



Diamond Developments Inc. &
Maria and Mario Polla

TRAFFIC OPERATION ASSESSMENT

**900 & 904 Mississauga Heights Drive,
City of Mississauga**

Proposed Residential Development

Disclaimer

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Reference Number: 23382 - 900 and 904
Mississauga Heights Drive

Diamond Developments (900 Mississauga Heights) Inc. & Maria and Mario Polla (904 Mississauga Heights)

c/o Mark Condello, MCIP, RPP
Glen Schnarr & Associates Inc.
700 – 10 Kingsbridge Circle
Mississauga, ON
L5R 3K6

Dear Mr. Condello,

**RE: Transportation Brief – Proposed Residential Development
900 and 904 Mississauga Heights Drive, City of Mississauga**

LEA Consulting Ltd. is pleased to present the findings of our Transportation Brief for the proposed residential development located at 900 & 904 Mississauga Heights Drive in the City of Mississauga. This report concluded that the traffic associated with the proposed development will generate a minimal impact on the surrounding transportation network.

Should you have any comments with our assumptions or have any concerns, please contact the undersigned.

Yours truly,

LEA CONSULTING LTD.

Kenneth Chan, P.Eng., PTOE, PMP
Senior Vice President, Transportation Engineering and Planning

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Project Coordinator

Encl.

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1 INTRODUCTION

LEA Consulting Ltd. (LEA) has been retained by Diamond Developments (900 Mississauga Heights) Inc. and Maria and Mario Polla to conduct a Traffic Operation Assessment (TOA) for the proposed residential development located at 900 & 904 Mississauga Heights Drive in the City of Mississauga (herein referred to as the subject site). The intention of this TOA is to support the Zoning By-law (ZBA) and Official Plan Amendment (OPA) applications, and to address City Staff comments regarding the proposed development.

This TOA will assess the existing and future traffic operations of the surrounding road network, forecast trip generation of proposed on-site land uses, and perform an intersection capacity analysis using Synchro 11.0 software. Since only 18 single family dwelling units are being proposed, it is anticipated that very few vehicle trips will be generated by the proposed development (fewer than 100 trips). Thus, in accordance with the City of Mississauga's *Transportation Impact Study Guidelines*, a detailed transportation Impact Study (TIS) is not required, and a TOA will suffice.

In addition to this TOA a Functional Design Review (FDR), and Sightline Analysis will be provided as appendices following the contents of this report.

The subject site is located at the southeast quadrant of Mississauga Heights Drive & The Queensway West intersection as shown in **Figure 1-1**.

Figure 1-1: Site Location



Source: Google Earth, Accessed March 2023

1.1 PROPOSED DEVELOPMENT

The subject site, which is currently occupied by two (2) single family dwelling units which are intended to remain, proposes to see a total of 18 single family dwelling units on-site (9 units on 900 Mississauga Heights Drive lands and the remaining 9 units on 904 Mississauga Heights Drive lands). A private roadway providing access to all units is proposed via one (1) unsignalized, full movements access off Mississauga Heights Drive as shown in **Figure 1-2**. Site statistics for the proposed development are detailed in **Table 1-1**.

Figure 1-2: Proposed Site Plan



Source: Glenn Schnarr & Associates Inc., April 28, 2023

Table 1-1: Proposed Site Statistics

Land Use	Res Units
Proposed	
Residential (900 Mississauga Heights Drive)	9
Residential (904 Mississauga Heights Drive)	9





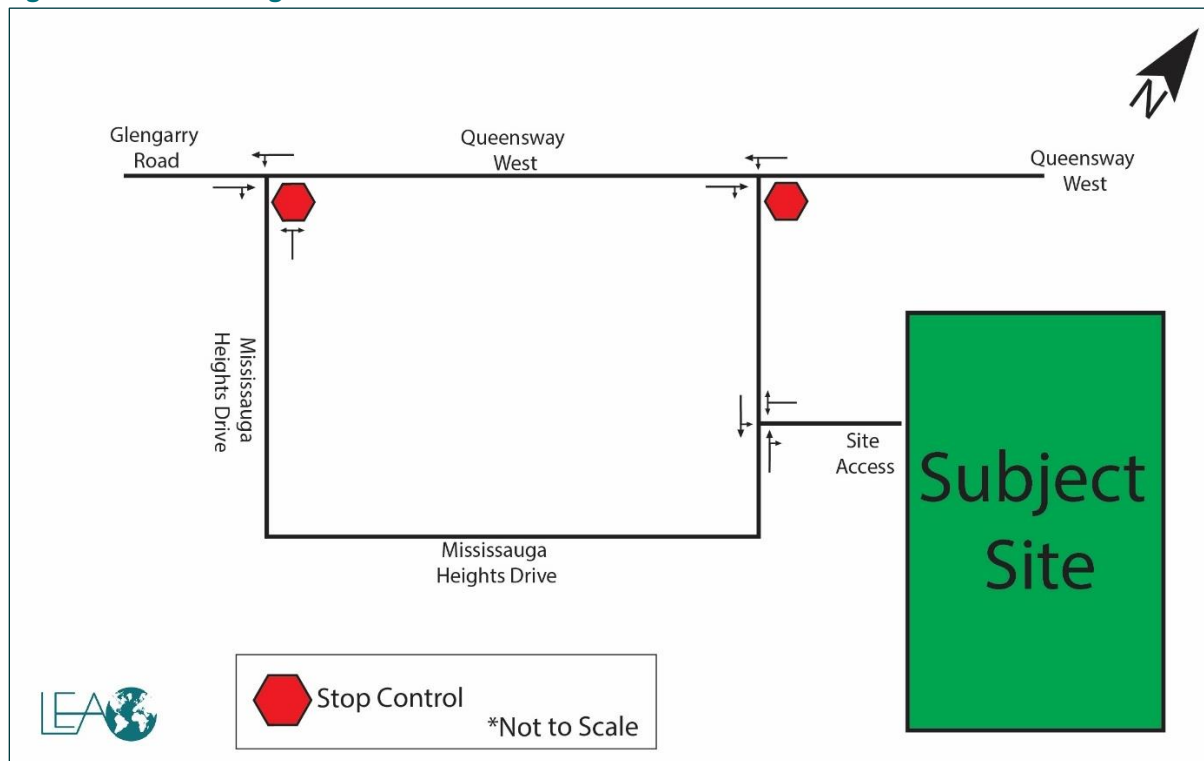
2 EXISTING TRANSPORTATION CONDITIONS

This section provides a brief overview of the existing transportation conditions within the study area, including the road, transit, cycling, and pedestrian networks. The study area was determined by assessing the size of the proposed development and its anticipated impact on the existing road network, and through consultation with City staff.

2.1 ROAD NETWORK

The following is a description and classification of the nearby roadways facilitating access to the subject site, under City jurisdiction. The existing intersection controls and lane configurations for the study area roads are shown in **Figure 2-1**.

Figure 2-1: Lane Configuration



Queensway West is an east-west minor collector road that operates with a two-lane cross-section (one lane per direction) and has a speed limit of 40 km/h. The roadway operates under the jurisdiction of the City from Old Carriage Road to Mavis Road, and under the jurisdiction of the Region from Mavis Road to the area of Dixie Road in the City of Mississauga.

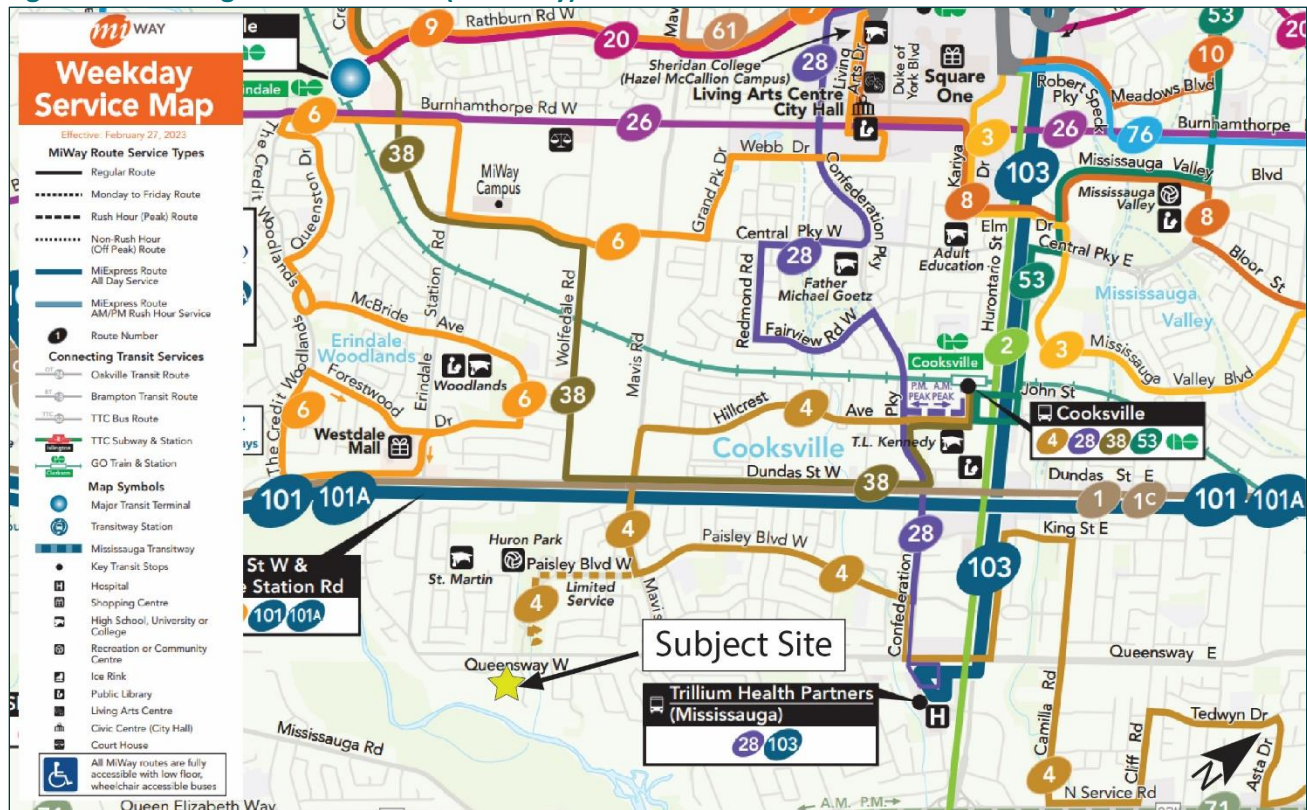
Mississauga Heights Drive is an east-west local road that operates with a two-lane cross-section (one lane per direction) and has an assumed speed limit of 30km/h. The roadway extends from Queensway West (to the west) and Queensway West (to the east) in the City of Mississauga.

2.2 TRANSIT NETWORK

The subject site is located in an area of the City that has limited access to the existing transit network operated by Mississauga Transit (MiWay). The site is within a five (5) minute walk to MiWay bus service at the Huron Park Access near the intersection of Queensway West & Huron Park. The bus service at the Huron Park Access is able to connect passengers to TTC bus service at Sherway Gardens and other MiWay bus routes, as well as GO Transit train and bus service at Cooksville GO Station.

When entered into the TransitScore™ tool that measures how well a location is serviced by the existing public transit network, the site received a score of 37/100 which indicates “some transit”. Transit routes servicing the subject site are illustrated in Figure 2-2.

Figure 2-2: Existing Transit Network (Weekday)



Source: MiWay Weekday Service Map, 2023

MiWay Bus Route 4 – Sherway Gardens is a bus route that generally operates in an east-west direction between Cooksville GO Station and Sherway Gardens. The route operates regular all-day service with limited service on certain routes.

Access Location: Regular bus service routes are accessible at the intersection of Mavis Road & Paisley Boulevard West a 19 min (1.5 km) walk from the subject site. Limited service is available at the Huron Park Access a 5-minute walk from the subject site.

2.3 ACTIVE TRANSPORTATION NETWORK

The following sections provide a description of the cycling and pedestrian networks servicing the study area.

2.3.1 Cycling Network

Access to the subject site can be accomplished using the existing, albeit minimal, cycling network. When entered into the BikeScore™ tool, which determines how accessible and viable biking is for the location, the site received a 34/100 which indicates minimal cycling infrastructure is available. The cycling network servicing the site is shown in **Figure 2-3**.

Within walking distance to the site (a 3-minute walk) there is a multi-use trail along Queensway West that connects to bicycle lanes within Huron Park and signed bike lanes along Stavebank Road. These cycle connections provide access to the greater cycling network and public transit facilities such as the Cooksville GO Station as discussed in **Section 2.2**. The multi-use trail along Queensway extends from Glengarry Road to the area of Dixie Road.

Figure 2-3: Cycling Network



Source: Mississauga Cycling Map, 2021

2.3.2 Pedestrian Network

The existing pedestrian network within the study area is limited. There are no pedestrian sidewalks along Mississauga Heights Drive meaning pedestrians will need to walk approximately 3-minutes north towards Queensway West where sidewalks are available on the roads north side. A multi-use trail is also available on southern side of Queensway West which can accommodate both pedestrians and cyclists. Crosswalk facilities are also limited within the study area. Pedestrians can safely navigate east and west at the intersection of Queensway West & Mississauga Heights Drive, as there is an available stop control and marked crosswalk. Similarly, to access the north sidewalks safely, pedestrians will need to walk to the nearest northern crosswalk at the Queensway West & Rosemary Drive intersection, which is approximately a one (1) minute walk from the Queensway West & Mississauga Heights Drive intersection.

When entered into the WalkScore™ tool, which measures a location’s pedestrian friendliness and proximity to local amenities, the subject site scored a 9/100, indicating mostly car dependent.

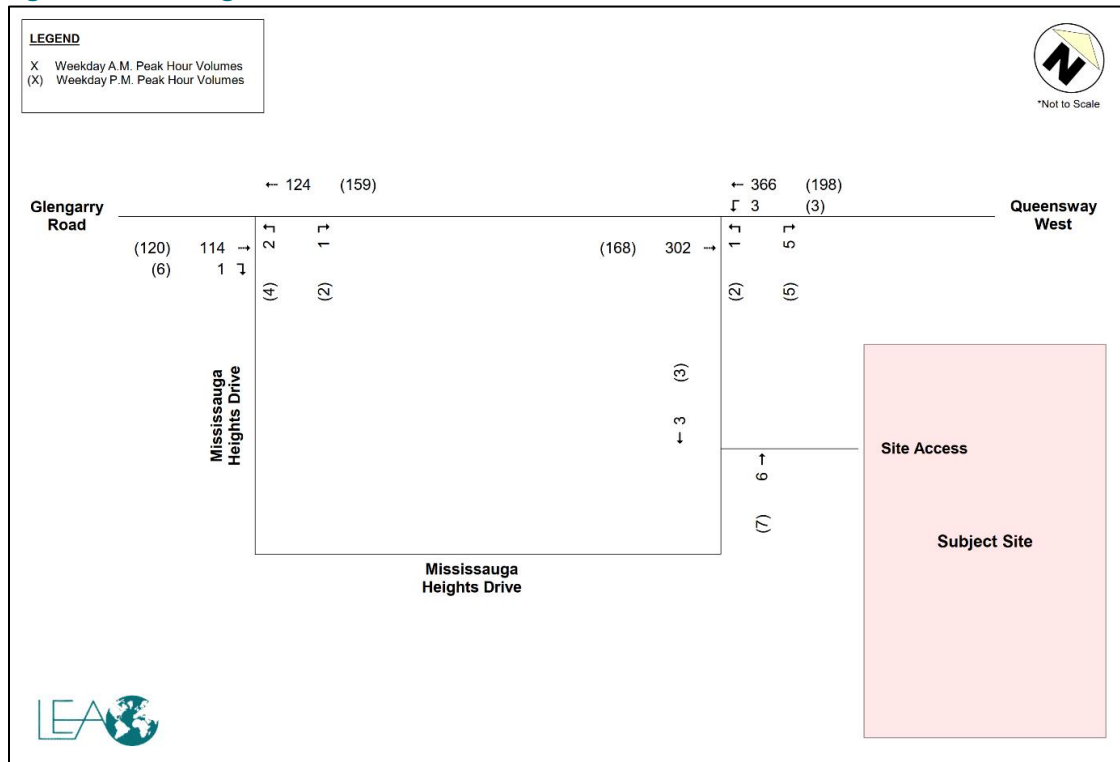
2.4 TRAFFIC DATA COLLECTION

Turning moving counts (TMCs) were used as the underlying source of traffic data for the intersection capacity analysis which includes peak hour factors (PHFs), conflicting pedestrian and cyclist volumes, and heavy vehicle percentages. LEA collected TMC data for the following intersections as summarized in **Table 2-1**. The full TMC data set is provided in **Appendix A**. **Figure 2-4** illustrates the existing traffic volumes.

Table 2-1: Existing Lane Configurations

Intersection	TMC Date	Source
Glengarry Road/Queensway West & Mississauga Heights Drive	Thursday, March 30, 2023	LEA Consulting Ltd.
Queensway West & Mississauga Heights Drive	Tuesday, March 28, 2023	

Figure 2-4: Existing Traffic Volumes



3 FUTURE BACKGROUND CONDITIONS

The assessment of future background conditions considered a five (5) year horizon from existing year 2023 to 2028 and includes traffic from potential future developments, and transportation network improvements within the study area. Synchro input parameters from existing traffic scenarios were maintained with the corresponding future background traffic volumes.

3.1 TRANSPORTATION NETWORK IMPROVEMENTS

3.1.1 Mississauga Cycling Master Plan 2018

The Mississauga Cycling Master Plan (CMP 2018) outlines recommended improvements to the cycling network on the City’s primary and secondary roads, and trail network. The following roadways within and close to the subject site were noted for improvements in the CMP 2018.

Primary Roads On-Street Improvements

- **Mavis Road:** Proposed cycle track/separated bike lane between Dundas Street West and Queensway West.

Secondary Roads On-Street Improvements

- **Glengarry Road:** Proposed bike lane between Old Carriage Road and Dundas Street West.

Recommended Park Trail Upgrades

- **Huron Park:** Proposed striping, signage, and/or widening/surface upgrades.



3.2 FUTURE BACKGROUND DEVELOPMENTS

No background developments were included in the analysis of future background conditions per the City of Mississauga’s Development Applications Portal.

3.3 CORRIDOR GROWTH

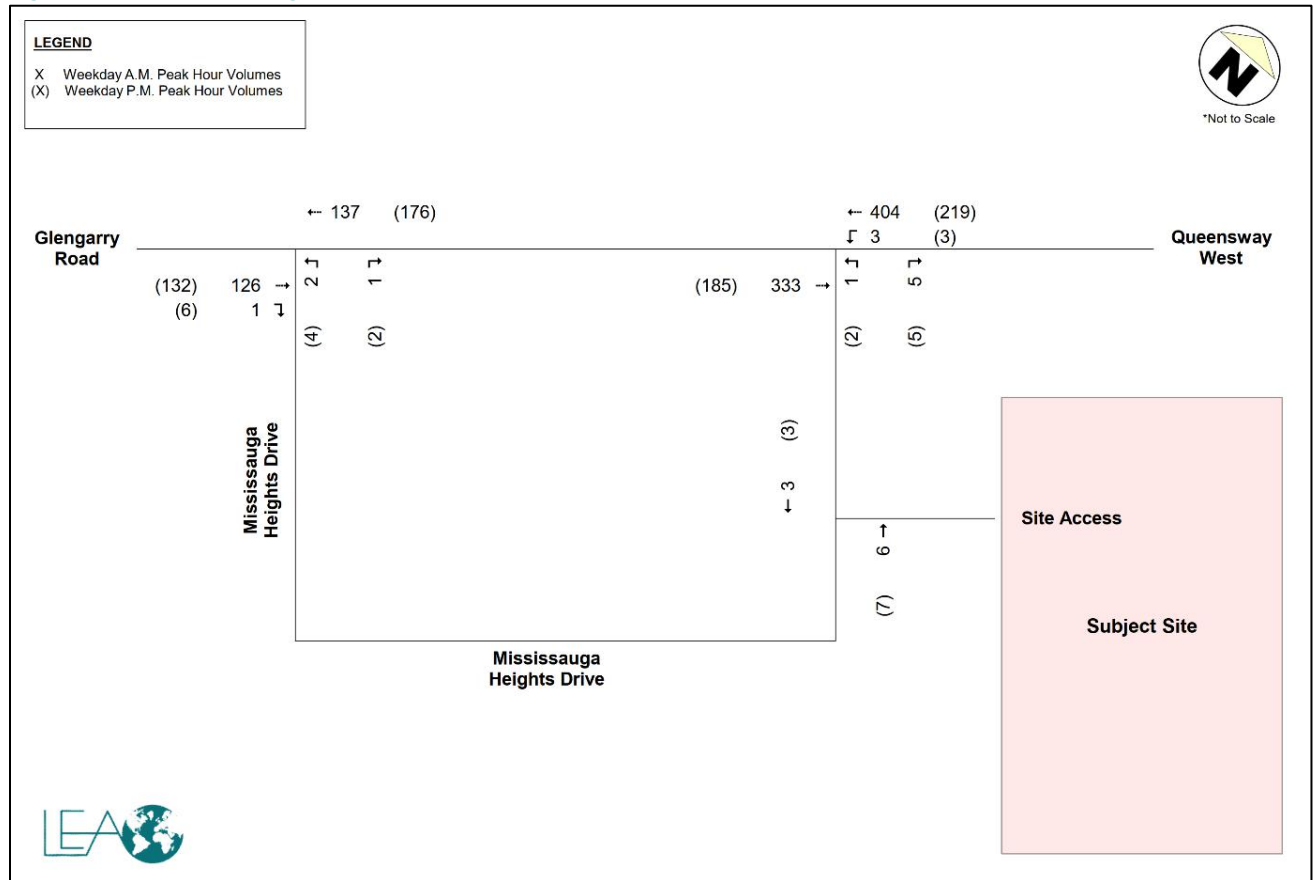
Corridor growth rates were requested from the City of Mississauga, and it was determined that since Queensway West is not a major collector or arterial roadway, growth rates could not be provided. As a result, a conservative annual growth rate of 2% was applied as shown in **Table 3-1**.

Table 3-1: Conservative Annual Corridor Growth Rate

Corridor	AM	PM
Queensway West EB	2.00%	2.00%
Queensway West WB	2.00%	2.00%

Given the parameters and corridor growth rates discussed **Figure 3-1** illustrates the future background traffic volumes.

Figure 3-1: Future Background Traffic Volumes



4 TRIP GENERATION

The proposed development will consist of 18 single-family dwelling units. Access to the site is proposed via one (1) unsignalized full movement access along Mississauga Heights Drive. The sections below discuss the calculation, distribution, and assignment of site-generated vehicle trips.

4.1 TRIP GENERATION

Trip generation was estimated using baseline trip rates from the ITE Trip Generation Manual 11th Edition. For the proposed residential uses, conversion to person trips used average rates for ITE Land use code (LUC) 220 Multifamily Housing (Low-Rise) in General Urban/Suburban, Not Close to Rail Transit Setting.

Table 4-1 details the proposed residential auto trip generation, with residential trip generation by mode provided in **Table 4-2**.

Table 4-1: Proposed Site Vehicle Trip Generation

Land Use	Description	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential ITE LUC 220 – Multifamily Housing (Low-Rise) – 18 units	ITE Person Trip Rate (/unit)	0.08	0.30	0.38	0.34	0.20	0.54
	Total External Trips	2	5	7	6	4	10
	External Auto Trips (70%)	1	3	4	4	3	7
Total New Site Auto Trips		1	3	4	4	3	7

The proposed development is expected to generate a total of four (4) net two-way auto trips (one (1) inbound and three (3) outbound) during the weekday AM peak hour, and seven (7) new two-way auto trips (four (4) inbound and three (3) outbound) during the weekday PM peak hour.

Table 4-2: Subject Site Multi-Modal Trip Generation

Land Use	Description	Modal Split	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Residential	External Person Trips	100%	2	5	7	6	4	10
	Auto Driver Trips	70%	1	3	4	4	3	7
	Passenger Trip	9%	0	0	0	1	0	1
	Transit Trips	14%	1	2	3	1	1	2
	Pedestrian trips	6%	0	0	0	0	0	0
	Cycling Trips	1%	0	0	0	0	0	0

The full ITE survey data results for the proposed residential trip generation is provided in **Appendix B**.

4.2 LOCAL MODE SPLIT

The local mode split was based on 2016 Transportation Tomorrow Survey (TTS) data filtered for traffic analysis zones 3652 and 3655 and includes residential trips with trip purpose including home-based work and home-based school. The modal split for site residential trips during weekday AM/PM peak periods is provided below.

- Auto Driver Trips: 70%
- Passenger Trips: 9%
- Transit Trips: 14%
- Pedestrian Trips: 6%
- Cycling Trips: 1%

4.3 TRIP DISTRIBUTION AND ASSIGNMENT

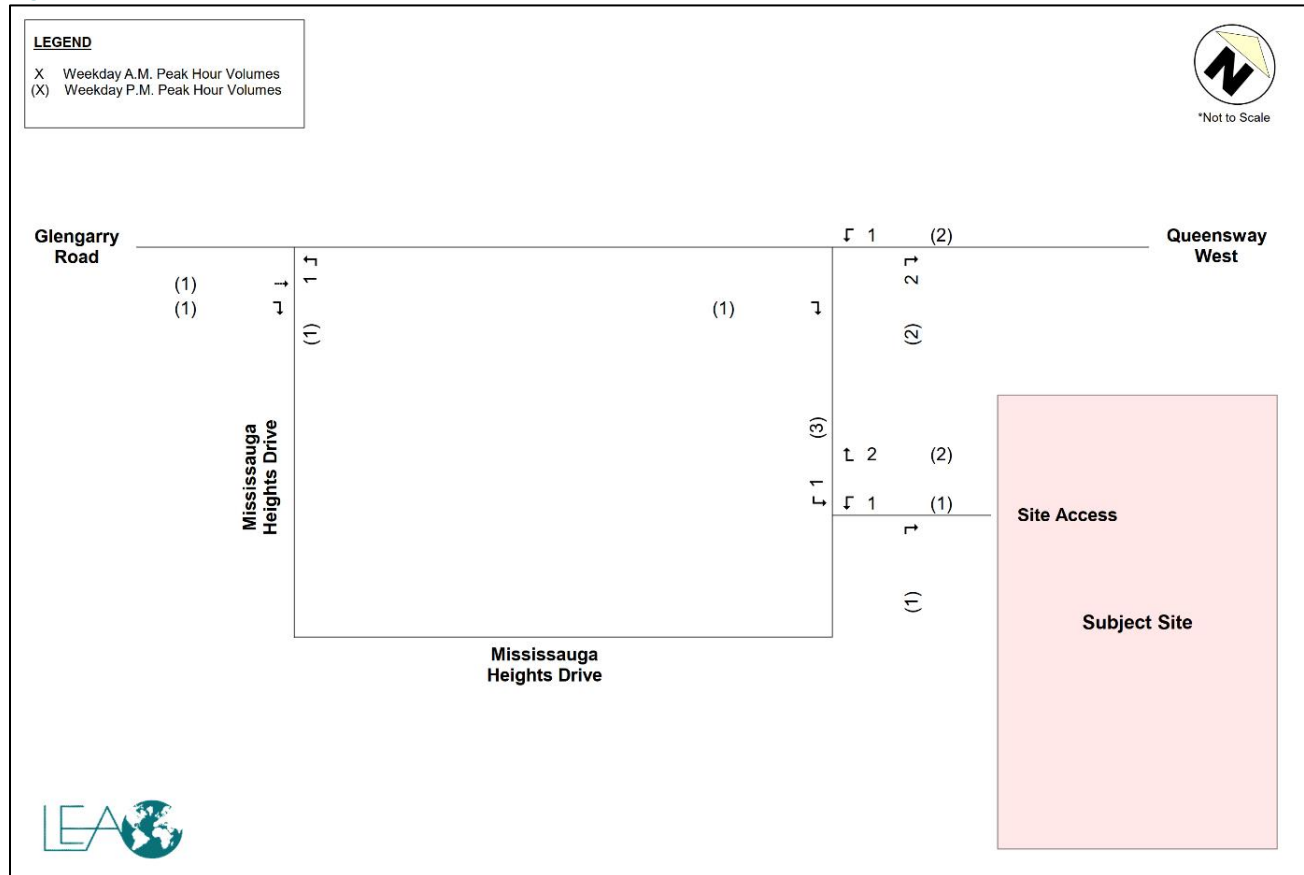
Trip distribution for the proposed development was based on existing traffic patterns observed. Inbound and outbound trips onto Mississauga Heights Drive from the 2016 TTS data was used to obtain the percentage of trips travelling east and west on Queensway West and Glengarry Road. Vehicle trip assignments were based on the local road network, turn restrictions, changes in future road network (assumed none), logical routing, and type of access. **Table 4-3** summarizes predicted site trip distribution by expected route.

Table 4-3: Residential Site Trip Distribution

Expected Route	Residential			
	Weekday AM		Weekday PM	
	In	Out	In	Out
Queensway West and NS Corridors	75%	67%	33%	54%
Glengarry Road and EW Corridors	25%	33%	67%	46%
Total	100%	100%	100%	100%

The proposed residential traffic volumes for the weekday AM and PM peak hours are illustrated in **Figure 4-1**.

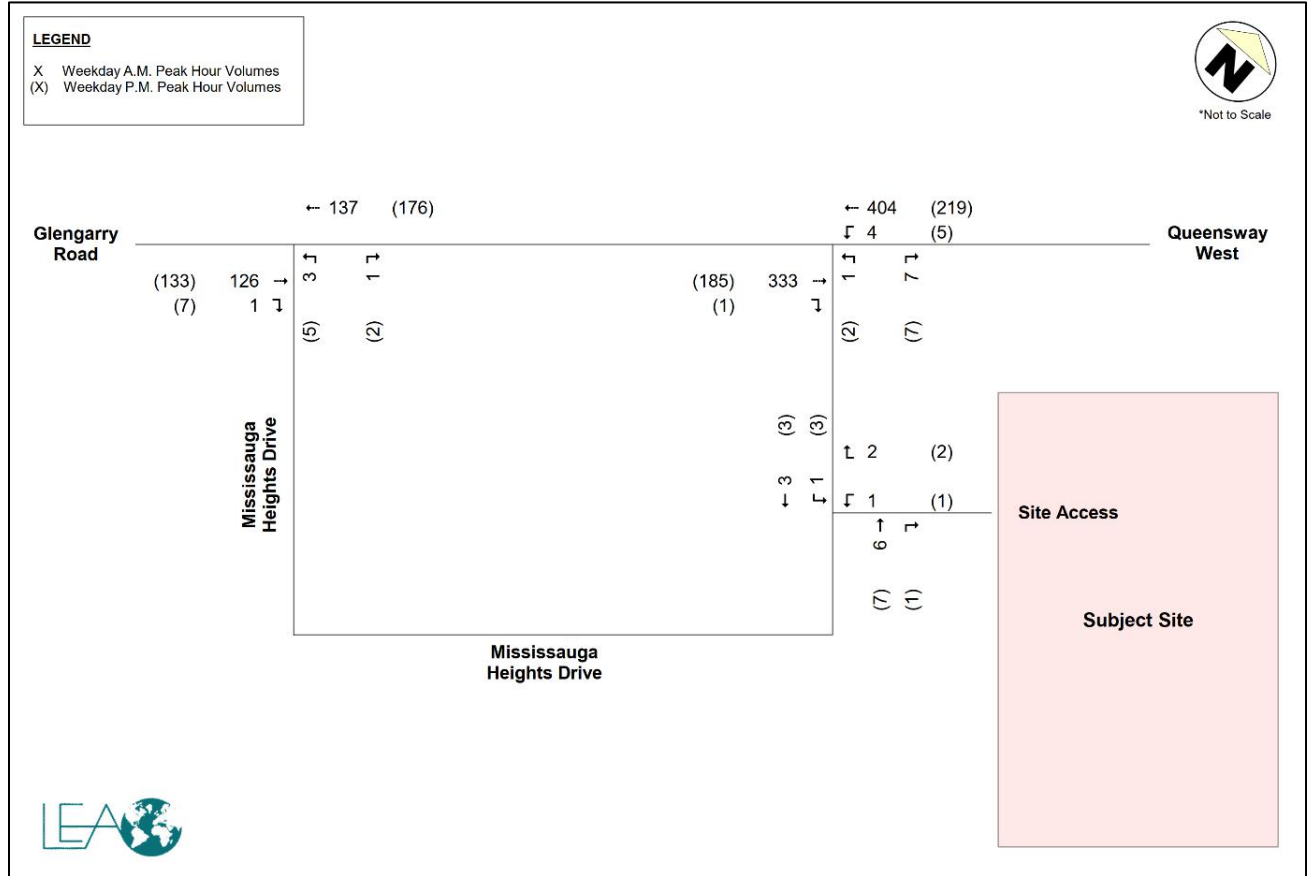
Figure 4-1: Site Traffic Volumes



5 FUTURE TOTAL TRANSPORTATION CONDITIONS

Future total traffic conditions include the addition of site trips to the future background volumes. Existing Synchro modeling conditions were maintained in the future total analysis. The future total traffic volumes during the weekday AM and PM peak hour are illustrated in **Figure 5-1**.

Figure 5-1: Future Total Traffic Volumes



6 INTERSECTION CAPACITY ANALYSIS

The intersection capacity analysis was undertaken using Synchro version 11.0, which is based on the Highway Capacity Manual 2000 methodology. Critical movements of interest for signalized intersections are those with a volume-to-capacity (V/C) ratio greater than 0.85 for overall intersections, and a (V/C) ratio greater than 1.00 for individual through turning movements. Critical movements of interest for unsignalized intersections are those with a level of service (LOS) of E or greater. Detailed capacity results are provided in **Appendix C**.

6.1 UNSIGNALIZED INTERSECTIONS

6.1.1 Glengarry Road/Queensway West & Mississauga Heights Drive

The intersection capacity analysis at Glengarry Road / Queensway West and Mississauga Heights Drive during the weekday AM and PM peak hour is summarized in **Table 6-1** for existing, future background and future total conditions.

Table 6-1: Glengarry Road/Queensway West & Mississauga Heights Drive

AM	Existing Traffic					Future Background Traffic					Future Total Traffic				
Mvmt	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue
Overall	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
NBLR	3	0.01	10	B	0	3	0.01	11	B	0	4	0.01	11	B	0
EBT	114	0.00	0	-	0	126	0.00	0	-	0	126	0.00	0	-	0
EBR	1	0.00	0	-	0	1	0.00	0	-	0	1	0.00	0	-	0
WBL	0	0.00	0	A	0	0	0.00	0	A	0	0	0.00	0	A	0
WBT	124	0.00	0	-	0	137	0.00	0	--	0	137	0.00	0	-	0
PM	Existing Traffic					Future Background Traffic					Future Total Traffic				
Mvmt	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue
Overall	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
NBLR	6	0.01	10	A	0	6	0.01	10	B	0	7	0.01	10	B	0
EBT	120	0.00	0	-	0	132	0.00	0	-	0	133	0.00	0	-	0
EBR	6	0.00	0	-	0	6	0.00	0	-	0	7	0.00	0	-	0
WBL	0	0.00	0	A	0	0	0.00	0	A	0	0	0.00	0	A	0
WBT	159	0.00	0	-	0	176	0.00	0	-	0	176	0.00	0	-	0

As summarized in the table above, the study area intersection of Glengarry Road / Queensway West and Mississauga Heights Drive operates at acceptable levels of service during both AM and PM peak hours, with no critical movements identified in existing, future background or future total conditions.

6.1.2 Queensway West & Mississauga Heights Drive

The intersection capacity analysis at Queensway West and Mississauga Heights Drive during the weekday AM and PM peak hour is summarized in **Table 6-2** for existing, future background and future total conditions.

Table 6-2: Queensway West & Mississauga Heights Drive

AM		Existing Traffic					Future Background Traffic					Future Total Traffic				
Mvmt	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	
Overall	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	
NBLR	6	0.02	13	B	0	6	0.02	14	B	0	8	0.03	13	B	0	
EBT	302	0.00	0	-	0	333	0.00	0	-	0	333	0.00	0	-	0	
EBR	0	0.00	0	-	0	0	0.00	0	-	0	0	0.00	0	-	0	
WBL	3	0.00	9	A	0	3	0.01	9	A	0	4	0.01	9	A	0	
WBT	366	0.00	0	A	0	404	0.00	0	A	0	404	0.00	0	A	0	
PM		Existing Traffic					Future Background Traffic					Future Total Traffic				
Mvmt	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	
Overall	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	
NBLR	7	0.01	10	A	0	7	0.01	10	B	0	9	0.01	10	B	0	
EBT	168	0.00	0	-	0	185	0.00	0	-	0	185	0.00	0	-	0	
EBR	0	0.00	0	-	0	0	0.00	0	-	0	1	0.00	0	-	0	
WBL	3	0.00	8	A	0	3	0.00	8	A	0	5	0.00	8	A	0	
WBT	198	0.00	0	A	0	219	0.00	0	A	0	219	0.00	0	A	0	

As summarized in the table above, the study area intersection of Queensway West and Mississauga Heights Drive operates at acceptable levels of service during both AM and PM peak hours, with no critical movements identified in existing, future background or future total conditions.

6.1.3 Mississauga Heights & Site Access

The intersection capacity analysis at Glengarry Road / Queensway West and Mississauga Heights Drive during the weekday AM and PM peak hour is summarized in **Table 6-3** for existing, future background and future total conditions.

Table 6-3: Mississauga Heights & Site Access

AM		Existing Traffic					Future Background Traffic					Future Total Traffic				
Mvmt	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	
Overall	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-	
NBT	6	0.00	0	-	0	6	0.00	0	-	0	6	0.00	0	-	0	
NBR	0	0.00	0	-	0	0	0.00	0	-	0	0	0.00	0	-	0	
WBLR	0	0.00	0	A	0	0	0.00	0	A	0	3	0.00	8	A	0	
SBL	0	0.00	0	A	0	0	0.00	0	A	0	1	0.00	7	A	0	
SBT	3	0.00	0	-	0	3	0.00	0	-	0	3	0.00	0	A	0	
PM		Existing Traffic					Future Background Traffic					Future Total Traffic				
Mvmt	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	Vol	V/C	Delay (s)	LOS	95th Queue	
Overall	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-	
NBT	7	0.00	0	-	0	7	0.00	0	-	0	7	0.00	0	-	0	
NBR	0	0.00	0	-	0	0	0.00	0	-	0	1	0.00	0	-	0	
WBLR	0	0.00	0	A	0	0	0.00	0	A	0	3	0.00	8	A	0	
SBL	0	0.00	0	A	0	0	0.00	0	A	0	3	0.00	7	A	0	
SBT	3	0.00	0	-	0	3	0.00	0	-	0	3	0.00	0	A	0	

As summarized in the table above, the study area intersection of Mississauga Heights Drive and the Site Access operates at acceptable levels of service during both AM and PM peak hours, with no critical movements identified in existing, future background or future total conditions. Under existing and future background

conditions, only through volumes are projected along Mississauga Heights Drive, as the proposed development is not accounted for until future total conditions.

6.1.4 Conclusions

Under existing and future background weekday peak (AM/PM) hour conditions, all movements at the unsignalized intersections within the study area are expected to operate within capacity with acceptable LOS B or better.

Under future total weekday AM and PM peak hour conditions, movements at the unsignalized intersections, including the site access, are expected to operate well within capacity with v/c ratios below 1.00, minimal delays with acceptable LOS of B or better, and minimal queuing that is not expected to interfere with operations of nearby study intersections. No constraints were identified due to the addition of the proposed development's site trips.

7 PROPOSED PARKING REQUIREMENTS

The following section will review the vehicle parking standards based on the Zoning By-law requirements applicable to the subject site.

7.1 ZONING BY-LAW REQUIREMENTS

The subject site is governed by the City of Mississauga’s Zoning By-law 0225-2007. **Table 7-1** summarizes the parking requirements for the proposed development.

7.1.1 City of Mississauga Zoning By-law 0225-2007

Table 7-1: City of Mississauga Zoning By-law 0225-2007 Parking Requirements

Land Use	Size	Parking Rates	Parking Spaces Required	Proposed Supply
Detached Dwelling	18 Units	2.0 spaces/unit	36	36 spaces (2.00 spaces/unit)
Visitors		0.25 spaces / unit	5	8 spaces
Total			41 spaces	44 spaces

Based on the prevailing By-law a total of 41 parking spaces are required for the subject site, 36 of which are for residents, and five (5) are for visitors. The proposed development will provide at least 2 spaces per unit for residents, and eight (8) spaces for visitors, meeting and exceeding the By-law requirements.

8 FUNCTIONAL DESIGN REVIEW

The following sections will review and discuss the design and swept path analysis of the access and internal roadway, as well as a sightline analysis of the access location via Mississauga Heights Drive.

8.1 SIGHTLINE ANALYSIS

The sightline analyses were conducted for the proposed residential development for the Mississauga Heights Drive and Proposed Site Access intersection, to ensure that vehicles can make all their respective turns safely. Typically, sightlines are considered for the three basic movements – left-turn, right-turn, and through the intersection. However, this sightline analysis is mainly focused towards left and right-turn movements to determine the clear sight line visibility and daylight triangle requirements. The sightline analysis considered Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD). The measurements were based on the property survey and conducted using the methodology as per the Geometric Design Guide for Canadian Road TAC Manual.

Stopping Sight Distance (SSD)

The SSD is the distance a moving vehicle travels, reacts, and brings the vehicle to a complete stop to avoid a collision, from the moment the driver perceives of an obstacle on the road. The findings of the stopping sight distance (SSD) measurements are illustrated in **Appendix D, Drawing No. 005**. As shown in **Drawing No. 005**, the minimum SSD, as specified in the Geometric Design Guide for Canadian Roads by the Transportation Association of Canada (TAC), for a road with a design speed of 50 km/hr (posted speed limit of 40 km/hr) is 65-m. The available SSD for vehicles traveling southbound or eastbound along Mississauga Heights Drive is greater than 65 m which exceeds the minimum requirements. It should be noted that the minimum SSD specified in the TAC Guide conservatively assumes that the driver of the moving vehicle requires 3.0 seconds to perceive an obstacle and react accordingly. Therefore, an incoming southbound or eastbound vehicle along Mississauga Heights Drive will have more than sufficient distance to bring the vehicle to a complete stop and avoid a potential collision, should an obstacle be present as the incoming southbound or eastbound vehicle approaches the intersection of Mississauga Heights Drive and Proposed Site Access (i.e. when they see a vehicle making a left or right turn from Proposed Site Access).

Intersection Sight Distance (ISD)

In addition to the SSD, LEA also conducted an Intersection Sight Distance (ISD) analysis for the Mississauga Heights Drive and Proposed Site Access intersection. **Appendix D, Drawing No. 006** shows the findings of the available ISD compared with the specified desirable ISD per TAC Guidelines. It should be noted that as per TAC guidelines, the vertex (decision point) of the departure sight triangle on the Proposed Site Access should be 4.4-m from the edge of Mississauga Heights Drive. Since there are no sidewalks currently present along Mississauga heights Drive fronting the site, it is our opinion vehicles will stop at the stop bar and clear the intersection before proceeding with left or right turns at Mississauga Heights Drive.



Based on the design speed noted above, TAC recommends a minimum ISD of 105-m for left-turning vehicles, and 95m for right-turning vehicles at Proposed Site Access. When looking westward, not only does the sight distance of 105 m meets the minimum desired ISD of 105 m but it also exceeds the minimum SSD of 65 m. However, when looking northwards, the minimum sight distance of 95m has not been met. It should be noted that this is due to the available distance between the site access location and the intersection of Queensway West and Mississauga Heights Drive. Since vehicles have clear visibility along the entire north-south portion of Mississauga Heights Drive, the available ISD of 71m provides sufficient sight distance. Hence, vehicles turning left or right at the proposed site access location will have sufficient and clear sightline, on the condition that the hatched area (as identified in the attached **Appendix D, Drawing No. 006**) is restricted to a maximum object height of 0.3 m - to ensure clear visibility.

8.2 LOADING / ACCESS REVIEW

The subject site is governed by the City of Mississauga's Zoning By-law 0225-2007. In accordance to the By-law, a loading space is not required for a development with less than 30 units. As such, curbside garbage pick-up will be utilized by the site. Swept path diagrams are provided in **Appendix D, Drawings No. 001 – 004**. The site access has been designed as per OPSD Standard 350.010, and is provided in **Appendix D, Drawing No. 004**.

9 TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Transportation Demand Management (TDM) is a set of strategies that strive towards a more efficient transportation network by influencing travel behaviours. Effective TDM measures can reduce vehicle usage and encourage residents to engage in more sustainable methods of travel. There are various opportunities to incorporate TDM measures within the development to support alternative modes of transportation. The recommendations that will be discussed in the section should enhance non-single occupant auto vehicle trips for future residents of the subject development.

TDM strategies are critical in achieving a balanced multi-modal transportation system in the City of Mississauga and supporting goals towards sustainable development as identified by the City of Mississauga Climate Change Action Plan to achieve net zero greenhouse gas emissions by 2050. As the proposed development is expected to generate up to 50 additional trips per day, a full TDM Plan was not required per the City of Mississauga's *TDM Strategy and Implementation Plan (2018)*. However, the following measures listed below should be considered for implementation:

► Active Transportation Measures

Bicycle Parking can be implemented within the development to encourage cycling as an alternative to vehicular transportation.

Bicycle Repair Facilities can encourage residents to use the cycling networks in the vicinity of the subject site. Bicycle repair facilities include hand tools, tire gauges, and tire pumps.

On-site Pedestrian Infrastructure can provide pleasant and safe pedestrian experience through enhanced landscaping. To further improve the pedestrian realm and consider persons with mobility difficulties, the passageways should be well lit with enhanced landscaping and minimal barriers.

► Transit Measures

PRESTO is contactless smart card used on participating public transit systems within the Greater Toronto and Hamilton Area (GTHA) and Ottawa. To further incentivize unit purchasers to make more transit-based trips, it is recommended that pre-loaded PRESTO cards of \$20 in value be provided with the sale/rental of each unit. This will provide residents with the opportunity to sample transit services in the neighbourhood and an opportunity for them to experience the benefits of transit. is a parking, presto card, and information.

Transit Marketing is such as information packaging is an important tool to promote transit available to the subject site.

As the proposed development moves through the city's development process, the TDM plan will undergo further refinement.

10 SUMMARY

- ▶ The subject site, which is currently occupied by one (1) single family dwelling unit and a two (2) storey residential building will see the addition of 18 single family dwelling units (9 units on 900 Mississauga Heights lands and the remaining 9 units on 904 Mississauga Heights lands) accessed via one (1) unsignalized, full movements site access off Mississauga Heights Drive.
- ▶ The subject site is situated in an area of the City that is car dominant as indicated by all WalkScore™ tools which earned the site score of 37/100 or less for all transit, bike, and pedestrian metrics. Although there are some transit and active transportation infrastructure access is limited. Although proposed improvements to the cycling network along Glengarry Road will raise the BikeScore™ of the site cycling to/from the site will still be limited.
- ▶ The site is not expected to generate high trip generation volumes. At most 10 two-way trips are project for both AM/PM peak hours respectively. Vehicular trips will comprise of most of these trips with a 70% modal split.
- ▶ The analysis of study area's intersection capacity reveals existing and future conditions are operating within capacity.
- ▶ The proposed parking supply will meet and exceed Zoning By-law 0225-2007 requirements with a total supply of 44 parking spaces (36 for residents and eight (8) for visitors).
- ▶ The sightline analysis reveals that clear sightlines are provided for all directions at the site access, on the condition that the hatched area in **Appendix D, Drawing No. 006** is restricted to a maximum object height of 0.3m, to ensure clear visibility.
- ▶ The site access has been designed as per OPSD Standard 350.010, and the swept paths for all vehicles expected to use the site (i.e. passenger vehicles, garbage truck and fire route) can maneuver through the site.



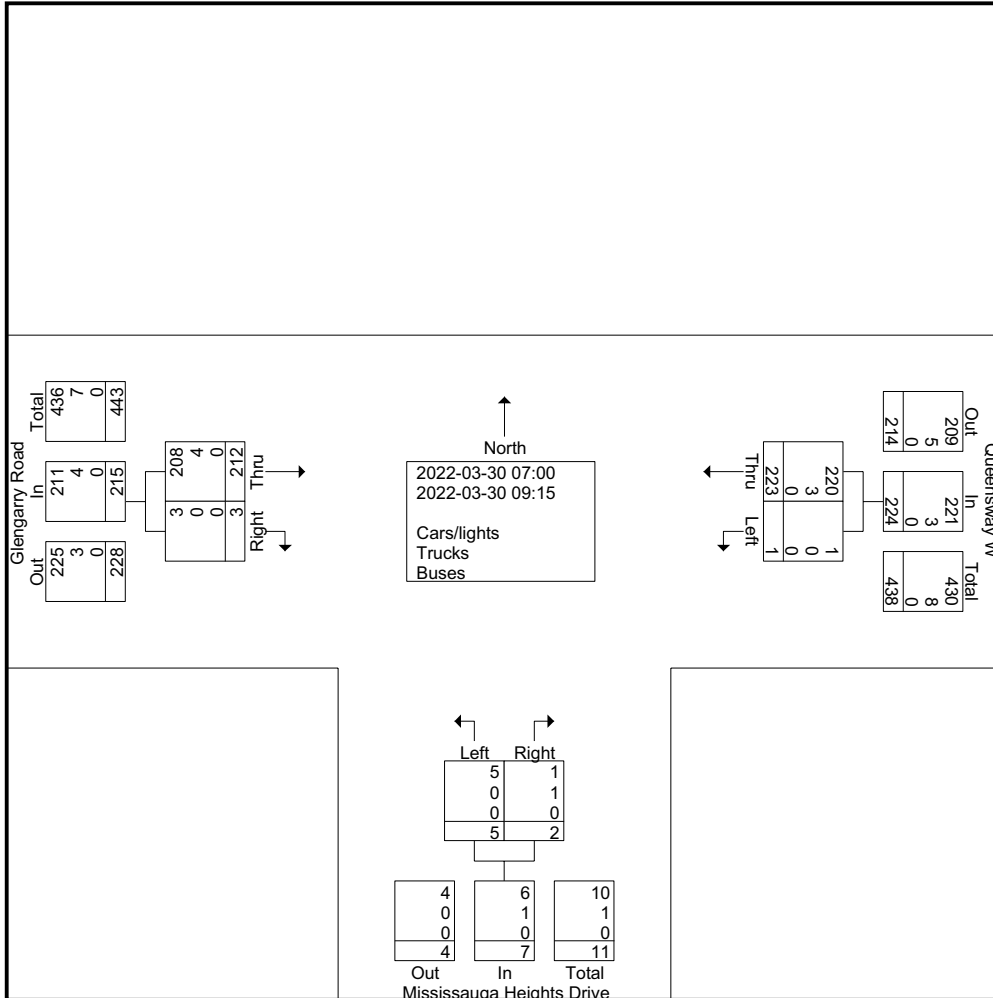
APPENDIX A

Turning Movement Counts

LEA Consulting Ltd.

625 Cochrane Drive, 5th Floor
 Markham, ON L3R 9R9

File Name : Mississauga Heights Dr & Glen Garry Rd - AM
 Site Code : 00023382
 Start Date : 2022-03-30
 Page No : 2

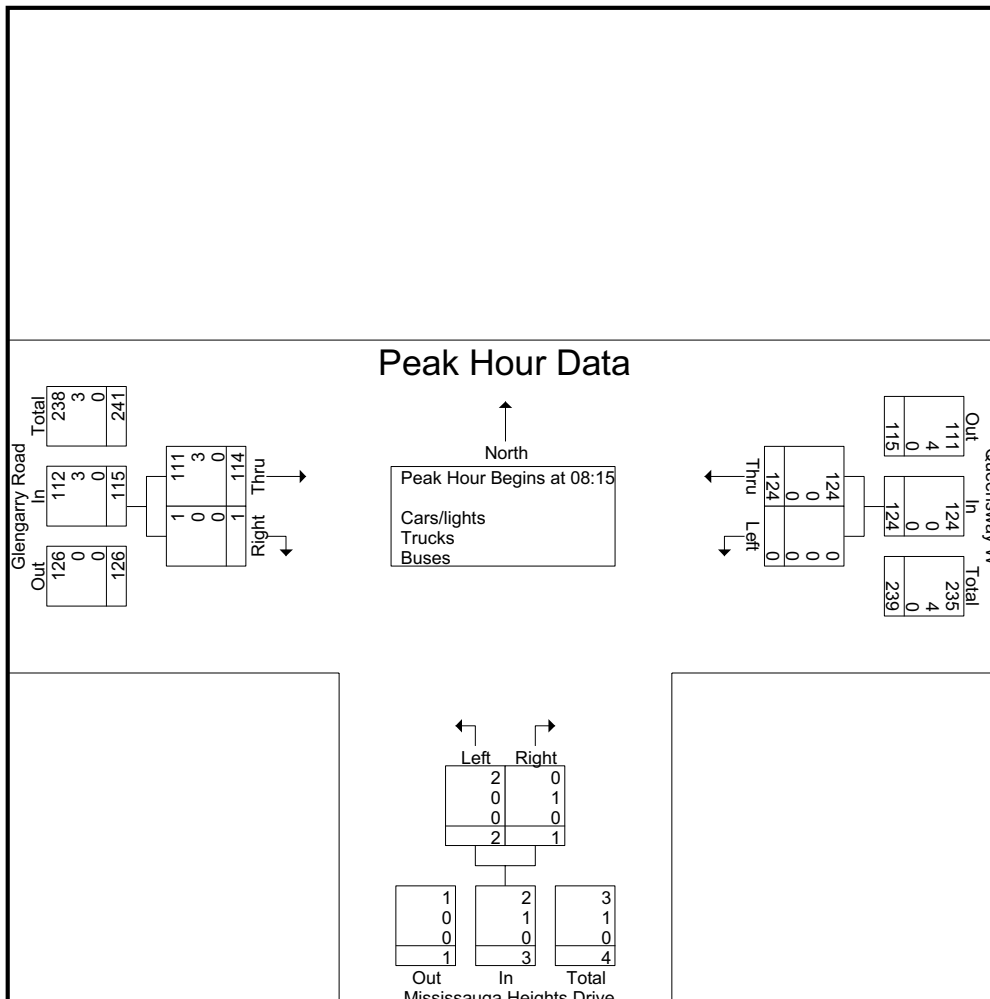


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File Name : Mississauga Heights Dr & Glen Garry Rd - AM
Site Code : 00023382
Start Date : 2022-03-30
Page No : 3

Start Time	Queensway W Westbound			Mississauga Heights Drive Northbound			Glengarry Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 09:15 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:15										
08:15	0	41	41	0	1	1	36	1	37	79
08:30	0	28	28	1	0	1	20	0	20	49
08:45	0	30	30	1	0	1	30	0	30	61
09:00	0	25	25	0	0	0	28	0	28	53
Total Volume	0	124	124	2	1	3	114	1	115	242
% App. Total	0	100		66.7	33.3		99.1	0.9		
PHF	.000	.756	.756	.500	.250	.750	.792	.250	.777	.766
Cars/lights	0	124	124	2	0	2	111	1	112	238
% Cars/lights	0	100	100	100	0	66.7	97.4	100	97.4	98.3
Trucks	0	0	0	0	1	1	3	0	3	4
% Trucks	0	0	0	0	100	33.3	2.6	0	2.6	1.7
Buses	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0



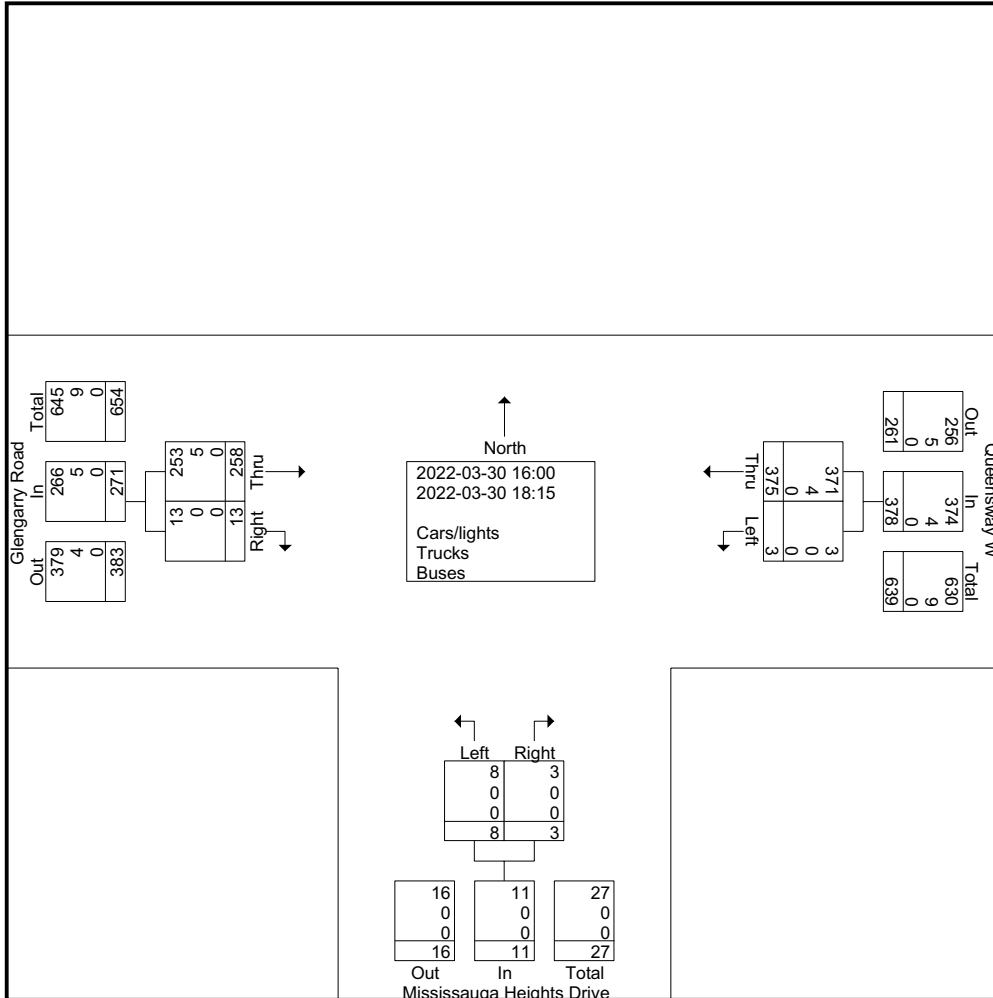
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File Name : Mississauga Heights Dr & Glen Garry Rd - PM
 Site Code : 00023382
 Start Date : 2022-03-30
 Page No : 2

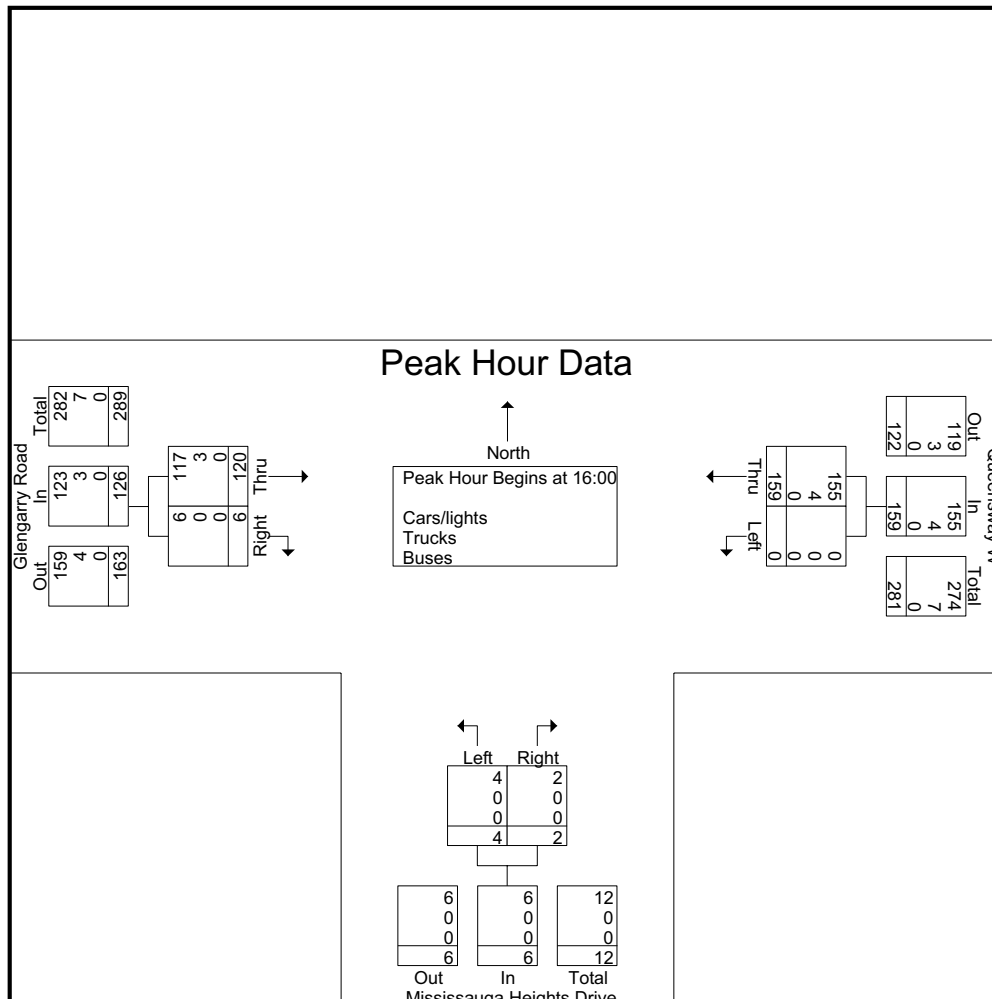


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File Name : Mississauga Heights Dr & Glen Garry Rd - PM
Site Code : 00023382
Start Date : 2022-03-30
Page No : 3

Start Time	Queensway W Westbound			Mississauga Heights Drive Northbound			Glengarry Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 18:15 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:00										
16:00	0	44	44	1	0	1	28	1	29	74
16:15	0	42	42	2	1	3	24	1	25	70
16:30	0	36	36	0	1	1	28	2	30	67
16:45	0	37	37	1	0	1	40	2	42	80
Total Volume	0	159	159	4	2	6	120	6	126	291
% App. Total	0	100		66.7	33.3		95.2	4.8		
PHF	.000	.903	.903	.500	.500	.500	.750	.750	.750	.909
Cars/lights	0	155	155	4	2	6	117	6	123	284
% Cars/lights	0	97.5	97.5	100	100	100	97.5	100	97.6	97.6
Trucks	0	4	4	0	0	0	3	0	3	7
% Trucks	0	2.5	2.5	0	0	0	2.5	0	2.4	2.4
Buses	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0



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Project No.: 23382

File Name : Mississauga Heights Dr & Queensway W - AM

Intersection: M Heights Dr & Queensway W Site Code : 00023382

Weather: Clear

Start Date : 2023-03-28

Surveyor(s): ID

Page No : 1

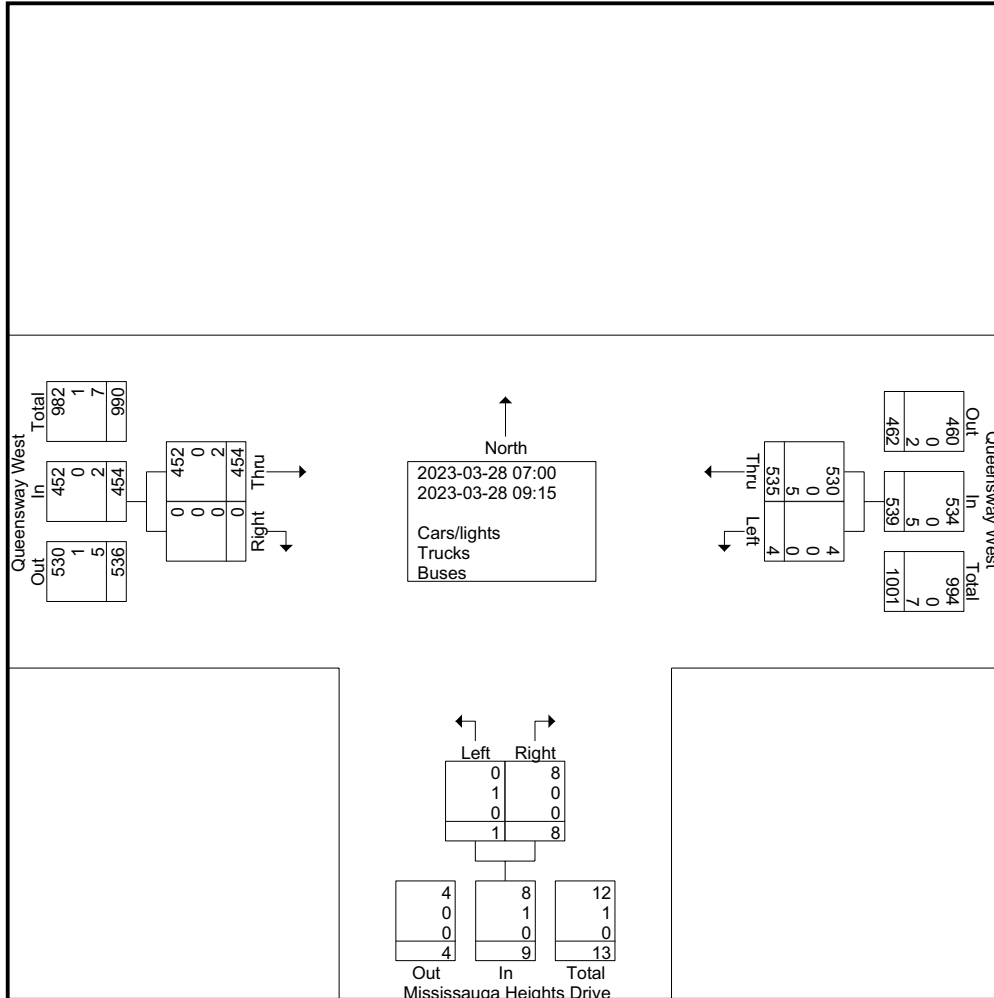
Groups Printed- Cars/lights - Trucks - Buses

Start Time	Queensway West Westbound				Mississauga Heights Drive Northbound				Queensway West Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total			
07:00	0	14	[0]	14	0	0	[2]	0	16	0	[0]	16	2	30	32
07:15	0	11	[0]	11	0	0	[1]	0	17	0	[0]	17	1	28	29
07:30	0	23	[0]	23	0	1	[1]	1	20	0	[0]	20	1	44	45
07:45	1	55	[0]	56	0	1	[0]	1	30	0	[0]	30	0	87	87
Total	1	103	[0]	104	0	2	[4]	2	83	0	[0]	83	4	189	193
08:00	0	100	[0]	100	0	1	[2]	1	68	0	[2]	68	4	169	173
08:15	1	142	[1]	143	0	1	[1]	1	96	0	[0]	96	2	240	242
08:30	1	60	[0]	61	0	1	[4]	1	71	0	[0]	71	4	133	137
08:45	1	64	[0]	65	1	2	[4]	3	67	0	[0]	67	4	135	139
Total	3	366	[1]	369	1	5	[11]	6	302	0	[2]	302	14	677	691
09:00	0	49	[1]	49	0	0	[1]	0	45	0	[0]	45	2	94	96
09:15	0	17	[0]	17	0	1	[1]	1	24	0	[0]	24	1	42	43
Grand Total	4	535	[2]	539	1	8	[17]	9	454	0	[2]	454	21	1002	1023
Apprch %	0.7	99.3			11.1	88.9			100	0					
Total %	0.4	53.4		53.8	0.1	0.8		0.9	45.3	0		45.3	2.1	97.9	
Cars/lights	4	530		535	0	8		25	452	0		452	0	0	1012
% Cars/lights	100	99.1	50	98.9	0	100	100	96.2	99.6	0	0	99.1	0	0	98.9
Trucks	0	0		1	1	0		1	0	0		2	0	0	4
% Trucks	0	0	50	0.2	100	0	0	3.8	0	0	100	0.4	0	0	0.4
Buses	0	5		5	0	0		0	2	0		2	0	0	7
% Buses	0	0.9	0	0.9	0	0	0	0	0.4	0	0	0.4	0	0	0.7

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File Name : Mississauga Heights Dr & Queensway W - AM
Site Code : 00023382
Start Date : 2023-03-28
Page No : 2

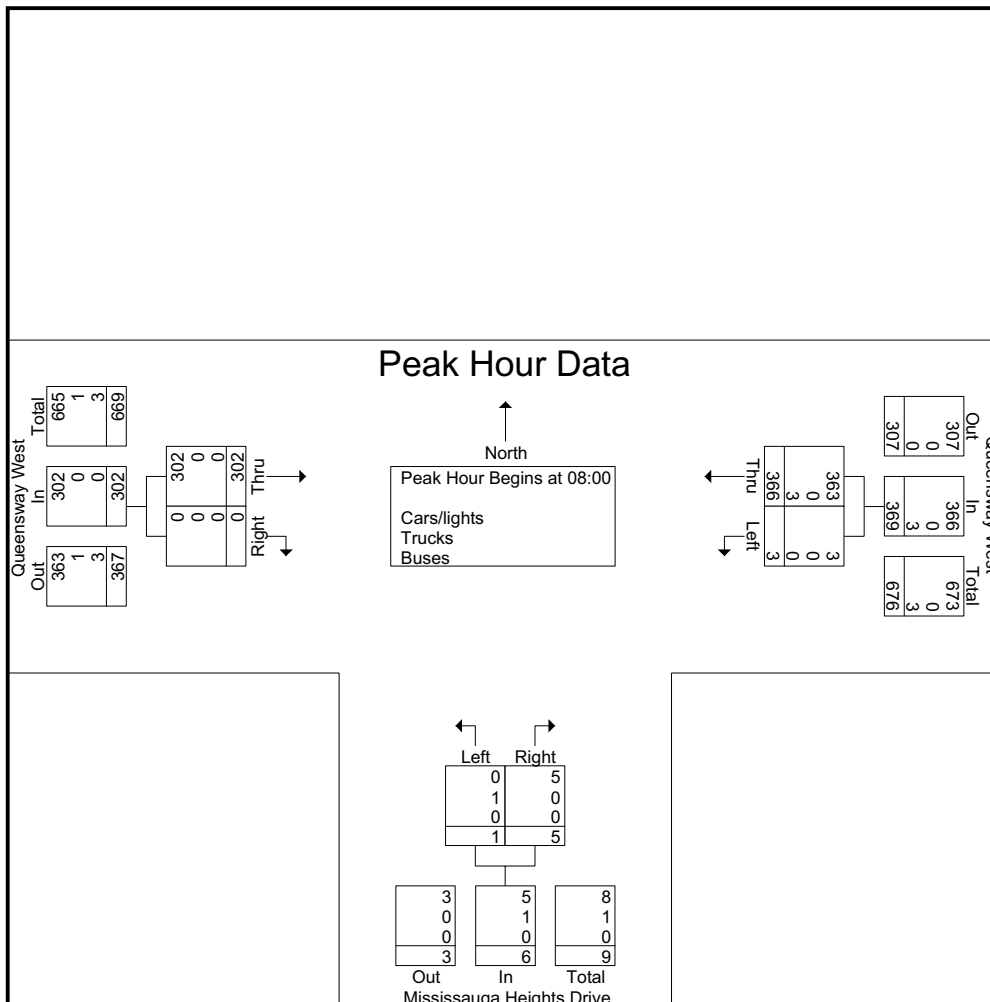


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File Name : Mississauga Heights Dr & Queensway W - AM
Site Code : 00023382
Start Date : 2023-03-28
Page No : 3

Start Time	Queensway West Westbound			Mississauga Heights Drive Northbound			Queensway West Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 09:15 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00										
08:00	0	100	100	0	1	1	68	0	68	169
08:15	1	142	143	0	1	1	96	0	96	240
08:30	1	60	61	0	1	1	71	0	71	133
08:45	1	64	65	1	2	3	67	0	67	135
Total Volume	3	366	369	1	5	6	302	0	302	677
% App. Total	0.8	99.2		16.7	83.3		100	0		
PHF	.750	.644	.645	.250	.625	.500	.786	.000	.786	.705
Cars/lights	3	363	366	0	5	5	302	0	302	673
% Cars/lights	100	99.2	99.2	0	100	83.3	100	0	100	99.4
Trucks	0	0	0	1	0	1	0	0	0	1
% Trucks	0	0	0	100	0	16.7	0	0	0	0.1
Buses	0	3	3	0	0	0	0	0	0	3
% Buses	0	0.8	0.8	0	0	0	0	0	0	0.4



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Project No.: 23382

File Name : Mississauga Heights Dr & Queensway W - PM

Intersection: M Heights Dr & Queensway W Site Code : 00023382

Weather: Clear

Start Date : 2023-03-28

Surveyor(s): ID

Page No : 1

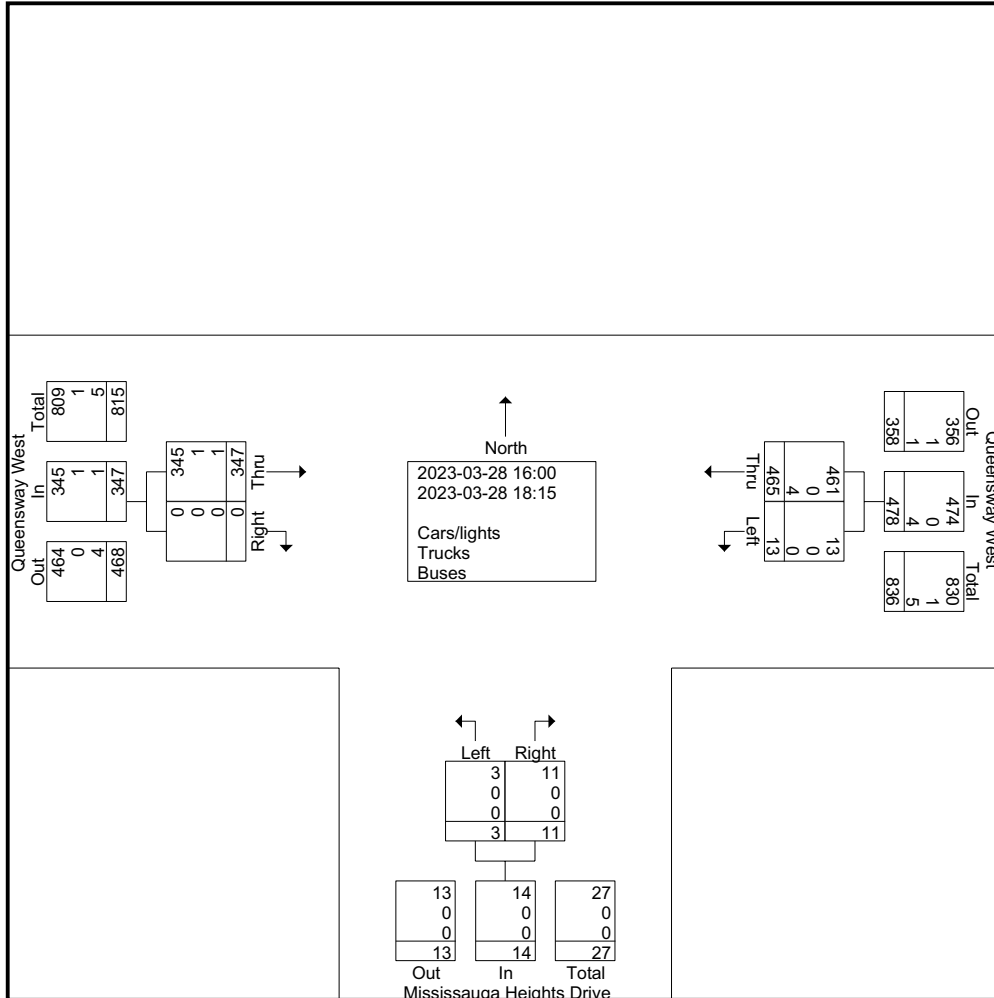
Groups Printed- Cars/lights - Trucks - Buses

Start Time	Queensway West Westbound				Mississauga Heights Drive Northbound				Queensway West Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total			
16:00	2	49	[1]	51	0	2	[3]	2	37	0	[0]	37	4	90	94
16:15	0	48	[1]	48	1	1	[6]	2	37	0	[0]	37	7	87	94
16:30	1	44	[0]	45	1	0	[4]	1	44	0	[0]	44	4	90	94
16:45	1	50	[2]	51	0	2	[6]	2	49	0	[0]	49	8	102	110
Total	4	191	[4]	195	2	5	[19]	7	167	0	[0]	167	23	369	392
17:00	1	56	[0]	57	0	2	[2]	2	38	0	[0]	38	2	97	99
17:15	0	51	[1]	51	0	1	[9]	1	28	0	[0]	28	10	80	90
17:30	3	48	[0]	51	0	1	[5]	1	28	0	[1]	28	6	80	86
17:45	2	39	[0]	41	0	1	[5]	1	26	0	[1]	26	6	68	74
Total	6	194	[1]	200	0	5	[21]	5	120	0	[2]	120	24	325	349
18:00	2	43	[0]	45	1	1	[3]	2	33	0	[0]	33	3	80	83
18:15	1	37	[0]	38	0	0	[2]	0	27	0	[0]	27	2	65	67
Grand Total	13	465	[5]	478	3	11	[45]	14	347	0	[2]	347	52	839	891
Apprch %	2.7	97.3			21.4	78.6			100	0					
Total %	1.5	55.4		57	0.4	1.3		1.7	41.4	0		41.4	5.8	94.2	
Cars/lights	13	461		475	3	11		59	345	0		345	0	0	879
% Cars/lights	100	99.1	20	98.3	100	100	100	100	99.4	0	0	98.9	0	0	98.7
Trucks	0	0		4	0	0		0	1	0		3	0	0	7
% Trucks	0	0	80	0.8	0	0	0	0	0.3	0	100	0.9	0	0	0.8
Buses	0	4		4	0	0		0	1	0		1	0	0	5
% Buses	0	0.9	0	0.8	0	0	0	0	0.3	0	0	0.3	0	0	0.6

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File Name : Mississauga Heights Dr & Queensway W - PM
 Site Code : 00023382
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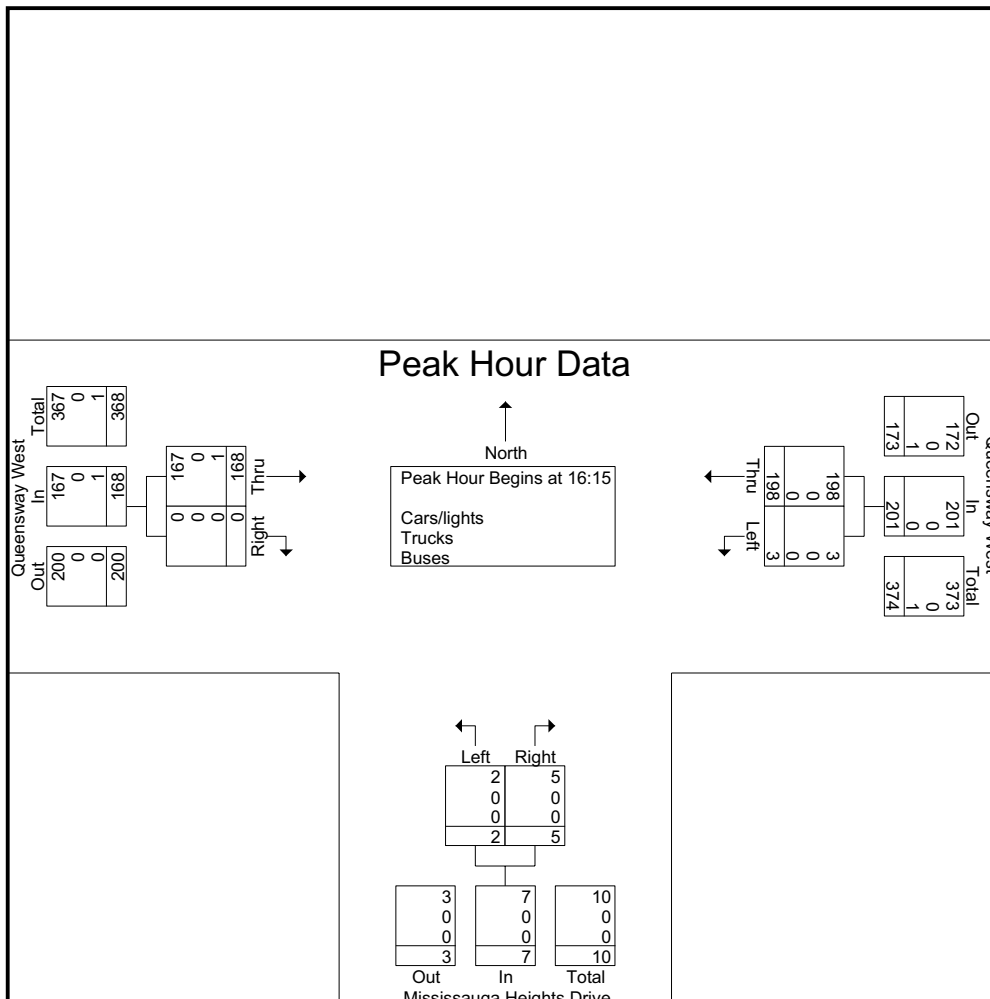


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File Name : Mississauga Heights Dr & Queensway W - PM
Site Code : 00023382
Start Date : 2023-03-28
Page No : 3

Start Time	Queensway West Westbound			Mississauga Heights Drive Northbound			Queensway West Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 18:15 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:15										
16:15	0	48	48	1	1	2	37	0	37	87
16:30	1	44	45	1	0	1	44	0	44	90
16:45	1	50	51	0	2	2	49	0	49	102
17:00	1	56	57	0	2	2	38	0	38	97
Total Volume	3	198	201	2	5	7	168	0	168	376
% App. Total	1.5	98.5		28.6	71.4		100	0		
PHF	.750	.884	.882	.500	.625	.875	.857	.000	.857	.922
Cars/lights	3	198	201	2	5	7	167	0	167	375
% Cars/lights	100	100	100	100	100	100	99.4	0	99.4	99.7
Trucks	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	0	0	1	0	1	1
% Buses	0	0	0	0	0	0	0.6	0	0.6	0.3



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APPENDIX B

Trip Generation

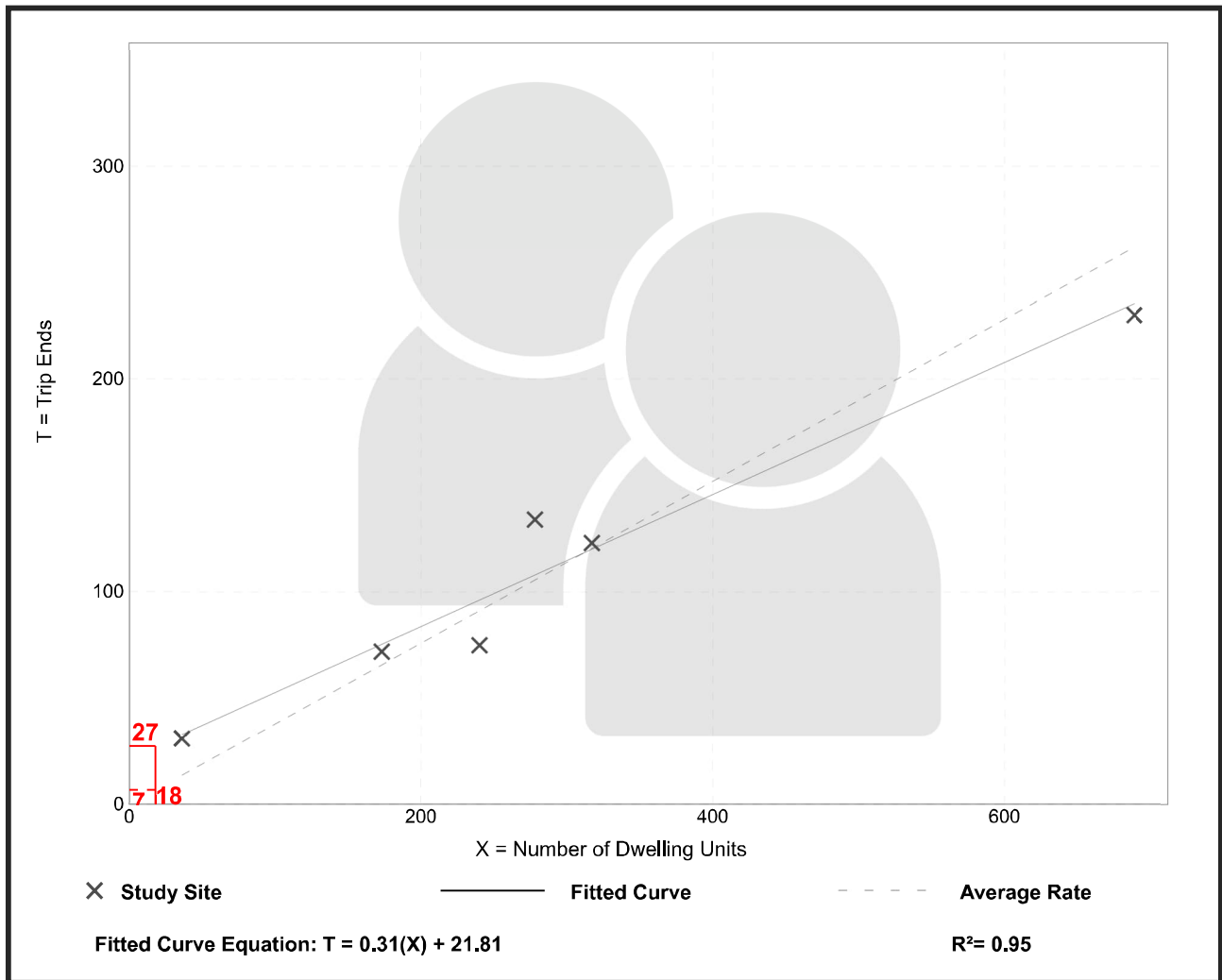
Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Person Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 6
 Avg. Num. of Dwelling Units: 289
 Directional Distribution: 22% entering, 78% exiting

Person Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.38	0.31 - 0.86	0.10

Data Plot and Equation



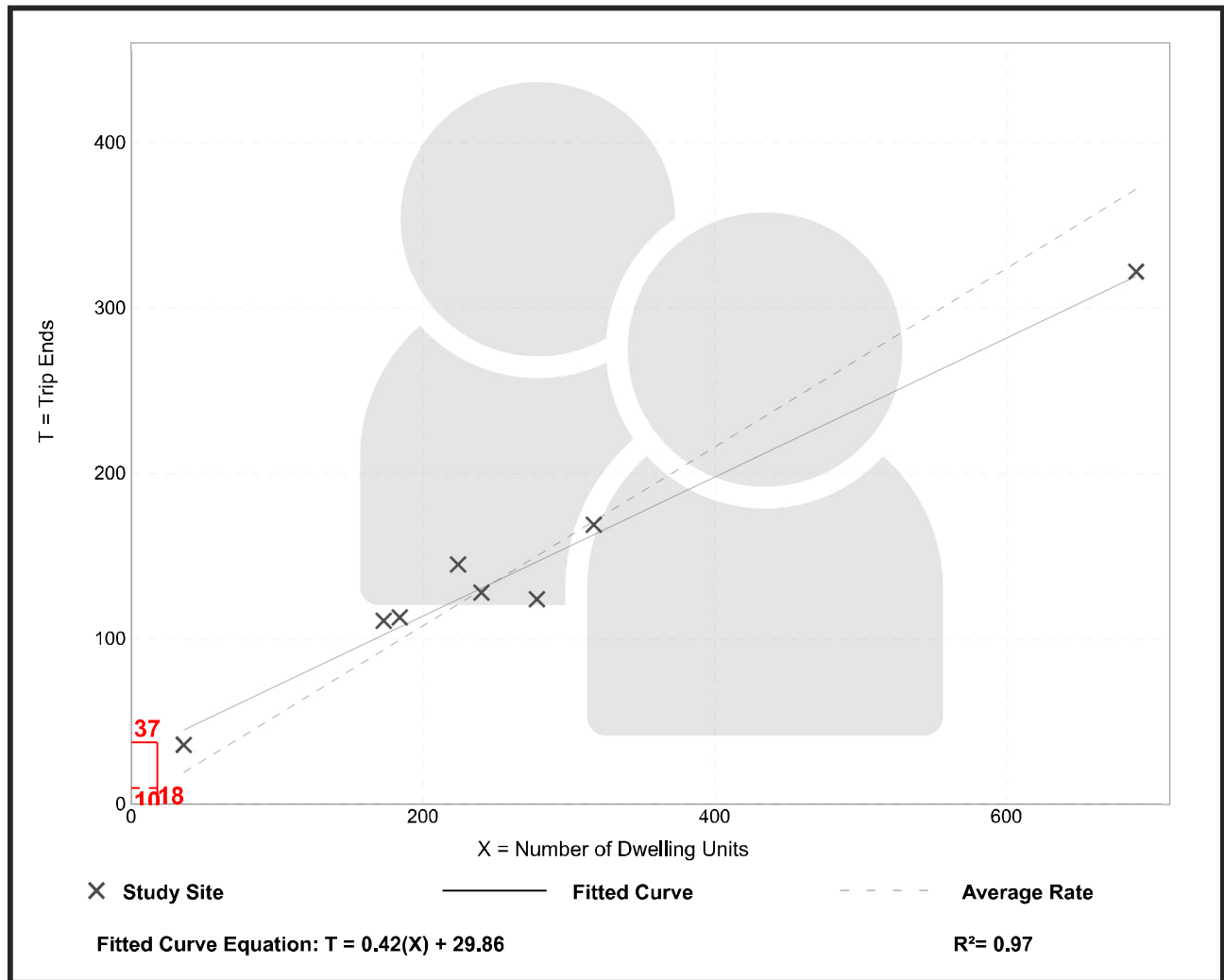
Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Person Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 8
 Avg. Num. of Dwelling Units: 268
 Directional Distribution: 63% entering, 37% exiting

Person Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.54	0.45 - 1.00	0.10

Data Plot and Equation





APPENDIX C

Intersection Capacity Analysis



Existing AM

HCM 6th TWSC
 1: Mississauga Heights Drive & Glengarry Road/Queensway West

Existing Traffic
 AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	114	1	0	124	2	1
Future Vol, veh/h	114	1	0	124	2	1
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	0	0	0	0	100
Mvmt Flow	148	1	0	161	3	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	155	0	316
Stage 1	-	-	-	-	155
Stage 2	-	-	-	-	161
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1438	-	681
Stage 1	-	-	-	-	878
Stage 2	-	-	-	-	873
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1430	-	677
Mov Cap-2 Maneuver	-	-	-	-	677
Stage 1	-	-	-	-	873
Stage 2	-	-	-	-	873

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	679	-	-	1430	-
HCM Lane V/C Ratio	0.006	-	-	-	-
HCM Control Delay (s)	10.3	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
 2: Mississauga Heights Drive & Queensway West

Existing Traffic
 AM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	302	0	3	366	1	5
Future Vol, veh/h	302	0	3	366	1	5
Conflicting Peds, #/hr	0	11	11	0	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	33	1	100	0
Mvmt Flow	425	0	4	515	1	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	436	0	961
Stage 1	-	-	-	-	436
Stage 2	-	-	-	-	525
Critical Hdwy	-	-	4.43	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	2.497	-	4.4
Pot Cap-1 Maneuver	-	-	977	-	193
Stage 1	-	-	-	-	486
Stage 2	-	-	-	-	436
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	967	-	190
Mov Cap-2 Maneuver	-	-	-	-	190
Stage 1	-	-	-	-	481
Stage 2	-	-	-	-	433

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	449	-	-	967	-
HCM Lane V/C Ratio	0.019	-	-	0.004	-
HCM Control Delay (s)	13.2	-	-	8.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
 3: Mississauga Heights Drive & Site Access

Existing Traffic
 AM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	6	0	0	3
Future Vol, veh/h	0	0	6	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	7	0	0	3

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	10	7	0	0	7	0
Stage 1	7	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1015	1081	-	-	1627	-
Stage 1	1021	-	-	-	-	-
Stage 2	1025	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1015	1081	-	-	1627	-
Mov Cap-2 Maneuver	1015	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1627	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0



Existing PM

HCM 6th TWSC
 1: Mississauga Heights Drive & Glengarry Road/Queensway West

Existing Traffic
 PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	120	6	0	159	4	2
Future Vol, veh/h	120	6	0	159	4	2
Conflicting Peds, #/hr	0	9	9	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	132	7	0	175	4	2

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	148	0	320
Stage 1	-	-	-	-	145
Stage 2	-	-	-	-	175
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1446	-	678
Stage 1	-	-	-	-	887
Stage 2	-	-	-	-	860
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1434	-	673
Mov Cap-2 Maneuver	-	-	-	-	673
Stage 1	-	-	-	-	880
Stage 2	-	-	-	-	860

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1434	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	9.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
 2: Mississauga Heights Drive & Queensway West

Existing Traffic
 PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	168	0	3	198	2	5
Future Vol, veh/h	168	0	3	198	2	5
Conflicting Peds, #/hr	0	18	18	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	0	0	0	0
Mvmt Flow	183	0	3	215	2	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	201	0	422
Stage 1	-	-	-	-	201
Stage 2	-	-	-	-	221
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1383	-	592
Stage 1	-	-	-	-	838
Stage 2	-	-	-	-	821
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1360	-	580
Mov Cap-2 Maneuver	-	-	-	-	580
Stage 1	-	-	-	-	824
Stage 2	-	-	-	-	819

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	737	-	-	1360	-
HCM Lane V/C Ratio	0.01	-	-	0.002	-
HCM Control Delay (s)	9.9	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
 3: Mississauga Heights Drive & Site Access

Existing Traffic
 PM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	0	0	7	0	0	3
Future Vol, veh/h	0	0	7	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	8	0	0	3

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	11	8	0	0	8	0
Stage 1	8	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1014	1080	-	-	1625	-
Stage 1	1020	-	-	-	-	-
Stage 2	1025	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1014	1080	-	-	1625	-
Mov Cap-2 Maneuver	1014	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1625	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

The background features several thick, overlapping, curved grey lines that sweep across the page from the top and bottom edges towards the center. The lines vary in opacity and thickness, creating a sense of depth and movement. The overall aesthetic is clean and modern.

Future Background AM

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	126	1	0	137	2	1
Future Vol, veh/h	126	1	0	137	2	1
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	0	0	0	0	100
Mvmt Flow	164	1	0	178	3	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	171	0	349
Stage 1	-	-	-	-	171
Stage 2	-	-	-	-	178
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1418	-	652
Stage 1	-	-	-	-	864
Stage 2	-	-	-	-	858
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1410	-	648
Mov Cap-2 Maneuver	-	-	-	-	648
Stage 1	-	-	-	-	859
Stage 2	-	-	-	-	858

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	655	-	-	1410	-
HCM Lane V/C Ratio	0.006	-	-	-	-
HCM Control Delay (s)	10.5	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	333	0	3	404	1	5
Future Vol, veh/h	333	0	3	404	1	5
Conflicting Peds, #/hr	0	11	11	0	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	33	1	100	0
Mvmt Flow	469	0	4	569	1	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	480	0	1059
Stage 1	-	-	-	-	480
Stage 2	-	-	-	-	579
Critical Hdwy	-	-	4.43	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	2.497	-	4.4
Pot Cap-1 Maneuver	-	-	939	-	165
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	408
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	930	-	162
Mov Cap-2 Maneuver	-	-	-	-	162
Stage 1	-	-	-	-	456
Stage 2	-	-	-	-	405

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	-	-	930	-
HCM Lane V/C Ratio	0.021	-	-	0.005	-
HCM Control Delay (s)	14	-	-	8.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
 3: Mississauga Heights Drive & Site Access

Future Background Traffic
 AM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	6	0	0	3
Future Vol, veh/h	0	0	6	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	7	0	0	3

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	10	7	0	0	7	0
Stage 1	7	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1015	1081	-	-	1627	-
Stage 1	1021	-	-	-	-	-
Stage 2	1025	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1015	1081	-	-	1627	-
Mov Cap-2 Maneuver	1015	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1627	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

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Future Background PM

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	132	6	0	176	4	2
Future Vol, veh/h	132	6	0	176	4	2
Conflicting Peds, #/hr	0	9	9	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	145	7	0	193	4	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	161	0	351
Stage 1	-	-	-	-	158
Stage 2	-	-	-	-	193
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1430	-	650
Stage 1	-	-	-	-	875
Stage 2	-	-	-	-	845
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1418	-	645
Mov Cap-2 Maneuver	-	-	-	-	645
Stage 1	-	-	-	-	868
Stage 2	-	-	-	-	845

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	709	-	-	1418	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	10.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	185	0	3	219	2	5
Future Vol, veh/h	185	0	3	219	2	5
Conflicting Peds, #/hr	0	18	18	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	0	0	0	0
Mvmt Flow	201	0	3	238	2	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	219	0	463 222
Stage 1	-	-	-	-	219 -
Stage 2	-	-	-	-	244 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1362	-	561 823
Stage 1	-	-	-	-	822 -
Stage 2	-	-	-	-	801 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1340	-	550 808
Mov Cap-2 Maneuver	-	-	-	-	550 -
Stage 1	-	-	-	-	808 -
Stage 2	-	-	-	-	799 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	1340	-
HCM Lane V/C Ratio	0.011	-	-	0.002	-
HCM Control Delay (s)	10.1	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	7	0	0	3
Future Vol, veh/h	0	0	7	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	8	0	0	3

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	11	8	0	0	8	0
Stage 1	8	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1014	1080	-	-	1625	-
Stage 1	1020	-	-	-	-	-
Stage 2	1025	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1014	1080	-	-	1625	-
Mov Cap-2 Maneuver	1014	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1625	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0



Future Total AM

HCM 6th TWSC
 1: Mississauga Heights Drive & Glengarry Road/Queensway West

Future Total Traffic
 AM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	126	1	0	137	3	1
Future Vol, veh/h	126	1	0	137	3	1
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	0	0	0	0	100
Mvmt Flow	164	1	0	178	4	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	171	0	349
Stage 1	-	-	-	-	171
Stage 2	-	-	-	-	178
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1418	-	652
Stage 1	-	-	-	-	864
Stage 2	-	-	-	-	858
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1410	-	648
Mov Cap-2 Maneuver	-	-	-	-	648
Stage 1	-	-	-	-	859
Stage 2	-	-	-	-	858

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	653	-	-	1410	-
HCM Lane V/C Ratio	0.008	-	-	-	-
HCM Control Delay (s)	10.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	333	0	4	404	1	7
Future Vol, veh/h	333	0	4	404	1	7
Conflicting Peds, #/hr	0	11	11	0	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	33	1	100	0
Mvmt Flow	469	0	6	569	1	10

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	480	0	1063
Stage 1	-	-	-	-	480
Stage 2	-	-	-	-	583
Critical Hdwy	-	-	4.43	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	2.497	-	4.4
Pot Cap-1 Maneuver	-	-	939	-	164
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	406
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	930	-	161
Mov Cap-2 Maneuver	-	-	-	-	161
Stage 1	-	-	-	-	456
Stage 2	-	-	-	-	402

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	439	-	-	930	-
HCM Lane V/C Ratio	0.026	-	-	0.006	-
HCM Control Delay (s)	13.4	-	-	8.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
 3: Mississauga Heights Drive & Site Access

Future Total Traffic
 AM Peak Hour

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	6	0	1	3
Future Vol, veh/h	1	2	6	0	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	2	7	0	1	3

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	12	7	0	0	7	0
Stage 1	7	-	-	-	-	-
Stage 2	5	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1013	1081	-	-	1627	-
Stage 1	1021	-	-	-	-	-
Stage 2	1023	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1012	1081	-	-	1627	-
Mov Cap-2 Maneuver	1012	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1057	1627
HCM Lane V/C Ratio	-	-	0.003	0.001
HCM Control Delay (s)	-	-	8.4	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0



Future Total PM

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	7	0	176	5	2
Future Vol, veh/h	133	7	0	176	5	2
Conflicting Peds, #/hr	0	9	9	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	146	8	0	193	5	2

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	163	0	352
Stage 1	-	-	-	-	159
Stage 2	-	-	-	-	193
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1428	-	650
Stage 1	-	-	-	-	875
Stage 2	-	-	-	-	845
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1416	-	645
Mov Cap-2 Maneuver	-	-	-	-	645
Stage 1	-	-	-	-	868
Stage 2	-	-	-	-	845

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	699	-	-	1416	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Control Delay (s)	10.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
 2: Mississauga Heights Drive & Queensway West

Future Total Traffic
 PM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	185	1	5	219	2	7
Future Vol, veh/h	185	1	5	219	2	7
Conflicting Peds, #/hr	0	18	18	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	0	0	0	0
Mvmt Flow	201	1	5	238	2	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	220	0	468 223
Stage 1	-	-	-	-	220 -
Stage 2	-	-	-	-	248 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1361	-	557 822
Stage 1	-	-	-	-	821 -
Stage 2	-	-	-	-	798 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1339	-	545 807
Mov Cap-2 Maneuver	-	-	-	-	545 -
Stage 1	-	-	-	-	807 -
Stage 2	-	-	-	-	795 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	729	-	-	1339	-
HCM Lane V/C Ratio	0.013	-	-	0.004	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
3: Mississauga Heights Drive & Site Access

Future Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	7	1	3	3
Future Vol, veh/h	1	2	7	1	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	2	8	1	3	3

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	18	9	0	0	9
Stage 1	9	-	-	-	-
Stage 2	9	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	1005	1079	-	-	1624
Stage 1	1019	-	-	-	-
Stage 2	1019	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	1003	1079	-	-	1624
Mov Cap-2 Maneuver	1003	-	-	-	-
Stage 1	1019	-	-	-	-
Stage 2	1017	-	-	-	-

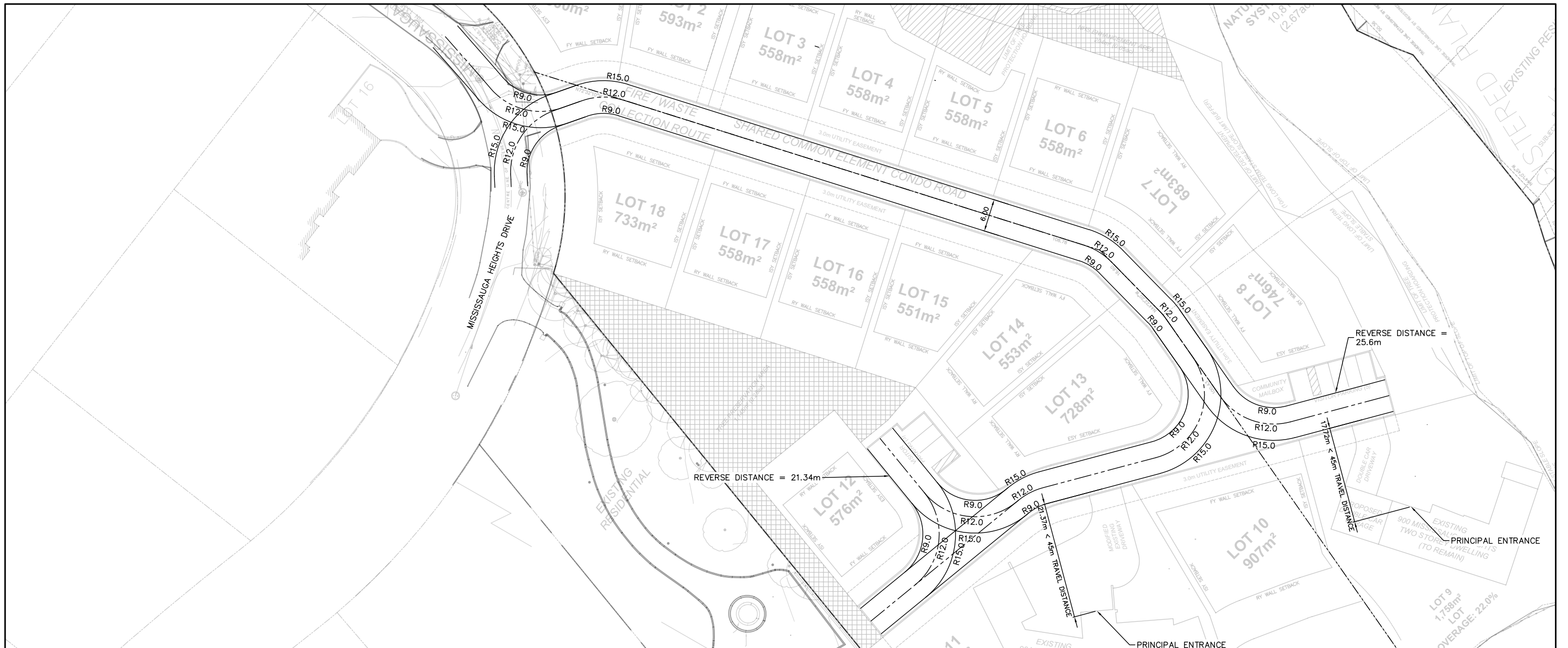
Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1052	1624
HCM Lane V/C Ratio	-	-	0.003	0.002
HCM Control Delay (s)	-	-	8.4	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0



APPENDIX D

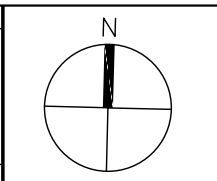
Functional Design and Access Review



ONTARIO BUILDING CODE – FIRE ACCESS ROUTE:
 PER ONTARIO BUILDING CODE SECTION 3.2.5.5:
 1. ACCESS ROUTES REQUIRE THAT THE PRINCIPAL ENTRANCES ARE LOCATED NOT LESS THAN 3m AND NOT MORE THAN 15m FROM THE CLOSEST PORTION OF THE ACCESS ROUTE REQUIRED FOR FIRE DEPARTMENT USE, MEASURED HORIZONTALLY FROM THE FACE OF THE BUILDING.
 2. FIRE HYDRANTS TO BE LOCATED AS SPECIFIED.
 PER ONTARIO BUILDING CODE SECTION 3.2.5.6
 3. A PORTION OF A ROADWAY OR YARD PROVIDED AS A REQUIRED ACCESS ROUTE FOR FIRE DEPARTMENT USE SHALL:
 a. HAVE A CLEAR WIDTH NOT LESS THAN 6m, UNLESS IT CAN BE SHOWN THAT LESSER WIDTHS ARE SATISFACTORY;
 b. HAVE A CENTRELINE RADIUS NOT LESS THAN 12m;
 c. HAVE AN OVERHEAD CLEARANCE NOT LESS THAN 5m;
 d. HAVE A CHANGE OF GRADIENT NOT MORE THAN 1 IN 12.5 OVER A MINIMUM DISTANCE OF 15m;
 e. BE DESIGNED TO SUPPORT THE EXPECTED LOADS IMPOSED BY FIREFIGHTING EQUIPMENT AND BE SURFACED WITH CONCRETE, ASPHALT OR OTHER MATERIAL DESIGNED TO PERMIT ACCESSIBILITY UNDER ALL CLIMATIC CONDITIONS;
 f. HAVE TURNAROUND FACILITIES FOR ANY DEAD-END PORTION OF THE ACCESS ROUTE MORE THAN 90m LONG AND;
 g. BE CONNECTED WITH A PUBLIC THROUGHFARE.

DRAWN BY: CBARTOS PLOT DATE: June 2, 2023

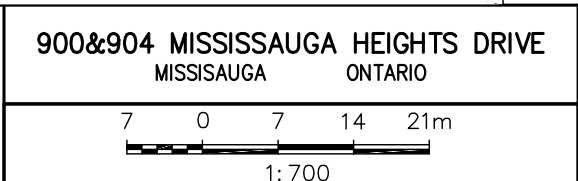
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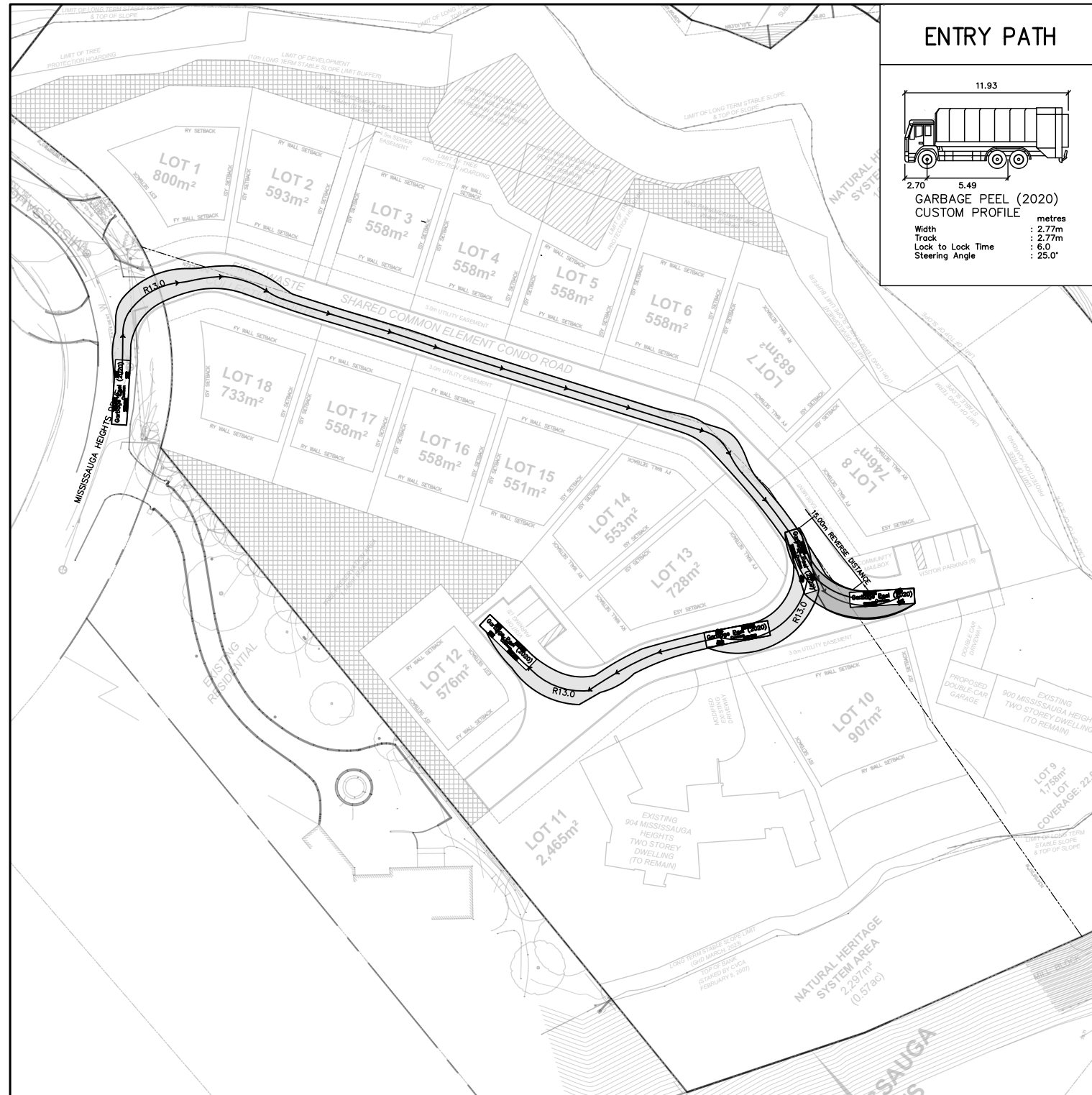
Date
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900&904 MISSISSAUGA HEIGHTS DRIVE
 MISSISSAUGA ONTARIO

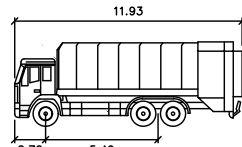


FIRE ROUTE REVIEW

Drawing No.
001

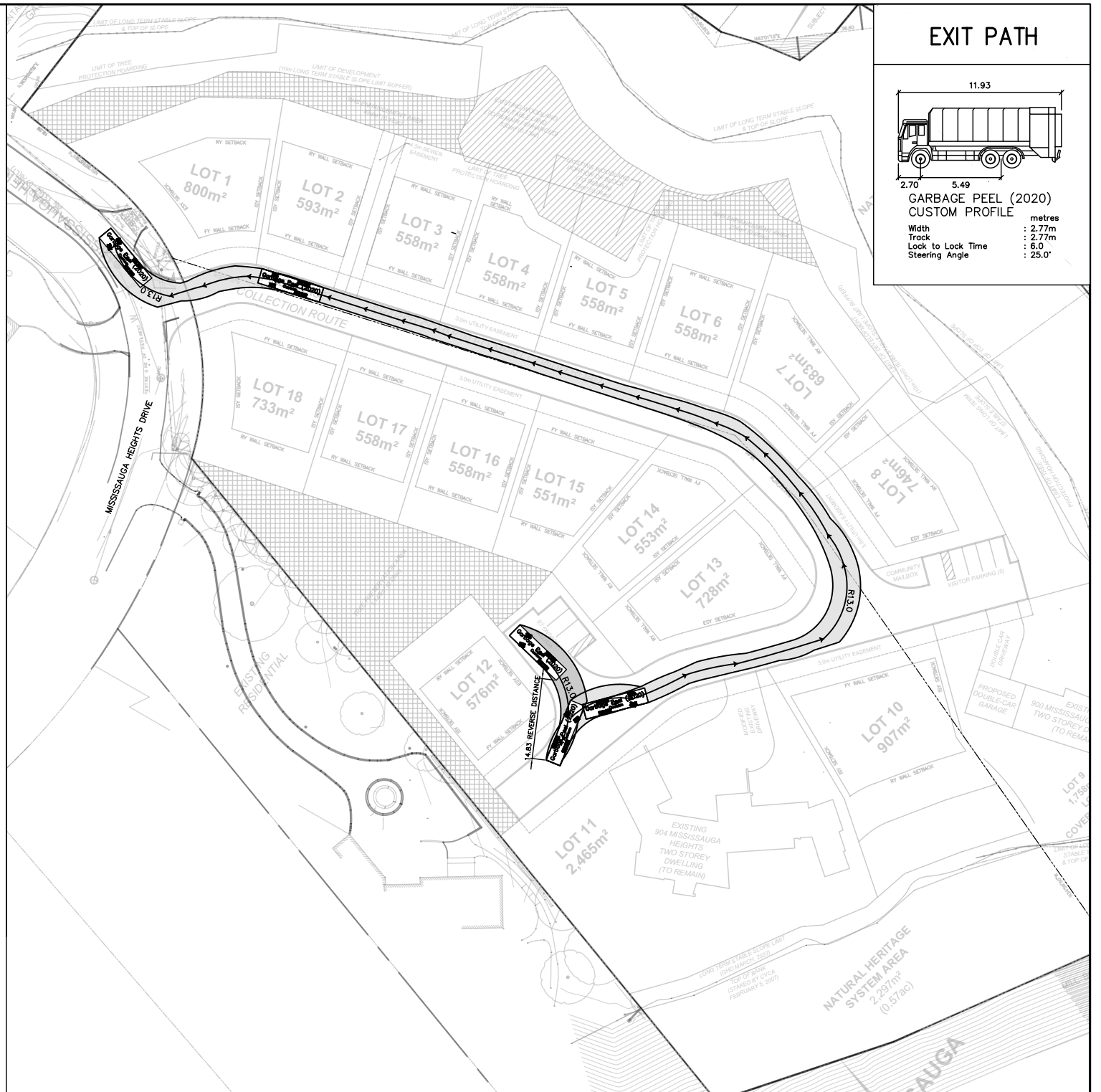


ENTRY PATH

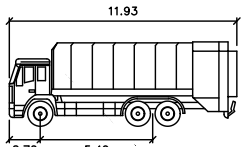


GARBAGE PEEL (2020)
CUSTOM PROFILE

Width	: 2.77m
Track	: 2.77m
Lock to Lock Time	: 6.0
Steering Angle	: 25.0°



EXIT PATH



GARBAGE PEEL (2020)
CUSTOM PROFILE

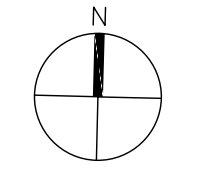
Width	: 2.77m
Track	: 2.77m
Lock to Lock Time	: 6.0
Steering Angle	: 25.0°

NOTES:

1. PER REGION OF PEEL WASTE COLLECTION DESIGN STANDARDS MANUAL (2020)
 - 1.1. ACCESS ROAD
 - 1.1.1. TURNS MUST HAVE A MIN. OF 13M TURNING RADIUS FOR WASTE COLLECTION VEHICLES.
 - 1.1.2. ALL ACCESS ROADS MUST HAVE A MIN. 6M WIDTH AND MAX. 8% GRADING.
 - 1.1.3. WASTE COLLECTION VEHICLES SHALL NOT REVERSE IN EXCESS OF 15m AND TURN WHILE REVERSING.

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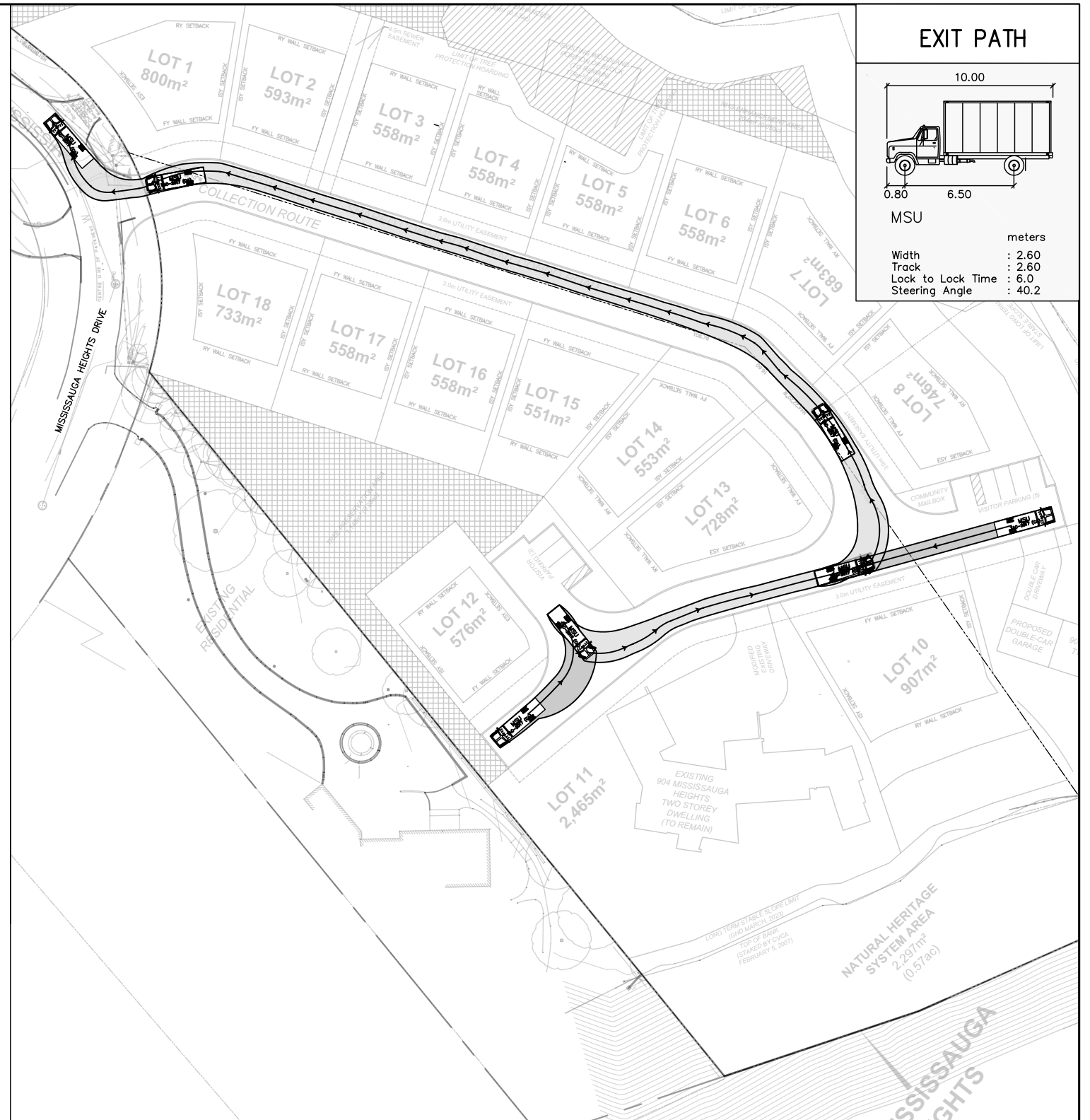
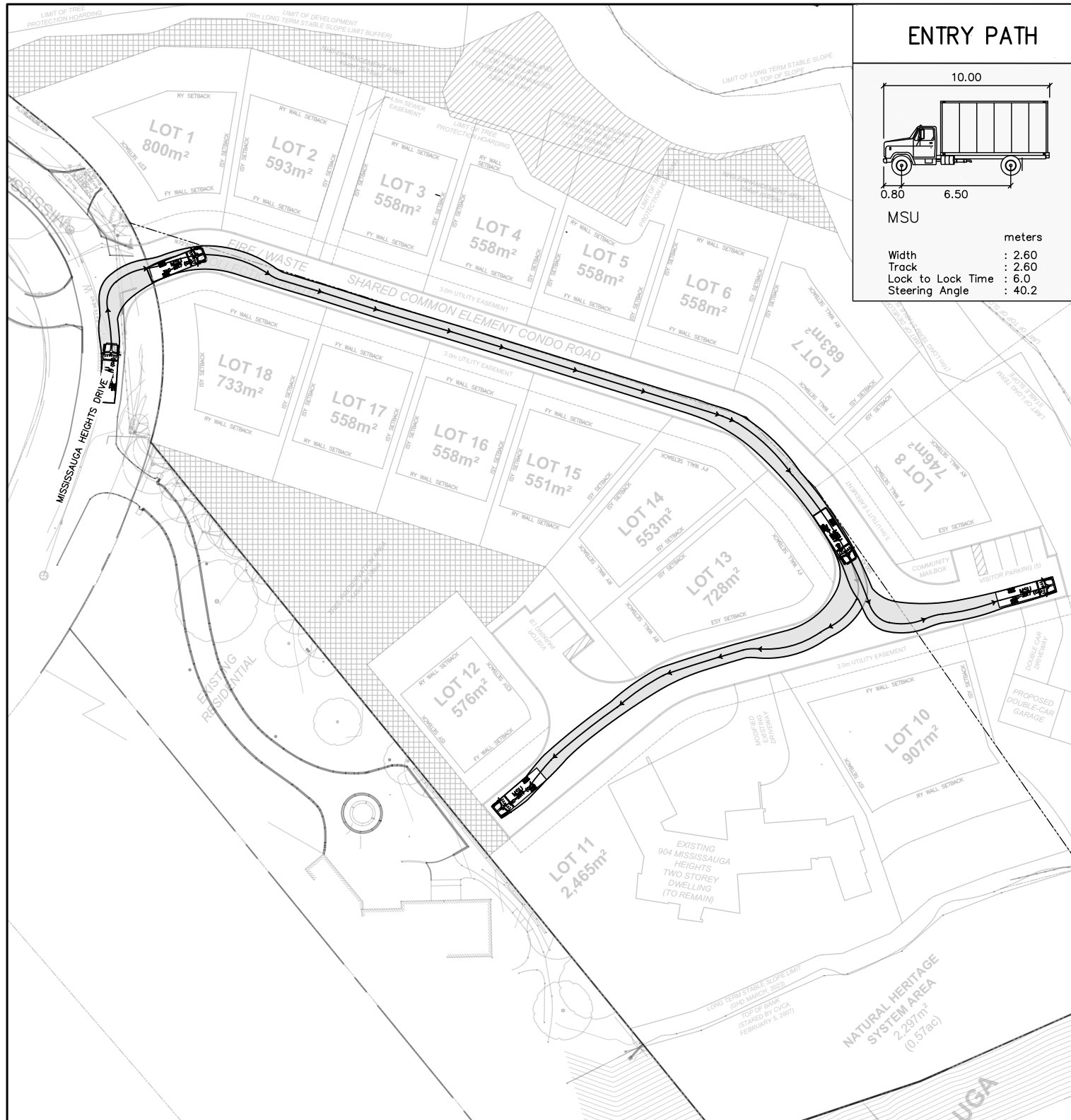
Date
JUN. 2, 2023

900&904 MISSISSAUGA HEIGHTS DRIVE
MISSISSAUGA ONTARIO

1:1000

LOADING REVIEW
REGION OF PEEL GARBAGE TRUCK
ENTRY AND EXIT PATHS


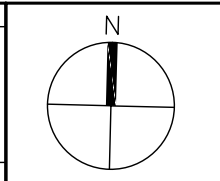
Drawing No.
002



- NOTES:
- ACCESS ROUTE MUST BE MIN 7m AT POINT OF INGRESS/EGRESS TO SITE WITH A UNENCUMBERED VERTICAL CLEARANCE OF 4.4.

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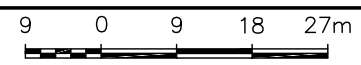
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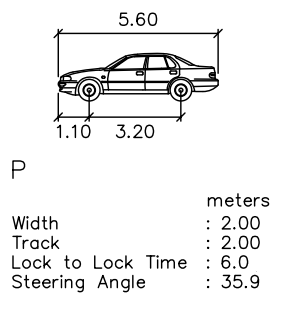
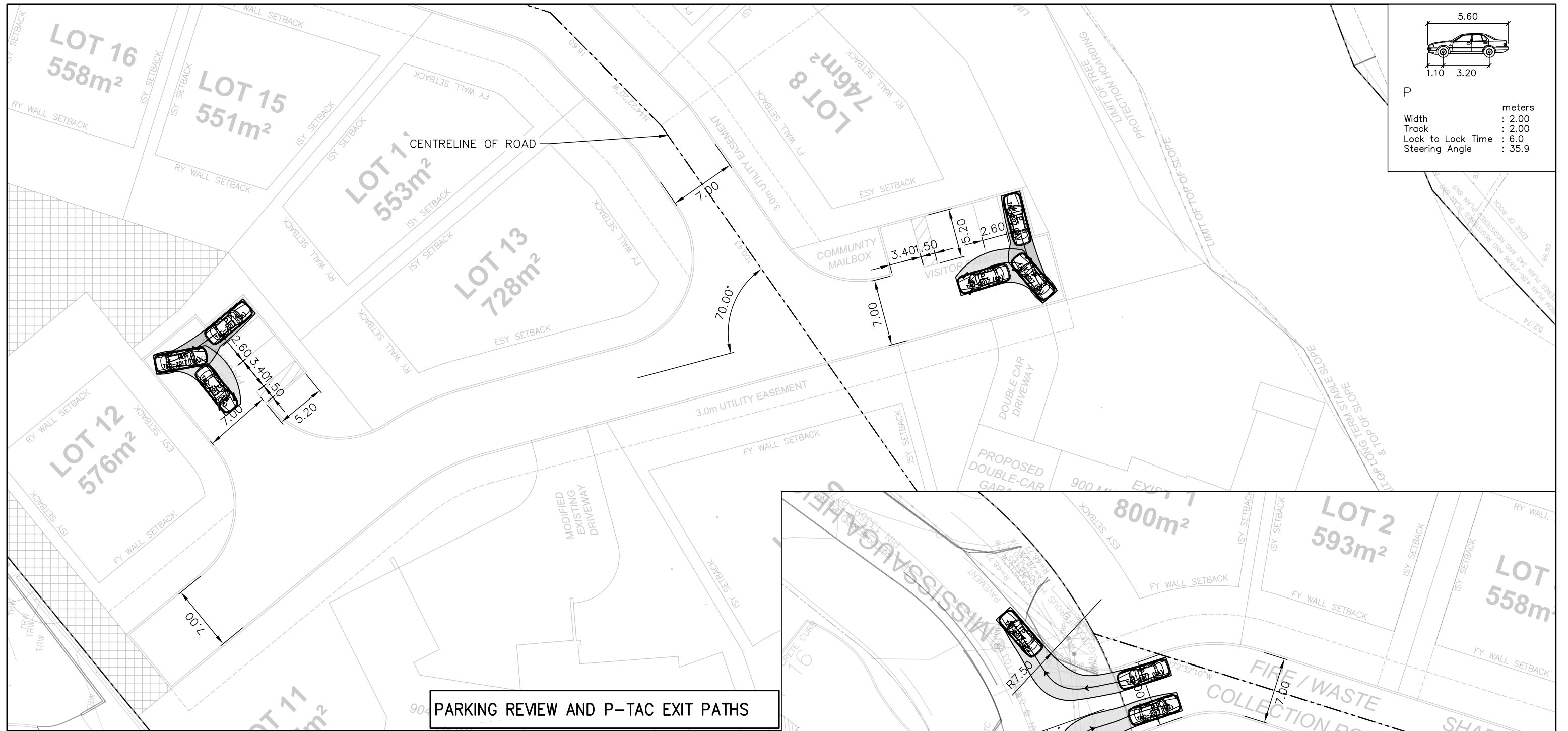
900&904 MISSISSAUGA HEIGHTS DRIVE
 MISSISSAUGA ONTARIO



1:900

LOADING REVIEW
MSU (DELIVERY) TRUCK SWEEP PATHS
ENTRY AND EXIT PATHS

Drawing No.
003

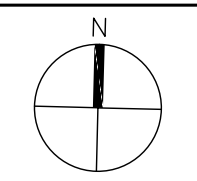


PARKING REVIEW AND P-TAC EXIT PATHS

ACCESS DESIGN AND P-TAC SWEPH PATHS

- NOTES:
1. AS PER CITY OF MISSISSAUGA ZONING BY-LAW 0225-2007:
 - 1.1. PARKING SPACES TO HAVE A MIN. WIDTH OF 2.6m AND A MIN. LENGTH OF 5.2m.
 - 1.2. THE MIN. AISLE WIDTH SHALL BE 7.0m.
 - 1.3. AN ACCESSIBLE PARKING SPACE SHALL HAVE:
 - 1.3.1. TYPE A PARKING SPACE TO BE 3.4m IN WIDTH AND 5.2m IN LENGTH.
 - 1.3.2. TYPE B PARKING SPACE TO BE 2.4m IN WIDTH AND 5.2m IN LENGTH.
 - 1.3.3. AN ACCESSIBLE AISLE 1.5m IN WIDTH.

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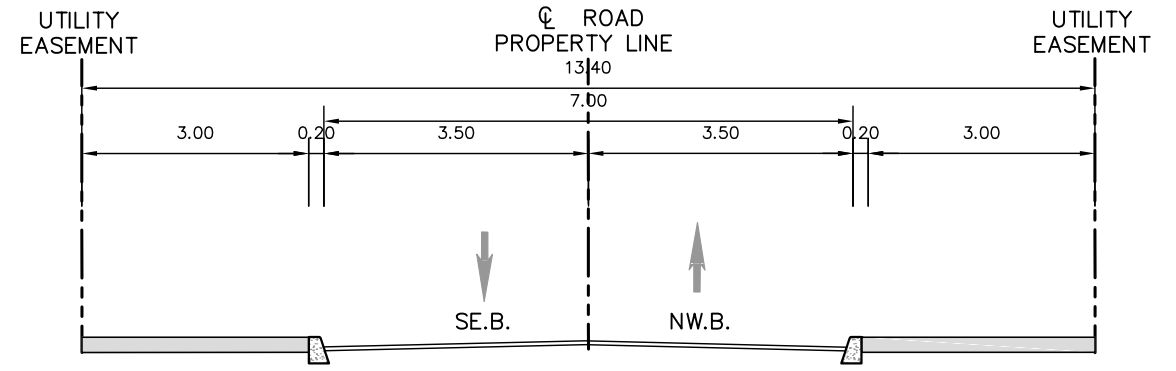
900&904 MISSISSAUGA HEIGHTS DRIVE
MISSISSAUGA ONTARIO

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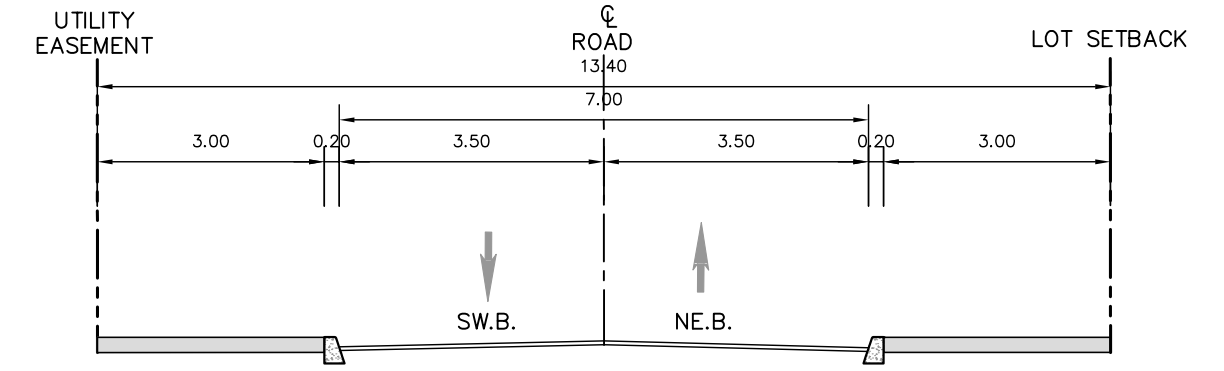
PARKING REVIEW AND ACCESS REVIEW

Drawing No.
004

DRAWN BY: CBARTOS PLOT DATE: June 2, 2023



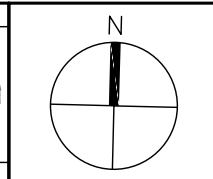
**SECTION A-A
PROPOSED ROADWAY
SCALE: 1:100**



**SECTION B-B
PROPOSED ROADWAY
SCALE: 1:100**

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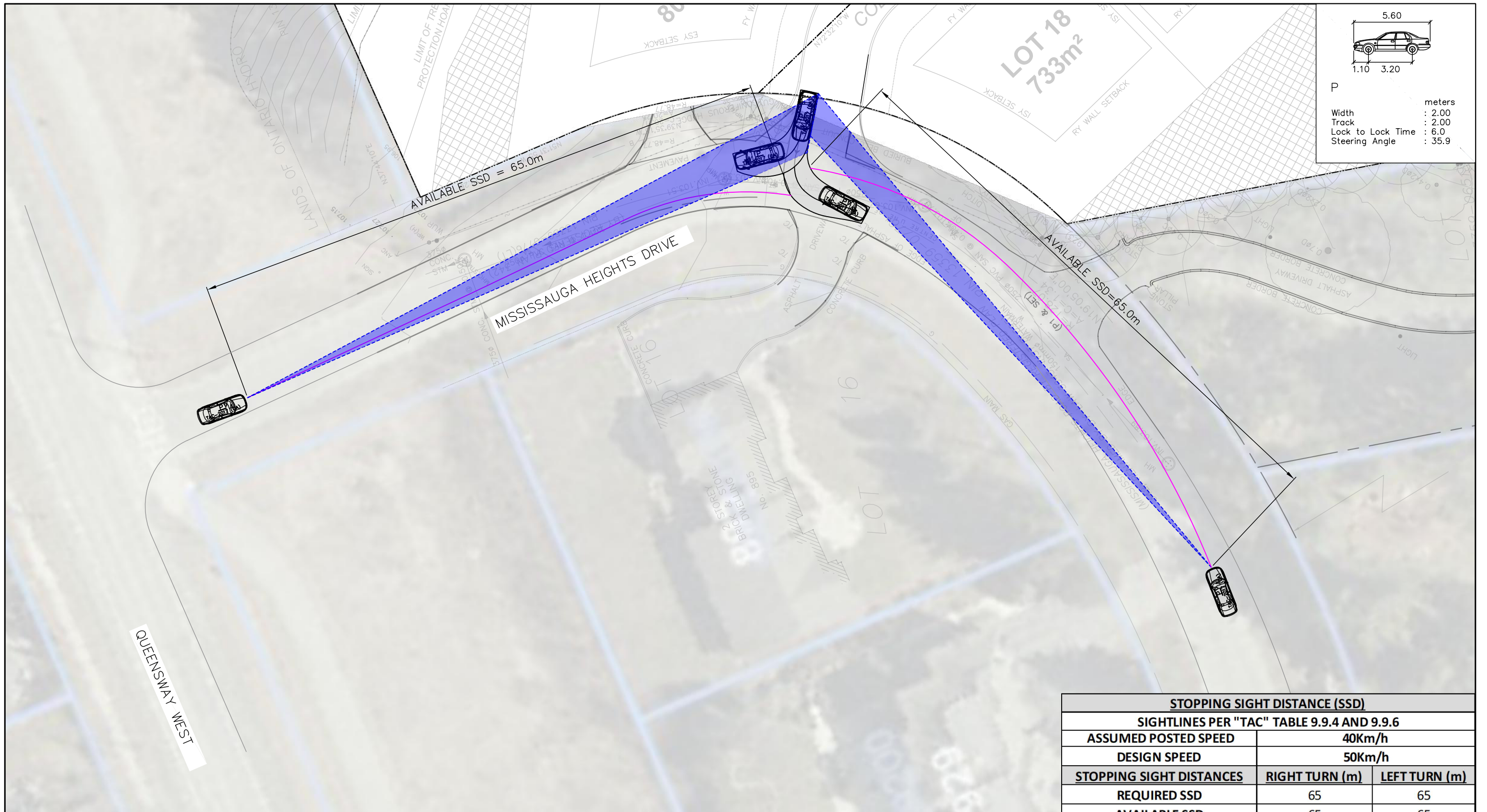
Date
JUN. 2, 2023

900&904 MISSISSAUGA HEIGHTS DRIVE
MISSISSAUGA ONTARIO

1:1000

**PRIVATE ROAD
CROSS SECTIONS**

Drawing No.
005



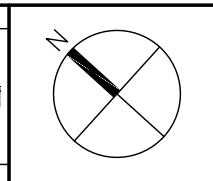
P

	units
Width	: 2.00 meters
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

STOPPING SIGHT DISTANCE (SSD)		
SIGHTLINES PER "TAC" TABLE 9.9.4 AND 9.9.6		
ASSUMED POSTED SPEED	40Km/h	
DESIGN SPEED	50Km/h	
STOPPING SIGHT DISTANCES	RIGHT TURN (m)	LEFT TURN (m)
REQUIRED SSD	65	65
AVAILABLE SSD	65	65
REQUIRED SSD SATISFIED	YES	

SIGHT STOPPING DISTANCE (SSD) FOR RIGHT AND LEFT TURN

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23382

Date
JUN. 2, 2023

LEGEND

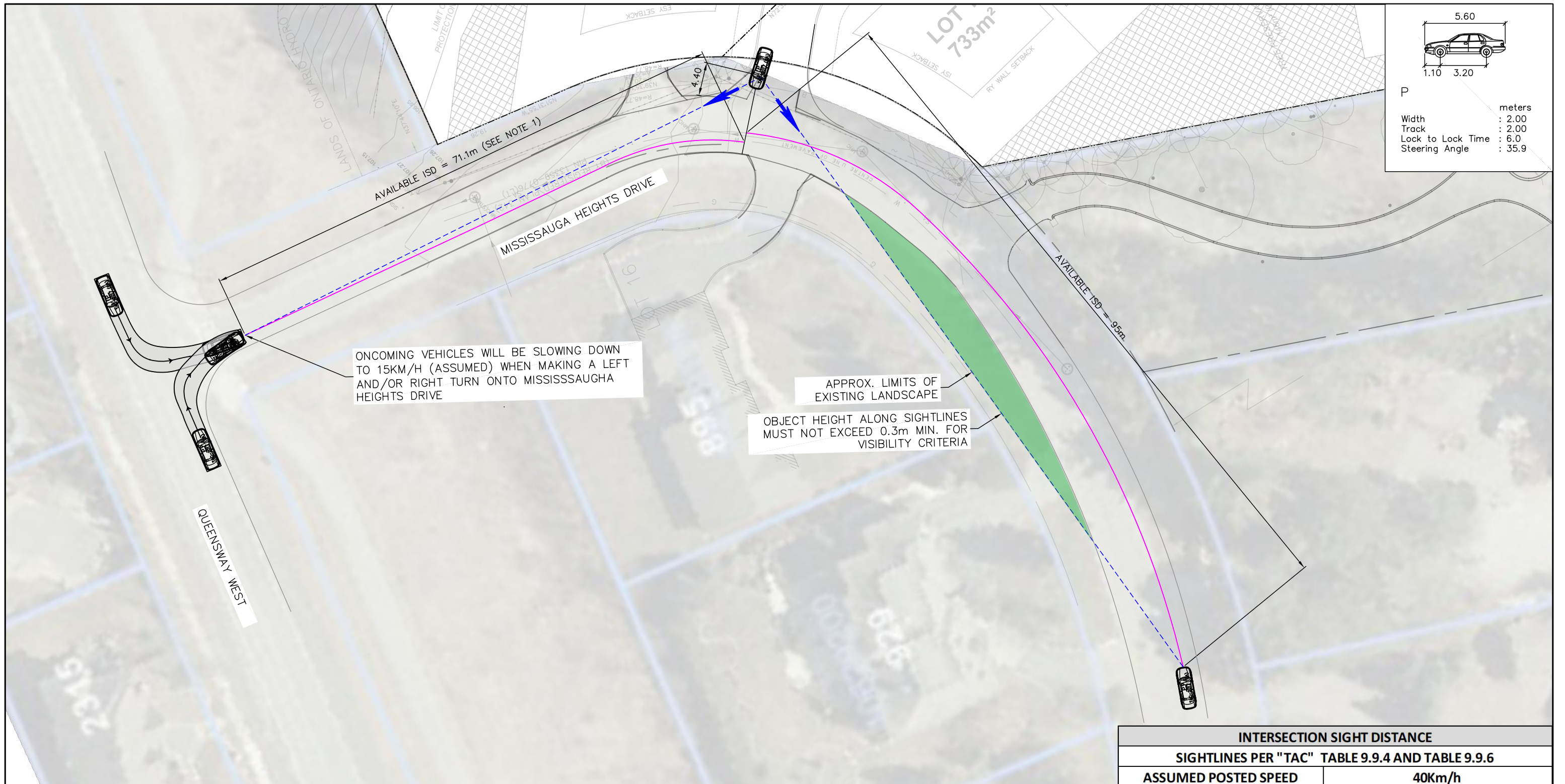
	SIGHT LINE
	AVAILABLE SSD
	PROPERTY LINE
	CLEAR VISIBILITY TRIANGLE

900&904 MISSISSAUGA HEIGHTS DRIVE
MISSISSAUGA ONTARIO

1:400

SITE ACCESS AND MISSISSAUGA HEIGHTS DRIVE
SIGHTLINE ANALYSIS
STOPPING SIGHT DISTANCE (P-TAC)

Drawing No.
006



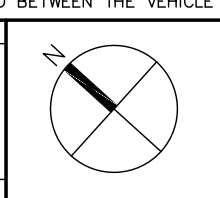
ONCOMING VEHICLES WILL BE SLOWING DOWN TO 15KM/H (ASSUMED) WHEN MAKING A LEFT AND/OR RIGHT TURN ONTO MISSISSAUGHA HEIGHTS DRIVE

APPROX. LIMITS OF EXISTING LANDSCAPE
OBJECT HEIGHT ALONG SIGHTLINES MUST NOT EXCEED 0.3m MIN. FOR VISIBILITY CRITERIA

INTERSECTION SIGHT DISTANCE		
SIGHTLINES PER "TAC" TABLE 9.9.4 AND TABLE 9.9.6		
ASSUMED POSTED SPEED	40Km/h	
DESIGN SPEED	50Km/h	
INTERSECTION SIGHT DISTANCE	RIGHT TURN (m)	LEFT TURN (m)
DESIRED ISD	95	105
AVAILABLE ISD	95	71.1
DESIRED ISD SATISFIED	YES (SEE NOTE 1)	

- NOTES:
- THE AVAILABLE INTERSECTION SIGHT DISTANCE (ISD) OF **71.1m (LEFT TURN)** IS LESS THAN THE DESIRED ISD OF **105m (LEFT TURN)** FOR THE DESIGN SPEED LIMIT OF 50KM/H (PER TABLE 9.9.6 OF TRANSPORTATION ASSOCIATION OF CANADA (TAC) GUIDELINE – CHAPTER 9). HOWEVER, GIVEN THE EXISTING CONDITIONS FOR THE EXISTING T-INTERSECTION OF MISSISSAUGA HEIGHTS DRIVE AND QUEENSWAY WEST, THE AVAILABLE ISD IS ACCEPTABLE – JUSTIFICATION IS AS FOLLOWS:
 - VEHICLES TURNING ONTO MISSISSAUGA HEIGHTS DRIVE WILL BE SLOWING DOWN DURING RIGHT AND LEFT TURNS AT SPEEDS BELOW THE DESIGN SPEED. ONCOMING VEHICLES AT THE INTERSECTION ARE ASSUMED TO BE TRAVELING AT A SPEED OF 15KM/H. PER TRANSPORTATION ASSOCIATION OF CANADA (TAC) GUIDELINE – CHAPTER 9 SECTION 9.9.2.3 THE ISD FOR 15KM/H CAN BE CALCULATED AS SHOWN BELOW:
 - RIGHT TURN: $ISD = 0.278 \cdot V_{MAJOR}^2 \cdot T_0 = 0.278 \cdot 15^2 \cdot 6.5 = 27.1m$
 - THEREFORE THERE IS ENOUGH AVAILABLE ISD BETWEEN THE VEHICLE MAKING A LEFT OR RIGHT TURN AT THE PROPOSED ACCESS AND THE ONCOMING VEHICLES FROM QUEENSWAY WEST.

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- SIGHT LINE
- AVAILABLE ISD
- PROPERTY LINE
- RESTRICTED OBJECT HEIGHT AREA

900&904 MISSISSAUGA HEIGHTS DRIVE
MISSISSAUGA ONTARIO

1:500

SITE ACCESS AND MISSISSAUGA HEIGHTS DRIVE SIGHTLINE ANALYSIS
INTERSECTION SIGHT DISTANCE (P-TAC)

Drawing No.
007

