulate the senses of smell, sight, hearing, taste and touch for visitors of all ages. The Willow Park Ecology Centre, accessible through Norval Park, is a place where the public can view composting demonstrations, natural outdoor butterfly gardens and walking trails.



Lucy Maud Montgomery Children's Garden of the Senses (Norval)

**Looking for more?**  
Visit our website: [www.haltonhills.ca/trails](http://www.haltonhills.ca/trails)

## Conservation Areas

- **Terra Cotta Conservation Area**  
14452 Winston Churchill Boulevard, Halton Hills  
Credit Valley Conservation | [www.creditvalleyca.ca](http://www.creditvalleyca.ca)
- **Esquesing Conservation Area**  
9464 Dublin Line, Halton Hills  
Conservation Halton | [www.conservationhalton.ca](http://www.conservationhalton.ca)
- **Limehouse Conservation Area**  
12169 Fifth Line, Halton Hills  
Credit Valley Conservation | [www.creditvalleyca.ca](http://www.creditvalleyca.ca)
- **Silver Creek Conservation Area**  
13500 Fallbrook Trail, Halton Hills  
Credit Valley Conservation | [www.creditvalleyca.ca](http://www.creditvalleyca.ca)

**Spring** • Look for increased wildlife activity on trails. Many plants and trees begin blooming in early April. Melting snow and ice means higher than average water levels – wear appropriate footwear, and always use caution when hiking.



Trilliums at Jubilee Woodlot (Georgetown)

**Fall** • Cooler temperatures, scenic landscapes and a dramatic colour palette make fall a beautiful season to hike trails in your area. Wear layers for added comfort, and don't forget a camera!



Fairgrounds Park (Georgetown)

## Don't Forget to Pack...

- **This trail map!**
- Binoculars or camera
- Snacks, like fruit or nuts
- Layered clothing
- Water or juice
- Insect repellent
- Supportive footwear
- Sunscreen and sunglasses
- Bird or wildlife guide
- Wide brim hat

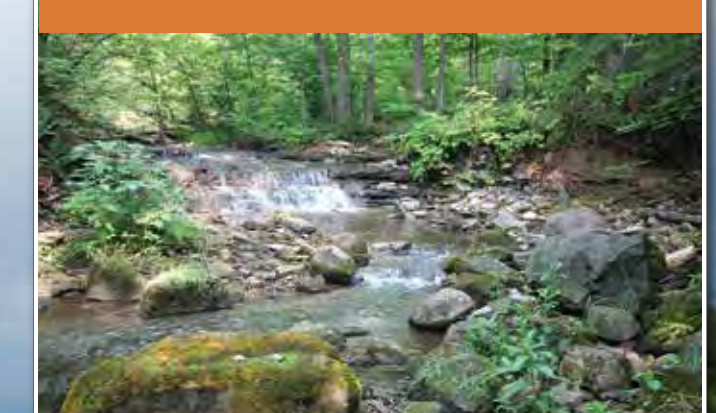
## Wildlife

Bird watchers have lots to look forward to when hiking trails in Halton Hills. Approximately 264 bird species have been observed in the Credit River Watershed. In addition, at least 55 species of mammals can be found in this area.



Scan to visit the CVC's website

**Summer** • The most popular time for trail use. Hike or bike on most trails. Be careful in hot weather; always stay hydrated and look for shade if you need a break to cool down.



Waterfalls at Silver Creek Conservation Area

**Winter** • Town trails are not maintained during the winter, and conditions may be slippery – winter trail users should be cautious and dress appropriately. Snowshoes and cross-country skis are popular methods of accessing trails during winter months.



Hungry Hollow Trails (Georgetown)

## Links & Resources

**Bruce Trail Conservancy** | [www.bruce-trail.org](http://www.bruce-trail.org)  
A charitable organization committed to establishing a conservation corridor containing a public footpath along the Niagara Escarpment.

**Conservation Halton** | [www.conservationhalton.ca](http://www.conservationhalton.ca)  
Conservation Halton, works to protect, restore and manage natural resources from lake to escarpment.

**Conservation Ontario** | [www.conservation-ontario.ca](http://www.conservation-ontario.ca)  
Conservation Ontario represents a network of 36 Conservation Authorities which are resource management agencies that operate on the basis of local watersheds.

**Credit Valley Conservation** | [www.creditvalleyca.ca](http://www.creditvalleyca.ca)  
The CVC is a community-based environmental organization, dedicated to protecting, restoring and managing the natural resources of the Credit River Watershed.

**Guelph Hiking Trail Club** | [www.guelphhiking.com](http://www.guelphhiking.com)  
The GHTC is a non-profit, charitable organization with the goals of stimulating an interest in hiking, establishing and maintaining trails for hiking, encouraging awareness of the natural environment and promoting environmental conservation.

**Halton Hills Tourism** | [www.visithaltonhills.ca](http://www.visithaltonhills.ca)  
Information on local tourism including destinations, events and places to stay, shop and dine.

**Hike Ontario** | [www.hikeontario.com](http://www.hikeontario.com)  
Hike Ontario acts as the voice for over 9 million hikers and walkers in Ontario with the mission to encourage walking, hiking and trail development throughout the province.

**Niagara Escarpment Commission** | [www.escarpment.org](http://www.escarpment.org)  
An agency of Ontario's Ministry of Natural Resources, the Niagara Escarpment Commission works on behalf of the people of Ontario to preserve the Niagara Escarpment as a continuous natural landscape – a vital corridor of green space through south-central Ontario.

**Ontario Trails Council** | [www.ontariotrails.on.ca](http://www.ontariotrails.on.ca)  
The Ontario Trails Council (OTC) is a charity that promotes the development, preservation, management and use of recreational trails in Ontario.

## Trail Etiquette

- Follow signs and stay on marked trails
- Please keep pets on a leash and be sure to clean up anything left behind. Garbage bins are located at entries and exits.
- Do not disturb plants or wildlife
- Please be cautious of poison ivy
- Respect the privacy of neighboring residents
- Enjoy cycling and in-line skating on our paved trails, but be sure to wear protective gear and always yield to pedestrians. When passing, provide a sound to let others know that you are moving past.
- Motorized vehicles are not allowed on any trail.

More suggestions at [www.haltonhills.ca/trails](http://www.haltonhills.ca/trails)

## Town of Halton Hills Trail Map



## Contact Information

**Town of Halton Hills Recreation & Parks**  
Telephone: 905-873-2601 ext. 2267  
E-mail: [recreation@haltonhills.ca](mailto:recreation@haltonhills.ca)  
Website: [www.haltonhills.ca/trails](http://www.haltonhills.ca/trails)

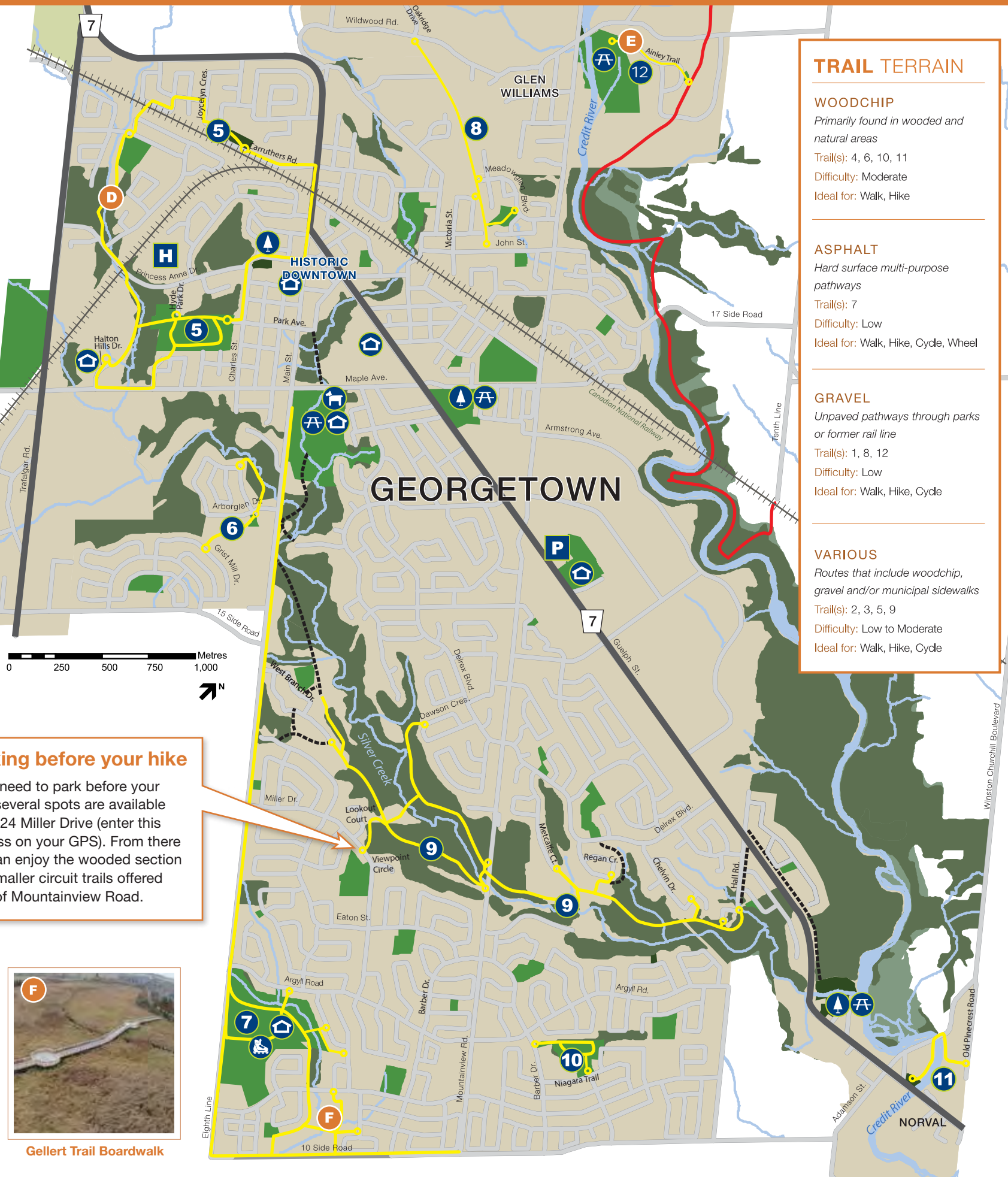
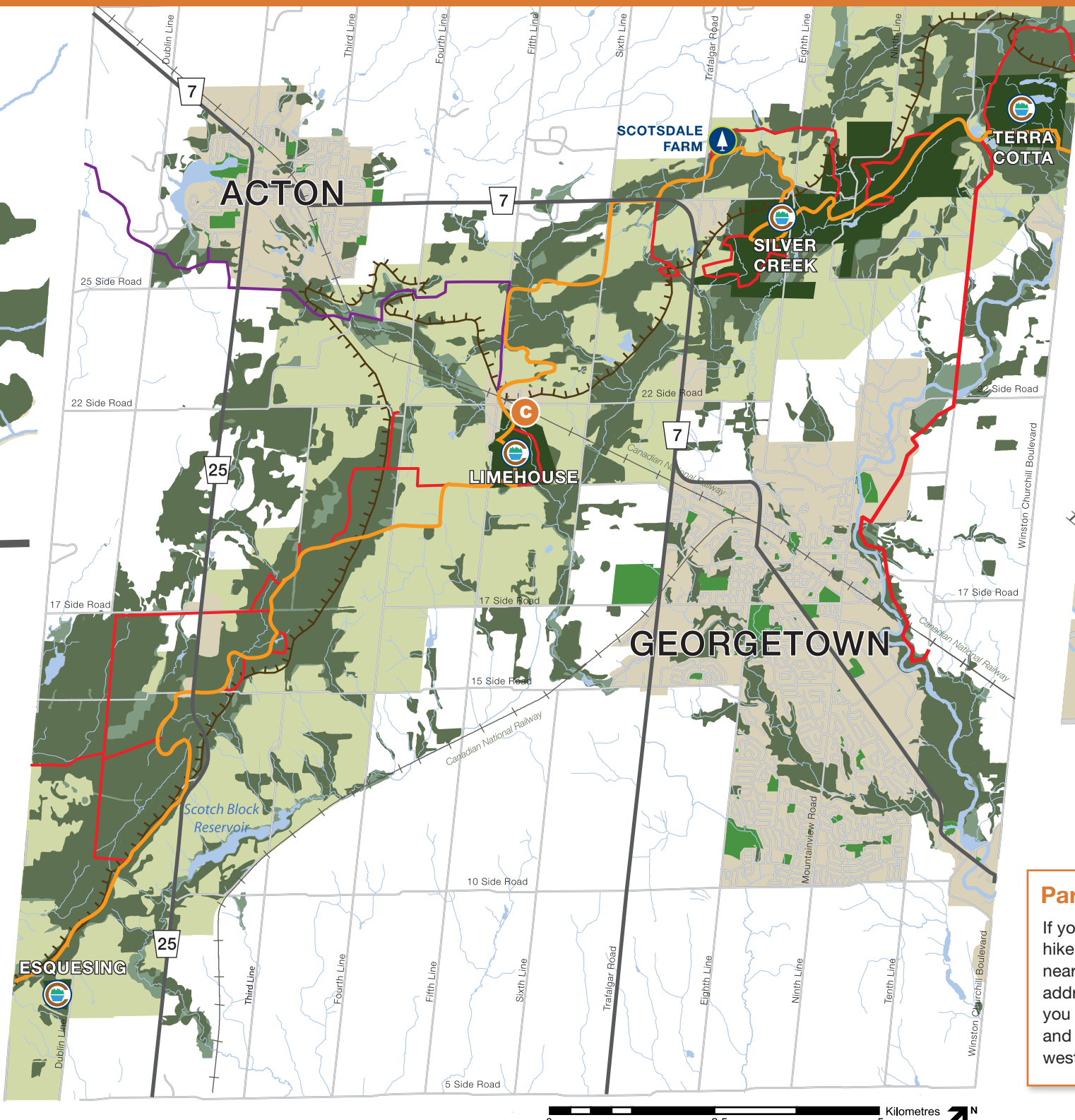
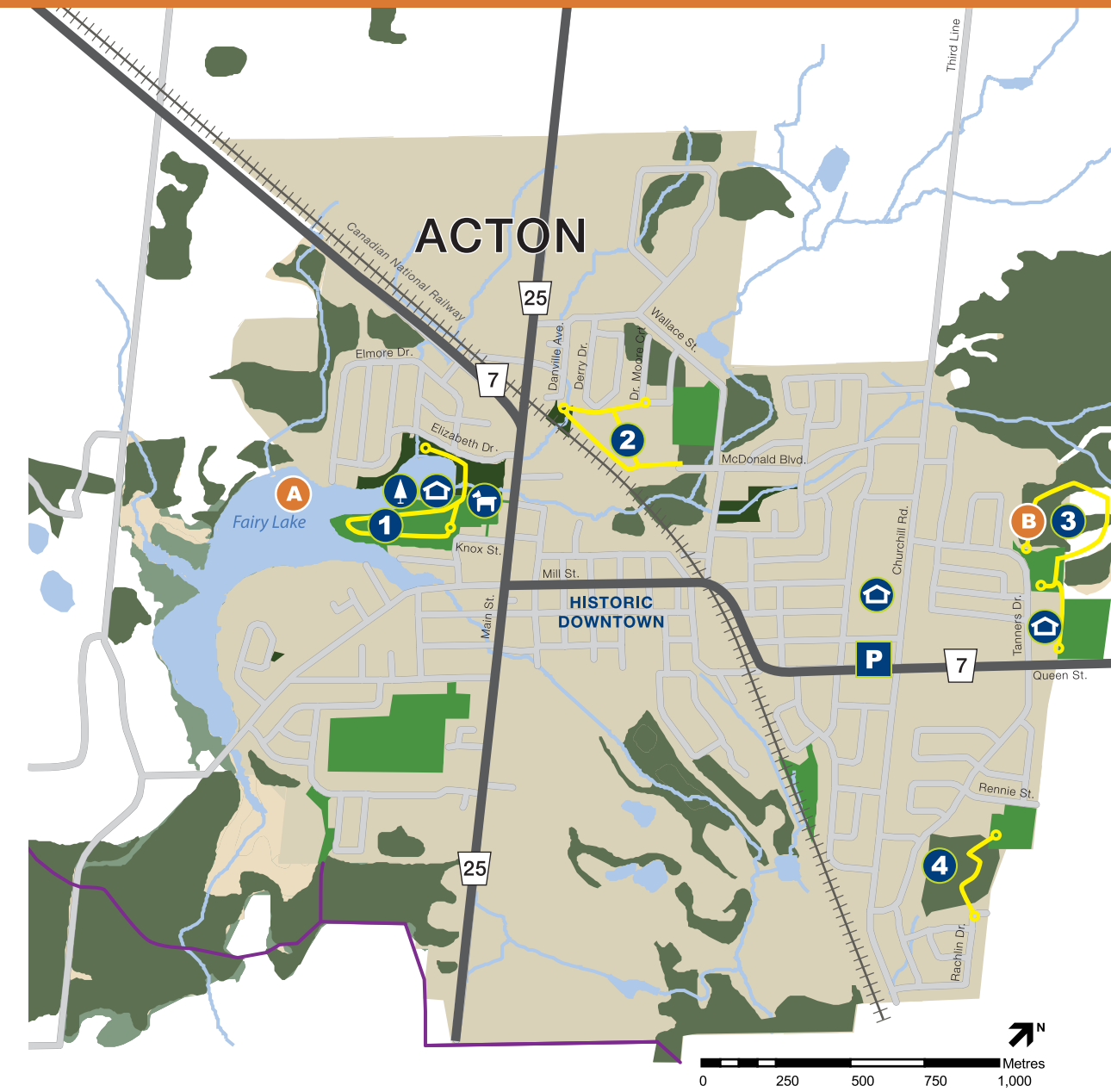
Please report any maintenance issues or points of interest related to flora or fauna by sending us an e-mail at: [recreation@haltonhills.ca](mailto:recreation@haltonhills.ca)



Check out our trail videos!



# EXPLORE HALTON HILLS TRAILS



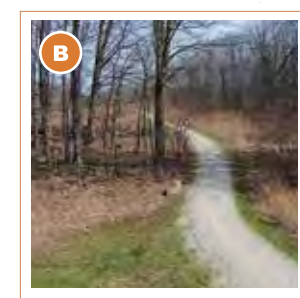
TRAIL TERRAIN
<b>WOODCHIP</b> Primarily found in wooded and natural areas Trail(s): 4, 6, 10, 11 Difficulty: Moderate Ideal for: Walk, Hike
<b>ASPHALT</b> Hard surface multi-purpose pathways Trail(s): 7 Difficulty: Low Ideal for: Walk, Hike, Cycle, Wheel
<b>GRAVEL</b> Unpaved pathways through parks or former rail line Trail(s): 1, 8, 12 Difficulty: Low Ideal for: Walk, Hike, Cycle
<b>VARIOUS</b> Routes that include woodchip, gravel and/or municipal sidewalks Trail(s): 2, 3, 5, 9 Difficulty: Low to Moderate Ideal for: Walk, Hike, Cycle

**Parking before your hike**  
 If you need to park before your hike, several spots are available near 124 Miller Drive (enter this address on your GPS). From there you can enjoy the wooded section and smaller circuit trails offered west of Mountainview Road.

LEGEND		TRAILS	
Municipal Trail (Entry Point)	Parks & Cemeteries	<b>1</b> Prospect Park Trail - 1.8km 30 Park Avenue, Acton	<b>8</b> Wildwood Trail - 1.3km Wildwood Road and Oakridge Drive, Georgetown
Future Trail	Woodland/Wetlands	<b>2</b> Danville / Wallace Trail - 0.85km 76A Danville Court, Acton	<b>9</b> Hungry Hollow Trails - 5.39km Miller Drive and Lookout Court, Georgetown
Bruce Trail	Protected Greenlands	<b>3</b> Tanners Drive Woodlot - 0.93km 45 Tanners Drive, Acton	<b>10</b> Jubilee Woodlot - 0.5km 407 Barber Drive, Georgetown
Bruce Trail Side Trails	Conservation Area	<b>4</b> Rennie Street Woodlot - 0.25km 32 Rennie Street, Acton	<b>11</b> McNab Trail - 0.66km Guelph Street and Noble Street, Georgetown
Guelph Radial Line Trail	Niagara Escarpment	<b>5</b> Chris Walker Trail - 6.6km 1 Park Avenue, Georgetown	<b>12</b> Ainley Trail - 0.7km 12 Ainley Trail, Glen Williams
Destination Park	Hospital	<b>6</b> Arborglen Trail - 0.75km 2 Arborglen Drive, Georgetown	
Picnic Pavilion	Police Station	<b>7</b> Gellert Trail - 3.5km 10241 Eighth Line, Georgetown	
Leash Free Zone	Town Facility		
Rollerblading Friendly			



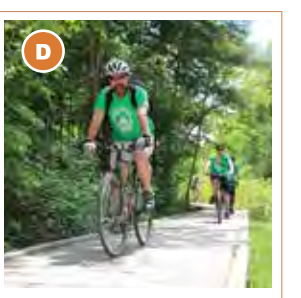
Fairy Lake



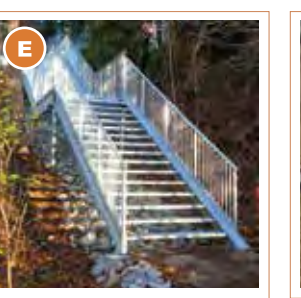
Tanners Woodlot



Limehouse Kilns



Chris Walker Trail



Stairs at Ainley Trail



Gellert Trail Boardwalk