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NextEng Consulting Group Inc.

March 21, 2019

2462357 Ontario Inc.
c/o Pace Developments
3-30 Wertheim Court, Building A
Richmond Hill, ON L4B 1B9

Attention: Mr. Peter Sciavilla

Re: Engineering Service – Traffic Access Study
Proposed Residential Draft Plan of Subdivision
1745 and 1775 Thorny Brae Place, City of Mississauga ON
Our Project No. NT-16-028

NexTrans Consulting Engineers (A Division of NextEng Consulting Group Inc.) acknowledges receipt of City of Mississauga comments dated January 28, 2019, with respect to our Transportation Study, dated November 27,2017. The intention of this letter is to address these comments attached in **Appendix A**.

The subject property is located at the southeast corner of Mississauga Road and Eglinton Avenue West intersection municipally known as 1745 and 1775 Thorny Brae Place, in the City of Mississauga.

Thorny Brae Place is an existing Municipal Road allowance that provides access to a few residential dwelling units. The original intention was to maintain Thorny Brae Place and update the roadway to accommodate the development of 34 townhouse units and one (1) single detached unit totaling 35 units. However, based on the revised site plan provided in **Appendix B**, the proposed development will accommodate of 37 condominium townhouse units and one (1) single detached unit totaling 38 units. Vehicular entrance is provided via Thorny Brae Place which is proposed to remain in its current alignment and arrangement with direct connection to Mississauga Road, approximately 40m south of Eglinton Avenue.

Based on the comments and discussion with the City of Mississauga staff, our responses are addressed in the accompanying revised TIS as follows:

S2.0,9.0 – Suggestion that Peel Region monitor the intersection signal timing should be revised to the City of Mississauga monitoring intersection signal timing.

Response: Acknowledged, please refer to sections 2.5, 5.0 and 9.0

S3.0 – A 2% per annum growth rate was assumed for through movements along Mississauga Road and Eglinton Avenue West. Please contact the City's Transportation Planning Section: (tyler.xuereb@mississauga.ca).

Response: Acknowledged, please refer to Table 3.1 and Appendix E.

S4.0 – Please append the source 2011 TTS data to the report.

Response: Acknowledged. Please refer to Appendix G.

S7.0 – The report suggests the 95th percentile occurring twice every hour would be considered rare, however it should be noted this is not considered true. The report should place more reliance upon the 95th percentile queues.

Response: Acknowledged. Please refer to section 7.0.

S7.0 – Notwithstanding this position, proposed line painting and "Please Do Not Block Driveway" signage is proposed at the intersection. It should be noted that existing "Do Not Block Intersection" signage exists on the South-East corner of the intersection.

Response: Acknowledged. Please refer to Section 7.0 and Figure 7-2.

S8.0 – The report identifies a Site Circulation/Loading review with figure. Please expand on the review to identify details of the extended Thorny Brae Place right-of-way, including ROW width, and cul-de-sac details in accordance with specific City Standards. The apparent center island within the cul-de-sac should not be proposed.

Response: Based on Discussion with City of Mississauga Staff Giancarlo Tedesco, the site plan must adhere to this comment. As such, please see revised Appendix B site plan.

S8.0 – Appendix C, D, and E- Produce Synchro output sheets which identify signal timing under each scenario.

Response: Acknowledged. All revised analysis reflects this current condition.

This study concludes that the development proposal can adequately be accommodated by the proposed full movement vehicular entrance via Thorny Brae Place. The proposed site entrance is feasible due to the low level site generated traffic volumes and as such the subject site will not confer any critical movement within the site development or on to Mississauga Road and Eglinton Avenue intersection

We trust the enclosed sufficiently addresses your needs. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

NEXTRANS ENGINEERING

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Principal

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APPENDICES

1.0 INTRODUCTION

NexTrans Consulting (A Division of NextEng Consulting Group Inc.) is pleased to present the enclosed Access Study in support of an Official Plan Amendment, Rezoning and Draft Plan of Subdivision application for a residential development. The subject property is located at the southeast corner of Mississauga Road and Eglinton Avenue West intersection municipally known as 1745 and 1775 Thorny Brae Place, in the City of Mississauga, herein referred to as the "subject site". **Figure 1-1** illustrates the subject site location.

Figure 1-1 – Site Location

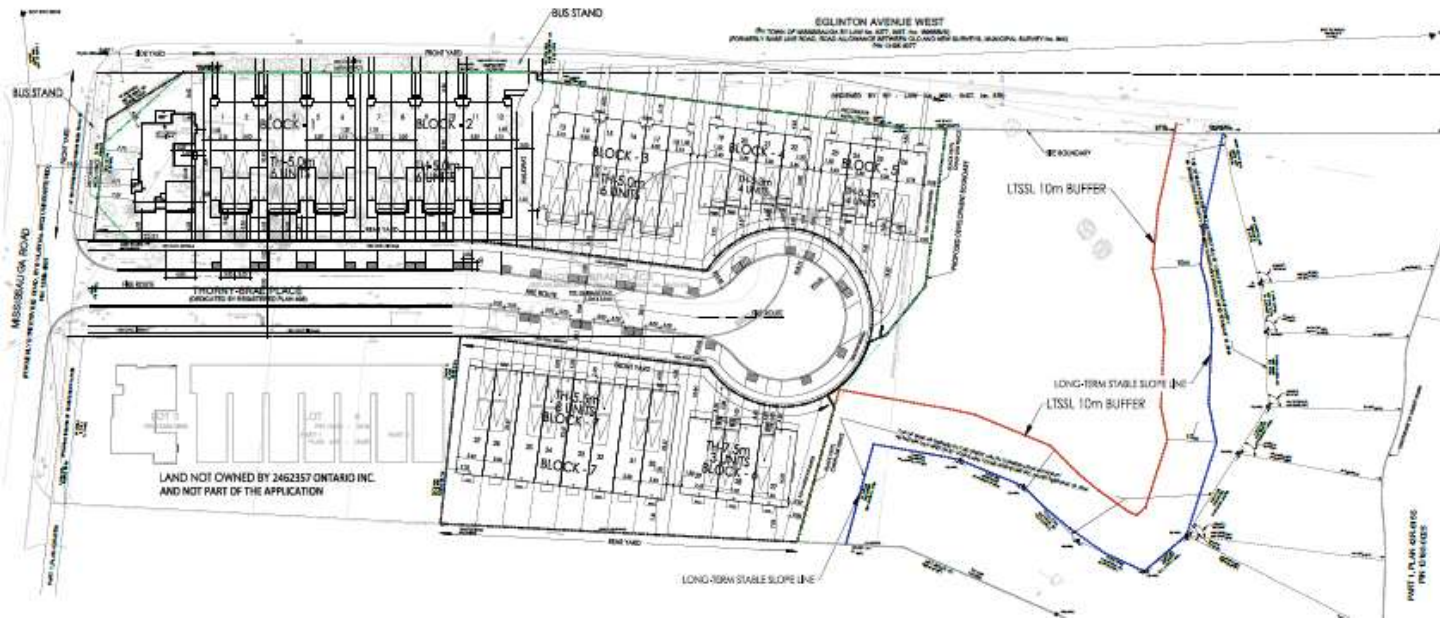
Thorny Brae Place is an existing Municipal Road allowance that provides access to a few residential dwelling units. The intention is to maintain Thorny Brae Place and update the roadway to municipal standards and accommodate the additional development of 37 townhouse units and one (1) single detached unit totaling 38 units. As such, the residential units to the north of Thorny Brae Place will be demolished and the two (2) residential units to the south (outside of the development boundary) will remain in its current state.

A total of four vehicle parking spaces per unit (i.e. two in the garage and two in the lead-in portion of the driveway) will be provided to the one (1) single detached unit. A total of three vehicular parking spaces per unit (i.e. two in the garage and one in the lead-in portion of the driveway) will be provided to 29 townhouse units (i.e. blocks 1,2,3,6 and 7) . A total of two vehicular parking spaces per unit (i.e. one in the garage and one in the lead-in portion of the driveway) will be provided to eight (8) townhouse units (i.e. blocks 4 and 5) for an overall quantum parking supply of 107 parking

spaces. Vehicular entrance is provided via Thorny Brae Place which is proposed to remain in its current alignment and arrangement with direct connection to Mississauga Road, approximately 40m south of Eglinton Avenue.

Figure 1-2 illustrates the proposed Site Plan, **Appendix B** also provides larger scale version of the proposed site plan.

Figure 1-2 – Revised Site Plan



2.0 EXISTING TRAFFIC CONDITIONS

2.1. Existing Road Network

The proposed subject lands are generally located at the southeast corner of Mississauga Road and Eglinton Avenue West intersection. The road network is described as follows:

- **Mississauga Road**: is a north-south major collector road. It has two (2) general purpose lanes and exclusive left and right turn lanes on approach of the Mississauga Road and Eglinton Avenue West intersection, and it maintains an posted speed limit of 50 km/h in the vicinity of the subject site. It has bicycle lanes on both sides of the street in the vicinity of the study area.
- **Eglinton Avenue West**: is an east-west arterial road. It has six (6) general purpose lanes and exclusive left and right turn lanes on approach of the Mississauga Road and Eglinton Avenue West intersection, and it maintains an un-posted speed limit of 60 km/h in the vicinity of the subject site. Eglinton Avenue West meets Mississauga Road as a signalized intersection.
- **Thorny Brae Place**: is an east-west local road and has a two general purpose lanes. Thorny Brae Place meets Mississauga Road as an unsignalized intersection.

2.2. Existing Transit Service

The proposed development is situated in a transit supportive neighborhood with bus stops located approximately 190 meters to the subject site and within comfortable walking distance (i.e. 2-minute walk). The route services in the immediate area are described below:

- **MiWay Bus Route 9 Rathburn-Thomas:** The 9 Rathburn-Thomas bus route operates every 30 minutes between City Centre Transit Terminal Drop Off and Erin Centre Boulevard at Longford Drive, generally in an east-west direction. Weekend and holiday service is reduced. Accessible service is provided on the route. Bike racks are available on this route.
- **MiWay Bus Route 34 Credit Valley**: The 34 Credit Valley bus route operates every 23 minutes between Erin Mills Town Centre Bus Terminal and City Centre Transit Terminal Drop off, generally in an east-west direction. Weekend and holiday service is reduced. Accessible service is provided on the route. Bike racks are available on this route.
- **MiWay Bus Route 35 Eglinton:** The 35 Eglinton bus route operates every 10 minutes between Islington Subway Bus Terminal Platform A and Erin Centre Boulevard at Longford Drive, generally in an east-west direction. Weekend and holiday service is reduced. No bus service on Sunday. Accessible service is provided on the route. Bike racks are available on this route.
- **MiWay Bus Route 44 Mississauga Road:** The 44 Mississauga Road bus route operates every 15 minutes between Erin Mills Town Centre Bus Terminal and City Centre Transit Terminal Drop off, generally in a north-south direction. Weekend and holiday service is reduced. Accessible service is provided on the route. Bike racks are available on this route.
- **MiWay Bus Route 305 Streetsville-Falconer:** The 305 Streetsville-Falconer bus route operates a single service daily between Joymar Drive at Tannery Street and Falconer Drive at Plainsman Road, Monday to Friday. Accessible service is provided on the route. Bike racks are available on this route.
- **GO Bus Route 21D Milton:** The 21D GO bus route operates every 20 minutes between Lisgar GO and Union Station Bus Terminal, generally in an east-west direction, Monday to Friday. Accessible service is provided on the route. Bike racks are available on this route.

Based on the study prepared by the Ministry of Transportation Ontario entitled: 'Transit Supportive Guidelines', dated January 2012, transit users are generally willing to walk 400 meters to a local stop or 800 meters to a rapid transit station. The Mississauga Road at Eglinton Avenue bus stop is approximately 190 meters from the proposed subject site. **Figure 2-1** illustrates the existing transit routes in the study area.

Figure 2-1 – Existing Transit Routes

2.3. Existing Active Transportation Infrastructures

Sidewalks

The area surrounding the proposed development is serviced with dedicated walkways. Currently, sidewalks are available on both sides of Mississauga Road and Eglinton Avenue West.

Bicycle Lanes

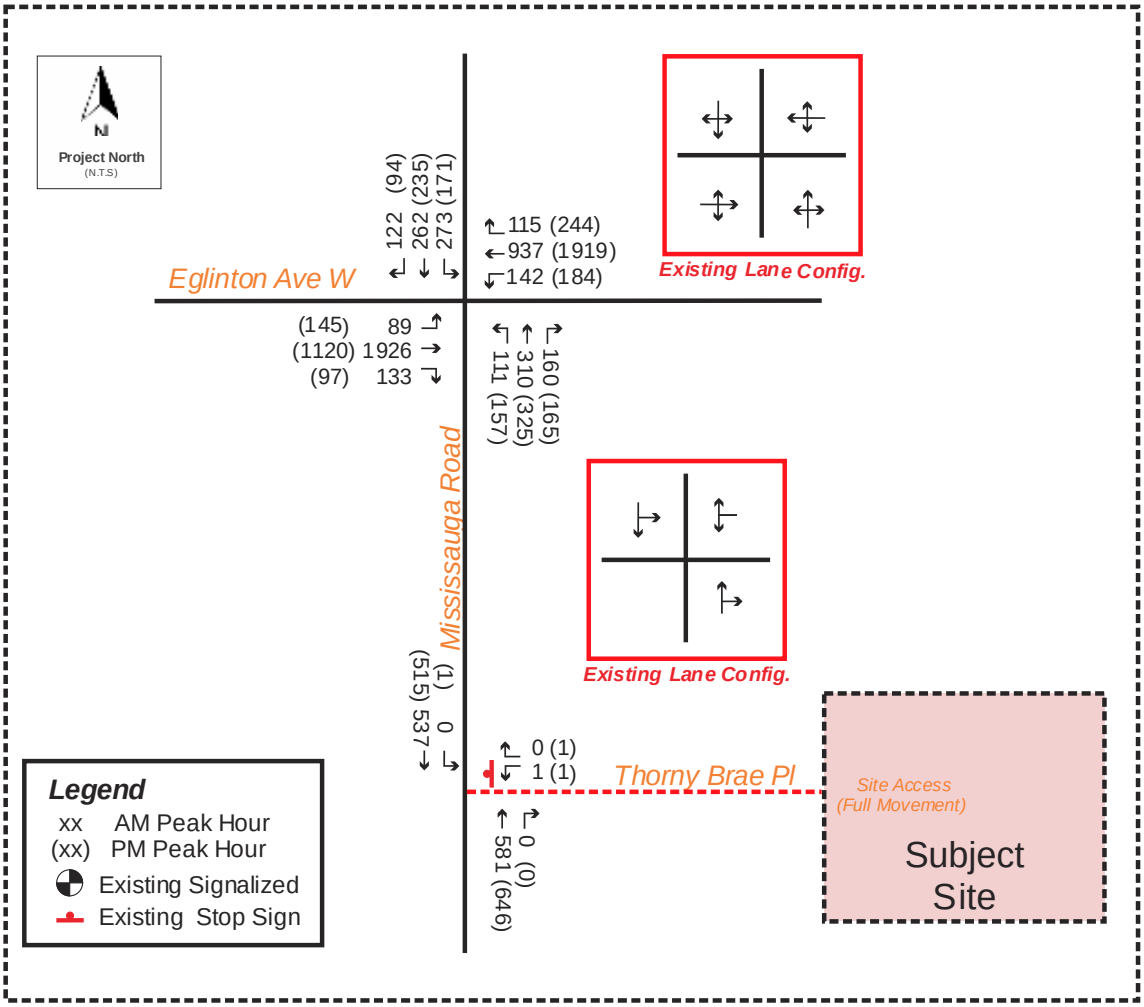
There are no dedicated bicycle lanes within the vicinity of the subject site however, on Mississauga Road north of Eglinton Avenue there are dedicated bicycle lanes in both directions.

2.4. Data Collection

The Study Area includes the intersection of Eglinton Avenue West and Mississauga Road as well as Mississauga Road and Thorny Brae Place. Spectrum Traffic Data Inc. on behalf of NexTrans Engineering undertook a turning movement count at the subject study area intersections during the weekday AM (7:00-10:00) and PM (4:00-7:00) peak time periods on Wednesday, June 08, 2016. The detailed traffic data and signal timing plan is provided in **Appendix C**.

The existing road network and existing traffic volumes during the weekday AM and PM peak hours are illustrated in Figure **2-2.**

Figure 2-2 – Existing Traffic Volumes



2.5. Existing Capacity Analysis

Capacity analysis at the study area intersections were carried out using Synchro version 8. **Table 2.1** summarizes the existing Levels of Service for these intersections. A detailed capacity analysis is provided in **Appendix D**.

Table 2.1: Existing Traffic Levels of Service

Intersection	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		v/c ratio	Delay (s)	v/c ratio	Delay (s)
Mississauga Road & Eglinton Avenue West (Signalized)	**OVERALL**	**D (0.94)**	**39.5**	**D (0.94)**	**39.3**
	EBL	B (0.30)	19.3	E (0.78)	55.9
	EBT	D (0.94)	49.7	C (0.55)	32.9
	EBR	B (0.20)	11.0	A (0.14)	6.9
	WBL	E (0.77)	55.5	C (0.70)	33.5
	WBT	C (0.45)	30.1	D (0.94)	50.2
	WBR	A (0.16)	4.9	B (0.34)	10.6
	NBL	D (0.40)	44.8	D (0.52)	48.6
	NBT	D (0.58)	47.3	D (0.60)	47.6
	NBR	A (0.28)	6.5	A (0.28)	6.4
	SBL	D (0.72)	41.1	C (0.47)	30.2
	SBTR	C (0.56)	34.9	C (0.48)	32.8
Mississauga Road & Thorny Brae Place (Unsignalized)	WBL	C (0.01)	24.5	C (0.01)	18.3

Table 2.1 indicates that the study area signalized intersection is currently operating at acceptable levels of service with LOS 'D' or better during peak hour time periods. The eastbound and westbound through traffic volumes are currently experiencing v/c ratios during the morning and afternoon peak hour periods, respectively. It is important to note the Synchro parameters used in the analysis are conservatively high (i.e. *Left Turn Factor (perm), Ideal Satd. Flow (vphpl*), etc).

Based on site observation, it can be readily stated that the Ideal Satd. Flow operates below 2000 vphpl rather than default value of 1900 vphpl and therefore will improve the LOS of services considerably. However, It is suggested that City of Mississauga monitor this intersection and examine the possibility of increasing green times for through movements where appropriate in order to improve the signalized operations.

The existing unsignalized intersection of Mississauga Road and Thorny Brae is currently operating below capacity with excellent LOS and no critical movements identified.

3.0 FUTURE (2022) BACKGROUND CONDITIONS

Considering the data was undertaken in June 2016 we prorated a six (6)-year horizon period in the analysis to rationalize a five (5) year horizon periods which generally coincides with the full build out of the proposed development in 2022. Based on discussion with City's Transportation Planning Section provided in **Appendix E**, **Table 3.1** details the projected compound annual growth rates for the north-south and east-west through traffic on Eglinton Avenue West and Mississauga Road from existing to 2022.

Table 3.1: Compound Annual Growth Rates

Peak Hour	Eglington Avenue		Mississauga Road	
	EB	WB	NB	SB
AM	0.0%	1.0%	1.0%	0.0%
PM	2.5%	0.0%	1.0%	1.5%

The future (2022) background traffic volumes are provided in **Figure 3-1.** **Table 3.2** summarizes the level of service at the given intersections under future background traffic conditions. Detailed output analysis can be found in **Appendix F**.

Figure 3-1 – Future (2022) Background Traffic Volumes

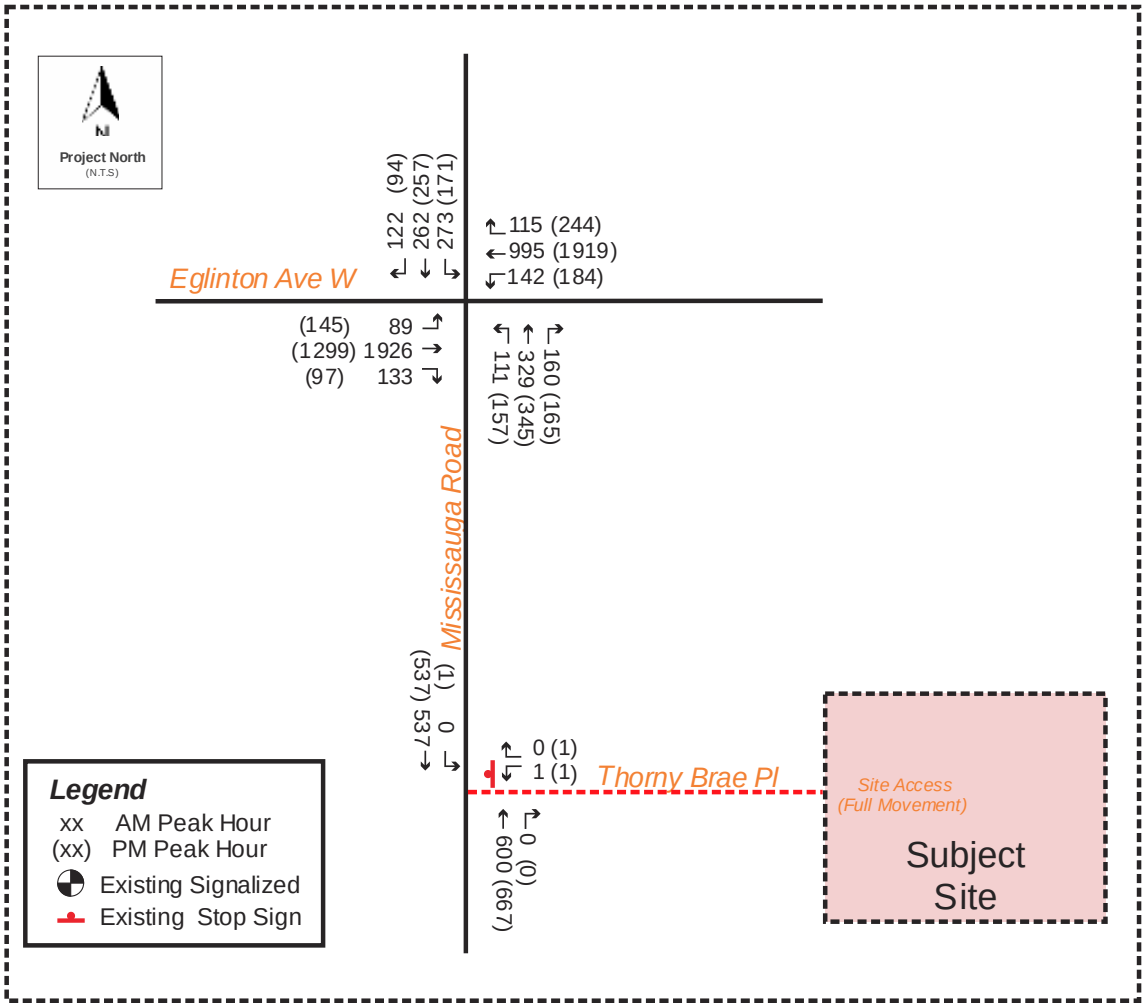


Table 3.2: Future (2022) Background Traffic Levels of Service

Intersection	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		v/c ratio	Delay (s)	v/c ratio	Delay (s)
Mississauga Road & Eglinton Avenue West (Signalized)	**OVERALL**	**D (0.94)**	**39.8**	**D (0.94)**	**40.2**
	EBL	B (0.32)	19.7	E (0.78)	55.9
	EBT	D (0.94)	49.7	C (0.63)	34.9
	EBR	B (0.20)	11.0	A (0.14)	6.9
	WBL	E (0.77)	55.5	D (0.81)	48.7
	WBT	C (0.48)	30.6	D (0.94)	49.7
	WBR	A (0.16)	4.9	B (0.34)	10.5
	NBL	D (0.40)	44.8	D (0.53)	49.3
	NBT	D (0.61)	48.6	D (0.64)	49.3
	NBR	A (0.28)	6.5	A (0.28)	6.4
	SBL	D (0.76)	43.8	C (0.50)	31.0
	SBTR	C (0.56)	34.9	C (0.51)	34.0

Intersection	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		v/c ratio	Delay (s)	v/c ratio	Delay (s)
Mississauga Road & Thorny Brae Place (Unsignalized)	WBL SBT	D (0.01) -	25.3 -	C (0.01) A (<0.01)	19.3 0.0

As summarized in Table 3.1, it is shown that during future background traffic conditions the subject study area intersections continue to operate at good level of services with no changes to expected operations. During future background traffic conditions, the intersections are operating at overall LOS 'D' during the peak hour periods.

4.0 SITE TRAFFIC TRIP GENERATION TRIP DISTRIBUTION / ASSIGNMENT

According to the site plan, the proposed development comprises of 37 townhouse units and one (1) single detached unit for a total of 38 units. Trip generation for the residential units were determined using equations contained in the *Trip Generation Manual*, *9th Edition*, published by the ITE for the *Residential Condominium/Townhouse (Land Use Code 230) and Single Family Detached Housing (Land Use Code 210)*. To remain conservative, no trip reductions were applied to account for transit or other modes of transport. The expected trip generation calculation is provided in **Table 4.1**.

Table 4.1 – Site Traffic Trip Generation

Land Use (Size)	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Townhouse *(37 Units)*	Trip Rate	0.11	0.51	0.62	0.57	0.27	0.84
	New Trips	4	19	23	21	10	31
Single Family Detached Housing *(1 Units)*	Trip Rate	0.00	1.00	1.00	1.00	1.00	2.00
	New Trips	0	1	1	1	1	2
TOTAL		**4**	**20**	**24**	**22**	**11**	**33**

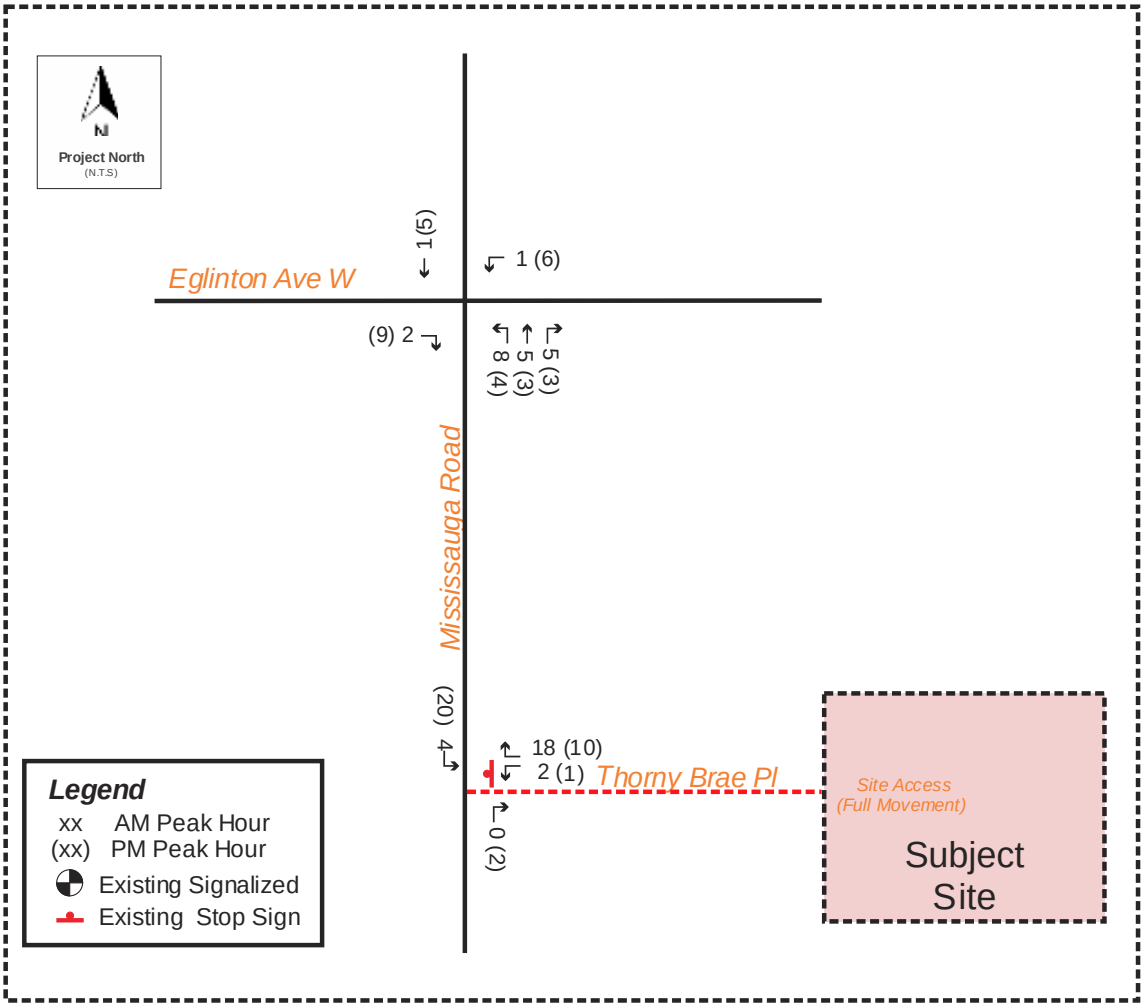
Based on the trip generation calculations, the proposed development is expected to generate 24 two-way trips (4 inbound and 20 outbound) during the weekday morning peak hour and 33 two-way trips (22 inbound and 11 outbound) during the afternoon peak hour.

Provided in **Table 4.2** are the assumptions for the trip distribution rates. It is based on the information extracted from the 2011 Transportation Tomorrow Survey (TTS) and the existing road pattern provided **Appendix G**. The site traffic volumes are illustrated in **Figure 4-1.**

Table 4.2: Site Traffic Trip Distribution

Direction	Via	Trips In	Trips Out
North	Mississauga Rd	25%	25%
South	Mississauga Rd	10%	10%
East	Eglinton Ave	25%	25%
West	Eglinton Ave	40%	40%
Total		**100%**	**100%**

Figure 4-1: Site Traffic Volumes



5.0 FUTURE (2022) TOTAL TRAFFIC CONDITIONS

Future (2022) total traffic was determined by adding site generated traffic to future background traffic volumes during the weekday AM and PM peak hours, and is illustrated in **Figure 5-1. Table 5.1** summarizes the level of services at the intersections under future total traffic conditions. Detailed analysis outputs are provided in **Appendix H**.

Figure 5-1 – Future (2022) Total Traffic Volumes

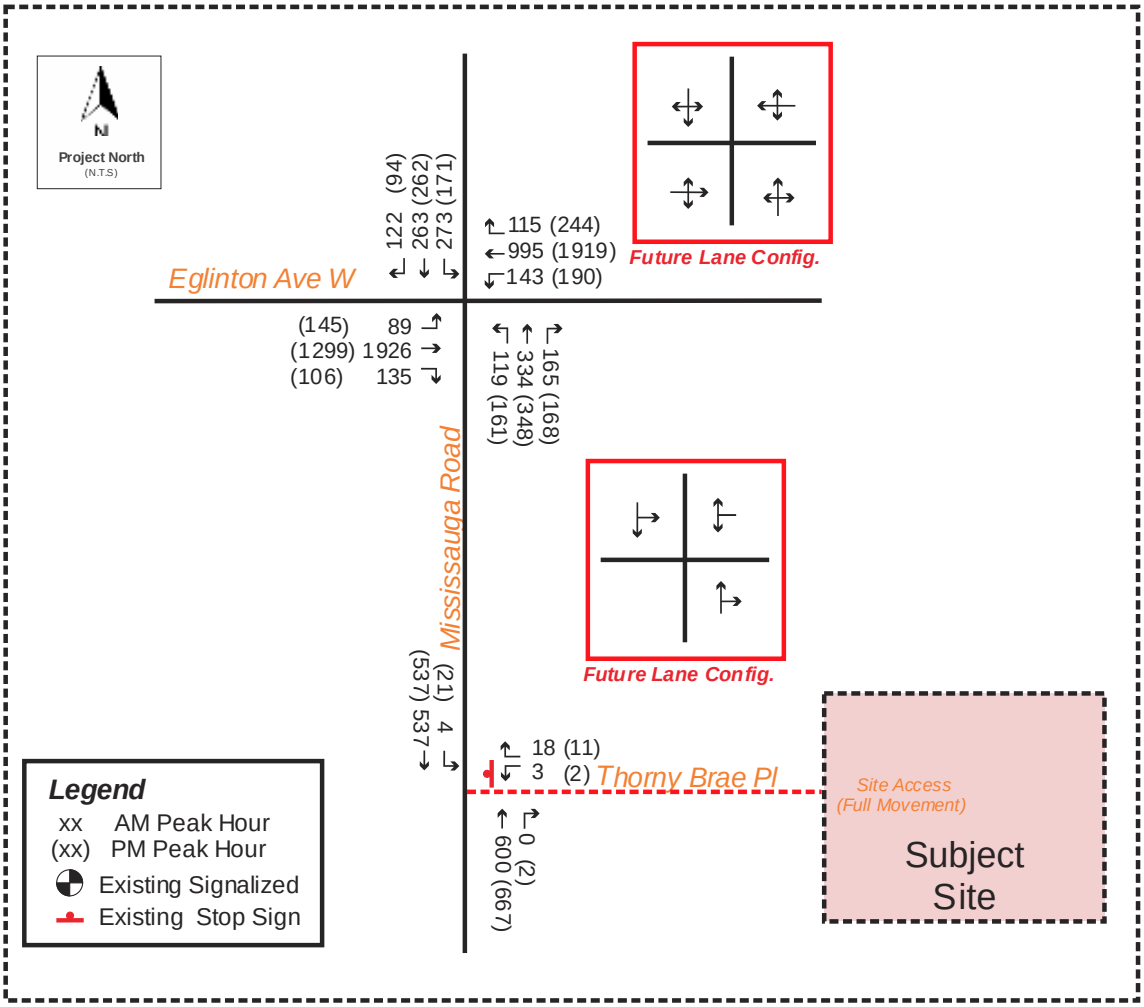


Table 5.1: Future (2021) Total Traffic Levels of Service

Intersection	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		v/c ratio	Delay (s)	v/c ratio	Delay (s)
Mississauga Road & Eglinton Avenue West (Signalized)	**OVERALL**	**D (0.94)**	**39.9**	**D (0.94)**	**40.3**
	EBL	B (0.32)	19.7	E (0.78)	55.9
	EBT	D (0.94)	49.8	C (0.63)	34.9
	EBR	B (0.20)	11.2	A (0.16)	8.0
	WBL	E (0.78)	56.1	D (0.84)	51.7
	WBT	C (0.48)	30.6	D (0.94)	49.5
	WBR	A (0.16)	4.9	B (0.34)	10.5
	NBL	D (0.43)	45.8	D (0.55)	50.1
	NBT	D (0.62)	48.9	D (0.65)	49.6
	NBR	A (0.28)	6.5	A (0.28)	6.4
	SBL	D (0.77)	44.7	C (0.50)	31.2
	SBTR	C (0.56)	35.0	C (0.52)	34.3
Mississauga Road & Thorny Brae Place (Unsignalized)	WBL	B (0.04)	12.7	B (0.08)	13.8
	SBT	A (<0.01)	0.1	A (0.06)	0.6

As summarized in Table 5.1, it is shown that during future total traffic conditions, the subject study area intersection as well as the future site access via Thorny Brae will operate at good levels of services with only minor changes over future background traffic conditions. The study area intersection continues to operate at an overall LOS 'D' or better during the peak hour periods.

As mentioned earlier, the eastbound and westbound through traffic volumes are currently experiencing high delays and critical v/c ratios during the morning and afternoon peak hour periods, respectively. Furthermore, the westbound and southbound left turning movement is experiencing high delays and critical v/c ratios due to heavy opposing through volumes along Mississauga Road and Eglinton Avenue West. It is important to note the Synchro parameters used in the analysis are conservatively high (i.e. *Left Turn Factor (perm), Ideal Satd. Flow (vphpl*), etc). Based on site observation, it can be readily stated that the Ideal Satd. Flow operates below 2000 vphpl rather than default value of 1900 vphpl and therefore will improve the LOS of services considerably.

It should be noted that the proposed development generates low level site traffic volumes, as such adding a maximum of one second delay to the overall intersection operation or the critical movements from future background traffic conditions.

It is NexTrans recommendation that the City of Mississauga consider monitoring these intersections in the future, either through existing City's programs or develop a new monitoring program for the area. The mitigation options may include increasing green times for left turn movements where appropriate and undertake cross coordination analysis.

In addition, NexTrans also recommends aggressive Transportation Demand Management measures to be implemented in the area to encourage the community to take up Transit (GO Transit and MiWay) as an alternative mode of transportation.

Based on above, it is our opinion that the location of the proposed site entrance is feasible due to the low level site generated traffic volumes and as such the subject site will not confer any critical movement within the site development or on to Mississauga Road and Eglinton Avenue intersection.

6.0 PARKING

6.1. City of Mississauga Zoning By-law No. 0207-2008

Based on the site plan provided, a total of four vehicle parking spaces per unit (i.e. two in the garage and two in the lead-in portion of the driveway) will be provided to the one (1) single detached unit. A total of three vehicular parking spaces per unit (i.e. two in the garage and one in the lead-in portion of the driveway) will be provided to 29 townhouse units (i.e. blocks 1,2,3,6 and 7) . A total of two vehicular parking spaces per unit (i.e. one in the garage and one in the lead-in portion of the driveway) will be provided to eight (8) townhouse units (i.e. blocks 4 and 5) for an overall quantum parking supply of 107 parking spaces. The site is currently under the City of Mississauga Zoning By-law No. 0207-2008. The applicable parking rate as outlined in this by-law for the development proposal is as follow:

- Detached Dwelling, Semi-Detached Dwelling, Street Townhouse Dwelling– 2.0 parking spaces per unit

The parking requirement for the proposed development is detailed in **Table 6.1**.

Table 6.1 – Vehicle Parking Requirements (Zoning By-law No. 0207-2008)

Land Use	Units	Parking Rates	Parking Requirement
Detached Dwelling, Semi-Detached Dwelling, Street Townhouse Dwelling	38	2.0 space per unit	76
Total Parking Supply			**107**
Difference			**+31**

In accordance with the City's parking provisions outlined in the City's By-law No. 0207-2008, the site requires 76 vehicular parking spaces. In comparing the provided parking supply of 107 spaces with By-law requirements, the subject site has a surplus of 31 vehicular parking spaces. On this basis, the proposed parking supply at the subject site can sufficiently accommodate the future parking demand generated from the proposed residential development.

7.0 SITE ACCESS REVIEW

The proposed residential development will provide vehicular entrance via Thorny Brae Place which is proposed to remain in its current alignment and arrangement with direct connection to Mississauga Road, approximately 40m south of Eglinton Avenue.

As detailed in **Table 5.1**, the signalized intersection and proposed site access via Mississauga Road is expected to operate with sufficient capacity and minimal delays. However, a traffic queue analysis has been undertaken to determine sufficient storage lengths are provided and to avoid vehicle obstructions at the proposed site entrance from through lanes particularly for the southbound approach and site access location. The queue lengths indicate the maximum distance where the vehicles would stop.

Table 7.1 summarizes the maximum 95th percentile queue lengths experienced during the morning and afternoon peak hour for the northbound approach via Mississauga Road and Eglinton Avenue intersection. Detailed analysis outputs can be found in **Appendix I.**

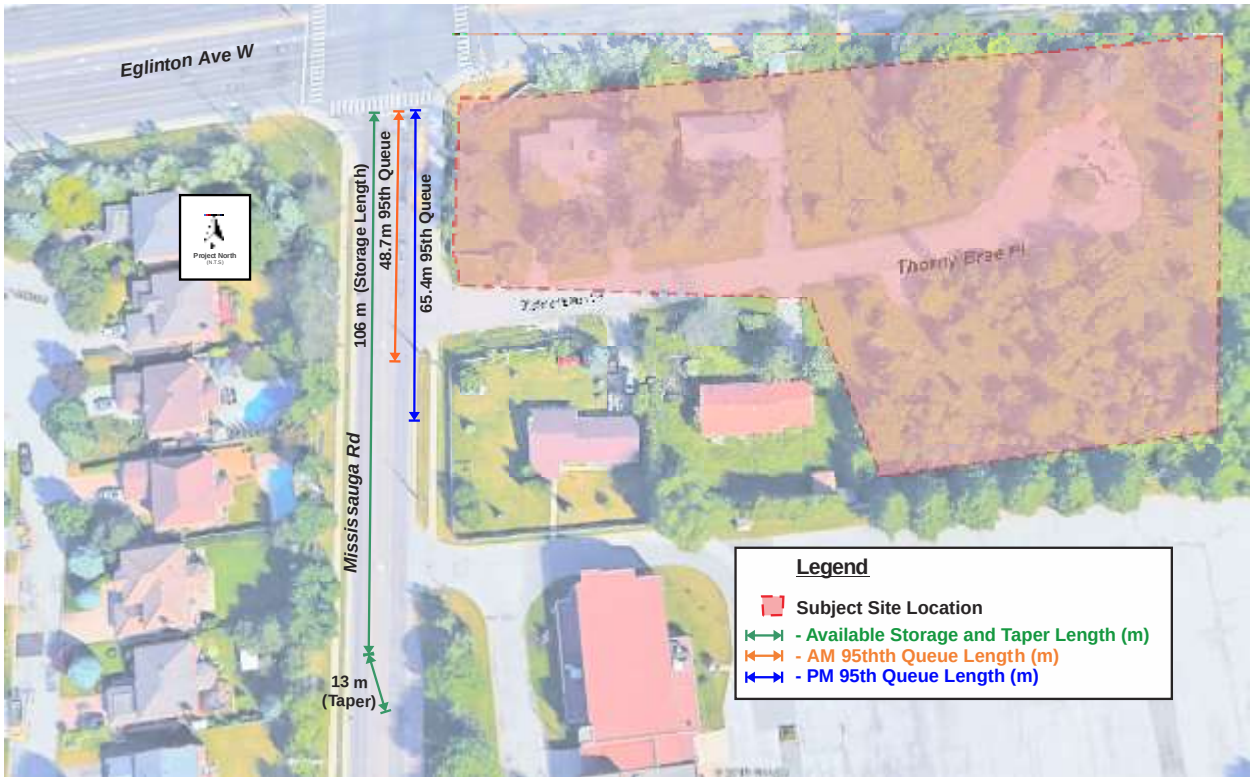
Table 7.1 – Future (2022) Total Traffic Queue Length

Intersection	Scenario	Weekday AM Peak Hour			Weekday PM Peak Hour		
		NBL	NBT	NBR	NBL	NBT	NBR
Mississauga Road & Eglinton Avenue West (Signalized)	Existing	45.5	109.7	17.2	63.6	115.5	17.4
	Future Background	45.5	117.0	17.2	63.9	123.5	17.4
	Future Total	48.7	118.7	17.4	65.4	124.9	17.4

As indicated in **Table 7.1**, the maximum 95th percentile back of queue for the northbound left movement at the Mississauga Road and Eglinton Avenue intersection during the morning and afternoon peak hour period is 48.7m and 65.4m, respectively. However, sufficient storage of 106m and taper 13m is provided for the exclusive left turn movement to accommodated expected future traffic volumes. Furthermore, it is important to note from the existing traffic conditions to future total traffic conditions, the proposed development site traffic increased the 95th percentile queue length by 3.2m (i.e. less than one (1) car length (7m)) and is considered negligible.

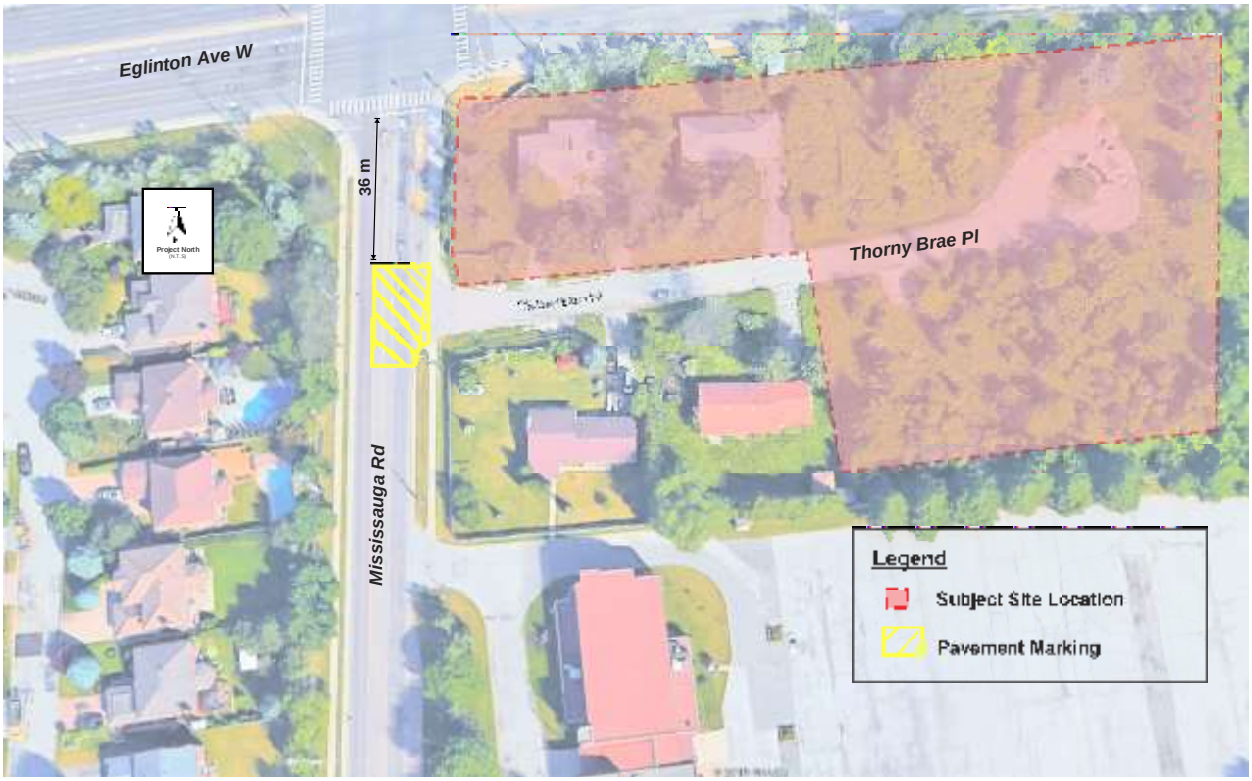
Figure 7-1 illustrates the existing storage and taper length for the northbound left-turn movement with the associated 90th percentile queue lengths experienced at the intersection under future total traffic conditions during the morning and afternoon peak hour period.

Figure 7-1: Future (2022) Total 95th Percentile Queue Lengths (Left-Turn Movement)



Based on Table 7.1 and Figure 7-3, the northbound through traffic volumes are expected to block the inbound and outbound left turning traffic via Thorny Brae Place. To mitigate this issue, it is recommended to stripe out the entire functional area of the intersection in order to create gap opportunities for inbound and outbound left turning movements to and from the site access via Thorny Brae Place. **Figure 7-2** illustrates the recommended pavement marking plan to inform motorists to keep clear of driveway entrance. A DO NOT BLOCK INTERSECTION sign currently exists on the southeast corner of the intersection.

Figure 7-2: Recommended Pavement Marking Plan



Based on recommendations provided in **Figure 7-3**, it is our opinion the northbound through traffic will avoid impeding inbound or outbound left turning traffic via Thorny Brae Place and Mississauga Road intersection. Furthermore, sufficient storage lengths are provided to accommodate the 95th queue lengths. Based on the aforementioned queue analysis results, it is our finding that the proposed configuration and geometry for the future site access via Thorny Brae Place is feasible and operational.

8.0 SITE CIRCULATION/LOADING

A truck turning path assessment was conducted to evaluate the expected movements of garbage/emergency truck to and from the proposed development site. An AutoTURN analysis was undertaken using a typical 10.0 meter City Garbage Truck (MSUTAC) as illustrated in **Figure 7-3**. The analysis demonstrates that a typical garbage truck can maneuver within the designated route with no conflict. As a result, moving trucks under 10.0 meters can sufficiently access the subject site.

9.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) refers to variety of strategies to reduce congestion, minimize the number of single-occupant vehicles, encourage non-auto modes of travel, and reduce vehicle dependency to create a sustainable transportation system. Typically, TDM strategies are for residential and office developments where large quantities of people congregate in one origin or destination.

The aforementioned public transportation services operated MiWay and GO Transit provide a reliable, cost effective alternative mode of transportation through the comprehensive and continually growing transit network system. Pedestrian sidewalks are provided on both sides of the roadways, and sidewalk connectivity is provided throughout the proposed municipal road to ensure a complete sidewalk network. Based on the study prepared by the Ministry of Transportation Ontario entitled: 'Transit Supportive Guidelines', dated January 2012, transit users are generally willing to walk 400 meters to a local stop or 800 meters to a rapid transit station. The Mississauga Road at Eglinton Avenue bus stop is approximately 190 meters from the proposed subject site.

In summary, TDM Implementation actively encourages its tenants to explore and take advantage of the alternative modes of travelling available within their neighbourhood. It is NexTrans opinion that no Transportation Demand Management measures or incentives will be required for this proposed development.

FINDINGS / CONCLUSION

The findings and conclusions of our analysis are as follows:

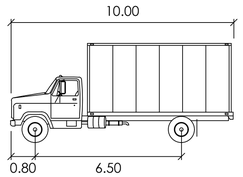
- The development proposal intention is to maintain Thorny Brae Place and update the roadway to municipal standards and accommodate the additional development of 37 townhouse units and one (1) single detached unit totaling 38 units. As such, the residential units to the north of Thorny Brae Place will be demolished and the two (2) residential units to the south will remain in its current state.
- A total of four vehicle parking spaces per unit (i.e. two in the garage and two in the lead-in portion of the driveway) will be provided to the one (1) single detached unit. A total of three vehicular parking spaces per unit (i.e. two in the garage and one in the lead-in portion of the driveway) will be provided to 29 townhouse units (i.e. blocks 1,2,3,6 and 7) . A total of two vehicular parking spaces per unit (i.e. one in the garage and one in the lead-in portion of the driveway) will be provided to eight (8) townhouse units (i.e. blocks 4 and 5) for an overall quantum parking supply of 107 parking spaces. Vehicular entrance is provided via Thorny Brae Place which is proposed to remain in its current alignment and arrangement with direct connection to Mississauga Road, approximately 40m south of Eglinton Avenue.
- Under Existing Traffic conditions, the study area signalized intersection is currently operating at acceptable levels of service with LOS 'D' or better during peak hour time periods. The eastbound and westbound through traffic volumes are currently experiencing v/c ratios during the morning and afternoon peak hour periods, respectively. It is important to note the Synchro parameters used in the analysis are conservatively high (i.e. *Left Turn Factor (perm), Ideal Satd. Flow (vphpl*), etc).
- Based on site observation, it can be readily stated that the Ideal Satd. Flow operates below 2000 vphpl rather than default value of 1900 vphpl and therefore will improve the LOS of services considerably. However, It is suggested that City of Mississauga monitor this intersection and examine the possibility of increasing green times for through movements where appropriate in order to improve the signalized operations.

- Considering the data was undertaken in June 2016 we prorated a six (6)-year horizon period in the analysis to rationalize a five (5) year horizon periods which generally coincides with the full build out of the proposed development in 2022. Based on discussion with City's Transportation Planning Section provided in **Appendix E**, **Table 3.1** details the projected compound annual growth rates for the north-south and east-west through traffic on Eglinton Avenue West and Mississauga Road from existing to 2022.
- Under Future Background Traffic conditions, it is shown that during future background traffic conditions the subject study area intersections continue to operate at good level of services with no changes to expected operations. During future background traffic conditions, the intersections are operating at overall LOS 'D' during the peak hour periods.
- Based on the trip generation calculations, the proposed development is expected to generate 24 two-way trips (4 inbound and 20 outbound) during the weekday morning peak hour and 33 two-way trips (22 inbound and 11 outbound) during the afternoon peak hour.
- Under Future Total Traffic conditions, it is shown that during future total traffic conditions, the subject study area intersection as well as the future site access via Thorny Brae will operate at good levels of services with only minor changes over future background traffic conditions. The study area intersection continues to operate at an overall LOS 'D' or better during the peak hour periods.
- As mentioned earlier, the eastbound and westbound through traffic volumes are currently experiencing high delays and critical v/c ratios during the morning and afternoon peak hour periods, respectively. Furthermore, the westbound and southbound left turning movement is experiencing high delays and critical v/c ratios due to heavy opposing through volumes along Mississauga Road and Eglinton Avenue West. It is important to note the Synchro parameters used in the analysis are conservatively high (i.e. *Left Turn Factor (perm), Ideal Satd. Flow (vphpl*), etc). Based on site observation, it can be readily stated that the Ideal Satd. Flow operates below 2000 vphpl rather than default value of 1900 vphpl and therefore will improve the LOS of services considerably.
- It should be noted that the proposed development generates low level site traffic volumes, as such adding a maximum of one second delay to the overall intersection operation or the critical movements from future background traffic conditions.
- It is NexTrans recommendation that the City of Mississauga consider monitoring these intersections in the future, either through existing City's programs or develop a new monitoring program for the area. The mitigation options may include increasing green times for left turn movements where appropriate and undertake cross coordination analysis.
- In addition, NexTrans also recommends aggressive Transportation Demand Management measures to be implemented in the area to encourage the community to take up Transit (GO Transit and MiWay) as an alternative mode of transportation.
- Based on above, it is our opinion that the location of the proposed site entrance is feasible due to the low level site generated traffic volumes and as such the subject site will not confer any critical movement within the site development or on to Mississauga Road and Eglinton Avenue intersection.
- In accordance with the City's parking provisions outlined in the City's By-law No. 0207-2008, the site requires 76 vehicular parking spaces. In comparing the provided parking supply of 107 spaces with By-law requirements, the subject site has a surplus of 31 vehicular parking spaces. On this basis, the proposed

parking supply at the subject site can sufficiently accommodate the future parking demand generated from the proposed residential development.

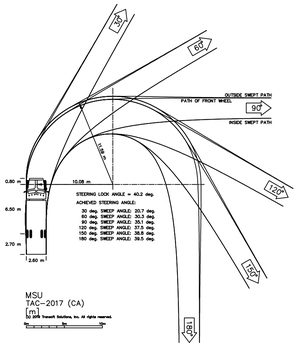
- The maximum 95th percentile back of queue for the northbound left movement at the Mississauga Road and Eglinton Avenue intersection during the morning and afternoon peak hour period is 48.7m and 65.4m, respectively. However, sufficient storage of 106m and taper 13m is provided for the exclusive left turn movement to accommodated expected future traffic volumes. Furthermore, it is important to note from the existing traffic conditions to future total traffic conditions, the proposed development site traffic increased the 95th percentile queue length by 3.2m (i.e. less than one (1) car length (7m)) and is considered negligible.
- The northbound through traffic volumes are expected to block the inbound and outbound left turning traffic via Thorny Brae Place. To mitigate this issue, it is recommended to stripe out the entire functional area of the intersection in order to create gap opportunities for inbound and outbound left turning movements to and from the site access via Thorny Brae Place.
- An AutoTURN analysis was undertaken using a typical 10.0 meter City Garbage/Emergency Truck (MSUTAC) as illustrated in **Figure 7-3**. The analysis demonstrates that a typical garbage truck can maneuver within the designated route with no conflict. As a result, moving trucks under 10.0 meters can sufficiently access the subject site.

CONCEPT - 2



MSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 40.2



KEY PLAN

BENCHMARK

REVISONS

NO	REVISION	DATE	BY

STAMP

nextrans
CONSULTING ENGINEERS
520 Industrial Parkway South, Suite 201
Aurora, Ontario L4G 6W8
Tel: 905-503-2563
www.nextrans.ca

PROJECT NAME:

RESIDENTIAL DEVELOPMENT
1745 THORNY BRAE PL
(MISSISSAUGA, ON)

DRAWING TITLE:

AutoTURN Analysis
(MSU TAC-1999)

DESIGN BY: A.S.	DATE: March 4, 2019
CHECKED BY: R.P.	PROJECT NO. NT-16-028
DRAWN BY: A.S.	
SCALE: NTS	DRAWING NO. Figure 7-3

Appendix A – City of Mississauga Comments (January 28, 2019)

PLANNING APPLICATION STATUS REPORT

P&B/Planning & Building Dept
P&B/Develop & Design Division
City of Mississauga
300 City Centre Drive
MISSISSAUGA ON L5B 3C1
Tel: (905) 896-5511
Fax: (905) 896-5553

File: 21T-M 17006
Applicant: OUDE-REIMERINK, CARLEIGH
Proposal: Seven blocks of townhouses (34 units) and one detached dwelling
Address: 1745 THORNY-BRAE PL.
1765 THORNY-BRAE PL.
1775 THORNY-BRAE PL.
General Location: SE CORNER OF MISSISSAUGA RD & EGLINTON AVE W

MILESTONE DESCRIPTION

Milestone	Description
SERV AGRT	Before finalization of Servicing Agreement.
PLAN REGISTRATION (SCHEDULE B)	Clause to be included into Schedule 'B' of the Development Agreement
SERV AND/OR DEV. AGT	Required prior to finalization of Servicing and/or Development Agreement
2ND SERVICING SUB	Required prior to making second servicing servicing submission
RECOMMENDATION REPORT	Required prior to planner preparing Recommendation Report to PDC
DRAFT APPR	Required prior to draft approval.
PLAN REGISTRATION (SCHEDULE C)	Condition to be included into Schedule 'C' of the Development Agreement
NOTE:	Note for applicant's information only - no action required.
REGISTRATION	Required prior to registration of M-Plan
INFO REPORT	Required prior to planner preparing Information Report to PDC.

File: 21T-M 17006
Proposal: Seven blocks of townhouses (34 units) and one detached dwelling

PLANNING AND BUILDING

PLANNER - DEV DESIGN

Contact: David Ferro Tel. (905) 615-3200 x4554

No	Milestone	Condition
1	NOTE:	D&D Planner comments within the ASR for associated rezoning/opa file. **Created :** 2018-04-02 01:16:44 **Last Modified :**

LANDSCAPE ARCH - DEV DESIGN

Contact: Kate Allan Tel. (905) 615-3200 x5728

No	Milestone	Condition
1	SERV AND/OR DEV. AGT	Label & show the extent of the accoustical barriers and fencing on the Site Plan. Provide details. **Created :** 2018-03-06 02:26:08 **Last Modified :** 2018-04-24 12:17:35
1	SERV AND/OR DEV. AGT	Extend the municipal sidewalk around the cul de sac completing the pedestrian network on site. Clearly show the proposed sidewalk on the Site Plan, Landscape Plan and Grading Plan. **Created :** 2018-04-24 11:39:55 **Last Modified :** 2018-04-24 12:17:35
2	NOTE:	A Tree Survey & Inventory Plan and Tree Preservation Plan has been submitted. **Created :** 2018-03-06 02:26:46 **Last Modified :** 2018-04-24 12:11:08
3	SERV AND/OR DEV. AGT	Prior to plan registration, screen fencing plans for the side and/or rear property lines of the proposed residential lots shall be submitted to and approved by the Transportation and Works Department and the Planning and Building Department. All fencing adjacent to public lands must be located 0.3 m within the property line. These works shall be coordinated with any required noise abatement measures and shall be carried out by the developer at his own cost. **Created :** 2018-03-06 02:26:46 **Last Modified :** 2018-04-24 12:17:35

PLANNING AND BUILDING

LANDSCAPE ARCH - DEV DESIGN

Contact: Kate Allan Tel. (905) 615-3200 x5728

No	Milestone	Condition
4	SERV AND/OR DEV. AGT	As part of the first engineering submission, a master streetscape plan illustrating: (a) a minimum 4.5 m buffer block adjacent to a 6 m sideyard setback, fencing and proposed treatment; (b) a minimum 3.0 m buffer block between any service road right-of-way and a major road, fencing and the proposed treatment; (c) a minimum 3.0 m buffer block between cul-de-sacs and major roads, fencing, and the proposed treatment; (d) a buffer block between reverse frontage lots and a public right-of-way, fencing and the proposed treatment; (e) any dedicated blocks for subdivision entry features; (f) existing trees within the streetscape to be preserved; (g) all proposed streetscape works within the boulevard (criteria for BIA's, City Centre, Cooksville, Hurontario Street, McLaughlin Road and Mississauga Road); shall be submitted to the Development and Design Division, Planning and Building Department. Prior to registration, detailed working drawings will be reviewed and coordinated with the Transportation and works, and the Community Services Departments. These works will be carried out by the developer at his cost. **Created :** 2018-04-24 11:37:36 **Last Modified :** 2018-04-24 12:17:35

URBAN DESIGNER

Contact: Edward Nicolucci Tel. (905) 615-3200 x5512

No	Milestone	Condition
1	INFO REPORT	Refer to the UD comments in OZ 17/018 **Created :** 2018-04-03 09:15:25 **Last Modified :**

DEVELOPMENT SERVICES

Contact: Allison Morris Tel. (905) 615-3200 x5523

No	Milestone	Condition
1	REGISTRATION	The applicant will be required to enter into the City's standard Development Agreement. In this regard, the applicant should contact Development Services, Planning and Building Department, directly. **Created :** 2018-04-19 04:11:52 **Last Modified :** 2018-04-19 04:12:25

File: 21T-M 17006
Proposal: Seven blocks of townhouses (34 units) and one detached dwelling

PLANNING AND BUILDING

DEVELOPMENT SERVICES

Contact: Allison Morris Tel. (905) 615-3200 x5523

No	Milestone	Condition
2	REGISTRATION	The applicant will be required to pay the Legal Services processing fee as set out in the City's current Fees and Charges By-law, in connection with the subdivision Development Agreement. In the event that other agreements are required in connection with the processing of the subdivision application, the applicant will be required to pay the applicable Legal Services processing fees, as set out in the City of Mississauga Fees and Charges By-law. Please contact 905-615-3200 x 5523 for the current rates. **Created :** 2018-04-19 04:11:52 **Last Modified :** 2018-04-19 04:12:25
3	REGISTRATION	The applicant will be required to pay in full, all assessments levied against the property, as well as the current year's taxes and/or local improvement charges. **Created :** 2018-04-19 04:11:52 **Last Modified :** 2018-04-19 04:12:25
4	REGISTRATION	Should there be any mortgagees, we will require that the mortgagees execute in duplicate, a Consent and Postponement with respect to the development agreement. **Created :** 2018-04-19 04:11:52 **Last Modified :** 2018-04-19 04:12:25

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
1	RECOMMENDATION REPORT	An application has been filed for a Zoning By-law amendment under file OZ 17/018 Ward 8 concurrently with the subject draft plan application. Please note that this Department's detailed comments and conditions for the rezoning application will be addressed as part of the subject draft plan of subdivision application T-M17006. We have reviewed a Draft Plan of Subdivision, dated November 24, 2017 consisting of 1 Lot and 7 Townhouse Blocks, prepared by Armstrong Planning along with supporting materials received to date: The Draft Plan is to be revised as follows; - Review the Lot / Block numbering for all plans as it appears they are not consistent, ie. 8 Blocks shown on Draft Plan, 7 Blocks shown on other plans. - limit between Blocks 3 and 4 not consistent with other plans.Revise accordingly. - show right-of-way as requested by Traffic Section. ie sight triangle. - remove underlying vegetation detail on draft plan. - in the event the draft reference plan for the storm sewer easement in support of file T-09002 is deposited, show the limits on all relevant plans for T-17006. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
2	RECOMMENDATION REPORT	January 26, 2018- initial circulation; The applicant has submitted Functional Grading/Servicing plans prepared by Cole Engineering dated November 2017. The Grading plan is to be revised as follows; - include unit numbers for Blocks 4 and 5. - Lot/Block numbering not consistent with Draft Plan of Subdivision. Revise accordingly. - provide typical cross-sections for Blocks 1 to 4 from front yard to south curb on Eglinton Ave. Cross-section to show existing and proposed conditions. - provide cross-section for detached dwelling adjacent Mississauga Rd. (from proposed dwelling to existing curb on Mississauga Rd. including existing retaining wall) - plans are to clearly identify/label proposed external works in support of this development. ie reconstruction of existing Thorny Brae Place right-of-way external to the proposed draft plan of subdivision. - servicing and grading plans must show external works identified in proposed Subdivision Agreement for T-09002 as existing not ("by others") as this infrastructure must be constructed and operational prior to execution of the Subdivision Agreement for T-17006. - indicate all easements within site and purpose of easement. Note: As of February 2, 2018 the Subdivision Agreement for T-09002 has not been approved for by-law execution. The applicant is to ensure that the proposed municipal infrastructure shown on all plans to support both developments (T-09002 & T-17006) is consistent. Once the Subdivision Agreement for T-09002 receives a bylaw authorizing execution, the plans for T-17006 are to be updated to show the approved "as constructed" works in support of T-09002. **Created :** 2018-02-02 10:03:22 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
3	RECOMMENDATION REPORT	The applicant has submitted a Noise Feasibility Study prepared by HGC Engineering dated November 15, 2017. The study determined that the primary sources of noise impacting the site to be road traffic on Eglinton Ave. W and Mississauga Rd. The site is located outside the Toronto Pearson International Airport NEF 25 contour. The Study notes that acoustic barriers will be required to shield the outdoor living areas adjacent Eglinton Ave. West. Upgraded building construction will also be required and mandatory A/C for some units as well. The study is to be updated to include the following; - Figures in the study to be updated to show the individual unit numbers for Blocks 4 and 5. - Figure 3 to be revised to show acoustic fence return to townhouse Block 5. - Provide a typical cross-section for Block 5 showing the acoustical barrier. - The applicant is to contact the Development and Design Division of the Planning and Building department with respect to their requirements for barrier heights to mitigate noise levels to 55 dBA. - in the event a berm/acoustic barrier combination is required at the rear of Block 5, permission for external works/grading will be required from CVC and/or Community Services. **Created :** 2018-02-02 01:44:46 **Last Modified :** 2018-03-29 10:12:40
4	RECOMMENDATION REPORT	The applicant is proposing to acquire a portion of the existing Thorny Brae Place right of way to combine with the adjoining development blocks. - 3 copies of a draft reference plan indicating the existing portion of right-of-way to be acquired is to be submitted for review. Note that the proposed subdivision (T-17006) is to be registered and the proposed extension of Thorny Brae Place (internal portion) constructed to the satisfaction of the City and Region prior to the land transfer of the portion of the existing Thorny Brae Place ROW to the applicant. Details of the land transfer process to be provided through the engineering submission review process. **Created :** 2018-02-09 09:16:29 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
5	SERV AGRT	The developer will be required to enter into a Subdivision Agreement with the City for the construction of municipal services associated with these lands. The underground and aboveground municipal services are to be constructed in accordance with the latest O.P.S. and/or City standards and requirements, as applicable. Development of the lands shall be staged to the satisfaction of the City. The developer will be required to provide the City with comprehensive insurance coverage, a financial guarantee for the installation of municipal works and to maintain the municipal works in accordance with the requirements of the Subdivision Agreement. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
6	SERV AGRT	Both the existing and proposed Thorny Brae Way ROW is to be fully reconstructed to City standards as per City standard 2211.070. Provide details on Grading Plan showing extent of reconstruction. **Created :** 2018-02-02 11:49:17 **Last Modified :** 2018-03-29 10:12:40
7	SERV AGRT	Prior to final approval of the Subdivision Agreement: The Subdivision Agreement for T-17006 is contingent on a fully executed Subdivision Agreement for T-09002 .The "Municipal Infrastructure" works identified in the executed Subdivision Agreement for T-09002 must be constructed and fully operational prior to execution of the Subdivision Agreement for T-17006. Consequently, the term "constructed "by other" will not apply. **Created :** 2018-02-01 07:46:34 **Last Modified :** 2018-03-29 10:12:40
8	SERV AGRT	Prior to Registration and as part of the Subdivision Agreement, a hold back on the letter of credit will be required to the satisfaction of the Transportation & Works Department to guarantee the installation of central air conditioning units and special building measures in accordance with the approved noise report ($5,000.00 per unit). These securities will be returned upon final approval and certification by the Owner's acoustical consultant. **Created :** 2018-03-23 11:20:26 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
9	PLAN REGISTRATION (SCHEDULE B)	Warning clauses are to be included in the Agreements of Purchase and Sale and registered on the title of all affected lots and blocks noting: (a) any noise control features required to meet the noise level objectives of the City, to the satisfaction of the City, with respect to all noise sources. (b) any walkways that may evolve on the plan. (c) the location of any Stormwater Management Facility. (d) the possibility of future transit routes, including the installation of bus stop platforms and/or shelters. **Created :** 2018-02-08 02:35:12 **Last Modified :** 2018-03-29 10:12:40
10	PLAN REGISTRATION (SCHEDULE B)	Lots/Blocks/Units: Purchasers/tenants are advised that in order to achieve an acceptable indoor living environment, building plans for the unit must include a central air conditioning system. The forced air heating system and its ducting are to be sized to accommodate a central air conditioning unit. The air cooler/condenser unit must be located with due regard to the noise created by the unit itself and its effect on the outdoor recreational activities. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
11	PLAN REGISTRATION (SCHEDULE B)	Purchasers/tenants are advised that despite the inclusion of noise control features in this development area and within building units, noise levels from increasing road traffic from Eglinton Avenue West amd Mississauga Road may continue to be of concern occasionally interfering with some activities of the dwelling occupants, as the noise exposure level may exceed the noise criteria of the Municipality and the Ministry of the Environment. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
12	PLAN REGISTRATION (SCHEDULE B)	Purchasers/tenants are also advised that the outdoor air cooled condenser unit itself can produce sufficient noise to interfere with outdoor recreational activities. Due consideration should be given to this noise factor when selecting the air cooled condenser unit location or an alternate quieter unit could be selected. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
13	PLAN REGISTRATION (SCHEDULE B)	Purchasers/tenants are further advised that in order to achieve an acceptable indoor living environment, they may find it necessary to equip the unit with a central air conditioning system. Provision has been made to the heating system to facilitate such an installation. Purchasers/tenants are also advised that the outdoor air cooled condenser unit itself can produce sufficient noise to interfere with outdoor recreational activities. Due consideration should be given to this noise factor when selecting the air cooled condenser unit location or an alternate quieter unit could be selected. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
14	PLAN REGISTRATION (SCHEDULE B)	Purchasers/tenants are advised that due to the proximity of the adjacent church, sound levels from the church may at times be audible. **Created :** 2018-02-02 08:17:19 **Last Modified :** 2018-03-29 10:12:40
15	2ND SERVICING SUB	Not later than second engineering submission, the developer is to submit a Noise Report prepared by an Acoustical Consultant. The report is to address methods of dealing with acoustical aspects evolving from all the noise sources. The report should also detail the type of noise attenuation that will be implemented for all noise sources as identified in the Preliminary Noise Control Feasibility Study. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
16	SERV AGRT	Prior to land dedication to the City, confirmation will be required with respect to the suitability of the soil/ground water from an environmental and geotechnical perspective and must meet the applicable MOECC standard and City requirements as per Environmental Section's comments. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
17	SERV AGRT	Upon the finalization of the top of bank of the Credit River Lands, all lands below the top of bank, regional flood line or the slope hazard line whichever is greater, shall be dedicated gratuitously to the City and zoned greenbelt. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
18	SERV AGRT	Prior to registration, arrangements are to be made to the satisfaction of the City for the acquisition and gratuitous dedication of the full right of way width required for the construction of Thorny Brae Place. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
19	NOTE:	Please be advised that the City will NOT accept a First Engineering Submission in support of the required Agreement for Municipal Infrastructure works until such time as the Recommendation Report recommending Draft Plan Approval and the associated rezoning/OPA application has been approved in principle by City Council. THE FOLLOWING ONLINE LINK IS PROVIDED TO ASSIST THE DEVELOPER IN THE PREPARATION OF THE SERVICING AGREEMENT AND RELATED DRAWINGS. T&W Development Requirements Manual, Section 3 - Engineering Submission http://www7.mississauga.ca/documents/business/business_developers/development_requirements/Development_Requirements_Manual_-_Revised_December_2013.pdf **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
20	REGISTRATION	The applicant is advised that in the event this application is approved by Council, an inhibiting order will be placed on the lands immediately following registration of the Plan of Subdivision, until such time as satisfactory arrangements have been made with the City's Legal Services Section for the registration of the land conveyances required in support of this application. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
21	PLAN REGISTRATION (SCHEDULE C)	Prior to Site Plan approval, the Acoustical Consultant shall certify to the satisfaction of the Planning and Building Department that the indoor noise levels and that the noise output associated with the mandatory air conditioning units are in compliance with the Ministry of the Environment and Climate Change criteria for Stationary Noise Sources. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
22	PLAN REGISTRATION (SCHEDULE C)	Prior to Site Plan approval, an Acoustical Consultant shall certify to the satisfaction of the Planning and Building Department that the Site Plan is in accordance with the updated detailed Noise Report approved by the City and in compliance with the MOECC criteria for Stationary Noise Sources. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40
23	PLAN REGISTRATION (SCHEDULE C)	Prior to Site Plan approval, the following clauses are to be included on the Site Plan and all building plans. "The Acoustical Consultant shall certify to the satisfaction of the Planning and Building Department that the 'as constructed' buildings and air conditioning condenser units and locations are in compliance with the acoustical report as prepared for the particular building and in compliance with the applicable MOECC criteria. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40

TRANSPORTATION AND WORKS

DEVELOPMENT ENGINEERING REVIEW

Contact: Tel.

No	Milestone	Condition
24	PLAN REGISTRATION (SCHEDULE C)	In accordance with the noise report, dwellings constructed on the following lots are to be fitted with central air conditioning units. Lots/Blocks/Units: ____. Prior to Site Plan approval, the site plans for these lots are to depict the proposed locations of the condenser units recognizing the restraints of the zoning by-law. No air conditioning condenser units are to be located between the street line and any part of the main front wall of the dwelling. The Acoustical Consultant shall certify to the satisfaction of the Planning and Building Department that the buildings are in compliance with the acoustical analysis as prepared for the particular building. **Created :** 2018-02-01 11:54:54 **Last Modified :** 2018-03-29 10:12:40

ENVIRONMENTAL ENG REV STORM

Contact: Ghazwan Yousif Tel. (905) 615-3200 x3526

No	Milestone	Condition
1	RECOMMENDATION REPORT	As there is no storm sewer outlet for this site, this application is considered premature pending the finalization/ construction of the storm sewer under the Municipal Infrastructure works identified in the draft Subdivision Agreement for T-09002. Note that the above noted storm sewer is to be constructed and fully operational prior to the execution of the Subdivision Agreement for T-17006. The storm sewer outlet for these lands is the proposed 750mm diameter storm sewer system located Thorny Brae Place. In order to minimize the impact to existing drainage systems, it will be necessary to implement on-site storm water management techniques into the design and construction of the site works and services as necessary, to limit the post development storm water discharge to the pre-development levels. **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38
2	RECOMMENDATION REPORT	Based on Functional Servicing Report dated December, 2017 prepared by Cole Engineering, the following comments are provided: i) A details calculation is required in regards the pre and post development peak flow; ii) please clarify how this site will meet the water balance requirements (first 5mm of rain) with no initial abstraction; iii) please verify how the low impact development techniques will be applied to this site; iv) Overland flow route is to be shown on the grading plan; v) CVC approval is required in regards the slope stability report; vi) Clarify how the basement weeping tile will be dealt with; vii) Verify if this site required to accommodate any external drainage from the adjacent properties. Further comments pending **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38

TRANSPORTATION AND WORKS

ENVIRONMENTAL ENG REV STORM

Contact: Ghazwan Yousif Tel. (905) 615-3200 x3526

No	Milestone	Condition
3	REGISTRATION	Upon finalization of the top of bank for the Credit River, all lands below the established top of bank, regional flood line or slope hazard line; whichever is greater, shall be deeded gratuitously to the City and zoned as greenbelt. **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38
4	REGISTRATION	Confirmation will be required from the Credit Valley Conservation that they have no objection to the construction within their regulated area. **Created :** 2018-02-26 08:50:33 **Last Modified :** 2018-03-29 10:13:38
5	PLAN REGISTRATION (SCHEDULE B)	The owner acknowledges that The Corporation of the City of Mississauga has implemented stormwater management policies intended to minimize the impact of development; and that it will be necessary to implement on-site stormwater management techniques in the design and construction of the site works and services, including but not limited to, rooftop storage and detention ponding in car parked and/or landscaped areas. The owner acknowledges that they will maintain the on-site stormwater management facilities and that they will not alter or remove these facilities without the prior written consent of The Corporation of the City of Mississauga. The owner hereby agrees to indemnify and save harmless The Corporation of the City of Mississauga from any and all claims, demands, suits, actions or causes of action as a result of, arising out of, or connected with any flooding of the lands subject to this agreement, with respect to the implementation of on-site stormwater management techniques incorporated into the design and construction of the site works and services. This indemnification and save harmless undertaking shall be binding upon the owner's successors and assigns. The owner acknowledges and agrees that all future purchase and sale agreements and all future lease agreements in connection with the subject lands, or any lot, part lot or other segment of the subject lands or of any residential development constructed on the subject lands, shall contain notice of the constraints on development of these lands described in this agreement, as well as notice of the indemnification and save harmless clause. **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38
6	PLAN REGISTRATION (SCHEDULE B)	Purchasers/tenants are advised that roof leaders shall NOT be connected to the storm sewer, now or in the future, but shall discharge to grade with the use of concrete splash pads. **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38

TRANSPORTATION AND WORKS

ENVIRONMENTAL ENG REV STORM

Contact: Ghazwan Yousif Tel. (905) 615-3200 x3526

No	Milestone	Condition
7	NOTE:	The development of these lands will be subject to the provisions of the Erosion and Sediment Control By-law No. 512-91, adopted by Council. The applicant will be required to obtain an Erosion and Sediment Control Permit, prior to undertaking any land stripping or regarding activities within this site. Note that all applicable payments are to be submitted at 3185 Mavis Road. In accordance with the City of Mississauga's Erosion and Sediment By-law No. 512-91 as amended, the discharge of ballast/ground water to the municipal storm sewer system during construction/dewatering at the site requires approval from the City. Should you have any questions concerning this matter, please contact Valeriya Danylova, Environmental Technologist at 905-615-3200 ext. 5930 **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38
8	NOTE:	The City of Mississauga has adopted the Green Development Strategy and the corresponding Stage One Green Development Standards. As such, Applicants are required to implement sustainable technologies to manage stormwater on-site. In this regard, for an application of this nature, suitable techniques could include rainwater harvesting or green roofs. **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38
9	NOTE:	Please be advised that the Stormwater Charge has come into effect as of January 2016. Credits of up to 50% are available for on-site stormwater management on non-residential and multi-residential properties. Learn more at www.stormwatercharge.ca. **Created :** 2018-02-26 08:45:44 **Last Modified :** 2018-03-29 10:13:38

ENVIRONMENTAL ENG REVIEWER

Contact: Trevor Swift Tel. (905) 615-3200 x8358

No	Milestone	Condition

TRANSPORTATION AND WORKS

ENVIRONMENTAL ENG REVIEWER

Contact: Trevor Swift Tel. (905) 615-3200 x8358

No	Milestone	Condition
1	NOTE:	Based upon the review of the: - Environmental Site Screening Questionnaire and Declaration (ESSQD) for 1745, 1765 and 1775 Thorny-Brae Place; dated November 28, 2017 - Draft Plan of Subdivision; dated November 24, 2017 - Phase One Environmental Site Assessment, 1745, 1765 & 1775 Thorny Brae Place, City of Mississauga; prepared by Soil Engineers Ltd (Ref # 1507-E179); dated April 6, 2016 - Phase Two Environmental Site Assessment, 1745, 1765 & 1775 Thorny Brae Place, City of Mississauga; prepared by Soil Engineers Ltd (Ref # 1507-E179); dated August 5, 2016 - Soil Investigation For Proposed Residential Development, 1745, 1765 & 1775 Thorny Brae Place, City of Mississauga; prepared by Soil Engineers Ltd (Ref # 1608-S094); dated October, 2016 - Phase One Environmental Site Assessment Update, 1745, 1765 & 1775 Thorny Brae Place, City of Mississauga; prepared by Soil Engineers Ltd (Ref # 1507-E179); dated December 1, 2017 The following comments are provided: **Created :** 2018-02-27 11:34:54 **Last Modified :** 2018-03-29 10:13:38
2	NOTE:	The ESSQD and Phase One ESA reports indicate the potential presence of hazardous materials on site. Any materials containing polychlorinated biphenyls (PCBs), lead, urea formaldehyde foam insulation (UFFI), or asbestos containing materials (ACMs) must be removed in accordance with all applicable guidelines and regulations. **Created :** 2018-02-27 11:34:54 **Last Modified :** 2018-03-29 10:13:38
2	RECOMMENDATION REPORT	Traffic Review Comment #2 and Environmental Engineering Storm Review Comment #3 indicate that lands will be dedicated to the City as a part of this application. The applicant has adequately addressed the environmental condition of the subject property through the submission of Phase One and Two ESA reports. To close out the file the Transportation and Works Department requests that a written document be provided that includes a statement by a Qualified Person explaining how the ESA investigations relate to the lands to be dedicated to the City. The report must include a figure that depicts the lands to be dedicated, the APEC locations and the associated soil and groundwater sample points. **Created :** 2018-03-23 11:52:46 **Last Modified :** 2018-03-29 10:13:38
3	NOTE:	The Application for a Rezoning and Plan of Subdivision indicated that the existing buildings or structures on site are to be demolished. Please note that all debris on site, including debris from demolition, shall be removed in accordance with all applicable guidelines and regulations. **Created :** 2018-02-27 11:34:54 **Last Modified :** 2018-03-29 10:13:38

TRANSPORTATION AND WORKS

TRAFFIC REVIEW (PPP)

Contact: Giancarlo Tedesco Tel. (905) 615-3200 x4191

No	Milestone	Condition
1	RECOMMENDATION REPORT	This department is in receipt of a Transportation Impact Study (dated November 2017), prepared by NexTrans Consulting. Upon review, this section is pleased to provide the following comments, please review and revise accordingly: S2.0, 9.0 - suggestion that Peel Region monitor the intersection signal timing should be revised to the City of Mississauga monitoring intersection signal timing. S3.0 - A 2% per annum growth rate was assumed for through movements along Mississauga Road and Eglinton Avenue West. Please contact the City's Transportation Planning Section: (tyler.xuereb@mississauga.ca) S 4.0 - Please append the source 2011 TTS data to the report. S7.0 - The report suggests the 95th percentile occurring twice every hour would be considered rare, however it should be noted this is not considered true. The report should place more reliance upon the 95th percentile queues. -Notwithstanding this position, proposed line painting and "Please Do Not Block Driveway" signage is proposed at the intersection. It should be noted that existing "Do Not Block Intersection" signage exists on the South-East corner of the intersection. S8.0 - The report identifies a Site Circulation/ Loading review with figure. Please expand on the review to identify details of the extended Thorny Brae Place right-of-way, including ROW width, and cul-de-sac details in accordance with specific City Standards. The apparent center island within the cul-de-sac should not be proposed. Appendix C, D, and E - Produce Synchro output sheets which identify signal timing under each scenario. **Further comment may be forthcoming upon receipt of this information. **Created :** 2018-03-08 02:55:57 **Last Modified :** 2018-06-12 05:27:57
2	SERV AGRT	The owner is to gratuitously dedicate to the City of Mississauga: - a right of way of 20.00 meters in accorandance with C.O.M. Standard 2211.070 towards the extension of Thorny-Brae Place. - a cul-de-sac at the terminus of Thorny-Brae Place. The Bulb design shall be in accordance with C.O.M. Standard 2211.240 for residential cul-de-sacs. - The existing sight triangle will require enlargement to provide a 15.0m by 15.0m Sight Triangle at the South-East corner at the intersection of Mississauga Road and Eglington Avenue West. - 7.5m by 7.5m sight triangles are required on the North-East and South-East corners of Thorny Brae Place and Mississauga Road. - 3.0m walkway in between Block 1 and 2, from Thorny-Brae Place to Eglinton Avenue West, in accordance with C.O.M. Standard 2240.050 Standard Concrete Walkway. The dimensions related to to the dedication are to be verified by the City's O.L.S., Al Jeraj at 905-615-3200 ext. 5789. Upon receipt of the confirmed requirements, the applicant is to prepare and submit two draft reference plans (detailing the required land dedications) to this section as part of the next submission for review and approval. **Created :** 2018-03-08 03:32:25 **Last Modified :** 2018-03-29 10:14:08

TRANSPORTATION AND WORKS

TRAFFIC REVIEW (PPP)

Contact: Giancarlo Tedesco Tel. (905) 615-3200 x4191

No	Milestone	Condition
3	RECOMMENDATION REPORT	Revisions are to be made on necessary plans to address the following: - Include the radius of the cul-de-sac Right-of-Way and to the edge of pavement. - The proposed sidewalk along Thorny-Brae Place are to be shown. - The circular curb in the centre of the cul-de-sac is to be removed. - The sidewalk along the north side of Thorny-Brae Place is to continue around the cul-de-sac to provide a walkway to Block 4 and 5 units. **Created :** 2018-03-08 02:38:21 **Last Modified :** 2018-03-29 10:14:08
4	NOTE:	CVC's approval is required regarding the encroachment of the cul-de-sac road Right-of-Way within the LTSSL 10m buffer. **Created :** 2018-03-08 02:38:21 **Last Modified :** 2018-03-29 10:14:08
5	NOTE:	The cost for any/all road improvements required in support of this development application will be borne by the owner. The applicant shall make satisfactory arrangements with the Transportation and Works Department for the design, construction and payment of all costs associated with works necessary in support access to this site. **Created :** 2018-03-08 01:41:35 **Last Modified :** 2018-03-29 10:14:08

TRANSIT REVIEWER

Contact: Alana Tyers Tel. (905) 615-3200 x3812

No	Milestone	Condition
1	RECOMMENDATION REPORT	This site is currently serviced by MiWay Transit Route on Mississauga Road and Eglinton Ave. The drawings are to clearly show the location of the existing bus stop/shelter along Mississauga Rd and Eglinton Ave fronting the subject site. The appropriate drawings are to illustrate a 15meter clearance from the end of the curb radius (in both directions) at the Mississauga Rd and Eglinton Ave intersection. **Created :** 2018-03-27 11:44:59 **Last Modified :** 2018-03-29 10:14:37
2	NOTE:	The cost of any boulevard improvements/reinstatement, including any impact to MiWay Transit infrastructure, as necessary to accommodate this development shall be borne by the developer. Should any road/boulevard works be proposed that impact any existing transit infrastructure or service the applicant is advised to contact MiWay Transit's Infrastructure Management Section at 905 615-3200 ext. 3825 at least two weeks prior to construction/installation. **Created :** 2018-03-27 11:44:59 **Last Modified :** 2018-03-29 10:14:37

TRANSPORTATION AND WORKS

TRANSIT REVIEWER Contact: Alana Tyers Tel. (905) 615-3200 x3812

No	Milestone	Condition
3	NOTE:	Please ensure that convenient and accessible pedestrian linkages are provided between the site, the existing sidewalk network, and MiWay service. Pedestrian walkway connections to the existing municipal sidewalk are necessary to reduce walking time and encourage transit use. They also play an important role in transportation, as they provide a safe path for people to walk along and help to provide equal access to people who cannot drive. Boulevard areas at intersections are to be barrier-free (i.e. minimize any above ground utilities/street furniture along the boulevard at intersections) and be hard surface treatment for accessibility. It is important that at these locations, maximum pedestrian movement and that a clearance be provided to protect for future transit service and infrastructure to encourage public transit use and improve service. **Created :** 2018-03-27 11:56:36 **Last Modified :** 2018-03-29 10:14:37
4	NOTE:	MiWay Five is the plan for evolving public transit in Mississauga over the five years from 2016 to 2020. It will provide a comprehensive review of where transit operates, when it operates, and how frequently. Once completed, the plan will define MiWay's service standards for the next five years with the goal of making public transit more efficient and reliable. The plan also sets the stage for future transit expansion based on the following five guiding principles: responding to the customer; linking key destinations; connecting regional neighbours; preparing for rapid transit; and, supporting the city's growth. **Created :** 2018-03-27 11:56:36 **Last Modified :** 2018-03-29 10:14:37
5	NOTE:	File is under review and comments will be submitted with the next circulation. **Created :** 2018-03-28 03:17:25 **Last Modified :** 2018-03-29 10:14:37

COMMUNITY SERVICES

PLANNER - COMM SERVICES Contact: Ibrahim Dia Tel. (905) 615-3200 x3108

No	Milestone	Condition

COMMUNITY SERVICES

PLANNER - COMM SERVICES

Contact: Ibrahim Dia Tel. (905) 615-3200 x3108

No	Milestone	Condition
2	DRAFT APPR	CASH IN LIEU OF PARKLAND - DRAFT PLAN CONDITION The following shall not be listed as a draft plan condition but included under the NOTE section. NOTE: The City has not required either the dedication of land for park or other public recreational purposes, or a payment of money in lieu of such conveyance as a condition of subdivision draft approval authorized by Section 51.1 of the Planning Act, R.S.O. 1990, c.P.13 as amended. The City will require payment of cash-in-lieu for park or other public recreational purposes as a condition of development for each lot and block, prior to the issuance of building permits pursuant to Section 42(6) of the Planning Act, R.S.O. 1990, c.P.13, as amended, and in accordance with the City's policies and by-laws. **Created :** 2018-04-16 04:21:45 **Last Modified :** 2018-07-12 02:01:42
3	NOTE:	TREE PRESERVATION Arrangements for the preservation of as many of the existing trees on site as possible will be made through the site plan and landscape approval process. **Created :** 2018-04-16 04:22:48 **Last Modified :** 2018-07-12 02:01:42
3	RECOMMENDATION REPORT	TOP OF BANK STAKING The top-of-bank and natural features line shall be established to the satisfaction of the CVC and the Community Services Department. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42
5	NOTE:	PAYMENT OF CIL The applicant is advised that the City of Mississauga will not require either the conveyance of land for park or other public recreational purposes, or a payment of money in lieu of such a conveyance as a condition of subdivision draft approval for T-M17006 authorized by Section 51.1 of the Planning Act R.S.O. 1990, c.P. 13 as amended. The applicant is put on notice that City By-laws and policies require the payment of cash-in-lieu for park or other public recreational purposes for this application pursuant to Section 42(6) of the Planning Act, as a condition of development for all lots or block prior to the issuance of building permits. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42

COMMUNITY SERVICES

PLANNER - COMM SERVICES Contact: Ibrahim Dia Tel. (905) 615-3200 x3108

No	Milestone	Condition
5	REGISTRATION	STREET TREE PAYMENT Payment in cash or certified cheque will be required to cover the cost of planting street trees, up to 60 mm caliper, on Thorny Brae Place in accordance with current City standards. The current rate is $535.82 per tree for every 10 m of frontage. The rate is subject to change pursuant to the City's most recent Fees and Charges Bylaw. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42
7	REGISTRATION	GREENBELT DEDICATION All lands below the established top-of-bank, natural features line, the Regional storm floodplain, or within the stability and/or erosion component of the valley slope, whichever is greater, shall be deeded gratuitously to the City as greenbelt for conservation purposes and shall be appropriately zoned. It is recommended that the identified 10 metre buffer from the natural features line be deeded gratuitously to the City as greenbelt for conservation purposes and shall be appropriately zoned. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42
8	SERV AND/OR DEV. AGT	WARNING CLAUSES REQUIRED Warning clauses may be required for the following types of items: - street trees - tree preservation - hoarding - fencing - recreational facilities - pathways and trails - naturalized areas These clauses may be required to be entered in the Servicing Agreement and / or the Development Agreement prior to registration. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42
10	SERV AND/OR DEV. AGT	WARNING CLAUSE REQUIRED - RECREATIONAL USES A warning clause shall be entered into the Development Agreement - Schedule B and into all Offers of Purchase and Sale, as well as registered on the titles of all lots and blocks, advising potential purchasers that the adjacent greenbelt will contain a bicycle/pedestrian pathway. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42

COMMUNITY SERVICES

PLANNER - COMM SERVICES Contact: Ibrahim Dia Tel. (905) 615-3200 x3108

No	Milestone	Condition
11	SERV AND/OR DEV. AGT	LEGAL DESCRIPTIONS REQUIRED Legal descriptions of all lands to be deeded to the City as parkland shall be listed in Schedule B of the Servicing Agreement. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42
12	SERV AND/OR DEV. AGT	The following clause shall be entered into the Development Agreement - Schedule B: 1. Community Services Department a) Prior to the issuance of building permits for all lots and blocks within the plan of subdivision, satisfactory arrangements shall have been made with the Park Planning Section of the Community Services Department and the Realty Services Section of the Corporate Services Department with respect to the payment of cash-in-lieu for park or other public recreational purposes. The owner is advised that the City will require the payment of cash-in-lieu for park or other public recreational purposes as a condition of development prior to the issuance of building permits, and valued as of the day before the day of building permit issuance pursuant to Section 42(6) of the Planning Act and City of Mississauga by-laws and policies. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42
13	SERV AND/OR DEV. AGT	WARNING CLAUSE - SCHEDULE B The following clause shall be entered into the Servicing Agreement - Schedule B: a) The Developer and the City acknowledge that the City of Mississauga has not required either the dedication of land for park or other public recreational purposes, or a payment of money in lieu of such a conveyance (cash-in-lieu for park or other public recreational purposes) as a condition of subdivision draft approval authorized by Section 51.1 of the Planning Act, R.S.O. 1990, c.P. 13 as amended. The developer further acknowledges that City by-laws and policies require the payment of cash-in-lieu for park or other public recreational purposes for the development of all lots and blocks pursuant to Section 42(6) of the Planning Act, as a condition of development of the land prior to the issuance of building permits. b) The Developer acknowledges that the City has agreed to accept cash-in-lieu for park or other public recreational purposes prior to the issuance of building permits for all lots and blocks and shall be estopped for itself and its heirs and assigns from asserting any claim for a reduction of land or cash-in-lieu for park or other public recreational purposes requirements based upon the decision of the City to waive its rights under the Planning Act to require land or cash-in-lieu for park or other public recreational purposes a condition of subdivision approval. **Created :** 2018-04-16 02:48:58 **Last Modified :** 2018-07-12 02:01:42

File: 21T-M 17006
Proposal: Seven blocks of townhouses (34 units) and one detached dwelling

COMMUNITY SERVICES

LANDSCAPE ARCH - COMM SERVICES

Contact: Tel.

No	Milestone	Condition
1	NOTE:	TOP OF BANK STAKING The top-of-bank and natural features line shall be established to the satisfaction of the CVC and the Community Services Department. Please refer to Community Services Planner for additional comments. **Created :** 2018-07-12 02:14:21 **Last Modified :** 2018-07-12 02:15:20
2	RECOMMENDATION REPORT	Page 9, Section 4.3.1 ? For consistency/clarity, ELC should be classified according to Lee et al. 1998, as this is the approved classification system for Ontario. **Created :** 2018-07-31 05:06:37 **Last Modified :**
3	RECOMMENDATION REPORT	Page 17, Section 4.4.1.1 ? The first breeding bird survey was conducted late in the season; potentially missing early nesting species. If the study completed by Dougan & Associates (2009) included wildlife surveys for birds, please include an analysis of that data in the report. **Created :** 2018-07-31 05:13:24 **Last Modified :**
4	RECOMMENDATION REPORT	Section 6.3.10 of the Mississauga Official Plan states that, ?the exact limit of components of the Natural Heritage System will be determined through site specific studies such as an Environmental Impact Study.? This has yet to be completed, and as such, the impacts, policy conformity, and mitigation identified in the report cannot be accurately addressed. As such, a site visit with City and CVC staff should be coordinated to confirm the limit of the Natural Heritage System (NHS) feature. **Created :** 2018-07-31 05:13:24 **Last Modified :**
5	NOTE:	Additional comments will be provided upon reciept of any new information. **Created :** 2018-07-12 02:27:18 **Last Modified :** 2018-07-31 05:13:24

HERITAGE PLANNER

Contact: Paula Wubbenhorst Tel. (905) 615-3200 x5385

No	Milestone	Condition
1	NOTE:	The property is listed on the City's Heritage Register as it forms part of the Mississauga Road and Credit River Corridor cultural landscapes. It also has archaeological potential. Heritage and archaeological concerns have been addressed. **Created :** 2018-02-01 11:21:13 **Last Modified :**

CANADA POST CORPORATION

CANADA POST CORPORATION

Contact: Jenifer Giles Tel. (905) 206-1247 x2023

No	Milestone	Condition

CANADA POST CORPORATION

CANADA POST CORPORATION Contact: Jenifer Giles Tel. (905) 206-1247 x2023

No	Milestone	Condition
1	DRAFT APPR	Mail delivery to this proposed development will be to Community Mailbox. The existing Community Mailbox near the existing homes on this street will need to be relocated and reconfigured to add more mailboxes to serve the additional homes proposed. A cement pad will be required for the new location of this Community Mailbox. Note that there may be new postal codes created, please confirm with our Delivery Planning department, not just with customer service. **Created :** 2018-03-12 09:51:17 **Last Modified :**

CREDIT VALLEY CONSERVATION

CREDIT VALLEY CONSERVATION Contact: Maricris Marinas Tel. (905) 670-1615 x220

No	Milestone	Condition
1	NOTE:	Ontario Regulation 160/06: The property is subject to the Development, Interference with Wetlands, and Alterations to Shorelines & Watercourses Regulation (Ontario Regulation 160/06). This regulation prohibits altering a watercourse, wetland or shoreline and prohibits development in area adjacent to Lake Ontario shoreline, river and stream valleys, hazardous lands and wetlands, without the prior written approval of Credit Valley Conservation (CVC) (i.e. the issuance of a permit). **Created :** 2018-03-15 08:55:37 **Last Modified :**
2	NOTE:	Site Characteristics: The subject property is located within the valley system and regulatory floodplain of the Credit River and contain Environmentally Significant Areas (ESAs). It is the policy of CVC and the Province of Ontario to conserve and protect the significant physical, hydrological and biological features and functions of the above noted characteristics and to recommend that no development be permitted which would adversely affect the natural features or the ecological functions of these areas. In addition, the subject property contains Regional Core Greenlands and falls within the City of Mississauga¿s Natural Heritage System (NHS) ¿ designated as Significant Natural Site under the City¿s Natural Areas Survey. Region of Peel and City of Mississauga staff are to be consulted to confirm the proposed development is consistent with the applicable Official Plan policies. **Created :** 2018-03-15 08:55:38 **Last Modified :**
3	NOTE:	OPA/OZ 17/018- Comments have been provided regarding the staking of the natural feature. Please see the ASR for OPA/OZ 17/018. **Created :** 2018-03-15 08:55:38 **Last Modified :**

CREDIT VALLEY CONSERVATION

CREDIT VALLEY CONSERVATION Contact: Maricris Marinas Tel. (905) 670-1615 x220

No	Milestone	Condition
4	INFO REPORT	Dripline Staking: The subject property contains a number of hazards and natural features and areas. Field staking takes places as part of the planning process to assist CVC staff with implementation of CVC's Watershed Planning and Regulation Policies (April 2010) as well as support partner municipalities in defining the limits of natural heritage features and areas to be protected ? in support of developing or defining the limits of natural features within their NHS. Field staking of on-site features is an important component and initial step in field verification of existing conditions. During pre-consultation for the subject property, CVC staked the top of slope of the valleyland in 2004. Consistent with comments provided in 2015, the top of bank was reconfirmed and although advised that delineation of the natural features was required, to our knowledge, the limit of the woodland and ESA have yet to be staked by City and CVC staff. As a result, a site visit to stake the limit(s) of the woodland and ESA is to be coordinated through the City with City and CVC staff in attendance as well as an Ontario Lands surveyor. Upon delineation of these features, the impacts of the proposed development can be appropriately assessed through updates to the EIS which will inform the limit of development on the subject property. In light of this, CVC considers the applications premature until the above has been addressed. The above information was also provided to the applicant and City via an email sent on February 6, 2018. **Created :** 2018-06-08 12:16:09 **Last Modified :**
5	INFO REPORT	Feature Staking: Jun 8/18- As identified throughout the years and highlighted in the previous comment, onsite staking with CVC and City staff in attendance is required in order to confirm the limits of some of the natural heritage system components, notably, ESA, significant woodland, (candidate) significant wildlife habitat) and significant valleyland. Pre-staking is to be done in advance of the June 19 site visit with the purpose of visit being to allow agencies to review and finalize the boundary. The staking should encompass the natural heritage system composed of the following ELC vegetation communities: Unit 5a FOD 7; Unit 5b FOD7-2; Unite 4 FOD 7-1, Unit 6B CUW1; HR. Where the TOB/LTSS is beyond the limit of the vegetation unit, the limit of the NHS should follow the TOB/LTSS. The constraints map, Figure 6, and associated discussion in section 5.2.2 will likely need to be updated based on the assessment and staking of the NHS and comments made herein. As previously identified, it is recommended the project ecologist be present during the site visit. **Created :** 2018-06-08 12:16:07 **Last Modified :**

CREDIT VALLEY CONSERVATION

CREDIT VALLEY CONSERVATION Contact: Maricris Marinas Tel. (905) 670-1615 x220

No	Milestone	Condition
6	DRAFT APPR	Delineation of NHS: Jun 8/18- The submitted EIS (prepared by WSP, dated Dec 2017) provides a framework for further assessment; however, as previously identified, delineation and further discussion of the natural features and areas presented require additional discussion in the context of existing boundaries. Information regarding the delineation and assessment of the natural heritage system and significant features appears in several sections (5, 6, Appendix I, etc.) of the EIS. Much of the determination of significance was based on existing official plan mapping. However, it is the objective of the site specific EIS to determine and delineate the natural heritage system (and its components) that is reflective of the text of the Official Plan policies and that reflects the current site conditions in addition to those that may already be known and mapped. In addition to the required staking exercise, the following comments are provided to assist in finalizing existing site characteristics and are to be formally addressed: i) Significant Woodland: Based on the information provided the EIS, the woodland on the subject site (which also extends beyond the site) is >0.5ha in size, within 30m of a watercourse, on average >40m wide and contains both FOD and CUW communities. As such, the following communities should be considered part of the significant woodland consistent with the City of Mississauga?s OP definitions: Unit 5a, Unit 5b, Unit 4, Unit 6b. The Hedgerow community (HR) should also be examined for inclusion given that it is treed and contiguous with the FOD and CUW communities. Unit 3, a CUT community that is partially below top of bank is small (<0.5ha, and narrow) and could be considered an inclusion in the FOD and/or CUW communities that almost fully circumscribe it; as such it would also be considered for inclusion in the significant woodland. Please review, discuss and update the EIS accordingly. Please note that the significant woodland is considered a significant natural area in the City?s OP and a Natural Area and Corridor within the Region of Peel Greenlands. **Created :** 2018-06-08 12:16:10 **Last Modified :**
7	DRAFT APPR	Delineation of NHS (cont.): Jun 8/18- In addition to the required staking exercise, the following comments are provided to assist in finalizing existing site characteristics and are to be formally addressed: ii) Significant Valleyland: All areas below top of bank/long-term stable slope are considered part of the significant valleyland feature. Please review, discuss and update the EIS accordingly. Please note the significant valleyland is considered a significant natural area in the City?s OP and a Core Area within the Region?s Greenlands. **Created :** 2018-06-08 12:16:07 **Last Modified :**

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No	Milestone	Condition
8	DRAFT APPR	Delineation of NHS (cont.): Jun 8/18- In addition to the required staking exercise, the following comments are provided to assist in finalizing existing site characteristics and are to be formally addressed: iii) Significant Wildlife Habitat: The description of candidate SWH presented in Appendix E of the EIS is satisfactory. As such, provide a figure depicting the boundaries of the candidate SWH identified in Appendix E to ensure that the constraints are accurately identified in the determination of the limit of development. Please note the SWH is considered a significant natural area in the City?s OP and NAC within the Region?s Greenlands. **Created :** 2018-06-08 12:16:07 **Last Modified :**
9	DRAFT APPR	Delineation of NHS (cont.): Jun 8/18- In addition to the required staking exercise, the following comments are provided to assist in finalizing existing site characteristics and are to be formally addressed: iv) Environmentally/Ecologically Significant Area (ESA): As per the Region and City?s OPs, the limits of the ESA are determined by the Conservation Authority. Based on site visits conducted throughout the years, the ESA on the subject property has undergone considerable regeneration and expansion into the tableland areas. ESAs contain concentrations of ecological functions, therefore, based on the information in the EIS the following contiguous forested communities are considered part of the ESA: Unit 5a, Unit 5b, Unit 4, Unit 6b, Unit 3 (as an inclusion in the larger FOD 7/FOD7-1) and the Hedgerow (potentially, as related to the woodland ? see significant woodland comment). In addition, all areas below top of bank/long-term stable slope are also considered part of the ESA as a component of the valleyland, as well as any areas noted to be candidate SWH and habitat for endangered species. Please review, discuss and update the EIS accordingly. Please note the ESA is considered a significant natural area in the City?s OP and a Core Area within the Region?s Greenlands. **Created :** 2018-06-08 12:16:09 **Last Modified :**

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No	Milestone	Condition
10	DRAFT APPR	Delineation of NHS (cont.): Jun 8/18- In addition to the required staking exercise, the following comments are provided to assist in finalizing existing site characteristics and are to be formally addressed: v) Fish Habitat: The Credit River in this location is considered fish habitat. The drainage feature would also be considered fish habitat as it provides indirect habitat via the provision of flow, food and nutrients to the Credit River downstream. An HDF assessment was undertaken according to CVC guidelines to assess impacts to the HDF and determine management recommendations. Although the recommendation provided in Table 4 indicates no management is required for the HDF, review of the provided information in the EIS as well as on site observations, it appears that the management recommendation aligns more closely with conservation or mitigation. In this particular case, the option of relocation and modification of the HDF to ensure functions are preserved (e.g.: flow, provision of nutrients, sediments, water quality polishing, etc.) is viable. Please identify/discuss how the proposed LID (pg39) will address this. It is recommended that enhanced lot level conveyance measures connected to the downstream protected areas could be a reasonable approach. Please note that Fish Habitat is considered a significant natural area in the City?s OP and a NAC within the Region?s Greenlands. **Created :** 2018-06-08 12:16:08 **Last Modified :**
11	DRAFT APPR	Delineation of NHS (cont.): Jun 8/18- In addition to the required staking exercise, the following comments are provided to assist in finalizing existing site characteristics and are to be formally addressed: vi) Habitat of Endangered Species: Following up on the direction stated in the EIS (pg23), confirmation from MNRF is to be provided to ensure concerns related to species at risk have been addressed to its satisfaction. It is noted that woodland habitat is proposed to be removed that may be functionally related to species at risk bat habitat (in particular, bats). The appropriateness of the SAR bat surveys and assessment is to be reviewed and confirmed by MNRF. Please provide confirmation of consultation with MNRF. Please note that habitat for endangered species is considered a significant natural area in the City¿s OP and (significant habitat) a Core Area within the Region¿s Greenlands. **Created :** 2018-06-08 12:16:08 **Last Modified :**
12	DRAFT APPR	Mitigation/Restoration: Jun 8/18- Upon confirmation/approval of the NHS and limit of development, the EIS is to be updated to describe the recommended mitigation and restoration opportunities/ requirements to address the potential impacts ¿ it is CVC¿s expectation that an ecological gain is to be demonstrated. At this time it is premature prior to the identification of the features to comment on the proposed mitigation and restoration. **Created :** 2018-06-08 12:16:08 **Last Modified :**

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No	Milestone	Condition
13	DRAFT APPR	SWH, Snake Hibernaculum: Jun 8/18- Sufficient mitigation to address potential impacts to the candidate significant wildlife habitat associated with snake hibernacula is required. The EIS indicates that there is candidate snake hibernacula present in the subject site along exposed rock areas on the valley slope, which are the areas within the outfall channel which will be disturbed for the new outfall. As no follow up surveys have been completed to determine whether snake hibernacula is present on site, the candidate status is supported and mitigation is to be implemented to ensure no negative impacts occur to the SWH. This mitigation can take the form of preservation of the candidate feature (and a buffer) or instituting redundancy into the system by recreating habitat elsewhere on the site. Please clarify the mitigation proposed to address potential impacts to the SWH. **Created :** 2018-06-08 12:16:08 **Last Modified :**
14	DRAFT APPR	SWH, Woodland Raptor Nesting Habitat: Jun 8/18- Please clarify if specific nest searches were undertaken to determine the presence/absence of nesting of Cooper¿s hawk as it was observed in the breeding bird surveys. Appendix E of the EIS appears to indicate this; however, no details were provided. In the absence of this, the EIS¿s determination that the site contains candidate SWH related to Cooper¿s hawk (FOD 7 communities) is supported. Please provide identify/discuss additional mitigation measures to maintain and restore the habitat given the extensive potential adjacent disturbance from the site development. The following are suitable approaches for consideration: i) inclusion of buffers to the FOD 7 areas to be reforested to enhance the edge condition, and, ii) activity restriction within the woodland raptor nesting areas between March and end of July for Cooper¿s hawk (as per recommendations in the SWH MIST, index 27). **Created :** 2018-06-08 12:16:09 **Last Modified :**
15	DRAFT APPR	Tree Inventory, Preservation Plan: Jun 8/18- As part of the scoped EIS TOR, it was identified that all trees >10cm DBH be identified within the tree inventory. It appear that the plans have captured trees >15cm DBH. As indicated in the EIS many of the woodland communities on site are in an active state of regeneration and succession, and many of the individual trees are small diameter and hence not considered within the current tree inventory and preservation plan. Please discuss the rationale regarding this deviation. Also, please note that further discussion around compensation and restoration will be required once the limits of development have been established. **Created :** 2018-06-08 12:16:08 **Last Modified :**
16	DRAFT APPR	Wetland Vegetation: Jun 8/18- Based on observations made during previous site visits, an area of wetland vegetation was observed on the north side of the existing Thorny Brae Place road, along the swale draining into the existing culvert. This area appeared to be dominated by wetland vegetation including Phalaris arundinacea and Lythurm salicaria. Please update the EIS to provide discussion on this vegetation and how it will be addressed. **Created :** 2018-06-08 12:16:08 **Last Modified :**

CREDIT VALLEY CONSERVATION

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No	Milestone	Condition
17	DRAFT APPR	Hedgerow: Jun 8/18- Please update Section 4.3.3 and Table 1 in the EIS to discuss the hedgerow community identified on the vegetation and flora mapping (Figure 3). Given its location adjacent to wooded communities proposed for removal a discussion of its current composition and its relevance to the woodland boundary is to be provided. **Created :** 2018-06-08 12:16:04 **Last Modified :**
18	DRAFT APPR	LIDs: Jun 8/18- The EIS (pg39) indicates that LIDs will be incorporated at detailed design; however, a conceptual understanding of how and where these would be located is required at this stage in order to assess feasibility. Please provide the high-level LID concepts being considered. Please note LIDs should be outside any required buffers to the natural heritage system. **Created :** 2018-06-08 12:16:06 **Last Modified :**
19	DRAFT APPR	EIS, Recommendations: Jun 8/18- Please update the EIS to aid in guiding detailed design as it relates to enhancement: i) Provide direction regarding the removal of existing garbage, debris, materials and structures (likely temporary) within the natural feature (valleyland area directly adjacent the Credit River). It is recommended that all existing garbage, debris, and structures within the natural feature should be removed and the area be restored to a natural condition in order to restore function to the NHS and hazard lands. ii) Provide direction on specific invasive species, opportunities and locations that should be the target of invasive species management as per the detailed field work. **Created :** 2018-06-08 12:16:05 **Last Modified :**
20	DRAFT APPR	EIS: Jun 8/18- The EIS generally aligns with the scoped EIS TOR and subsequent comments. Please address the following which were identified as part of the EIS TOR: i) Include the original data cards (or copies thereof) of completed biological inventories (e.g.: ELC) as an appendix. ii) Provide a map indicating the location of the breeding bird surveys to ensure that the appropriate communities have been covered and areas searched. iii) Provide a map identifying the locations that were surveyed for snag trees is to be provided. Further, the map is to confirm whether the survey included all areas of FOD units 5a, 5b and 4. iv) Clarify whether post-construction monitoring is recommended and if so, provide the components of the monitoring plan. **Created :** 2018-06-08 12:16:06 **Last Modified :**
21	DRAFT APPR	EIS: Jun 8/18- The EIS (Section 6.3.2.3) continues to indicate that no development or site alteration is proposed within the valley; however, it is clear that the outfall works and associated grading are inside this valley portion. Please amend this portion of the EIS to acknowledge the works occurring within the valley. **Created :** 2018-06-08 12:16:06 **Last Modified :**
22	DRAFT APPR	EIS: Jun 8/18- Pg 42: Please identify the appropriate regional nesting period timing window for this area in order to guide the future implementation of these works to be in compliance with the MBCA. **Created :** 2018-06-08 12:16:07 **Last Modified :**

CREDIT VALLEY CONSERVATION

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No	Milestone	Condition
23	DRAFT APPR	EIS: Jun 8/18- Section 6.2.1.1: Please note that American Eel is present in the Credit River and is considered a species at Risk. Discussion on pg43 and Appendix F are to be updated to reflect this. **Created :** 2018-06-08 12:16:06 **Last Modified :**
24	DRAFT APPR	EIS: Jun 8/18- Pg10 indicates that Euphrasia hudsoniana was found within the study area; however this species does not appear within the vegetation inventory table C.1. Please discuss the location at which this species was observed, suspected provenance and potential impacts from development. Note that this species has not been recorded in CVC¿s watershed and appears to be related to more northern climates. **Created :** 2018-06-08 12:16:06 **Last Modified :**
25	DRAFT APPR	EIS, Administration: Jun 8/18- Please correct the error in the link that is mentioned in the EIS on pg6, section 4.0. **Created :** 2018-06-08 12:16:06 **Last Modified :**
26	NOTE:	Enhancement Plan: Jun 8/18- At the detailed design stage, an enhancement plan is to be provided that demonstrates how impacts are being mitigated to the NHS. In anticipated of this please consider the following: i) The plans must be prepared by a qualified professional such as an ecologist or landscape architect. ii) The plans must be informed by direction provided in the EIS regarding specific invasive species, opportunities and locations that should be the target of the invasive species management. iii) The plans must implement the direction on the removal of garbage and debris from within the natural features as per recommendations within the EIS. **Created :** 2018-06-08 12:16:06 **Last Modified :**
27	NOTE:	Rare, Uncommon Species: Jun 8/18- At the detailed design stage, a transplant and relocation plan may be required for several rare and uncommon species noted for areas that are proposed to be developed (in keeping with the recommendations in Table 5). Determination will be dependent on the ultimate limit of disturbance. **Created :** 2018-06-08 12:16:06 **Last Modified :**
28	DRAFT APPR	Floodplain: Jun 8/18- Please delineate the regulatory flood elevation of 133.61m (associated with the Credit River) on a geodetic survey (Site Plan/Grading Plan). **Created :** 2018-06-08 12:16:03 **Last Modified :**

CREDIT VALLEY CONSERVATION

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No	Milestone	Condition
29	DRAFT APPR	Slope Stability: Jun 8/18- The Slope Stability Study Addendum (prepared by Soil Engineers Ltd, dated Dec 22, 2016) states: we have received detailed topographic contour information of the valley bank; (page 2) the surface profile of each section is interpreted from the contour and spot elevations on the Topographic Plan prepared by Schaeffer Dzalov Bennett Ltd. However, the contour information provided in Dwg No: REV is not readable. Please update Drawing REV to provide the following: i) readable contour information, ii) CVC staked top of bank, iii) stable setback measurement for each section, iv) source of contour information, v) City of Mississauga Datum and relevant benchmark, vi) large, hardcopy of the drawing that is properly scaled, vii) signed and sealed by professional engineer or Ontario Land Surveyor. NOTE: Upon submission of the required contour information, CVC will be in a position to complete review of the LTSSL analysis. **Created :** 2018-06-08 12:16:03 **Last Modified :**
30	DRAFT APPR	Slope Stability: Jun 8/18- Based on the contour information provided in Fig REV (of the Slope Stability Addendum) and the Grading Plan, the contours do not appear to correspond to each other for the very upstream portion of the drainage feature. Please clarify/revise. **Created :** 2018-06-08 12:16:01 **Last Modified :**
31	DRAFT APPR	Slope Stability: Jun 8/18- Based on the Slope Stability Study Addendum, the valley slope along the drainage feature appears to be steeper than 3:1 and not stable. Please provide additional sections along the drainage ditch and perform the slope analysis with the LTSSL. Figure identifying sections of interest have been emailed to Armstrong Planning. **Created :** 2018-06-08 12:16:04 **Last Modified :**
32	DRAFT APPR	Slope Stability: Jun 8/18- Please confirm whether the high seasonal groundwater condition was measured and analyzed ¿ no information is provided within the study or addendum. If not, please provide the slope stability analysis with an elevated groundwater condition (1 to 2m below grade) and a minimum factor of safety of 1.3 for this condition. **Created :** 2018-06-08 12:16:03 **Last Modified :**
33	DRAFT APPR	Slope Stability: Jun 8/18- Provide a table with the factor safety and stable setback for each section. **Created :** 2018-06-08 12:16:03 **Last Modified :**
34	DRAFT APPR	Slope Stability: Jun 8/18- The Slope Stability Study Addendum states: LTSSL generally coincides with the existing top of slope around the drainage channel. Based on Dwg # 7, section C-C the staked top of bank is the greater constraint (TOB > LTSSL). As such, please provide the distance from the CVC staked top of bank to the LTSSL on drawing and revise the statement accordingly. **Created :** 2018-06-08 12:16:03 **Last Modified :**

CREDIT VALLEY CONSERVATION

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No	Milestone	Condition
35	DRAFT APPR	SWM, Erosion: Jun 8/18- Please address Erosion Criteria: At a minimum detain 5 mm on site where conditions do not warrant the detailed analyses described in Section 4.3. of CVC¿s Stormwater Management Criteria . Please provide the proposed concept identifying how the Erosion Criteria will be met as well as the conceptual design and supportive calculations. **Created :** 2018-06-08 12:16:03 **Last Modified :**
36	DRAFT APPR	SWM: Jun 8/18- Please update the Functional Servicing Report (prepared by Cole Engineering, dated Dec 2017) such that it identifies that all calculations for pre and post development flows at the existing outlet (identified in Table 6.1) are provided in Report Stormwater Management Design Brief, prepared by Cole Engineering dated June 29, 2017. Please update the report to make this reference. **Created :** 2018-06-08 12:16:03 **Last Modified :**
37	DRAFT APPR	SWM: Jun 8/18- The FSR (page 5) states: major flows in excess of the 10 year storm event on Thorny Brea Place are conveyed within Right of way limits of Thorny Brea and directed to Credit Valley system. Please show the flow path on the Grading Drawing (SG-01). **Created :** 2018-06-08 12:16:03 **Last Modified :**
38	DRAFT APPR	Grading Plan: Jun 8/18- Please update the Grading Plan with the following: i) Provide contour information for the slope extending towards the Credit River. ii) Identify the long term stable slope line and make reference to the approved Geotechnical Report (Note: Geotechnical Report still requires additional review and is therefore not yet approved ¿ require missing information including contours needed to confirm the LTSSL; details provided in subsequent ASR comment). iii) Identify/add Sections A-E from the Geotechnical Report. iv) Provide the source details for the contour information. v) Add the City of Mississauga Datum and relevant benchmark. vi) Plan is to be signed and sealed by a professional engineer. **Created :** 2018-06-08 12:16:09 **Last Modified :**
39	DRAFT APPR	Site Plan, ESC: Jun 8/18- Please locate the Erosion Sediment Control fence and provide the detail according to City of Mississauga Standards (re. Detail STD: 2830-4) and add the following ESC notes on the Site Plan: i) Additional erosion and sediment control materials (i.e. silt fence, straw bales, clear stones ¿ etc) are to be kept on site for emergencies and repairs. ii) Erosion and sediment controls methods are to be continuously evaluated; and upgrades are to be implemented, when necessary. iii) The contractor is ultimately responsible for controlling sediment & erosion within the construction site for the total period of the construction. The sediment laden water will not be allowed to discharge to the creek. iv) An after hours contact number is to be visibly posted on-site for emergencies. Plans and Reports: Jun 8/18- All final plans and reports are to be signed and sealed by qualified professionals. **Created :** 2018-06-08 12:16:09 **Last Modified :**

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No	Milestone	Condition
40	DRAFT APPR	Storm Drainage Plan: Jun 8/18- Please provide the Storm Drainage Plan (Dwg ST-01). **Created :** 2018-06-08 12:16:10 **Last Modified :**
41	DRAFT APPR	Survey: Jun 8/18- Please update the Survey Plan (prepared by B.A. Jacobs Surveying Ltd., dated Apr 19, 2016) with the following: i) Provide the contours/grad information along the site as well as the slope. ii) Provide the source of the contour information including the City of Mississauga Datum with relevant benchmark. iii) Survey to be signed and sealed by a professional engineer or Ontario Land Surveyor. **Created :** 2018-06-08 12:16:09 **Last Modified :**
42	DRAFT APPR	Site & Concept Plans: Jun 8/18- The Site Plan and Concept Plan (prepared by RN Design Ltd, date May 25, 2017) to be signed and sealed by a qualified professional. **Created :** 2018-06-08 12:16:10 **Last Modified :**
43	NOTE:	Slope: Jun 8/18- Over time the slope may recede to the area of the hazard limit as determined by the Geotechnical Engineer. It is recommended that the distance between any proposed structure and the hazard limit should be maximized to the extent feasible. It has been our experience when hazard lands are lost due to slope failures there is some urgency for an engineered solutions by the residents. These engineered solutions are usually not supported by the Conservation Authority. CVC have the following recommendations for developments near the crest of slope: i) Provide an access point along the crest of the slope. ii) Keep heavy equipment and loads away from the slope. iii) Allow for the re-direction of surface flows away from the slope hazard areas. iv) Provide tableland areas for potential future re-vegetation and/or re-forestation. v) Maintain healthy trees and vegetation in the hazard and slope areas. vi) Allow for the placement of sediment controls measure and limit of working easement. vii) Do not dispose of garden waste in the hazard or slope areas. Where applicable, the above recommendation should be followed to minimize potential slope hazards. **Created :** 2018-06-08 12:16:10 **Last Modified :**
44	NOTE:	LID: Jun 8/18- CVC staff recommends that the applicant consider if feasible incorporating Low Impact Development (LID) Best Management Practices (BMP) as part of the SWM measures to be employed through the proposed development. Please refer to the following links for guidelines: CVC/TRCA Low Impact Development Planning and Design Guide - http://www.creditvalleyca.ca/low-impact-development/low-impact-development-support/stormwater-management-lid-guidance-documents/low-impact-development-stormwater-management-planning-and-design-guide/ **Created :** 2018-06-08 12:16:10 **Last Modified :**

CREDIT VALLEY CONSERVATION

CREDIT VALLEY CONSERVATION Contact: Maricris Marinas Tel. (905) 670-1615 x220

No	Milestone	Condition
45	NOTE:	Storm Outfall: Jun 8/18- At the detailed design stage, please provide the drawing of the storm outfall and confirm that the storm sewers are consistent with those approved as part of the 4583-4601 Mississauga Road (T 09/002). **Created :** 2018-06-08 12:16:10 **Last Modified :**
46	NOTE:	ESC: Jun 8/18- At the detailed design stage, please provide a comprehensive ESC Plan identifying the direction of flow, cut-off swale, dewatering details, location of stockpile, etc. Please note the EIS states (pg39) that ¿other plans¿ for the outlet works will effectively prevent sedimentation; however, the Thorny Brae development proposes work beyond the outlet and is therefore proposing works that were not addressed in the plans for the outlet. **Created :** 2018-06-08 12:16:10 **Last Modified :**
47	NOTE:	Permit Conditions: Following completion of detailed design and upon issuance of the permit, the following permit conditions, but not limited to, will be applied: - Follow the recommendations of the Slope Stability Study Addendum. **Created :** 2018-06-08 12:16:10 **Last Modified :**
48	DRAFT APPR	Response Letter/Matrix: Through the subdivision process, the proponent is to address all comments and resubmit their revisions for additional technical review for the next formal submission circulated through the City. To expedite the review process, please: i) include a brief but detailed response letter/matrix outlining how each of the comments/items within the ASR has been addressed, ii) ensure all ASR comments are addressed and notes reviewed, and iii) ensure all final drawings and reports are stamped and signed. **Created :** 2018-06-08 12:16:03 **Last Modified :**

DUFFERIN-PEEL CATHOLIC SB

DUFFERIN PEEL CD SCHOOL BOARD Contact: Keith Hamilton Tel. (905) 890-0708

No	Milestone	Condition
1	NOTE:	With respect to the schools currently accommodating students from this area, the above noted application is located in the catchment area of St. Rose of Lima, and proposes a total of 34 townhouse and 1 single detached units, yielding approximately 3 Junior Kindergarten to Grade 8 separate school students. St. Rose of Lima has a capacity of 300 pupil places with a current enrolment of 374 students, and 4 portables/temporary classrooms on site. The application will also yield 2 Grade 9 to 12 separate school students and is located in the secondary catchment area of St. Aloysius Gonzaga; which has a capacity of 1656 pupil places with a current enrolment of 1708, with 0 portables/temporary classrooms on site. **Created :** 2018-02-08 08:54:47 **Last Modified :**

DUFFERIN-PEEL CATHOLIC SB

DUFFERIN PEEL CD SCHOOL BOARD Contact: Keith Hamilton Tel. (905) 890-0708

No	Milestone	Condition
2	NOTE:	Based on the Dufferin-Peel Catholic District School Board's School Accommodation criteria, the Board is satisfied with the current provision of educational facilities for the catchment area in which the subject application is located. The City of Mississauga school accommodation condition need not be applied. **Created :** 2018-02-08 08:54:48 **Last Modified :**
3	PLAN REGISTRATION (SCHEDULE B)	The Board requests that the following conditions be fulfilled prior to the final approval of the zoning by-law: That the applicant shall agree in the Development and/or Subdivision Agreement to include the following warning clauses in all offers of purchase and sale of residential lots. (a) "Whereas, despite the best efforts of the Dufferin-Peel Catholic District School Board, sufficient accommodation may not be available for all anticipated students from the area, you are hereby notified that students may be accommodated in temporary facilities and/or bussed to a school outside of the neighbourhood, and further, that students may later be transferred to the neighbourhood school." (b) "That the purchasers agree that for the purpose of transportation to school, the residents of the subdivision shall agree that children will meet the bus on roads presently in existence or at another place designated by the Board." **Created :** 2018-02-08 08:54:48 **Last Modified :**

GREATER TORONTO AIRPORT AUTH

GREATER TORONTO AIRPORT AUTH Contact: Greg Straatsma Tel. (416) 776-3536

No	Milestone	Condition
1	NOTE:	2018-Feb-02; OZ 17-018 + TM 17006; 1745-1775 Thorny-Brae Place; Airport Zoning Restrictions: According to the Airport Zoning Regulations for Toronto Pearson International Airport, development elevations on the property are not affected by any airport restrictions related to obstacle zoning or aeronautical facilities. GTAA, 416-776-3635, Greg.Straatsma@GTAA.com **Created :** 2018-02-02 09:51:59 **Last Modified :**

PEEL DIST SCHOOL BOARD

PEEL DIST SCHOOL BOARD Contact: Amar Singh Tel. (905) 890-1010 x2217

No	Milestone	Condition

PEEL DIST SCHOOL BOARD

PEEL DIST SCHOOL BOARD Contact: Amar Singh Tel. (905) 890-1010 x2217

No	Milestone	Condition
1	NOTE:	The Peel District School Board has reviewed the above noted application based on its School Accommodation Criteria and has the following comments: The anticipated yield is as follows: K-5 = 7; 6-8 = 3; 9-12 = 7. The students generated are presently within the following attendance areas: Credit Valley PS (Enrolment = 651; Capacity = 655; # of Portables = 5) Thiomas Street Middle (Enrolment = 898; Capacity = 755; # of Portables = 8) John Fraser S.S. (Enrolment = 1,568; Capacity = 1,236; # of Portables = 10). **Created :** 2018-02-15 10:30:56 **Last Modified :**
2	NOTE:	Mississauga Council Resolution 152-98 does not apply to this application. **Created :** 2018-02-15 10:30:56 **Last Modified :**
3	SERV AND/OR DEV. AGT	The Peel District School Board requires the following clause be placed in any agreement of purchase and sale entered into with respect to any units on this plan, within a period of five years from the date of registration of the development agreement: (a) "Whereas, despite the efforts of the Peel District School Board, sufficient accommodation may not be available for all anticipated students in the neighbourhood schools, you are hereby notified that some students may be accommodated in temporary facilities or bused to schools outside of the area, according to the Board's Transportation Policy. You are advised to contact the School Accommodation department of the Peel District School Board to determine the exact schools." (b) "The purchaser agrees that for the purposes of transportation to school the residents of the development shall agree that the children will meet the school bus on roads presently in existence or at another designated place convenient to the Board." **Created :** 2018-02-15 10:30:56 **Last Modified :**
4	SERV AND/OR DEV. AGT	The developer shall agree to erect and maintain signs at the entrances to this development which shall advise prospective purchases that due to present school facilities, some of the children from this development may have to be accommodated in temporary facilities or bused to schools, according to the Board's Transportation Policy. **Created :** 2018-02-15 10:30:56 **Last Modified :**
5	NOTE:	An addition, portables, boundary change and/or school re-organization may be required at the affected school(s) to accommodate the anticipated number of students from this development. **Created :** 2018-02-15 10:30:57 **Last Modified :**

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

No	Milestone	Condition
1	NOTE:	There is a 250mm diameter sanitary sewer and a 150mm diameter watermain on Thorny-Brae Place. There is a 825mm diameter sanitary sewer and a 750mm watermain on Eglinton Avenue West. External easements and construction may be required. **Created :** 2018-03-12 10:28:45 **Last Modified :**
2	SERV AND/OR DEV. AGT	The Developer, at its own expense, is required to replace existing 150mm diameter DI watermain on Thorny-Brae Place from Mississauga Road to the cul-de-sac and to properly abandon existing 50mm watermain connection to 750mm watermain on Eglinton Avenue West. **Created :** 2018-03-12 10:28:43 **Last Modified :**
3	SERV AND/OR DEV. AGT	The Developer acknowledges that the lands are subject to the current Region?s Development Charges By-law. The applicable development charges shall be paid in the manner and at the times provided by this By-law. **Created :** 2018-03-12 10:28:45 **Last Modified :**
4	SERV AND/OR DEV. AGT	Prior to execution of the Subdivision Agreement by the Region, the Developer shall: 1. Obtain and submit to the Region a Residential Development Charges Payment Form completed to the best of the Developer?s knowledge at the time of the submission and to the satisfaction of the Region in accordance with the engineering drawings and final draft M-plan. 2. Pay to the Region the appropriate hard service residential development charges (water, wastewater and road service components), pursuant to the Region's Development Charges By-law, as amended from time to time, calculated based on the information provided in the Residential Development Charges Payment Form. **Created :** 2018-03-12 10:28:44 **Last Modified :**
5	SERV AND/OR DEV. AGT	Provision shall be made in the Subdivision Agreement with respect to: 1. Payment to the Region of appropriate soft service development charges and any outstanding hard service development charges 2. Collection of development charges for future residential development blocks (non-freehold townhouses or apartment blocks); pursuant to the Region's Development Charges By-law, as amended from time to time. **Created :** 2018-03-12 10:28:44 **Last Modified :**

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

No	Milestone	Condition
6	SERV AND/OR DEV. AGT	In respect of the water meter fees:: 1. Prior to registration of the plan of subdivision, the Developer shall pay to the Region the appropriate water meter fees, in accordance with the Region?s Fees By-law, as amended from time to time for residential building lots (singles, semi-detached and freehold townhomes) to the satisfaction of the Region in accordance with the engineering drawings and final draft M-plan for the Lands. 2. A clause shall be included in the Subdivision Agreement that water meter fees for future residential development (non?freehold townhouses or apartment blocks) and commercial blocks shall be payable to the Region prior to issuance of building permits, in accordance with the Region?s Fees By-law, as amended from time to time. 3. A clause shall be included in the Subdivision Agreement that in the event of an underpayment of water meter fees, the Developer shall be responsible for payment thereof forthwith upon request. **Created :** 2018-03-12 10:28:44 **Last Modified :**
7	NOTE:	Prior to servicing, the Developer¿s engineer shall submit all engineering drawings in the digital format to the latest Region¿s Digital Format Guidelines. **Created :** 2018-03-12 10:28:44 **Last Modified :**
8	SERV AND/OR DEV. AGT	A clause shall be included in the Subdivision Agreement that within (60) days of preliminary acceptance of the underground services, the Developer¿s engineer shall submit ¿As-Constructed¿ drawings in digital format, pursuant to the latest Region¿s Digital Format Guidelines. The Developer¿s engineer shall also provide ties to all main line valves, ties to individual water service boxes, linear ties to sanitary sewer services and GPS coordinates of all watermain and sanitary sewer appurtenances in accordance with the latest requirements of the Region ¿Development Procedure Manual¿. **Created :** 2018-03-12 10:28:43 **Last Modified :**
9	REGISTRATION	Prior to registration of the subdivision, the Developer shall execute a Subdivision Agreement with the local municipality and Region for the construction of municipal sanitary sewer, water, and regional roads associated with the lands. The Developer shall construct and design these services in accordance with the latest Region standards and requirements. **Created :** 2018-03-12 10:28:44 **Last Modified :**
10	SERV AND/OR DEV. AGT	Prior to a satisfactory engineering submission, the Developer shall submit to the Region a revised Functional Servicing Report showing the proposed sanitary sewer, storm sewer and water servicing plans for the development for review and approval. **Created :** 2018-03-12 10:28:44 **Last Modified :**

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

No	Milestone	Condition
11	SERV AND/OR DEV. AGT	Prior to servicing, the Developer shall submit a satisfactory engineering submission to the Region to review and approval. **Created :** 2018-03-12 10:28:44 **Last Modified :**
12	REGISTRATION	Prior to registration of the plan of subdivision, the Developer shall pay the Region¿s costs for updating its electronic ¿As Constructed¿ information for the infrastructure installed by the Developer. The cost shall be based on a ¿per kilometre¿ basis for combined watermains and sanitary sewers installed pursuant to the Region¿s latest User Fees By-law. **Created :** 2018-03-12 10:28:45 **Last Modified :**
13	NOTE:	Prior to servicing the Region may require the Developer to construct a sampling hydrant (at the Developers cost) within the proposed plan. Location and the requirement for sampling hydrant will be determined at the engineering review stage. **Created :** 2018-03-12 10:28:45 **Last Modified :**
14	SERV AND/OR DEV. AGT	A clause shall be included in the Subdivision Agreement that the Developer agrees that the Region shall hold back a portion of the Letter of Credit to cover the costs of services completed by the Region on a time and material basis pursuant to the current Region¿s User Fee by-Law. **Created :** 2018-03-12 10:28:45 **Last Modified :**
15	SERV AND/OR DEV. AGT	A clause shall be included in the Subdivision Agreement that the Developer shall maintain adequate chlorine residuals in the watermains within the plan from the time the watermains are connected to the municipal system until such time as the Region issues Final Acceptance. To maintain adequate chlorine residuals, the Developer shall either install automatic flushing devices or retain Regional staff to carry out manual flushing. Regional staff shall conduct the monitoring and testing for chlorine residuals. All costs associated with the monitoring and flushing shall be the responsibility of the Developer pursuant to the current Region¿s User Fee by-Law. **Created :** 2018-03-12 10:28:45 **Last Modified :**

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

No	Milestone	Condition
16	SERV AND/OR DEV. AGT	A clause shall be included in the Subdivision Agreement as follows: 1. In respect of servicing existing properties within the zone of influence in the event that existing private services (wells) deteriorate due to the servicing of the proposed plan of subdivision. 2. Until the issuance of Final Acceptance a portion of the Letter of Credit shall be held back to serve as protection for the private wells in the zone of influence of the plan of subdivision. This amount shall be based on the anticipated cost of replacing water supplies within the zone of influence as shown in the schedules of the agreement. The minimum amount shall be $20,000.00. If the private well systems in the zone of influence deteriorate due to the servicing of the plan of subdivision the Developer shall provide temporary water supply to the residents upon notice by the Region and the Developer shall continue supplying the water to the effected residents until the issue is resolved to the satisfaction of involved parties. If the quantity of water in the existing wells is not restored to its original condition within a month after first identification of the problem, the Developer shall engage the services of a recognized hydrogeologist to evaluate the wells and recommend solutions including deepening the wells or providing a permanent water service connection from the watermain to the dwelling unit. 3. The Developer shall inspect, evaluate and monitor all wells within the zone of influence prior to, during and after the construction has been completed. Progress Reports should be submitted to the Region as follows: i. Base line well condition and monitoring report shall be submitted to the Region prior to the pre-servicing or registration of the plan (whichever occurs first) and shall include as a minimum requirement the following tests: a) Bacteriological Analysis - Total coliform and E-coli counts b) Chemical Analysis - Nitrate Test c) Water level measurement below existing grade 4. In the event that the test results are not within the Ontario Drinking Water Standards, the Developer shall notify in writing the Homeowner, the Region of Peel¿s Health Department (Manager - Environmental Health) and Public Works Department (Development Supervisor) within 24 Hours of the test results. 5. Well monitoring shall continue during construction and an interim report shall be submitted to the Region for records. Well monitoring shall continue for one year after the completion of construction and a summary report shall be submitted to the Region prior to Final Acceptance. **Created :** 2018-03-12 10:28:45 **Last Modified :**

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

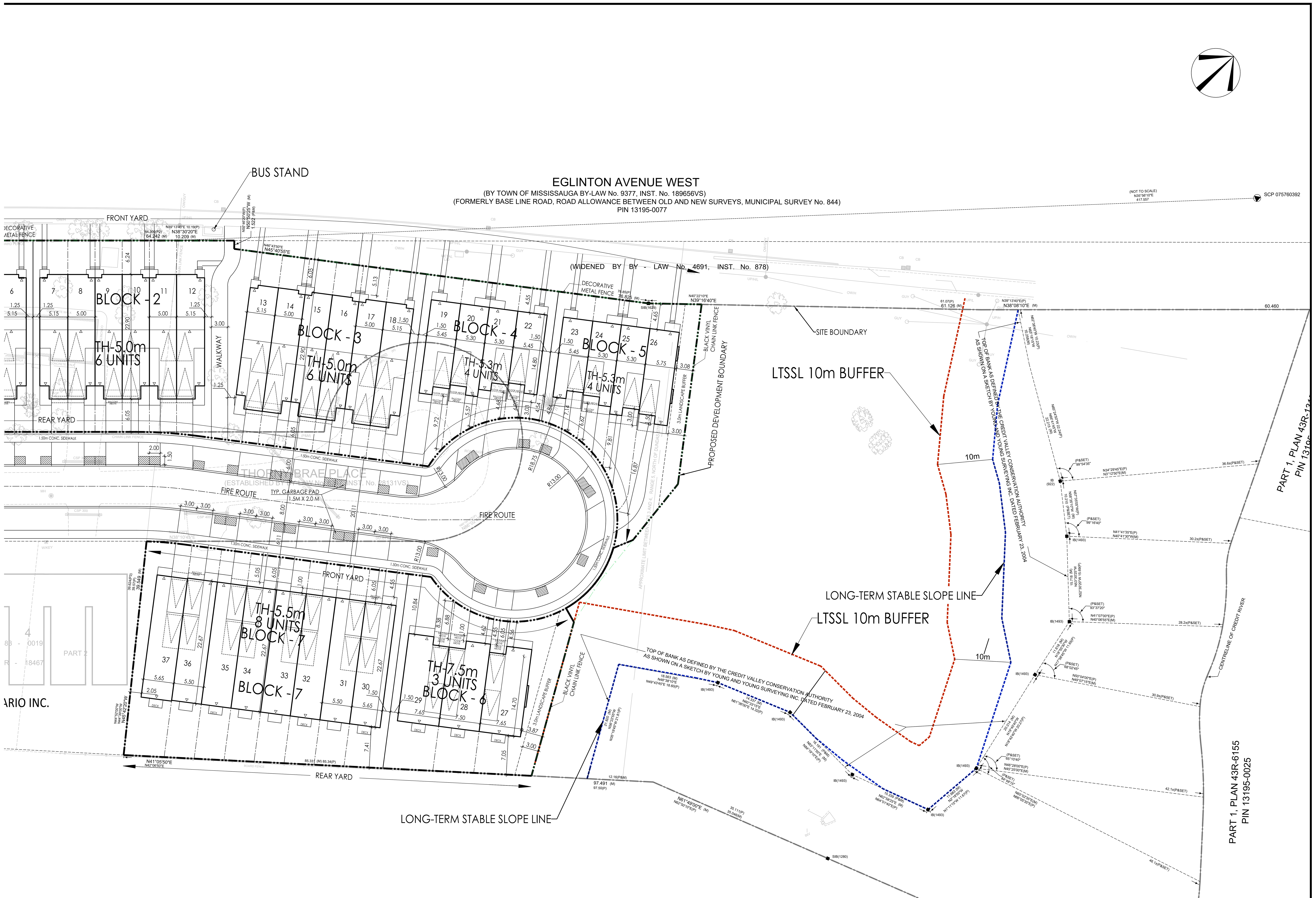
No	Milestone	Condition
17	SERV AND/OR DEV. AGT	A clause shall be included in the Subdivision Agreement that the Developer agrees that neither the Developer nor any Builder shall apply for building permits for any lots or blocks within the plan of subdivision until the Region¿s Public Works Department has issued Preliminary Acceptance and provided notice to the local municipality stating that internal sanitary sewers and watermains, including fire protection, have been completed to the Region¿s satisfaction. The Developer¿s Consulting Engineer shall certify in writing that the internal sanitary sewers and watermains, including fire protection, have been constructed, inspected and shall function in accordance with the detailed design as approved by the Region. **Created :** 2018-03-12 10:28:45 **Last Modified :**
18	REGISTRATION	Prior to registration of the plan of subdivision, the Developer shall submit draft reference plan(s) for the Region¿s review and approval prior to such plans being deposited. All costs associated with preparation and depositing of the plans and transfer of lands shall be at the sole expense of the Developer. **Created :** 2018-03-12 10:28:46 **Last Modified :**

REGION OF PEEL

REGION OF PEEL Contact: Alex Martino Tel. (905) 791-7800 x4645

No	Milestone	Condition
19	REGISTRATION	The site is eligible for curbside collection of garbage, recyclable materials, household organics and yard waste from the internal roadways provided by the Region of Peel, subject to the following conditions: Waste Collection Vehicle Access Route Comments: The waste collection vehicle access route throughout the complex indicating turning radii and turning movements is to be clearly labelled on the drawing.Internal roadways must be constructed of a hard surface material, such as asphalt, concrete or lockstone, and designed to support a minimum of 35 tonnes, the weight of a fully loaded waste collection vehicle.The turning radius from the centre line must be a minimum of 13 metres on all turns. This includes the turning radii to the entrance and exit of the site. The maximum grade permitted along the waste collection vehicle access route is 8 percent. Curbside Collection Area: The set out area along the curb, adjacent to the driveway must be at least 3 square metres per unit in order to provide sufficient space for the placement of two carts: maximum 1 large garbage or recycling cart (360 litres) and 1 organics cart (100 litres), overflow waste (i.e. additional bags), yard waste receptacles and bulky items. Each unit within a development must have its own identifiable waste collection point (distinct set out area along the curb or the sod that cannot be shared with neighbouring units) as approved by Public Works Commissioner or Delegate. The waste set out location is to be as close as possible to the travelled portion of the roadway, directly adjacent to the private property of the unit occupier/owner, directly accessible to the waste collection vehicle and free of obstructions (i.e. parked cars). For more information, please consult the Waste Collection Design Standards Manual available at: http://peelregion.ca/pw/standards/design/waste-collection-design-manual-2016.pdf **Created :** 2018-03-12 10:28:44 **Last Modified :**

Appendix B – Revised Site Plan



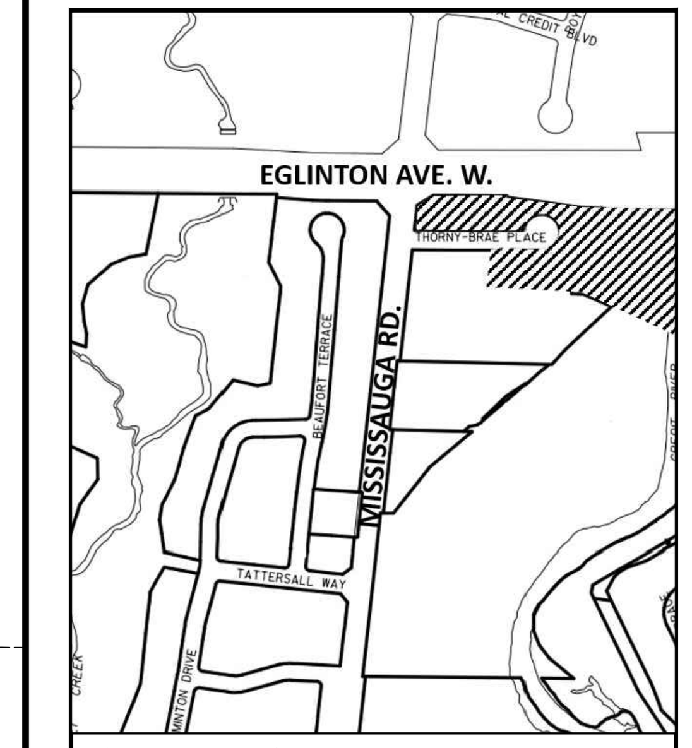
Proposed Statistics

	Block 2**						Block 3**					
6	7	8	9	10	11	12	13	14	15	16	17	18
25.30	225.29	176.00	175.99	176.00	176.73	241.25	267.24	175.00	175.00	175.00	175.00	232.75
6.40	6.40	5.00	5.00	5.00	5.00	6.46	9.15	5.00	5.00	5.00	5.00	6.65
6.26	6.24	6.24	6.24	6.24	6.24	6.24	6.05	6.05	6.05	6.05	6.05	6.05
t: 1.25	Int: 1.25	NA	NA	NA	NA	Int: 1.25	Int: 1.25	NA	NA	NA	NA	Int: 1.5
6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05
m & 3 torey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey
35.15	85.14	39.59	39.52	39.65	39.65	99.75	127.10	38.59	38.59	38.59	38.59	89.43
38%	38%	22%	22%	23%	22%	41%	48%	22%	22%	22%	22%	38%
12.95	112.95	109.96	109.96	109.96	109.96	112.95	112.95	109.96	109.96	109.96	109.96	112.95
79.61	279.61	271.40	271.40	271.40	271.40	279.61	279.61	271.40	271.40	271.40	271.40	279.61
1.24	1.24	1.54	1.54	1.54	1.54	1.16	1.05	1.55	1.55	1.55	1.55	1.20
3	3	3	3	3	3	3	3	3	3	3	3	3
3	3	3	3	3	3	3	3	3	3	3	3	3

Block 4**				Block 5				Block 6		
19	20	21	22	23	24	25	26	27	28	29
239.58	152.65	134.58	166.89	173.35	150.27	185.71	362.43	368.46	222.20	315.62
6.95	5.30	5.30	6.95	6.95	5.30	5.30	8.83	13.32	7.50	9.16
4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.65	4.55	4.62	6.88
Int: 1.5	NA	NA	Int: 1.5	Int: 1.5	NA	NA	int: 3.08	int: 3.87	NA	Int: 1.5
9.72	5.57	4.68	4.54	4.84	6.62	9.81	16.87	7.05	7.67	8.26
14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey
102.08	31.10	31.38	64.86	66.89	39.66	42.95	200.79	218.79	71.00	157.35
43%	20%	23%	39%	39%	26%	23%	55%	59%	32%	50%
89.73	83.15	76.00	76.10	76.10	76.00	83.15	89.73	123.97	121.51	123.97
258.50	238.75	217.33	217.63	217.63	217.33	238.75	258.50	330.36	322.75	330.35
1.08	1.56	1.61	1.30	1.26	1.45	1.29	0.71	0.90	1.45	1.05
2	2	2	2	2	2	2	2	3	3	3
3	3	3	3	3	3	3	3	3	3	3

Block 7							
30	31	32	33	34	35	36	37
259.71	202.57	204.99	207.42	209.84	212.27	214.70	312.42
7.15	5.50	5.50	5.50	5.50	5.50	5.50	8.21
6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05
Int: 1.5	NA	NA	NA	NA	NA	NA	int: 2.05
7.41	7.89	8.33	8.77	9.21	9.65	10.10	10.39
14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey	14m & 3 storey
109.50	55.98	58.41	60.83	63.26	65.69	68.11	161.77
42%	28%	28%	29%	30%	31%	32%	52%
128.09	124.68	124.68	124.68	124.68	124.68	124.68	128.09
335.45	335.45	335.45	335.45	335.45	335.45	335.45	335.45
1.29	1.66	1.64	1.62	1.60	1.58	1.56	1.07
3	3	3	3	3	3	3	3
3	3	3	3	3	3	3	3

yard is considered the lot line abutting Eglinton Avenue W., and the rear yard is considered the lot line abutting Thorny Brae Place.
s deemed not to exist provided that the minimum distance of the prescribed setbacks, in the By-Law is maintained.
ear yard is considered the lot line abutting Thorny Brae Place.



KEY MAP N.T.S.

1745, 1765 & 1775 THRONEY BAY PLACE			
1	Total Site Area	21,026 m2	2.10 Ha
2	Greenlands	12366.1 m2	1.23 Ha
3	Net Developable Area	8659.90 m2	0.87 Ha
4	Proposed Develoment Area	8614.60 m2	0.86 Ha

PLAN OF SURVEY OF
PART OF LOT 1 AND
ALL OF LOT 2
REGISTERED PLAN 498 AND
PART OF LOTS 3 AND 4, RANGE 5
NORTH OF DUNDAS STREET,
(GEOGRAPHIC TOWNSHIP OF TORONTO)
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

ISSUED OR REVISION COMMENTS

NO.	DESCRIPTION	DATE	DWN	CHK
1	SITE PLAN REVISION	MAY 25 2017	MA	MA
2	SITE PLAN REVISION	NOV 29 2017	MA	MA
3	SITE PLAN ISSUES FOR SUBMISSION	DEC 04 2017	MA	MA
4	REVISED DEVELOPMENT BOUNDARY	FEB 08 2019	RP	MA
5	ISSUED FOR ZBA	MAR 20 2019	RP	MA

Imagine ▸ Inspire ▸ Create
RN DESIGN LTD.
8395 JANE STREET, SUITE 203
VAUGHAN, ONTARIO. L4K 5Y2
T:905-738-3177 | F: 905-738-5449

I, NELSON CUNHA DECLARE THAT I HAVE REVIEWED AND TAKEN DESIGN RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF **RN DESIGN LTD**,UNDER DIVISION C,PART-3 SUBSECTION-3.2.4 OF THE BUILDING CODE. I AM QUALIFIED AND THE FIRM IS REGISTERED IN THE APPROPRIATE CLASSES / CATEGORIES.

QUALIFIED DESIGNER BCIN: 21032
FIRM BCIN: 26995
DATE: MAR 20 2019

SIGNATURE:

CLIENT
2462357 Ontario inc.
Pace Developments

PROJECT/LOCATION
1745, 1765 and 1775 Thorny Brae Place, Mississauga ON

DRAWING
CONCEPT PLAN

DATE	SCALE
OCT-31-2018	1:400
DRAWN BY	CHECKED BY
RP	SMH
PROJECT NUMBER	DRAWING NUMBER
16041	SP100

Appendix C – Existing Traffic Data & Signal Timing

NexTrans
4261-A14 Highway 7 East
Suite 489
Markham ON, CANADA, L3R 9W6

Turning Movement Count (1 . EGLINTON AVE & MISSISSAUGA ROAD)

Start Time	N Approach MISSISSAUGA ROAD					E Approach EGLINTON AVE					S Approach MISSISSAUGA ROAD					W Approach EGLINTON AVE					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	Peds W:	Approach Total		
07:00:00	10	28	43	2	81	5	124	16	0	145	19	19	6	1	44	8	327	11	0	346	616	
07:15:00	16	50	41	0	107	17	155	13	2	185	31	45	19	2	95	12	419	26	2	457	844	
07:30:00	20	36	51	4	107	20	202	22	3	244	33	54	26	0	113	22	477	24	0	523	987	
07:45:00	32	66	80	3	178	36	214	30	0	280	47	56	34	0	137	26	334	24	0	384	979	3426
08:00:00	26	68	76	3	170	33	242	34	0	309	48	76	28	1	152	33	504	22	1	559	1190	4000
08:15:00	27	66	69	4	162	28	216	31	1	275	30	68	29	8	127	42	501	20	1	563	1127	4283
08:30:00	30	76	65	9	171	32	227	31	0	290	38	103	28	2	169	30	459	17	4	506	1136	4432
08:45:00	39	52	63	2	154	22	252	46	2	320	44	63	26	1	133	28	462	30	0	520	1127	4580
09:00:00	29	48	47	7	124	13	189	20	2	222	47	55	24	1	126	28	356	22	0	406	878	4268
09:15:00	16	42	37	7	95	15	184	26	0	225	33	48	16	2	97	23	267	20	5	310	727	3868
09:30:00	14	38	53	5	105	23	190	42	4	255	19	43	17	2	79	22	181	13	1	216	655	3387
09:45:00	20	25	41	3	86	32	187	29	0	248	22	52	22	0	96	21	248	19	0	288	718	2978
BREAK																						
16:00:00	23	43	35	3	101	47	374	34	6	456	41	61	37	2	139	30	264	22	2	316	1012	
16:15:00	29	64	43	0	136	58	364	36	2	458	35	87	33	1	155	27	237	30	0	294	1043	
16:30:00	27	50	38	2	115	66	450	41	1	558	50	87	47	4	184	25	293	30	0	348	1205	
16:45:00	28	73	43	6	144	56	449	47	3	553	34	83	34	2	151	30	234	31	1	295	1143	4403
17:00:00	19	55	47	1	121	68	488	45	0	602	38	88	35	1	161	25	256	31	5	313	1197	4588
17:15:00	24	69	41	1	134	53	462	54	0	569	36	75	37	4	148	25	283	31	3	339	1190	4735
17:30:00	27	56	38	2	121	63	458	48	0	569	36	89	47	5	172	24	270	49	8	343	1205	4735
17:45:00	24	55	45	1	124	60	511	37	1	608	55	73	38	5	166	23	311	34	5	368	1266	4858
18:00:00	31	55	43	0	129	41	437	36	0	515	41	82	37	2	160	26	240	35	0	302	1106	4767
18:15:00	26	47	44	4	117	56	479	38	1	573	35	63	35	2	133	40	262	28	0	330	1153	4730
18:30:00	32	62	47	2	141	52	343	43	1	438	39	65	41	2	145	41	250	29	3	320	1044	4569
18:45:00	21	40	38	2	99	60	309	28	1	398	32	54	29	0	115	26	269	41	0	336	948	4251
Grand Total	590	1264	1168	73	3022	956	7506	827	30	9295	883	1589	725	50	3197	637	7704	639	41	8982	**24496**	-
Approach%	19.5%	41.8%	38.6%		-	10.3%	80.8%	8.9%		-	27.6%	49.7%	22.7%		-	7.1%	85.8%	7.1%		-	-	-
Totals %	2.4%	5.2%	4.8%		12.3%	3.9%	30.6%	3.4%		37.9%	3.6%	6.5%	3%		13.1%	2.6%	31.5%	2.6%		36.7%	-	-
Heavy	28	42	38		-	42	184	17		-	16	42	22		-	20	212	25		-	-	-
Heavy %	4.7%	3.3%	3.3%		-	4.4%	2.5%	2.1%		-	1.8%	2.6%	3%		-	3.1%	2.8%	3.9%		-	-	-
Bicycles	2	6	0		-	4	2	0		-	0	0	0		-	0	1	1		-	-	-
Bicycle %	0.3%	0.5%	0%		-	0.4%	0%	0%		-	0%	0%	0%		-	0%	0%	0.2%		-	-	-

NexTrans
4261-A14 Highway 7 East
Suite 489
Markham ON, CANADA, L3R 9W6

NexTrans
4261-A14 Highway 7 East
Suite 489
Markham ON, CANADA, L3R 9W6

Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.8 °C)

Start Time	N Approach MISSISSAUGA ROAD					E Approach EGLINTON AVE					S Approach MISSISSAUGA ROAD					W Approach EGLINTON AVE					Int. Total (15 min)
	Right	Thru	Left	Peds	Approach Total	Right	Thru	Left	Peds	Approach Total	Right	Thru	Left	Peds	Approach Total	Right	Thru	Left	Peds	Approach Total	
08:00:00	26	68	76	3	170	33	242	34	0	309	48	76	28	1	152	33	504	22	1	559	1190
08:15:00	27	66	69	4	162	28	216	31	1	275	30	68	29	8	127	42	501	20	1	563	1127
08:30:00	30	76	65	9	171	32	227	31	0	290	38	103	28	2	169	30	459	17	4	506	1136
08:45:00	39	52	63	2	154	22	252	46	2	320	44	63	26	1	133	28	462	30	0	520	1127
Grand Total	122	262	273	18	657	115	937	142	3	1194	160	310	111	12	581	133	1926	89	6	2148	**4580**
Approach%	18.6%	39.9%	41.6%		-	9.6%	78.5%	11.9%		-	27.5%	53.4%	19.1%		-	6.2%	89.7%	4.1%		-	-
Totals %	2.7%	5.7%	6%		14.3%	2.5%	20.5%	3.1%		26.1%	3.5%	6.8%	2.4%		12.7%	2.9%	42.1%	1.9%		46.9%	-
PHF	0.78	0.86	0.9		0.96	0.87	0.93	0.77		0.93	0.83	0.75	0.96		0.86	0.79	0.96	0.74		0.95	-
Heavy	11	12	10		33	8	35	5		48	2	11	6		19	6	52	3		61	-
Heavy %	9%	4.6%	3.7%		5%	7%	3.7%	3.5%		4%	1.3%	3.5%	5.4%		3.3%	4.5%	2.7%	3.4%		2.8%	-
Lights	111	250	263		624	107	902	137		1146	158	299	105		562	127	1874	86		2087	-
Lights %	91%	95.4%	96.3%		95%	93%	96.3%	96.5%		96%	98.8%	96.5%	94.6%		96.7%	95.5%	97.3%	96.6%		97.2%	-
Single-Unit Trucks	4	1	0		5	0	10	0		10	0	2	0		2	3	22	2		27	-
Single-Unit Trucks %	3.3%	0.4%	0%		0.8%	0%	1.1%	0%		0.8%	0%	0.6%	0%		0.3%	2.3%	1.1%	2.2%		1.3%	-
Buses	2	11	10		23	8	24	5		37	2	9	6		17	3	30	0		33	-
Buses %	1.6%	4.2%	3.7%		3.5%	7%	2.6%	3.5%		3.1%	1.3%	2.9%	5.4%		2.9%	2.3%	1.6%	0%		1.5%	-
Articulated Trucks	5	0	0		5	0	1	0		1	0	0	0		0	0	0	1		1	-
Articulated Trucks %	4.1%	0%	0%		0.8%	0%	0.1%	0%		0.1%	0%	0%	0%		0%	0%	0%	1.1%		0%	-
Pedestrians	-	-	-	17	-	-	-	-	2	-	-	-	-	11	-	-	-	-	4	-	-
Pedestrians%	-	-	-	43.6%		-	-	-	5.1%		-	-	-	28.2%		-	-	-	10.3%		-
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	2	-	-
Bicycles on Crosswalk%	-	-	-	2.6%		-	-	-	2.6%		-	-	-	2.6%		-	-	-	5.1%		-
Bicycles on Road	0	3	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	-
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-	-	-	0%		-

NexTrans
4261-A14 Highway 7 East
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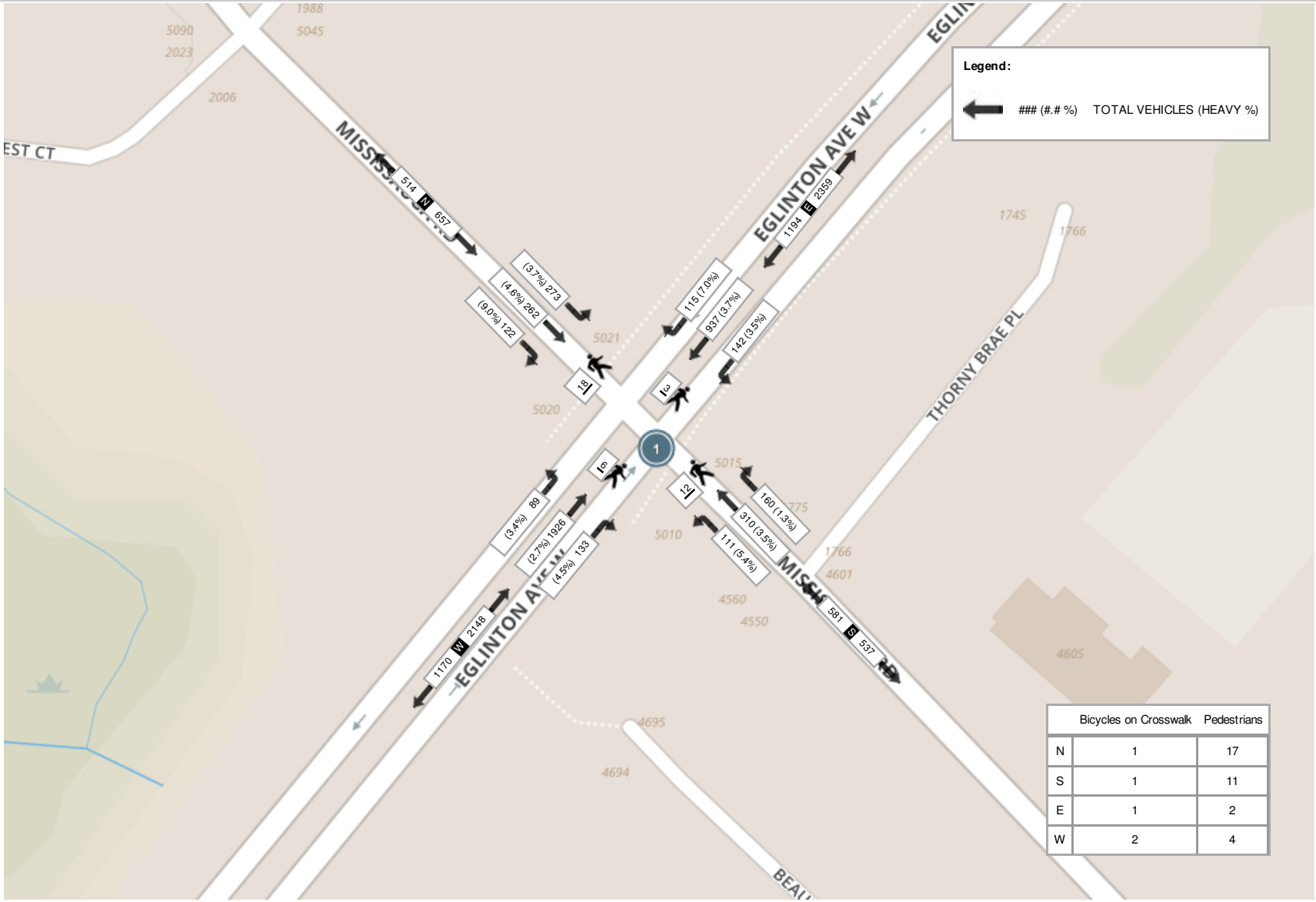
Markham ON, CANADA, L3R 9W6

Peak Hour: 05:00 PM - 06:00 PM Weather: Overcast (13.5 °C)

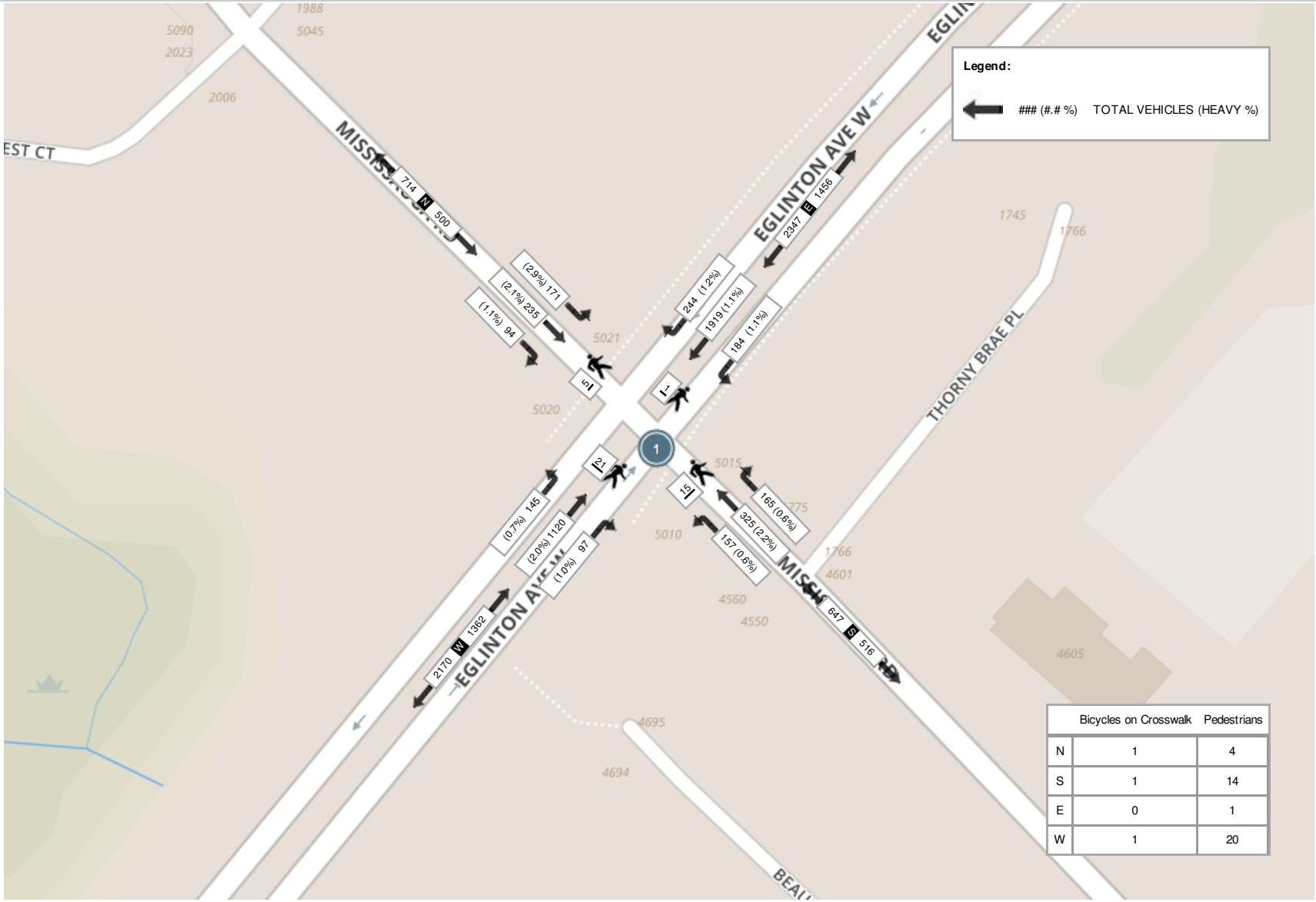
Start Time	N Approach MISSISSAUGA ROAD					E Approach EGLINTON AVE					S Approach MISSISSAUGA ROAD					W Approach EGLINTON AVE					Int. Total (15 min)
	Right	Thru	Left	Peds	Approach Total	Right	Thru	Left	Peds	Approach Total	Right	Thru	Left	Peds	Approach Total	Right	Thru	Left	Peds	Approach Total	
17:00:00	19	55	47	1	121	68	488	45	0	602	38	88	35	1	161	25	256	31	5	313	1197
17:15:00	24	69	41	1	134	53	462	54	0	569	36	75	37	4	148	25	283	31	3	339	1190
17:30:00	27	56	38	2	121	63	458	48	0	569	36	89	47	5	172	24	270	49	8	343	1205
17:45:00	24	55	45	1	124	60	511	37	1	608	55	73	38	5	166	23	311	34	5	368	1266
Grand Total	94	235	171	5	500	244	1919	184	1	2348	165	325	157	15	647	97	1120	145	21	1363	**4858**
Approach%	18.8%	47%	34.2%		-	10.4%	81.7%	7.8%		-	25.5%	50.2%	24.3%		-	7.1%	82.2%	10.6%		-	**-**
Totals %	1.9%	4.8%	3.5%		10.3%	5%	39.5%	3.8%		48.3%	3.4%	6.7%	3.2%		13.3%	2%	23.1%	3%		28.1%	**-**
PHF	0.87	0.85	0.91		0.93	0.9	0.94	0.85		0.97	0.75	0.91	0.84		0.94	0.97	0.9	0.74		0.93	**-**
Heavy	1	5	5		11	3	21	2		26	1	7	1		9	1	22	1		24	**-**
Heavy %	1.1%	2.1%	2.9%		2.2%	1.2%	1.1%	1.1%		1.1%	0.6%	2.2%	0.6%		1.4%	1%	2%	0.7%		1.8%	**-**
Lights	93	230	166		489	241	1898	182		2322	164	318	156		638	96	1098	144		1339	**-**
Lights %	98.9%	97.9%	97.1%		97.8%	98.8%	98.9%	98.9%		98.9%	99.4%	97.8%	99.4%		98.6%	99%	98%	99.3%		98.2%	**-**
Single-Unit Trucks	0	1	0		1	0	9	1		10	0	1	1		2	1	7	0		8	**-**
Single-Unit Trucks %	0%	0.4%	0%		0.2%	0%	0.5%	0.5%		0.4%	0%	0.3%	0.6%		0.3%	1%	0.6%	0%		0.6%	**-**
Buses	0	4	3		7	3	11	1		15	1	6	0		7	0	15	0		15	**-**
Buses %	0%	1.7%	1.8%		1.4%	1.2%	0.6%	0.5%		0.6%	0.6%	1.8%	0%		1.1%	0%	1.3%	0%		1.1%	**-**
Articulated Trucks	1	0	2		3	0	1	0		1	0	0	0		0	0	0	1		1	**-**
Articulated Trucks %	1.1%	0%	1.2%		0.6%	0%	0.1%	0%		0%	0%	0%	0%		0%	0%	0%	0.7%		0.1%	**-**
Pedestrians	-	-	-	4	-	-	-	-	1	-	-	-	-	14	-	-	-	-	20	-	**-**
Pedestrians%	-	-	-	9.5%		-	-	-	2.4%		-	-	-	33.3%		-	-	-	47.6%		**-**
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	1	-	-	-	-	1	-	**-**
Bicycles on Crosswalk%	-	-	-	2.4%		-	-	-	0%		-	-	-	2.4%		-	-	-	2.4%		**-**
Bicycles on Road	0	1	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	**-**
Bicycles on Road%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 08:00 AM - 09:00 AM **Weather: Scattered Clouds (8.8 °C)**



	Bicycles on Crosswalk	Pedestrians
N	1	17
S	1	11
E	1	2
W	2	4

Peak Hour: 05:00 PM - 06:00 PM **Weather: Overcast (13.5 °C)**



NexTrans
4261-A14 Highway 7 East
Suite 489
Markham ON, CANADA, L3R 9W6

Turning Movement Count (2 . THORNY BRAE PLACE & MISSISSAUGA ROAD)

Start Time	N Approach MISSISSAUGA ROAD				E Approach THORNY BRAE PLACE				S Approach MISSISSAUGA ROAD				Int. Total (15 min)	Int. Total (1 hr)
	Thru N:S	Left N:E	Peds N:	Approach Total	Right E:N	Left E:S	Peds E:	Approach Total	Right S:E	Thru S:N	Peds S:	Approach Total		
07:00:00	56	0	0	56	0	0	0	0	0	54	0	54	110	
07:15:00	75	0	0	75	0	0	3	0	0	92	0	92	167	
07:30:00	83	0	0	83	0	0	1	0	0	114	0	114	197	
07:45:00	122	0	0	122	0	0	0	0	0	153	0	154	276	750
08:00:00	132	0	0	134	0	1	0	1	0	139	0	139	274	914
08:15:00	142	0	0	142	0	0	0	0	0	142	0	142	284	1031
08:30:00	145	0	0	145	0	0	1	0	0	155	0	155	300	1134
08:45:00	127	0	0	127	0	0	1	0	0	149	0	150	277	1135
09:00:00	87	0	0	87	0	0	0	0	0	118	0	118	205	1066
09:15:00	96	0	0	96	0	0	0	0	1	99	0	100	196	978
09:30:00	99	0	1	99	0	2	2	2	1	80	0	81	182	860
09:45:00	81	0	0	81	2	0	0	2	0	101	0	101	184	767
BREAK														
16:00:00	123	0	0	123	0	0	0	0	0	150	0	150	273	
16:15:00	116	0	0	116	0	0	2	0	0	147	0	147	263	
16:30:00	135	0	0	135	0	0	0	0	0	178	0	178	313	
16:45:00	144	1	0	145	1	0	0	1	0	157	0	157	303	1152
17:00:00	142	0	0	142	0	0	0	0	0	160	0	160	302	1181
17:15:00	145	0	0	145	0	1	1	1	2	175	0	177	323	1241
17:30:00	128	0	0	128	0	0	0	0	0	146	0	146	274	1202
17:45:00	127	0	0	127	0	0	0	0	0	181	0	181	308	1207
18:00:00	113	0	0	113	1	0	0	1	0	152	0	152	266	1171
18:15:00	130	0	0	130	0	0	0	0	0	136	0	136	266	1114
18:30:00	147	0	0	147	0	0	0	0	0	150	0	150	297	1137

18:45:00	90	1	0	91	1	0	1	1	0	102	0	102	194	1023
Grand Total	2785	2	1	2789	5	4	12	9	4	3230	0	3236	**6034**	-
Approach%	99.9%	0.1%		-	55.6%	44.4%		-	0.1%	99.8%		-	**-**	-
Totals %	46.2%	0%		46.2%	0.1%	0.1%		0.1%	0.1%	53.5%		53.6%	**-**	-
Heavy	77	0		-	0	1		-	1	76		-	**-**	-
Heavy %	2.8%	0%		-	0%	25%		-	25%	2.4%		-	**-**	-
Bicycles	9	0		-	0	0		-	0	2		-	**-**	-
Bicycle %	0.3%	0%		-	0%	0%		-	0%	0.1%		-	**-**	-

NexTrans
4261-A14 Highway 7 East
Suite 489
Markham ON, CANADA, L3R 9W6

Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.8 °C)

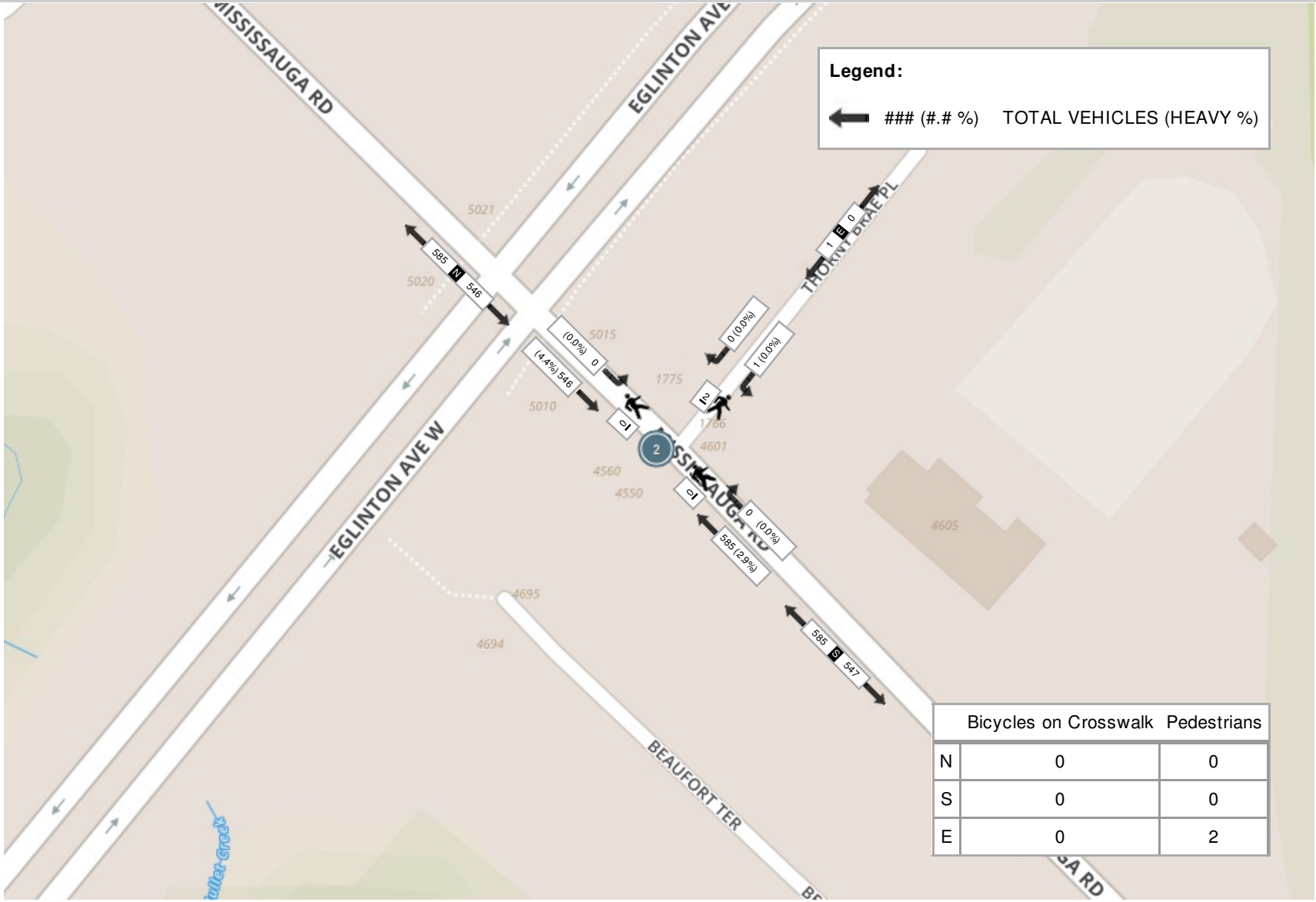
Start Time	N Approach MISSISSAUGA ROAD				E Approach THORNY BRAE PLACE				S Approach MISSISSAUGA ROAD				Int. Total (15 min)
	Thru	Left	Peds	Approach Total	Right	Left	Peds	Approach Total	Right	Thru	Peds	Approach Total	
08:00:00	132	0	0	134	0	1	0	1	0	139	0	139	274
08:15:00	142	0	0	142	0	0	0	0	0	142	0	142	284
08:30:00	145	0	0	145	0	0	1	0	0	155	0	155	300
08:45:00	127	0	0	127	0	0	1	0	0	149	0	150	277
Grand Total	546	0	0	548	0	1	2	1	0	585	0	586	**1135**
Approach%	99.6%	0%		-	0%	100%		-	0%	99.8%		-	-
Totals %	48.1%	0%		48.3%	0%	0.1%		0.1%	0%	51.5%		51.6%	-
PHF	0.94	0		0.94	0	0.25		0.25	0	0.94		0.95	-
Heavy	24	0		24	0	0		0	0	17		17	-
Heavy %	4.4%	0%		4.4%	0%	0%		0%	0%	2.9%		2.9%	-
Lights	522	0		524	0	1		1	0	568		569	-
Lights %	95.6%	0%		95.6%	0%	100%		100%	0%	97.1%		97.1%	-
Single-Unit Trucks	5	0		5	0	0		0	0	1		1	-
Single-Unit Trucks %	0.9%	0%		0.9%	0%	0%		0%	0%	0.2%		0.2%	-
Buses	19	0		19	0	0		0	0	16		16	-
Buses %	3.5%	0%		3.5%	0%	0%		0%	0%	2.7%		2.7%	-
Pedestrians	-	-	0	-	-	-	2	-	-	-	0	-	-
Pedestrians%	-	-	0%		-	-	100%		-	-	0%		-
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	0%		-	-	0%		-	-	0%		-
Bicycles on Road	5	0	0	-	0	0	0	-	0	1	0	-	-
Bicycles on Road%	-	-	0%		-	-	0%		-	-	0%		-

NexTrans
4261-A14 Highway 7 East
Suite 489
Markham ON, CANADA, L3R 9W6

Peak Hour: 04:30 PM - 05:30 PM Weather: Overcast (13.5 °C)

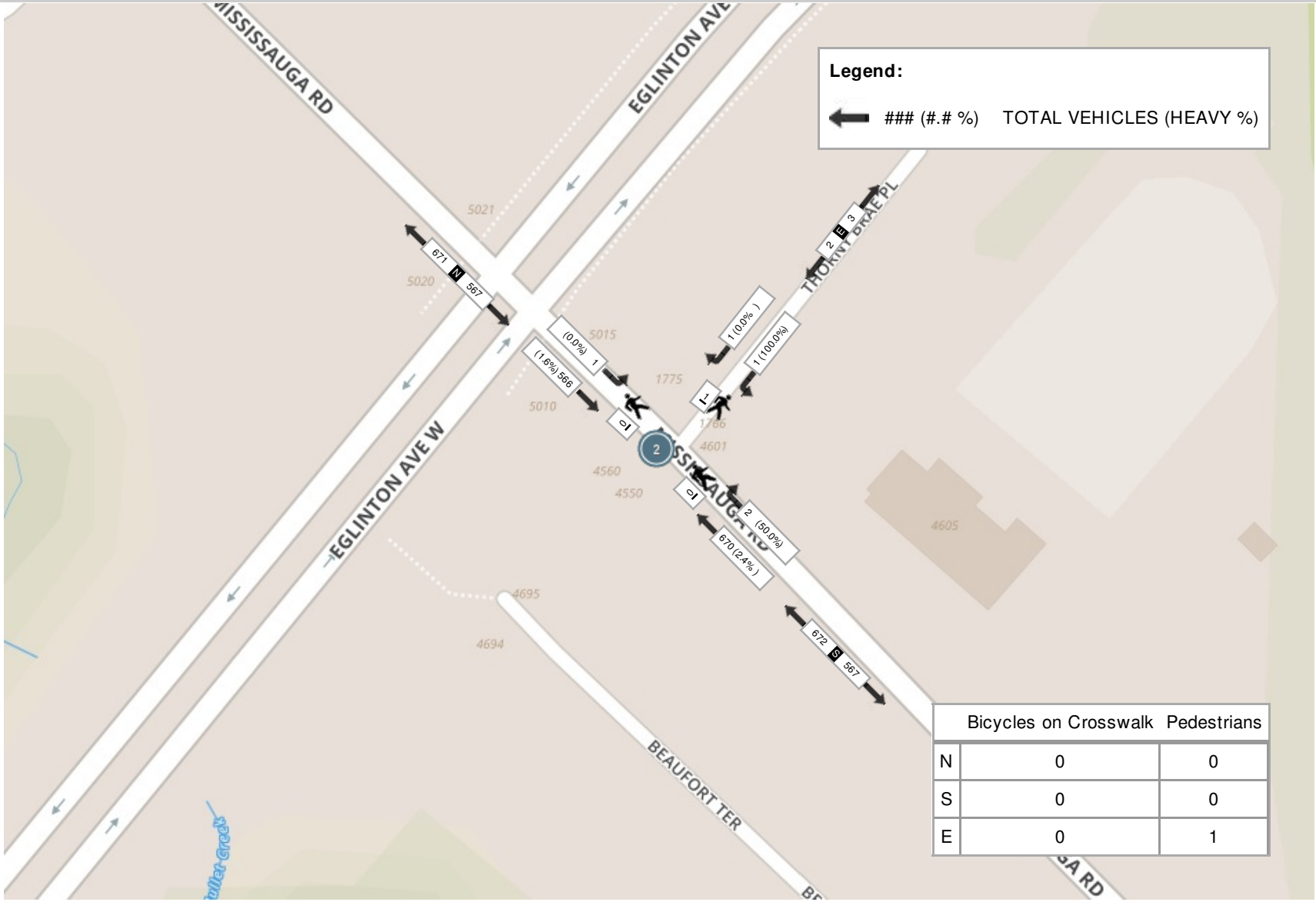
Start Time	N Approach MISSISSAUGA ROAD				E Approach THORNY BRAE PLACE				S Approach MISSISSAUGA ROAD				Int. Total (15 min)
	Thru	Left	Peds	Approach Total	Right	Left	Peds	Approach Total	Right	Thru	Peds	Approach Total	
16:30:00	135	0	0	135	0	0	0	0	0	178	0	178	313
16:45:00	144	1	0	145	1	0	0	1	0	157	0	157	303
17:00:00	142	0	0	142	0	0	0	0	0	160	0	160	302
17:15:00	145	0	0	145	0	1	1	1	2	175	0	177	323
Grand Total	566	1	0	567	1	1	1	2	2	670	0	672	**1241**
Approach%	99.8%	0.2%		-	50%	50%		-	0.3%	99.7%		-	-
Totals %	45.6%	0.1%		45.7%	0.1%	0.1%		0.2%	0.2%	54%		54.1%	-
PHF	0.98	0.25		0.98	0.25	0.25		0.5	0.25	0.94		0.94	-
Heavy	9	0		9	0	1		1	1	16		17	-
Heavy %	1.6%	0%		1.6%	0%	100%		50%	50%	2.4%		2.5%	-
Lights	557	1		558	1	0		1	1	654		655	-
Lights %	98.4%	100%		98.4%	100%	0%		50%	50%	97.6%		97.5%	-
Single-Unit Trucks	1	0		1	0	1		1	1	4		5	-
Single-Unit Trucks %	0.2%	0%		0.2%	0%	100%		50%	50%	0.6%		0.7%	-
Buses	8	0		8	0	0		0	0	12		12	-
Buses %	1.4%	0%		1.4%	0%	0%		0%	0%	1.8%		1.8%	-
Pedestrians	-	-	0	-	-	-	1	-	-	-	0	-	-
Pedestrians%	-	-	0%		-	-	100%		-	-	0%		-
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
Bicycles on Crosswalk%	-	-	0%		-	-	0%		-	-	0%		-
Bicycles on Road	1	0	0	-	0	0	0	-	0	0	0	-	-
Bicycles on Road%	-	-	0%		-	-	0%		-	-	0%		-

Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.8 °C)



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

Peak Hour: 04:30 PM - 05:30 PM Weather: Overcast (13.5 °C)



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

```
?? SHOW TIMING REPORT,I502,ACT1-3,I502
  SCHEDULED DATA
  INT  TIME          SELECTION PLANS  IN USE         ALTERNATES
             MODE   CYC   OFF  SPLT  SPEC  DUP   MODE CYC  OFF  SPLT SPEC
DUP
                    LEN   NO.  NO.   FUNC  ISEC       LEN  NO.   NO. FUNC
ISEC
   502 00:00   /     /     /     /     /     /    LO  101   2     2    2
   502 06:00  1/1    /     /     /    1/1    /    CC  140   1     1    1
1019

  LOCATION:  EGLINTON@MISSISSAUGA            INTERSECTION NO.:   502
  DATE:      06-JUN-2016                     TIME:              06:00
  SCHEDULE:   1                              SPEC. FUNC.: 1 - N  2 - Y  3
- N

  MAIN ST.:  EGLINTON AVE                    CONTROLLER TYPE:   D
  NO. OF PH: 7                               CONTROL MODE:      CC

  Ring 1

  1.   WBL                          - Minimum green  =   5 seconds
       EGLINTON AVE                 - Maximum green  =  11 seconds
                                    - Clearance      =   3 seconds

  2.   EB                           - Walk           =  44 seconds
       EGLINTON AVE                 - FL. Don't Walk =  13 seconds
                                    - Amber          =   4 seconds
                                    - All Red        =   2 seconds

  3.   SBL                          - Minimum green  =   5 seconds
       MISSISSAUGA RD               - Maximum green  =  11 seconds
                                    - Clearance      =   3 seconds

  4.   NB                           - Walk           =  15 seconds
       MISSISSAUGA RD               - FL. Don't Walk =  21 seconds
                                    - Sd. Don't Walk =   5 seconds
                                    - Maximum        =  41 seconds
                                    - Amber          =   4 seconds
                                    - All Red        =   4 seconds

                          Total Cycle Length (Ring 1) = 140 seconds

  Ring 2

  5.   EBL                          - Minimum green  =   5 seconds
       EGLINTON AVE                 - Maximum green  =  11 seconds
                                    - Clearance      =   3 seconds

  6.   WB                           - Walk           =  44 seconds
       EGLINTON AVE                 - FL. Don't Walk =  13 seconds
                                    - Amber          =   4 seconds
                                    - All Red        =   2 seconds
```

8.	SB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 19 seconds
		- Maximum	= 55 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 2) = 140 seconds

SCHEDULED DATA

INT	TIME	SELECTION PLANS IN USE					ALTERNATES					
		MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC	MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC
502	09:30	1/1	/	/	/	1/1	/	CC	135	2	2	2	1019

LOCATION: EGLINTON@MISSISSAUGA
INTERSECTION NO.: 502
DATE: 06-JUN-2016
TIME: 09:30
SCHEDULE: 1
SPEC. FUNC.: 1 - Y 2 - Y 3 - N

MAIN ST.: EGLINTON AVE
CONTROLLER TYPE: D
NO. OF PH: 6
CONTROL MODE: CC

Ring 1

2.	EB	- Walk	= 49 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds
		- Amber	= 4 seconds
		- All Red	= 2 seconds
3.	SBL	- Minimum green	= 5 seconds
	MISSISSAUGA RD	- Maximum green	= 13 seconds
		- Clearance	= 3 seconds
4.	NB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 7 seconds
		- Maximum	= 43 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 1) = 135 seconds

Ring 2

5.	EBL	- Minimum green	= 5 seconds
	EGLINTON AVE	- Maximum green	= 13 seconds
		- Clearance	= 3 seconds
6.	WB	- Walk	= 32 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds

		- Amber	= 4 seconds
		- All Red	= 2 seconds
8.	SB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 24 seconds
		- Maximum	= 60 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 2) = 135 seconds

SCHEDULED DATA

INT	TIME	SELECTION PLANS IN USE MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC	ALTERNATES MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC
502	15:00	1/1	/	/	/	1/1	/	CC	140	3	3	3	1019

LOCATION: EGLINTON@MISSISSAUGA
INTERSECTION NO.: 502
DATE: 06-JUN-2016
TIME: 15:00
SCHEDULE: 1
SPEC. FUNC.: 1 - N 2 - Y 3 - N

MAIN ST.: EGLINTON AVE
CONTROLLER TYPE: D
NO. OF PH: 7
CONTROL MODE: CC

Ring 1

1.	WBL	- Minimum green	= 5 seconds
	EGLINTON AVE	- Maximum green	= 10 seconds
		- Clearance	= 3 seconds
2.	EB	- Walk	= 48 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds
		- Amber	= 4 seconds
		- All Red	= 2 seconds
3.	SBL	- Minimum green	= 5 seconds
	MISSISSAUGA RD	- Maximum green	= 12 seconds
		- Clearance	= 3 seconds
4.	NB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 1 seconds
		- Maximum	= 37 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 1) = 140 seconds

Ring 2

5.	EBL	- Minimum green	= 5 seconds
	EGLINTON AVE	- Maximum green	= 10 seconds
		- Clearance	= 3 seconds
6.	WB	- Walk	= 48 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds
		- Amber	= 4 seconds
		- All Red	= 2 seconds
8.	SB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 16 seconds
		- Maximum	= 52 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 2) = 140 seconds

SCHEDULED DATA

INT	TIME	SELECTION PLANS IN USE					ALTERNATES					
		MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC	MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC
502	19:30	1/1	/	/	/	1/1	/	CC	135	2	2	2	1019

LOCATION: EGLINTON@MISSISSAUGA
INTERSECTION NO.: 502
DATE: 06-JUN-2016
TIME: 19:30
SCHEDULE: 1
SPEC. FUNC.: 1 - Y 2 - Y 3 - N

MAIN ST.: EGLINTON AVE
CONTROLLER TYPE: D
NO. OF PH: 6
CONTROL MODE: CC

Ring 1

2.	EB	- Walk	= 49 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds
		- Amber	= 4 seconds
		- All Red	= 2 seconds
3.	SBL	- Minimum green	= 5 seconds
	MISSISSAUGA RD	- Maximum green	= 13 seconds
		- Clearance	= 3 seconds
4.	NB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 7 seconds
		- Maximum	= 43 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 1) = 135 seconds

Ring 2

5.	EBL	- Minimum green	= 5 seconds
	EGLINTON AVE	- Maximum green	= 13 seconds
		- Clearance	= 3 seconds
6.	WB	- Walk	= 32 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds
		- Amber	= 4 seconds
		- All Red	= 2 seconds
8.	SB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 24 seconds
		- Maximum	= 60 seconds
		- Amber	= 4 seconds
		- All Red	= 4 seconds

Total Cycle Length (Ring 2) = 135 seconds

SCHEDULED DATA

INT	TIME	SELECTION PLANS IN USE MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC	ALTERNATES MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC
502	00:00	/	/	/	/	/	/	LO	101	2	2	2	1019
502	07:00	1/1	/	/	/	1/1	/	CC	135	2	2	2	

LOCATION: EGLINTON@MISSISSAUGA
INTERSECTION NO.: 502
DATE: 06-JUN-2016
TIME: 07:00
SCHEDULE: 2
SPEC. FUNC.: 1 - Y 2 - Y 3 - N

MAIN ST.: EGLINTON AVE
CONTROLLER TYPE: D
NO. OF PH: 6
CONTROL MODE: CC

Ring 1

2.	EB	- Walk	= 49 seconds
	EGLINTON AVE	- FL. Don't Walk	= 13 seconds
		- Amber	= 4 seconds
		- All Red	= 2 seconds
3.	SBL	- Minimum green	= 5 seconds
	MISSISSAUGA RD	- Maximum green	= 13 seconds
		- Clearance	= 3 seconds
4.	NB	- Walk	= 15 seconds
	MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
		- Sd. Don't Walk	= 7 seconds

	- Maximum	= 43 seconds
	- Amber	= 4 seconds
	- All Red	= 4 seconds

Total Cycle Length (Ring 1) = 135 seconds

Ring 2

5. EBL	- Minimum green	= 5 seconds
EGLINTON AVE	- Maximum green	= 13 seconds
	- Clearance	= 3 seconds
6. WB	- Walk	= 32 seconds
EGLINTON AVE	- FL. Don't Walk	= 13 seconds
	- Amber	= 4 seconds
	- All Red	= 2 seconds
8. SB	- Walk	= 15 seconds
MISSISSAUGA RD	- FL. Don't Walk	= 21 seconds
	- Sd. Don't Walk	= 24 seconds
	- Maximum	= 60 seconds
	- Amber	= 4 seconds
	- All Red	= 4 seconds

Total Cycle Length (Ring 2) = 135 seconds

SCHEDULED DATA

INT	TIME	SELECTION PLANS IN USE MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC	ALTERNATES MODE	CYC LEN	OFF NO.	SPLT NO.	SPEC FUNC	DUP ISEC
502	00:00	/	/	/	/	/	/	LO	101	2	2	2	
502	08:00	1/1	/	/	/	1/1	/	CC	135	2	2	2	1019

LOCATION: EGLINTON@MISSISSAUGA INTERSECTION NO.: 502
DATE: 06-JUN-2016 TIME: 08:00
SCHEDULE: 3 SPEC. FUNC.: 1 - Y 2 - Y 3 - N

MAIN ST.: EGLINTON AVE CONTROLLER TYPE: D
NO. OF PH: 6 CONTROL MODE: CC

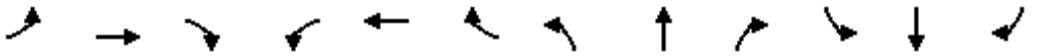
Ring 1

2. EB	- Walk	= 49 seconds
EGLINTON AVE	- FL. Don't Walk	= 13 seconds
	- Amber	= 4 seconds
	- All Red	= 2 seconds
3. SBL	- Minimum green	= 5 seconds
MISSISSAUGA RD	- Maximum green	= 13 seconds
	- Clearance	= 3 seconds

```
  4.   NB                              - Walk           =  15 seconds
       MISSISSAUGA RD                  - FL. Don't Walk =  21 seconds
                                       - Sd. Don't Walk =   7 seconds
                                       - Maximum        =  43 seconds
                                       - Amber          =   4 seconds
                                       - All Red        =   4 seconds

                              Total Cycle Length (Ring 1) = 135 seconds

  Ring 2

  5.   EBL                             - Minimum green  =   5 seconds
       EGLINTON AVE                    - Maximum green  =  13 seconds
                                       - Clearance      =   3 seconds

  6.   WB                              - Walk           =  32 seconds
       EGLINTON AVE                    - FL. Don't Walk =  13 seconds
                                       - Amber          =   4 seconds
                                       - All Red        =   2 seconds

  8.   SB                              - Walk           =  15 seconds
       MISSISSAUGA RD                  - FL. Don't Walk =  21 seconds
                                       - Sd. Don't Walk =  24 seconds
                                       - Maximum        =  60 seconds
                                       - Amber          =   4 seconds
                                       - All Red        =   4 seconds

                              Total Cycle Length (Ring 2) = 135 seconds

  SCHEDULED DATA
  INT  TIME          SELECTION PLANS  IN USE         ALTERNATES
            MODE   CYC   OFF  SPLT  SPEC  DUP   MODE CYC  OFF  SPLT SPEC
DUP
                   LEN   NO.  NO.   FUNC  ISEC       LEN  NO.   NO. FUNC
ISEC
   502 23:00   /     /     /     /     /     /    LO  101   2     2    2
1019
?? SHOW CDT502
CYCLE DEFINITION TABLE: 502
 PHASE  DIR  VEH  PED   PED   AMBER  ALL  COMM  SPECIAL  STREET
             MIN  MIN  CLEAR        RED  DELAY FEATURE  NAME
   1    WBL   5                3          1             EGLINTON AVE
   2    EB        10    13      4     2    1    C       EGLINTON AVE
   3    SBL   5                3          1             MISSISSAUGA RD
   4    NB        15    21      4     4    1             MISSISSAUGA RD
   5    EBL   5                3          1             EGLINTON AVE
   6    WB        10    13      4     2    1    C       EGLINTON AVE
   7    NBL                                1             MISSISSAUGA RD
   8    SB        15    21      4     4    1             MISSISSAUGA RD
     VALID SPECIAL FUNCTIONS(Y/N)
      1   2   3  1&2 1&3 2&3 ALL
      Y   Y   Y   Y   Y   Y   Y
?? SHOW DINTREP,ACT1-3,I502
```

```
  DAILY INTERSECTION REPORT FOR ACT SCH  1 ( MON TUE WED THU FRI )
  INT  TIME          SELECTION PLANS  IN USE         ALTERNATES
             MODE   CYC   OFF  SPLT  SPEC  DUP   MODE CYC  OFF  SPLT SPEC
DUP
                    LEN   NO.  NO.   FUNC  ISEC       LEN  NO.   NO. FUNC
ISEC
   502 00:00   /     /     /     /     /     /    LO  101   2     2    2
   502 06:00  1/1    /     /     /    1/1    /    CC  140   1     1    1
1019
   502 09:30  1/1    /     /     /    1/1    /    CC  135   2     2    2
1019
   502 15:00  1/1    /     /     /    1/1    /    CC  140   3     3    3
1019
   502 19:30  1/1    /     /     /    1/1    /    CC  135   2     2    2
1019
  DAILY INTERSECTION REPORT FOR ACT SCH  2 ( SAT )
   502 00:00   /     /     /     /     /     /    LO  101   2     2    2
   502 07:00  1/1    /     /     /    1/1    /    CC  135   2     2    2
1019
  DAILY INTERSECTION REPORT FOR ACT SCH  3 ( SUN HOL )
   502 00:00   /     /     /     /     /     /    LO  101   2     2    2
   502 08:00  1/1    /     /     /    1/1    /    CC  135   2     2    2
1019
   502 23:00   /     /     /     /     /     /    LO  101   2     2    2
1019
?? SHOW SPL1-3,I502
   SPLIT TABLE
    INTERSECTION  502           EGLINTON@MISSISSAUGA
    TABLE     (SPLIT) PHASE NUMBER            (MAX SPLIT) PHASE NUMBER
    NO.    1   2   3   4   5   6   7   8    1   2   3   4   5   6   7   8
          WBL EB  SBL NB  EBL WB  NBL SB
     1    10  45  10  35  10  45      45   16   0   0   0  16   0       0
     2     0  50  12  38  12  38      50    0   0   0   0  18   0       0
     3     9  48  11  32   9  48      43   16   0   0   0  16   0       0
?? SHOW SPF1-3,I502
   SPECIAL FUNCTIONS
    INTERSECTION  502   EGLINTON@MISSISSAUGA
    SPECIAL   IN(Y)/OUT(N)
    FUNCTION  #  1   2   3
                WBL NBL CAL   PHASE OMIT
      1          N   Y   N
      2          Y   Y   N
      3          N   Y   N
?? SHOW OFF1-3,I502
   OFFSET TABLE
    INTERSECTION  502           EGLINTON@MISSISSAUGA
    OFFSET #   OFFSET %
        1         18
        2         66
        3         49
??
```

Appendix D – Existing Traffic Level of Service Calculations

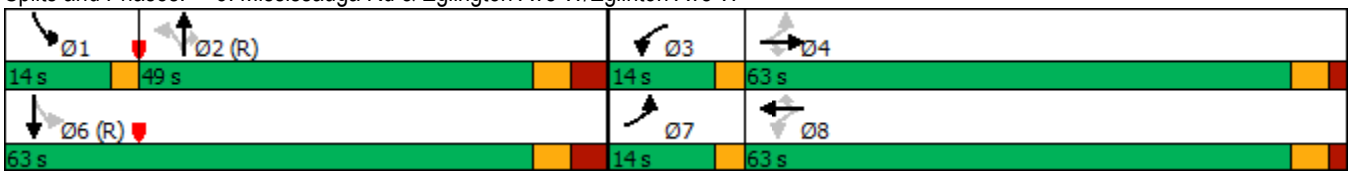


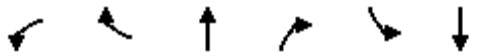
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1926	133	142	937	115	111	310	160	273	262	122
Future Volume (vph)	89	1926	133	142	937	115	111	310	160	273	262	122
Satd. Flow (prot)	1752	5036	1538	1736	4988	1509	1719	1827	1599	1736	1702	0
Flt Permitted	0.233			0.068			0.529			0.369		
Satd. Flow (perm)	430	5036	1538	124	4988	1509	957	1827	1599	674	1702	0
Satd. Flow (RTOR)			86			115			160		20	
Lane Group Flow (vph)	89	1926	133	142	937	115	111	310	160	273	384	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	7	4	4	3	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	57.0	57.0	5.0	57.0	57.0	36.0	36.0	36.0	5.0	36.0	
Minimum Split (s)	10.0	63.0	63.0	10.0	63.0	63.0	45.0	45.0	45.0	10.0	45.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	49.0	49.0	49.0	14.0	63.0	
Total Split (%)	10.0%	45.0%	45.0%	10.0%	45.0%	45.0%	35.0%	35.0%	35.0%	10.0%	45.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	4.0	4.0	4.0	0.0	4.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	8.0	8.0	8.0	3.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	
Act Effct Green (s)	69.0	57.1	57.1	72.1	58.6	58.6	41.0	41.0	41.0	60.5	55.5	
Actuated g/C Ratio	0.49	0.41	0.41	0.52	0.42	0.42	0.29	0.29	0.29	0.43	0.40	
v/c Ratio	0.30	0.94	0.20	0.77	0.45	0.16	0.40	0.58	0.28	0.72	0.56	
Control Delay	19.3	49.7	11.0	55.5	30.1	4.9	44.8	47.3	6.5	41.1	34.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.3	49.7	11.0	55.5	30.1	4.9	44.8	47.3	6.5	41.1	34.9	
LOS	B	D	B	E	C	A	D	D	A	D	C	
Approach Delay		46.1			30.7			35.6			37.5	
Approach LOS		D			C			D			D	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94

Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 137.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Mississauga Rd & Eglington Ave W/Eglinton Ave W

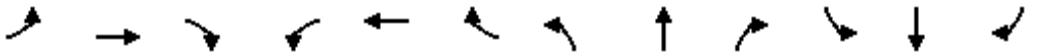




Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	0	581	0	0	537
Future Volume (Veh/h)	1	0	581	0	0	537
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	0	581	0	0	537
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.80					
vC, conflicting volume	1118	290			581	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1020	290			581	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	185	706			989	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	1	387	194	537
Volume Left	1	0	0	0
Volume Right	0	0	0	0
cSH	185	1700	1700	1700
Volume to Capacity	0.01	0.23	0.11	0.32
Queue Length 95th (m)	0.1	0.0	0.0	0.0
Control Delay (s)	24.5	0.0	0.0	0.0
Lane LOS	C			
Approach Delay (s)	24.5	0.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

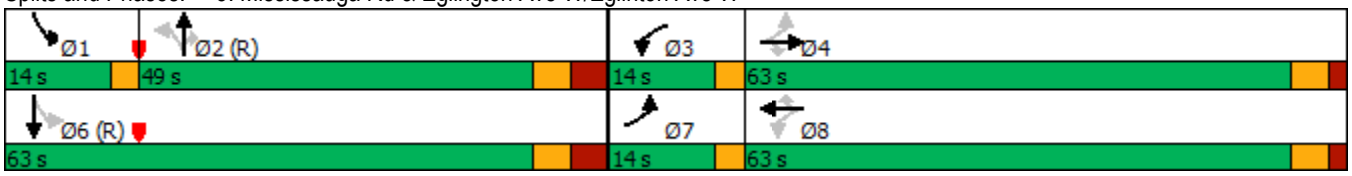


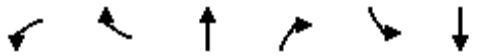
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1120	97	184	1919	244	157	325	165	171	235	94
Future Volume (vph)	145	1120	97	184	1919	244	157	325	165	171	235	94
Satd. Flow (prot)	1752	5036	1538	1736	4988	1509	1719	1827	1599	1736	1713	0
Flt Permitted	0.070			0.163			0.562			0.353		
Satd. Flow (perm)	129	5036	1538	298	4988	1509	1017	1827	1599	645	1713	0
Satd. Flow (RTOR)			86			166			165		17	
Lane Group Flow (vph)	145	1120	97	184	1919	244	157	325	165	171	329	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	7	4	4	3	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	57.0	57.0	5.0	57.0	57.0	36.0	36.0	36.0	5.0	36.0	
Minimum Split (s)	10.0	63.0	63.0	10.0	63.0	63.0	45.0	45.0	45.0	10.0	45.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	49.0	49.0	49.0	14.0	63.0	
Total Split (%)	10.0%	45.0%	45.0%	10.0%	45.0%	45.0%	35.0%	35.0%	35.0%	10.0%	45.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	4.0	4.0	4.0	0.0	4.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	8.0	8.0	8.0	3.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	
Act Effct Green (s)	70.5	57.0	57.0	70.9	57.2	57.2	41.6	41.6	41.6	60.3	55.3	
Actuated g/C Ratio	0.50	0.41	0.41	0.51	0.41	0.41	0.30	0.30	0.30	0.43	0.40	
v/c Ratio	0.78	0.55	0.14	0.70	0.94	0.34	0.52	0.60	0.28	0.47	0.48	
Control Delay	55.9	32.9	6.9	33.5	50.2	10.6	48.6	47.8	6.4	30.2	32.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	55.9	32.9	6.9	33.5	50.2	10.6	48.6	47.8	6.4	30.2	32.8	
LOS	E	C	A	C	D	B	D	D	A	C	C	
Approach Delay		33.5			44.8			37.4			31.9	
Approach LOS		C			D			D			C	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94

Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 139.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Mississauga Rd & Eglington Ave W/Eglinton Ave W





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	1	646	0	1	515
Future Volume (Veh/h)	1	1	646	0	1	515
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	1	646	0	1	515
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.81					
vC, conflicting volume	1163	323			646	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1081	323			646	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	171	673			935	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	2	431	215	516
Volume Left	1	0	0	1
Volume Right	1	0	0	0
cSH	272	1700	1700	935
Volume to Capacity	0.01	0.25	0.13	0.00
Queue Length 95th (m)	0.2	0.0	0.0	0.0
Control Delay (s)	18.3	0.0	0.0	0.0
Lane LOS	C			A
Approach Delay (s)	18.3	0.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix E – City of Transportation Planning Comments (Growth Rates)

Annosan Srikantha

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>
Sent: Thursday, June 14, 2018 10:39 AM
To: Annosan Srikantha
Subject: RE: T-17006: Thorny brae Place

Good Morning Annosan,

Using the City's Travel Demand Model and supporting traffic count data, the City's Transportation Planning section has determined the projected growth on Eglinton Avenue and Mississauga Road to be used as part of your study. The recommended projected growth is shown below:

Eglinton Avenue

	Compound Annual Growth from Existing to 2022	
	EB	WB
Time		
AM Peak Hour	0.0%	1.0%
PM Peak Hour	2.5%	0.0%

Mississauga Road

	Compound Annual Growth from Existing to 2022	
	NB	SB
Time		
AM Peak Hour	1.0%	0.0%
PM Peak Hour	1.0%	1.5%

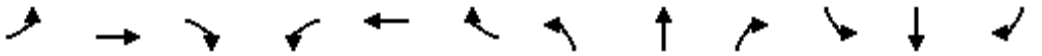
Regards,

Tyler

Appendix F - Future (2022) Background Traffic Level of Service Calculations

Timings
3: Mississauga Rd & Eglington Ave W/Eglinton Ave W

03/01/2019

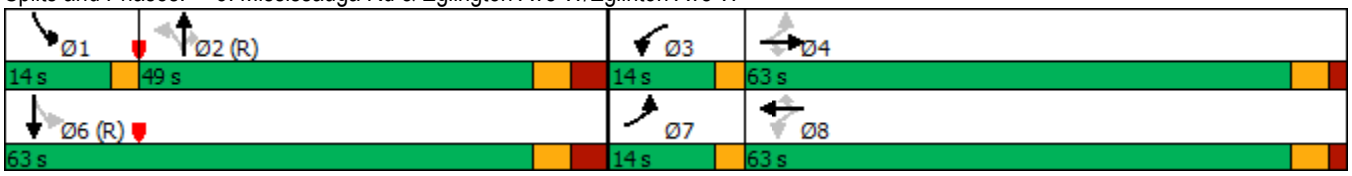


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1926	133	142	995	115	111	329	160	273	262	122
Future Volume (vph)	89	1926	133	142	995	115	111	329	160	273	262	122
Satd. Flow (prot)	1752	5036	1538	1736	4988	1509	1719	1827	1599	1736	1702	0
Flt Permitted	0.212			0.068			0.529			0.343		
Satd. Flow (perm)	391	5036	1538	124	4988	1509	957	1827	1599	627	1702	0
Satd. Flow (RTOR)			86			115			160		20	
Lane Group Flow (vph)	89	1926	133	142	995	115	111	329	160	273	384	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	7	4	4	3	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	57.0	57.0	5.0	57.0	57.0	36.0	36.0	36.0	5.0	36.0	
Minimum Split (s)	10.0	63.0	63.0	10.0	63.0	63.0	45.0	45.0	45.0	10.0	45.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	49.0	49.0	49.0	14.0	63.0	
Total Split (%)	10.0%	45.0%	45.0%	10.0%	45.0%	45.0%	35.0%	35.0%	35.0%	10.0%	45.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	4.0	4.0	4.0	0.0	4.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	8.0	8.0	8.0	3.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	
Act Effct Green (s)	69.0	57.1	57.1	72.1	58.6	58.6	41.0	41.0	41.0	60.5	55.5	
Actuated g/C Ratio	0.49	0.41	0.41	0.52	0.42	0.42	0.29	0.29	0.29	0.43	0.40	
v/c Ratio	0.32	0.94	0.20	0.77	0.48	0.16	0.40	0.61	0.28	0.76	0.56	
Control Delay	19.7	49.7	11.0	55.5	30.6	4.9	44.8	48.6	6.5	43.8	34.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.7	49.7	11.0	55.5	30.6	4.9	44.8	48.6	6.5	43.8	34.9	
LOS	B	D	B	E	C	A	D	D	A	D	C	
Approach Delay		46.1			31.1			36.7			38.6	
Approach LOS		D			C			D			D	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94

Intersection Signal Delay: 39.8	Intersection LOS: D
Intersection Capacity Utilization 137.0%	ICU Level of Service H
Analysis Period (min) 15	

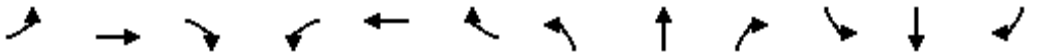
Splits and Phases: 3: Mississauga Rd & Eglington Ave W/Eglinton Ave W



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	0	600	0	0	537
Future Volume (Veh/h)	1	0	600	0	0	537
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	0	600	0	0	537
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.80					
vC, conflicting volume	1137	300			600	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1044	300			600	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	179	696			973	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	1	400	200	537
Volume Left	1	0	0	0
Volume Right	0	0	0	0
cSH	179	1700	1700	1700
Volume to Capacity	0.01	0.24	0.12	0.32
Queue Length 95th (m)	0.1	0.0	0.0	0.0
Control Delay (s)	25.3	0.0	0.0	0.0
Lane LOS	D			
Approach Delay (s)	25.3	0.0		0.0
Approach LOS	D			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

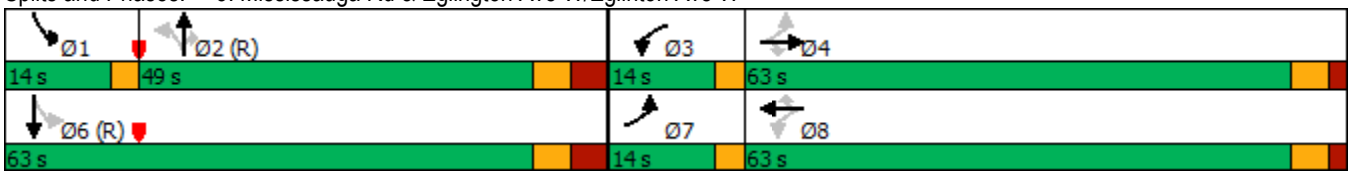


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1299	97	184	1919	244	157	345	165	171	257	94
Future Volume (vph)	145	1299	97	184	1919	244	157	345	165	171	257	94
Satd. Flow (prot)	1752	5036	1538	1736	4988	1509	1719	1827	1599	1736	1720	0
Flt Permitted	0.070			0.116			0.551			0.325		
Satd. Flow (perm)	129	5036	1538	212	4988	1509	997	1827	1599	594	1720	0
Satd. Flow (RTOR)			86			166			165		15	
Lane Group Flow (vph)	145	1299	97	184	1919	244	157	345	165	171	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	7	4	4	3	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	57.0	57.0	5.0	57.0	57.0	36.0	36.0	36.0	5.0	36.0	
Minimum Split (s)	10.0	63.0	63.0	10.0	63.0	63.0	45.0	45.0	45.0	10.0	45.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	49.0	49.0	49.0	14.0	63.0	
Total Split (%)	10.0%	45.0%	45.0%	10.0%	45.0%	45.0%	35.0%	35.0%	35.0%	10.0%	45.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	4.0	4.0	4.0	0.0	4.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	8.0	8.0	8.0	3.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	
Act Effct Green (s)	70.5	57.0	57.0	71.3	57.4	57.4	41.4	41.4	41.4	60.1	55.1	
Actuated g/C Ratio	0.50	0.41	0.41	0.51	0.41	0.41	0.30	0.30	0.30	0.43	0.39	
v/c Ratio	0.78	0.63	0.14	0.81	0.94	0.34	0.53	0.64	0.28	0.50	0.51	
Control Delay	55.9	34.9	6.9	48.7	49.7	10.5	49.3	49.3	6.4	31.0	34.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	55.9	34.9	6.9	48.7	49.7	10.5	49.3	49.3	6.4	31.0	34.0	
LOS	E	C	A	D	D	B	D	D	A	C	C	
Approach Delay		35.1			45.6			38.7			33.0	
Approach LOS		D			D			D			C	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94

Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 139.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Mississauga Rd & Eglington Ave W/Eglinton Ave W



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	0	600	0	0	537
Future Volume (Veh/h)	1	0	600	0	0	537
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	0	600	0	0	537
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.80					
vC, conflicting volume	1137	300			600	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1044	300			600	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	179	696			973	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	1	400	200	537
Volume Left	1	0	0	0
Volume Right	0	0	0	0
cSH	179	1700	1700	1700
Volume to Capacity	0.01	0.24	0.12	0.32
Queue Length 95th (m)	0.1	0.0	0.0	0.0
Control Delay (s)	25.3	0.0	0.0	0.0
Lane LOS	D			
Approach Delay (s)	25.3	0.0		0.0
Approach LOS	D			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix G – 2011 TTS Data (Trip Distribution)

Wed Mar 22 2017 09:47:46 GMT-0400 (Eastern Daylight Time) - Run Time: 3122ms

Cross Tabulation Query Form - Trip - 2011
Row: 2006 GTA zone of origin - gta06_orig
Column: Planning district of destination - pd_dest
Table: Primary travel mode of trip - mode_prime

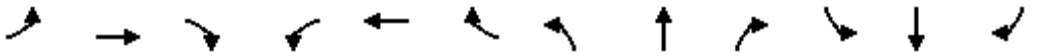
Filters:
(2006 GTA zone of origin - gta06_orig In 3684
and
Start time of trip - start_time In 600-900)

Trip 2011
Table: Auto driver

	S PD 1 of Toronto	0.5S+0.5W PD 2 of Toronto	0.5E+0.5W PD 3 of Toronto	0.5 E + 0.5W PD 4 of Toronto	0.5 E + 0.5W PD 10 of Toronto	0.5 E + 0.5W PD 16 of Toronto	0.5 N + 0.5W Vaughan	0.33S + 0.33W +0.33E Brampton	0.33N + 0.33W +0.33E Mississauga	W Oakville	W Hamilton	
3684	59	49	20	20	20	20	52	40	789	65	20	1154

N	289	25%	25
S	97	8%	10
E	316	27%	25
W	452	39%	40
	1154		100

Appendix H – Future (2022) Total Traffic Level of Service Calculations

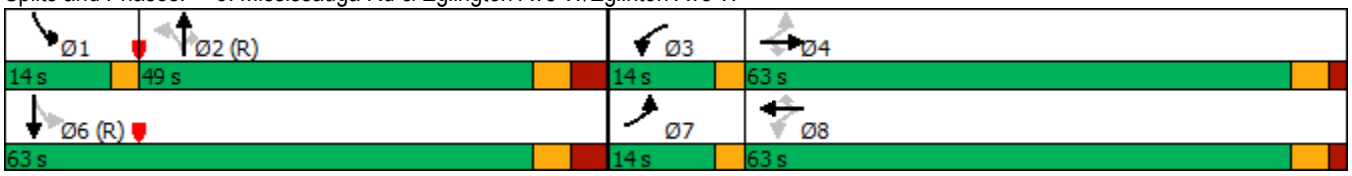


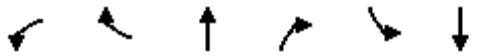
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1926	135	143	995	115	119	334	165	273	263	122
Future Volume (vph)	89	1926	135	143	995	115	119	334	165	273	263	122
Satd. Flow (prot)	1752	5036	1538	1736	4988	1509	1719	1827	1599	1736	1702	0
Flt Permitted	0.213			0.068			0.527			0.335		
Satd. Flow (perm)	393	5036	1538	124	4988	1509	954	1827	1599	612	1702	0
Satd. Flow (RTOR)			86			115			165		20	
Lane Group Flow (vph)	89	1926	135	143	995	115	119	334	165	273	385	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	7	4	4	3	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	57.0	57.0	5.0	57.0	57.0	36.0	36.0	36.0	5.0	36.0	
Minimum Split (s)	10.0	63.0	63.0	10.0	63.0	63.0	45.0	45.0	45.0	10.0	45.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	49.0	49.0	49.0	14.0	63.0	
Total Split (%)	10.0%	45.0%	45.0%	10.0%	45.0%	45.0%	35.0%	35.0%	35.0%	10.0%	45.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	4.0	4.0	4.0	0.0	4.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	8.0	8.0	8.0	3.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	
Act Effct Green (s)	69.0	57.1	57.1	72.1	58.6	58.6	41.0	41.0	41.0	60.5	55.5	
Actuated g/C Ratio	0.49	0.41	0.41	0.52	0.42	0.42	0.29	0.29	0.29	0.43	0.40	
v/c Ratio	0.32	0.94	0.20	0.78	0.48	0.16	0.43	0.62	0.28	0.77	0.56	
Control Delay	19.7	49.8	11.2	56.1	30.6	4.9	45.8	48.9	6.5	44.7	35.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.7	49.8	11.2	56.1	30.6	4.9	45.8	48.9	6.5	44.7	35.0	
LOS	B	D	B	E	C	A	D	D	A	D	C	
Approach Delay		46.1			31.2			37.0			39.0	
Approach LOS		D			C			D			D	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94

Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 137.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Mississauga Rd & Eglington Ave W/Eglinton Ave W

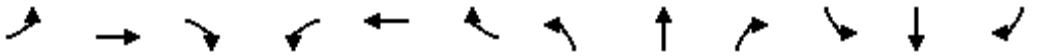




Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	18	600	0	4	537
Future Volume (Veh/h)	3	18	600	0	4	537
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	18	600	0	4	537
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.79					
vC, conflicting volume	1145	300			600	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1053	300			600	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	97			100	
cM capacity (veh/h)	175	696			973	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	21	400	200	541
Volume Left	3	0	0	4
Volume Right	18	0	0	0
cSH	489	1700	1700	973
Volume to Capacity	0.04	0.24	0.12	0.00
Queue Length 95th (m)	1.1	0.0	0.0	0.1
Control Delay (s)	12.7	0.0	0.0	0.1
Lane LOS	B			A
Approach Delay (s)	12.7	0.0		0.1
Approach LOS	B			

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

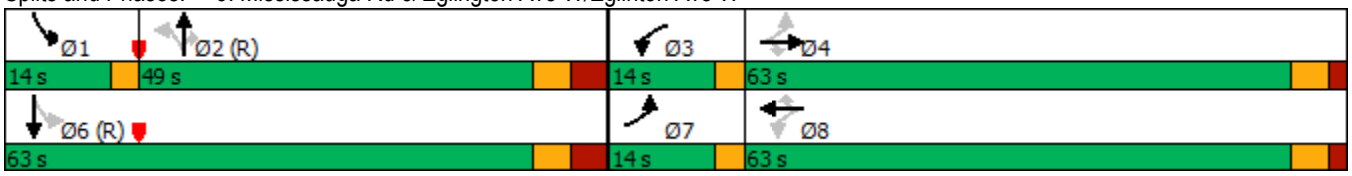


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1299	106	190	1919	244	161	348	168	171	262	94
Future Volume (vph)	145	1299	106	190	1919	244	161	348	168	171	262	94
Satd. Flow (prot)	1752	5036	1538	1736	4988	1509	1719	1827	1599	1736	1720	0
Flt Permitted	0.070			0.116			0.548			0.320		
Satd. Flow (perm)	129	5036	1538	212	4988	1509	992	1827	1599	585	1720	0
Satd. Flow (RTOR)			86			166			168		15	
Lane Group Flow (vph)	145	1299	106	190	1919	244	161	348	168	171	356	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	7	4	4	3	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	57.0	57.0	5.0	57.0	57.0	36.0	36.0	36.0	5.0	36.0	
Minimum Split (s)	10.0	63.0	63.0	10.0	63.0	63.0	45.0	45.0	45.0	10.0	45.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	49.0	49.0	49.0	14.0	63.0	
Total Split (%)	10.0%	45.0%	45.0%	10.0%	45.0%	45.0%	35.0%	35.0%	35.0%	10.0%	45.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	4.0	4.0	4.0	0.0	4.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	8.0	8.0	8.0	3.0	8.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max	
Act Effct Green (s)	70.5	57.0	57.0	71.5	57.5	57.5	41.3	41.3	41.3	60.0	55.0	
Actuated g/C Ratio	0.50	0.41	0.41	0.51	0.41	0.41	0.30	0.30	0.30	0.43	0.39	
v/c Ratio	0.78	0.63	0.16	0.84	0.94	0.34	0.55	0.65	0.28	0.50	0.52	
Control Delay	55.9	34.9	8.0	51.7	49.5	10.5	50.1	49.6	6.4	31.2	34.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	55.9	34.9	8.0	51.7	49.5	10.5	50.1	49.6	6.4	31.2	34.3	
LOS	E	C	A	D	D	B	D	D	A	C	C	
Approach Delay		35.0			45.6			39.0			33.3	
Approach LOS		D			D			D			C	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94

Intersection Signal Delay: 40.3	Intersection LOS: D
Intersection Capacity Utilization 139.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Mississauga Rd & Eglington Ave W/Eglinton Ave W



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	11	667	2	21	537
Future Volume (Veh/h)	2	11	667	2	21	537
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	11	667	2	21	537
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.79					
vC, conflicting volume	1247	334			669	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1178	334			669	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			98	
cM capacity (veh/h)	141	661			917	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	13	445	224	558
Volume Left	2	0	0	21
Volume Right	11	0	2	0
cSH	422	1700	1700	917
Volume to Capacity	0.03	0.26	0.13	0.02
Queue Length 95th (m)	0.8	0.0	0.0	0.6
Control Delay (s)	13.8	0.0	0.0	0.6
Lane LOS	B			A
Approach Delay (s)	13.8	0.0		0.6
Approach LOS	B			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		

Appendix I – Future (2022) Total Traffic Queue Length Calculations

Queues
3: Mississauga Rd & Eglington Ave W/Eglinton Ave W

02/28/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	89	1926	135	143	995	115	119	334	165	273	385
v/c Ratio	0.32	0.94	0.20	0.78	0.48	0.16	0.43	0.62	0.28	0.77	0.56
Control Delay	19.7	49.8	11.2	56.1	30.6	4.9	45.8	48.9	6.5	44.7	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	49.8	11.2	56.1	30.6	4.9	45.8	48.9	6.5	44.7	35.0
Queue Length 50th (m)	12.5	195.5	8.7	24.0	75.8	0.0	28.1	84.5	0.0	53.3	82.5
Queue Length 95th (m)	22.0	#221.4	23.0	#58.9	91.8	12.4	48.7	118.7	17.4	#84.4	116.9
Internal Link Dist (m)		234.1			245.9			38.7			107.0
Turn Bay Length (m)			3.0								
Base Capacity (vph)	306	2053	678	190	2088	698	279	535	584	356	686
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.94	0.20	0.75	0.48	0.16	0.43	0.62	0.28	0.77	0.56

Intersection Summary

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	11	667	2	21	537
Future Volume (Veh/h)	2	11	667	2	21	537
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	2	11	667	2	21	537
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						63
pX, platoon unblocked	0.79					
vC, conflicting volume	1247	334			669	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1178	334			669	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			98	
cM capacity (veh/h)	141	661			917	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	13	445	224	558
Volume Left	2	0	0	21
Volume Right	11	0	2	0
cSH	422	1700	1700	917
Volume to Capacity	0.03	0.26	0.13	0.02
Queue Length 95th (m)	0.8	0.0	0.0	0.6
Control Delay (s)	13.8	0.0	0.0	0.6
Lane LOS	B			A
Approach Delay (s)	13.8	0.0		0.6
Approach LOS	B			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		