



Traffic Impact Study

# 7564 Tenth Line, Proposed Data Center Development

March 2026 | Project # 100658  
Prologis





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# 1 INTRODUCTION

## 1.1 Scope and Objective

T.Y. Lin International Canada Inc. (TYLin) was retained by Prologis to complete a Traffic Impact Study (TIS) in support of the proposed industrial (data centre) development at 7564 Tenth Line West in the City of Mississauga, within the Region of Peel. The proposed development consists of one building, a proposed data centre with a GFA of 21,044 m<sup>2</sup>.

The purpose of this study is to evaluate the potential transportation impacts associated with the proposed Data Centre development on lands that were previously contemplated as part of a larger development block but are now being advanced independently due to a planned severance of the parcel between the data centre and the two industrial buildings. This Transportation Impact Study (TIS) focuses exclusively on the Data Centre component of the site. All trip generation estimates, traffic forecasts, and operational assessments presented herein are based solely on the proposed Data Centre land use. The study ensures that the revised site configuration complies with applicable municipal, regional, and provincial standards. The specific objectives are to:

- ▶ Determine the anticipated traffic volumes generated by the proposed development during the weekday AM and PM peak periods.
- ▶ Assess the impacts of the site-generated traffic on the existing and future roadway network for the 2032 and 2037 horizon years.
- ▶ Confirm that the site plan, access configuration, and on-site circulation meet the applicable City of Mississauga and Region of Peel standards, as well as the Transportation Association of Canada (TAC) guidelines, including:
  - AutoTURN vehicle maneuvering analysis for passenger vehicles, emergency service vehicles, waste collection vehicles, and WB-20 tractor-semitrailers.
- ▶ Review of access location, width, curb radii, corner clearance, intersection spacing, intersection angle and sightline assessment at key internal intersections in accordance with municipal and Transportation Association of Canada (TAC) guidelines.
- ▶ Prepare a Transportation Demand Management (TDM) Plan in alignment with the City of Mississauga's sustainable transportation objectives.
- ▶ Conduct a parking and loading review to confirm that site provisions meet the City's Zoning By-law requirements.

A detailed scope of work was submitted by TYLin to the City of Mississauga, the Region of Peel, and the Ontario Ministry of Transportation (MTO) for review and comment. The approved pre-consultation checklist and the City of Mississauga's certification form are provided in **Appendix A**.

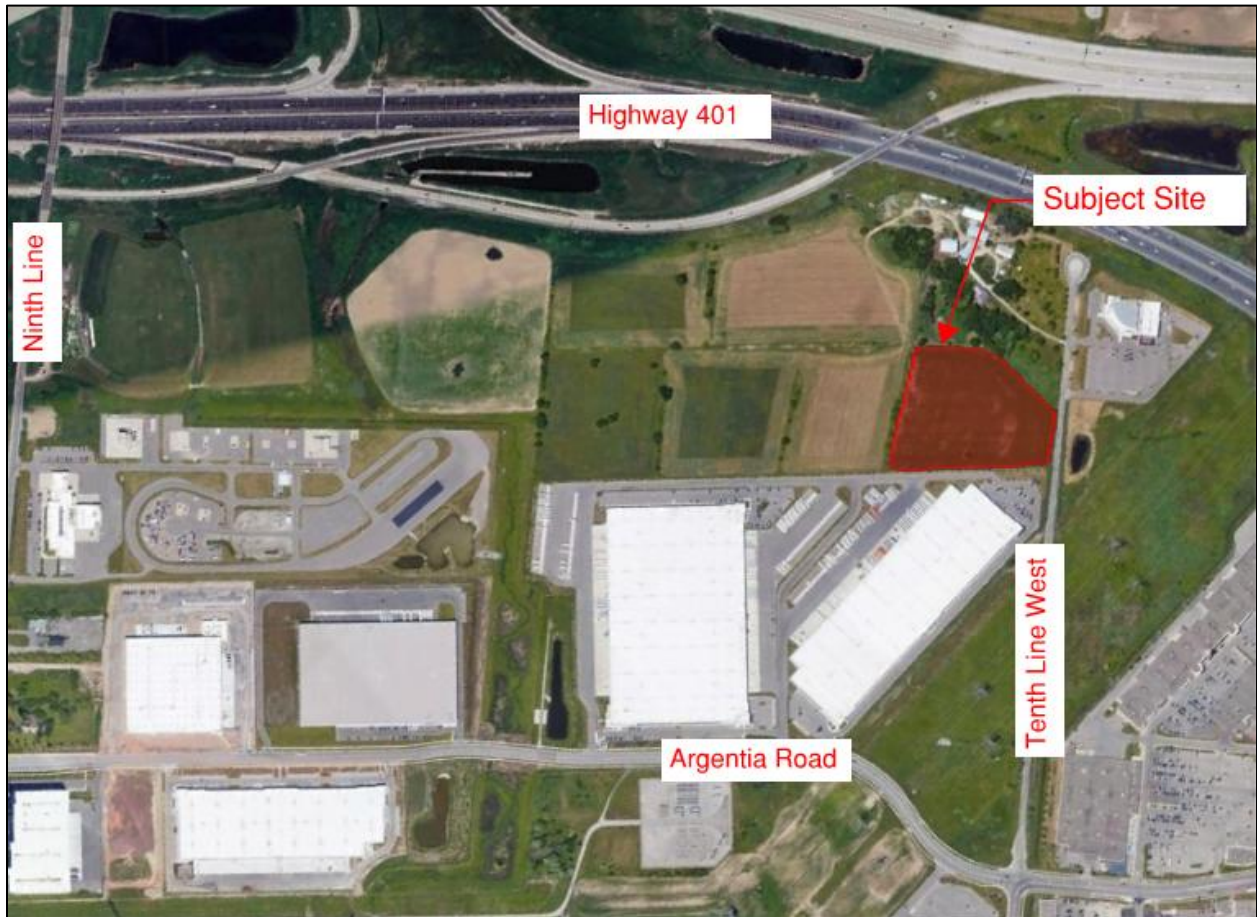
## 2 SITE CHARACTERISTICS

### 2.1 Study Environment

The subject site is located within the City of Mississauga, the Region of Peel, on the southwest side of Tenth Line West, northeast of Ninth Line, north of Argentia Road, and south of Highways 401 and 407. The latest iteration of the site plan includes the data center with total ground floor area (GFA) of 21,044 m<sup>2</sup>.

The site plan will include one access from Tenth Line West entering directly to the Data Centre. A total of 40 parking spaces are proposed, including 4 accessible spaces and 4 electric vehicle (EV) spaces. The proposed development site and surrounding road network are illustrated in **Figure 2-1**.

**Figure 2-1 Site Location**



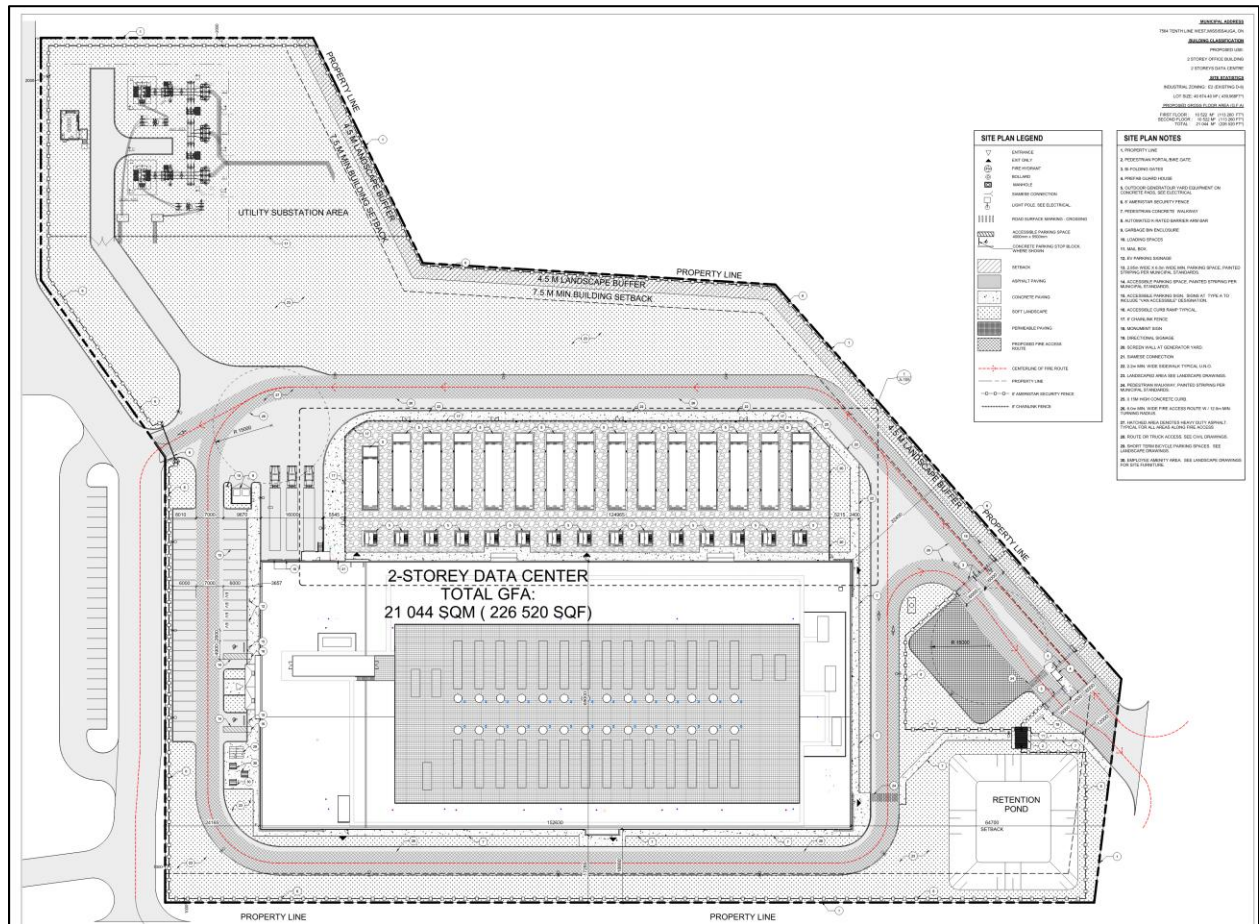
Source: Google Earth

## 2.2 Development Context

The proposed data center has a total site area of 40,874.40 m<sup>2</sup>, with a building GFA of 21,044 m<sup>2</sup> (10,522 m<sup>2</sup> per floor over two floors).

The proposed draft site plan, showing the development layout and access points, is illustrated in **Figure 2-2**. The full site plan is provided in Appendix B.

**Figure 2-2 Site Plan**



## 2.3 Study Area Intersections

The following intersections have been included in the study area:

### Existing Intersections

- ▶ Winston Churchill Boulevard & Highway 401 Eastbound Ramp Terminal (Signalized)
- ▶ Winston Churchill Boulevard & Highway 401 Westbound Ramp Terminal (Signalized)
- ▶ Winston Churchill Boulevard & Argentia Road (Signalized)
- ▶ Derry Road & Highway 407 Northbound Ramp Terminal (Signalized)
- ▶ Derry Road & Highway 407 Southbound Ramp Terminal (Signalized)
- ▶ Argentia Road & Winston Churchill Boulevard (Signalized)
- ▶ Tenth Line West & Argentia Road (Signalized)
- ▶ Ninth Line & Argentia Road (Signalized)

### Future Intersections

- ▶ Tenth line West & Site Access (Unsignalized)

## 3 EXISTING CONDITIONS

### 3.1 Road Network

The following describes the existing road network within the study area.

- ▶ **Argentia Road:** is a major collector road under the jurisdiction of the City of Mississauga. Within the study area, it has a three-lane cross section consisting of one travel lane in each direction and a continuous centre two-way left-turn lane between the intersections of Argentia Rd/Nineth Line and Argentia Rd/Tenth Line West. The roadway includes dedicated bike lanes on both sides, sidewalks on both sides, and has a posted speed limit of 60 km/h.
- ▶ **Tenth Line West:** is a north-south major collector road under the jurisdiction of the City of Mississauga. North of the Argentia Road intersection, it ends at a cul-de-sac at Highway 401. Within this area (North of Argentia Road), Tenth Line West is a two-lane undivided roadway with no posted speed limit. According to the Ontario Highway Traffic Act, the default speed limit of 50 km/h applies where no speed limit is posted. There are no sidewalks, bike lanes, or shoulders in this section. South of Argentia Road, Tenth Line West transitions to a two-lane undivided roadway with sidewalks and bike lanes on both sides. The posted speed limit in this section is 50 km/h.
- ▶ **Ninth Line:** is a north-south major arterial road under the jurisdiction of the City of Mississauga, located east of Highway 407. Within the study area, it has a two-lane undivided cross-section including unpaved shoulders and no sidewalks or bike lanes. The road transitions to a paved surface at the highway overpasses crossing Highways 401 and 407, north of the study area. The roadway has a posted speed limit of 60 km/h near its intersection with Argentia Road.
- ▶ **Derry Road West:** is an east-west major arterial road under the jurisdiction of Peel Region and designated as Regional Road 5. Within the study area, it is a four-lane roadway with multi-use paths and sidewalks on both sides. The posted speed limit along Derry Road West is 60 kilometers per hour.
- ▶ **Winston Churchill Boulevard:** is a major arterial road under the jurisdiction of Peel Region and designated as Regional Road 19. It is a six-lane roadway with a posted speed limit of 60 kilometers per hour. Within the study area, it has a center median to separate opposing traffic. North of the intersection between it and Argentia Rd, there are no bike

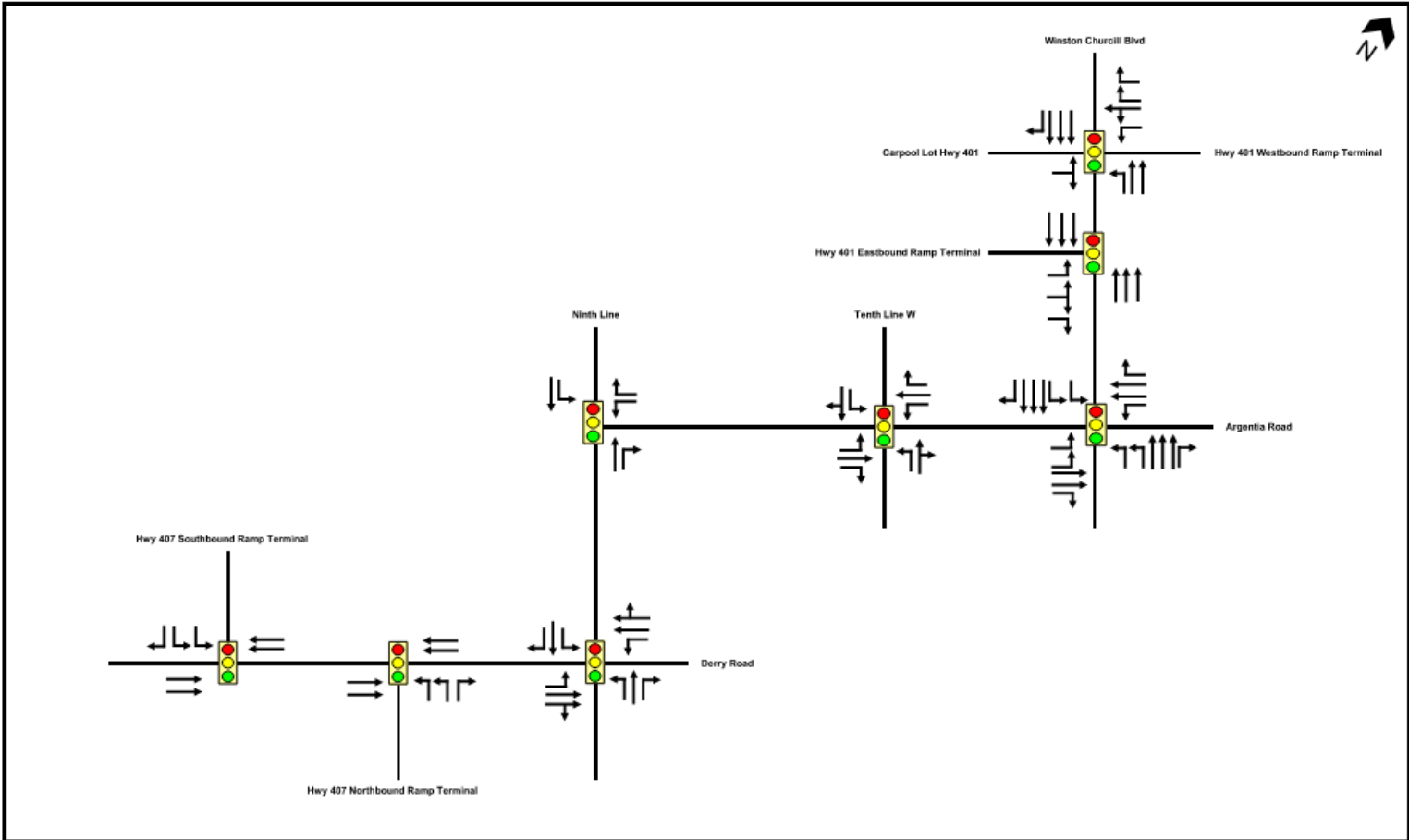
lanes and sidewalks only present on the western side for a short duration. South of the intersection, there are sidewalks and multi-use paths on either side of the road.

- ▶ **Highway 401:** is a provincial freeway under the jurisdiction of the Ministry of Transportation of Ontario (MTO). Within the study area, there are two on-ramps from Winston Churchill Boulevard providing access to eastbound Highway 401, and two on-ramps providing access to westbound Highway 401. Additionally, there is one off-ramp from eastbound Highway 401 and one off-ramp from westbound Highway 401, both connecting to Winston Churchill Boulevard.
- ▶ **Highway 407:** is a privately tolled highway under the jurisdiction of 407 ETR Concession Company Limited. Within the study area, there are two on-ramps from Derry Road providing access to northbound Highway 407, and two on-ramps providing access to southbound Highway 407. Additionally, there is one off-ramp from eastbound Highway 407 and one off-ramp from westbound Highway 407, both providing access to Derry Road.

A lane configuration diagram is provided in **Figure 3-1**.

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Figure 3-1 Existing Lane Configuration



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Figure 3-1

Existing Lane Configuration

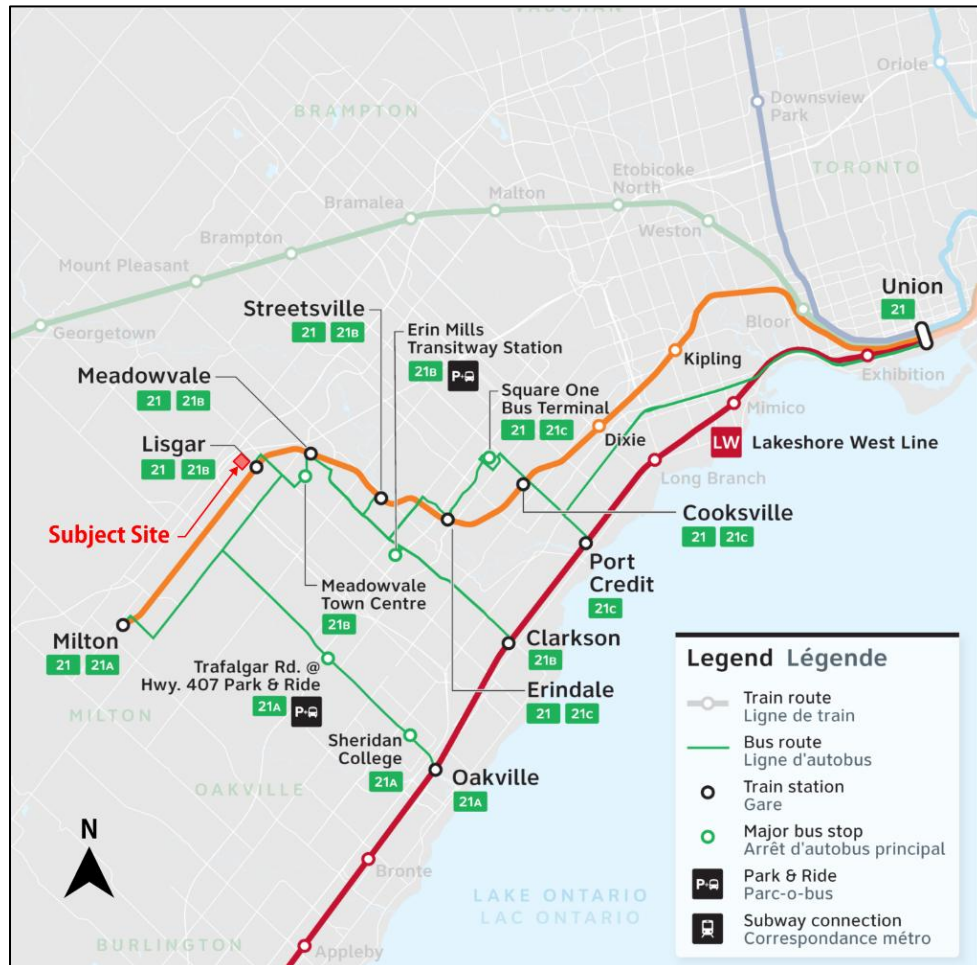
## 3.2 Transit Network

The subject site is served by GO Regional Rail and Bus transit, Mississauga’s MiWay Bus Transit, Brampton Transit Route, and Milton Transit. With many options within a 1 km distance from the proposed site, transit becomes a viable option for people travelling to and from the site.

### 3.2.1 GO Regional Transit

The closest GO Station to the site is Lisgar GO Station, which is a train and bus station that is located within a 1km radius south of the site access on Tenth Line West. This offers GO Bus and GO Train connections to the routes shown in **Figure 3-2**.

**Figure 3-2 GO Transit Network**



[Source: Routes & Departures | GO Transit](#)

### 3.2.2 MiWay (Mississauga) Transit

Within the study area, there are two MiWay municipal bus routes.

- ▶ **MiWay Route 38 (Argentia & Winston Churchill)** operates Monday to Friday throughout the day with approximately 30-minute frequency. The route travels generally a north-south direction between Meadowvale Town Centre in the north and Cooksville GO Station in the south. Within the study area, the route serves stops on Argentia Road and Winston Churchill Boulevard. Route 38 connects to Lisgar GO Station and Brampton Transit at the same stop on Argentia Road, less than 1 km from the subjected site.
- ▶ **MiWay Route 43 (Matheson-Argentia)** operates Monday to Friday during peak hours with approximately 45-minute frequency. During the P.M. peak hours, the route generally travels in an east-west direction between SmartCentres Meadowvale in the west and Commerce Boulevard at Renforth Station in the east. During A.M. peak hours, the route generally travels in a north-south direction between SmartCentres Meadowvale in the north and Meadowvale Town Centre in the south. Within the study area, the route serves a single stop at Argentia Road west of Winston Churchill Boulevard approximately 1 km from the subjected site.

Figure 3-3 MiWay Transit Route Near Site



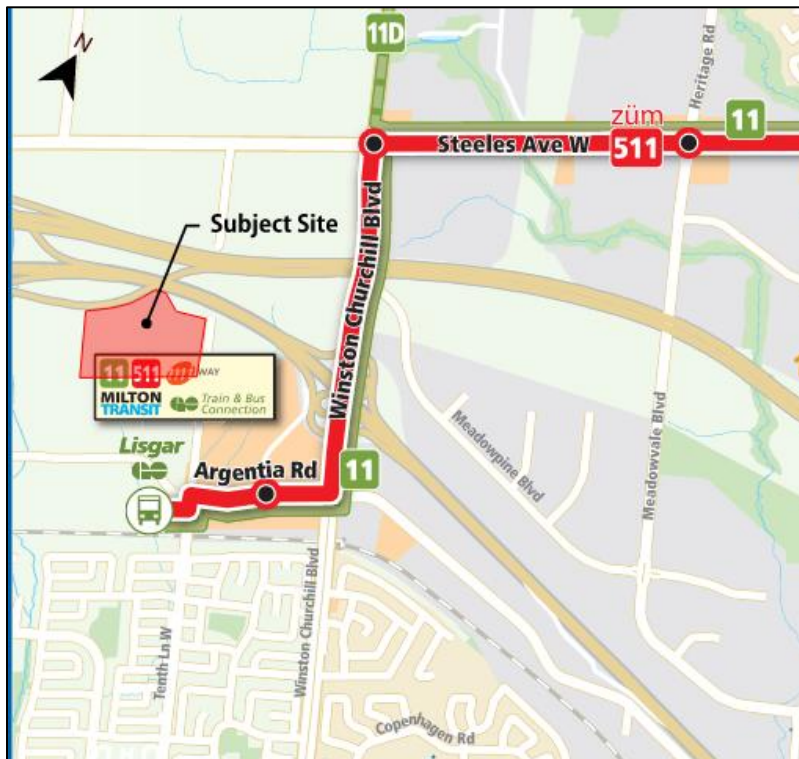
Source: MiWay System Maps

### 3.2.3 Brampton Transit Route

Within the study area, there are two city of Brampton bus routes. Both bus routes include stops less than 1 km from the subjected site.

- ▶ **Brampton Transit Route 511** operates Monday to Sunday and primarily runs along Steeles Avenue and generally travels in an east-west direction between Lisgar GO in the west and Humber College in the east. It operates at 15 to 20-minute frequency on weekdays and 30-minute frequency on weekends. Within the study area, the route serves one stop along Argentia Road. It connects to Lisgar GO Station, Mississauga’s MiWay transit route, and Milton Transit.
- ▶ **Brampton Transit Route 11** operates Monday to Sunday and primarily runs along Steeles Avenue and generally travels in an east-west direction between Lisgar GO in the west and Humber College in the east. Heading west, it operates at 20 to 45-minute frequencies on weekdays and 40 to 55-minute frequencies on weekends. Heading east, it operates at 10 to 23-minutes frequencies on weekdays and 20 to 27-minute frequencies on weekends. Within the study area, the route has stops along Argentia Road and Winston Churchill Boulevard. It connects Mississauga’s MiWay transit route, Milton Transit, and Lisgar GO trains and buses.

**Figure 3-4 Brampton Transit Route Near Site**

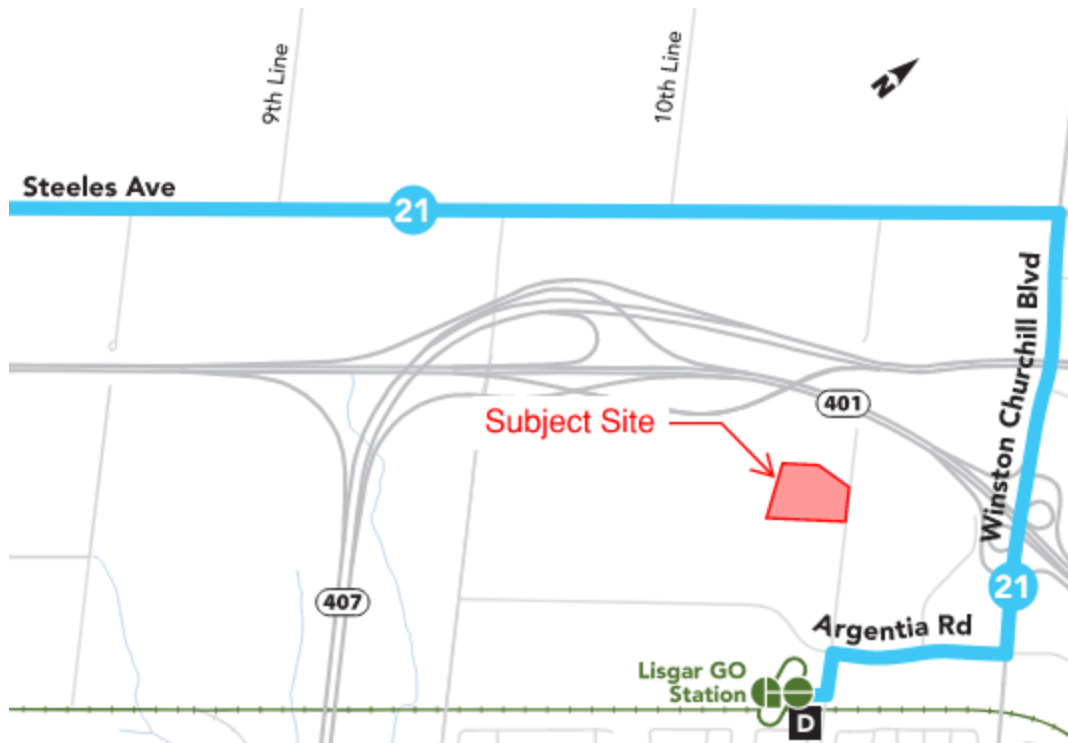


[Source: City of Brampton](#) | [Brampton Transit](#) | [iRide School Routes](#)

### 3.2.4 Milton Transit

**Route 21 Steeles** is a new addition to the Town of Milton’s bus route that generally runs in the east-west direction between Milton GO Station in the west and Lisgar GO Station in the east. From Monday to Sunday, it operates at 35-minute frequency. Within the study area, it services one stop at Lisgar GO.

**Figure 3-5 Milton Transit 21 Steeles Route**



[Source: Transit Schedules and Routes - Town of Milton](#)

### 3.3 Pedestrian Routes

Within the vicinity of the proposed site, Argentia Road is the closest roadway to the site with sidewalks on both sides, which will support pedestrian movement within the study area. However, there are no sidewalks on either side of Tenth Line W where the two proposed site accesses are located.

### 3.4 Cycling Routes

Within the vicinity of the proposed development, there are designated cycling routes on both sides of the road along Argentia Road and on Tenth Line West, south of its intersection with Argentia Road. These routes are marked with pavement markings that separate cyclists from vehicle traffic.

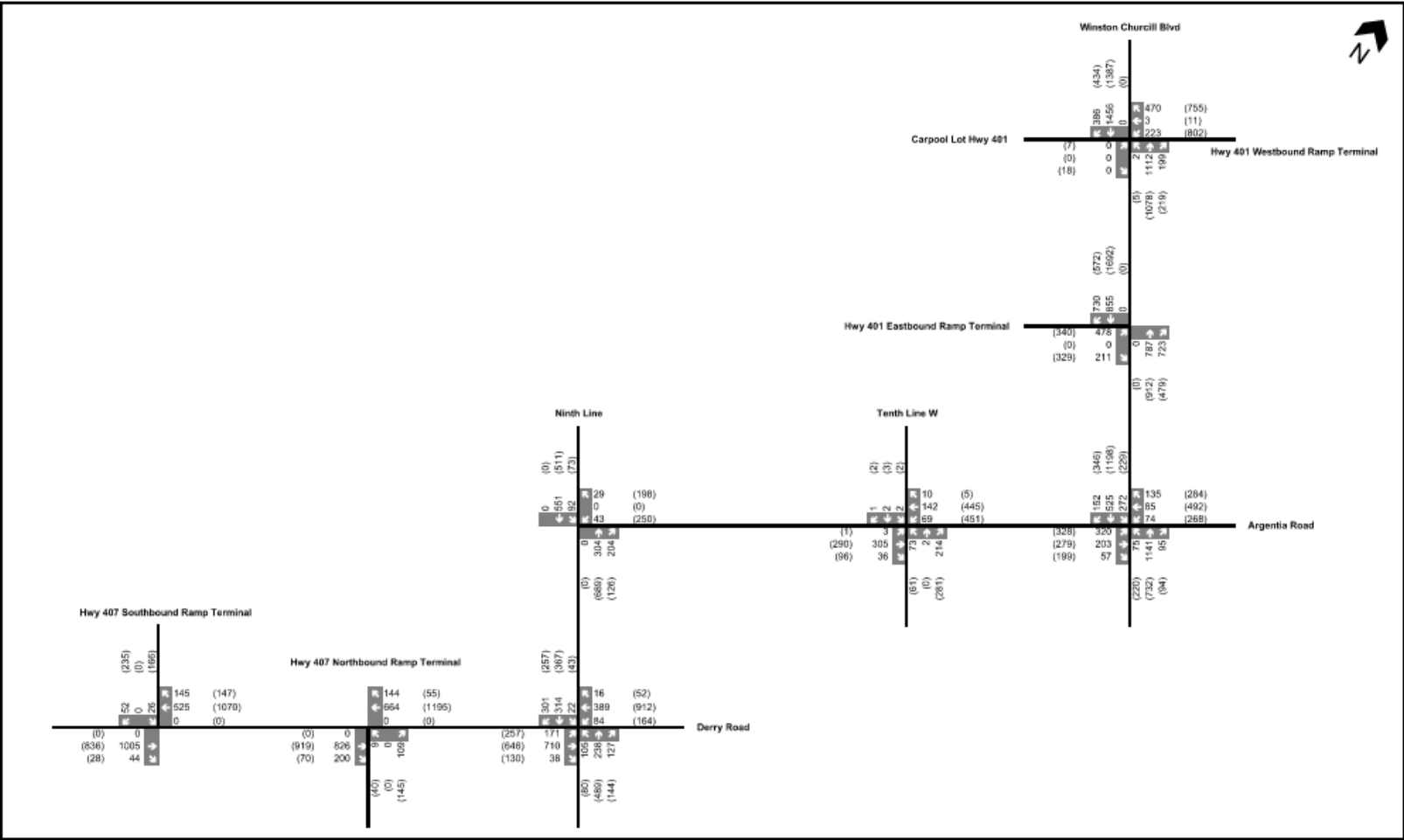


### 3.5 Existing Traffic Volumes

Traffic Volumes for existing conditions were obtained via turning movement counts (TMC) data commissioned by TYLin and conducted on August 6th, 2025. Due to the industrial nature of the site, its surrounding land uses, and location in relation to institutional buildings, the use of summer counts was proposed and deemed appropriate for the site. Based on coordination with City Staff, and approval of the Terms of Reference (TOR) attached in Appendix A, TYLin used the summer counts to prepare the existing conditions traffic model with traffic volumes as per **Figure 3-6** below. All TMC data can be found in **Appendix C**.

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Figure 3-6 Existing Traffic Volumes



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

Figure 3-6

Existing Traffic Volumes

## 4 FUTURE CONDITIONS

### 4.1 Background Growth

Future traffic volumes for the 2032 (H1) and 2037 (H2) horizon years were developed by applying compounded annual growth rates to the existing (2025) traffic volumes. Growth rates were obtained from the City of Mississauga and the Region of Peel, based on the jurisdiction of each roadway.

For the 2025 to 2031 period, the growth rates provided by the City of Mississauga take into account the planned widening of Highway 401, which is why rates may appear higher than typical background growth values.

For the 2031 to 2037 period, the growth rates reflect the planned widening of Ninth Line from one through lane in each direction to two through lanes in each direction, resulting in relatively higher rates along Ninth Line compared to other corridors.

**Table 4-1** summarizes the annual growth rates applied in the analysis:

**Table 4-1 Background Developments**

Roadway/ Jurisdiction	Directions	2025-2031 Rate	2031-2037 Rate	Source/Notes
Winston Churchill Boulevard (City)	NB/SB	3.0% AM/PM	1.0% AM 0.5% PM	City of Mississauga
Tenth Line West (City)	NB/SB	1.0% AM/PM	1.0% AM/PM	City of Mississauga
Ninth Line (City)	NB/SB	2.5% AM 2.0% PM	6.5% AM/PM	City of Mississauga
Argentia Road (City)	EB/WB	2.5% AM/PM	2.5% AM/PM	City of Mississauga
Derry Road (Region of Peel) <sup>1</sup>	EB/WB	0.5% AM/PM	0.5% AM/PM	Region of Peel
Highway 401 Ramp Terminals (MTO) <sup>2</sup>	EB/WB	1.0% AM/PM	1.0% AM/PM	MTO
Highway 407 Ramp Terminals (407 International inc.) <sup>3</sup>	NB/SB	1.0% AM/PM	1.0% AM/PM	407 Internal Inc.

<sup>1</sup> The 0.5% annual growth rate for Derry Road was based on values provided by the Region of Peel in a 2330 & 2360 Argentia Road- Proposed Industrial Development traffic study. The 2031–2041 rate was applied to the 2031–2037 period in this study.

<sup>2</sup> Highway 401 ramp terminals under MTO jurisdiction, a 1.0% annual growth rate was used as per a review of historical AADT volumes found on iCorridor.

<sup>3</sup> Highway 407 ramp terminals under 407 International inc. Jurisdiction, a 1.0% annual growth rate was assumed due to absence of agency provided rates, remaining in line with Highway 401.

The confirmation of these growth rates, along with the correspondence from the agencies, is provided in Appendix A.

## 4.2 Background Developments

A review of the City of Mississauga's Planning Information Hub and Active Development Applications database confirmed that there are no active development applications within the area of influence of the proposed development site. This was further confirmed through correspondence with reviewing agencies. However, as the site is currently going through the process of a severance, the site-generated trips of the warehouse industrial buildings will be considered as the background trips for Data Center. A total of 98 site trips, consisting of 75 inbound and 23 outbound trips, are generated by the subject site during the AM peak hour. During the PM peak hour, 28 inbound and 73 outbound net auto site trips are predicted, totaling 101 trips. Warehousing site generated trips are located in **Figure 4-4**. Thus, one background development is considered but no active external development applications will influence the site.

## 4.3 Planned Network Improvements

TYLin is aware of 2 planned network improvements withing the Vicinity of the proposed development.

The Proposed Site is within the MTO Area of Interest for the new proposed Highway 413 which is planned to the north of the site. At this time the project is still within the preliminary phase and as such no detailed design has been completed to date. It is our understanding that the proposed construction will not have an impact on the subjected site. Timelines for the completion of the project are still unknown at this time and as such the planned Highway 413 is not being considered as part of this TIS.

The City of Mississauga has undergone an EA assessment for the widening of Ninth Line Road. This EA concludes that widening of Ninth Line to the south of Derry Road is warranted from 2 lanes to 4 with timelines subjected to council review. Additionally, the widening of Ninth Line north of the study section, Derry Road intersection to Highway 401 overpass, is proposed with a timeline of 2033. As such TYLin incorporated the proposed widening of Ninth Line north of Derry Road for the background and total 2037 horizon analysis.

**Figure 4-1** illustrates the future proposed lane configurations.

## 4.4 Horizon Years

In accordance with the City of Mississauga's Transportation Impact Study (TIS) Guidelines and the Ministry of Transportation of Ontario (MTO) requirements, the following study horizon years were established for this assessment: Existing Year (2025), 5-Year post buildout Horizon (2032), and 10-Year post buildout Horizon (2037). These horizons provide a basis for evaluating existing conditions, short-term post-buildout impacts, and longer-term traffic operations within the study

area.

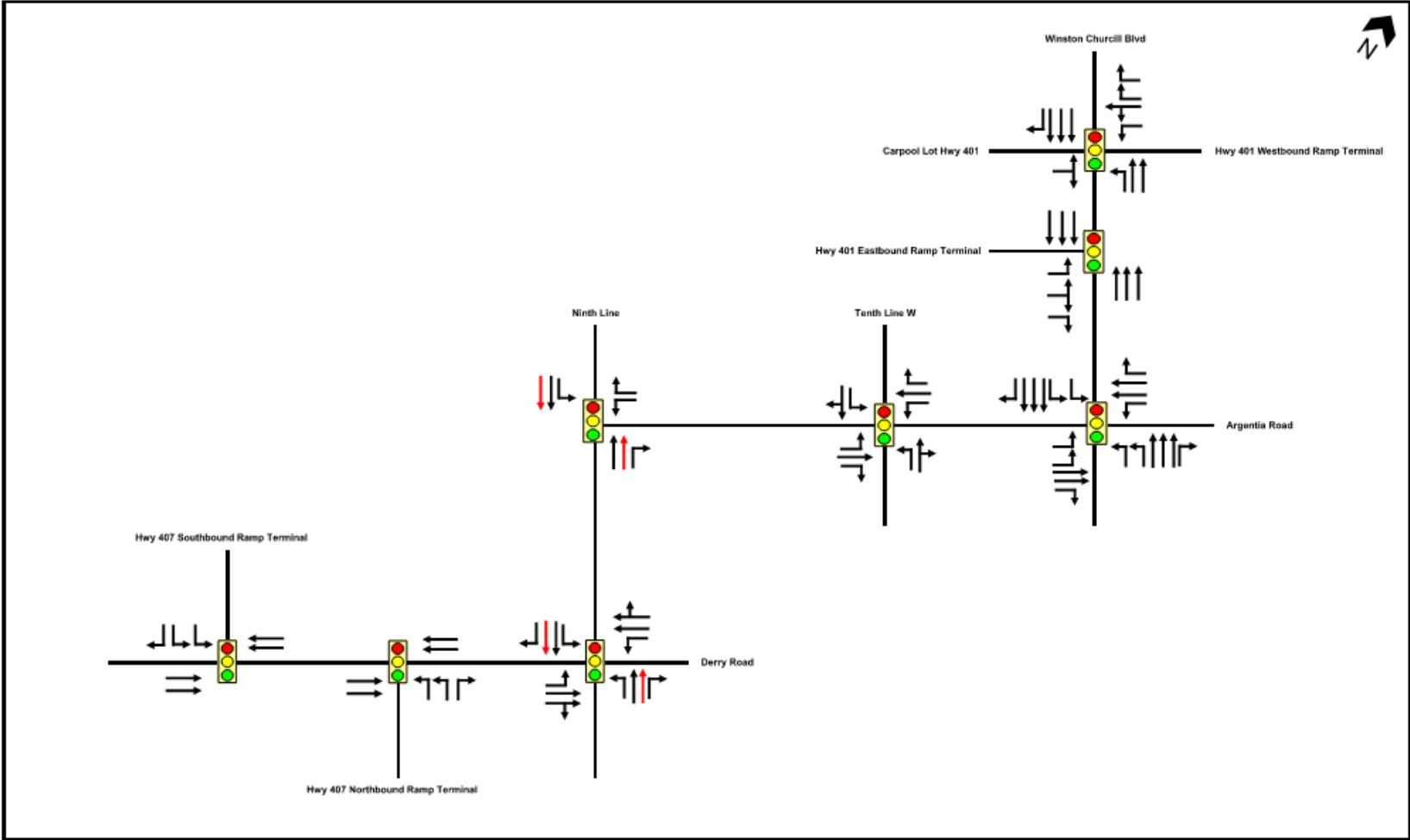
## 4.5 Future Background Traffic Volumes

Future background traffic volumes were developed by applying the compounded annual growth rates described in **Section 4.1** to the existing (2025) baseline traffic volumes for each study intersection, and the background development traffic described in **Section 4.2**. Growth rates were obtained from the City of Mississauga, the Region of Peel, and the Ministry of Transportation of Ontario (MTO), depending on the jurisdiction of each roadway.

The 2032 (5-year) and 2037 (10-year) background traffic volumes represent the traffic growth anticipated within the study area from the 2025 baseline year, independent of the proposed development. **Figure 4-2** presents the 2032 future background weekday AM and PM peak hour traffic volumes, while **Figure 4-3** presents the corresponding 2037 future background volumes.

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Figure 4-1 Future Lane Configuration



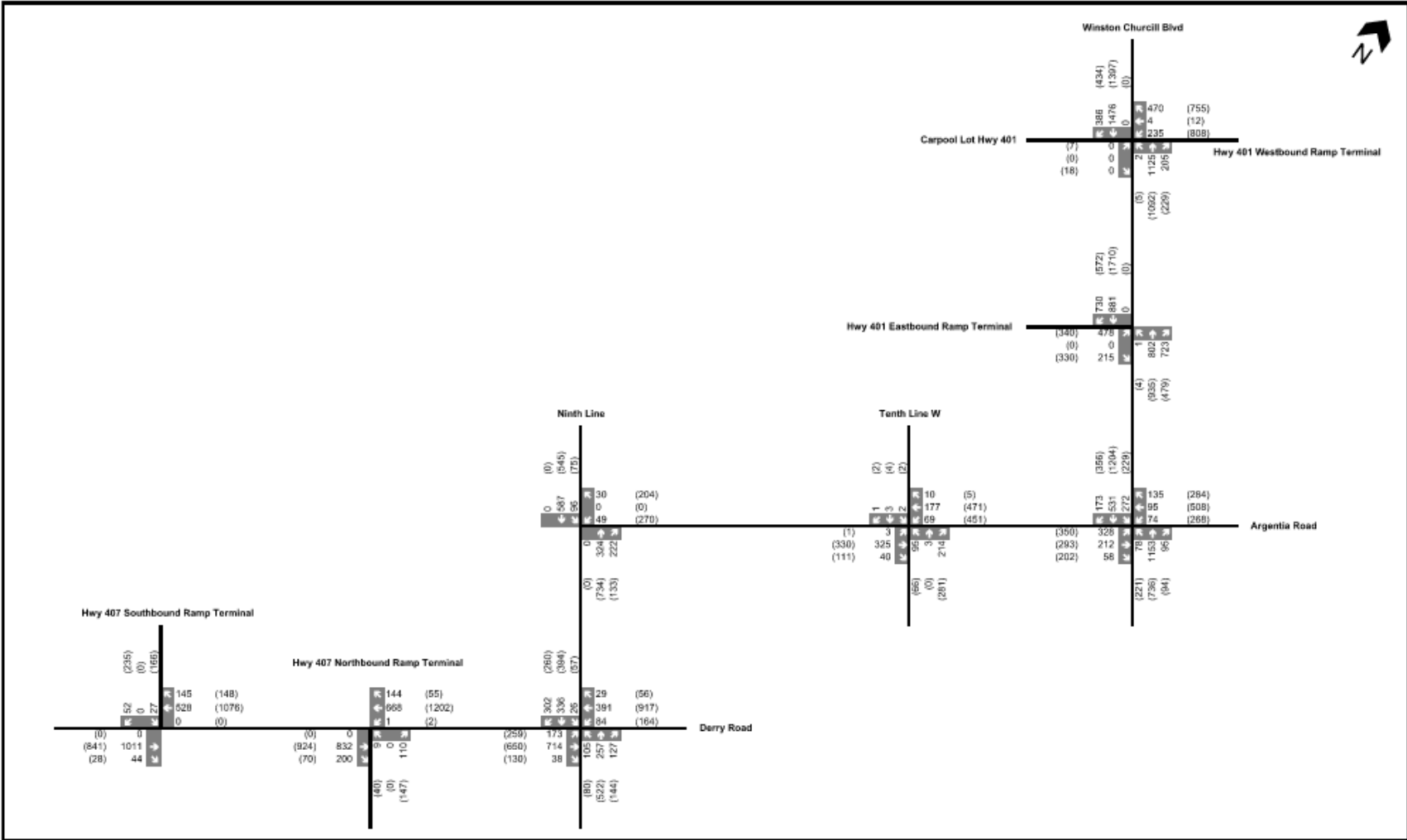
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Figure 4-1

Future Lane Configuration

Figure 4-2 Future Background Traffic Volumes-2032



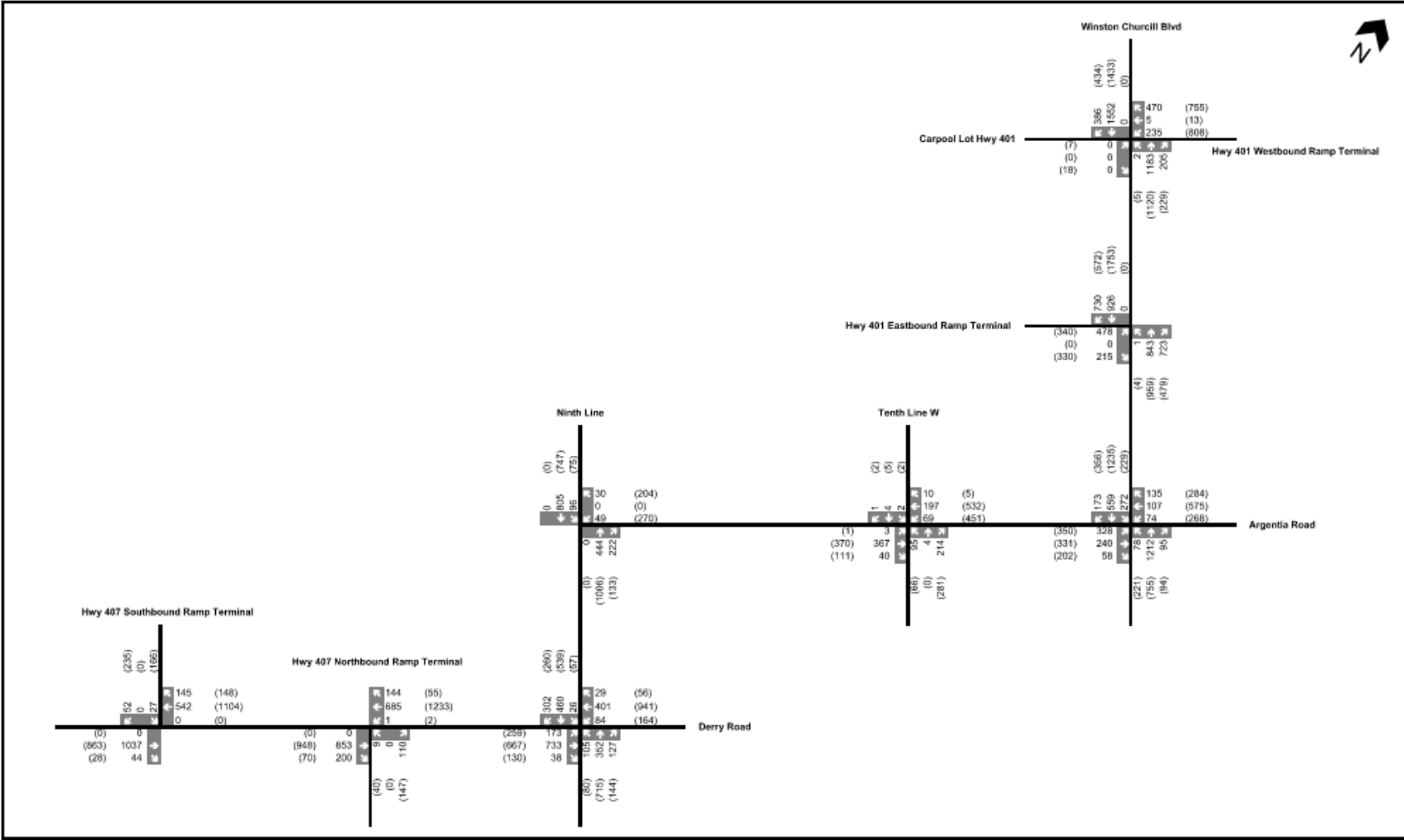
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- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 4-2

2032 Future Background Traffic Volumes

Figure 4-3 Future Background Traffic Volumes-2037



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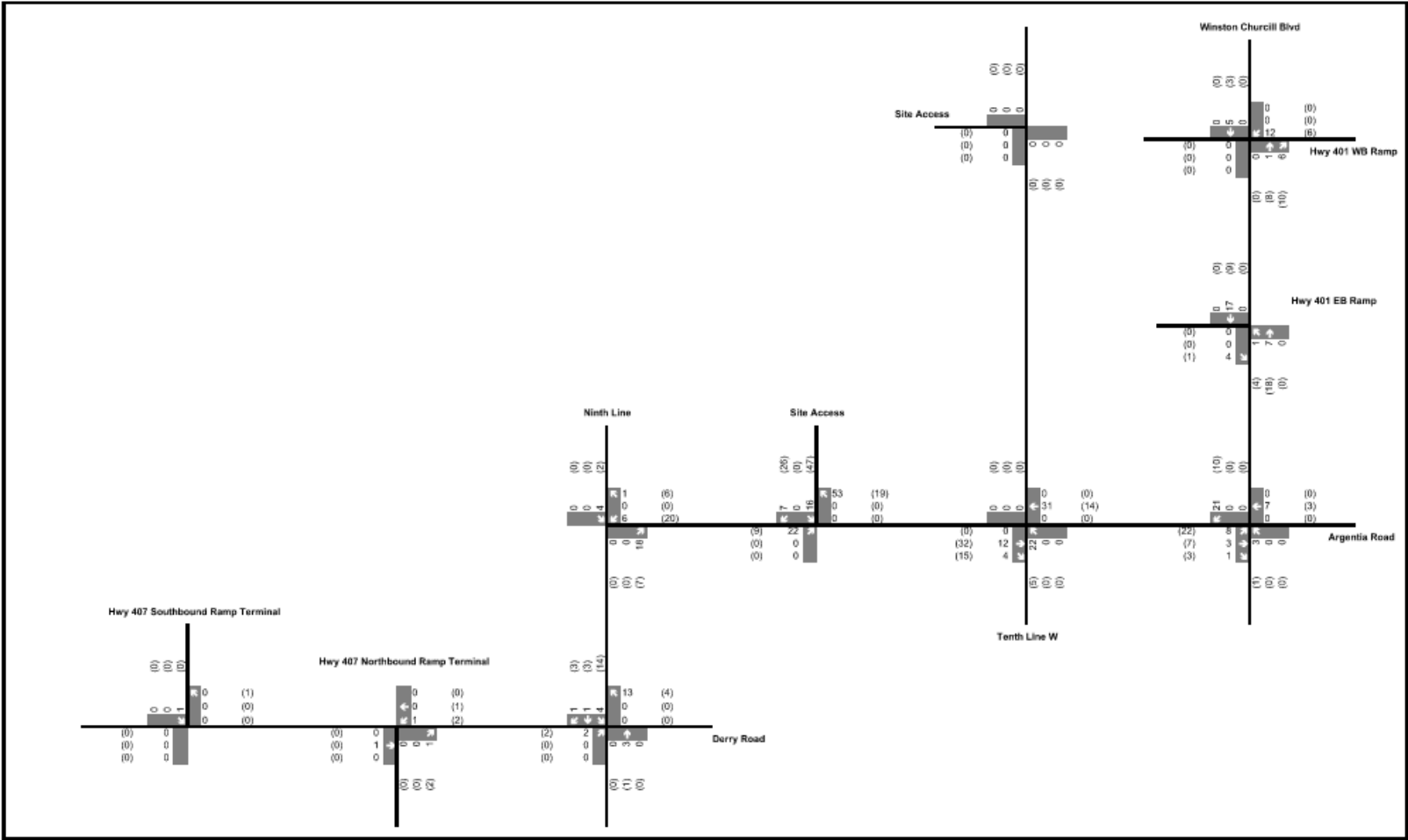
Legend

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

Figure 4-3

2037 Future Background Traffic Volumes

Figure 4-4 Background Development Traffic Volumes



Legend

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

Figure 4-4

Warehouse Site Traffic - Background Development Traffic Volumes

## 5 FUTURE TOTAL TRAFFIC VOLUMES

### 5.1 Site Trip Generation

Trip generation was estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. Based on the latest site plan, the proposed development includes the 2-storey Data Centre with total GFA of 21,044 m<sup>2</sup>.

The data center was assessed under ITE Land Use Code (LUC) 160 – Data Centre, which provides peak hour vehicle trip estimates for facilities with primarily employee, maintenance, and service traffic.

**Table 5-1** summarizes the estimated weekday AM and PM peak-hour trip generation for each land use based on the fitted curve equations from the ITE Manual, with the corresponding inbound/outbound splits applied.

**Table 5-1 Site Trip Generation for Data Center**

Land Use	Parameters	Peak Hour Trip Generation					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
LUC 160 Data Centre  226,520 ft <sup>2</sup> (21,044 m <sup>2</sup> )	Fitted Curve Equation	T=0.13(X)-5.63			T=0.11(X)-5.65		
	Trip Distribution	55%	45%	100%	30%	70%	100%
	Gross Auto Trips	13	10	23	6	13	19
<b>Total Vehicle Trips</b>		<b>13</b>	<b>10</b>	<b>23</b>	<b>6</b>	<b>13</b>	<b>19</b>

A total of 23 site trips, consisting of 13 inbound and 10 outbound trips, are predicted to be generated by the subject site during the AM peak hour. During the PM peak hour, 6 inbound and 13 outbound net auto site trips are predicted, totaling 19 trips.

### 5.2 Site Trip Distribution and Assignment

The distribution of site-generated traffic was derived from the 2022 Transportation Tomorrow Survey (TTS) summary data for Traffic Analysis Zones (TAZ) 3817, 3819, 3719, 3720, 3616, 3617, and 3638, and assigned to the road network accordingly.

The resulting site traffic distribution is summarized in **Table 5-2**. **Figure 5-1** illustrates the assigned site-generated traffic for the data center.

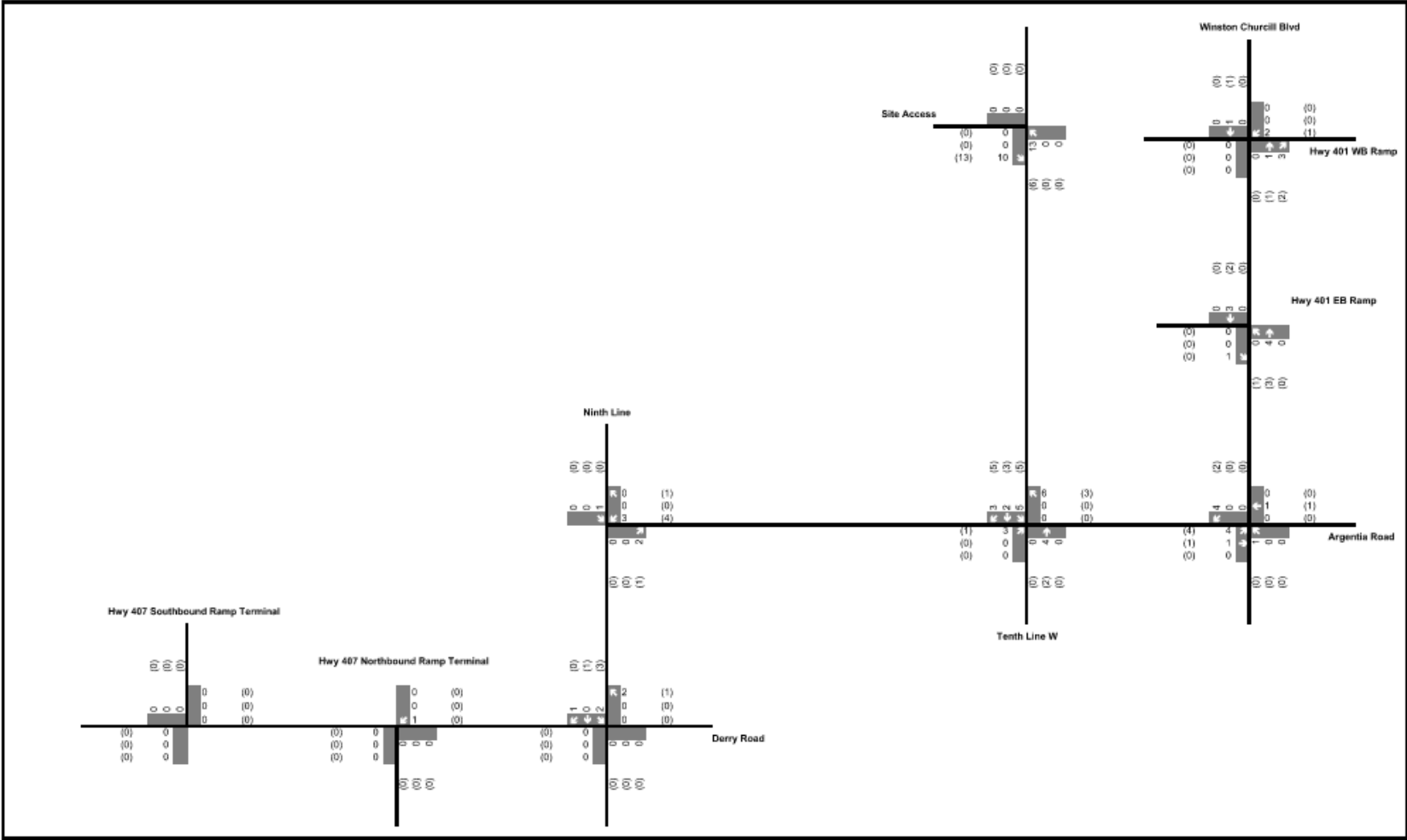
**Table 5-2 Site Trip Distribution**

To/From	Distribution (%)			
	AM peak period		PM peak period	
	Inbound	Outbound	Inbound	Outbound
Northwest	6%	5%	8%	12%
North	1%	2%	4%	2%
Northeast	8%	6%	8%	8%
East	7%	19%	18%	10%
Southeast	35%	35%	27%	35%
South	31%	26%	26%	23%
Southwest	8%	6%	6%	6%
West	4%	2%	3%	4%
Total	100%	100%	100%	100%

### 5.3 Future Total Traffic Volumes

The future total traffic volumes during the weekday peak hours for the 2032 and 2037 planning horizons were derived by combining the corresponding estimates of Data Center site-generated traffic with the total background traffic volumes derived above. **Figure 5-2Error! Reference source not found.** summarizes the Data Center future total traffic volumes for the 2032 planning horizon during the weekday AM and PM peak hours, while **Figure 5-3**Figure 5-3 Future Total (2037) Traffic Volumes presents the Data Center future total traffic volumes for the 2037 planning horizon during the weekday AM and PM peak hours.

Figure 5-1 Data Center Site Traffic

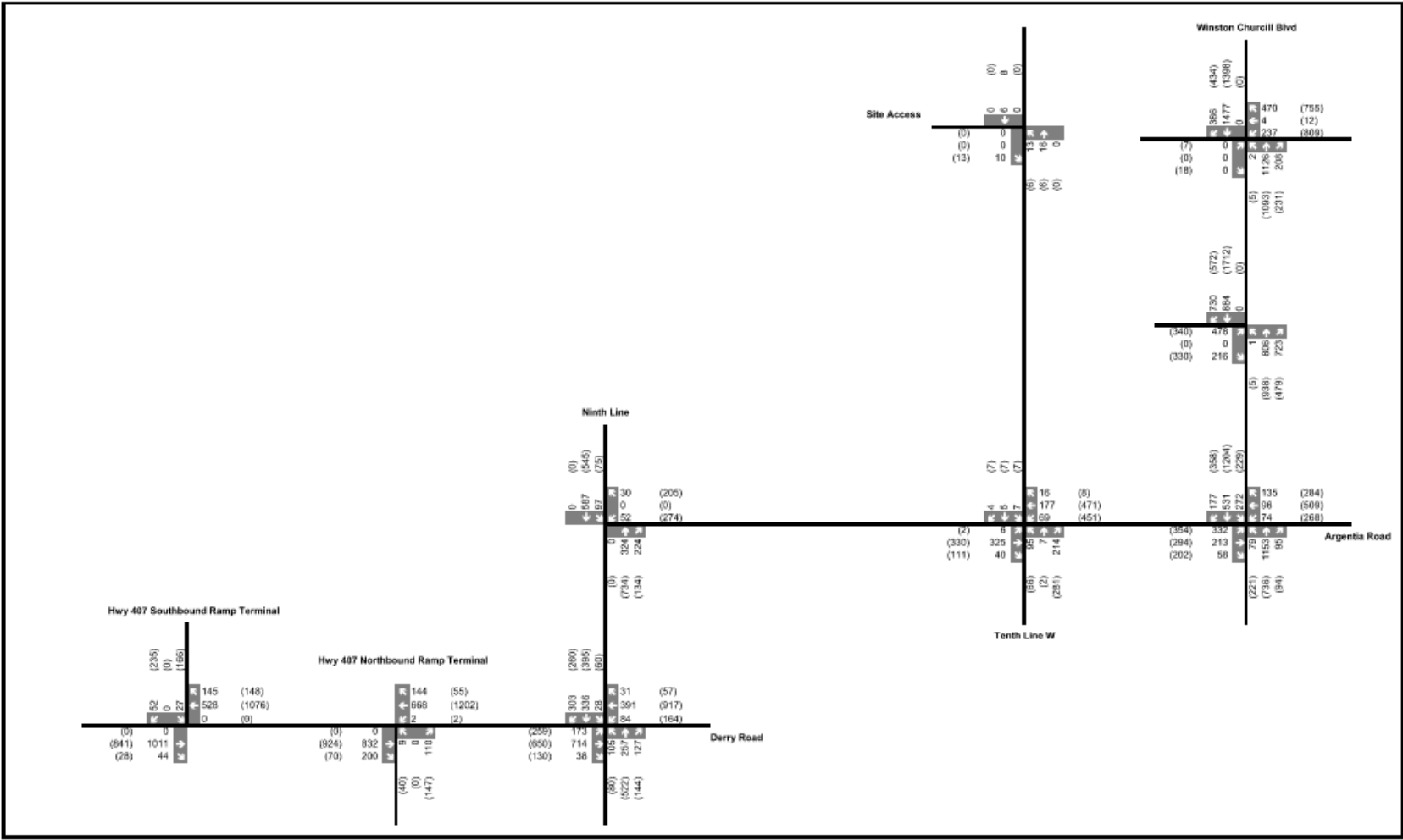


TYLin

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

Figure 5-1  
Data Center Site Traffic

Figure 5-2 Future Total (2032) Traffic Volumes



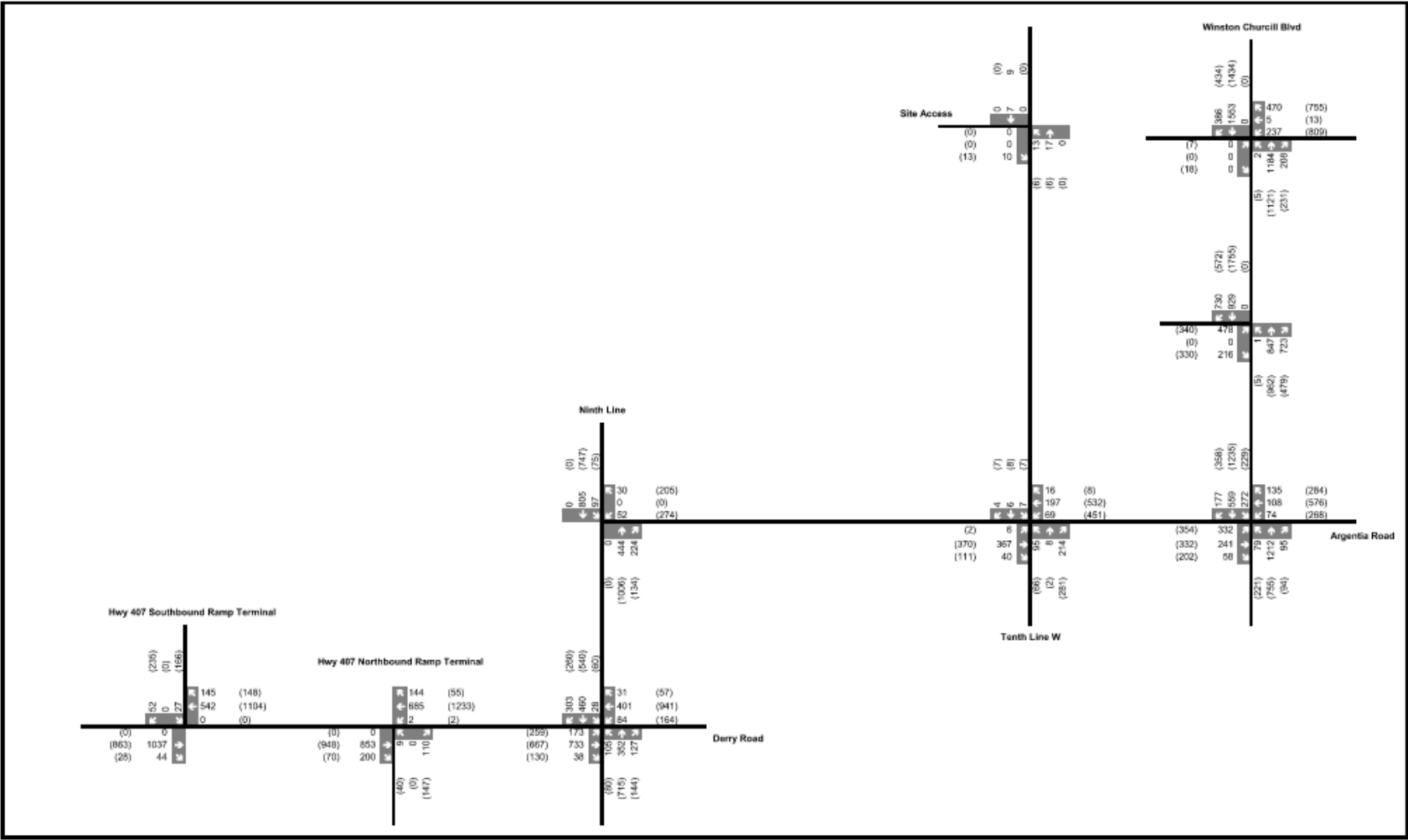
Legend

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

Figure 5-2

Future Total Data Center 2032 Traffic Volumes

Figure 5-3 Future Total (2037) Traffic Volumes



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Legend

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

Figure 5-3

Future Total Data Center 2037 Traffic Volumes

## 6 TRAFFIC CAPACITY ANALYSIS

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

In accordance with the Ministry of Transportation (MTO) capacity requirements, capacity analysis was performed for all proposed site access points and study intersections. At signalized intersections, movements with a v/c ratio greater than 0.85 are deemed “critical” and evaluated for possible operational improvements. For MTO ramps, terminal ramp approaches with a v/c ratio greater than 0.75 are also deemed critical and assessed for potential improvements.

The following tables summarize the Synchro/HCM capacity results for the study intersections during the weekday a.m. and p.m. peak hours under baseline (2025), future background and future total (2032 and 2037) traffic conditions. Detailed Synchro reports are attached in **Appendix E**.

### 6.1 Existing Conditions

The traffic capacity analysis results for the intersections in the study area are summarized in **Table 6-1** for both the weekday a.m. and p.m. peak hours under existing traffic conditions. The existing signal timing plans were obtained from the City of Mississauga, Region of Peel. Signal timing data for Highway 401 and 407 ramp terminals were not provided, as such signal timings were prepared based on MTO Traffic Signal Operating and Timing Policy in conjunction with OTM book 12. All signal timing plans provided are located within **Appendix D**.



**Table 6-1 Existing 2025 Capacity Analysis**

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Hwy 401 WB Ramp (Signalized)	<i>Overall</i>	<i>0.53</i>	<i>20</i>	<i>B</i>	<i>0.71</i>	<i>38</i>	<i>D</i>
	EBL	0.00	0	-	0.12	75	E
	EBR	0.00	0	-	0.01	74	E
	WBL	0.32	51	D	0.76	53	D
	WBLT	0.00	0.00	E	0.75	52	D
	WBR	0.84	63	B	0.36	40	D
	NBL	0.01	17	B	0.04	21	C
	NBT	0.54	15	B	0.73	36	D
	NBR	0.55	16	B			
	SBT	0.42	12	B	0.54	20	C
	SBR	0.45	14	B	0.38	38	C
Winston Churchill Blvd & Hwy 401 EB Ramp (Signalized)	<i>Overall</i>	<i>0.57</i>	<i>24</i>	<i>C</i>	<i>0.68</i>	<i>21</i>	<i>C</i>
	EBLR	0.80	63	E	0.78	66	E
	EBR	0.75	64	D	0.76	70	E
	NBT	0.21	8	A	0.25	9	A
	SBT	0.35	9	B	0.65	10	A
Winston Churchill Blvd & Argentia Rd (Signalized)	<i>Overall</i>	<i>0.50</i>	<i>48</i>	<i>D</i>	<i>0.58</i>	<i>50</i>	<i>D</i>
	EBL	<i>1.07</i>	<i>142</i>	<i>F</i>	<i>1.03</i>	<i>130</i>	<i>F</i>
	EBT	0.18	43	D	0.44	61	E
	EBR	0.12	38	D	0.32	48	D
	WBL	0.21	45	D	0.79	64	E
	WBT	0.10	49	D	0.77	71	E
	WBR	0.30	41	D	0.61	55	D
	NBL	0.54	78	E	0.66	75	E
	NBT	0.46	33	C	0.24	24	C
	NBR	0.00	0	A	0.06	21	C
	SBL	0.89	86	F	0.67	68	E
	SBT	0.20	2	A	0.41	29	C
SBR	0.19	1	A	0.32	20	B	
Tenth Line W & Argentia Rd (Signalized)	<i>Overall</i>	<i>0.26</i>	<i>14</i>	<i>B</i>	<i>0.62</i>	<i>16</i>	<i>B</i>
	EBL	0.00	12	B	0.01	15	B
	EBT	0.34	15	B	0.38	19	B
	EBR	0.05	12	B	0.17	17	B
	WBL	0.12	9	A	0.85	30	C
	WBT	0.13	8	A	0.42	13	B
	WBR	0.01	8	A	0.01	9	A
	NBL	0.17	22	C	0.14	21	C
NBTR	0.54	25	C	0.66	26	C	



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	SBL	0.01	28	C	0.01	30	C
	SBTR	0.00	27	C	0.01	26	C
Ninth Line & Argentia Rd (Signalized)	<i>Overall</i>	<i>0.39</i>	<i>7</i>	<i>A</i>	<i>0.61</i>	<i>15</i>	<i>C</i>
	WBL	0.18	27	C	0.50	21	C
	WBR	0.02	26	C	0.16	19	B
	NBT	0.24	5	A	0.67	16	B
	NBR	0.14	5	A	0.08	8	A
	SBL	0.14	5	A	0.30	12	B
	SBT	0.43	7	A	0.52	13	B
	<i>Overall</i>	<i>0.49</i>	<i>34</i>	<i>C</i>	<i>0.80</i>	<i>41</i>	<i>D</i>
Ninth Line & Derry Rd (Signalized)	EBL	0.29	14	B	0.73	29	C
	EBTR	0.39	21	C	0.47	29	C
	WBL	0.22	16	B	0.41	19	B
	WBT	0.22	21	C	0.62	35	D
	NBL	0.45	44	D	0.45	44	D
	NBT	0.40	44	D	0.84	61	E
	NBR	0.08	39	D	0.10	39	D
	SBL	0.10	52	D	0.51	58	E
	SBT	0.78	71	E	0.84	72	E
	SBR	0.20	53	D	0.17	50	D
Hwy 407 NB Ramp & Derry Rd E	<i>Overall</i>	<i>0.37</i>	<i>5</i>	<i>A</i>	<i>0.50</i>	<i>7</i>	<i>A</i>
	EBT	0.40	3	A	0.45	5	A
	WBT	0.25	2	A	0.54	7	A
	NBL	0.04	34	C	0.08	22	C
	NBR	0.07	35	C	0.34	26	C
Derry Rd & Hwy 407 SB Ramp	<i>Overall</i>	<i>0.35</i>	<i>4</i>	<i>A</i>	<i>0.56</i>	<i>9</i>	<i>A</i>
	EBT	0.38	3	A	0.38	6	A
	WBT	0.26	1	A	0.55	5	A
	SBL	0.10	35	C	0.25	21	C
	SBR	0.04	34	C	0.60	30	C

Under existing conditions all movements at all study intersections operate under capacity with a v/c of 0.84, a delay of 75s or less and a LOS of E or better, with the exception of the Winston Churchill Blvd & Argentia Rd where the eastbound left turn lane operates at an LOS of F, a v/c above 1 and a delays over 130s in both the AM and PM peak hours. The ramp terminals at Highway 401 and Winston Churchill Boulevard are nearing or at critical v/c of 0.75.

## 6.2 Future Background Conditions

The traffic capacity analysis results for the study area intersections under 2032 future background conditions are summarized in **Table 6-2**, and the results under 2037 future background traffic conditions are summarized in **Table 6-3**, for both the weekday AM and PM peak hours. These scenarios serve as a baseline for comparison for the future horizons, representing the scenario where there is no development built.

Note that the signal timing splits for intersections has been optimized using Synchro’s built in optimization feature for the future conditions, and this improvement has been carried forward for all future scenarios.

**Table 6-2 Future Background 2032 Capacity Analysis**

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.82</i>	<i>15</i>	<i>B</i>	<i>0.81</i>	<i>32</i>	<i>C</i>
	EBL	0.00	51	A	0.07	72	E
	EBR	0.00	0	A	0.11	1	A
	WBL	0.34	63	D	0.83	55	D
	WBTL	0.00	20	E	0.00	54	D
	WBR	0.83	17.8	C	<b>0.86</b>	<b>7</b>	<b>A</b>
	NBL	0.01	20	B	0.03	27	C
	NBT	0.64	18	B	0.68	36	D
	SBT	0.51	14	B	0.53	34	C
	SBR	0.45	14	B	0.52	13	B
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.79	63	E	0.76	67	E
	EBR	0.56	65	E	0.80	75	E
	NBT	0.26	9	A	0.31	9	A
	SBT	0.43	11	B	0.71	12	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.80</i>	<i>37</i>	<i>D</i>	<i>0.80</i>	<i>46</i>	<i>D</i>
	EBL	0.87	84	F	<b>0.86</b>	<b>80</b>	<b>E</b>
	EBT	0.20	41	D	0.31	54	D
	EBR	0.11	35	C	0.34	21	C
	WBL	0.22	45	D	0.57	48	D
	WBT	0.12	49	D	0.57	72	E
	WBR	0.30	41	D	0.52	34	C



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	NBL	0.56	78	E	0.83	79	E
	NBT	0.59	39	D	0.41	31	C
	NBR	0.00	0.0	A	0.13	3	A
	SBL	0.86	63	E	0.83	72	E
	SBT	0.25	4	A	0.68	42	D
	SBR	0.21	3	A	0.47	17	B
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.49</i>	<i>9</i>	<i>A</i>	<i>0.82</i>	<i>17</i>	<i>B</i>
	EBL	0.00	0	A	0.00	0	A
	EBT	0.42	16	B	0.49	21	C
	EBR	0.06	13	B	0.20	17	B
	WBL	0.14	10	A	<b>0.95</b>	<b>48</b>	<b>D</b>
	WBT	0.18	9	A	0.50	14	B
	WBR	0.01	8	A	0.01	9	A
	NBL	0.22	23	C	0.15	22	C
	NBTR	0.53	25	C	0.65	26	C
	SBL	0.01	28	C	0.01	30	C
SBTR	0.02	28	C	0.02	26	C	
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.46</i>	<i>8</i>	<i>A</i>	<i>0.76</i>	<i>16</i>	<i>B</i>
	WBL	0.45	26	C	0.76	23	C
	WBR	0.31	25	C	0.64	9	C
	NBT	0.26	3	A	0.67	19	B
	NBR	0.21	3	A	0.14	2	A
	SBL	0.15	4	A	0.24	17	B
SBT	0.47	4	A	0.51	14	A	
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.81</i>	<i>30</i>	<i>C</i>	<i>0.87</i>	<i>42</i>	<i>D</i>
	EBL	0.31	15	B	0.80	38	C
	EBTR	0.40	1	A	0.49	34	C
	WBL	0.19	17	B	0.46	20	C
	WBT	0.23	22	C	0.65	43	D
	NBL	0.52	45	C	0.44	39	D
	NBT	0.44	43	D	0.84	64	D
	NBR	0.25	40	D	0.27	5	D
	SBL	0.10	51	D	0.59	79	F
SBT	0.74	58	E	0.75	71	E	



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	<i>SBR</i>	0.79	60	E	0.59	7	D
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.48</i>	<i>3</i>	<i>A</i>	<i>0.56</i>	<i>7</i>	<i>A</i>
	EBT	0.58	15	B	0.63	5	B
	WBT	0.38	12	B	0.79	8	C
	NBL	0.01	19	B	0.04	21	B
	NBR	0.24	21	C	0.30	18	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.39</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.52	10	B	0.50	7	B
	WBT	0.35	9	A	0.72	5	B
	SBL	0.03	21	A	0.15	19	B
	SBR	0.15	22	C	0.46	24	B

During the 2032 background traffic horizon, all study intersections and movements are anticipated to operate well with v/c 0.86 or less, delays of 80s or less, and a LOS of E or better with the exception of Tenth Line and Argentia Road where the WBL is shown to operate at an v/c ratio of 0.95. However there is still shown to be reserve capacity at this movement after signal timing adjustments were undertaken.



**Table 6-3 Future Background 2037 Capacity Analysis**

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.83</i>	<i>15</i>	<i>B</i>	<i>0.83</i>	<i>32</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.34	78	E	0.35	55	D
	WBTL	0.00	77	E	0.00	0	A
	WBR	0.83	30	C	0.82	7	E
	NBL	0.01	4	A	0.01	27	B
	NBT	0.66	12	B	0.64	36	B
	SBT	0.53	7	A	0.50	26	B
	SBR	0.45	3	A	0.40	13	B
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.82	69	E	0.82	67	E
	EBR	0.79	44	D	0.77	75	E
	NBT	0.27	15	B	0.28	8	A
	SBT	0.45	11	B	0.44	12	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.82</i>	<i>37</i>	<i>D</i>	<i>0.80</i>	<i>47</i>	<i>D</i>
	EBL	0.88	85	F	0.85	81	F
	EBT	0.23	65	E	0.20	37	D
	EBR	0.11	4	A	0.10	31	C
	WBL	0.22	55	D	0.18	41	D
	WBT	0.14	77	E	0.12	45	D
	WBR	0.30	24	C	0.25	37	D
	NBL	0.56	79	E	0.53	78	E
	NBT	0.62	24	C	0.65	43	D
	NBR	0.00	1	A	0.00	0	A
	SBL	0.87	65	E	0.87	79	E
	SBT	0.26	21	C	0.26	7	A
	SBR	0.21	5	A	0.21	5	A
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.49</i>	<i>10</i>	<i>A</i>	<i>0.93</i>	<i>22</i>	<i>C</i>
	EBL	0.00	12	B	0.00	0	A
	EBT	0.47	17	B	0.50	19	B
	EBR	0.06	13	B	0.18	15	B
	WBL	0.15	10	A	0.16	11	B



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	WBT	0.20	9	A	0.21	10	B
	WBR	0.01	8	A	0.02	9	A
	NBL	0.22	23	C	0.17	22	C
	NBTR	0.53	25	C	0.55	25	C
	SBL	0.01	28	C	0.06	28	C
	SBTR	0.02	28	C	0.06	27	C
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.33</i>	<i>7</i>	<i>A</i>	<i>0.54</i>	<i>13</i>	<i>B</i>
	WBL	0.45	21	C	0.42	23	C
	WBR	0.31	8	A	0.29	16	C
	NBT	0.19	6	A	0.18	12	A
	NBR	0.21	2	A	0.20	2	A
	SBL	0.16	8	A	0.16	15	A
	SBT	0.34	7	A	0.33	11	A
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.74</i>	<i>30</i>	<i>C</i>	<i>0.77</i>	<i>38</i>	<i>D</i>
	EBL	0.32	13	B	0.31	28	B
	EBTR	0.43	20	C	0.41	29	C
	WBL	0.19	13	B	0.22	16	B
	WBT	0.24	21	C	0.24	36	C
	NBL	0.44	46	D	0.49	44	D
	NBT	0.31	46	D	0.33	55	D
	NBR	0.25	7	A	0.27	6	D
	SBL	0.09	54	D	0.11	75	D
	SBT	0.51	69	E	0.58	67	E
	SBR	0.75	10	A	<b>0.87</b>	<b>8</b>	<b>E</b>
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.48</i>	<i>3</i>	<i>A</i>	<i>0.58</i>	<i>8</i>	<i>A</i>
	EBT	0.59	3	A	0.68	5	B
	WBT	0.39	2	A	0.45	8	B
	NBL	0.01	32	C	0.01	21	B
	NBR	0.24	14	B	0.22	18	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.40</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.54	3	A	0.62	7	B
	WBT	0.36	1	A	0.41	6	B
	SBL	0.03	34	C	0.03	19	B
	SBR	0.15	16	B	0.10	24	B

During the 2037 background traffic horizon, all study intersections and movements are anticipated to operate well with v/c 0.87 or less, delays of 79s or less, and a LOS of E or better. Exceptions include the intersection of Winston Churchill Blvd & Argentia Rd where the EBL is shown to operate at an LOS of F during the am peak hour due to high delay. However, there is still shown to be reserve capacity at this movement after signal timing adjustments were undertaken. It is anticipated that this may be improved through increasing the signal timing from the existing 100s cycle length.

### 6.3 Future Total Conditions

The future total road network consists of the future background traffic combined with the subject site traffic. The proposed site access to the data center has been included within the future total analysis, operating as an unsignalized intersection permitting full movements. The traffic capacity analysis results for the intersections in the study area are summarized in **Table 6-4** for the 2032 horizon year and in **Table 6-5** for the 2037 horizon year, for both the weekday AM and PM peak hours.

**Table 6-4 Future Total 2032 Capacity Analysis**

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.82</i>	<i>15</i>	<i>B</i>	<i>0.83</i>	<i>32</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.34	51	D	0.81	56	E
	WBTL	0.00	0	A	0.00	0	A
	WBR	0.83	63	E	<b>0.90</b>	<b>65</b>	<b>E</b>
	NBL	0.01	20	C	0.03	28	C
	NBT	0.64	18	B	0.71	27	C
	SBT	0.51	14	B	0.53	20	B
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.82	66	E	0.80	67	E
	EBR	0.79	67	E	0.85	78	E
	NBT	0.26	9	A	0.30	9	A
	SBT	0.43	11	B	0.70	15	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.82</i>	<i>37</i>	<i>D</i>	<i>0.80</i>	<i>47</i>	<i>D</i>
	EBL	<b>0.87</b>	<b>84</b>	<b>F</b>	<b>0.86</b>	<b>81</b>	<b>F</b>
	EBT	0.20	41	D	0.27	41	D



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	EBR	0.11	35	C	0.34	35	C
	WBL	0.22	45	D	0.55	37	D
	WBT	0.13	49	D	0.51	49	D
	WBR	0.30	41	D	0.52	41	D
	NBL	0.56	79	E	<b>0.83</b>	<b>86</b>	<b>F</b>
	NBT	0.59	39	D	0.42	39	D
	NBR	0.00	0	A	0.00	0	A
	SBL	0.87	77	E	0.83	73	E
	SBT	0.25	4	A	0.66	17	B
	SBR	0.22	3	A	0.48	12	B
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.54</i>	<i>10</i>	<i>B</i>	<i>0.83</i>	<i>18</i>	<i>B</i>
	EBL	0.01	12	B	0.07	18	B
	EBT	0.42	16	B	0.46	20	C
	EBR	0.06	13	B	0.17	17	B
	WBL	0.14	10	A	0.91	40	D
	WBT	0.18	9	A	0.50	14	B
	WBR	0.02	8	A	0.03	9	A
	NBL	0.22	23	C	0.15	21	C
	NBTR	0.54	25	C	0.00	0	C
	SBL	0.04	28	C	0.19	32	C
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.46</i>	<i>8</i>	<i>A</i>	<i>0.76</i>	<i>16</i>	<i>B</i>
	WBL	0.47	26	C	0.76	27	C
	WBR	0.30	24	C	0.64	24	C
	NBT	0.26	3	A	0.67	11	B
	NBR	0.21	3	A	0.15	5	A
	SBL	0.14	4	A	0.24	17	B
	SBT	0.47	4	A	0.50	8	A
	<i>Overall</i>	<i>0.81</i>	<i>30</i>	<i>C</i>	<i>0.86</i>	<i>43</i>	<i>D</i>
Ninth Line & Derry Rd E/Derry Rd W	EBL	0.31	15	B	0.79	32	C
	EBTR	0.41	1	A	0.49	30	C
	WBL	0.19	17	B	0.45	23	C
	WBT	0.23	22	C	0.64	38	D
	NBL	0.52	44	D	0.45	42	D



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	NBT	0.44	43	D	0.83	53	D
	NBR	0.25	40	D	0.27	37	D
	SBL	0.11	51	D	<b>0.61</b>	<b>83</b>	<b>F</b>
	SBT	0.74	57	E	0.78	59	E
	SBR	0.79	60	E	0.61	52	D
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.48</i>	<i>3</i>	<i>A</i>	<i>0.56</i>	<i>8</i>	<i>4</i>
	EBT	0.58	15	B	0.63	16	B
	WBT	0.38	12	B	0.74	20	B
	NBL	0.01	19	B	0.04	14	B
	NBR	0.24	21	C	0.30	16	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.39</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.52	10	B	0.50	11	B
	WBT	0.35	9	A	0.72	17	B
	SBL	0.03	21	C	0.15	14	B
	SBR	0.15	22	C	0.46	18	B
Tenth Line W & Site Access	<i>Overall</i>	<i>-</i>	<i>7</i>	<i>A</i>	<i>-</i>	<i>8</i>	<i>A</i>
	EBLR	0.02	8	A	0.07	9	A
	NBTR	0.05	7	A	0.02	7	A
	SBTL	-	-	-	-	-	-

The 2032 Total Traffic analysis results are shown to be very similar to the 2032 background traffic analysis with only the EBL and NBL movement at Winston Churchill Blvd & Argentia Rd is shown to operate at an LOS of F. However, the movement continues to have reserved capacity. The proposed site accesses are anticipated to operate well below capacity with minimal delays.

**Table 6-5 Future Total 2037 Capacity Analysis**

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.82</i>	<i>15</i>	<i>B</i>	<i>0.85</i>	<i>33</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.83	58	E	0.83	54	D
	WBTL	0.00	0	A	0.00	0	A
	WBR	0.86	61	E	0.86	61	E



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	NBL	0.03	28	C	0.03	28	C
	NBT	0.68	25	C	0.68	25	C
	SBT	0.53	19	B	0.53	19	B
	SBR	0.52	20	C	0.52	20	C
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.79	65	E	0.79	65	E
	EBR	0.83	73	E	0.83	73	E
	NBT	0.32	9	A	0.32	9	A
	SBT	0.72	16	B	0.72	16	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.82</i>	<i>38</i>	<i>D</i>	<i>0.80</i>	<i>48</i>	<i>D</i>
	EBL	0.87	84	F	<b>0.86</b>	<b>81</b>	<b>F</b>
	EBT	0.23	41	D	0.31	43	D
	EBR	0.11	35	D	0.34	35	D
	WBL	0.22	45	D	0.56	37	D
	WBT	0.14	50	D	0.57	50	D
	WBR	0.30	41	D	0.52	41	D
	NBL	0.56	79	F	<b>0.83</b>	<b>87</b>	<b>F</b>
	NBT	0.62	40	D	0.41	39	D
	NBR	0.00	0	A	0.00	0	A
	SBL	0.87	77	E	0.83	73	E
	SBT	0.26	4	B	0.69	19	B
	SBR	0.22	3	B	0.48	12	B
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.54</i>	<i>11</i>	<i>B</i>	<i>0.94</i>	<i>23</i>	<i>C</i>
	EBL	0.01	0	A	0.01	19	B
	EBT	0.47	17	B	0.62	28	C
	EBR	0.06	13	B	0.23	21	C
	WBL	0.15	10	A	0.89	32	C
	WBT	0.20	9	A	0.55	14	B
	WBR	0.02	8	A	0.01	9	A
	NBL	0.22	23	C	0.16	24	C
	NBTR	0.54	25	C	0.67	29	C
	SBL	0.04	28	C	0.04	33	C
SBTR	0.04	28	C	0.03	29	C	
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.33</i>	<i>7</i>	<i>A</i>	<i>0.54</i>	<i>13</i>	<i>B</i>



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	WBL	0.76	27	C	0.76	27	C
	WBR	0.64	24	C	0.64	24	C
	NBT	0.48	7	A	0.48	7	A
	NBR	0.14	5	A	0.14	5	A
	SBL	0.24	13	B	0.24	13	B
	SBT	0.37	7	A	0.37	7	A
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.73</i>	<i>30</i>	<i>C</i>	<i>0.76</i>	<i>39</i>	<i>D</i>
	EBL	0.32	16	B	0.76	27	C
	EBTR	0.43	1	A	0.46	26	C
	WBL	0.19	18	A	0.43	26	C
	WBT	0.25	24	B	0.60	20	B
	NBL	0.44	41	C	0.43	32	C
	NBT	0.30	39	C	0.69	49	C
	NBR	0.24	38	D	0.30	42	D
	SBL	0.10	45	D	0.53	73	E
	SBT	0.51	50	D	0.64	55	E
	SBR	0.76	57	E	0.70	60	E
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.41</i>	<i>3</i>	<i>A</i>	<i>0.58</i>	<i>8</i>	<i>4</i>
	EBT	0.59	15	B	0.65	16	B
	WBT	0.39	11	B	0.81	21	C
	NBL	0.01	19	B	0.04	14	B
	NBR	0.24	21	C	0.30	16	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.49</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.54	10	B	0.51	11	B
	WBT	0.36	9	A	0.74	17	B
	SBL	0.03	21	C	0.15	14	B
	SBR	0.15	22	C	0.46	18	B
Tenth Line W & Site Access	<i>Overall</i>	-	<i>7</i>	<i>A</i>	-	<i>8</i>	<i>A</i>
	EBLR	0.02	8	A	0.01	9	A
	NBTR	0.05	7	A	0.04	7	A
	SBTL	-	-	-	-	-	-

The 2037 Total Traffic analysis results are shown to be very similar to the 2037 background traffic analysis with the intersection of Winston Churchill Blvd & Argentia Rd where the EBL and NBL is shown to operate at an LOS of F due to high delay. The proposed site access is anticipated to operate



well below capacity with minimal delays.

The capacity analysis indicates that the proposed development will have minimal impact on the existing road network, where all study intersections and roadways are able to accommodate the site generate traffic at all horizon years. It is recommended that the City and Region continue to monitor the study intersections and movements nearing capacity and implement slight signal timing adjustments as required.

# 7 QUEUING ANALYSIS

**Table 7-1** provides a summary of the 95<sup>th</sup> percentile queues derived from the Synchro analysis for all exclusive turning movements at the study intersection. Queueing analysis details are provided in **Appendix E**.

**Table 7-1 Queuing Analysis Future Total Conditions**

Intersection	Movement	Storage (m)	95 <sup>th</sup> Percentile Queue (m)					
			EX 2025		FT 2032		FT 2037	
			AM	PM	AM	PM	AM	PM
Winston Churchill Blvd & Hwy 401 WB Ramp (Signalized)	EBL	35		8	-	7	-	8
	EBR	35		0	-	13	-	-
	WBL	200	57	147	60	115	60	147
	WBR	160	37	28	44	112	45	29
Winston Churchill Blvd & Hwy 401 EB Ramp	EBR	190	50	97	69	181	72	100
Winston Churchill Blvd & Argentia Rd	EBL	185	93	91	79	73	72	72
	EBR	100	12	43	13	36	12	40
	WBL	85	34	93	30	78	32	84
	WBR	85	42	82	33	56	36	54
	NBL	150	21	49	16	44	29	48
	NBR	70	11	11	51	5	54	19
	SBL	145	61	51	60	77	55	76
	SBR	185	26	57	25	63	25	64
Tenth Line W & Argentia Rd	EBL	35	0	8	17	21	19	9
	WBL	60	8	55	22	68	24	76
	EBR	125	0	0	17	0	17	0
	NBL	130	3	26	3	15	24	15
	SBL	45	2	21	9	15	22	15
Ninth Line & Argentia Rd	NBR	100	8	7	27	29	30	29
	SBL	45	13	14	38	30	27	30

Intersection	Movement	Storage (m)	95 <sup>th</sup> Percentile Queue (m)					
			EX 2025		FT 2032		FT 2037	
			AM	PM	AM	PM	AM	PM
Ninth Line & Derry Rd W	EBL	90	42	69	41	83	43	83
	WBL	100	21	40	25	100	28	100
	NBL	185	37	29	42	38	42	38
	NBR	135	14	15	21	29	23	29
	SBL	105	14	25	32	39	21	39
	SBR	95	25	22	76	67	58	67
Hwy 407 NB Ramp & Derry Rd E	NBR	160	13	19	37	20	35	20
Derry Rd & Hwy 407 SB Ramp	SBR	160	10	32	18	32	15	33
Tenth Line & Site Access	EBRL	15	-	-	0	0	0	0
	NBTL	15	-	-	0	0	0	0

The 95th percentile queues for all study intersections were reviewed where auxiliary lanes are present for turning movements. The storage lengths for each auxiliary lane took into account the deceleration, storage and effective taper length for each auxiliary lane. All queues for the 2025 existing, 2032 and 2037 total traffic scenarios are shown to be accommodated with the existing auxiliary lanes during both the AM and PM peak hours. Exceptions are the westbound left turn at the intersection Tenth Line W & Argentia Rd is shown to extend past the available storage length of 60 m by 8 m and 16 m during the PM peak hour for the 2032 and 2037 total traffic scenarios respectively. At this intersection there is ability to make changes to the cycle length as the existing cycle length is only 100s. These improvements are anticipated to be able to reduce the queueing of the westbound left and have the existing auxiliary lane able to accommodate the queues.

## 8 PARKING AND LOADING ASSESSMENT

### 8.1 Parking Requirements

The parking requirements for developments in the City of Mississauga are governed by the Zoning By-law 0225-2007. The required parking space for the site is outlined in **Table 8-1**.

**Table 8-1 Required and Proposed Parking Supply**

Land Use	Units/ Density	Proposed Parking Supply	Required Parking Supply
Data Centre	21,044 m <sup>2</sup>	40	631
<b>Total Number of Parking Spaces</b>		<b>40</b>	<b>631</b>

As a permitted use within the employment zone, a Science and Technology facility covers a broad range of uses by definition. A Science and Technology facility includes a rate of 3 parking spaces for 100 m<sup>2</sup> GFA (Precinct 4), resulting in 631 required parking spaces for the proposed development. As a Data Centre contains servers for computing, storage systems, networking equipment, and devices for data management, when compared to the other uses that require physical presence and production, a Data Centre fundamentally provides cloud services and digital operations, reducing the overall requirement for onsite workers/visitors. Based on the applicants' experience with data center, the proposed 40 spaces is anticipated to be sufficient for the needs of the site which justifies the reduction in parking. For more information please refer to the parking study being prepared under a separate cover as part of the overall submission.

### 8.2 Barrier-Free Parking

Under Zoning By-law 0225-2007 Section 3.1.3 requires accessible parking spaces to be provided on site. For a site with 13-100 required parking spaces, 4% of the total required parking spaces must be accessible. For a site with 101-200 required parking spaces, 1 + 3% of the total required parking spaces must be accessible. For a site with 201-1000 required total parking spaces, the required number of barrier-free parking spaces is 2.0 plus 2% of the required number of parking spaces.

**Table 8-2** shows the proposed number of accessible parking spaces.

**Table 8-2 Required Accessible Parking Spaces**

Use	Barrier- free Parking Supply Rate	Minimum Barrier-free Parking Supply	Proposed Barrier-free Parking Supply
Data Centre	4% of required parking	4%*40 = 2	4

Accordingly, the proposed barrier-free parking supply of 4 parking spaces meets the minimum parking supply required.

### 8.3 Electric Vehicle Parking Spaces

In accordance with Zoning By-law 0225-2007, Table 3.1.1.12 (Line 6.0), non-residential uses identified in Table 3.1.1.12 are required to provide electric vehicle parking spaces at a rate of 10% of the total required parking spaces or 1 space, for whichever is greater. **Table 8-3** shows the proposed number of electric vehicle parking spaces.

**Table 8-3 Required Electrical Vehicle Parking Spaces**

Use	Parking Supply Rate	Minimum Required EV Spaces	Proposed EV Spaces
Data Centre	10% of total required (4)	4	4

Accordingly, the proposed EV supply of 4 parking spaces meets the minimum parking supply required.

### 8.4 Bicycle Parking Requirements

The site is subject to the City of Mississauga Zoning By-law 0225-2007 and requires a total of 23 bicycle parking spaces. The requirements and provision of bicycle parking are summarized in **Table 8-4** below.

**Table 8-4 Required Bicycle Parking Spaces**

Use	Bicycle Parking Supply Rate	Minimum Bicycle Parking Supply	Proposed Bicycle Parking Supply
Data Centre	CLASS A 0.1 spaces per 100 m <sup>2</sup> GFA - non-residential CLASS B 2.0 Spaces	21 Class A 2 Class B	22 Class A 10 Class B

Accordingly, the proposed bicycle parking supply spaces meet the minimum parking supply required.

### 8.5 Loading Assessment

According to Zoning By-law 0225-2007 Section 3.1.4.3, developments with a GFA greater than 14,000 m<sup>2</sup> require 3 loading spaces plus 1 additional space for each 9,300 m<sup>2</sup> GFA. Loading space requirements are provided in **Table 8-5**.

**Table 8-5 Loading Spaces Requirements and Proposed Supply**

<b>Buildings</b>	<b>Loading Spaces Rate</b>	<b>Minimum Required Loading Spaces Supply</b>	<b>Proposed Loading Space</b>
Data Centre	3+1 per 9,300 m <sup>2</sup> over 14,000 m <sup>2</sup>	3	3

The proposed supply meets the minimum required number of loading spaces.

The proposed loading space dimensions meet the by-law requirements of a loading space that is rectangular area with a minimum width of 3.5 m and a minimum length of 9.0 m.

## 9 SITE PLAN REVIEW

As part of this traffic study, TYLin reviewed the proposed site plan for the development. The proposed site is anticipated to utilize one site access from Tenth Line. The review was conducted in accordance with the applicable City of Mississauga standards and the guidelines set by the Transportation Association of Canada (TAC).

### 9.1 Sightline Analysis

A desktop sightline review of the site accesses has been completed by TYLin. TAC Geometric Design Guide for Canadian Roads (June 2019) was used to determine the required sight distances. Chapter 9 of the TAC guidelines provided tables to determine the minimum requirements for the design Intersection Sight Distance (ISD) while Chapter 2 provided the minimum Stopping Sight Distance (SSD). The ISD requirement is greater than that for minimum Stopping Sight Distance, thus only ISD was reviewed as an available sight distance satisfying this requirement would satisfy both requirements.

The required ISD is determined by using the time gap required by a vehicle to perform a maneuver and accelerate to the design speed of the road. The TAC Guidelines use different “Cases” to determine the Time Gap. Requirements for sight distances will therefore vary based on the type of intersection, the approach grade of the road, as well as the maneuver being performed by the vehicle. The Cases investigated for the site access are as follows:

- ▶ Case B (TAC Chapter 9) – Intersections with stop control on minor road;
- ▶ Case B1 – left turn from minor road;
- ▶ Case B2 – right turn from the minor road;

**Table 9-1** summarizes the available sight distances at the site access. 10<sup>th</sup> Line has minimal horizontal or vertical curvature and assumed posted speed of 50 km/h, and design speed of 50km/h. City of Mississauga Complete Street Guide states that best practice in urban area is to design street so that operating speeds are the same as posted speed. For a major collector, with posted speed 50km/h or above, the design speed = posted speed, similar to best practices in other Canadian jurisdictions.

**Table 9-1 ISD Requirements**

Access	Maneuver	Design Speed	TAC ISD Passenger Car Requirement (m)	TAC ISD Combination Truck Requirement (m)	Minimum Available Sight Distance (m)	Meets Standards (Y/N)
Site Access (10th Line)	Left Turn from Stop	50 km/h	105	170	500	Y
	Right Turn from Stop		95	150	180	Y

The available sight distance exceeds the required ISD and will also satisfy minimum stopping sight distance requirements. The sight distance review confirms all sight distance requirements have been met and are illustrated in **Appendix F**.

## 9.2 Access Review

As part of the site plan review, an evaluation of the proposed site accesses along 10th Line West was conducted. This review is based on the City of Mississauga Design Standards and the Transportation Association of Canada (TAC) Geometric Design Guidelines.

### 9.2.1 Intersection Angle

The proposed site access will intersect 10th Line at an angle of 106 degrees respectively. Both intersection angles fall within the recommended range of 70 to 110 degrees, as outlined by the Transportation Association of Canada (TAC), which is considered acceptable for ensuring safe and efficient access. These angles are illustrated in **Appendix F**.

### 9.2.2 Corner Clearance

Regarding the recommended minimum corner clearance distance between an intersection and an entranceway (driveway), the Transportation Association of Canada (TAC) outlines the suggested minimum corner clearances in Chapter 8 of the TAC Geometric Design Guide for Canadian Roads (June 2017). Figure 8.8.2 in TAC Chapter 8, Section 8.8.1, specifies the minimum corner clearance for collector roads as 55 meters for signalized intersections and 20 meters for unsignalized intersections. 10th Line Road is a collector road and an undivided roadway. The site access is not located near any adjacent intersection with the closes being over 500 m away to the south, and a private driveway access to the Hope Church located approximately 70m northernly. These corner clearance requirements have been met for the proposed driveway along 10th Line, as shown in **Appendix F**.

### 9.2.3 Intersection Curb Radii

Based on TAC design guidelines for industrial land uses, a minimum curb radius of 6 to 15 meters is required at the proposed two-way site accesses onto 10th Line. These requirements have been met at the southern curblin. The northern curb is shown to have a radii of 4.5m, not meeting the standard. However, as all site generated traffic will be entering the site from the south, this is deemed acceptable. All site access measurements are illustrated in **Appendix F**.

### 9.2.4 Clear Throat Length

Based on TAC design guidelines, the minimum clear throat length for an industrial land use between greater than 45,000m<sup>2</sup> is 15m, measured from the curb return. This requirement has been met for the proposed driveway, as illustrated in **Appendix F**.

## 9.3 Site Circulation Review

Site access will be provided one full moves unsignalized intersections.

Vehicle maneuvering diagrams have been prepared for the proposed site. This includes a review of heavy vehicles, waste collection, passenger vehicles and fire route access. The vehicle maneuvering diagrams are provided in **Appendix G**.

## 9.4 Loading Vehicles

Loading vehicles turning movements for the site were simulated using Transportation Association of Canada (TAC) WB-20 tractor-trailer vehicles. Truck turning movements indicate that wb-20 can egress, circulate to the loading area, and egress the site for the data center without conflict.

## 9.5 Waste Collection Vehicles

For this site, the waste collection vehicle is a Front-End Waste Truck, which can access the site and maneuver in the waste collection area without conflict. The waste collection truck was simulated using a Front-End Waste Truck model from the Peel Region.

## 9.6 Passenger Vehicles

Passenger vehicle turning movements were simulated using a Transportation Association of Canada (TAC) passenger vehicle. The simulations indicate that passenger vehicles can access the site and circulate within the parking areas without conflict.

## 9.7 Fire Route Vehicle

Emergency fire truck vehicles were simulated using a Mississauga Pumper Fire Truck design vehicle. Turning movements indicate that the selected fire truck vehicle can ingress, circulate and egress the site.

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## 10 PEDESTRIAN CIRCULATION PLAN

A pedestrian Circulation Plan is proposed to guide the provisions to encourage people to walk more. When people walk more, they are more physically fit and have fewer health problems. Walking more and driving less also reduces greenhouse gas emissions and results in other environmental benefits. In addition, good pedestrian design brings economic benefits as walkable places attract consumers. Since all trips begin and end with an individual walking, providing a well-designed pedestrian network within a proposed development is crucial. Major considerations in developing walkable, connected neighborhoods, and creating a pedestrian oriented environment include:

- ▶ Creating safe pedestrian facilities at all pathways and while crossing intersections;
- ▶ Providing adequate separation between pedestrian and vehicular facilities;
- ▶ Remaining sensitive to the needs of persons with physical challenges; and
- ▶ Completing missing pedestrian linkages within and immediately adjacent to the development to create connectivity.

Currently, there are no designated pedestrian facilities within the vicinity of the site or on boundary roads (10<sup>th</sup> Line). The current site plan includes sidewalks around the exterior of each building with the exception of the loading areas. As there are no existing pedestrian facilities leading to the site it is anticipated that any pedestrians will utilize the side of the road (10<sup>th</sup> Line) as well as the adjacent development to the south to access the site. Once on the site pedestrians will have to utilize the landscaped areas and cross the associated parking areas/travel lanes to access the proposed pedestrian facilities. Based on the proposed land use of the site as well as the location, the site is in line with adjacent properties for pedestrian connectivity. It is recommended that designated pedestrian crossings be included within further updates to the site plan to ensure safe crossing of vehicle travel lanes.

**Appendix H** summarizes potential pedestrian paths as well as highlights the proposed pedestrian facilities.

## 11 COMMUNITY IMPACT

The subject site is located within an established employment/industrial area of the City of Mississauga. Surrounding land uses consist predominantly of industrial, warehouse, logistics, and related commercial operations. There are no immediately adjacent residential neighborhoods in close proximity to the site.

The traffic generated by the proposed development during the weekday AM and PM peak hours represents a minor increase relative to the existing and future background traffic volumes on the adjacent roadway network. The surrounding arterial and collector roadways are designed to accommodate employment-area traffic, including commercial vehicles, and have sufficient capacity to accommodate the forecast site-generated trips.

Based on the analysis completed for the Future Total (2032 and 2037) scenarios:

- Traffic increases attributable to the development are incremental in nature.
- Overall intersection operations remain acceptable under Future Total conditions.
- No significant adverse operational or capacity-related impacts are anticipated on the surrounding road network.

Given the industrial context of the area and the absence of nearby residential neighborhoods, the incremental traffic associated with the development is not expected to result in measurable community disruption.

Should Public Information Centers (PICs) or community engagement sessions be undertaken as part of the development review process, any traffic-related comments or concerns raised by stakeholders will be reviewed and addressed in this section of the final report, as required by the City of Mississauga. Potential concerns related to traffic operations, safety, truck activity, or access configuration will be evaluated in coordination with City staff, and appropriate mitigation measures will be considered, where warranted.

## 12 TRANSPORTATION DEMAND MANAGEMENT

### 12.1 TDM Objectives

Development of site-specific Transportation Demand Management Plan (TDM) measures for the proposed development is based on a four-year planning horizon. Therefore, in the context that the primary objective is to reduce single occupancy vehicle use, the plan will review opportunities to set realistic targets for increased use of carpooling, transit, cycling, and walking trips. This plan recommends measures with a pre-and post-baseline commuter survey of all employees.

Transportation Demand Management (TDM) refers to a 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. TDM strategies have multiple benefits including the following:

- Reduced auto-related emissions to improve air quality
- Decreased traffic congestion to reduce travel time
- Increased travel options for businesses and commuters
- Reduced personal transportation costs and energy consumptions

The combined benefits listed above will assist in creating a more active and liable community through improvements to overall active transportation facilities for businesses and the surrounding community. Typical TDM measures include:

1. Carpool/vanpool ride sharing
2. Bicycle and pedestrian programs
3. Promotion of public transit
4. Parking supply and management strategies

Establishment of Transportation Management Associations (TMA's) in employment areas and car sharing organizations

All recommended and proposed TDM measures are noted as the responsibility of the owner.

### 12.2 City and Region TDM Objectives

A Transportation Demand Management (TDM) Plan is proposed to guide the provision of viable alternative personal transportation options beyond the private, single-occupant vehicle (SOV). Consistent with the Region of Peel and City of Mississauga Official Plan, this TDM Plan intends to support the development by outlining TDM measures and a suite of strategies under consideration

to promote the use of more active and sustainable transportation modes, respond to the mobility needs of employees and patrons of the site, and reduce dependence on the private automobile, especially SOV travel.

### **12.2.1 City of Mississauga Official Plan**

Per the City of Mississauga Official Plan Policy 8.5 “Transportation Demand Management (TDM) measures encourage people to take fewer and shorter vehicle trips to support transit and active transportation choices, enhance public health and reduce harmful environmental impacts. TDM is most effective when supported by complementary land use planning, good urban design and transit improvements.” Typical TDM strategies reduce vehicle dependency, single occupant vehicle travel, trip distance and time and peak period congestion. Typical TDM measures highlighted in the City’s Official Plan include:

- To encourage TDM strategies that promote transit use and active transportation, and reduce vehicle dependency, single occupant vehicle travel, trip distance and time and peak period congestion.
- To manage parking in intensification area to encourage the use of alternative modes of transportation and the reduction of vehicular congestion.
- To encourage land uses permitted by this Plan that make efficient use of the transportation system and parking facilities during off-peak hours.
- In appropriate areas, to encourage a fee for parking and the separation of parking costs from other costs, such as transit fares, building occupancy and residential unit prices.

Prior to approval of development applications, particularly those that will generate significant employment opportunities, a TDM plan may be required that demonstrates, among other things, the following:

- building orientation that supports transit service.
- minimize distance between main building entrances and transit stations/stops.
- development that is integrated into the surrounding pedestrian and cycling network.
- parking facilities designed to provide safe and efficient access for pedestrians and cyclists emanating from the surrounding transit and active transportation network; and secure, conveniently located, weather protected, on-site bicycle storage facilities, and associated amenities such as showers, change rooms and clothing lockers.

### **12.2.2 Region of Peel Official Plan**

Policy 5.9.9 of the Region of Peel Official Plan (OP) states “Growth in population and employment in Peel Region has led, and will continue to lead, to increased travel demand through the

construction of new roads and the widening of existing roads. Such “supply side” solutions, however, will not be enough in the future. Exclusive dependence on roads is neither sustainable nor desirable. It is necessary to also consider “demand side” solutions, such as Transportation Demand Management measures. While TDM alone cannot be expected to meet the future growth in demand, it is an important component of the range of solutions that will be needed to meet forecast travel demand.”

Peel Region TDM objectives include:

- To reduce auto dependency by promoting sustainable modes of transportation.
- To provide a range of transportation services to meet the diverse needs of the population.
- To maximize the capacity of the transportation system to move both people and goods.

It is the policy of Regional Council to:

Encourage area municipalities to:

- Provide land uses and site design which foster the use of sustainable modes of transportation.
- Promote infrastructure to encourage teleworking.
- Promote a balance of jobs and housing in communities to reduce the need for long distance commuting.
- For new development in designated greenfield areas, create street configurations, densities and an urban form that support walking, cycling and the early integration and sustained viability of transit services and create high quality public open spaces with site design and urban design standards that support opportunities.

Work with all levels of the public and private sectors to develop programs that place primary consideration on the reduction or elimination of trips and the increased use of sustainable modes of transportation and to develop programs for implementing these and other travel demand management strategies.

Work with the area municipalities, local Transportation Management Associations and school boards to evaluate and measure the progress of TDM programs and to develop new innovative strategies and initiatives.

Work with the public and private sectors to develop and support outreach and marketing programs that promote sustainable transportation alternatives, such as active transportation and transit, to affect changes in peoples’ travel behavior and to encourage increased use of these alternatives.

Work with the area municipalities to promote and support the development and implantation of TDM strategies and programs within the Regional and area municipal governments.

Encourage area municipalities, local Transportation Management Associations and the private sector to develop parking management strategies that make more efficient use of parking resources and that encourage the use of sustainable modes of transportation.

Encourage area municipalities to update their parking and zoning by-laws to support and facilitate transportation demand management measures.

### **12.2.3 Region of Peel Sustainable Transportation Strategy**

The Sustainable Transportation Strategy (STS), approved by Regional Council in February 2018, sets a goal of a 50% sustainable mode share by 2041.

The Peel Region Sustainable Transportation Strategy provides a framework for how the Region will:

- Increase the current 37% share of trips by walking, cycling, transit, carpooling and telework in Peel Region, to achieve a 50% sustainable mode share by 2041.
- Accommodate growth in a way that prioritizes environmental, societal and economic sustainability.
- Contribute to a Regional transportation system that is safe, convenient, efficient, multi-modal, well- integrated and sustainable.

The Region's STS includes "ambitious mode share targets for transit, walking, cycling, carpooling and telework in 2041, aiming to maximize the role of sustainable modes in serving the Region's projected 40% growth in travel demand. Achieving these targets will require substantial improvements in major transportation infrastructure (notably facilities for rapid transit, walking and cycling) and services (notable regional and local public transit services, and maintenance of walking and cycling facilities)".

The STS has two accompanying implementation plans, one focusing on active transportation and another focusing on transportation demand management. With their 2018-2022 timelines, the implementation plans lay out the short-term priorities of the STS, such as:

- The locations of new and upgraded walking and cycling infrastructure.
- Encouraging and supporting cycling and walking to and from schools, transit hubs, and other community destinations.
- Implementation of new carpool lots and targeted carpooling promotion.
- The development of a teleworking toolkit.
- Guidance for new development.

## 12.3 Proposed TDM Measures

The TDM Plan provides measures as they relate to the physical site plan that will reduce reliance on the automobile at the site and in the area by providing several strategies as part of the site development and as part of their day-to-day operations.

### 12.3.1 Carpooling

Carpool parking is proposed as a way of encouraging the reduction of single-occupancy vehicle use. Among designated car-pool spaces, the following additional measures are recommended to encourage alternatives to SOV use:

- The provision of car-share parking spaces to accommodate a car-share service provider.
- The provision of additional bicycle parking spaces; and
- The introduction of a ride-share program.

It is recommended the subject site provide such TDM measures to meet the objectives and targets to reduce vehicular travel demand and encourage cycling and walking.

### 12.3.2 Local Transit Consideration

As discussed in Section 3.2 there are several transit routes operating in the vicinity of the subject area including the Go Transit, Mississauga MiWay Transit, Brampton Transit Route, and Milton Transit. The presence of these transit services should be communicated to new employees of the development as part of an information brochure on available transportation alternatives.

### 12.3.3 Rideshare Services

With ride hailing services like Uber, Lyft and other emerging competitors, it should be noted these platforms would provide employees with flexible alternatives to transit, cycling and driving for short, local trips. For future site employees who may not own or have access to a car, rideshare services may be used to reach a local transit station, home, or needed services. This is also an option for those who may not be able to participate in active transportation options and require a door-to-door service, at potentially lower costs than a traditional taxi service.

### 12.3.4 Information Brochure

The TDM opportunities would benefit from an additional measure of preparing a customized commuter options brochure for employees. This brochure would contain details on a variety of travel options such as: local/regional transit, pedestrian trails, cycling, and transit facilities and carpool options. The package may include a community map, Mississauga Transit route maps, and GO Transit route map and schedules.

People who cycle for recreational purposes are good groups to target as potential commuter cyclists. They have access to a bicycle and may already be familiar with the City's network of cycling and trail facilities. Many commuters, however, may have simply never tried cycling and could be unfamiliar with appropriate routes, techniques and advice for commuting by bike. This could be reinforced through a Bicycle Network Way-finder Map for commuters that could be included in the information package.

Short-distance commuters could be targeted with messages focusing on the convenience, cost and health benefits of walking or cycling to work. In addition, practical advice regarding route selection, bike parking, and remaining active in cold or wet weather would be useful and effective. This information could be provided to employees during regular communications throughout the year by the City.

Elderly commuters as well as people with physical limitations may be prevented from getting to their destination on their own. In these instances, carpooling, car-share, and shuttle services are important transportation options. The marketing of these opportunities and availability of the services should be provided in further detail to better inform these individuals.

## 12.4 TDM Monitoring and Measures of Success

### **Baseline Commuter Survey**

The City of Mississauga, in collaboration with the future potential employers of the site, should conduct a confidential transportation survey amongst all employees in the proposed development. The comprehensive survey will provide a measure of current commuter traffic patterns, modes of transportation, behaviors and perceptions for the area. Results will also assist in identifying the demand for sustainable transportation options and opportunities to provide better site access and reduce auto trips (such as, an employer initiated car-pooling program).

### **Follow-Up Commuter Survey**

The City of Mississauga, in collaboration with future potential employers, should conduct a follow-up TDM survey two years after the baseline commuter survey. Results will identify areas of success and improvement for sustainable options for the development and surrounding area. A revised work plan could be developed with strategies to improve sustainable transportation that meet the needs of employers and employees.

## 13 CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations for the analysis associated with the proposed development are as follows:

The analysis of the proposed development indicates that the existing road network generally performs well. However, certain intersections experience challenges during peak traffic periods. Specifically, the intersection of Winston Churchill Blvd & Argentia Rd where the EBL is shown to operate at an LOS of F during the am peak hour due to high delay.

The expected traffic generated by the proposed development includes a total of 23 site trips, consisting of 13 inbound and 10 outbound trips, during the AM peak hour. During the PM peak hour, 6 inbound and 13 outbound net auto site trips are predicted, totaling 19 trips.

During future background and future total (2032 and 2037), the overall road network is projected to continue operating effectively, with minor revisions to signal timings able to aid in the critical operations.

TYLin recommends that the Peel Region and the City of Mississauga monitor the intersections with identified operational concerns, the intersection of Winston Churchill Blvd & Argentia Rd and the intersection of Tenth Line W & Argentia Rd. Ongoing monitoring will help assess traffic conditions and ensure that any capacity constraints are effectively addressed.

- ▶ The addition of site traffic to/from the proposed development does not appear to have significant impact on the operations of nearby intersections when compared to the future background conditions.
- ▶ There are no issues with the site's proposed access or internal layout based on the assessed design vehicle and relevant standards.
- ▶ The site meets the required number of loading spaces, barrier free parking spaces, City's zoning by-law. A site-specific zoning exception is proposed for a number of parking spaces appropriate to data center use. Please see supporting parking study.
- ▶ The evaluation of sight distance requirements at all locations have been met
- ▶ It is recommended that the TDM measures mentioned within this report are followed to ensure that the site can provide and guide the provision of viable alternative personal transportation options beyond the private, single-occupant vehicle (SOV) as per the City and Regions Policies.



# **Appendix A:** **Pre-Consultation Correspondence**

# Appendix A

## Certification Form

Individuals submitting reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Mississauga’s Official Plan, Transportation Master Plan, and Transportation Impact Study Guidelines.


By submitting the attached report (and any associated documents) and signing this document, I acknowledge that:

- I have reviewed and have a sound understanding of the objectives, needs, and requirements of the City of Mississauga’s Official Plan, Transportation Master Plan, and the Transportation Impact Study Guidelines as they apply to this submission;
- I have sound knowledge of industry standard practices pertaining to the preparation of development-related transportation study reports;
- I have substantial experience (more than five years) in completing development-related transportation studies and strong background knowledge of the transportation planning and engineering principles underpinning these studies; and
- I am registered as a Professional Engineer (P.Eng.), Licensed Engineering Technologist (LET), Certified Engineering Technologist (C.E.T.), or Registered Professional Planner (RPP) in good standing in the Province of Ontario with specific training in transportation planning and engineering.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(City) (Day) (Month) (Year)

Name: \_\_\_\_\_

Professional Title: \_\_\_\_\_

Signature:  \_\_\_\_\_

### Office Contact Information (Please Print)

Address: \_\_\_\_\_

City/Postal Code: \_\_\_\_\_

Telephone/Extension: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

**From:** James Emerson <James.Emerson@mississauga.ca>  
**Sent:** Monday, July 28, 2025 3:08 PM  
**To:** William Sherwin  
**Cc:** Michael Dowdall; Bruce LI; Trans Projects  
**Subject:** RE: 7564 10th Line Industrial Development TIS - Terms of Reference  
**Attachments:** [Appendix B Pre-Study Consultation Checklist - 7564 10th Line TIS \(003\) APPROVED.pdf](#); [Appendix A Certification Form - TEMPLATE.pdf](#)

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Hi William,

Please find attached stamped and approved ToR for the proposed development, which encompasses City comments. Other items to note:

- **Certification Form** - The Transportation Consultant must complete, sign, and seal (if appropriate) the attached Certification Form from the City's TIS Guidelines (2022) and append the document to the report to ensure compliance with qualification requirements. The TIS Guidelines can be found at <https://www.mississauga.ca/wp-content/uploads/2023/03/CMississauga-TIS-Guidelines-Version-5.1-Dec-2022.pdf>. It must be ensured that the report conforms to the City's TIS Guidelines.
- **Growth Rates/Traffic Data** - Please contact Tyler Xuereb from the City's Transportation Planning Section ([tyler.xuereb@mississauga.ca](mailto:tyler.xuereb@mississauga.ca), Ext. 4783) to confirm growth rates and/or obtain traffic data for the study area roadways. **Please include the correspondence with the city confirming the growth rates in the TIS appendices.**
- **Signal Timing Plans** - Signal timing plans for signalized intersections under the City's jurisdiction can be obtained from Jim Kartsomanis ([Jim.Kartsomanis@mississauga.ca](mailto:Jim.Kartsomanis@mississauga.ca), Ext. 3964). **Please include the correspondence with the city confirming the timing plans in the TIS appendices.**
- **TOR Document and Correspondence** - Please include the TOR approved by the city in the TIS appendices as well as any relevant additional correspondence with Traffic Planning staff, if applicable.

Regards,



**James Emerson**  
Traffic Planning Technologist  
T 905-615-3200 ext.3043

[james.emerson@mississauga.ca](mailto:james.emerson@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
300 City Centre Drive | Mississauga ON | L5B 3C1

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**From:** William Sherwin <[william.sherwin@tylin.com](mailto:william.sherwin@tylin.com)>  
**Sent:** Tuesday, July 22, 2025 10:52 AM  
**To:** James Emerson <[James.Emerson@mississauga.ca](mailto:James.Emerson@mississauga.ca)>  
**Cc:** Michael Dowdall <[michael.dowdall@tylin.com](mailto:michael.dowdall@tylin.com)>; Bruce LI <[bruce.li@tylin.com](mailto:bruce.li@tylin.com)>; Ryan Au <[Ryan.Au@mississauga.ca](mailto:Ryan.Au@mississauga.ca)>  
**Subject:** [EXTERNAL] 7564 10th Line Industrial Development TIS - Terms of Reference

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Hi James/Ryan

We hope this email finds you well. T.Y. Lin International Canada Inc. (TYLin) is pleased to present this draft Terms of Reference to prepare a Traffic Impact Study (TIS) in support of Site Plan Approval (SPA) Application for the proposed Industrial development on the lands municipally known as 7564 Tenth Line West, Mississauga, Peel Region.

### ***Terms of Reference***

The latest iteration of the site plan includes 3 buildings; Industrial Building DC4 (26,823 m<sup>2</sup> GFA) Industrial Building DC 5 (30,503 m<sup>2</sup> GFA) and a Data Centre (20,338 m<sup>2</sup> GFA). The site plan includes two site access located off 10<sup>th</sup> Line West, the northern site access is to serve the Data Centre and southern site access will be through an easement with the property to the south of the site and extension of the existing laneway. The proposed development is anticipated to include a total of 536 parking spaces, inclusive of 20 accessible parking spaces and 45 Electric vehicle spaces.

In order to properly scope this project, we ask the City of Mississauga to confirm the proposed scope of work and provide comments as needed.

1. Study Intersections:

- Winston Churchill Boulevard / Highway 401 Eastbound Ramp Terminal;
- Winston Churchill Boulevard / Highway 401 Westbound Ramp Terminal;
- Winston Churchill Boulevard / Argentina Road;
- Tenth Line West / Argentina Road;
- Ninth Line / Argentina Road;
- Derry Road / Highway 407 Northbound Ramp Terminal;

- Derry Road/Highway 407 Southbound Ramp Terminal;
- Tenth Line West/ North site access; and
- Tenth Line West/ South site access.
- Proposed West Site Access & future Winchester Drive Extension (unsignalized)

2. Existing Traffic Data Collection

- Traffic data for the study intersections will be obtained through a sub consultant specializing in traffic data collection.
- It should be noted that we are proposing to obtain Summer Count Data. Due to the industrial location of the site and surrounding area, and location in relation to educational facilities that summer count data will be acceptable for this project.
  - Ryan I believe Michael has already spoken to you about this to confirm.

Please confirm if the proposed plan for counts is acceptable.

3. Study Horizon years – in compliance with the City of Mississauga’s TIS Guidelines and MTO, the following study horizon years are proposed.

- Existing Year (2025)
- Buildout Year (assumed 2027 to be confirmed)
- 5-Year Horizon (2032)
- 10-year horizon (2037)

Currently, the TIS assume the proposed Sites will be constructed concurrently under one phase. TYLin acknowledges that part of the site is within the MTO Area of Interest for the new proposed Hwy 413 to the north of the site. As such should the development need to be phased, an interim/ultimate scenario will be required. This will be confirmed with MTO corridor.

4. Growth rates – will be determined based on available data including travel surveys, census data and Planning documents. As such TYLin proposed the following growth rates per roadway (All MTO ramp terminals growth rates will be confirmed with MTO)

- Winston Churchill Boulevard 1% compounded annually
- Tenth Line 0.5% compounded annually
- Argentia Road 0.5% compounded annually
- Ninth Line 0.5% compounded annually
- Derry Road 1% compounded annually

5. Based on the City of Mississauga’s Planning Information Hub and Active development applications website indicated that no active development applications are within the area of impact of the proposed site – Please confirm.

6. Obtain from the City any potential/committed future road or intersection improvements, that will be on-stream within the development horizon of 7564 Tenth Line West. This information will inform the 'future background' traffic condition against which to measure site traffic impacts.
7. Derive future background traffic volumes by applying the growth rate and background traffic to existing conditions. A review of traffic operations under future background conditions will be completed to assess if any remedial measures would be required at the study intersections to support the forecasted traffic demand prior to the development implementation.
8. Trip Generation – The site trip generation estimates will be confirmed as part of the study based on the 11<sup>th</sup> Edition ITE Trip Generation Manual.
9. Trip Distribution/Assignment will be distributed and assigned to the surrounding road network using Transportation Tomorrow Survey (TTS) data and engineering judgement.
10. Create a traffic operations model (Synchro/SimTraffic) for the existing study intersections as well as proposed site accesses to evaluate the effects of the proposed development on the study area.
11. Prepare peak hour operational analyses to investigate and document the impacts of the proposed development. This will include a review of intersection turning movement delays, volume to capacity ratios, and vehicular queuing. We will report any operational deficiencies and recommend mitigating measures, if necessary, to improve traffic operations, including recommending lane configuration changes, turn lane requirements and/or traffic control alterations.
12. Conduct traffic signal warrants at all non-signalized intersections and site accesses based on the future traffic conditions.
13. Conduct a site visit to confirm the existing traffic operations and infrastructure within the study area.
14. Review Multi-Modal LOS for the study area intersections as per City of Mississauga's Guidelines.
15. Completion of a Transportation Demand Management Plan to support non-auto mode of travel in accordance with the City of Mississauga's guidelines. This will be included as a separate chapter within the TIS
16. Completion of a Pedestrian Circulation Plan to ensure it is designed to minimize pedestrian and cyclist conflict points while maintaining pedestrian connectivity. This will be included as a separate chapter within the TIS
17. Review of site circulation for the site accesses and internal driveways based on relevant applicable design criteria.

18. Conduct a Parking Study based on the in-force Zoning By-law requirements. Should a parking reduction be contemplated for the site, a Parking Justification Study will also be conducted.

Furthermore, see below a list of items and data (if available): we kindly request from the City for use in our Traffic Impact study:

1. Historic turning movement counts at study area intersections that are within City's jurisdiction (from the list above)
1. Any Average Annual Daily Traffic (AADT) volumes along road segments in the study area
2. Capital roadworks planned on study area network (and when to expect construction)
3. Future background development application details (including TIS reports) for any noted developments identified.

Thank you in advance for your attention to this matter. We look forward to your comments on the preceding scope of work. Should you have any questions about this email, please do not hesitate to contact myself.

William

## William Sherwin

TRAFFIC ENGINEER - PROJECT MANAGER

T +1 289.902.0519

[william.sherwin@tylin.com](mailto:william.sherwin@tylin.com)

# TYLin

Suite 315

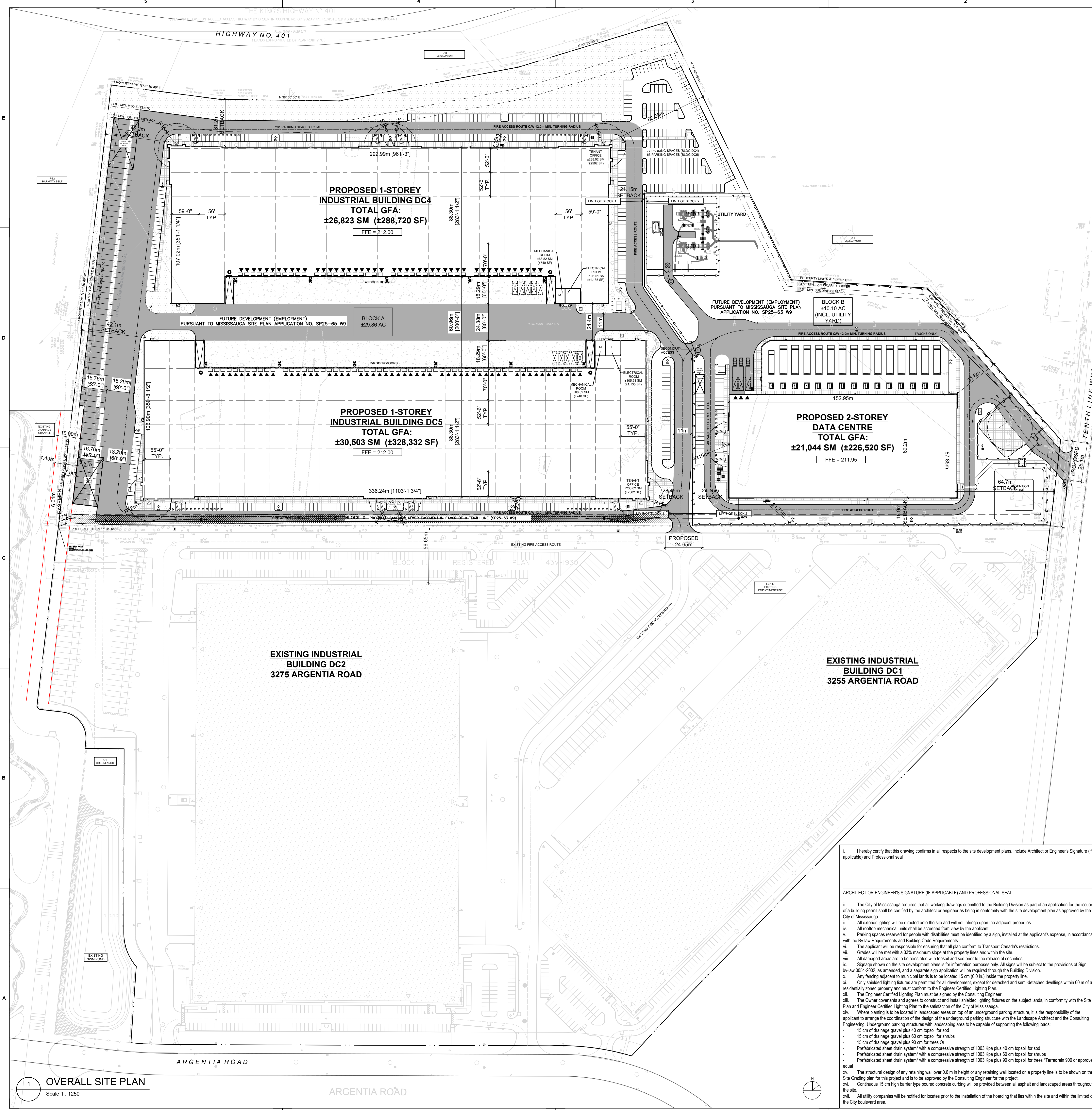
3381 Steeles Avenue East

Toronto, ON M2H 3S7, Canada

[TYLin.com](http://TYLin.com) |    



# **Appendix B:** **Site Plan**



### PROJECT DATA

**7564 TENTH LINE WEST**

ZONING CATEGORY: EMPLOYMENT - E2 (EXISTING O-4)

PROPOSED USE: INDUSTRIAL BUSINESS

CITY OF MISSISSAUGA ZONING BY-LAW NO. 225-2007 PART 8 TABLE 8.2.1

ZONING REGULATIONS	REQ'D	EXISTING BLDG DC1	EXISTING BLDG DC2	BLDG DC4	BLDG DC5	BLDG DC3
MIN. LOT FRONTAGE	30	(M)	(M)	(M)	(M)	(M)
MIN. HEIGHT	N/A			16.155	16.155	16.155
MIN. FRONT YARD BUILDING SETBACK	7.5	+7.5	+7.5	+7.5	+7.5	64.7
MIN. INTERIOR SIDE YARD BUILDING SETBACK (SOUTH ADJACENT TO HWY 401)	7.5	+7.5	+7.5	+7.5	+7.5	18.9
MIN. INTERIOR SIDE YARD BUILDING SETBACK (NORTH ADJACENT TO HWY 401)	7.5	+7.5	+7.5	31.2	+7.5	+7.5
MIN. REAR YARD BUILDING SETBACK	7.5	+7.5	+7.5	42.2	42.2	

**SITE AREA AND COVERAGE**

	PROPOSED (M <sup>2</sup> )	(AC)
GROSS SITE AREA	345,112.27	88.27
BLOCK A INDUSTRIAL LAND (EXISTING BLDG DC1 & DC2)	183,394.57	45.318
BLOCK A INDUSTRIAL LAND (BLDG DC4 & DC5)	120,843.30	29.86
BLOCK B - DATA CENTRE LAND	40,874.40	10.10

**EXISTING BUILDING DC1**  
35,145.10 (81.27) 378,244.69

**EXISTING BUILDING DC2**  
49,366.18 (11.13) 531,394.66

**PROPOSED INDUSTRIAL BUILDING DC4**  
35,823.50 (8.03) 286,720.37

**PROPOSED INDUSTRIAL BUILDING DC5**  
35,953.50 (8.05) 328,331.96

**DATA CENTRE - LEVEL 1**  
10,522.00 (2.61) 113,200

**DATA CENTRE - LEVEL 2**  
10,522.00 (2.61) 113,200

**TOTAL BUILDING FOOTPRINT**  
102,366.28 (23.57) 1,039,691.47

**TOTAL BUILDING GFA**  
142,878.28 (32.28) 1,753,211.47

**LOT COVERAGE**

**PARKING REQUIREMENTS (0225-2007 PART 3 TABLE 3.1.2.2)**

**WAREHOUSE DISTRIBUTION FACILITY**

- 1. 11 SPACES PER 1000 GFA UP TO 8,075 M<sup>2</sup> GFA
- 2. 13 SPACES PER 1000 GFA OVER 8,075 M<sup>2</sup> GFA

**MIN. PARKING SPACE DIMENSIONS**  
MIN. AXLE WIDTH: 7.50m

	PROPOSED	REQUIRED
EXISTING INDUSTRIAL BUILDING DC1	248	248
EXISTING INDUSTRIAL BUILDING DC2	249	231
PROPOSED INDUSTRIAL BUILDING DC4	278	158
PROPOSED INDUSTRIAL BUILDING DC5	218	218
DATA CENTRE	40	602
<b>TOTAL NO. OF PARKING SPACES</b>	<b>1,133</b>	<b>1,023</b>

**ACCESSIBLE PARKING SPACES**

	PROPOSED	REQUIRED
EXISTING INDUSTRIAL BUILDING DC1	8	7
EXISTING INDUSTRIAL BUILDING DC2	8	8
PROPOSED INDUSTRIAL BUILDING DC4	8	7
PROPOSED INDUSTRIAL BUILDING DC5	8	8
DATA CENTRE	4	4
<b>TOTAL NO. OF ACCESSIBLE PARKING SPACES</b>	<b>36</b>	<b>34</b>

**ELECTRIC VEHICLE PARKING SPACES (1 EV CHARGER PER 1000 M<sup>2</sup> GFA)**

	PROPOSED	REQUIRED
PROPOSED INDUSTRIAL BUILDING DC4	20	20
PROPOSED INDUSTRIAL BUILDING DC5	22	22
DATA CENTRE	4	4
<b>TOTAL NO. OF ELECTRIC VEHICLE PARKING SPACES</b>	<b>46</b>	<b>46</b>

**BICYCLE PARKING REQUIREMENTS (0225-2007 PART 3 TABLE 3.1.6.1)**

	PROPOSED	REQUIRED
PROPOSED INDUSTRIAL BUILDING DC4	27	6
PROPOSED INDUSTRIAL BUILDING DC5	31	6
DATA CENTRE	22	6
<b>TOTAL NO. OF BICYCLE PARKING SPACES</b>	<b>80</b>	<b>18</b>

**MIN. BICYCLE PARKING SPACE DIMENSIONS**  
1.8m x 0.6m

**LOADING SPACE REQUIREMENTS (0225-2007 PART 3 TABLE 3.1.4.3)**

	PROPOSED	REQUIRED
EXISTING INDUSTRIAL BUILDING DC1		
EXISTING INDUSTRIAL BUILDING DC2		
PROPOSED INDUSTRIAL BUILDING DC4	+6	6
PROPOSED INDUSTRIAL BUILDING DC5	+6	6
DATA CENTRE	3	3
<b>TOTAL NO. OF LOADING SPACES</b>	<b>+15</b>	<b>15</b>

**10 AVIVA WAY SUITE 400 MARKHAM, ONTARIO L6G 0G1 T 905.470.7000 F 905.470.2500 www.petroff.com**

**PROJECT LOCATION**

**LEGAL DESCRIPTION**

FOR LEGAL SURVEY INFORMATION REFER TO: PART OF LOT 14 CONCESSION 10, NEW SURVEY GEOGRAPHIC TOWNSHIP OF TRAFALGAR CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL PREPARED BY GENESIS LAND SURVEYING INC., 10 FOUR SEASONS PLACE, 10TH FLOOR, TORONTO, ON M9B 6H7 DATED OCTOBER 16, 2024.

SITE SPECIFIC ZONING TO BE VERIFIED UPON CONSULTATION WITH CITY OF MISSISSAUGA. LAYOUT IS SUBJECT TO IMPLEMENTATION OF ENVIRONMENTAL, STORM WATER MANAGEMENT, ETC. REQUIREMENTS UPON CONSULTATION WITH AUTHORITIES HAVING JURISDICTION.

**ADDITIONAL SITE WORKS**

NOTE: FOR LANDSCAPE AND SITE FURNITURE INFORMATION, REFER TO DRAWINGS BY MHBC LANDSCAPE.

FOR GRADING AND SERVICING INFORMATION, REFER TO DRAWINGS BY MTE CONSULTANTS.

FOR SITE PHOTOMETRIC AND ELECTRICAL INFORMATION, REFER TO DRAWINGS BY HAMMERSCHLAG & JOFFE.

FOR TRAFFIC SIGNAGE AND DESIGN REFER TO DRAWINGS BY TYLIN.

NOTE: FIRE ACCESS ROUTE TO BE DESIGNED TO SUPPORT A LOAD OF NOT LESS THAN 4,136.3 KG PER AXLE AND HAVE A CHANGE IN GRADIENT OF NOT MORE THAN 1 IN 12.5 OVER A MINIMUM DISTANCE OF 15M. ROUTE TO BE DESIGNATED AS PER BYLAW 1036-81

**KEY PLAN**

**BLOCK 1** (Hatched pattern)

**BLOCK 2** (Dotted pattern)

REV #	DATE	REVISION TITLE
1	AUG 15, 2025	ISSUED FOR SPA

PROJECT NO: 25026 00

DRAWN BY: TY

CHECKED BY: RCB

NOT RELEASED FOR CONSTRUCTION

RELEASED FOR CONSTRUCTION

**PROJECT TITLE:**  
00 TENTH LINE WEST, MISSISSAUGA, ON TOR00394 INDUSTRIAL DEVELOPMENT

**PROLOGIS**

Prologis Inc. (Canada)  
185 The West Mall, Suite 700, Toronto  
647-258-2600  
Tony Nguyen: tnguyen4@prologis.com  
https://www.prologis.com

**SHEET TITLE:**  
OVERALL SITE PLAN  
SITE PLAN APPLICATION NUMBER:  
SP 25-63 W9

**SEAL:** \_\_\_\_\_ **SHEET NO.** **A.100-1**

I hereby certify that this drawing conforms in all respects to the site development plans. Include Architect or Engineer's Signature (if applicable) and Professional Seal

ARCHITECT OR ENGINEER'S SIGNATURE (IF APPLICABLE) AND PROFESSIONAL SEAL

i. The City of Mississauga requires that all working drawings submitted to the Building Division as part of an application for the issuance of a building permit shall be certified by the architect or engineer as being in conformity with the site development plan as approved by the City of Mississauga.

ii. All exterior lighting will be directed onto the site and will not infringe upon the adjacent properties.

iii. All rooftop mechanical units shall be screened from view by the applicant.

iv. Parking spaces reserved for people with disabilities must be identified by a sign, installed at the applicant's expense, in accordance with the By-law Requirements and Building Code Requirements.

v. The applicant will be responsible for ensuring that all plan conform to Transport Canada's restrictions.

vi. Grades will be met with a 33% maximum slope at the property lines and within the site.

vii. All damaged areas are to be reinstated with topsoil and sod prior to the release of securities.

viii. Signage shown on the site development plans is for information purposes only. All signs will be subject to the provisions of Sign By-law 0054-2002, as amended, and a separate sign application will be required through the Building Division.

x. Any fencing adjacent to municipal lands is to be located 15 cm (6.0 in.) inside the property line.

xi. Only shaded lighting fixtures are permitted for all development, except for detached and semi-detached dwellings within 60 m of a residentially zoned property and must conform to the Engineer Certified Lighting Plan.

xii. The Engineer Certified Lighting Plan must be signed by the Consulting Engineer.

xiii. The Owner covenants and agrees to construct and install shielded lighting fixtures on the subject lands, in conformity with the Site Plan and Engineer Certified Lighting Plan to the satisfaction of the City of Mississauga.

xiv. Where planting is to be located in landscaped areas on top of an underground parking structure, it is the responsibility of the applicant to arrange the coordination of the design of the underground parking structure with the Landscape Architect and the Consulting Engineer. Underground parking structures with landscaping area to be capable of supporting the following loads:

- 15 cm of drainage gravel plus 60 cm topsoil for sod
- 15 cm of drainage gravel plus 60 cm topsoil for shrubs
- 15 cm of drainage gravel plus 90 cm for trees or
- Prefabricated sheet drain system with a compressive strength of 1003 Kpa plus 40 cm topsoil for sod
- Prefabricated sheet drain system with a compressive strength of 1003 Kpa plus 60 cm topsoil for shrubs
- Prefabricated sheet drain system with a compressive strength of 1003 Kpa plus 90 cm topsoil for trees / Ferradrain 900 or approved equal

xv. The structural design of any retaining wall over 0.6 m in height or any retaining wall located on a property line is to be shown on the Site Grading plan for this project and is to be approved by the Consulting Engineer for the project.

xvi. Continuous 15 cm high barrier type poured concrete curbing will be provided between all asphalt and landscaped areas throughout the site.

xvii. All utility companies will be notified for locates prior to the installation of the hoarding that lies within the site and within the limited of the City boulevard area.

**SITE LEGEND**

▲	PRINCIPAL ENTRANCE	■	HEAVY DUTY ASPHALT
△	LOADING DOCK DOOR	▨	CONCRETE PAVEMENT
○	DRIVE-IN DOOR	▩	CONCRETE SIDEWALK
—	PROPERTY LINE	○	CATCH BASIN SEE CIVIL DWGS
—	FENCE	○	MANHOLE SEE CIVIL DWGS
—	FIRE ACCESS ROUTE	○	TRAFFIC SIGNAGE
♿	ACCESSIBLE PARKING SPACE	□	LIGHT STANDARD
EV	HYBRID AND LOW EMISSION VEHICLE PARKING SPACE	○	SEE ELECTRICAL DWGS
B	BOLLARD	○	WALL MOUNTED LIGHT FIXTURE
⊕	FIRE HYDRANT	○	SEE ELECTRICAL DWGS

**1 OVERALL SITE PLAN**  
Scale 1 : 1250




# Appendix C: Turning Movement Counts

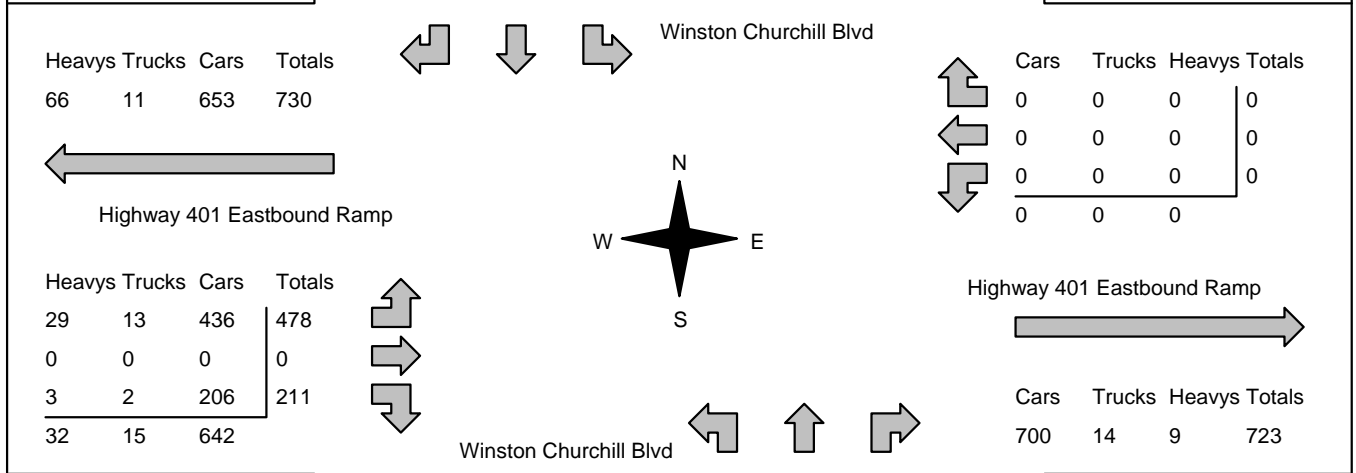
# Accu-Traffic Inc.


<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400001 <b>Intersection:</b> Winston Churchill Blvd & Highway <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Winston Churchill Blvd runs N/S
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North Leg Total: 2583 North Entering: 1446 North Peds: 0 Peds Cross: $\boxtimes$	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>66</td><td>15</td><td>0</td><td style="border-left: 1px solid black;">81</td></tr> <tr><td>Trucks</td><td>11</td><td>30</td><td>0</td><td style="border-left: 1px solid black;">41</td></tr> <tr><td>Cars</td><td>653</td><td>671</td><td>0</td><td style="border-left: 1px solid black;">1324</td></tr> <tr><td>Totals</td><td>730</td><td>716</td><td>0</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	66	15	0	81	Trucks	11	30	0	41	Cars	653	671	0	1324	Totals	730	716	0			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>38</td></tr> <tr><td>Trucks</td><td>21</td></tr> <tr><td>Cars</td><td>1078</td></tr> <tr><td>Totals</td><td>1137</td></tr> </table>	Heavys	38	Trucks	21	Cars	1078	Totals	1137	East Leg Total: 723 East Entering: 0 East Peds: 0 Peds Cross: $\boxtimes$
Heavys	66	15	0	81																												
Trucks	11	30	0	41																												
Cars	653	671	0	1324																												
Totals	730	716	0																													
Heavys	38																															
Trucks	21																															
Cars	1078																															
Totals	1137																															



Peds Cross: $\boxtimes$ West Peds: 0 West Entering: 689 West Leg Total: 1419	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>877</td></tr> <tr><td>Trucks</td><td>32</td></tr> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Totals</td><td>927</td></tr> </table>	Cars	877	Trucks	32	Heavys	18	Totals	927		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>642</td><td>700</td><td style="border-left: 1px solid black;">1342</td></tr> <tr><td>Trucks</td><td>0</td><td>8</td><td>14</td><td style="border-left: 1px solid black;">22</td></tr> <tr><td>Heavys</td><td>0</td><td>9</td><td>9</td><td style="border-left: 1px solid black;">18</td></tr> <tr><td>Totals</td><td>0</td><td>659</td><td>723</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	0	642	700	1342	Trucks	0	8	14	22	Heavys	0	9	9	18	Totals	0	659	723		Peds Cross: $\boxtimes$ South Peds: 0 South Entering: 1382 South Leg Total: 2309
Cars	877																															
Trucks	32																															
Heavys	18																															
Totals	927																															
Cars	0	642	700	1342																												
Trucks	0	8	14	22																												
Heavys	0	9	9	18																												
Totals	0	659	723																													


**Comments**

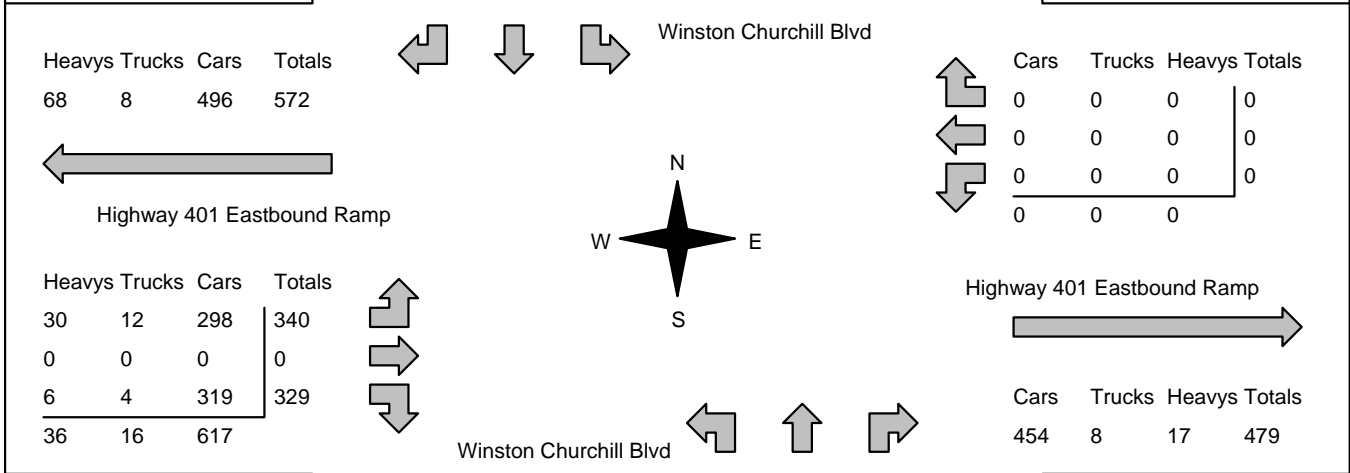
# Accu-Traffic Inc.


<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:30:00 <b>To:</b> 17:30:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400001 <b>Intersection:</b> Winston Churchill Blvd & Highway <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Winston Churchill Blvd runs N/S
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North Leg Total: 3092 North Entering: 1989 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>68</td><td>11</td><td>0</td><td style="border-left: 1px solid black;">79</td></tr> <tr><td>Trucks</td><td>8</td><td>9</td><td>0</td><td style="border-left: 1px solid black;">17</td></tr> <tr><td>Cars</td><td>496</td><td>1397</td><td>0</td><td style="border-left: 1px solid black;">1893</td></tr> <tr><td>Totals</td><td>572</td><td>1417</td><td>0</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	68	11	0	79	Trucks	8	9	0	17	Cars	496	1397	0	1893	Totals	572	1417	0			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>44</td></tr> <tr><td>Trucks</td><td>21</td></tr> <tr><td>Cars</td><td>1038</td></tr> <tr><td>Totals</td><td>1103</td></tr> </table>	Heavys	44	Trucks	21	Cars	1038	Totals	1103	East Leg Total: 479 East Entering: 0 East Peds: 0 Peds Cross: ☒
Heavys	68	11	0	79																												
Trucks	8	9	0	17																												
Cars	496	1397	0	1893																												
Totals	572	1417	0																													
Heavys	44																															
Trucks	21																															
Cars	1038																															
Totals	1103																															



Peds Cross: ☒ West Peds: 0 West Entering: 669 West Leg Total: 1241	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>1716</td><td style="border-left: 1px solid black;">1194</td></tr> <tr><td>Trucks</td><td>13</td><td style="border-left: 1px solid black;">17</td></tr> <tr><td>Heavys</td><td>17</td><td style="border-left: 1px solid black;">31</td></tr> <tr><td>Totals</td><td>1746</td><td style="border-left: 1px solid black;">763</td></tr> </table>	Cars	1716	1194	Trucks	13	17	Heavys	17	31	Totals	1746	763		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>740</td><td>454</td><td style="border-left: 1px solid black;">1194</td></tr> <tr><td>Trucks</td><td>0</td><td>9</td><td>8</td><td style="border-left: 1px solid black;">17</td></tr> <tr><td>Heavys</td><td>0</td><td>14</td><td>17</td><td style="border-left: 1px solid black;">31</td></tr> <tr><td>Totals</td><td>0</td><td>763</td><td>479</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	0	740	454	1194	Trucks	0	9	8	17	Heavys	0	14	17	31	Totals	0	763	479		Peds Cross: ☒ South Peds: 0 South Entering: 1242 South Leg Total: 2988
Cars	1716	1194																																		
Trucks	13	17																																		
Heavys	17	31																																		
Totals	1746	763																																		
Cars	0	740	454	1194																																
Trucks	0	9	8	17																																
Heavys	0	14	17	31																																
Totals	0	763	479																																	

**Comments**

# Accu-Traffic Inc.

## Total Count Diagram

**Municipality:** Mississauga  
**Site #:** 2512400001  
**Intersection:** Winston Churchill Blvd & Highway  
**TFR File #:** 1  
**Count date:** 6-Aug-25

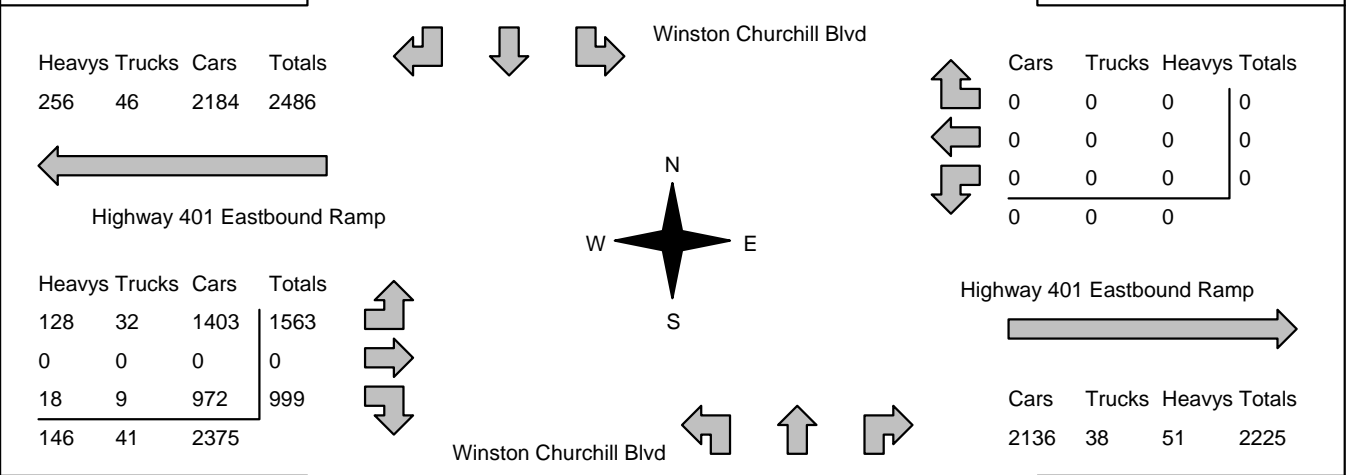
**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Winston Churchill Blvd runs N/S

North Leg Total: 10699	Heavys 256 58 0 314	↑	Heavys 173	East Leg Total: 2225
North Entering: 6443	Trucks 46 52 0 98		Trucks 61	East Entering: 0
North Peds: 0	Cars 2184 3847 0 6031		Cars 4022	East Peds: 0
Peds Cross: ☒	Totals 2486 3957 0		Totals 4256	Peds Cross: ☒



Peds Cross: ☒	Cars 4819	↓	Cars 0 2619 2136 4755	Peds Cross: ☒
West Peds: 2	Trucks 61		Trucks 0 29 38 67	South Peds: 0
West Entering: 2562	Heavys 76		Heavys 0 45 51 96	South Entering: 4918
West Leg Total: 5048	Totals 4956		Totals 0 2693 2225	South Leg Total: 9874

### Comments



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

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Winston Churchill Blvd & Highway      Count Date: 6-Aug-25      Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	554	720	1274	0	2384	8:00:00	0	521	589	1110	0
9:00:00	0	716	730	1446	0	2828	9:00:00	0	659	723	1382	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	1253	531	1784	0	2998	17:00:00	0	758	456	1214	0
18:00:00	0	1434	505	1939	0	3151	18:00:00	0	755	457	1212	0
<b>Totals:</b>	0	3957	2486	6443	0	11361	<b>S Totals:</b>	0	2693	2225	4918	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	581	8:00:00	384	0	197	581	2
9:00:00	0	0	0	0	0	689	9:00:00	478	0	211	689	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0	640	17:00:00	354	0	286	640	0
18:00:00	0	0	0	0	0	652	18:00:00	347	0	305	652	0
<b>Totals:</b>	0	0	0	0	0	2562	<b>W Totals:</b>	1563	0	999	2562	2
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	384	478	0			354	347	0	0		










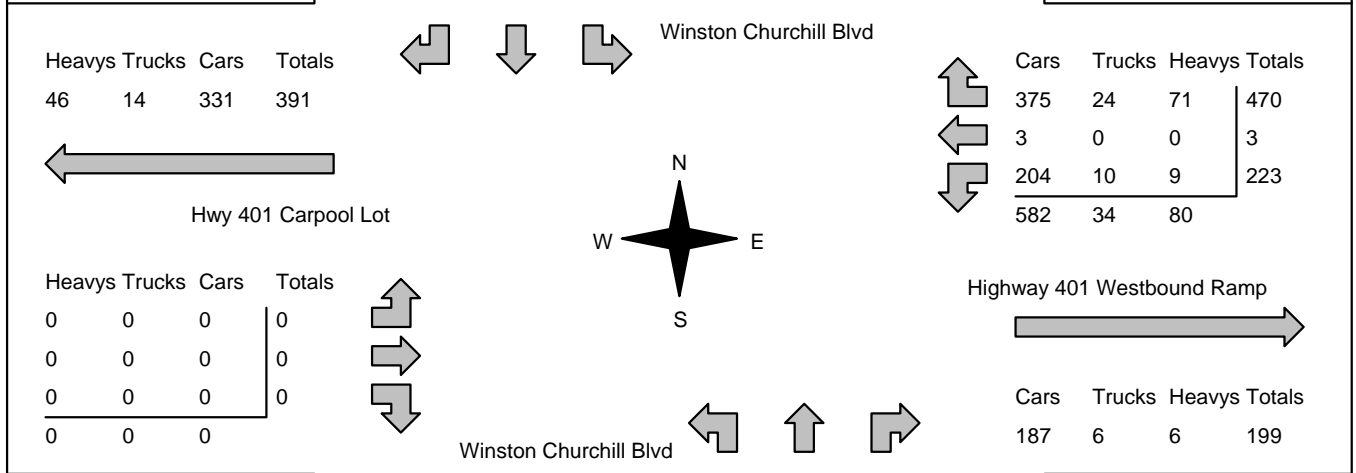
# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400002 <b>Intersection:</b> Winston Churchill Blvd & Highway <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Winston Churchill Blvd runs N/S
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North Leg Total: 3006 North Entering: 1605 North Peds: 1 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>46</td><td>73</td><td>0</td><td>119</td></tr> <tr><td>Trucks</td><td>14</td><td>30</td><td>0</td><td>44</td></tr> <tr><td>Cars</td><td>326</td><td>1116</td><td>0</td><td>1442</td></tr> <tr><td><b>Totals</b></td><td><b>386</b></td><td><b>1219</b></td><td><b>0</b></td><td></td></tr> </table>	Heavys	46	73	0	119	Trucks	14	30	0	44	Cars	326	1116	0	1442	<b>Totals</b>	<b>386</b>	<b>1219</b>	<b>0</b>			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>104</td></tr> <tr><td>Trucks</td><td>38</td></tr> <tr><td>Cars</td><td>1259</td></tr> <tr><td><b>Totals</b></td><td><b>1401</b></td></tr> </table>	Heavys	104	Trucks	38	Cars	1259	<b>Totals</b>	<b>1401</b>	East Leg Total: 895 East Entering: 696 East Peds: 0 Peds Cross: ☒
Heavys	46	73	0	119																												
Trucks	14	30	0	44																												
Cars	326	1116	0	1442																												
<b>Totals</b>	<b>386</b>	<b>1219</b>	<b>0</b>																													
Heavys	104																															
Trucks	38																															
Cars	1259																															
<b>Totals</b>	<b>1401</b>																															



Peds Cross: ☒ West Peds: 0 West Entering: 0 West Leg Total: 391	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>1320</td></tr> <tr><td>Trucks</td><td>40</td></tr> <tr><td>Heavys</td><td>82</td></tr> <tr><td><b>Totals</b></td><td><b>1442</b></td></tr> </table>	Cars	1320	Trucks	40	Heavys	82	<b>Totals</b>	<b>1442</b>	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>2</td><td>884</td><td>187</td><td>1073</td></tr> <tr><td>Trucks</td><td>0</td><td>14</td><td>6</td><td>20</td></tr> <tr><td>Heavys</td><td>0</td><td>33</td><td>6</td><td>39</td></tr> <tr><td><b>Totals</b></td><td><b>2</b></td><td><b>931</b></td><td><b>199</b></td><td></td></tr> </table>	Cars	2	884	187	1073	Trucks	0	14	6	20	Heavys	0	33	6	39	<b>Totals</b>	<b>2</b>	<b>931</b>	<b>199</b>		Peds Cross: ☒ South Peds: 0 South Entering: 1132 South Leg Total: 2574
Cars	1320																														
Trucks	40																														
Heavys	82																														
<b>Totals</b>	<b>1442</b>																														
Cars	2	884	187	1073																											
Trucks	0	14	6	20																											
Heavys	0	33	6	39																											
<b>Totals</b>	<b>2</b>	<b>931</b>	<b>199</b>																												


**Comments**

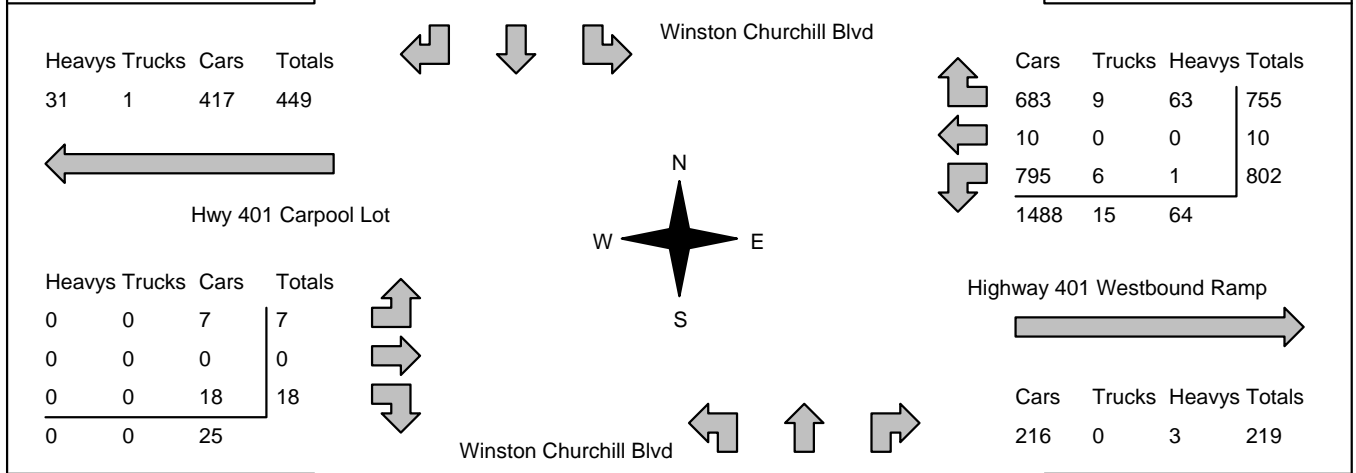
# Accu-Traffic Inc.


<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400002 <b>Intersection:</b> Winston Churchill Blvd & Highway <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Winston Churchill Blvd runs N/S
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North Leg Total: 3259 North Entering: 1595 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>31</td><td>65</td><td>0</td><td style="border-left: 1px solid black;">96</td></tr> <tr><td>Trucks</td><td>1</td><td>11</td><td>0</td><td style="border-left: 1px solid black;">12</td></tr> <tr><td>Cars</td><td>402</td><td>1085</td><td>0</td><td style="border-left: 1px solid black;">1487</td></tr> <tr><td>Totals</td><td>434</td><td>1161</td><td>0</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	31	65	0	96	Trucks	1	11	0	12	Cars	402	1085	0	1487	Totals	434	1161	0			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>104</td></tr> <tr><td>Trucks</td><td>25</td></tr> <tr><td>Cars</td><td>1535</td></tr> <tr><td>Totals</td><td>1664</td></tr> </table>	Heavys	104	Trucks	25	Cars	1535	Totals	1664	East Leg Total: 1786 East Entering: 1567 East Peds: 0 Peds Cross: ☒
Heavys	31	65	0	96																												
Trucks	1	11	0	12																												
Cars	402	1085	0	1487																												
Totals	434	1161	0																													
Heavys	104																															
Trucks	25																															
Cars	1535																															
Totals	1664																															



Peds Cross: ☒ West Peds: 0 West Entering: 25 West Leg Total: 474	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>1898</td></tr> <tr><td>Trucks</td><td>17</td></tr> <tr><td>Heavys</td><td>66</td></tr> <tr><td>Totals</td><td>1981</td></tr> </table>	Cars	1898	Trucks	17	Heavys	66	Totals	1981		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>5</td><td>845</td><td>216</td><td style="border-left: 1px solid black;">1066</td></tr> <tr><td>Trucks</td><td>0</td><td>16</td><td>0</td><td style="border-left: 1px solid black;">16</td></tr> <tr><td>Heavys</td><td>0</td><td>41</td><td>3</td><td style="border-left: 1px solid black;">44</td></tr> <tr><td>Totals</td><td>5</td><td>902</td><td>219</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	5	845	216	1066	Trucks	0	16	0	16	Heavys	0	41	3	44	Totals	5	902	219		Peds Cross: ☒ South Peds: 0 South Entering: 1126 South Leg Total: 3107
Cars	1898																															
Trucks	17																															
Heavys	66																															
Totals	1981																															
Cars	5	845	216	1066																												
Trucks	0	16	0	16																												
Heavys	0	41	3	44																												
Totals	5	902	219																													

**Comments**

# Accu-Traffic Inc.

## Total Count Diagram


**Municipality:** Mississauga  
**Site #:** 2512400002  
**Intersection:** Winston Churchill Blvd & Highway  
**TFR File #:** 1  
**Count date:** 6-Aug-25

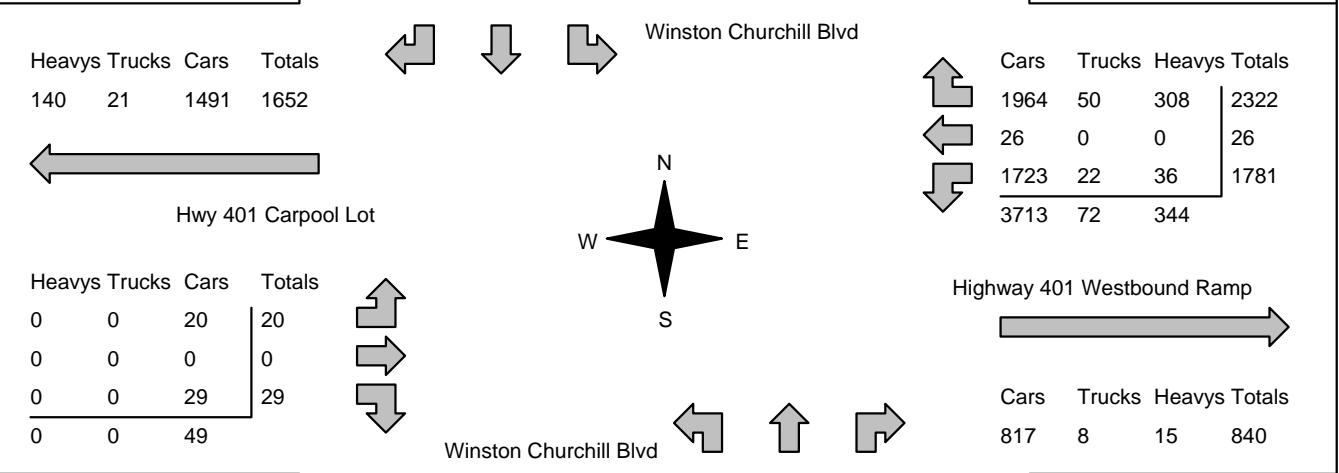
**Weather conditions:**


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

**\*\* Signalized Intersection \*\***

**Major Road:** Winston Churchill Blvd runs N/S

North Leg Total: 11927 North Entering: 6171 North Peds: 1 Peds Cross: $\boxtimes$	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>140</td><td>284</td><td>0</td><td>424</td></tr> <tr><td>Trucks</td><td>21</td><td>69</td><td>0</td><td>90</td></tr> <tr><td>Cars</td><td>1449</td><td>4208</td><td>0</td><td>5657</td></tr> <tr><td>Totals</td><td>1610</td><td>4561</td><td>0</td><td></td></tr> </table>	Heavys	140	284	0	424	Trucks	21	69	0	90	Cars	1449	4208	0	5657	Totals	1610	4561	0			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>465</td></tr> <tr><td>Trucks</td><td>102</td></tr> <tr><td>Cars</td><td>5189</td></tr> <tr><td>Totals</td><td>5756</td></tr> </table>	Heavys	465	Trucks	102	Cars	5189	Totals	5756	East Leg Total: 4969 East Entering: 4129 East Peds: 0 Peds Cross: $\boxtimes$
Heavys	140	284	0	424																												
Trucks	21	69	0	90																												
Cars	1449	4208	0	5657																												
Totals	1610	4561	0																													
Heavys	465																															
Trucks	102																															
Cars	5189																															
Totals	5756																															



Peds Cross: $\boxtimes$ West Peds: 0 West Entering: 49 West Leg Total: 1701	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>5960</td></tr> <tr><td>Trucks</td><td>91</td></tr> <tr><td>Heavys</td><td>320</td></tr> <tr><td>Totals</td><td>6371</td></tr> </table>	Cars	5960	Trucks	91	Heavys	320	Totals	6371		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>16</td><td>3205</td><td>817</td><td>4038</td></tr> <tr><td>Trucks</td><td>0</td><td>52</td><td>8</td><td>60</td></tr> <tr><td>Heavys</td><td>0</td><td>157</td><td>15</td><td>172</td></tr> <tr><td>Totals</td><td>16</td><td>3414</td><td>840</td><td></td></tr> </table>	Cars	16	3205	817	4038	Trucks	0	52	8	60	Heavys	0	157	15	172	Totals	16	3414	840		Peds Cross: $\boxtimes$ South Peds: 0 South Entering: 4270 South Leg Total: 10641
Cars	5960																															
Trucks	91																															
Heavys	320																															
Totals	6371																															
Cars	16	3205	817	4038																												
Trucks	0	52	8	60																												
Heavys	0	157	15	172																												
Totals	16	3414	840																													

### Comments



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

# Accu-Traffic Inc. Traffic Count Summary

Intersection: Winston Churchill Blvd & Highway      Count Date: 6-Aug-25      Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	1098	388	1486	0	2405	8:00:00	3	713	203	919	0
9:00:00	0	1219	386	1605	1	2737	9:00:00	2	931	199	1132	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	1152	416	1568	0	2660	17:00:00	8	865	219	1092	0
18:00:00	0	1092	420	1512	0	2639	18:00:00	3	905	219	1127	0
<b>Totals:</b>	0	4561	1610	6171	1	10441	<b>S Totals:</b>	16	3414	840	4270	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	164	2	395	561	0	563	8:00:00	1	0	1	2	0
9:00:00	223	3	470	696	0	696	9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	584	15	726	1325	0	1356	17:00:00	11	0	20	31	0
18:00:00	810	6	731	1547	0	1563	18:00:00	8	0	8	16	0
<b>Totals:</b>	1781	26	2322	4129	0	4178	<b>W Totals:</b>	20	0	29	49	0
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	167	227	0			610	824	0	0		







# Accu-Traffic Inc.

Count Date: 6-Aug-25 Site #: 2512400002

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	128	128	48	48	0	0	0	0	0	0	0	0	12	12	1	1	0	0
7:30:00	2	0	283	155	95	47	0	0	1	1	0	0	0	0	20	8	3	2	0	0
7:45:00	2	0	453	170	151	56	0	0	2	1	0	0	0	0	29	9	4	1	0	0
8:00:00	3	1	670	217	198	47	0	0	5	3	0	0	0	0	38	9	5	1	0	0
8:15:00	3	0	879	209	247	49	0	0	6	1	3	3	0	0	49	11	6	1	0	0
8:30:00	4	1	1100	221	284	37	0	0	10	4	3	0	0	0	59	10	8	2	0	0
8:45:00	5	1	1320	220	346	62	0	0	15	5	5	2	0	0	66	7	10	2	0	0
9:00:00	5	0	1554	234	385	39	0	0	19	4	6	1	0	0	71	5	11	1	0	0
9:15:00	5	0	1554	0	385	0	0	0	19	0	6	0	0	0	71	0	11	0	0	0
16:00:00	5	0	1554	0	385	0	0	0	19	0	6	0	0	0	71	0	11	0	0	0
16:15:00	8	3	1765	211	445	60	0	0	19	0	6	0	0	0	83	12	11	0	0	0
16:30:00	9	1	1946	181	497	52	0	0	24	5	8	2	0	0	91	8	11	0	0	0
16:45:00	9	0	2172	226	551	54	0	0	33	9	8	0	0	0	103	12	12	1	0	0
17:00:00	13	4	2358	186	600	49	0	0	36	3	8	0	0	0	115	12	13	1	0	0
17:15:00	13	0	2560	202	649	49	0	0	42	6	8	0	0	0	124	9	14	1	0	0
17:30:00	13	0	2798	238	710	61	0	0	46	4	8	0	0	0	137	13	15	1	0	0
17:45:00	14	1	3017	219	767	57	0	0	49	3	8	0	0	0	144	7	15	0	0	0
18:00:00	16	2	3205	188	817	50	0	0	52	3	8	0	0	0	157	13	15	0	0	0
18:15:00	16	0	3205	0	817	0	0	0	52	0	8	0	0	0	157	0	15	0	0	0
18:15:15	16	0	3205	0	817	0	0	0	52	0	8	0	0	0	157	0	15	0	0	0




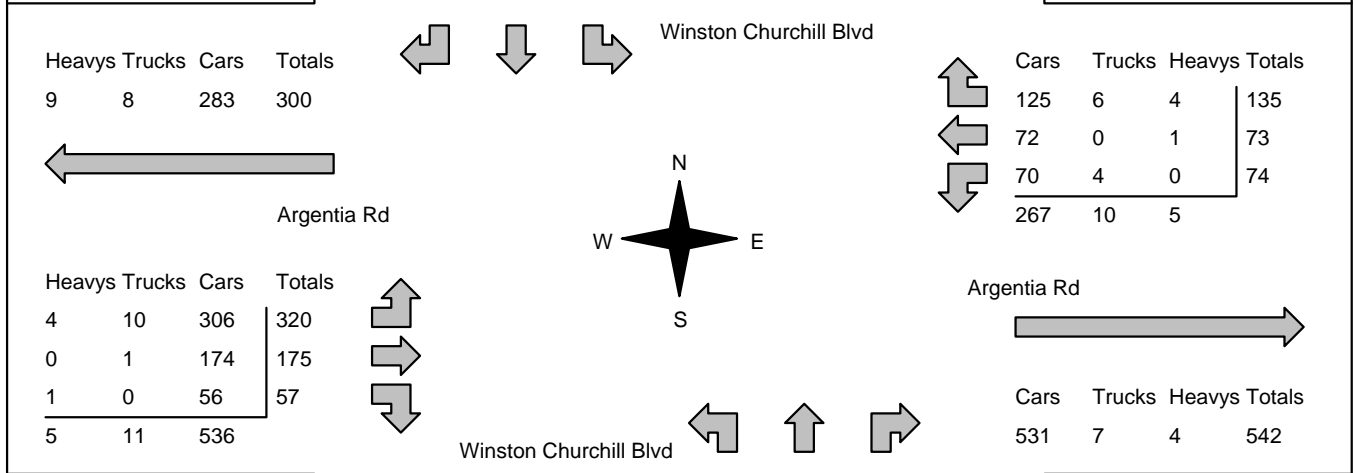
# Accu-Traffic Inc.


<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400003 <b>Intersection:</b> Winston Churchill Blvd & Argentia <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Winston Churchill Blvd runs N/S
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North Leg Total: 2273 North Entering: 863 North Peds: 23 Peds Cross: ☒	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>7</td><td>10</td><td>2</td><td>19</td></tr> <tr><td>Trucks</td><td>8</td><td>17</td><td>5</td><td>30</td></tr> <tr><td>Cars</td><td>137</td><td>412</td><td>265</td><td>814</td></tr> <tr><td>Totals</td><td>152</td><td>439</td><td>272</td><td></td></tr> </table>	Heavys	7	10	2	19	Trucks	8	17	5	30	Cars	137	412	265	814	Totals	152	439	272			<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Trucks</td><td>23</td></tr> <tr><td>Cars</td><td>1369</td></tr> <tr><td>Totals</td><td>1410</td></tr> </table>	Heavys	18	Trucks	23	Cars	1369	Totals	1410	East Leg Total: 824 East Entering: 282 East Peds: 7 Peds Cross: ☒
Heavys	7	10	2	19																												
Trucks	8	17	5	30																												
Cars	137	412	265	814																												
Totals	152	439	272																													
Heavys	18																															
Trucks	23																															
Cars	1369																															
Totals	1410																															



Peds Cross: ☒ West Peds: 9 West Entering: 552 West Leg Total: 852	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>538</td></tr> <tr><td>Trucks</td><td>21</td></tr> <tr><td>Heavys</td><td>11</td></tr> <tr><td>Totals</td><td>570</td></tr> </table>	Cars	538	Trucks	21	Heavys	11	Totals	570		<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>74</td><td>938</td><td>92</td><td>1104</td></tr> <tr><td>Trucks</td><td>0</td><td>7</td><td>1</td><td>8</td></tr> <tr><td>Heavys</td><td>1</td><td>10</td><td>2</td><td>13</td></tr> <tr><td>Totals</td><td>75</td><td>955</td><td>95</td><td></td></tr> </table>	Cars	74	938	92	1104	Trucks	0	7	1	8	Heavys	1	10	2	13	Totals	75	955	95		Peds Cross: ☒ South Peds: 18 South Entering: 1125 South Leg Total: 1695
Cars	538																															
Trucks	21																															
Heavys	11																															
Totals	570																															
Cars	74	938	92	1104																												
Trucks	0	7	1	8																												
Heavys	1	10	2	13																												
Totals	75	955	95																													

**Comments**

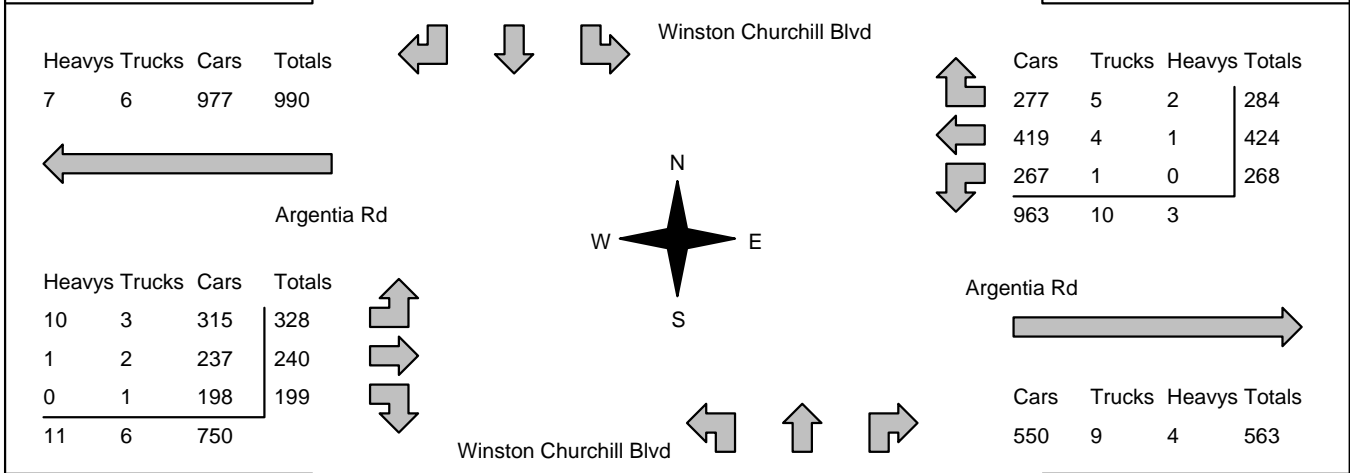
# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400003 <b>Intersection:</b> Winston Churchill Blvd & Argentia <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Winston Churchill Blvd runs N/S
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North Leg Total: 2803 North Entering: 1578 North Peds: 40 Peds Cross: $\bowtie$	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>5</td><td>5</td><td>2</td><td>12</td></tr> <tr><td>Trucks</td><td>2</td><td>6</td><td>7</td><td>15</td></tr> <tr><td>Cars</td><td>339</td><td>992</td><td>220</td><td>1551</td></tr> <tr><td>Totals</td><td>346</td><td>1003</td><td>229</td><td></td></tr> </table>	Heavys	5	5	2	12	Trucks	2	6	7	15	Cars	339	992	220	1551	Totals	346	1003	229			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>29</td></tr> <tr><td>Trucks</td><td>17</td></tr> <tr><td>Cars</td><td>1179</td></tr> <tr><td>Totals</td><td>1225</td></tr> </table>	Heavys	29	Trucks	17	Cars	1179	Totals	1225	East Leg Total: 1539 East Entering: 976 East Peds: 2 Peds Cross: $\bowtie$
Heavys	5	5	2	12																												
Trucks	2	6	7	15																												
Cars	339	992	220	1551																												
Totals	346	1003	229																													
Heavys	29																															
Trucks	17																															
Cars	1179																															
Totals	1225																															



Peds Cross: $\bowtie$ West Peds: 6 West Entering: 767 West Leg Total: 1757	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>1457</td></tr> <tr><td>Trucks</td><td>8</td></tr> <tr><td>Heavys</td><td>5</td></tr> <tr><td>Totals</td><td>1470</td></tr> </table>	Cars	1457	Trucks	8	Heavys	5	Totals	1470		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>219</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>220</td></tr> <tr><td>Cars</td><td>587</td></tr> <tr><td>Trucks</td><td>9</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>613</td></tr> </table>	Cars	219	Trucks	0	Heavys	1	Totals	220	Cars	587	Trucks	9	Heavys	1	Totals	613	Peds Cross: $\bowtie$ South Peds: 32 South Entering: 927 South Leg Total: 2397
Cars	1457																											
Trucks	8																											
Heavys	5																											
Totals	1470																											
Cars	219																											
Trucks	0																											
Heavys	1																											
Totals	220																											
Cars	587																											
Trucks	9																											
Heavys	1																											
Totals	613																											

**Comments**

# Accu-Traffic Inc.

## Total Count Diagram

**Municipality:** Mississauga  
**Site #:** 2512400003  
**Intersection:** Winston Churchill Blvd & Argentia  
**TFR File #:** 1  
**Count date:** 6-Aug-25

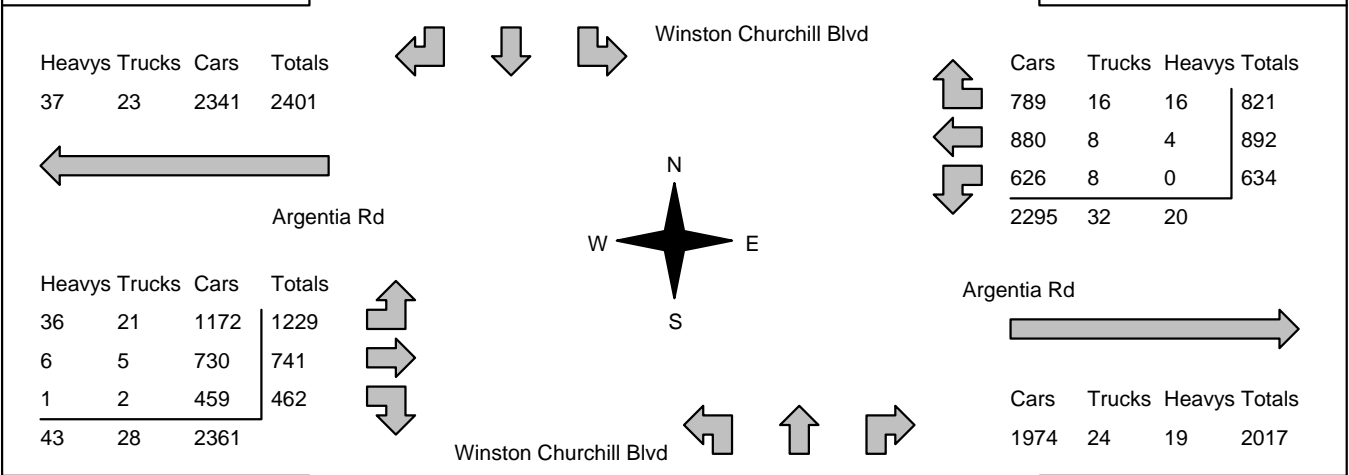
**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Winston Churchill Blvd runs N/S

North Leg Total: 9474	Heavys 30    36    10    76	↑	Heavys 96	East Leg Total: 4364
North Entering: 4500	Trucks 15    31    14    60		Trucks 69	East Entering: 2347
North Peds: 100	Cars <u>909</u> 2573    882    4364		Cars <u>4809</u>	East Peds: 23
Peds Cross: ☒	Totals 954    2640    906		Totals 4974	Peds Cross: ☒



Peds Cross: ☒	Cars 3658	↓	Cars 552    2848    362    3762	Peds Cross: ☒
West Peds: 22	Trucks 41		Trucks 0    32    5    37	South Peds: 81
West Entering: 2432	Heavys <u>37</u>		Heavys 3    44    3    50	South Entering: 3849
West Leg Total: 4833	Totals 3736		Totals 555    2924    370	South Leg Total: 7585

### Comments



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

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Winston Churchill Blvd & Argentia      Count Date: 6-Aug-25      Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	205	337	138	680	19	1541	8:00:00	41	742	78	861	13
9:00:00	272	439	152	863	23	1988	9:00:00	75	955	95	1125	18
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	225	847	307	1379	34	2303	17:00:00	223	603	98	924	24
18:00:00	204	1017	357	1578	24	2517	18:00:00	216	624	99	939	26
<b>Totals:</b>	906	2640	954	4500	100	8349	<b>S Totals:</b>	555	2924	370	3849	81
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	41	52	106	199	5	607	8:00:00	253	124	31	408	4
9:00:00	74	73	135	282	7	834	9:00:00	320	175	57	552	9
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	250	378	327	955	9	1658	17:00:00	315	208	180	703	4
18:00:00	269	389	253	911	2	1680	18:00:00	341	234	194	769	5
<b>Totals:</b>	634	892	821	2347	23	4779	<b>W Totals:</b>	1229	741	462	2432	22
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	450	610	0			1001	1049	0	0		





# Accu-Traffic Inc.

Count Date: 6-Aug-25 Site #: 2512400003

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	6	6	9	9	26	26	1	1	0	0	1	1	0	0	1	1	3	3	1	1
7:30:00	16	10	20	11	46	20	1	0	1	1	1	0	0	0	1	0	4	1	1	0
7:45:00	21	5	31	11	70	24	2	1	1	0	1	0	0	0	1	0	4	0	1	0
8:00:00	39	18	49	18	100	30	2	0	2	1	1	0	0	0	1	0	5	1	5	4
8:15:00	51	12	57	8	130	30	2	0	2	0	1	0	0	0	2	1	5	0	10	5
8:30:00	57	6	75	18	156	26	3	1	2	0	3	2	0	0	2	0	8	3	10	0
8:45:00	83	26	101	26	198	42	6	3	2	0	6	3	0	0	2	0	9	1	11	1
9:00:00	109	26	121	20	225	27	6	0	2	0	7	1	0	0	2	0	9	0	12	1
9:15:00	109	0	121	0	225	0	6	0	2	0	7	0	0	0	2	0	9	0	12	0
16:00:00	109	0	121	0	225	0	6	0	2	0	7	0	0	0	2	0	9	0	12	0
16:15:00	173	64	188	67	304	79	6	0	3	1	9	2	0	0	2	0	11	2	13	1
16:30:00	224	51	279	91	394	90	7	1	4	1	10	1	0	0	3	1	12	1	19	6
16:45:00	297	73	373	94	471	77	7	0	4	0	11	1	0	0	3	0	13	1	21	2
17:00:00	358	61	494	121	543	72	7	0	6	2	12	1	0	0	3	0	13	0	21	0
17:15:00	435	77	598	104	631	88	7	0	7	1	13	1	0	0	3	0	15	2	22	1
17:30:00	495	60	672	74	699	68	7	0	8	1	15	2	0	0	4	1	15	0	22	0
17:45:00	564	69	792	120	748	49	8	1	8	0	16	1	0	0	4	0	15	0	23	1
18:00:00	626	62	880	88	789	41	8	0	8	0	16	0	0	0	4	0	16	1	23	0
18:15:00	626	0	880	0	789	0	8	0	8	0	16	0	0	0	4	0	16	0	23	0
18:15:15	626	0	880	0	789	0	8	0	8	0	16	0	0	0	4	0	16	0	23	0






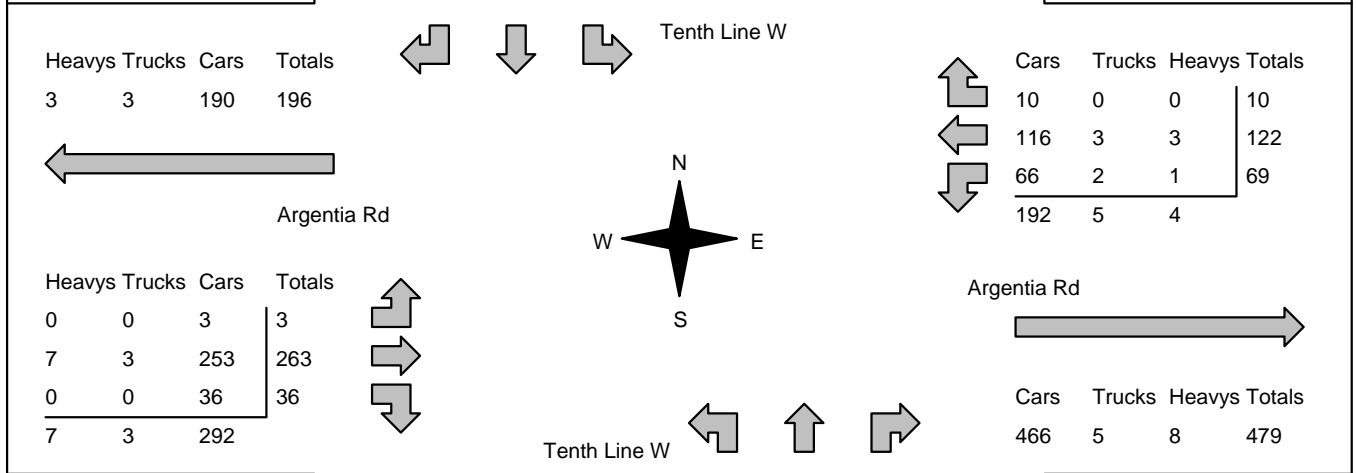
# Accu-Traffic Inc.


<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 7:30:00 <b>To:</b> 8:30:00
-----------------------------	-----------------------------------------------------------------------	--------------------------------------------------------------------

<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400004 <b>Intersection:</b> Argentia Rd & Tenth Line W <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------

<b>** Signalized Intersection **</b>	<b>Major Road:</b> Argentia Rd runs W/E
--------------------------------------	-----------------------------------------

North Leg Total: 18 North Entering: 4 North Peds: 3 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Cars</td><td>1</td><td>1</td><td>1</td><td style="border-left: 1px solid black;">3</td></tr> <tr><td>Totals</td><td>1</td><td>1</td><td>2</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	0	0	1	1	Trucks	0	0	0	0	Cars	1	1	1	3	Totals	1	1	2			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>14</td></tr> <tr><td>Totals</td><td>14</td></tr> </table>	Heavys	0	Trucks	0	Cars	14	Totals	14	East Leg Total: 680 East Entering: 201 East Peds: 1 Peds Cross: ☒
Heavys	0	0	1	1																												
Trucks	0	0	0	0																												
Cars	1	1	1	3																												
Totals	1	1	2																													
Heavys	0																															
Trucks	0																															
Cars	14																															
Totals	14																															



Peds Cross: ☒ West Peds: 2 West Entering: 302 West Leg Total: 498	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>103</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>106</td></tr> </table>	Cars	103	Trucks	2	Heavys	1	Totals	106		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>73</td><td>1</td><td>212</td><td style="border-left: 1px solid black;">286</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>2</td><td style="border-left: 1px solid black;">2</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Totals</td><td>73</td><td>1</td><td>214</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	73	1	212	286	Trucks	0	0	2	2	Heavys	0	0	0	0	Totals	73	1	214		Peds Cross: ☒ South Peds: 5 South Entering: 288 South Leg Total: 394
Cars	103																															
Trucks	2																															
Heavys	1																															
Totals	106																															
Cars	73	1	212	286																												
Trucks	0	0	2	2																												
Heavys	0	0	0	0																												
Totals	73	1	214																													

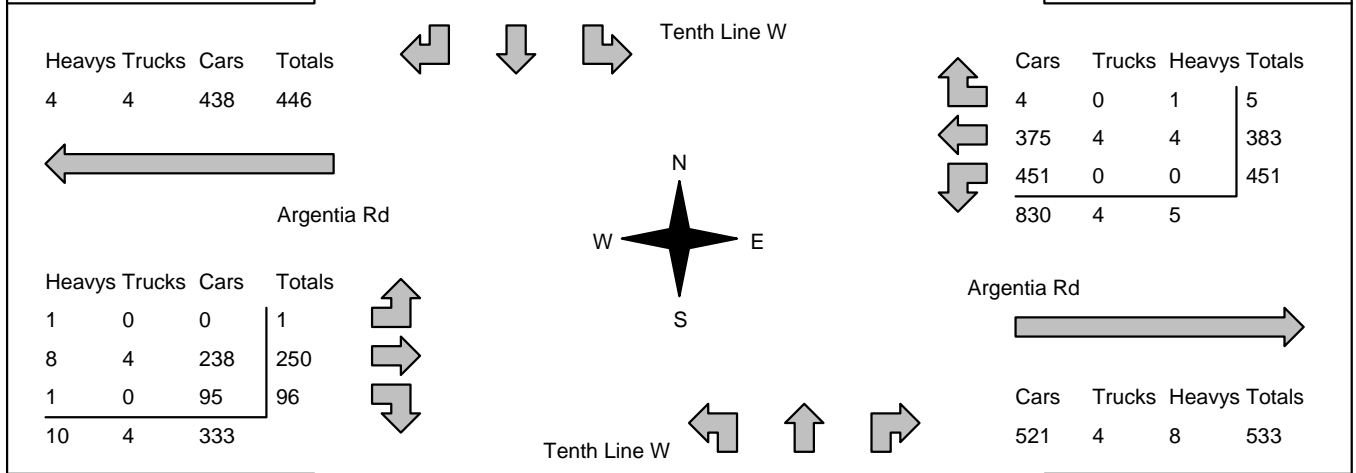
**Comments**

# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 17:00:00 <b>To:</b> 18:00:00
<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400004 <b>Intersection:</b> Argentia Rd & Tenth Line W <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>	

<b>** Signalized Intersection **</b>	<b>Major Road:</b> Argentia Rd runs W/E
--------------------------------------	-----------------------------------------

North Leg Total: 12 North Entering: 6 North Peds: 8 Peds Cross: ☒	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>2</td><td>2</td><td>2</td><td>6</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>2</td><td>2</td><td>2</td><td></td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	2	2	2	6	Totals	2	2	2			<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>4</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>6</td></tr> </table>	Heavys	2	Trucks	0	Cars	4	Totals	6	East Leg Total: 1372 East Entering: 839 East Peds: 7 Peds Cross: ☒
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	2	2	2	6																												
Totals	2	2	2																													
Heavys	2																															
Trucks	0																															
Cars	4																															
Totals	6																															



Peds Cross: ☒ West Peds: 8 West Entering: 347 West Leg Total: 793	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>548</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>549</td></tr> </table>	Cars	548	Trucks	0	Heavys	1	Totals	549		<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>61</td><td>0</td><td>281</td><td>342</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>61</td><td>0</td><td>281</td><td></td></tr> </table>	Cars	61	0	281	342	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	61	0	281		Peds Cross: ☒ South Peds: 12 South Entering: 342 South Leg Total: 891
Cars	548																															
Trucks	0																															
Heavys	1																															
Totals	549																															
Cars	61	0	281	342																												
Trucks	0	0	0	0																												
Heavys	0	0	0	0																												
Totals	61	0	281																													

## Comments

# Accu-Traffic Inc.

## Total Count Diagram

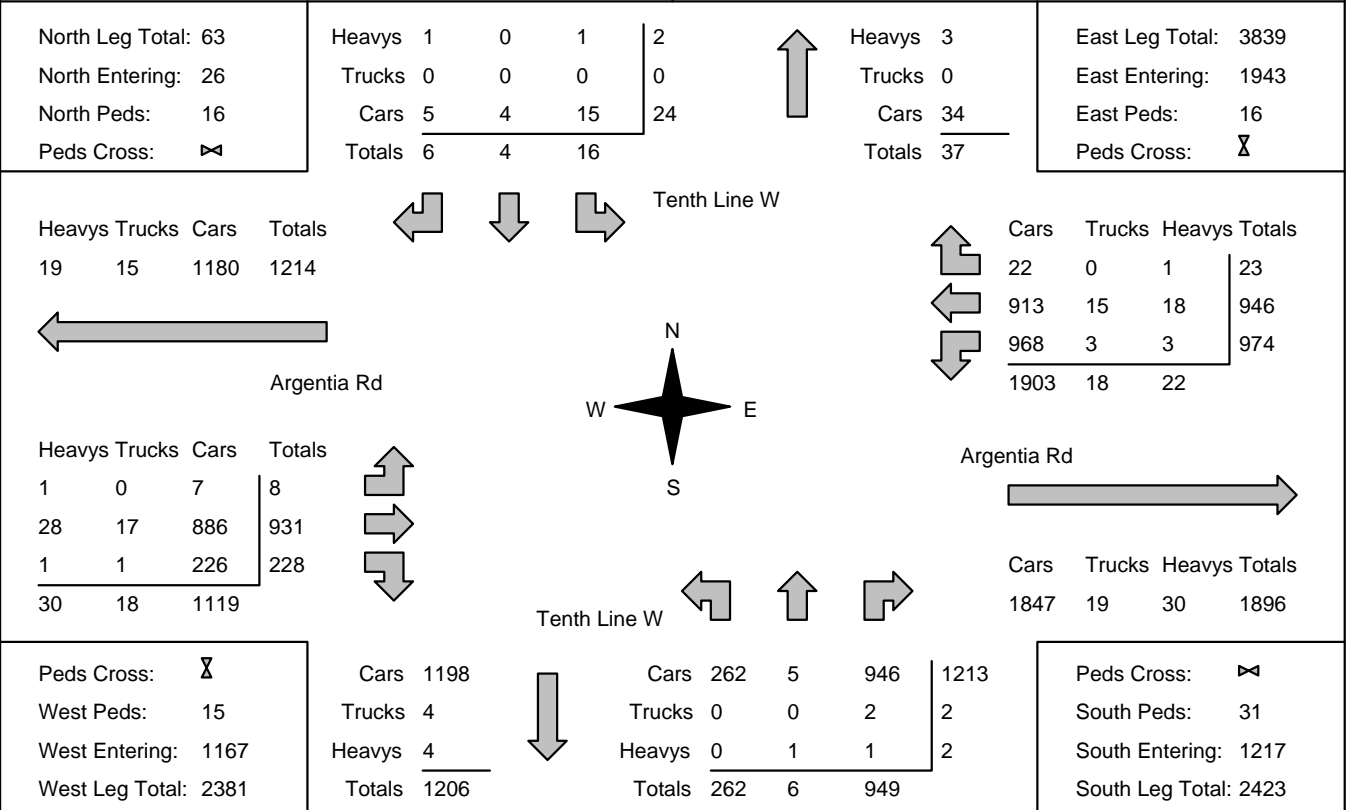
**Municipality:** Mississauga  
**Site #:** 2512400004  
**Intersection:** Argentia Rd & Tenth Line W  
**TFR File #:** 1  
**Count date:** 6-Aug-25

**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Argentia Rd runs W/E



### Comments



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

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Argentia Rd & Tenth Line W      Count Date: 6-Aug-25      Municipality: Mississauga

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	2	0	1	3	1	306	8:00:00	123	1	179	303	4
9:00:00	2	1	1	4	5	287	9:00:00	43	4	236	283	9
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	10	1	2	13	2	302	17:00:00	35	1	253	289	6
18:00:00	2	2	2	6	8	348	18:00:00	61	0	281	342	12
<b>Totals:</b>	16	4	6	26	16	1243	<b>S Totals:</b>	262	6	949	1217	31
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	49	113	0	162	0	431	8:00:00	1	216	52	269	1
9:00:00	83	115	17	215	3	492	9:00:00	6	251	20	277	5
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	391	335	1	727	6	1001	17:00:00	0	214	60	274	1
18:00:00	451	383	5	839	7	1186	18:00:00	1	250	96	347	8
<b>Totals:</b>	974	946	23	1943	16	3110	<b>W Totals:</b>	8	931	228	1167	15
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	127	57	0			53	80	0	0		



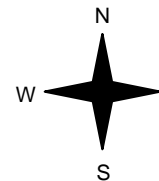






# Accu-Traffic Inc.

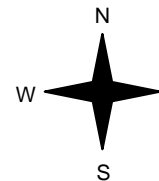
<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400005 <b>Intersection:</b> Ninth Line & Argentia Rd <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>	
<b>** Signalized Intersection **</b>	<b>Major Road:</b> Ninth Line runs N/S	

North Leg Total: 858 North Entering: 567 North Peds: 0 Peds Cross: ☒	<table style="margin: auto;"> <tr> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">↑</td> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">4</td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">9</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">10</td> <td></td> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">3</td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">463</td> <td style="padding: 5px;">91</td> <td style="padding: 5px;">554</td> <td></td> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">284</td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px;">Totals</td> <td style="padding: 5px;">475</td> <td style="padding: 5px;">92</td> <td></td> <td></td> <td style="padding: 5px;">Totals</td> <td style="padding: 5px;">291</td> <td colspan="2"></td> </tr> </table> <p style="text-align: center;">Ninth Line</p>  <p style="text-align: center;">N S E W</p> <table style="margin: auto;"> <tr> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">27</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">29</td> </tr> <tr> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">40</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">43</td> </tr> <tr> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">67</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;"> </td> <td></td> </tr> </table> <p style="text-align: center;">Argentia Rd</p> <table style="margin: auto;"> <tr> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">291</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">296</td> </tr> <tr> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">257</td> <td style="padding: 5px;">200</td> <td style="padding: 5px;">457</td> <td style="padding: 5px;"> </td> <td></td> </tr> <tr> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;"> </td> <td></td> </tr> <tr> <td style="padding: 5px;">Totals</td> <td style="padding: 5px;">262</td> <td style="padding: 5px;">204</td> <td style="padding: 5px;">5</td> <td style="padding: 5px;"> </td> <td></td> </tr> </table>	Heavys	3	0	3	↑	Heavys	4			Trucks	9	1	10		Trucks	3			Cars	463	91	554		Cars	284			Totals	475	92			Totals	291			Cars	27	0	2		29	Trucks	40	1	2		43	Heavys	67	1	4			Cars	291	2	3		296	Trucks	257	200	457			Heavys	3	1	4			Totals	262	204	5			<table style="margin: auto;"> <tr> <td style="padding: 5px;">East Leg Total:</td> <td style="padding: 5px;">368</td> </tr> <tr> <td style="padding: 5px;">East Entering:</td> <td style="padding: 5px;">72</td> </tr> <tr> <td style="padding: 5px;">East Peds:</td> <td style="padding: 5px;">0</td> </tr> <tr> <td style="padding: 5px;">Peds Cross:</td> <td style="padding: 5px;">☒</td> </tr> </table> <table style="margin: auto;"> <tr> <td style="padding: 5px;">Peds Cross:</td> <td style="padding: 5px;">☒</td> </tr> <tr> <td style="padding: 5px;">South Peds:</td> <td style="padding: 5px;">0</td> </tr> <tr> <td style="padding: 5px;">South Entering:</td> <td style="padding: 5px;">466</td> </tr> <tr> <td style="padding: 5px;">South Leg Total:</td> <td style="padding: 5px;">984</td> </tr> </table>	East Leg Total:	368	East Entering:	72	East Peds:	0	Peds Cross:	☒	Peds Cross:	☒	South Peds:	0	South Entering:	466	South Leg Total:	984
Heavys	3	0	3	↑	Heavys	4																																																																																										
Trucks	9	1	10		Trucks	3																																																																																										
Cars	463	91	554		Cars	284																																																																																										
Totals	475	92			Totals	291																																																																																										
Cars	27	0	2		29																																																																																											
Trucks	40	1	2		43																																																																																											
Heavys	67	1	4																																																																																													
Cars	291	2	3		296																																																																																											
Trucks	257	200	457																																																																																													
Heavys	3	1	4																																																																																													
Totals	262	204	5																																																																																													
East Leg Total:	368																																																																																															
East Entering:	72																																																																																															
East Peds:	0																																																																																															
Peds Cross:	☒																																																																																															
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South Peds:	0																																																																																															
South Entering:	466																																																																																															
South Leg Total:	984																																																																																															

## Comments

# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400005 <b>Intersection:</b> Ninth Line & Argentia Rd <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>	
<b>** Signalized Intersection **</b>	<b>Major Road:</b> Ninth Line runs N/S	

North Leg Total: 1335 North Entering: 526 North Peds: 0 Peds Cross: <input checked="" type="checkbox"/>	<table style="margin: auto;"> <tr> <td style="text-align: right;">Heavys</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td rowspan="4" style="font-size: 2em; vertical-align: middle;">↑</td> <td style="text-align: left;">Heavys</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: right;">Trucks</td> <td style="text-align: center;">7</td> <td style="text-align: center;">2</td> <td style="text-align: center;">9</td> <td style="text-align: left;">Trucks</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">445</td> <td style="text-align: center;">69</td> <td style="text-align: center;">514</td> <td style="text-align: left;">Cars</td> <td style="text-align: center;">804</td> </tr> <tr> <td style="text-align: right;">Totals</td> <td style="text-align: center;">453</td> <td style="text-align: center;">73</td> <td></td> <td style="text-align: left;">Totals</td> <td style="text-align: center;">809</td> </tr> </table> <p style="text-align: center;">Ninth Line</p>  <p style="text-align: center;">Ninth Line</p> <table style="margin: auto;"> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">693</td> <td style="text-align: center;">607</td> <td style="text-align: center;">123</td> <td style="text-align: center;">730</td> </tr> <tr> <td style="text-align: right;">Trucks</td> <td style="text-align: center;">8</td> <td style="text-align: center;">2</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">Heavys</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: right;">Totals</td> <td style="text-align: center;">703</td> <td style="text-align: center;">611</td> <td style="text-align: center;">126</td> <td></td> </tr> </table>	Heavys	1	2	3	↑	Heavys	2	Trucks	7	2	9	Trucks	3	Cars	445	69	514	Cars	804	Totals	453	73		Totals	809	Cars	693	607	123	730	Trucks	8	2	1	3	Heavys	2	2	2	4	Totals	703	611	126		<table style="margin: auto;"> <tr> <td style="text-align: right;">East Leg Total:</td> <td style="text-align: center;">647</td> </tr> <tr> <td style="text-align: right;">East Entering:</td> <td style="text-align: center;">448</td> </tr> <tr> <td style="text-align: right;">East Peds:</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: right;">Peds Cross:</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> <table style="margin: auto;"> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">197</td> <td style="text-align: center;">1</td> <td style="text-align: center;">0</td> <td style="text-align: center;">198</td> </tr> <tr> <td style="text-align: right;">Trucks</td> <td style="text-align: center;">248</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">250</td> </tr> <tr> <td style="text-align: right;">Heavys</td> <td style="text-align: center;">445</td> <td style="text-align: center;">2</td> <td style="text-align: center;">1</td> <td></td> </tr> </table> <p style="text-align: center;">Argentia Rd</p> <table style="margin: auto;"> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">192</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">199</td> </tr> </table>	East Leg Total:	647	East Entering:	448	East Peds:	0	Peds Cross:	<input checked="" type="checkbox"/>	Cars	197	1	0	198	Trucks	248	1	1	250	Heavys	445	2	1		Cars	192	3	4	199
Heavys	1	2	3	↑	Heavys		2																																																																				
Trucks	7	2	9		Trucks		3																																																																				
Cars	445	69	514		Cars		804																																																																				
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Cars	693	607	123	730																																																																							
Trucks	8	2	1	3																																																																							
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Heavys	445	2	1																																																																								
Cars	192	3	4	199																																																																							
<table style="margin: auto;"> <tr> <td style="text-align: right;">Peds Cross:</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: right;">South Peds:</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: right;">South Entering:</td> <td style="text-align: center;">737</td> </tr> <tr> <td style="text-align: right;">South Leg Total:</td> <td style="text-align: center;">1440</td> </tr> </table>			Peds Cross:	<input checked="" type="checkbox"/>	South Peds:	0	South Entering:	737	South Leg Total:	1440																																																																	
Peds Cross:	<input checked="" type="checkbox"/>																																																																										
South Peds:	0																																																																										
South Entering:	737																																																																										
South Leg Total:	1440																																																																										

## Comments

# Accu-Traffic Inc.

## Total Count Diagram

**Municipality:** Mississauga  
**Site #:** 2512400005  
**Intersection:** Ninth Line & Argentia Rd  
**TFR File #:** 1  
**Count date:** 6-Aug-25

**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Ninth Line runs N/S

North Leg Total: 4094  
 North Entering: 2068  
 North Peds: 0  
 Peds Cross:

Heavys	13	2	15
Trucks	28	4	32
Cars	1709	312	2021
<b>Totals</b>	<b>1750</b>	<b>318</b>	

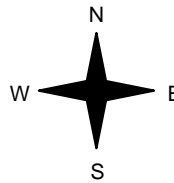


Heavys	12
Trucks	14
Cars	2000
<b>Totals</b>	<b>2026</b>

East Leg Total: 1905  
 East Entering: 943  
 East Peds: 0  
 Peds Cross:



Ninth Line

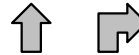


	Cars	Trucks	Heavys	Totals
Northbound	410	2	4	416
Southbound	516	4	7	527
<b>Totals</b>	<b>926</b>	<b>6</b>	<b>11</b>	

Argentia Rd



Ninth Line



Cars	2225
Trucks	32
Heavys	20
<b>Totals</b>	<b>2277</b>



Cars	1590	628	2218
Trucks	12	4	16
Heavys	8	12	20
<b>Totals</b>	<b>1610</b>	<b>644</b>	

Cars	Trucks	Heavys	Totals
940	8	14	962

Peds Cross:   
 South Peds: 0  
 South Entering: 2254  
 South Leg Total: 4531

### Comments



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

# Accu-Traffic Inc. Traffic Count Summary

Intersection: Ninth Line & Argentia Rd      Count Date: 6-Aug-25      Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	91	417	0	508	0	924	8:00:00	0	217	199	416	0
9:00:00	92	475	0	567	0	1033	9:00:00	0	262	204	466	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	70	422	0	492	0	1152	17:00:00	0	552	108	660	0
18:00:00	65	436	0	501	0	1213	18:00:00	0	579	133	712	0
<b>Totals:</b>	318	1750	0	2068	0	4322	<b>S Totals:</b>	0	1610	644	2254	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	45	0	39	84	0	84	8:00:00	0	0	0	0	0
9:00:00	43	0	29	72	0	72	9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	184	0	162	346	0	346	17:00:00	0	0	0	0	0
18:00:00	255	0	186	441	0	441	18:00:00	0	0	0	0	0
<b>Totals:</b>	527	0	416	943	0	943	<b>W Totals:</b>	0	0	0	0	0
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00				17:00	18:00	0:00	0:00	
Crossing Values:	0	45	43	0				184	255	0	0	









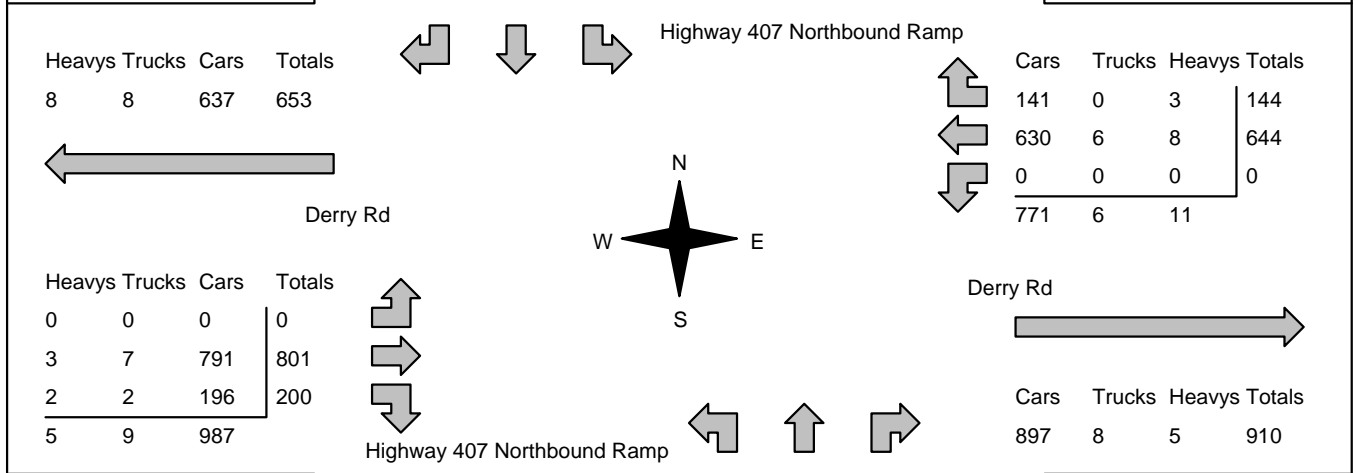
# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400006 <b>Intersection:</b> Derry Rd & Highway 407 Northbou <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Derry Rd runs W/E
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North Leg Total: 144 North Entering: 0 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	0	0	0	0	Totals	0	0	0	0	↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>3</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>141</td></tr> <tr><td>Totals</td><td>144</td></tr> </table>	Heavys	3	Trucks	0	Cars	141	Totals	144	East Leg Total: 1698 East Entering: 788 East Peds: 0 Peds Cross: ☒
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	0	0	0	0																												
Totals	0	0	0	0																												
Heavys	3																															
Trucks	0																															
Cars	141																															
Totals	144																															

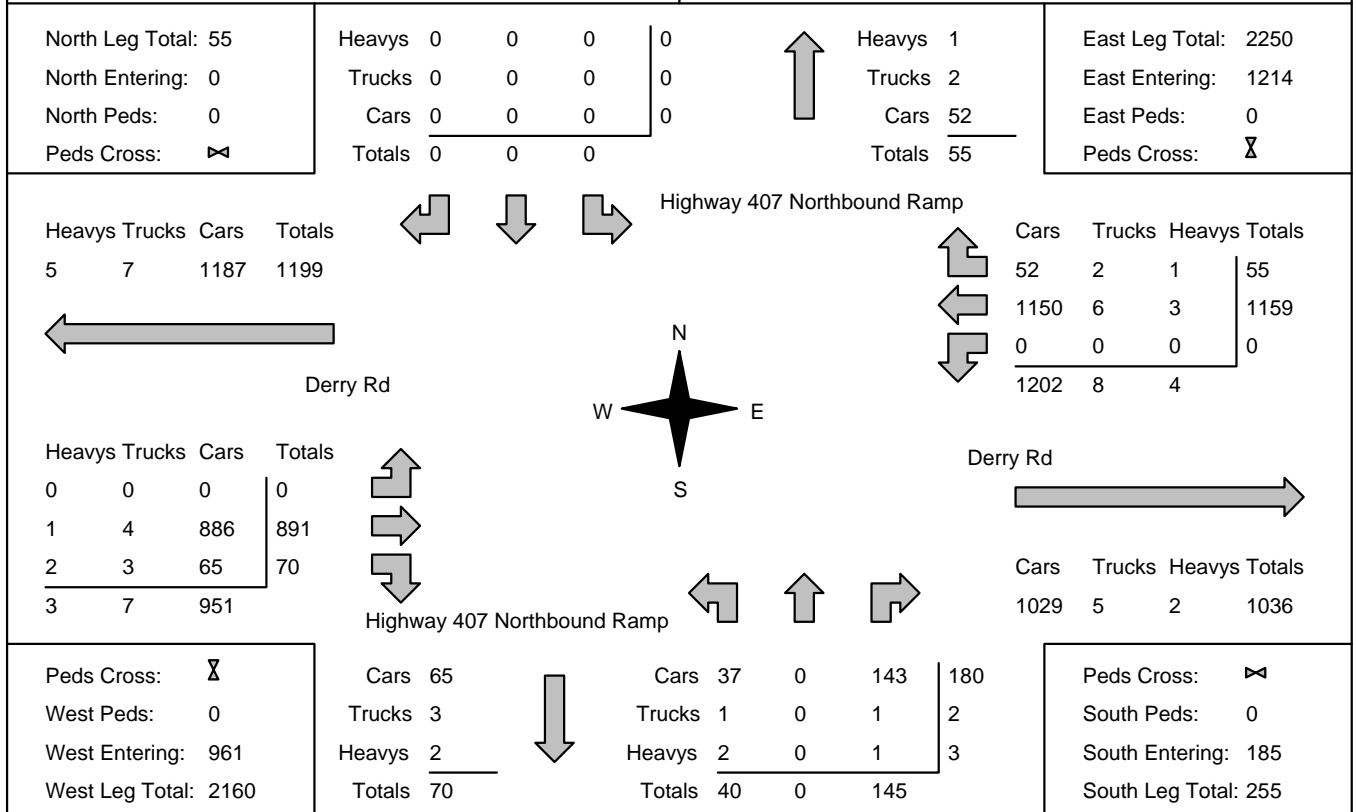


Peds Cross: ☒ West Peds: 0 West Entering: 1001 West Leg Total: 1654	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>196</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Totals</td><td>200</td></tr> </table>	Cars	196	Trucks	2	Heavys	2	Totals	200	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>7</td><td>0</td><td>106</td><td>113</td></tr> <tr><td>Trucks</td><td>2</td><td>0</td><td>1</td><td>3</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>2</td><td>2</td></tr> <tr><td>Totals</td><td>9</td><td>0</td><td>109</td><td></td></tr> </table>	Cars	7	0	106	113	Trucks	2	0	1	3	Heavys	0	0	2	2	Totals	9	0	109		Peds Cross: ☒ South Peds: 0 South Entering: 118 South Leg Total: 318
Cars	196																															
Trucks	2																															
Heavys	2																															
Totals	200																															
Cars	7	0	106	113																												
Trucks	2	0	1	3																												
Heavys	0	0	2	2																												
Totals	9	0	109																													

**Comments**

# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400006 <b>Intersection:</b> Derry Rd & Highway 407 Northbou <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>	
<b>** Signalized Intersection **</b>	<b>Major Road:</b> Derry Rd runs W/E	



## Comments

# Accu-Traffic Inc.

## Total Count Diagram

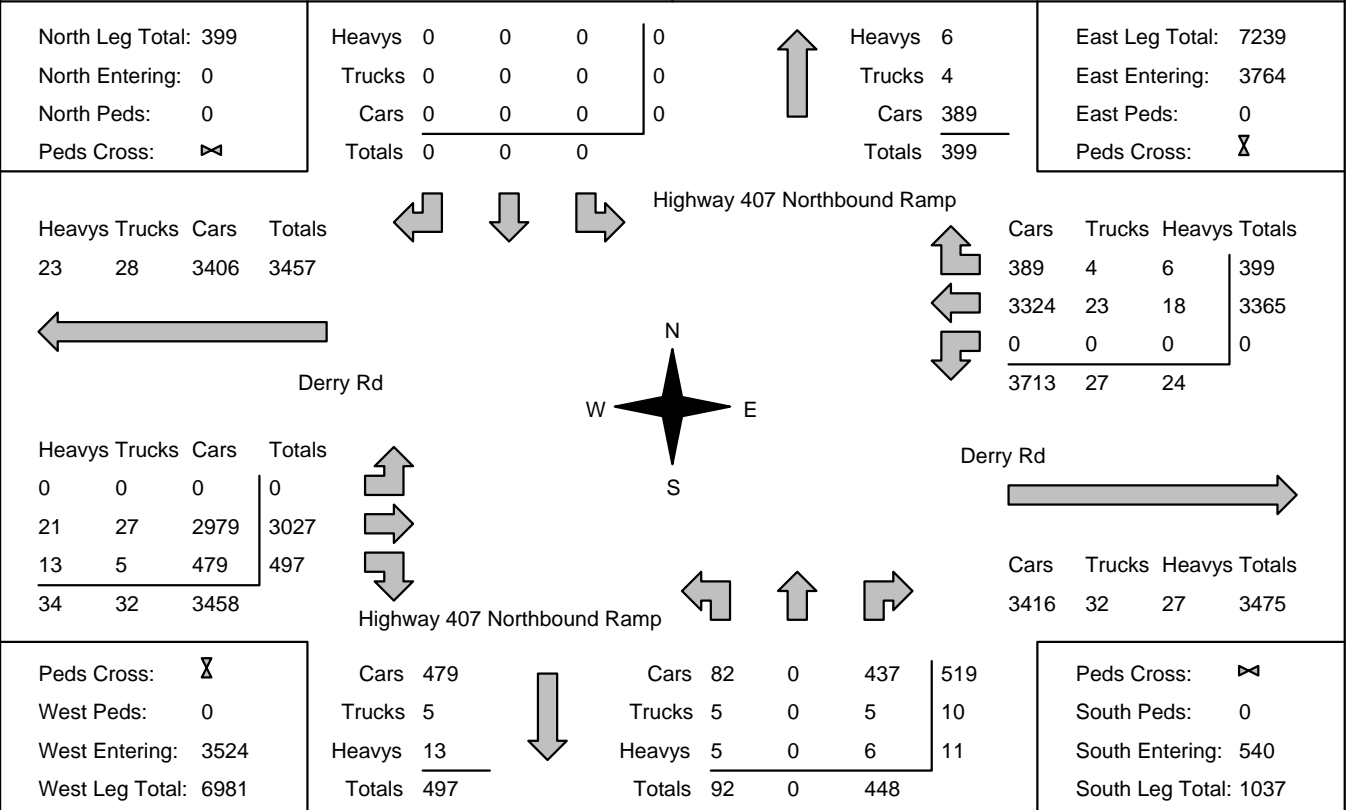
**Municipality:** Mississauga  
**Site #:** 2512400006  
**Intersection:** Derry Rd & Highway 407 Northbou  
**TFR File #:** 1  
**Count date:** 6-Aug-25

**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Derry Rd runs W/E



### Comments



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

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Derry Rd & Highway 407 Northbou      Count Date: 6-Aug-25      Municipality: Mississauga

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	91	8:00:00	13	0	78	91	0
9:00:00	0	0	0	0	0	118	9:00:00	9	0	109	118	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0	162	17:00:00	37	0	125	162	0
18:00:00	0	0	0	0	0	169	18:00:00	33	0	136	169	0
<b>Totals:</b>	0	0	0	0	0	540	<b>S Totals:</b>	92	0	448	540	0
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	580	143	723	0	1471	8:00:00	0	583	165	748	0
9:00:00	0	644	144	788	0	1789	9:00:00	0	801	200	1001	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	1040	64	1104	0	1930	17:00:00	0	749	77	826	0
18:00:00	0	1101	48	1149	0	2098	18:00:00	0	894	55	949	0
<b>Totals:</b>	0	3365	399	3764	0	7288	<b>W Totals:</b>	0	3027	497	3524	0
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	13	9	0			37	33	0	0		










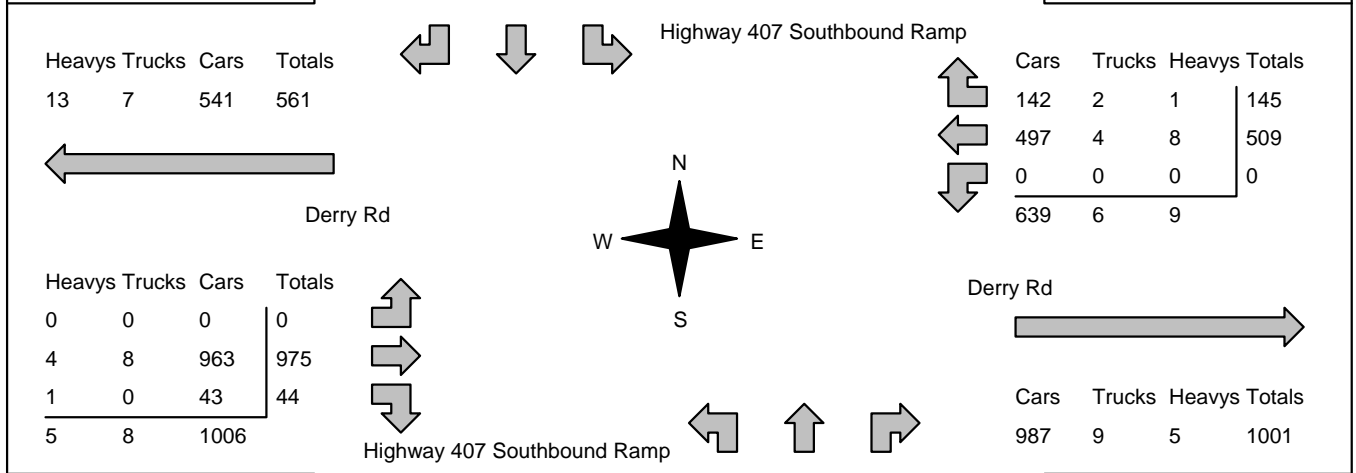
# Accu-Traffic Inc.


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

<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400007 <b>Intersection:</b> Derry Rd & Highway 407 Southbou <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Derry Rd runs W/E
--------------------------------------	--------------------------------------

North Leg Total: 223 North Entering: 78 North Peds: 0 Peds Cross: $\boxtimes$	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>5</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">6</td></tr> <tr><td>Trucks</td><td>3</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">4</td></tr> <tr><td>Cars</td><td>44</td><td>0</td><td>24</td><td style="border-left: 1px solid black;">68</td></tr> <tr><td>Totals</td><td>52</td><td>0</td><td>26</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	5	0	1	6	Trucks	3	0	1	4	Cars	44	0	24	68	Totals	52	0	26			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Cars</td><td>142</td></tr> <tr><td>Totals</td><td>145</td></tr> </table>	Heavys	1	Trucks	2	Cars	142	Totals	145	East Leg Total: 1655 East Entering: 654 East Peds: 0 Peds Cross: $\boxtimes$
Heavys	5	0	1	6																												
Trucks	3	0	1	4																												
Cars	44	0	24	68																												
Totals	52	0	26																													
Heavys	1																															
Trucks	2																															
Cars	142																															
Totals	145																															



Peds Cross: $\boxtimes$ West Peds: 0 West Entering: 1019 West Leg Total: 1580	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>43</td><td style="border-left: 1px solid black;">43</td></tr> <tr><td>Trucks</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Heavys</td><td>1</td><td style="border-left: 1px solid black;">1</td></tr> <tr><td>Totals</td><td>44</td><td style="border-left: 1px solid black;">44</td></tr> </table>	Cars	43	43	Trucks	0	0	Heavys	1	1	Totals	44	44		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> </table>	Cars	0	0	0	0	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	0	0	0	0	Peds Cross: $\boxtimes$ South Peds: 0 South Entering: 0 South Leg Total: 44
Cars	43	43																																		
Trucks	0	0																																		
Heavys	1	1																																		
Totals	44	44																																		
Cars	0	0	0	0																																
Trucks	0	0	0	0																																
Heavys	0	0	0	0																																
Totals	0	0	0	0																																


**Comments**

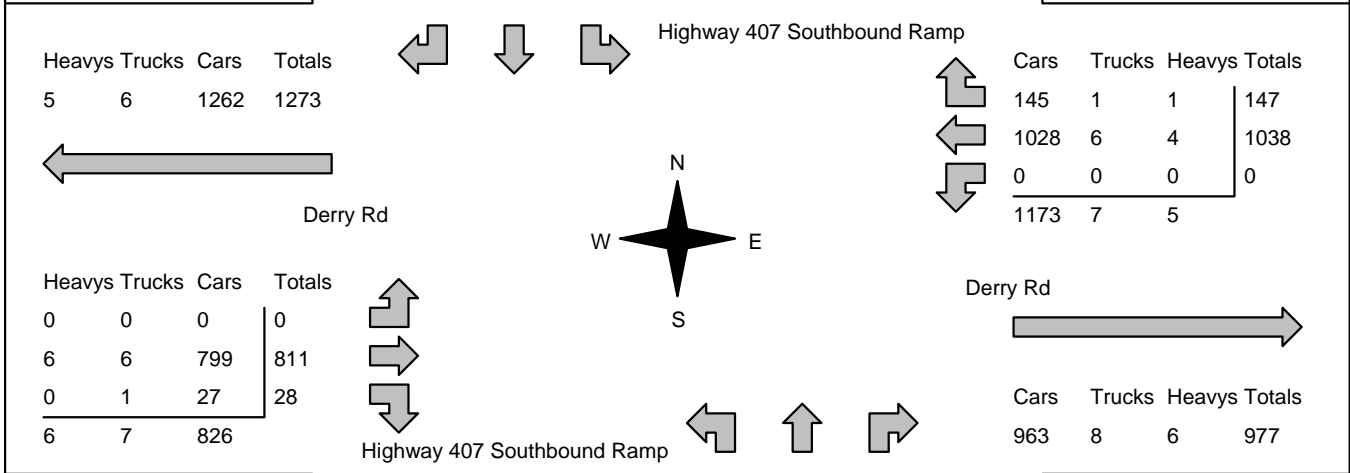
# Accu-Traffic Inc.

<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400007 <b>Intersection:</b> Derry Rd & Highway 407 Southbou <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------

<b>** Signalized Intersection **</b>	<b>Major Road:</b> Derry Rd runs W/E
--------------------------------------	--------------------------------------

North Leg Total: 548 North Entering: 401 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>2</td><td>2</td></tr> <tr><td>Cars</td><td>234</td><td>0</td><td>164</td><td>398</td></tr> <tr><td>Totals</td><td>235</td><td>0</td><td>166</td><td></td></tr> </table>	Heavys	1	0	0	1	Trucks	0	0	2	2	Cars	234	0	164	398	Totals	235	0	166			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Cars</td><td>145</td></tr> <tr><td>Totals</td><td>147</td></tr> </table>	Heavys	1	Trucks	1	Cars	145	Totals	147	East Leg Total: 2162 East Entering: 1185 East Peds: 0 Peds Cross: ☒
Heavys	1	0	0	1																												
Trucks	0	0	2	2																												
Cars	234	0	164	398																												
Totals	235	0	166																													
Heavys	1																															
Trucks	1																															
Cars	145																															
Totals	147																															



Peds Cross: ☒ West Peds: 0 West Entering: 839 West Leg Total: 2112	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>27</td><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>1</td><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>28</td><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Cars	27	Cars	0	0	0	0	Trucks	1	Trucks	0	0	0	0	Heavys	0	Heavys	0	0	0	0	Totals	28	Totals	0	0	0	0	Peds Cross: ☒ South Peds: 0 South Entering: 0 South Leg Total: 28
Cars	27	Cars	0	0	0	0																								
Trucks	1	Trucks	0	0	0	0																								
Heavys	0	Heavys	0	0	0	0																								
Totals	28	Totals	0	0	0	0																								

**Comments**

# Accu-Traffic Inc.

## Total Count Diagram

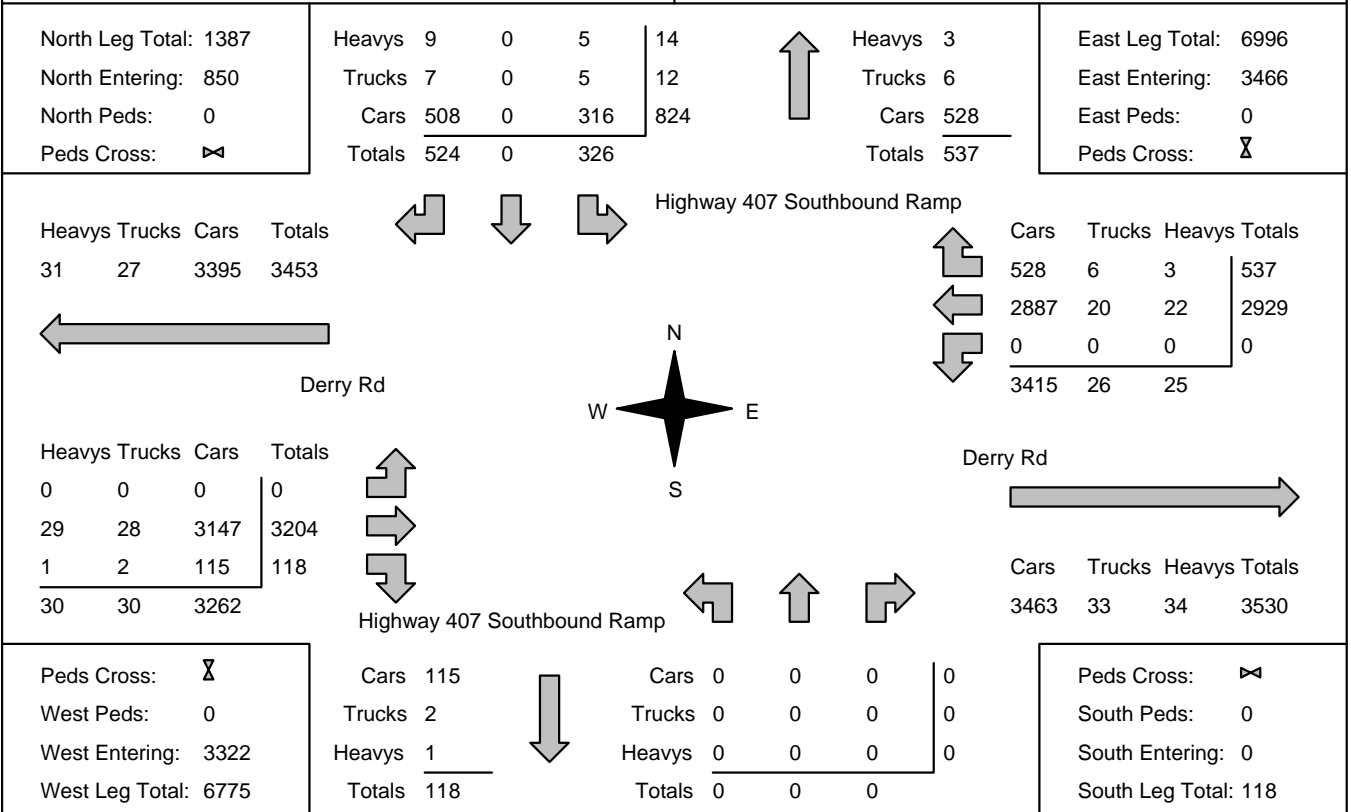
**Municipality:** Mississauga  
**Site #:** 2512400007  
**Intersection:** Derry Rd & Highway 407 Southbou  
**TFR File #:** 1  
**Count date:** 6-Aug-25

**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Derry Rd runs W/E



### Comments



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

# Accu-Traffic Inc. Traffic Count Summary

Intersection: Derry Rd & Highway 407 Southbo      Count Date: 6-Aug-25      Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	30	0	33	63	0	63	8:00:00	0	0	0	0	0
9:00:00	26	0	52	78	0	78	9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	124	0	215	339	0	339	17:00:00	0	0	0	0	0
18:00:00	146	0	224	370	0	370	18:00:00	0	0	0	0	0
<b>Totals:</b>	326	0	524	850	0	850	<b>S Totals:</b>	0	0	0	0	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	459	135	594	0	1333	8:00:00	0	714	25	739	0
9:00:00	0	509	145	654	0	1673	9:00:00	0	975	44	1019	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	965	123	1088	0	1813	17:00:00	0	706	19	725	0
18:00:00	0	996	134	1130	0	1969	18:00:00	0	809	30	839	0
<b>Totals:</b>	0	2929	537	3466	0	6788	<b>W Totals:</b>	0	3204	118	3322	0
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00		17:00	18:00	0:00	0:00			
Crossing Values:	0	30	26	0		124	146	0	0			









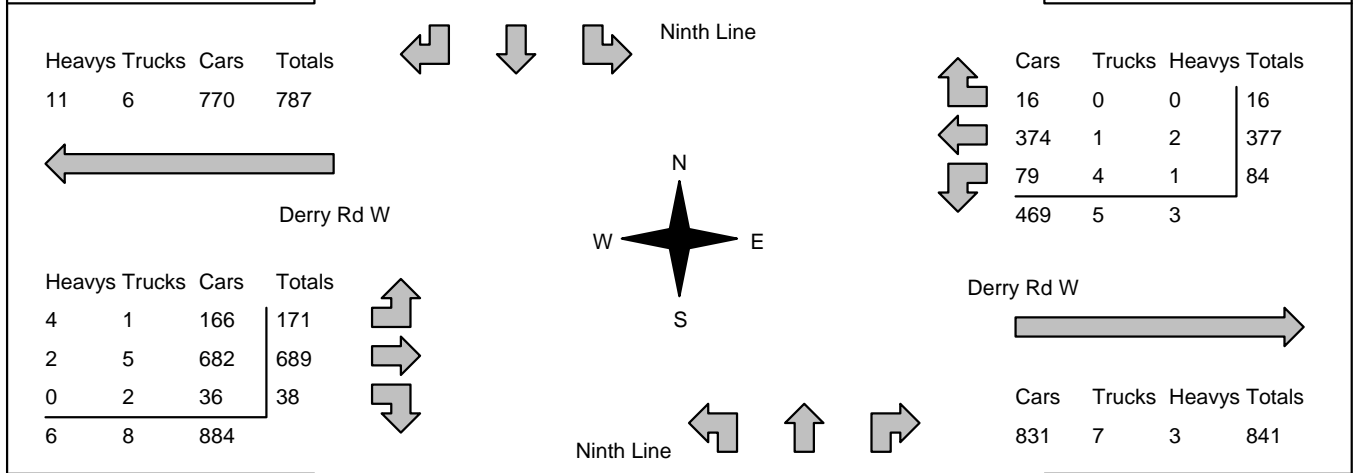
# Accu-Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 9:00:00	<b>One Hour Peak</b> <b>From:</b> 8:00:00 <b>To:</b> 9:00:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400008 <b>Intersection:</b> Derry Rd W & Ninth Line <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Derry Rd W runs W/E
--------------------------------------	----------------------------------------

North Leg Total: 992 North Entering: 593 North Peds: 0 Peds Cross: $\bowtie$	<table style="margin: auto;"> <tr><td>Heavys</td><td>5</td><td>1</td><td>0</td><td>6</td></tr> <tr><td>Trucks</td><td>5</td><td>5</td><td>0</td><td>10</td></tr> <tr><td>Cars</td><td>291</td><td>264</td><td>22</td><td>577</td></tr> <tr><td>Totals</td><td>301</td><td>270</td><td>22</td><td></td></tr> </table>	Heavys	5	1	0	6	Trucks	5	5	0	10	Cars	291	264	22	577	Totals	301	270	22		<table style="margin: auto;"> <tr><td>Heavys</td><td>6</td></tr> <tr><td>Trucks</td><td>6</td></tr> <tr><td>Cars</td><td>387</td></tr> <tr><td>Totals</td><td>399</td></tr> </table>	Heavys	6	Trucks	6	Cars	387	Totals	399	East Leg Total: 1318 East Entering: 477 East Peds: 0 Peds Cross: $\bowtie$
Heavys	5	1	0	6																											
Trucks	5	5	0	10																											
Cars	291	264	22	577																											
Totals	301	270	22																												
Heavys	6																														
Trucks	6																														
Cars	387																														
Totals	399																														



Peds Cross: $\bowtie$ West Peds: 0 West Entering: 898 West Leg Total: 1685	<table style="margin: auto;"> <tr><td>Cars</td><td>379</td></tr> <tr><td>Trucks</td><td>11</td></tr> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Totals</td><td>392</td></tr> </table>	Cars	379	Trucks	11	Heavys	2	Totals	392	<table style="margin: auto;"> <tr><td>Cars</td><td>105</td><td>205</td><td>127</td><td>437</td></tr> <tr><td>Trucks</td><td>0</td><td>5</td><td>2</td><td>7</td></tr> <tr><td>Heavys</td><td>4</td><td>2</td><td>1</td><td>7</td></tr> <tr><td>Totals</td><td>109</td><td>212</td><td>130</td><td></td></tr> </table>	Cars	105	205	127	437	Trucks	0	5	2	7	Heavys	4	2	1	7	Totals	109	212	130		Peds Cross: $\bowtie$ South Peds: 0 South Entering: 451 South Leg Total: 843
Cars	379																														
Trucks	11																														
Heavys	2																														
Totals	392																														
Cars	105	205	127	437																											
Trucks	0	5	2	7																											
Heavys	4	2	1	7																											
Totals	109	212	130																												


**Comments**

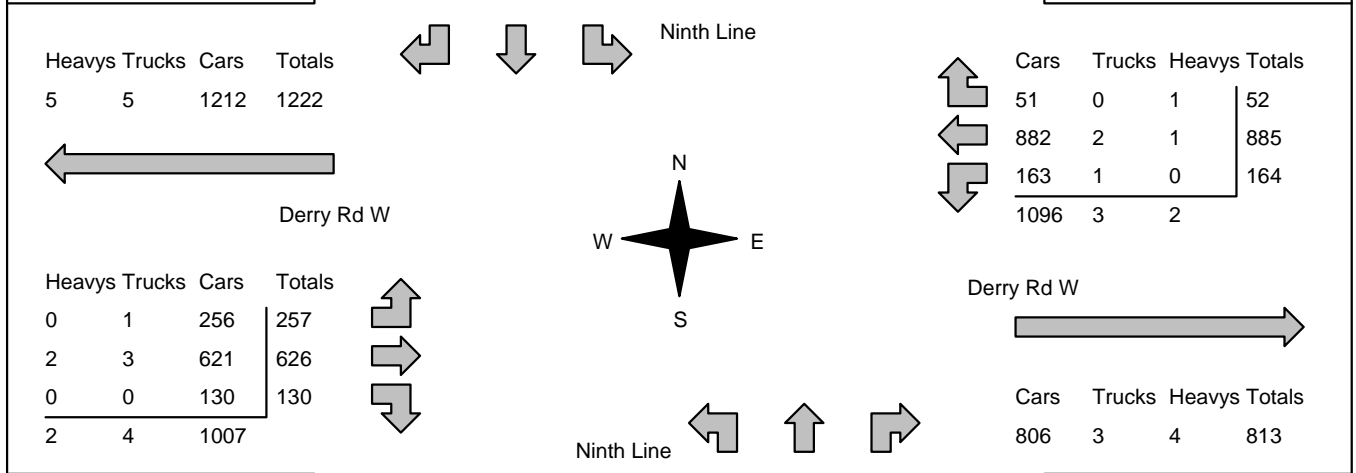
# Accu-Traffic Inc.


<b>Afternoon Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 16:00:00 <b>To:</b> 18:00:00	<b>One Hour Peak</b> <b>From:</b> 16:45:00 <b>To:</b> 17:45:00
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<b>Municipality:</b> Mississauga <b>Site #:</b> 2512400008 <b>Intersection:</b> Derry Rd W & Ninth Line <b>TFR File #:</b> 1 <b>Count date:</b> 6-Aug-25	<b>Weather conditions:</b>  <b>Person counted:</b> <b>Person prepared:</b> <b>Person checked:</b>
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<b>** Signalized Intersection **</b>	<b>Major Road:</b> Derry Rd W runs W/E
--------------------------------------	----------------------------------------

North Leg Total: 1368 North Entering: 625 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>3</td><td>0</td><td>0</td><td>3</td></tr> <tr><td>Trucks</td><td>1</td><td>3</td><td>0</td><td>4</td></tr> <tr><td>Cars</td><td>253</td><td>322</td><td>43</td><td>618</td></tr> <tr><td>Totals</td><td>257</td><td>325</td><td>43</td><td></td></tr> </table>	Heavys	3	0	0	3	Trucks	1	3	0	4	Cars	253	322	43	618	Totals	257	325	43			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>3</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Cars</td><td>739</td></tr> <tr><td>Totals</td><td>743</td></tr> </table>	Heavys	3	Trucks	1	Cars	739	Totals	743	East Leg Total: 1914 East Entering: 1101 East Peds: 1 Peds Cross: ☒
Heavys	3	0	0	3																												
Trucks	1	3	0	4																												
Cars	253	322	43	618																												
Totals	257	325	43																													
Heavys	3																															
Trucks	1																															
Cars	739																															
Totals	743																															



Peds Cross: ☒ West Peds: 0 West Entering: 1013 West Leg Total: 2235	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>615</td></tr> <tr><td>Trucks</td><td>4</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>619</td></tr> </table>	Cars	615	Trucks	4	Heavys	0	Totals	619		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>77</td><td>432</td><td>142</td><td>651</td></tr> <tr><td>Trucks</td><td>2</td><td>0</td><td>0</td><td>2</td></tr> <tr><td>Heavys</td><td>1</td><td>2</td><td>2</td><td>5</td></tr> <tr><td>Totals</td><td>80</td><td>434</td><td>144</td><td></td></tr> </table>	Cars	77	432	142	651	Trucks	2	0	0	2	Heavys	1	2	2	5	Totals	80	434	144		Peds Cross: ☒ South Peds: 1 South Entering: 658 South Leg Total: 1277
Cars	615																															
Trucks	4																															
Heavys	0																															
Totals	619																															
Cars	77	432	142	651																												
Trucks	2	0	0	2																												
Heavys	1	2	2	5																												
Totals	80	434	144																													

**Comments**

# Accu-Traffic Inc.

## Total Count Diagram

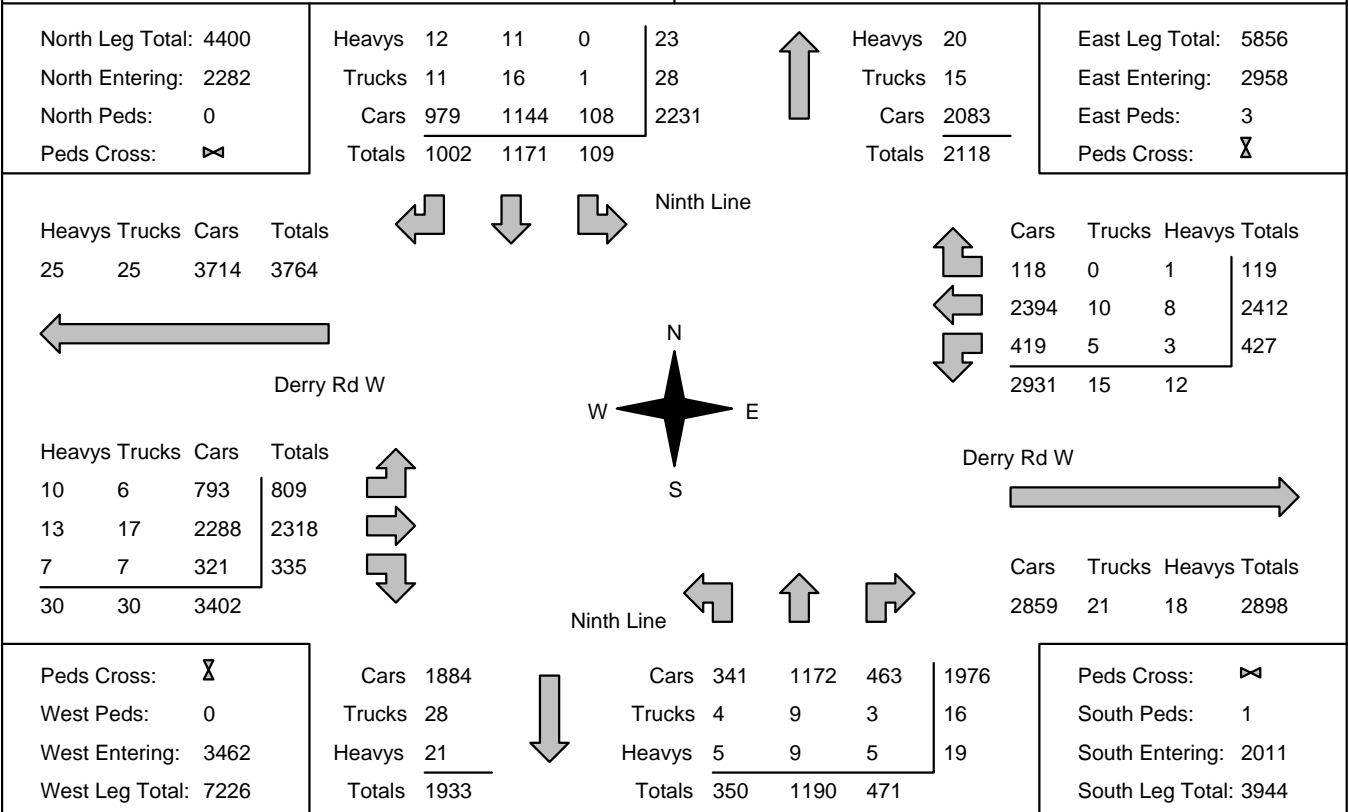
**Municipality:** Mississauga  
**Site #:** 2512400008  
**Intersection:** Derry Rd W & Ninth Line  
**TFR File #:** 1  
**Count date:** 6-Aug-25

**Weather conditions:**

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

**\*\* Signalized Intersection \*\***

**Major Road:** Derry Rd W runs W/E



### Comments



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

# Accu-Traffic Inc.

## Traffic Count Summary

Intersection: Derry Rd W & Ninth Line      Count Date: 6-Aug-25      Municipality: Mississauga

<b>North Approach Totals</b>						North/South Total Approaches	<b>South Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	13	250	242	505	0	822	8:00:00	86	164	67	317	0
9:00:00	22	270	301	593	0	1044	9:00:00	109	212	130	451	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	38	313	215	566	0	1159	17:00:00	80	381	132	593	0
18:00:00	36	338	244	618	0	1268	18:00:00	75	433	142	650	1
<b>Totals:</b>	109	1171	1002	2282	0	4293	<b>S Totals:</b>	350	1190	471	2011	1
<b>East Approach Totals</b>						East/West Total Approaches	<b>West Approach Totals</b>					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	63	395	13	471	2	1130	8:00:00	131	483	45	659	0
9:00:00	84	377	16	477	0	1375	9:00:00	171	689	38	898	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	114	809	37	960	0	1812	17:00:00	249	486	117	852	0
18:00:00	166	831	53	1050	1	2103	18:00:00	258	660	135	1053	0
<b>Totals:</b>	427	2412	119	2958	3	6420	<b>W Totals:</b>	809	2318	335	3462	0
<b>Calculated Values for Traffic Crossing Major Street</b>												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	351	401	0			499	545	0	0		











# **Appendix D:** **Signal Timing Plan**



MISSISSAUGA

File: CA.13.SIG  
Signal Timing Request  
RT.07. 5401  
RT.07. 5402  
RT.07. 5403  
RT.07. 5409  
RT.07. 5512

August 14, 2025

To Baharak Hosseini:

Re: Traffic Signal Timing

**WCB N @ Highway 401/ Off-Ramp- North Terminal**  
**WCB N @ Highway 401/ Off-Ramp- South Terminal**  
**WCB N @ Argentia Road**  
**TENTH LINE N @ Argentia Road**  
**NINTH LINE N @ Argentia**

The side street phases (4,8) are actuated, unless noted in the timing plan, this means a vehicle or pedestrian must be present on the side street before the side street is given a green indication. Vehicle presence on the side street would result in a possible green time of between the minimum and maximum time noted, depending on demand. Also phases 1 and 5 are also actuated. Pedestrian “Walk” and flashing “Don’t Walk” time on the side street, as noted, would be used in the event that the pedestrian push button is activated. During the side street pedestrian indications, the side street vehicle green is concurrently displayed. Should there be no demand on the actuated phase, the signals would result in a green indication on the major street (2,6).

Note: All times recorded in seconds, based on full demand.

The time of day plan is used for system control operation. In the event that the coordination pattern has a cycle length, offset and split value identified, the cycle length, split and offset values, as noted, would be used. However, when the time of day plan is programmed using ‘Action’ 8, the mode is ‘Free’, meaning no cycle length, split and offset values are given and the intersection operates using the phase timings provided in the report.

The phases for each intersection are included in the “Phasing Info” tab of the attached spreadsheet. If the Leading Pedestrian Interval (LPI) is programmed at the intersection for phase 2 and/or 6, the pedestrian ‘Walk’ indication will be displayed 5 seconds in advance

To Baharak Hosseini  
Re: Traffic Signal Timing  
August 14, 2025

2

of the green signal indication. However, in order for the Leading Pedestrian Interval to be displayed 5 seconds in advance of the green signal indication for phase 4 or 8, the pedestrian push button must be pressed, unless noted in the timing plan. Should an LPI be programmed at the intersection, it will be noted in the “Phasing Info” tab on the attached spreadsheet.

Should you require further information, please contact Amir Koda, at (905) 615-3200 ext. 3468.

Thank you,

Amir Koda  
ITS Technologist  
Traffic Systems and ITS  
Transportation and Works Department  
City of Mississauga  
(905) 615-3200 ext. 3468  
amir.koda@mississauga.ca

<b>Location</b>	<b>WINSTON CHURCHILL BOULEVARD N @ Highway 401/ Off-</b>
<b>Phase 1</b>	
<b>Phase 2</b>	WCB - SB
<b>Phase 3</b>	EBL/EBR Split Phase
<b>Phase 4</b>	401 N. Term (WB)
<b>Phase 5</b>	
<b>Phase 6</b>	WCB - NB
<b>Phase 7</b>	
<b>Phase 8</b>	Computer Phase



<b>Location</b>	<b>Winston Churchill Boulevard @ Highway 401_Off-Ramp- South Terminal</b>
<b>Phase 1</b>	
<b>Phase 2</b>	Winston Churchill Boulevard (N/S)
<b>Phase 3</b>	
<b>Phase 4</b>	Highway 401/ Off-Ramp- South Terminal (EB)



Location	WINSTON CHURCHILL BOULEVARD N @ Argentia Road	LPI	Bike Phase
Phase 1	WCB - NBL Protected + EBRT		
Phase 2	WCB - SB	5 Sec	
Phase 3	Argentia Road - EBL Protected + SBRT		
Phase 4	Argentia Road - WB	5 Sec	✓
Phase 5	WCB - SBL Protected + WBRT		
Phase 6	WCB - NB	5 Sec	✓
Phase 7	Argentia Road - WBL		
Phase 8	Argentia Road - EB	5 Sec	✓



Location	TENTH LINE N @ Argentia Road	LPI	Bike Phase
Phase 1	WBLT - Argentia Rd		
Phase 2	EB - Argentia Rd	5 Sec	✓
Phase 3			
Phase 4	NB - Tenth Line	5 Sec	
Phase 5			
Phase 6	WB - Argentia Rd	5 Sec	✓
Phase 7	NBLT - Tenth Line		
Phase 8	SB - Tenth Line	5 Sec	



<b>Location</b>	<b>NINTH LINE N @ Argentia Road</b>	<b>LPI</b>
<b>Phase 1</b>		
<b>Phase 2</b>	Ninth Line - SB	<b>5 Sec</b>
<b>Phase 3</b>		
<b>Phase 4</b>	Argentia Road - WB	<b>5 Sec</b>
<b>Phase 5</b>		
<b>Phase 6</b>	Ninth Line - NB	<b>5 Sec</b>
<b>Phase 7</b>		
<b>Phase 8</b>	Computer Phase	<b>5 Sec</b>



## REGIONAL MUNICIPALITY OF PEEL

### Traffic Signal Timing Parameters

Database Date	July 30, 2025		Prepared Date	July 30, 2025
Database Rev	iNet		Completed By	A.P
Timing Card / Field rev	N/A		Checked By	N.M

**Location** **Derry Road E. @ Ninth Line Road West**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
			1	Derry Road E. - WB P.P. LT			7.0	0.0	0.0
2	Derry Road E. - EB	10.0	10.0	26.0	4.0	2.5	62.0	48.0	68.0
3	Not in Use	-	-	-	-	-	-	-	-
4	Ninth Line - NB	10.0	10.0	24.0	4.0	2.5	85.0	49.0	77.0
5	Derry Road E. - EB P.P. LT	7.0	0.0	0.0	3.0	0.0	13.0	13.0	16.0
6	Derry Road E. - WB	10.0	10.0	26.0	4.0	2.5	62.0	48.0	67.0
7	Ninth Line - NB P.P. LT	7.0	0.0	0.0	3.0	0.0	18.0	10.0	16.0
8	Ninth Line - SB	10.0	10.0	24.0	4.0	2.5	67.0	39.0	61.0

**System Control**

Yes

**Semi-Actuated Mode**

Yes

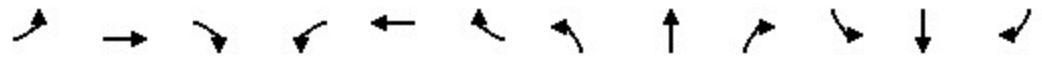
TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	160	115
09:30 - 15:00 19:30 - 00:00	OFF	110	43
15:00 - 19:30	PM	160	154



# Appendix E: Synchro Output Reports

# HCM 6th Signalized Intersection Summary

## 1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↶	↷	↶	↶			↶	↷
Traffic Volume (veh/h)	0	0	0	223	2	470	2	931	199	0	1219	386
Future Volume (veh/h)	0	0	0	223	2	470	2	931	199	0	1219	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	236	0	495	2	980	209	0	1283	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	741	0	592	198	1800	383	0	3076	899
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	281	2674	569	0	4720	1335
Grp Volume(v), veh/h		0.0		236	0	495	2	597	592	0	1283	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	281	1630	1613	0	1523	1335
Q Serve(g_s), s				9.8	0.0	29.6	0.5	30.2	30.3	0.0	20.4	22.9
Cycle Q Clear(g_c), s				9.8	0.0	29.6	20.9	30.2	30.3	0.0	20.4	22.9
Prop In Lane				1.00		1.00	1.00		0.35	0.00		1.00
Lane Grp Cap(c), veh/h				741	0	592	198	1097	1086	0	3076	899
V/C Ratio(X)				0.32	0.00	0.84	0.01	0.54	0.55	0.00	0.42	0.45
Avail Cap(c_a), veh/h				1096	0	875	198	1097	1086	0	3076	899
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				50.9	0.0	58.5	16.6	13.5	13.5	0.0	11.9	12.3
Incr Delay (d2), s/veh				0.2	0.0	4.7	0.1	1.9	2.0	0.0	0.4	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.9	0.0	7.4	0.0	3.6	3.6	0.0	2.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.1	0.0	63.2	16.7	15.4	15.5	0.0	12.3	13.9
LnGrp LOS				D		E	B	B	B		B	B
Approach Vol, veh/h					731			1191			1689	
Approach Delay, s/veh					59.3			15.4			12.7	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.2		44.8		115.2						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		24.9		31.6		32.3						
Green Ext Time (p_c), s		19.0		5.4		25.2						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				23.0								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Existing AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔↔	↔		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	478	211	0	659	716	730
Future Volume (veh/h)	478	211	0	659	716	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	0	1758	1702	1646
Adj Flow Rate, veh/h	503	222	0	694	754	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	0	3	7	11
Cap, veh/h	632	295	0	3367	2173	1012
Arrive On Green	0.20	0.20	0.00	0.70	0.70	0.70
Sat Flow, veh/h	3188	1490	0	5115	3250	1442
Grp Volume(v), veh/h	503	222	0	694	754	768
Grp Sat Flow(s),veh/h/ln	1594	1490	0	1600	1549	1442
Q Serve(g_s), s	24.0	22.5	0.0	8.1	15.4	54.4
Cycle Q Clear(g_c), s	24.0	22.5	0.0	8.1	15.4	54.4
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	632	295	0	3367	2173	1012
V/C Ratio(X)	0.80	0.75	0.00	0.21	0.35	0.76
Avail Cap(c_a), veh/h	1445	675	0	3367	2173	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.84	1.00	1.00
Uniform Delay (d), s/veh	61.0	60.4	0.0	8.3	9.4	15.2
Incr Delay (d2), s/veh	2.3	3.8	0.0	0.1	0.4	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	6.9	0.0	0.6	1.1	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.4	64.3	0.0	8.4	9.9	20.6
LnGrp LOS	E	E		A	A	C
Approach Vol, veh/h	725			694	1522	
Approach Delay, s/veh	63.7			8.4	15.3	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.8		40.2		119.8
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		71.5		72.5		71.5
Max Q Clear Time (g_c+I1), s		10.1		26.0		56.4
Green Ext Time (p_c), s		16.8		5.7		13.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			25.6			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	320	175	57	74	73	135	75	955	95	272	439	152
Future Volume (veh/h)	320	175	57	74	73	135	75	955	95	272	439	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	337	184	60	78	77	142	79	1005	0	286	462	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	316	1021	508	368	801	471	147	2201		321	2365	851
Arrive On Green	0.09	0.28	0.28	0.05	0.23	0.23	0.04	0.43	0.00	0.19	0.96	0.96
Sat Flow, veh/h	3374	3582	1547	1725	3554	1463	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	337	184	60	78	77	142	79	1005	0	286	462	160
Grp Sat Flow(s),veh/h/ln	1687	1791	1547	1725	1777	1463	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	15.0	6.2	4.3	5.5	2.7	11.7	3.6	22.3	0.0	13.0	0.7	0.6
Cycle Q Clear(g_c), s	15.0	6.2	4.3	5.5	2.7	11.7	3.6	22.3	0.0	13.0	0.7	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	1021	508	368	801	471	147	2201		321	2365	851
V/C Ratio(X)	1.07	0.18	0.12	0.21	0.10	0.30	0.54	0.46		0.89	0.20	0.19
Avail Cap(c_a), veh/h	316	1242	604	465	1222	645	324	2201		321	2365	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	72.5	43.1	37.6	44.4	49.1	41.1	75.1	32.3	0.0	64.2	1.5	1.0
Incr Delay (d2), s/veh	69.0	0.1	0.1	0.3	0.1	0.4	3.1	0.7	0.0	22.0	0.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	2.0	1.2	1.7	0.9	3.0	1.3	6.0	0.0	5.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	141.5	43.2	37.7	44.7	49.1	41.4	78.1	32.9	0.0	86.2	1.6	1.4
LnGrp LOS	F	D	D	D	D	D	E	C		F	A	A
Approach Vol, veh/h		581			297			1084			908	
Approach Delay, s/veh		99.7			44.3			36.2			28.2	
Approach LOS		F			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	84.7	20.0	43.5	20.0	76.5	10.4	53.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	15.0	55.0	15.0	50.0	16.5	55.5				
Max Q Clear Time (g_c+15), s	15.6	2.7	17.0	13.7	15.0	24.3	7.5	8.2				
Green Ext Time (p_c), s	0.2	10.9	0.0	2.2	0.0	16.6	0.2	3.7				

### Intersection Summary

HCM 6th Ctrl Delay, s/veh	47.4
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 4: Tenth Line W & Argentia Rd

Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	263	36	69	122	10	73	1	214	2	1	1
Future Volume (veh/h)	3	263	36	69	122	10	73	1	214	2	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	3	274	38	72	127	10	76	1	223	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	654	811	706	578	1010	887	438	2	416	196	127	127
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.07	0.26	0.26	0.15	0.15	0.15
Sat Flow, veh/h	1266	1841	1601	1739	1826	1603	1810	7	1600	715	870	870
Grp Volume(v), veh/h	3	274	38	72	127	10	76	0	224	2	0	2
Grp Sat Flow(s),veh/h/ln	1266	1841	1601	1739	1826	1603	1810	0	1608	715	0	1739
Q Serve(g_s), s	0.1	7.3	1.0	1.5	2.5	0.2	2.5	0.0	9.0	0.2	0.0	0.1
Cycle Q Clear(g_c), s	0.1	7.3	1.0	1.5	2.5	0.2	2.5	0.0	9.0	0.6	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	654	811	706	578	1010	887	438	0	418	196	0	254
V/C Ratio(X)	0.00	0.34	0.05	0.12	0.13	0.01	0.17	0.00	0.54	0.01	0.00	0.01
Avail Cap(c_a), veh/h	654	811	706	649	1010	887	509	0	954	406	0	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	13.8	12.0	8.9	8.0	7.5	22.2	0.0	23.9	27.8	0.0	27.4
Incr Delay (d2), s/veh	0.0	1.1	0.1	0.1	0.3	0.0	0.2	0.0	1.1	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	1.4	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.8	14.9	12.2	9.0	8.3	7.6	22.4	0.0	24.9	27.8	0.0	27.4
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		315		209		300					4	
Approach Delay, s/veh		14.6		8.5		24.3					27.6	
Approach LOS		B		A		C					C	
Timer - Assigned Phs	1	2	4	6	7	8						
Phs Duration (G+Y+Rc), s	8.4	40.6	26.0	49.0	8.6	17.5						
Change Period (Y+Rc), s	3.0	7.5	6.5	7.5	3.0	6.5						
Max Green Setting (Gmax), s	5	30.0	44.5	41.5	8.5	33.0						
Max Q Clear Time (g_c+1/3), s	13.5	9.3	11.0	4.5	4.5	2.6						
Green Ext Time (p_c), s	0.1	4.1	4.2	2.0	0.1	0.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			16.6									
HCM 6th LOS			B									

# HCM 6th Signalized Intersection Summary

## 5: Ninth Line & Argentia Rd

Existing AM



Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	43	29	0	262	204	92	475	0	0	0
Future Volume (veh/h)	43	29	0	262	204	92	475	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1796	1796	0	1870	1870	1870	1856	0		
Adj Flow Rate, veh/h	46	31	0	282	219	99	511	0		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	7	7	0	2	2	2	3	0		
Cap, veh/h	397	353	0	1074	910	559	1065	0		
Arrive On Green	0.23	0.23	0.00	0.57	0.57	0.57	0.57	0.00		
Sat Flow, veh/h	1711	1522	0	1870	1585	897	1856	0		
Grp Volume(v), veh/h	46	31	0	282	219	99	511	0		
Grp Sat Flow(s),veh/h/ln	1711	1522	0	1870	1585	897	1856	0		
Q Serve(g_s), s	1.4	1.0	0.0	4.9	4.4	4.0	10.4	0.0		
Cycle Q Clear(g_c), s	1.4	1.0	0.0	4.9	4.4	8.9	10.4	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	1.00		0.00		
Lane Grp Cap(c), veh/h	397	353	0	1074	910	559	1065	0		
V/C Ratio(X)	0.12	0.09	0.00	0.26	0.24	0.18	0.48	0.00		
Avail Cap(c_a), veh/h	637	567	0	1074	910	559	1065	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	19.5	19.4	0.0	6.9	6.8	9.1	8.1	0.0		
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.6	0.6	0.7	1.5	0.0		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/lr	0.1	0.1	0.0	0.2	0.2	0.1	0.5	0.0		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	19.7	19.5	0.0	7.5	7.4	9.8	9.6	0.0		
LnGrp LOS	B	B		A	A	A	A			
Approach Vol, veh/h	77			501			610			
Approach Delay, s/veh	19.6			7.5			9.7			
Approach LOS	B			A			A			
Timer - Assigned Phs		2		4			6			
Phs Duration (G+Y+Rc), s		43.5		21.0			43.5			
Change Period (Y+Rc), s		6.5		6.0			6.5			
Max Green Setting (Gmax), s		37.0		24.0			37.0			
Max Q Clear Time (g_c+I1), s		12.4		3.4			6.9			
Green Ext Time (p_c), s		9.6		0.3			6.1			
<b>Intersection Summary</b>										
HCM 6th Ctrl Delay, s/veh				9.4						
HCM 6th LOS				A						

HCM 6th Signalized Intersection Summary  
6: Ninth Line & Derry Rd E/Derry Rd W

Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	689	38	84	377	16	105	205	127	22	270	301
Future Volume (veh/h)	171	689	38	84	377	16	105	205	127	22	270	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	176	710	39	87	389	16	108	211	131	23	278	310
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	598	1839	101	477	1821	75	237	590	504	290	451	380
Arrive On Green	0.12	1.00	1.00	0.04	0.52	0.52	0.06	0.32	0.32	0.24	0.24	0.24
Sat Flow, veh/h	1767	3425	188	1725	3506	144	1753	1841	1572	1055	1856	1560
Grp Volume(v), veh/h	176	368	381	87	198	207	108	211	131	23	278	310
Grp Sat Flow(s),veh/h/ln	1767	1777	1837	1725	1791	1859	1753	1841	1572	1055	1856	1560
Q Serve(g_s), s	7.6	0.0	0.0	3.7	9.6	9.6	7.2	14.1	9.9	2.7	21.3	30.0
Cycle Q Clear(g_c), s	7.6	0.0	0.0	3.7	9.6	9.6	7.2	14.1	9.9	4.5	21.3	30.0
Prop In Lane	1.00		0.10	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	598	954	986	477	930	966	237	590	504	290	451	380
V/C Ratio(X)	0.29	0.39	0.39	0.18	0.21	0.21	0.46	0.36	0.26	0.08	0.62	0.82
Avail Cap(c_a), veh/h	602	954	986	511	930	966	299	909	776	432	702	590
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	0.0	16.1	20.8	20.8	42.1	41.7	40.3	48.2	53.9	57.2
Incr Delay (d2), s/veh	0.2	1.1	1.1	0.2	0.5	0.5	1.4	0.4	0.3	0.1	1.4	5.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.3	0.3	0.8	2.4	2.5	2.3	4.6	2.7	0.5	7.5	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.7	1.1	1.1	16.3	21.3	21.3	43.4	42.1	40.6	48.3	55.3	62.3
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		925			492			450			611	
Approach Delay, s/veh		3.7			20.4			42.0			58.6	
Approach LOS		A			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	92.4		57.7	12.6	89.6	12.3	45.4				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+1/3), s	15.0	2.0		16.1	9.6	11.6	9.2	32.0				
Green Ext Time (p_c), s	0.1	17.2		4.7	0.0	7.6	0.2	6.9				

Intersection Summary

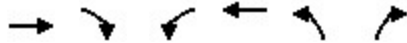
HCM 6th Ctrl Delay, s/veh	27.5
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

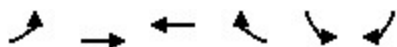
Existing AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	801	200	0	644	9	109
Future Volume (veh/h)	801	200	0	644	9	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	0	1758	1477	1758
Adj Flow Rate, veh/h	826	206	0	664	9	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	0	3	23	3
Cap, veh/h	1468	366	0	1837	870	475
Arrive On Green	0.55	0.55	0.00	0.55	0.32	0.32
Sat Flow, veh/h	2758	666	0	3516	2729	1490
Grp Volume(v), veh/h	521	511	0	664	9	112
Grp Sat Flow(s),veh/h/ln	1683	1652	0	1670	1365	1490
Q Serve(g_s), s	16.1	16.1	0.0	8.9	0.2	4.4
Cycle Q Clear(g_c), s	16.1	16.1	0.0	8.9	0.2	4.4
Prop In Lane		0.40	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	926	909	0	1837	870	475
V/C Ratio(X)	0.56	0.56	0.00	0.36	0.01	0.24
Avail Cap(c_a), veh/h	926	909	0	1837	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.94	1.00	1.00
Uniform Delay (d), s/veh	11.7	11.7	0.0	10.1	18.6	20.1
Incr Delay (d2), s/veh	2.5	2.5	0.0	0.5	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	0.0	0.1	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.2	14.2	0.0	10.6	18.6	21.2
LnGrp LOS	B	B		B	B	C
Approach Vol, veh/h	1032			664	121	
Approach Delay, s/veh	14.2			10.6	21.0	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+I1), s		6.4		18.1		10.9
Green Ext Time (p_c), s		0.6		17.2		13.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			13.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
8: Derry Rd E & Hwy 407 SB Ramp Terminal

Existing AM



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	975	509	145	26	52
Future Volume (veh/h)	0	975	509	145	26	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1026	536	153	27	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1556	442	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2655	730	3118	1335
Grp Volume(v), veh/h	0	1026	348	341	27	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1627	1559	1335
Q Serve(g_s), s	0.0	13.8	8.3	8.4	0.5	2.5
Cycle Q Clear(g_c), s	0.0	13.8	8.3	8.4	0.5	2.5
Prop In Lane	0.00			0.45	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	986	877	375
V/C Ratio(X)	0.00	0.50	0.34	0.35	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	986	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	8.9	7.8	7.8	20.8	21.6
Incr Delay (d2), s/veh	0.0	0.9	0.9	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	9.8	8.8	8.8	20.9	22.4
LnGrp LOS		A	A	A	C	C
Approach Vol, veh/h		1026	689		82	
Approach Delay, s/veh		9.8	8.8		21.9	
Approach LOS		A	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				15.8	4.5	10.4
Green Ext Time (p_c), s				20.5	0.3	13.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			10.0			
HCM 6th LOS			A			



HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal Existing PM

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HCM 6th Edition methodology supports speed limit in the range of 40.2335 and 88.5137 km/h

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HCM 6th Edition methodology does not support Non-NEMA phasing.

HCM 6th Signalized Intersection Summary  
 3: Winston Churchill Blvd & Argentia Rd

Existing PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	328	240	199	268	424	284	220	613	94	229	1003	346
Future Volume (veh/h)	328	240	199	268	424	284	220	613	94	229	1003	346
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870	1856
Adj Flow Rate, veh/h	331	242	201	271	428	287	222	619	0	231	1013	349
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	2	1	1	2	3	1	5	2	4	2	3
Cap, veh/h	319	1014	560	490	1003	551	269	1932		273	1994	759
Arrive On Green	0.09	0.29	0.29	0.10	0.28	0.28	0.08	0.39	0.00	0.16	0.78	0.78
Sat Flow, veh/h	3401	3554	1530	1795	3554	1506	3483	4985	1585	3401	5106	1565
Grp Volume(v), veh/h	331	242	201	271	428	287	222	619	0	231	1013	349
Grp Sat Flow(s),veh/h/ln1700	1777	1530	1795	1777	1506	1742	1662	1585	1700	1702	1565	
Q Serve(g_s), s	15.0	8.4	15.4	16.5	15.7	24.0	10.0	13.9	0.0	10.6	11.5	11.9
Cycle Q Clear(g_c), s	15.0	8.4	15.4	16.5	15.7	24.0	10.0	13.9	0.0	10.6	11.5	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	1014	560	490	1003	551	269	1932		273	1994	759
V/C Ratio(X)	1.04	0.24	0.36	0.55	0.43	0.52	0.82	0.32		0.85	0.51	0.46
Avail Cap(c_a), veh/h	319	1233	654	490	1222	644	327	1932		319	1994	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	72.5	43.8	37.4	36.2	46.9	40.2	72.7	34.3	0.0	66.2	11.9	8.8
Incr Delay (d2), s/veh	60.6	0.1	0.4	1.4	0.3	0.8	13.3	0.4	0.0	11.8	0.6	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln7.8		2.7	4.0	5.3	5.1	6.2	4.0	3.8	0.0	3.8	2.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	133.1	44.0	37.8	37.6	47.2	40.9	86.1	34.7	0.0	78.0	12.6	10.1
LnGrp LOS	F	D	D	D	D	D	F	C		E	B	B
Approach Vol, veh/h		774			986			841			1593	
Approach Delay, s/veh		80.5			42.7			48.3			21.5	
Approach LOS		F			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	70.0	20.0	52.6	17.8	69.5	19.5	53.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	15.0	55.0	15.0	50.0	16.5	55.5				
Max Q Clear Time (g_c+112), s	11.9	13.9	17.0	26.0	12.6	15.9	18.5	17.4				
Green Ext Time (p_c), s	0.3	23.8	0.0	9.6	0.3	12.1	0.0	5.8				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	42.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 4: Tenth Line W & Argentia Rd

Existing PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	250	96	451	383	5	61	0	281	2	2	2
Future Volume (veh/h)	1	250	96	451	383	5	61	0	281	2	2	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	418	1826	1870	1900	1856	1604	1900	1870	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	269	103	485	412	5	66	0	302	2	2	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	100	5	2	0	3	20	0	2	0	0	0	0
Cap, veh/h	174	699	597	570	982	711	476	0	459	226	161	161
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.00	0.29	0.19	0.19	0.19
Sat Flow, veh/h	215	1826	1560	1810	1856	1344	1810	0	1572	1087	865	865
Grp Volume(v), veh/h	1	269	103	485	412	5	66	0	302	2	0	4
Grp Sat Flow(s),veh/h/ln	215	1826	1560	1810	1856	1344	1810	0	1572	1087	0	1731
Q Serve(g_s), s	0.2	8.4	3.4	8.5	10.5	0.1	2.1	0.0	13.2	0.1	0.0	0.1
Cycle Q Clear(g_c), s	0.2	8.4	3.4	8.5	10.5	0.1	2.1	0.0	13.2	5.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	174	699	597	570	982	711	476	0	459	226	0	321
V/C Ratio(X)	0.01	0.38	0.17	0.85	0.42	0.01	0.14	0.00	0.66	0.01	0.00	0.01
Avail Cap(c_a), veh/h	174	699	597	570	982	711	549	0	892	482	0	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	17.5	16.0	18.2	11.2	8.7	21.2	0.0	24.3	30.2	0.0	26.1
Incr Delay (d2), s/veh	0.1	1.6	0.6	11.8	1.3	0.0	0.1	0.0	1.6	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	0.3	1.9	0.4	0.0	0.4	0.0	2.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	19.1	16.6	30.1	12.5	8.7	21.3	0.0	25.9	30.2	0.0	26.1
LnGrp LOS	B	B	B	C	B	A	C		C	C		C
Approach Vol, veh/h		373			902			368				6
Approach Delay, s/veh		18.4			21.9			25.1				27.4
Approach LOS		B			C			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	15.0	37.5		29.4		49.0	8.3	21.0				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	30.0	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+110), s	10.4	10.4		15.2		12.5	4.1	7.0				
Green Ext Time (p_c), s	0.0	4.3		5.7		7.3	0.1	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh												21.9
HCM 6th LOS												C

HCM 6th Signalized Intersection Summary  
5: Ninth Line & Argentia Rd

Existing PM



Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	250	198	0	611	126	73	453	0	0	0
Future Volume (veh/h)	250	198	0	611	126	73	453	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1885	1885	0	1885	1856	1811	1870	0		
Adj Flow Rate, veh/h	260	206	0	636	131	76	472	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	1	1	0	1	3	6	2	0		
Cap, veh/h	517	460	0	1004	837	303	996	0		
Arrive On Green	0.29	0.29	0.00	0.53	0.53	0.53	0.53	0.00		
Sat Flow, veh/h	1795	1598	0	1885	1572	679	1870	0		
Grp Volume(v), veh/h	260	206	0	636	131	76	472	0		
Grp Sat Flow(s),veh/h/ln	1795	1598	0	1885	1572	679	1870	0		
Q Serve(g_s), s	8.4	7.3	0.0	16.5	3.0	6.2	11.0	0.0		
Cycle Q Clear(g_c), s	8.4	7.3	0.0	16.5	3.0	22.7	11.0	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	1.00		0.00		
Lane Grp Cap(c), veh/h	517	460	0	1004	837	303	996	0		
V/C Ratio(X)	0.50	0.45	0.00	0.63	0.16	0.25	0.47	0.00		
Avail Cap(c_a), veh/h	620	552	0	1004	837	303	996	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	20.6	20.2	0.0	11.5	8.3	19.5	10.2	0.0		
Incr Delay (d2), s/veh	0.8	0.7	0.0	3.0	0.4	2.0	1.6	0.0		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.9	0.7	0.0	0.8	0.1	0.4	0.4	0.0		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	21.4	20.9	0.0	14.5	8.7	21.5	11.8	0.0		
LnGrp LOS	C	C		B	A	C	B			
Approach Vol, veh/h	466			767			548			
Approach Delay, s/veh	21.2			13.5			13.1			
Approach LOS	C			B			B			
Timer - Assigned Phs		2		4			6			
Phs Duration (G+Y+Rc), s		43.5		26.0			43.5			
Change Period (Y+Rc), s		6.5		6.0			6.5			
Max Green Setting (Gmax), s		37.0		24.0			37.0			
Max Q Clear Time (g_c+I1), s		24.7		10.4			18.5			
Green Ext Time (p_c), s		5.7		2.3			10.0			
<b>Intersection Summary</b>										
HCM 6th Ctrl Delay, s/veh				15.4						
HCM 6th LOS				B						

HCM 6th Signalized Intersection Summary  
6: Ninth Line & Derry Rd E/Derry Rd W

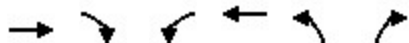
Existing PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	626	130	164	885	52	80	434	144	43	325	257
Future Volume (veh/h)	257	626	130	164	885	52	80	434	144	43	325	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1885	1885	1870	1841	1885	1870	1900	1885	1870
Adj Flow Rate, veh/h	273	666	138	174	941	55	85	462	153	46	346	273
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	1	1	2	4	1	2	0	1	2
Cap, veh/h	389	1565	324	428	1728	101	184	577	485	111	449	377
Arrive On Green	0.09	0.53	0.53	0.06	0.50	0.50	0.05	0.31	0.31	0.24	0.24	0.24
Sat Flow, veh/h	1795	2954	611	1795	3439	201	1753	1885	1583	820	1885	1583
Grp Volume(v), veh/h	273	404	400	174	490	506	85	462	153	46	346	273
Grp Sat Flow(s),veh/h/ln	1795	1791	1774	1795	1791	1849	1753	1885	1583	820	1885	1583
Q Serve(g_s), s	11.3	21.9	21.9	7.4	30.0	30.0	5.7	36.0	11.9	8.7	27.4	25.4
Cycle Q Clear(g_c), s	11.3	21.9	21.9	7.4	30.0	30.0	5.7	36.0	11.9	33.9	27.4	25.4
Prop In Lane	1.00		0.34	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	949	940	428	900	929	184	577	485	111	449	377
V/C Ratio(X)	0.70	0.43	0.43	0.41	0.54	0.54	0.46	0.80	0.32	0.41	0.77	0.72
Avail Cap(c_a), veh/h	567	949	940	655	900	929	432	866	727	121	471	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	22.8	22.9	17.9	27.3	27.3	44.2	51.0	42.6	71.6	56.9	56.1
Incr Delay (d2), s/veh	2.1	1.2	1.3	0.6	2.4	2.3	1.8	3.2	0.4	2.4	7.3	6.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.3	5.3	1.6	7.9	8.2	1.9	12.5	3.4	1.5	10.5	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.8	24.1	24.1	18.6	29.6	29.6	46.0	54.3	43.0	74.0	64.2	62.2
LnGrp LOS	C	C	C	B	C	C	D	D	D	E	E	E
Approach Vol, veh/h		1077			1170			700			665	
Approach Delay, s/veh		23.8			28.0			50.8			64.1	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	91.3		55.5	17.6	86.9	10.9	44.6				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+1), s	19.4	23.9		38.0	13.3	32.0	7.7	35.9				
Green Ext Time (p_c), s	0.8	9.7		10.0	1.3	6.3	0.3	2.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											37.8	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

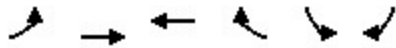
Existing PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	891	70	0	1159	40	145
Future Volume (veh/h)	891	70	0	1159	40	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1688	0	1786	1688	1772
Adj Flow Rate, veh/h	909	71	0	1183	41	148
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	8	0	1	8	2
Cap, veh/h	1488	116	0	1584	1039	501
Arrive On Green	0.47	0.47	0.00	0.47	0.33	0.33
Sat Flow, veh/h	3278	249	0	3572	3118	1502
Grp Volume(v), veh/h	484	496	0	1183	41	148
Grp Sat Flow(s),veh/h/ln	1697	1741	0	1697	1559	1502
Q Serve(g_s), s	12.8	12.8	0.0	17.1	0.5	4.4
Cycle Q Clear(g_c), s	12.8	12.8	0.0	17.1	0.5	4.4
Prop In Lane		0.14	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	813	0	1584	1039	501
V/C Ratio(X)	0.61	0.61	0.00	0.75	0.04	0.30
Avail Cap(c_a), veh/h	792	813	0	1584	1039	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.80	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.9	0.0	13.1	13.5	14.8
Incr Delay (d2), s/veh	3.5	3.4	0.0	2.6	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	0.0	0.6	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.4	15.3	0.0	15.7	13.6	16.3
LnGrp LOS	B	B		B	B	B
Approach Vol, veh/h	980			1183	189	
Approach Delay, s/veh	15.4			15.7	15.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		14.8		19.1
Green Ext Time (p_c), s		0.8		9.7		7.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			15.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Existing PM



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	811	1038	147	166	235
Future Volume (veh/h)	0	811	1038	147	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1772	1772	1786
Adj Flow Rate, veh/h	0	828	1059	150	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	2	2	1
Cap, veh/h	0	1711	1517	215	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3074	422	3274	1514
Grp Volume(v), veh/h	0	828	601	608	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1710	1637	1514
Q Serve(g_s), s	0.0	9.6	16.2	16.3	2.2	7.4
Cycle Q Clear(g_c), s	0.0	9.6	16.2	16.3	2.2	7.4
Prop In Lane	0.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	869	1119	517
V/C Ratio(X)	0.00	0.48	0.70	0.70	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	869	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.6	11.2	11.2	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.0	4.6	4.6	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	1.1	1.1	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.6	15.9	15.9	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		828	1209		409	
Approach Delay, s/veh		10.6	15.9		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				11.6	9.4	18.3
Green Ext Time (p_c), s				11.5	1.8	10.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.2			
HCM 6th LOS			B			



# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗	↘	↖	↗↗	↘	↗↗			↗↗↗	↘
Traffic Volume (veh/h)	0	0	0	235	4	470	2	1125	205	0	1476	386
Future Volume (veh/h)	0	0	0	235	4	470	2	1125	205	0	1476	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	250	0	495	2	1184	216	0	1554	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	743	0	593	154	1854	336	0	3073	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	215	2756	500	0	4720	1335
Grp Volume(v), veh/h		0.0		250	0	495	2	697	703	0	1554	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	215	1630	1626	0	1523	1335
Q Serve(g_s), s				10.4	0.0	29.6	0.7	39.2	39.9	0.0	27.0	22.9
Cycle Q Clear(g_c), s				10.4	0.0	29.6	27.7	39.2	39.9	0.0	27.0	22.9
Prop In Lane				1.00		1.00	1.00		0.31	0.00		1.00
Lane Grp Cap(c), veh/h				743	0	593	154	1096	1094	0	3073	898
V/C Ratio(X)				0.34	0.00	0.83	0.01	0.64	0.64	0.00	0.51	0.45
Avail Cap(c_a), veh/h				1096	0	875	154	1096	1094	0	3073	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	58.4	19.9	15.0	15.1	0.0	13.0	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	2.8	2.9	0.0	0.6	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	7.4	0.0	4.8	4.9	0.0	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.3	0.0	63.0	20.0	17.8	18.0	0.0	13.6	14.0
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					745			1402			1960	
Approach Delay, s/veh					59.1			17.9			13.7	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.1		44.9		115.1						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		29.0		31.6		41.9						
Green Ext Time (p_c), s		16.7		5.5		22.4						

## Intersection Summary

HCM 6th Ctrl Delay, s/veh	23.4
HCM 6th LOS	C

## Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	215	1	802	881	730
Future Volume (veh/h)	478	215	1	802	881	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	1772	1758	1702	1646
Adj Flow Rate, veh/h	503	226	1	844	927	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	2	3	7	11
Cap, veh/h	633	296	23	3273	2173	1012
Arrive On Green	0.20	0.20	0.70	0.70	0.70	0.70
Sat Flow, veh/h	3188	1490	1	4809	3250	1442
Grp Volume(v), veh/h	503	226	318	527	927	768
Grp Sat Flow(s),veh/h/ln	1594	1490	1755	1456	1549	1442
Q Serve(g_s), s	24.0	22.9	0.0	10.6	20.4	54.4
Cycle Q Clear(g_c), s	24.0	22.9	10.5	10.6	20.4	54.4
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	633	296	1253	2042	2173	1012
V/C Ratio(X)	0.79	0.76	0.25	0.26	0.43	0.76
Avail Cap(c_a), veh/h	1435	670	1253	2042	2173	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.0	60.6	8.7	8.7	10.2	15.2
Incr Delay (d2), s/veh	2.3	4.1	0.4	0.3	0.6	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	7.0	0.9	0.7	1.5	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.3	64.7	9.1	9.0	10.8	20.6
LnGrp LOS	E	E	A	A	B	C
Approach Vol, veh/h	729			845	1695	
Approach Delay, s/veh	63.8			9.0	15.2	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.7		40.3		119.7
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		72.0		72.0		72.0
Max Q Clear Time (g_c+I1), s		12.6		26.0		56.4
Green Ext Time (p_c), s		20.9		5.7		14.7

Intersection Summary

HCM 6th Ctrl Delay, s/veh	24.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	328	212	58	74	95	135	78	1153	95	272	531	173
Future Volume (veh/h)	328	212	58	74	95	135	78	1153	95	272	531	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	345	223	61	78	100	142	82	1214	0	286	559	182
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	397	1111	548	358	802	477	147	2059		332	2244	850
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.92	0.92
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	345	223	61	78	100	142	82	1214	0	286	559	182
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	16.1	7.3	4.2	5.5	3.6	11.6	3.7	29.8	0.0	12.9	2.0	1.7
Cycle Q Clear(g_c), s	16.1	7.3	4.2	5.5	3.6	11.6	3.7	29.8	0.0	12.9	2.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	1111	548	358	802	477	147	2059		332	2244	850
V/C Ratio(X)	0.87	0.20	0.11	0.22	0.12	0.30	0.56	0.59		0.86	0.25	0.21
Avail Cap(c_a), veh/h	464	1397	672	372	1044	576	173	2059		407	2244	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	69.4	40.6	34.9	44.5	49.3	40.6	75.1	37.4	0.0	63.4	3.8	2.3
Incr Delay (d2), s/veh	14.5	0.1	0.1	0.3	0.1	0.3	3.3	1.2	0.0	12.0	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	2.3	1.1	1.7	1.2	3.0	1.4	8.3	0.0	4.5	0.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.9	40.7	35.0	44.8	49.4	41.0	78.4	38.6	0.0	75.4	4.0	2.8
LnGrp LOS	F	D	C	D	D	D	E	D		E	A	A
Approach Vol, veh/h		629			320			1296			1027	
Approach Delay, s/veh		63.8			44.5			41.1			23.6	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	80.7	23.8	43.6	20.5	72.0	10.3	57.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	5.0	58.0	22.0	47.0	19.0	47.0	8.6	62.4				
Max Q Clear Time (g_c+1.5), s	5.0	4.0	18.1	13.6	14.9	31.8	7.5	9.3				
Green Ext Time (p_c), s	0.1	14.1	0.7	2.5	0.6	12.4	0.0	4.6				

### Intersection Summary























HCM 6th Ctrl Delay, s/veh	40.3
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
4: Tenth Line W & Argentia Rd

Future Background 2032 AM  
03/09/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	325	40	69	177	10	95	3	214	2	3	1
Future Volume (veh/h)	3	325	40	69	177	10	95	3	214	2	3	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	3	339	42	72	184	10	99	3	223	2	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	621	805	700	523	1002	880	447	6	422	199	198	66
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.08	0.27	0.27	0.15	0.15	0.15
Sat Flow, veh/h	1202	1841	1601	1739	1826	1603	1810	21	1588	713	1362	454
Grp Volume(v), veh/h	3	339	42	72	184	10	99	0	226	2	0	4
Grp Sat Flow(s),veh/h/ln	1202	1841	1601	1739	1826	1603	1810	0	1610	713	0	1816
Q Serve(g_s), s	0.1	9.6	1.1	1.5	3.8	0.2	3.3	0.0	9.1	0.2	0.0	0.1
Cycle Q Clear(g_c), s	0.1	9.6	1.1	1.5	3.8	0.2	3.3	0.0	9.1	0.2	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.25
Lane Grp Cap(c), veh/h	621	805	700	523	1002	880	447	0	428	199	0	263
V/C Ratio(X)	0.00	0.42	0.06	0.14	0.18	0.01	0.22	0.00	0.53	0.01	0.00	0.02
Avail Cap(c_a), veh/h	621	805	700	593	1002	880	503	0	948	407	0	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	14.7	12.3	9.5	8.5	7.7	22.4	0.0	23.7	27.7	0.0	27.7
Incr Delay (d2), s/veh	0.0	1.6	0.2	0.1	0.4	0.0	0.2	0.0	1.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.1	0.0	0.1	0.0	0.6	0.0	1.4	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.0	16.3	12.5	9.6	9.0	7.8	22.6	0.0	24.7	27.7	0.0	27.7
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		384			266			325				6
Approach Delay, s/veh		15.8			9.1			24.1				27.7
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.5	40.5		26.6		49.0	9.1	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	8.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	3.5	11.6		11.1		5.8	5.3	2.2				
Green Ext Time (p_c), s	0.1	4.9		4.3		3.1	0.1	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				16.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	49	30	324	222	96	587
Future Volume (veh/h)	49	30	324	222	96	587
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	53	32	348	239	103	631
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	117	104	1343	1138	682	1333
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	1870	1585	829	1856
Grp Volume(v), veh/h	53	32	348	239	103	631
Grp Sat Flow(s),veh/h/ln	1711	1522	1870	1585	829	1856
Q Serve(g_s), s	1.5	1.0	3.3	2.6	2.5	7.5
Cycle Q Clear(g_c), s	1.5	1.0	3.3	2.6	5.9	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	117	104	1343	1138	682	1333
V/C Ratio(X)	0.45	0.31	0.26	0.21	0.15	0.47
Avail Cap(c_a), veh/h	598	532	1343	1138	682	1333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.8	2.5	2.4	3.5	3.1
Incr Delay (d2), s/veh	2.7	1.7	0.5	0.4	0.5	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.2	0.1	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.8	24.5	3.0	2.8	4.0	4.3
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	85		587			734
Approach Delay, s/veh	25.3		2.9			4.3
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.0
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		9.5			5.3	3.5
Green Ext Time (p_c), s		13.0			7.8	0.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			5.0			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	714	38	84	391	29	105	257	127	26	336	302
Future Volume (veh/h)	173	714	38	84	391	29	105	257	127	26	336	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	178	736	39	87	403	30	108	265	131	27	346	311
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	575	1818	96	463	1727	128	207	603	515	260	466	392
Arrive On Green	0.12	1.00	1.00	0.04	0.51	0.51	0.06	0.33	0.33	0.25	0.25	0.25
Sat Flow, veh/h	1767	3433	182	1725	3380	251	1753	1841	1572	1004	1856	1560
Grp Volume(v), veh/h	178	381	394	87	213	220	108	265	131	27	346	311
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1840	1753	1841	1572	1004	1856	1560
Q Serve(g_s), s	7.8	0.0	0.0	3.8	10.5	10.6	7.1	18.1	9.8	3.5	27.5	29.8
Cycle Q Clear(g_c), s	7.8	0.0	0.0	3.8	10.5	10.6	7.1	18.1	9.8	9.3	27.5	29.8
Prop In Lane	1.00		0.10	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	575	941	973	463	915	940	207	603	515	260	466	392
V/C Ratio(X)	0.31	0.40	0.40	0.19	0.23	0.23	0.52	0.44	0.25	0.10	0.74	0.79
Avail Cap(c_a), veh/h	577	941	973	497	915	940	270	909	776	388	702	590
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	16.8	21.7	21.7	42.4	42.3	39.5	50.7	55.2	56.1
Incr Delay (d2), s/veh	0.3	1.2	1.1	0.2	0.6	0.6	2.0	0.5	0.3	0.2	2.4	4.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.3	0.3	0.8	2.7	2.8	2.3	5.8	2.7	0.7	9.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.2	1.2	1.1	17.0	22.3	22.3	44.5	42.8	39.7	50.9	57.5	60.4
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		953			520			504			684	
Approach Delay, s/veh		3.8			21.4			42.3			58.6	
Approach LOS		A			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	91.2		58.9	12.8	88.3	12.2	46.7				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+15), s	15.8	2.0		20.1	9.8	12.6	9.1	31.8				
Green Ext Time (p_c), s	0.1	18.1		5.9	0.0	8.2	0.2	8.3				

Intersection Summary

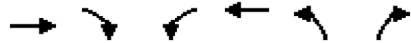
HCM 6th Ctrl Delay, s/veh	28.6
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

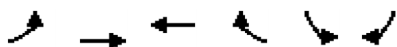
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	832	200	1	668	9	110
Future Volume (veh/h)	832	200	1	668	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	858	206	1	689	9	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1481	355	45	1802	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2781	646	0	3356	2729	1490
Grp Volume(v), veh/h	536	528	370	320	9	113
Grp Sat Flow(s),veh/h/ln	1683	1656	1757	1520	1365	1490
Q Serve(g_s), s	16.8	16.8	0.0	9.6	0.2	4.5
Cycle Q Clear(g_c), s	16.8	16.8	9.6	9.6	0.2	4.5
Prop In Lane		0.39	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	926	911	1011	836	870	475
V/C Ratio(X)	0.58	0.58	0.37	0.38	0.01	0.24
Avail Cap(c_a), veh/h	926	911	1011	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.9	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.6	2.7	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.7	0.3	0.3	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.5	14.6	11.2	11.5	18.6	21.3
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1064			690	122	
Approach Delay, s/veh	14.6			11.4	21.1	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+11), s		6.5		18.8		11.6
Green Ext Time (p_c), s		0.6		17.3		12.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			13.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1011	528	145	27	52
Future Volume (veh/h)	0	1011	528	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1064	556	153	28	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1570	431	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2678	710	3118	1335
Grp Volume(v), veh/h	0	1064	358	351	28	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1630	1559	1335
Q Serve(g_s), s	0.0	14.6	8.6	8.6	0.5	2.5
Cycle Q Clear(g_c), s	0.0	14.6	8.6	8.6	0.5	2.5
Prop In Lane	0.00			0.44	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	988	877	375
V/C Ratio(X)	0.00	0.52	0.35	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	988	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.1	7.9	7.9	20.9	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.0	8.9	8.9	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1064	709		83	
Approach Delay, s/veh		10.0	8.9		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				16.6	4.5	10.6
Green Ext Time (p_c), s				20.9	0.3	14.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			10.1			
HCM 6th LOS			B			



# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵		↵	↵	↵	↵↵	↵	↵↵			↵↵↵	↵
Traffic Volume (veh/h)	7	0	18	808	12	755	5	1092	229	0	1397	434
Future Volume (veh/h)	7	0	18	808	12	755	5	1092	229	0	1397	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1688	0	1800	1800	1786	1800	1786	1800	1702	0	1702	1702
Adj Flow Rate, veh/h	7	0	19	851	0	786	5	1138	239	0	1455	452
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	0	0	0	1	0	1	0	7	0	7	7
Cap, veh/h	0	0	0	1026	0	913	194	1708	357	0	2818	875
Arrive On Green	0.00	0.00	0.00	0.30	0.00	0.30	0.61	0.61	0.61	0.00	0.61	0.61
Sat Flow, veh/h		0		3429	0	3051	349	2816	588	0	4799	1442
Grp Volume(v), veh/h		0.0		851	0	786	5	688	689	0	1455	452
Grp Sat Flow(s),veh/h/ln				1714	0	1525	349	1710	1694	0	1549	1442
Q Serve(g_s), s				37.0	0.0	38.9	1.3	42.4	43.1	0.0	28.7	28.7
Cycle Q Clear(g_c), s				37.0	0.0	38.9	30.0	42.4	43.1	0.0	28.7	28.7
Prop In Lane				1.00		1.00	1.00		0.35	0.00		1.00
Lane Grp Cap(c), veh/h				1026	0	913	194	1037	1028	0	2818	875
V/C Ratio(X)				0.83	0.00	0.86	0.03	0.66	0.67	0.00	0.52	0.52
Avail Cap(c_a), veh/h				1089	0	969	194	1037	1028	0	2818	875
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				52.3	0.0	52.9	26.6	20.7	20.9	0.0	18.0	18.0
Incr Delay (d2), s/veh				5.3	0.0	7.7	0.2	3.3	3.5	0.0	0.7	2.2
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.0	0.0	11.5	0.1	8.1	8.2	0.0	4.6	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				57.5	0.0	60.6	26.9	24.1	24.4	0.0	18.7	20.2
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1637			1382			1907	
Approach Delay, s/veh					59.0			24.2			19.1	
Approach LOS					E			C			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		104.5		55.5		104.5						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		30.7		40.9		45.1						
Green Ext Time (p_c), s		16.5		6.9		3.4						

## Intersection Summary

HCM 6th Ctrl Delay, s/veh	33.8
HCM 6th LOS	C

## Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	330	4	935	1710	572
Future Volume (veh/h)	340	330	4	935	1710	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1603	1744	1772	1744	1772	1772
Adj Flow Rate, veh/h	468	238	4	995	1819	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	14	4	2	4	2	2
Cap, veh/h	613	297	26	3199	2538	810
Arrive On Green	0.20	0.20	0.70	0.70	0.70	0.70
Sat Flow, veh/h	3054	1478	4	4718	3789	1159
Grp Volume(v), veh/h	468	238	370	629	1607	821
Grp Sat Flow(s),veh/h/ln	1527	1478	1692	1444	1612	1563
Q Serve(g_s), s	23.1	24.5	0.0	13.4	47.8	53.3
Cycle Q Clear(g_c), s	23.1	24.5	12.9	13.4	47.8	53.3
Prop In Lane	1.00	1.00	0.01			0.74
Lane Grp Cap(c), veh/h	613	297	1206	2019	2255	1093
V/C Ratio(X)	0.76	0.80	0.31	0.31	0.71	0.75
Avail Cap(c_a), veh/h	1374	665	1206	2019	2255	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	60.3	60.9	9.2	9.3	14.4	15.3
Incr Delay (d2), s/veh	2.0	5.0	0.6	0.3	1.9	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	7.5	1.2	0.9	4.0	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	62.4	65.9	9.8	9.6	16.4	20.0
LnGrp LOS	E	E	A	A	B	C
Approach Vol, veh/h	706			999	2428	
Approach Delay, s/veh	63.6			9.7	17.6	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.4		40.6		119.4
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		72.0		72.0		72.0
Max Q Clear Time (g_c+I1), s		15.4		26.5		55.3
Green Ext Time (p_c), s		26.2		5.6		16.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			23.5			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	350	293	202	268	508	284	221	736	94	229	1204	356
Future Volume (veh/h)	350	293	202	268	508	284	221	736	94	229	1204	356
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870
Adj Flow Rate, veh/h	354	296	204	271	513	287	223	743	0	231	1216	360
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	4	2	1	1	2	3	1	5	2	4	2
Cap, veh/h	410	1085	597	493	1010	555	269	1863		278	1828	763
Arrive On Green	0.12	0.31	0.31	0.10	0.28	0.28	0.08	0.36	0.00	0.16	0.73	0.73
Sat Flow, veh/h	3428	3497	1524	1795	3582	1518	3428	5147	1547	3456	5025	1577
Grp Volume(v), veh/h	354	296	204	271	513	287	223	743	0	231	1216	360
Grp Sat Flow(s),veh/h/ln	1714	1749	1524	1795	1791	1518	1714	1716	1547	1728	1675	1577
Q Serve(g_s), s	16.2	10.2	15.1	16.6	19.2	23.8	10.3	17.2	0.0	10.4	20.4	14.9
Cycle Q Clear(g_c), s	16.2	10.2	15.1	16.6	19.2	23.8	10.3	17.2	0.0	10.4	20.4	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	1085	597	493	1010	555	269	1863		278	1828	763
V/C Ratio(X)	0.86	0.27	0.34	0.55	0.51	0.52	0.83	0.40		0.83	0.67	0.47
Avail Cap(c_a), veh/h	493	1211	652	493	1052	573	321	1863		367	1828	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	69.2	41.6	34.5	35.9	48.1	40.1	72.7	38.1	0.0	66.1	16.6	10.8
Incr Delay (d2), s/veh	12.9	0.1	0.3	1.3	0.4	0.8	14.2	0.6	0.0	7.1	1.1	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	3.2	3.8	5.3	6.2	6.2	4.1	5.0	0.0	3.6	3.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.1	41.7	34.9	37.2	48.5	40.9	86.8	38.7	0.0	73.2	17.8	12.0
LnGrp LOS	F	D	C	D	D	D	F	D		E	B	B
Approach Vol, veh/h		854			1071			966			1807	
Approach Delay, s/veh		56.8			43.6			49.8			23.7	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	65.7	24.1	52.6	17.9	65.4	19.6	57.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	23.0	47.0	17.0	48.0	16.6	55.4				
Max Q Clear Time (g_c+1/2), s	12.3	22.4	18.2	25.8	12.4	19.2	18.6	17.1				
Green Ext Time (p_c), s	0.3	22.1	0.9	9.6	0.5	13.4	0.0	6.9				

### Intersection Summary























HCM 6th Ctrl Delay, s/veh	39.6
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
4: Tenth Line W & Argentia Rd

Future Background 2032 PM  
03/09/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	322	111	451	471	5	66	0	281	2	4	2
Future Volume (veh/h)	1	322	111	451	471	5	66	0	281	2	4	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	418	1826	1870	1900	1856	1841	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	346	119	485	506	5	71	0	302	2	4	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	100	5	2	0	3	4	0	0	0	0	0
Cap, veh/h	415	160	585	286	1009	825	460	0	463	227	215	108
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.00	0.29	0.18	0.18	0.18
Sat Flow, veh/h	896	418	1523	1781	1900	1555	1753	0	1597	1086	1189	595
Grp Volume(v), veh/h	1	346	119	485	506	5	71	0	302	2	0	6
Grp Sat Flow(s),veh/h/ln	896	418	1523	1781	1900	1555	1753	0	1597	1086	0	1784
Q Serve(g_s), s	0.1	30.0	4.1	8.5	13.3	0.1	2.4	0.0	12.9	0.1	0.0	0.2
Cycle Q Clear(g_c), s	1.9	30.0	4.1	8.5	13.3	0.1	2.4	0.0	12.9	4.6	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	415	160	585	286	1009	825	460	0	463	227	0	323
V/C Ratio(X)	0.00	2.16	0.20	1.70	0.50	0.01	0.15	0.00	0.65	0.01	0.00	0.02
Avail Cap(c_a), veh/h	415	160	585	286	1009	825	528	0	909	489	0	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.0	24.1	16.1	21.3	11.7	8.6	21.3	0.0	24.3	30.0	0.0	26.3
Incr Delay (d2), s/veh	0.0	540.7	0.8	328.3	1.8	0.0	0.2	0.0	1.6	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.6	0.4	26.1	0.5	0.0	0.4	0.0	2.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.0	564.8	16.9	349.6	13.5	8.6	21.5	0.0	25.9	30.0	0.0	26.3
LnGrp LOS	B	F	B	F	B	A	C		C	C		C
Approach Vol, veh/h		466			996			373				8
Approach Delay, s/veh		423.7			177.1			25.0				27.2
Approach LOS		F			F			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	11.5	37.5		29.2		49.0	8.5	20.7				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	8.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	10.5	32.0		14.9		15.3	4.4	6.6				
Green Ext Time (p_c), s	0.0	0.0		5.7		8.9	0.1	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				208.0								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	271	204	734	133	75	545
Future Volume (veh/h)	271	204	734	133	75	545
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1856	1811
Adj Flow Rate, veh/h	282	213	765	139	78	568
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	1	1	1	3	6
Cap, veh/h	372	334	1150	974	329	1105
Arrive On Green	0.21	0.21	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1781	1598	1885	1598	612	1811
Grp Volume(v), veh/h	282	213	765	139	78	568
Grp Sat Flow(s),veh/h/ln	1781	1598	1885	1598	612	1811
Q Serve(g_s), s	9.0	7.4	16.2	2.3	5.8	10.8
Cycle Q Clear(g_c), s	9.0	7.4	16.2	2.3	22.0	10.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	372	334	1150	974	329	1105
V/C Ratio(X)	0.76	0.64	0.67	0.14	0.24	0.51
Avail Cap(c_a), veh/h	529	474	1150	974	329	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	21.9	7.8	5.1	15.0	6.7
Incr Delay (d2), s/veh	3.9	2.0	3.1	0.3	1.7	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	1.0	0.1	0.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.5	23.9	10.8	5.4	16.7	8.4
LnGrp LOS	C	C	B	A	B	A
Approach Vol, veh/h	495		904			646
Approach Delay, s/veh	25.4		10.0			9.4
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	17.2
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		24.0			18.2	11.0
Green Ext Time (p_c), s		7.2			12.1	1.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			13.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

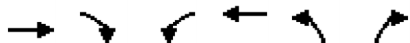
03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	650	130	164	917	56	80	522	144	58	394	260
Future Volume (veh/h)	259	650	130	164	917	56	80	522	144	58	394	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1885	1885	1900	1885	1885	1811	1841	1885	1870	1900	1885
Adj Flow Rate, veh/h	276	691	138	174	976	60	85	555	153	62	419	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	1	1	0	1	1	6	4	1	2	0	1
Cap, veh/h	345	1403	280	381	1504	92	194	660	573	106	556	467
Arrive On Green	0.10	0.47	0.47	0.07	0.44	0.44	0.05	0.36	0.36	0.29	0.29	0.29
Sat Flow, veh/h	1781	2975	594	1810	3427	211	1725	1841	1596	741	1900	1596
Grp Volume(v), veh/h	276	416	413	174	510	526	85	555	153	62	419	277
Grp Sat Flow(s),veh/h/ln	1781	1791	1778	1810	1791	1847	1725	1841	1596	741	1900	1596
Q Serve(g_s), s	13.1	25.6	25.6	8.4	35.7	35.7	5.4	44.3	10.9	13.1	32.0	23.8
Cycle Q Clear(g_c), s	13.1	25.6	25.6	8.4	35.7	35.7	5.4	44.3	10.9	46.8	32.0	23.8
Prop In Lane	1.00		0.33	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	844	838	381	786	811	194	660	573	106	556	467
V/C Ratio(X)	0.80	0.49	0.49	0.46	0.65	0.65	0.44	0.84	0.27	0.59	0.75	0.59
Avail Cap(c_a), veh/h	502	844	838	599	786	811	441	846	733	106	556	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	29.1	29.1	23.1	35.2	35.2	39.4	47.1	36.4	73.6	51.3	48.4
Incr Delay (d2), s/veh	5.1	1.8	1.8	0.9	4.1	4.0	1.6	6.1	0.2	8.2	5.8	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	7.0	7.0	2.1	10.6	10.9	1.6	14.8	3.0	2.2	11.7	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.0	30.9	30.9	24.0	39.3	39.2	40.9	53.2	36.6	81.8	57.1	50.4
LnGrp LOS	C	C	C	C	D	D	D	D	D	F	E	D
Approach Vol, veh/h		1105			1210			793			758	
Approach Delay, s/veh		31.4			37.1			48.7			56.7	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.2	81.9		63.9	19.4	76.7	10.5	53.3				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+10), s	110.4	27.6		46.3	15.1	37.7	7.4	48.8				
Green Ext Time (p_c), s	0.8	8.1		11.1	1.3	1.9	0.4	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				41.7								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

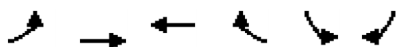
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↘	↘
Traffic Volume (veh/h)	924	70	2	1202	40	147
Future Volume (veh/h)	924	70	2	1202	40	147
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1786	1688	1786	1702	1772
Adj Flow Rate, veh/h	943	71	2	1227	41	150
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	8	1	7	2
Cap, veh/h	1493	112	61	1553	1048	501
Arrive On Green	0.47	0.47	0.47	0.47	0.33	0.33
Sat Flow, veh/h	3288	241	1	3409	3144	1502
Grp Volume(v), veh/h	500	514	659	570	41	150
Grp Sat Flow(s),veh/h/ln	1697	1743	1784	1544	1572	1502
Q Serve(g_s), s	13.4	13.4	0.0	18.7	0.5	4.4
Cycle Q Clear(g_c), s	13.4	13.4	18.7	18.7	0.5	4.4
Prop In Lane		0.14	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	813	893	721	1048	501
V/C Ratio(X)	0.63	0.63	0.74	0.79	0.04	0.30
Avail Cap(c_a), veh/h	792	813	893	721	1048	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	12.1	12.1	13.5	13.5	13.5	14.8
Incr Delay (d2), s/veh	3.8	3.7	4.1	6.5	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	1.0	1.3	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.9	15.8	17.6	20.1	13.6	16.3
LnGrp LOS	B	B	B	C	B	B
Approach Vol, veh/h	1014			1229	191	
Approach Delay, s/veh	15.9			18.7	15.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.4		20.7
Green Ext Time (p_c), s		0.8		9.5		6.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			17.3			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	841	1076	148	166	235
Future Volume (veh/h)	0	841	1076	148	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1786	1772	1786
Adj Flow Rate, veh/h	0	858	1098	151	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	1	2	1
Cap, veh/h	0	1711	1524	209	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3086	411	3274	1514
Grp Volume(v), veh/h	0	858	621	628	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1712	1637	1514
Q Serve(g_s), s	0.0	10.1	17.0	17.1	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.1	17.0	17.1	2.2	7.4
Prop In Lane	0.00			0.24	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	870	1119	517
V/C Ratio(X)	0.00	0.50	0.72	0.72	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	870	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.7	11.4	11.5	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.1	5.2	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.2	1.2	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.8	16.6	16.6	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		858	1249		409	
Approach Delay, s/veh		10.8	16.6		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.1	9.4	19.1
Green Ext Time (p_c), s				11.6	1.8	9.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.6			
HCM 6th LOS			B			



# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↶	↷	↶	↶			↶	↷
Traffic Volume (veh/h)	0	0	0	235	5	470	2	1183	205	0	1552	386
Future Volume (veh/h)	0	0	0	235	5	470	2	1183	205	0	1552	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	251	0	495	2	1245	216	0	1634	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	743	0	593	143	1870	322	0	3073	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	199	2781	479	0	4720	1335
Grp Volume(v), veh/h		0.0		251	0	495	2	726	735	0	1634	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	199	1630	1630	0	1523	1335
Q Serve(g_s), s				10.5	0.0	29.6	0.8	42.1	43.0	0.0	29.2	22.9
Cycle Q Clear(g_c), s				10.5	0.0	29.6	30.0	42.1	43.0	0.0	29.2	22.9
Prop In Lane				1.00		1.00	1.00		0.29	0.00		1.00
Lane Grp Cap(c), veh/h				743	0	593	143	1096	1096	0	3073	898
V/C Ratio(X)				0.34	0.00	0.83	0.01	0.66	0.67	0.00	0.53	0.45
Avail Cap(c_a), veh/h				1096	0	875	143	1096	1096	0	3073	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	58.4	21.0	15.5	15.6	0.0	13.3	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	3.2	3.3	0.0	0.7	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	0.0	8.2	0.0	8.7	8.9	0.0	5.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.4	0.0	63.0	21.2	18.6	18.9	0.0	14.0	14.0
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					746			1463			2040	
Approach Delay, s/veh					59.1			18.8			14.0	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.1		44.9		115.1						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		31.2		31.6		45.0						
Green Ext Time (p_c), s		15.0		5.5		20.5						

## Intersection Summary

HCM 6th Ctrl Delay, s/veh	23.6
HCM 6th LOS	C

## Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TTT	T		TTT	TTT	
Traffic Volume (veh/h)	478	215	1	843	926	730
Future Volume (veh/h)	478	215	1	843	926	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	1772	1758	1702	1646
Adj Flow Rate, veh/h	503	226	1	887	975	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	2	3	7	11
Cap, veh/h	615	287	23	3299	2190	1020
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3188	1490	1	4809	3250	1442
Grp Volume(v), veh/h	503	226	334	554	975	768
Grp Sat Flow(s),veh/h/ln	1594	1490	1755	1456	1549	1442
Q Serve(g_s), s	24.2	23.1	0.0	11.0	21.5	53.4
Cycle Q Clear(g_c), s	24.2	23.1	11.0	11.0	21.5	53.4
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	615	287	1263	2059	2190	1020
V/C Ratio(X)	0.82	0.79	0.26	0.27	0.45	0.75
Avail Cap(c_a), veh/h	887	414	1263	2059	2190	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	61.9	61.4	8.5	8.5	10.0	14.7
Incr Delay (d2), s/veh	4.0	6.2	0.4	0.3	0.7	5.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	7.9	2.0	1.6	3.3	8.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.9	67.6	8.9	8.7	10.7	19.8
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	729			888	1743	
Approach Delay, s/veh	66.4			8.8	14.7	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.6		39.4		120.6
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		99.5		44.5		99.5
Max Q Clear Time (g_c+I1), s		13.0		26.2		55.4
Green Ext Time (p_c), s		24.7		4.7		39.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			24.4			
HCM 6th LOS			C			

**Notes**

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	328	240	58	74	107	135	78	1212	95	272	559	173
Future Volume (veh/h)	328	240	58	74	107	135	78	1212	95	272	559	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	345	253	61	78	113	142	82	1276	0	286	588	182
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	394	1110	548	353	804	477	147	2065		330	2247	849
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.92	0.92
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	345	253	61	78	113	142	82	1276	0	286	588	182
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	16.1	8.4	4.2	5.5	4.1	11.6	3.7	31.7	0.0	12.9	2.1	1.7
Cycle Q Clear(g_c), s	16.1	8.4	4.2	5.5	4.1	11.6	3.7	31.7	0.0	12.9	2.1	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	394	1110	548	353	804	477	147	2065		330	2247	849
V/C Ratio(X)	0.88	0.23	0.11	0.22	0.14	0.30	0.56	0.62		0.87	0.26	0.21
Avail Cap(c_a), veh/h	443	1375	662	367	1044	575	173	2065		386	2247	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	69.5	41.0	34.9	44.4	49.5	40.7	75.1	37.8	0.0	63.6	3.7	2.3
Incr Delay (d2), s/veh	16.4	0.1	0.1	0.3	0.1	0.3	3.3	1.4	0.0	13.7	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	3.0	1.3	2.0	1.5	3.4	1.5	10.4	0.0	5.0	0.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	85.9	41.1	35.0	44.7	49.5	41.0	78.4	39.2	0.0	77.3	3.9	2.8
LnGrp LOS	F	D	D	D	D	D	E	D		E	A	A
Approach Vol, veh/h		659			333			1358			1056	
Approach Delay, s/veh		64.0			44.8			41.6			23.6	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	80.8	23.7	43.7	20.4	72.2	10.3	57.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	60.0	59.0	21.0	47.0	18.0	49.0	8.6	61.4				
Max Q Clear Time (g_c+1.5), s	15.5	4.1	18.1	13.6	14.9	33.7	7.5	10.4				
Green Ext Time (p_c), s	0.1	15.0	0.6	2.8	0.5	12.8	0.0	5.2				

### Intersection Summary























HCM 6th Ctrl Delay, s/veh	40.7
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 4: Tenth Line W & Argentia Rd

Future Background 2037 AM  
 03/09/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	367	40	69	197	10	95	4	214	2	4	1
Future Volume (veh/h)	3	367	40	69	197	10	95	4	214	2	4	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	3	382	42	72	205	10	99	4	223	2	4	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	611	805	700	493	1002	880	446	8	421	199	213	53
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.08	0.27	0.27	0.15	0.15	0.15
Sat Flow, veh/h	1180	1841	1601	1739	1826	1603	1810	28	1583	713	1466	366
Grp Volume(v), veh/h	3	382	42	72	205	10	99	0	227	2	0	5
Grp Sat Flow(s),veh/h/ln	1180	1841	1601	1739	1826	1603	1810	0	1611	713	0	1832
Q Serve(g_s), s	0.1	11.1	1.1	1.5	4.3	0.2	3.3	0.0	9.1	0.2	0.0	0.2
Cycle Q Clear(g_c), s	0.1	11.1	1.1	1.5	4.3	0.2	3.3	0.0	9.1	0.2	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.20
Lane Grp Cap(c), veh/h	611	805	700	493	1002	880	446	0	428	199	0	266
V/C Ratio(X)	0.00	0.47	0.06	0.15	0.20	0.01	0.22	0.00	0.53	0.01	0.00	0.02
Avail Cap(c_a), veh/h	611	805	700	563	1002	880	503	0	948	406	0	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	15.1	12.3	9.7	8.7	7.7	22.4	0.0	23.7	27.7	0.0	27.7
Incr Delay (d2), s/veh	0.0	2.0	0.2	0.1	0.5	0.0	0.2	0.0	1.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	0.2	0.1	0.3	0.0	0.8	0.0	2.1	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.0	17.1	12.5	9.9	9.1	7.8	22.6	0.0	24.7	27.7	0.0	27.7
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		427			287			326				7
Approach Delay, s/veh		16.6			9.3			24.1				27.7
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.5	40.5		26.6		49.0	9.1	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	8.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	3.5	13.1		11.1		6.3	5.3	2.2				
Green Ext Time (p_c), s	0.1	5.3		4.3		3.5	0.1	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				17.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	49	30	444	222	96	805
Future Volume (veh/h)	49	30	444	222	96	805
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	53	32	477	239	103	866
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	117	104	2552	1138	636	2532
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	3647	1585	735	3618
Grp Volume(v), veh/h	53	32	477	239	103	866
Grp Sat Flow(s),veh/h/ln	1711	1522	1777	1585	735	1763
Q Serve(g_s), s	1.5	1.0	2.3	2.6	2.7	4.7
Cycle Q Clear(g_c), s	1.5	1.0	2.3	2.6	5.0	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	117	104	2552	1138	636	2532
V/C Ratio(X)	0.45	0.31	0.19	0.21	0.16	0.34
Avail Cap(c_a), veh/h	598	532	2552	1138	636	2532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.8	2.4	2.4	3.2	2.7
Incr Delay (d2), s/veh	2.7	1.7	0.2	0.4	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.8	24.5	2.5	2.8	3.7	3.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	85		716			969
Approach Delay, s/veh	25.3		2.6			3.1
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.0
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		7.0			4.6	3.5
Green Ext Time (p_c), s		17.6			10.6	0.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			4.0			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	733	38	84	401	29	105	352	127	26	460	302
Future Volume (veh/h)	173	733	38	84	401	29	105	352	127	26	460	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	178	756	39	87	413	30	108	363	131	27	474	311
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	557	1778	92	448	1685	122	247	1189	535	287	932	412
Arrive On Green	0.13	1.00	1.00	0.04	0.50	0.50	0.06	0.34	0.34	0.26	0.26	0.26
Sat Flow, veh/h	1767	3438	177	1725	3387	245	1753	3497	1572	917	3526	1560
Grp Volume(v), veh/h	178	391	404	87	218	225	108	363	131	27	474	311
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1841	1753	1749	1572	917	1763	1560
Q Serve(g_s), s	8.1	0.0	0.0	3.9	11.1	11.2	7.0	12.2	9.6	3.6	18.3	29.3
Cycle Q Clear(g_c), s	8.1	0.0	0.0	3.9	11.1	11.2	7.0	12.2	9.6	3.7	18.3	29.3
Prop In Lane	1.00		0.10	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	557	919	951	448	891	916	247	1189	535	287	932	412
V/C Ratio(X)	0.32	0.43	0.43	0.19	0.24	0.25	0.44	0.31	0.25	0.09	0.51	0.75
Avail Cap(c_a), veh/h	557	919	951	482	891	916	311	1727	776	391	1333	590
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	0.0	17.8	23.0	23.0	39.4	38.9	38.0	44.7	50.0	54.1
Incr Delay (d2), s/veh	0.3	1.3	1.3	0.2	0.7	0.6	1.2	0.1	0.2	0.1	0.4	3.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.3	0.3	1.1	3.6	3.7	2.5	4.2	3.0	0.7	6.6	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	1.3	1.3	18.0	23.6	23.7	40.6	39.0	38.3	44.8	50.5	57.5
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	D	E
Approach Vol, veh/h		973			530			602			812	
Approach Delay, s/veh		4.0			22.7			39.1			53.0	
Approach LOS		A			C			D			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	89.2		60.9	13.0	86.1	12.1	48.8				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+15), s	15.0	2.0		14.2	10.1	13.2	9.0	31.3				
Green Ext Time (p_c), s	0.1	18.7		8.5	0.0	8.3	0.2	11.0				

Intersection Summary

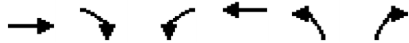
HCM 6th Ctrl Delay, s/veh	28.3
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

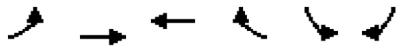
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↘	↘
Traffic Volume (veh/h)	853	200	1	685	9	110
Future Volume (veh/h)	853	200	1	685	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	879	206	1	706	9	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1489	349	45	1802	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2796	634	0	3356	2729	1490
Grp Volume(v), veh/h	546	539	379	328	9	113
Grp Sat Flow(s),veh/h/ln	1683	1658	1757	1520	1365	1490
Q Serve(g_s), s	17.3	17.3	0.0	9.9	0.2	4.5
Cycle Q Clear(g_c), s	17.3	17.3	9.9	9.9	0.2	4.5
Prop In Lane		0.38	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	926	912	1011	836	870	475
V/C Ratio(X)	0.59	0.59	0.37	0.39	0.01	0.24
Avail Cap(c_a), veh/h	926	912	1011	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	12.0	12.0	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.8	2.8	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.8	0.9	0.9	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.8	14.8	11.3	11.6	18.6	21.3
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1085			707	122	
Approach Delay, s/veh	14.8			11.5	21.1	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+1), s		6.5		19.3		11.9
Green Ext Time (p_c), s		0.6		17.4		13.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1037	542	145	27	52
Future Volume (veh/h)	0	1037	542	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1092	571	153	28	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1580	422	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2694	696	3118	1335
Grp Volume(v), veh/h	0	1092	365	359	28	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1633	1559	1335
Q Serve(g_s), s	0.0	15.1	8.8	8.9	0.5	2.5
Cycle Q Clear(g_c), s	0.0	15.1	8.8	8.9	0.5	2.5
Prop In Lane	0.00			0.43	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	990	877	375
V/C Ratio(X)	0.00	0.54	0.36	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	990	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.2	7.9	7.9	20.9	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	0.3	0.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.2	8.9	9.0	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1092	724		83	
Approach Delay, s/veh		10.2	9.0		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				17.1	4.5	10.9
Green Ext Time (p_c), s				21.2	0.3	14.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			10.2			
HCM 6th LOS			B			



# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗	↘	↖	↗↗	↘	↗↗			↗↗↗	↘
Traffic Volume (veh/h)	0	0	0	235	5	470	2	1183	205	0	1552	386
Future Volume (veh/h)	0	0	0	235	5	470	2	1183	205	0	1552	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	0	1800	1786	1800	1660	1800	1702	1772	0	1702	1688
Adj Flow Rate, veh/h	0	0	0	249	0	490	2	1232	214	0	1617	402
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	10	0	7	2	0	7	8
Cap, veh/h	0	0	0	719	0	595	205	1914	330	0	3225	993
Arrive On Green	0.00	0.00	0.00	0.21	0.00	0.21	0.69	0.69	0.69	0.00	0.69	0.69
Sat Flow, veh/h		0		3402	0	2813	301	2757	476	0	4799	1430
Grp Volume(v), veh/h		0.0		249	0	490	2	719	727	0	1617	402
Grp Sat Flow(s),veh/h/ln				1701	0	1406	301	1617	1616	0	1549	1430
Q Serve(g_s), s				10.0	0.0	26.6	0.5	39.2	40.0	0.0	26.1	19.1
Cycle Q Clear(g_c), s				10.0	0.0	26.6	26.6	39.2	40.0	0.0	26.1	19.1
Prop In Lane				1.00		1.00	1.00		0.29	0.00		1.00
Lane Grp Cap(c), veh/h				719	0	595	205	1122	1122	0	3225	993
V/C Ratio(X)				0.35	0.00	0.82	0.01	0.64	0.65	0.00	0.50	0.40
Avail Cap(c_a), veh/h				1080	0	893	205	1122	1122	0	3225	993
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				53.7	0.0	60.2	17.7	13.5	13.6	0.0	11.5	10.4
Incr Delay (d2), s/veh				0.3	0.0	3.9	0.1	2.8	2.9	0.0	0.6	1.2
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	8.2	0.0	7.3	7.5	0.0	4.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.0	0.0	64.2	17.8	16.3	16.5	0.0	12.0	11.6
LnGrp LOS				D		E	B	B	B		B	B
Approach Vol, veh/h					739			1448			2019	
Approach Delay, s/veh					60.8			16.4			12.0	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		118.6		41.4		118.6						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		28.1		28.6		42.0						
Green Ext Time (p_c), s		19.3		5.2		6.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				22.1								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	215	1	843	926	730
Future Volume (veh/h)	478	215	1	843	926	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1617	1744	1772	1744	1772	1603
Adj Flow Rate, veh/h	509	229	1	897	985	777
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	13	4	2	4	2	14
Cap, veh/h	620	297	23	3235	2254	1049
Arrive On Green	0.20	0.20	0.70	0.70	0.70	0.70
Sat Flow, veh/h	3081	1478	1	4771	3384	1502
Grp Volume(v), veh/h	509	229	338	560	985	777
Grp Sat Flow(s),veh/h/ln	1540	1478	1741	1444	1612	1502
Q Serve(g_s), s	25.3	23.4	0.0	11.6	21.2	51.7
Cycle Q Clear(g_c), s	25.3	23.4	11.6	11.6	21.2	51.7
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	620	297	1239	2019	2254	1049
V/C Ratio(X)	0.82	0.77	0.27	0.28	0.44	0.74
Avail Cap(c_a), veh/h	895	429	1239	2019	2254	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.2	60.4	9.0	9.0	10.4	15.0
Incr Delay (d2), s/veh	4.1	5.2	0.5	0.3	0.6	4.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	7.9	2.2	1.7	3.6	9.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.3	65.6	9.5	9.3	11.1	19.7
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	738			898	1762	
Approach Delay, s/veh	65.4			9.4	14.9	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.3		40.7		119.3
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		97.5		46.5		97.5
Max Q Clear Time (g_c+I1), s		13.6		27.3		53.7
Green Ext Time (p_c), s		25.0		4.9		38.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			24.4			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	328	240	58	74	107	135	78	1212	95	272	559	173
Future Volume (veh/h)	328	240	58	74	107	135	78	1212	95	272	559	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.97		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870	1856
Adj Flow Rate, veh/h	331	242	59	75	108	136	79	1224	0	275	565	175
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	2	1	1	2	3	1	5	2	4	2	3
Cap, veh/h	388	1226	600	411	928	538	148	1872		317	2177	847
Arrive On Green	0.11	0.35	0.35	0.04	0.26	0.26	0.04	0.38	0.00	0.19	0.85	0.85
Sat Flow, veh/h	3401	3554	1542	1795	3554	1500	3483	4985	1585	3401	5106	1566
Grp Volume(v), veh/h	331	242	59	75	108	136	79	1224	0	275	565	175
Grp Sat Flow(s),veh/h/ln1700	1777	1542	1795	1777	1500	1742	1662	1585	1700	1702	1566	
Q Serve(g_s), s	15.3	7.7	3.9	4.9	3.7	10.3	3.6	32.5	0.0	12.6	3.4	2.7
Cycle Q Clear(g_c), s	15.3	7.7	3.9	4.9	3.7	10.3	3.6	32.5	0.0	12.6	3.4	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	1226	600	411	928	538	148	1872		317	2177	847
V/C Ratio(X)	0.85	0.20	0.10	0.18	0.12	0.25	0.53	0.65		0.87	0.26	0.21
Avail Cap(c_a), veh/h	489	1226	600	530	1044	587	327	1872		361	2177	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	69.6	36.8	31.2	40.5	45.1	36.7	75.1	41.4	0.0	64.1	7.0	4.5
Incr Delay (d2), s/veh	11.4	0.1	0.1	0.2	0.1	0.2	3.0	1.8	0.0	14.7	0.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln6.3		2.7	1.2	1.8	1.4	3.0	1.4	10.7	0.0	4.9	0.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.0	36.9	31.3	40.7	45.1	36.9	78.0	43.2	0.0	78.8	7.2	4.9
LnGrp LOS	F	D	C	D	D	D	E	D		E	A	A
Approach Vol, veh/h		632			319			1303			1015	
Approach Delay, s/veh		59.5			40.6			45.3			26.2	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	75.7	23.2	49.3	19.9	67.6	9.8	62.7				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	23.0	47.0	17.0	48.0	17.4	54.6				
Max Q Clear Time (g_c+1), s	15.6	5.4	17.3	12.3	14.6	34.5	6.9	9.7				
Green Ext Time (p_c), s	0.2	13.3	0.9	2.6	0.4	11.2	0.2	4.9				

### Intersection Summary























HCM 6th Ctrl Delay, s/veh	41.6
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 4: Tenth Line W & Argentia Rd

Future Background 2037 PM  
 03/09/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	362	111	69	197	10	73	26	214	14	8	8
Future Volume (veh/h)	1	362	111	69	197	10	73	26	214	14	8	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	418	1826	1870	1900	1856	1604	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	389	119	74	212	11	78	28	230	15	9	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	100	5	2	0	3	20	0	0	0	0	0	0
Cap, veh/h	201	771	660	462	988	716	460	51	417	266	152	152
Arrive On Green	0.42	0.42	0.42	0.07	0.53	0.53	0.07	0.29	0.29	0.18	0.18	0.18
Sat Flow, veh/h	256	1826	1563	1810	1856	1344	1810	176	1449	1129	865	865
Grp Volume(v), veh/h	1	389	119	74	212	11	78	0	258	15	0	18
Grp Sat Flow(s),veh/h/ln	256	1826	1563	1810	1856	1344	1810	0	1625	1129	0	1730
Q Serve(g_s), s	0.2	12.2	3.7	1.6	4.7	0.3	2.5	0.0	10.5	0.9	0.0	0.7
Cycle Q Clear(g_c), s	0.2	12.2	3.7	1.6	4.7	0.3	2.5	0.0	10.5	2.7	0.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.89	1.00		0.50
Lane Grp Cap(c), veh/h	201	771	660	462	988	716	460	0	468	266	0	305
V/C Ratio(X)	0.00	0.50	0.18	0.16	0.21	0.02	0.17	0.00	0.55	0.06	0.00	0.06
Avail Cap(c_a), veh/h	201	771	660	530	988	716	524	0	928	545	0	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.1	16.5	14.1	10.8	9.6	8.6	21.5	0.0	23.5	28.3	0.0	26.7
Incr Delay (d2), s/veh	0.0	2.4	0.6	0.2	0.5	0.0	0.2	0.0	1.0	0.1	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.6	0.2	0.5	0.0	0.7	0.0	2.4	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.1	18.9	14.7	10.9	10.1	8.6	21.6	0.0	24.5	28.4	0.0	26.8
LnGrp LOS	B	B	B	B	B	A	C		C	C		C
Approach Vol, veh/h		509			297			336				33
Approach Delay, s/veh		17.9			10.3			23.8				27.5
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.6	40.4		28.9		49.0	8.7	20.2				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	8.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	3.6	14.2		12.5		6.7	4.5	4.7				
Green Ext Time (p_c), s	0.1	5.6		4.9		3.6	0.1	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				17.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	49	30	444	222	96	805
Future Volume (veh/h)	49	30	444	222	96	805
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1811	1870
Adj Flow Rate, veh/h	51	31	463	231	100	839
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	3	6	2
Cap, veh/h	120	107	2576	1131	632	2556
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1795	1598	3676	1572	727	3647
Grp Volume(v), veh/h	51	31	463	231	100	839
Grp Sat Flow(s),veh/h/ln	1795	1598	1791	1572	727	1777
Q Serve(g_s), s	1.4	0.9	2.1	2.5	2.6	4.5
Cycle Q Clear(g_c), s	1.4	0.9	2.1	2.5	4.8	4.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	120	107	2576	1131	632	2556
V/C Ratio(X)	0.42	0.29	0.18	0.20	0.16	0.33
Avail Cap(c_a), veh/h	628	559	2576	1131	632	2556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	22.8	2.3	2.4	3.1	2.7
Incr Delay (d2), s/veh	2.4	1.5	0.2	0.4	0.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.4	24.3	2.5	2.8	3.6	3.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	82		694			939
Approach Delay, s/veh	25.0		2.6			3.1
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.0
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		6.8			4.5	3.4
Green Ext Time (p_c), s		17.2			10.2	0.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			3.9			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

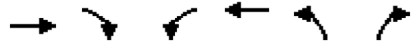
03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕	↘	↙	↕	↘	↙	↕	↘	↙	↕	↘
Traffic Volume (veh/h)	173	733	38	84	401	29	105	352	127	26	460	302
Future Volume (veh/h)	173	733	38	84	401	29	105	352	127	26	460	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1885	1885	1870	1841	1885	1870	1900	1885	1870
Adj Flow Rate, veh/h	184	780	40	89	427	31	112	374	135	28	489	321
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	1	1	2	4	1	2	0	1	2
Cap, veh/h	585	1880	96	397	1765	128	229	1128	498	256	837	370
Arrive On Green	0.06	0.54	0.54	0.04	0.52	0.52	0.06	0.31	0.31	0.23	0.23	0.23
Sat Flow, veh/h	1795	3466	178	1795	3387	245	1753	3582	1584	904	3582	1583
Grp Volume(v), veh/h	184	403	417	89	225	233	112	374	135	28	489	321
Grp Sat Flow(s),veh/h/ln	1795	1791	1853	1795	1791	1841	1753	1791	1584	904	1791	1583
Q Serve(g_s), s	7.3	21.3	21.3	3.6	11.0	11.1	7.6	12.8	10.2	3.9	19.4	31.2
Cycle Q Clear(g_c), s	7.3	21.3	21.3	3.6	11.0	11.1	7.6	12.8	10.2	3.9	19.4	31.2
Prop In Lane	1.00		0.10	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	585	971	1005	397	933	960	229	1128	498	256	837	370
V/C Ratio(X)	0.31	0.41	0.42	0.22	0.24	0.24	0.49	0.33	0.27	0.11	0.58	0.87
Avail Cap(c_a), veh/h	812	971	1005	662	933	960	454	1645	727	271	895	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	21.6	21.6	17.1	21.0	21.0	42.6	41.9	41.1	48.5	54.4	58.9
Incr Delay (d2), s/veh	0.3	1.1	1.1	0.3	0.6	0.6	1.6	0.2	0.3	0.2	0.9	17.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	6.4	6.6	1.0	3.4	3.5	2.7	4.6	3.3	0.7	7.3	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.4	22.8	22.7	17.4	21.6	21.6	44.2	42.1	41.4	48.7	55.3	76.3
LnGrp LOS	B	C	C	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		1004			547			621			838	
Approach Delay, s/veh		21.4			20.9			42.3			63.1	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	93.3		56.9	13.2	89.9	13.0	43.9				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+1), s	15.6	23.3		14.8	9.3	13.1	9.6	33.2				
Green Ext Time (p_c), s	0.4	10.1		8.6	0.9	7.4	0.5	4.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											37.2	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

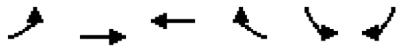
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔
Traffic Volume (veh/h)	853	200	1	685	9	110
Future Volume (veh/h)	853	200	1	685	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1688	1688	1786	1688	1772
Adj Flow Rate, veh/h	870	204	1	699	9	112
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	8	8	1	8	2
Cap, veh/h	1273	298	60	1553	1039	501
Arrive On Green	0.47	0.47	0.47	0.47	0.33	0.33
Sat Flow, veh/h	2817	639	1	3409	3118	1502
Grp Volume(v), veh/h	541	533	375	325	9	112
Grp Sat Flow(s),veh/h/ln	1697	1671	1785	1544	1559	1502
Q Serve(g_s), s	15.0	15.0	0.0	8.5	0.1	3.2
Cycle Q Clear(g_c), s	15.0	15.0	8.5	8.5	0.1	3.2
Prop In Lane		0.38	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	780	893	721	1039	501
V/C Ratio(X)	0.68	0.68	0.42	0.45	0.01	0.22
Avail Cap(c_a), veh/h	792	780	893	721	1039	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	12.5	12.5	10.8	10.8	13.4	14.4
Incr Delay (d2), s/veh	4.7	4.8	1.4	1.9	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.3	0.9	0.9	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.3	17.4	12.2	12.7	13.4	15.4
LnGrp LOS	B	B	B	B	B	B
Approach Vol, veh/h	1074			700	121	
Approach Delay, s/veh	17.3			12.4	15.3	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		5.2		17.0		10.5
Green Ext Time (p_c), s		0.5		8.8		9.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			15.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1037	542	145	27	52
Future Volume (veh/h)	0	1037	542	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1772	1772	1786
Adj Flow Rate, veh/h	0	1058	553	148	28	53
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	2	2	1
Cap, veh/h	0	1711	1347	359	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	2738	706	3274	1514
Grp Volume(v), veh/h	0	1058	353	348	28	53
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1659	1637	1514
Q Serve(g_s), s	0.0	13.5	7.8	7.8	0.3	1.4
Cycle Q Clear(g_c), s	0.0	13.5	7.8	7.8	0.3	1.4
Prop In Lane	0.00			0.43	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	843	1119	517
V/C Ratio(X)	0.00	0.62	0.41	0.41	0.03	0.10
Avail Cap(c_a), veh/h	0	1711	862	843	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.6	9.2	9.2	13.1	13.5
Incr Delay (d2), s/veh	0.0	1.7	1.4	1.5	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	0.3	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	12.3	10.6	10.7	13.2	13.9
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		1058	701		81	
Approach Delay, s/veh		12.3	10.6		13.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				15.5	3.4	9.8
Green Ext Time (p_c), s				11.5	0.3	10.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			11.7			
HCM 6th LOS			B			



# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗	↘	↖	↗↗	↘	↗↗			↗↗↗	↘
Traffic Volume (veh/h)	0	0	0	237	4	470	2	1126	208	0	1477	386
Future Volume (veh/h)	0	0	0	237	4	470	2	1126	208	0	1477	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	252	0	495	2	1185	219	0	1555	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	743	0	593	153	1849	340	0	3073	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	215	2750	505	0	4720	1335
Grp Volume(v), veh/h		0.0		252	0	495	2	699	705	0	1555	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	215	1630	1625	0	1523	1335
Q Serve(g_s), s				10.5	0.0	29.6	0.7	39.4	40.1	0.0	27.0	22.9
Cycle Q Clear(g_c), s				10.5	0.0	29.6	27.8	39.4	40.1	0.0	27.0	22.9
Prop In Lane				1.00		1.00	1.00		0.31	0.00		1.00
Lane Grp Cap(c), veh/h				743	0	593	153	1096	1093	0	3073	898
V/C Ratio(X)				0.34	0.00	0.83	0.01	0.64	0.64	0.00	0.51	0.45
Avail Cap(c_a), veh/h				1096	0	875	153	1096	1093	0	3073	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	58.4	19.9	15.0	15.1	0.0	13.0	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	2.8	2.9	0.0	0.6	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	7.4	0.0	4.8	5.0	0.0	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.4	0.0	63.0	20.0	17.9	18.1	0.0	13.6	14.0
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					747			1406			1961	
Approach Delay, s/veh					59.1			18.0			13.7	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.1		44.9		115.1						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		29.0		31.6		42.1						
Green Ext Time (p_c), s		16.7		5.5		22.3						

## Intersection Summary

HCM 6th Ctrl Delay, s/veh	23.4
HCM 6th LOS	C

## Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TTT	T		TTT	TTT	
Traffic Volume (veh/h)	478	216	1	806	884	730
Future Volume (veh/h)	478	216	1	806	884	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	1772	1758	1702	1646
Adj Flow Rate, veh/h	503	227	1	848	931	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	2	3	7	11
Cap, veh/h	617	288	23	3296	2188	1019
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3188	1490	1	4809	3250	1442
Grp Volume(v), veh/h	503	227	319	530	931	768
Grp Sat Flow(s),veh/h/ln	1594	1490	1755	1456	1549	1442
Q Serve(g_s), s	24.2	23.2	0.0	10.4	20.2	53.5
Cycle Q Clear(g_c), s	24.2	23.2	10.4	10.4	20.2	53.5
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	617	288	1262	2057	2188	1019
V/C Ratio(X)	0.82	0.79	0.25	0.26	0.43	0.75
Avail Cap(c_a), veh/h	907	424	1262	2057	2188	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.8	61.4	8.4	8.4	9.9	14.7
Incr Delay (d2), s/veh	3.7	5.9	0.4	0.3	0.6	5.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	7.2	0.8	0.6	1.3	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.5	67.3	8.8	8.7	10.5	19.9
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	730			849	1699	
Approach Delay, s/veh	66.1			8.7	14.7	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.5		39.5		120.5
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		98.5		45.5		98.5
Max Q Clear Time (g_c+I1), s		12.4		26.2		55.5
Green Ext Time (p_c), s		23.0		4.8		37.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			24.6			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	332	213	58	74	96	135	79	1153	95	272	531	177
Future Volume (veh/h)	332	213	58	74	96	135	79	1153	95	272	531	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	349	224	61	78	101	142	83	1214	0	286	559	186
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	400	1115	550	358	803	476	147	2057		330	2239	850
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.91	0.91
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	349	224	61	78	101	142	83	1214	0	286	559	186
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	16.3	7.3	4.2	5.5	3.6	11.7	3.8	29.8	0.0	12.9	2.1	1.8
Cycle Q Clear(g_c), s	16.3	7.3	4.2	5.5	3.6	11.7	3.8	29.8	0.0	12.9	2.1	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	1115	550	358	803	476	147	2057		330	2239	850
V/C Ratio(X)	0.87	0.20	0.11	0.22	0.13	0.30	0.56	0.59		0.87	0.25	0.22
Avail Cap(c_a), veh/h	464	1397	672	372	1044	575	173	2057		386	2239	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	69.3	40.5	34.7	44.5	49.3	40.7	75.1	37.4	0.0	63.6	3.9	2.4
Incr Delay (d2), s/veh	14.8	0.1	0.1	0.3	0.1	0.3	3.3	1.3	0.0	13.8	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	2.3	1.1	1.7	1.2	3.0	1.4	8.3	0.0	4.6	0.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.2	40.6	34.8	44.8	49.4	41.1	78.5	38.7	0.0	77.4	4.1	2.9
LnGrp LOS	F	D	C	D	D	D	E	D		E	A	A
Approach Vol, veh/h		634			321			1297			1031	
Approach Delay, s/veh		64.0			44.6			41.2			24.2	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	80.5	24.0	43.6	20.4	72.0	10.3	57.3				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	3.0	58.0	22.0	47.0	18.0	48.0	8.6	62.4				
Max Q Clear Time (g_c+1/3), s	15.8	4.1	18.3	13.7	14.9	31.8	7.5	9.3				
Green Ext Time (p_c), s	0.1	14.1	0.7	2.5	0.5	13.1	0.0	4.6				

### Intersection Summary

HCM 6th Ctrl Delay, s/veh	40.6
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 4: Tenth Line W & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	313	36	69	146	47	73	29	214	19	9	11
Future Volume (veh/h)	28	313	36	69	146	47	73	29	214	19	9	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	29	326	38	72	152	49	76	30	223	20	9	11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	623	811	706	540	1010	887	422	50	375	183	113	139
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.07	0.26	0.26	0.15	0.15	0.15
Sat Flow, veh/h	1195	1841	1601	1739	1826	1603	1810	194	1442	696	776	949
Grp Volume(v), veh/h	29	326	38	72	152	49	76	0	253	20	0	20
Grp Sat Flow(s),veh/h/ln	1195	1841	1601	1739	1826	1603	1810	0	1636	696	0	1725
Q Serve(g_s), s	1.0	9.0	1.0	1.5	3.0	1.1	2.5	0.0	10.1	1.9	0.0	0.8
Cycle Q Clear(g_c), s	1.0	9.0	1.0	1.5	3.0	1.1	2.5	0.0	10.1	3.5	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.88	1.00		0.55
Lane Grp Cap(c), veh/h	623	811	706	540	1010	887	422	0	426	183	0	252
V/C Ratio(X)	0.05	0.40	0.05	0.13	0.15	0.06	0.18	0.00	0.59	0.11	0.00	0.08
Avail Cap(c_a), veh/h	623	811	706	611	1010	887	493	0	971	388	0	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	14.3	12.0	9.2	8.2	7.7	22.3	0.0	24.3	29.6	0.0	27.7
Incr Delay (d2), s/veh	0.1	1.5	0.1	0.1	0.3	0.1	0.2	0.0	1.3	0.3	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.0	0.0	0.1	0.0	0.4	0.0	1.6	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.2	15.7	12.2	9.3	8.5	7.8	22.5	0.0	25.6	29.8	0.0	27.8
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		393			273			329				40
Approach Delay, s/veh		15.1			8.6			24.9				28.8
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.4	40.6		26.0		49.0	8.6	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I), s	13.5	11.0		12.1		5.0	4.5	5.5				
Green Ext Time (p_c), s	0.1	4.9		4.8		2.7	0.1	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				17.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	52	30	324	224	97	587
Future Volume (veh/h)	52	30	324	224	97	587
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	56	32	348	241	104	631
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	119	106	1342	1137	679	1331
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	1870	1585	827	1856
Grp Volume(v), veh/h	56	32	348	241	104	631
Grp Sat Flow(s),veh/h/ln	1711	1522	1870	1585	827	1856
Q Serve(g_s), s	1.6	1.0	3.3	2.6	2.6	7.5
Cycle Q Clear(g_c), s	1.6	1.0	3.3	2.6	5.9	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	119	106	1342	1137	679	1331
V/C Ratio(X)	0.47	0.30	0.26	0.21	0.15	0.47
Avail Cap(c_a), veh/h	597	531	1342	1137	679	1331
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.8	2.5	2.4	3.6	3.1
Incr Delay (d2), s/veh	2.9	1.6	0.5	0.4	0.5	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.2	0.1	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.0	24.4	3.0	2.9	4.0	4.3
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	88		589			735
Approach Delay, s/veh	25.4		2.9			4.3
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.1
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		9.5			5.3	3.6
Green Ext Time (p_c), s		13.0			7.8	0.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			5.0			
HCM 6th LOS			A			

# HCM 6th Signalized Intersection Summary

## 6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	714	38	84	391	31	105	257	127	28	336	303
Future Volume (veh/h)	173	714	38	84	391	31	105	257	127	28	336	303
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	178	736	39	87	403	32	108	265	131	29	346	312
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	573	1816	96	463	1716	136	207	604	516	261	467	393
Arrive On Green	0.12	1.00	1.00	0.04	0.51	0.51	0.06	0.33	0.33	0.25	0.25	0.25
Sat Flow, veh/h	1767	3433	182	1725	3362	266	1753	1841	1572	1004	1856	1560
Grp Volume(v), veh/h	178	381	394	87	214	221	108	265	131	29	346	312
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1837	1753	1841	1572	1004	1856	1560
Q Serve(g_s), s	7.8	0.0	0.0	3.8	10.6	10.7	7.1	18.1	9.8	3.7	27.4	29.9
Cycle Q Clear(g_c), s	7.8	0.0	0.0	3.8	10.6	10.7	7.1	18.1	9.8	9.6	27.4	29.9
Prop In Lane	1.00		0.10	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	573	940	972	463	914	938	207	604	516	261	467	393
V/C Ratio(X)	0.31	0.41	0.41	0.19	0.23	0.24	0.52	0.44	0.25	0.11	0.74	0.79
Avail Cap(c_a), veh/h	575	940	972	497	914	938	271	909	776	388	702	590
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	16.8	21.8	21.8	42.4	42.2	39.4	50.7	55.1	56.0
Incr Delay (d2), s/veh	0.3	1.2	1.1	0.2	0.6	0.6	2.0	0.5	0.3	0.2	2.3	4.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.3	0.3	0.8	2.7	2.8	2.3	5.8	2.7	0.7	9.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.3	1.2	1.1	17.0	22.4	22.4	44.4	42.7	39.6	50.9	57.4	60.4
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		953			522			504			687	
Approach Delay, s/veh		3.8			21.5			42.3			58.5	
Approach LOS		A			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	91.1		59.0	12.9	88.1	12.2	46.8				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+15), s	15.0	2.0		20.1	9.8	12.7	9.1	31.9				
Green Ext Time (p_c), s	0.1	18.1		5.9	0.0	8.2	0.2	8.3				

### Intersection Summary

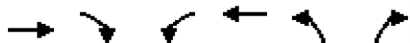
HCM 6th Ctrl Delay, s/veh	28.6
HCM 6th LOS	C

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

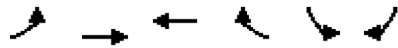
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	832	200	2	668	9	110
Future Volume (veh/h)	832	200	2	668	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	858	206	2	689	9	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1481	355	46	1800	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2781	646	1	3353	2729	1490
Grp Volume(v), veh/h	536	528	370	321	9	113
Grp Sat Flow(s),veh/h/ln	1683	1656	1755	1520	1365	1490
Q Serve(g_s), s	16.8	16.8	0.0	9.6	0.2	4.5
Cycle Q Clear(g_c), s	16.8	16.8	9.6	9.6	0.2	4.5
Prop In Lane		0.39	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	926	911	1010	836	870	475
V/C Ratio(X)	0.58	0.58	0.37	0.38	0.01	0.24
Avail Cap(c_a), veh/h	926	911	1010	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.9	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.6	2.7	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.7	0.3	0.3	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.5	14.6	11.2	11.5	18.6	21.3
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1064			691	122	
Approach Delay, s/veh	14.6			11.4	21.1	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+1), s		6.5		18.8		11.6
Green Ext Time (p_c), s		0.6		17.3		12.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			13.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1011	528	145	27	52
Future Volume (veh/h)	0	1011	528	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1064	556	153	28	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1570	431	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2678	710	3118	1335
Grp Volume(v), veh/h	0	1064	358	351	28	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1630	1559	1335
Q Serve(g_s), s	0.0	14.6	8.6	8.6	0.5	2.5
Cycle Q Clear(g_c), s	0.0	14.6	8.6	8.6	0.5	2.5
Prop In Lane	0.00			0.44	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	988	877	375
V/C Ratio(X)	0.00	0.52	0.35	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	988	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.1	7.9	7.9	20.9	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.0	8.9	8.9	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1064	709		83	
Approach Delay, s/veh		10.0	8.9		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				16.6	4.5	10.6
Green Ext Time (p_c), s				20.9	0.3	14.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			10.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	0	23	75	13	10	0
Future Vol, veh/h	0	23	75	13	10	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	82	14	11	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	189	11	11	0	0
Stage 1	11	-	-	-	-
Stage 2	178	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	800	1070	1608	-	-
Stage 1	1012	-	-	-	-
Stage 2	853	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	759	1070	1608	-	-
Mov Cap-2 Maneuver	759	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	853	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	6.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1070	-	-
HCM Lane V/C Ratio	0.051	-	0.023	-	-
HCM Ctrl Dly (s/v)	7.4	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.2	-	0.1	-	-

Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	
Traffic Vol, veh/h	0	10	13	0	0	0
Future Vol, veh/h	0	10	13	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	14	0	0	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	29	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	28	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	986	1084	1622	-	-
Stage 1	1022	-	-	-	-
Stage 2	995	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	977	1084	1622	-	-
Mov Cap-2 Maneuver	977	-	-	-	-
Stage 1	1013	-	-	-	-
Stage 2	995	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.009	-	0.01	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↶	↷	↶	↶			↶	↶
Traffic Volume (veh/h)	7	0	18	809	12	755	5	1093	231	0	1398	434
Future Volume (veh/h)	7	0	18	809	12	755	5	1093	231	0	1398	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	0	1800	1786	1800	1660	1800	1702	1772	0	1702	1688
Adj Flow Rate, veh/h	7	0	19	852	0	786	5	1139	241	0	1456	452
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	10	0	7	2	0	7	8
Cap, veh/h	0	0	0	1051	0	869	190	1587	334	0	2772	853
Arrive On Green	0.00	0.00	0.00	0.31	0.00	0.31	0.60	0.60	0.60	0.00	0.60	0.60
Sat Flow, veh/h		0		3402	0	2813	351	2659	559	0	4799	1430
Grp Volume(v), veh/h		0.0		852	0	786	5	690	690	0	1456	452
Grp Sat Flow(s),veh/h/ln				1701	0	1406	351	1617	1601	0	1549	1430
Q Serve(g_s), s				36.9	0.0	42.9	1.4	48.0	48.9	0.0	29.5	29.8
Cycle Q Clear(g_c), s				36.9	0.0	42.9	30.8	48.0	48.9	0.0	29.5	29.8
Prop In Lane				1.00		1.00	1.00		0.35	0.00		1.00
Lane Grp Cap(c), veh/h				1051	0	869	190	965	955	0	2772	853
V/C Ratio(X)				0.81	0.00	0.90	0.03	0.71	0.72	0.00	0.53	0.53
Avail Cap(c_a), veh/h				1080	0	893	190	965	955	0	2772	853
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.0	0.0	53.0	28.0	22.7	22.9	0.0	18.9	19.0
Incr Delay (d2), s/veh				4.7	0.0	12.4	0.3	4.5	4.7	0.0	0.7	2.3
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.7	0.0	12.1	0.1	9.2	9.3	0.0	4.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				55.6	0.0	65.4	28.3	27.2	27.6	0.0	19.7	21.4
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1638			1385			1908	
Approach Delay, s/veh					60.3			27.4			20.1	
Approach LOS					E			C			C	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		103.0		57.0		103.0						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		31.8		44.9		50.9						
Green Ext Time (p_c), s		15.6		4.5		0.0						

## Intersection Summary

HCM 6th Ctrl Delay, s/veh	35.5
HCM 6th LOS	D

## Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	330	5	938	1712	572
Future Volume (veh/h)	340	330	5	938	1712	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1617	1744	1772	1744	1772	1603
Adj Flow Rate, veh/h	468	238	5	998	1821	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	13	4	2	4	2	14
Cap, veh/h	584	280	27	3231	2579	823
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3081	1478	6	4691	3790	1158
Grp Volume(v), veh/h	468	238	368	635	1608	822
Grp Sat Flow(s),veh/h/ln	1540	1478	1667	1444	1612	1563
Q Serve(g_s), s	23.2	24.9	0.0	13.1	46.1	51.4
Cycle Q Clear(g_c), s	23.2	24.9	12.4	13.1	46.1	51.4
Prop In Lane	1.00	1.00	0.01			0.74
Lane Grp Cap(c), veh/h	584	280	1207	2052	2291	1111
V/C Ratio(X)	0.80	0.85	0.30	0.31	0.70	0.74
Avail Cap(c_a), veh/h	722	346	1207	2052	2291	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.9	62.6	8.5	8.6	13.4	14.2
Incr Delay (d2), s/veh	5.2	15.1	0.6	0.3	1.8	4.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	8.4	0.9	0.7	3.1	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.2	77.7	9.1	8.9	15.2	18.6
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	706			1003	2430	
Approach Delay, s/veh	70.7			9.0	16.4	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		121.2		38.8		121.2
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		106.5		37.5		106.5
Max Q Clear Time (g_c+I1), s		15.1		26.9		53.4
Green Ext Time (p_c), s		31.4		3.5		51.6

Intersection Summary

HCM 6th Ctrl Delay, s/veh		23.8				
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	354	294	202	268	509	284	221	736	94	229	1204	358
Future Volume (veh/h)	354	294	202	268	509	284	221	736	94	229	1204	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870	1856
Adj Flow Rate, veh/h	358	297	204	271	514	287	223	743	0	231	1216	362
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	2	1	1	2	3	1	5	2	4	2	3
Cap, veh/h	415	1112	605	497	1002	553	270	1785		277	1848	758
Arrive On Green	0.12	0.31	0.31	0.10	0.28	0.28	0.08	0.36	0.00	0.16	0.72	0.72
Sat Flow, veh/h	3401	3554	1536	1795	3554	1506	3483	4985	1585	3401	5106	1565
Grp Volume(v), veh/h	358	297	204	271	514	287	223	743	0	231	1216	362
Grp Sat Flow(s),veh/h/ln1700	1777	1536	1795	1777	1506	1742	1662	1585	1700	1702	1565	
Q Serve(g_s), s	16.5	10.0	14.9	16.6	19.4	24.0	10.1	18.0	0.0	10.5	20.1	15.4
Cycle Q Clear(g_c), s	16.5	10.0	14.9	16.6	19.4	24.0	10.1	18.0	0.0	10.5	20.1	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	1112	605	497	1002	553	270	1785		277	1848	758
V/C Ratio(X)	0.86	0.27	0.34	0.55	0.51	0.52	0.83	0.42		0.83	0.66	0.48
Avail Cap(c_a), veh/h	510	1253	666	497	1044	570	327	1785		361	1848	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	68.9	41.2	34.3	35.9	48.2	40.0	72.7	38.7	0.0	65.9	16.9	10.9
Incr Delay (d2), s/veh	12.1	0.1	0.3	1.2	0.4	0.8	13.5	0.7	0.0	7.5	1.1	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	3.1	3.8	5.3	6.3	6.1	4.0	5.1	0.0	3.6	3.5	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.0	41.3	34.6	37.1	48.6	40.8	86.2	39.4	0.0	73.4	17.9	12.2
LnGrp LOS	F	D	C	D	D	D	F	D		E	B	B
Approach Vol, veh/h		859			1072			966			1809	
Approach Delay, s/veh		56.3			43.6			50.2			23.9	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	65.4	24.5	52.6	18.0	64.8	19.6	57.6				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	49.0	24.0	47.0	17.0	47.0	16.6	56.4				
Max Q Clear Time (g_c+1/2, s)	11.2	22.1	18.5	26.0	12.5	20.0	18.6	16.9				
Green Ext Time (p_c), s	0.3	21.6	1.0	9.6	0.5	13.0	0.0	7.0				

### Intersection Summary

HCM 6th Ctrl Delay, s/veh	39.7
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 4: Tenth Line W & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	298	96	451	457	22	61	7	281	39	21	34
Future Volume (veh/h)	11	298	96	451	457	22	61	7	281	39	21	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	418	1826	1870	1900	1856	1604	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	320	103	485	491	24	66	8	302	42	23	37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	100	5	2	0	3	20	0	0	0	0	0	0
Cap, veh/h	162	697	596	531	980	709	428	12	459	226	122	196
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.29	0.29	0.19	0.19	0.19
Sat Flow, veh/h	196	1826	1560	1810	1856	1344	1810	41	1562	1079	650	1046
Grp Volume(v), veh/h	12	320	103	485	491	24	66	0	310	42	0	60
Grp Sat Flow(s), veh/h/ln	196	1826	1560	1810	1856	1344	1810	0	1604	1079	0	1696
Q Serve(g_s), s	3.3	10.3	3.4	8.5	13.3	0.7	2.1	0.0	13.3	2.8	0.0	2.3
Cycle Q Clear(g_c), s	5.1	10.3	3.4	8.5	13.3	0.7	2.1	0.0	13.3	7.7	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.62
Lane Grp Cap(c), veh/h	162	697	596	531	980	709	428	0	471	226	0	318
V/C Ratio(X)	0.07	0.46	0.17	0.91	0.50	0.03	0.15	0.00	0.66	0.19	0.00	0.19
Avail Cap(c_a), veh/h	162	697	596	531	980	709	501	0	908	477	0	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	18.2	16.1	19.7	11.9	8.9	21.2	0.0	24.3	31.3	0.0	26.9
Incr Delay (d2), s/veh	0.9	2.2	0.6	20.3	1.8	0.1	0.2	0.0	1.6	0.4	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	0.3	3.0	0.5	0.0	0.4	0.0	2.1	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	20.4	16.7	40.0	13.7	9.0	21.4	0.0	25.9	31.7	0.0	27.2
LnGrp LOS	B	C	B	D	B	A	C		C	C		C
Approach Vol, veh/h		435			1000			376			102	
Approach Delay, s/veh		19.5			26.4			25.1			29.0	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	1.5	37.5		29.6		49.0	8.3	21.2				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	3.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+110), s	11.0	12.3		15.3		15.3	4.1	9.7				
Green Ext Time (p_c), s	0.0	5.3		5.9		8.7	0.1	1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				24.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	275	205	734	134	75	545
Future Volume (veh/h)	275	205	734	134	75	545
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1811	1870
Adj Flow Rate, veh/h	286	214	765	140	78	568
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	3	6	2
Cap, veh/h	376	335	1148	958	323	1139
Arrive On Green	0.21	0.21	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1795	1598	1885	1572	596	1870
Grp Volume(v), veh/h	286	214	765	140	78	568
Grp Sat Flow(s),veh/h/ln	1795	1598	1885	1572	596	1870
Q Serve(g_s), s	9.1	7.4	16.2	2.3	6.0	10.4
Cycle Q Clear(g_c), s	9.1	7.4	16.2	2.3	22.2	10.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	376	335	1148	958	323	1139
V/C Ratio(X)	0.76	0.64	0.67	0.15	0.24	0.50
Avail Cap(c_a), veh/h	532	473	1148	958	323	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	21.9	7.8	5.1	15.1	6.7
Incr Delay (d2), s/veh	4.0	2.0	3.1	0.3	1.8	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	1.0	0.1	0.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.6	23.9	10.9	5.4	16.9	8.2
LnGrp LOS	C	C	B	A	B	A
Approach Vol, veh/h	500		905			646
Approach Delay, s/veh	25.4		10.0			9.3
Approach LOS	C		B			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	17.2
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		24.2			18.2	11.1
Green Ext Time (p_c), s		7.0			12.1	1.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			13.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

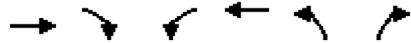
03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	650	130	164	917	57	80	522	144	61	395	260
Future Volume (veh/h)	259	650	130	164	917	57	80	522	144	61	395	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1885	1885	1900	1885	1885	1870	1841	1885	1870	1900	1885	1870
Adj Flow Rate, veh/h	276	691	138	174	976	61	85	555	153	65	420	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	1	1	2	4	1	2	0	1	2
Cap, veh/h	349	1421	284	383	1528	96	188	665	559	107	542	455
Arrive On Green	0.10	0.48	0.48	0.07	0.45	0.45	0.05	0.35	0.35	0.29	0.29	0.29
Sat Flow, veh/h	1795	2975	594	1795	3423	214	1753	1885	1584	752	1885	1583
Grp Volume(v), veh/h	276	416	413	174	511	526	85	555	153	65	420	277
Grp Sat Flow(s),veh/h/ln	1795	1791	1778	1795	1791	1846	1753	1885	1584	752	1885	1583
Q Serve(g_s), s	12.8	25.3	25.3	8.3	35.3	35.3	5.3	43.2	11.1	13.3	32.7	24.2
Cycle Q Clear(g_c), s	12.8	25.3	25.3	8.3	35.3	35.3	5.3	43.2	11.1	46.0	32.7	24.2
Prop In Lane	1.00		0.33	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	855	849	383	800	824	188	665	559	107	542	455
V/C Ratio(X)	0.79	0.49	0.49	0.45	0.64	0.64	0.45	0.83	0.27	0.61	0.78	0.61
Avail Cap(c_a), veh/h	511	855	849	600	800	824	440	866	728	107	542	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	28.4	28.4	22.5	34.3	34.3	40.1	47.5	37.1	73.6	52.3	49.3
Incr Delay (d2), s/veh	4.5	1.7	1.8	0.8	3.9	3.8	1.7	5.5	0.3	9.3	7.0	2.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	6.9	6.8	2.1	10.4	10.7	1.7	14.8	3.0	2.4	12.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.6	30.2	30.2	23.3	38.2	38.1	41.8	53.0	37.3	82.9	59.3	51.6
LnGrp LOS	C	C	C	C	D	D	D	D	D	F	E	D
Approach Vol, veh/h		1105			1211			793			762	
Approach Delay, s/veh		30.5			36.0			48.8			58.5	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	41.1	82.9		63.0	19.1	77.9	10.5	52.5				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+110), s	110.3	27.3		45.2	14.8	37.3	7.3	48.0				
Green Ext Time (p_c), s	0.8	8.3		11.3	1.3	2.3	0.4	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											41.5	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

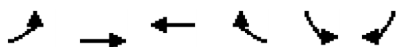
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	924	70	2	1202	40	147
Future Volume (veh/h)	924	70	2	1202	40	147
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1688	1688	1786	1688	1772
Adj Flow Rate, veh/h	943	71	2	1227	41	150
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	8	8	1	8	2
Cap, veh/h	1493	112	61	1553	1039	501
Arrive On Green	0.47	0.47	0.47	0.47	0.33	0.33
Sat Flow, veh/h	3288	241	1	3409	3118	1502
Grp Volume(v), veh/h	500	514	659	570	41	150
Grp Sat Flow(s),veh/h/ln	1697	1743	1784	1544	1559	1502
Q Serve(g_s), s	13.4	13.4	0.0	18.7	0.5	4.4
Cycle Q Clear(g_c), s	13.4	13.4	18.7	18.7	0.5	4.4
Prop In Lane		0.14	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	813	893	721	1039	501
V/C Ratio(X)	0.63	0.63	0.74	0.79	0.04	0.30
Avail Cap(c_a), veh/h	792	813	893	721	1039	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.73	0.73	1.00	1.00
Uniform Delay (d), s/veh	12.1	12.1	13.5	13.5	13.5	14.8
Incr Delay (d2), s/veh	3.8	3.7	4.0	6.5	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	1.0	1.3	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.9	15.8	17.5	20.0	13.6	16.3
LnGrp LOS	B	B	B	B	B	B
Approach Vol, veh/h	1014			1229	191	
Approach Delay, s/veh	15.9			18.7	15.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.4		20.7
Green Ext Time (p_c), s		0.8		9.5		6.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			17.3			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	841	1076	148	166	235
Future Volume (veh/h)	0	841	1076	148	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1772	1772	1786
Adj Flow Rate, veh/h	0	858	1098	151	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	2	2	1
Cap, veh/h	0	1711	1524	209	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3086	411	3274	1514
Grp Volume(v), veh/h	0	858	621	628	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1712	1637	1514
Q Serve(g_s), s	0.0	10.1	17.0	17.1	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.1	17.0	17.1	2.2	7.4
Prop In Lane	0.00			0.24	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	870	1119	517
V/C Ratio(X)	0.00	0.50	0.72	0.72	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	870	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.7	11.4	11.5	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.1	5.2	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.2	1.2	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.8	16.6	16.6	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		858	1249		409	
Approach Delay, s/veh		10.8	16.6		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.1	9.4	19.1
Green Ext Time (p_c), s				11.6	1.8	9.8
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	73	28	6	13	0
Future Vol, veh/h	0	73	28	6	13	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	79	30	7	14	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	81	14	14	0	0
Stage 1	14	-	-	-	-
Stage 2	67	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	921	1066	1604	-	-
Stage 1	1009	-	-	-	-
Stage 2	956	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	904	1066	1604	-	-
Mov Cap-2 Maneuver	904	-	-	-	-
Stage 1	990	-	-	-	-
Stage 2	956	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.6	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1604	-	1066	-	-
HCM Lane V/C Ratio	0.019	-	0.074	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	7.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	13	0	6	0	0	0
Future Vol, veh/h	13	0	6	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	7	0	0	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	15	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	14	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	1004	1084	1622	-	-
Stage 1	1022	-	-	-	-
Stage 2	1009	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	1000	1084	1622	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-
Stage 1	1018	-	-	-	-
Stage 2	1009	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.7	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1000	-	-
HCM Lane V/C Ratio	0.004	-	0.014	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

# HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗	↘	↖	↗↗	↘	↕↕			↕↕↕	↗
Traffic Volume (veh/h)	0	0	0	237	5	470	2	1184	208	0	1553	386
Future Volume (veh/h)	0	0	0	237	5	470	2	1184	208	0	1553	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	253	0	495	2	1246	219	0	1635	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	743	0	593	143	1866	325	0	3073	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	199	2775	484	0	4720	1335
Grp Volume(v), veh/h		0.0		253	0	495	2	728	737	0	1635	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	199	1630	1629	0	1523	1335
Q Serve(g_s), s				10.6	0.0	29.6	0.8	42.3	43.3	0.0	29.2	22.9
Cycle Q Clear(g_c), s				10.6	0.0	29.6	30.0	42.3	43.3	0.0	29.2	22.9
Prop In Lane				1.00		1.00	1.00		0.30	0.00		1.00
Lane Grp Cap(c), veh/h				743	0	593	143	1096	1095	0	3073	898
V/C Ratio(X)				0.34	0.00	0.83	0.01	0.66	0.67	0.00	0.53	0.45
Avail Cap(c_a), veh/h				1096	0	875	143	1096	1095	0	3073	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	58.4	21.0	15.5	15.7	0.0	13.4	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	3.2	3.3	0.0	0.7	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	0.0	8.2	0.0	8.8	9.0	0.0	5.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.4	0.0	63.0	21.2	18.7	19.0	0.0	14.0	14.0
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					748			1467			2041	
Approach Delay, s/veh					59.1			18.8			14.0	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.1		44.9		115.1						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		31.2		31.6		45.3						
Green Ext Time (p_c), s		14.9		5.5		20.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				23.6								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔↔↔	↔		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	478	216	1	847	929	730
Future Volume (veh/h)	478	216	1	847	929	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	1772	1758	1702	1646
Adj Flow Rate, veh/h	503	227	1	892	978	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	2	3	7	11
Cap, veh/h	620	290	23	3292	2185	1018
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3188	1490	1	4809	3250	1442
Grp Volume(v), veh/h	503	227	336	557	978	768
Grp Sat Flow(s),veh/h/ln	1594	1490	1755	1456	1549	1442
Q Serve(g_s), s	24.1	23.2	0.0	11.1	21.7	53.7
Cycle Q Clear(g_c), s	24.1	23.2	11.1	11.1	21.7	53.7
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	620	290	1261	2054	2185	1018
V/C Ratio(X)	0.81	0.78	0.27	0.27	0.45	0.75
Avail Cap(c_a), veh/h	946	442	1261	2054	2185	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	61.6	61.3	8.6	8.6	10.1	14.8
Incr Delay (d2), s/veh	3.2	5.1	0.4	0.3	0.7	5.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	7.9	2.0	1.6	3.4	8.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	64.8	66.3	9.0	8.8	10.8	20.0
LnGrp LOS	E	E	A	A	B	C
Approach Vol, veh/h	730			893	1746	
Approach Delay, s/veh	65.3			8.9	14.9	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.4		39.6		120.4
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		96.5		47.5		96.5
Max Q Clear Time (g_c+I1), s		13.1		26.1		55.7
Green Ext Time (p_c), s		24.7		5.0		36.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			24.2			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

# HCM 6th Signalized Intersection Summary

## 3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	332	241	58	74	108	135	79	1212	95	272	559	177
Future Volume (veh/h)	332	241	58	74	108	135	79	1212	95	272	559	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	349	254	61	78	114	142	83	1276	0	286	588	186
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	400	1117	551	352	804	477	147	2055		330	2236	849
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.91	0.91
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	349	254	61	78	114	142	83	1276	0	286	588	186
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	16.3	8.4	4.2	5.5	4.1	11.6	3.8	31.9	0.0	12.9	2.2	1.9
Cycle Q Clear(g_c), s	16.3	8.4	4.2	5.5	4.1	11.6	3.8	31.9	0.0	12.9	2.2	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	1117	551	352	804	477	147	2055		330	2236	849
V/C Ratio(X)	0.87	0.23	0.11	0.22	0.14	0.30	0.56	0.62		0.87	0.26	0.22
Avail Cap(c_a), veh/h	464	1397	672	366	1044	575	173	2055		386	2236	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	69.3	40.8	34.7	44.4	49.5	40.6	75.1	38.1	0.0	63.6	3.9	2.4
Incr Delay (d2), s/veh	14.8	0.1	0.1	0.3	0.1	0.3	3.3	1.4	0.0	13.7	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	3.0	1.3	2.0	1.5	3.4	1.5	10.4	0.0	5.0	0.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.2	40.9	34.8	44.7	49.5	41.0	78.5	39.5	0.0	77.3	4.2	2.9
LnGrp LOS	F	D	C	D	D	D	E	D		E	A	A
Approach Vol, veh/h		664			334			1359			1060	
Approach Delay, s/veh		63.1			44.8			41.9			23.7	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	80.5	24.0	43.7	20.4	71.9	10.3	57.4				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	3.0	58.0	22.0	47.0	18.0	48.0	8.6	62.4				
Max Q Clear Time (g_c+1.5s), s	15.8	4.2	18.3	13.6	14.9	33.9	7.5	10.4				
Green Ext Time (p_c), s	0.1	15.0	0.7	2.8	0.5	11.9	0.0	5.3				

### Intersection Summary























HCM 6th Ctrl Delay, s/veh	40.6
HCM 6th LOS	D

### Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 4: Tenth Line W & Argentia Rd

Future Total 2037 AM  
 03/09/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	367	40	69	197	16	95	8	214	7	6	4
Future Volume (veh/h)	6	367	40	69	197	16	95	8	214	7	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	6	382	42	72	205	17	99	8	223	7	6	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	608	805	700	493	1002	880	441	15	414	197	154	103
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.08	0.27	0.27	0.15	0.15	0.15
Sat Flow, veh/h	1172	1841	1601	1739	1826	1603	1810	56	1559	710	1061	708
Grp Volume(v), veh/h	6	382	42	72	205	17	99	0	231	7	0	10
Grp Sat Flow(s),veh/h/ln	1172	1841	1601	1739	1826	1603	1810	0	1615	710	0	1769
Q Serve(g_s), s	0.2	11.1	1.1	1.5	4.3	0.4	3.3	0.0	9.3	0.6	0.0	0.4
Cycle Q Clear(g_c), s	0.2	11.1	1.1	1.5	4.3	0.4	3.3	0.0	9.3	0.8	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.40
Lane Grp Cap(c), veh/h	608	805	700	493	1002	880	441	0	429	197	0	257
V/C Ratio(X)	0.01	0.47	0.06	0.15	0.20	0.02	0.22	0.00	0.54	0.04	0.00	0.04
Avail Cap(c_a), veh/h	608	805	700	563	1002	880	498	0	951	404	0	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	15.1	12.3	9.7	8.7	7.8	22.4	0.0	23.8	28.0	0.0	27.8
Incr Delay (d2), s/veh	0.0	2.0	0.2	0.1	0.5	0.0	0.3	0.0	1.1	0.1	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	0.2	0.1	0.3	0.0	0.8	0.0	2.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.1	17.1	12.5	9.9	9.1	7.8	22.6	0.0	24.8	28.1	0.0	27.8
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		430			294			330				17
Approach Delay, s/veh		16.6			9.2			24.2				27.9
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.5	40.5		26.6		49.0	9.1	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	8.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	3.5	13.1		11.3		6.3	5.3	2.8				
Green Ext Time (p_c), s	0.1	5.3		4.4		3.5	0.1	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				17.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	52	30	444	224	97	805
Future Volume (veh/h)	52	30	444	224	97	805
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	56	32	477	241	104	866
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	119	106	2549	1137	634	2529
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	3647	1585	734	3618
Grp Volume(v), veh/h	56	32	477	241	104	866
Grp Sat Flow(s),veh/h/ln	1711	1522	1777	1585	734	1763
Q Serve(g_s), s	1.6	1.0	2.3	2.6	2.8	4.7
Cycle Q Clear(g_c), s	1.6	1.0	2.3	2.6	5.0	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	119	106	2549	1137	634	2529
V/C Ratio(X)	0.47	0.30	0.19	0.21	0.16	0.34
Avail Cap(c_a), veh/h	597	531	2549	1137	634	2529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.8	2.4	2.4	3.2	2.7
Incr Delay (d2), s/veh	2.9	1.6	0.2	0.4	0.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.0	24.4	2.5	2.9	3.8	3.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	88		718			970
Approach Delay, s/veh	25.4		2.6			3.2
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.1
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		7.0			4.6	3.6
Green Ext Time (p_c), s		17.6			10.6	0.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			4.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	733	38	84	401	31	105	352	127	28	460	303
Future Volume (veh/h)	173	733	38	84	401	31	105	352	127	28	460	303
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	178	756	39	87	413	32	108	363	131	29	474	312
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	555	1776	92	447	1674	129	247	1191	536	287	934	413
Arrive On Green	0.13	1.00	1.00	0.04	0.50	0.50	0.06	0.34	0.34	0.26	0.26	0.26
Sat Flow, veh/h	1767	3438	177	1725	3369	260	1753	3497	1572	917	3526	1560
Grp Volume(v), veh/h	178	391	404	87	219	226	108	363	131	29	474	312
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1838	1753	1749	1572	917	1763	1560
Q Serve(g_s), s	8.1	0.0	0.0	3.9	11.2	11.3	7.0	12.2	9.6	3.8	18.3	29.4
Cycle Q Clear(g_c), s	8.1	0.0	0.0	3.9	11.2	11.3	7.0	12.2	9.6	3.9	18.3	29.4
Prop In Lane	1.00		0.10	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	555	918	950	447	890	913	247	1191	536	287	934	413
V/C Ratio(X)	0.32	0.43	0.43	0.19	0.25	0.25	0.44	0.30	0.24	0.10	0.51	0.76
Avail Cap(c_a), veh/h	555	918	950	481	890	913	312	1727	776	391	1333	590
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	0.0	17.8	23.1	23.1	39.3	38.8	37.9	44.7	49.9	54.0
Incr Delay (d2), s/veh	0.3	1.3	1.3	0.2	0.7	0.6	1.2	0.1	0.2	0.2	0.4	3.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.3	0.3	1.1	3.6	3.7	2.5	4.2	3.0	0.7	6.6	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	1.3	1.3	18.1	23.7	23.7	40.5	39.0	38.2	44.9	50.4	57.4
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	D	E
Approach Vol, veh/h		973			532			602			815	
Approach Delay, s/veh		4.0			22.8			39.1			52.9	
Approach LOS		A			C			D			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	89.1		61.0	13.0	86.0	12.1	48.9				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+15), s	15.0	2.0		14.2	10.1	13.3	9.0	31.4				
Green Ext Time (p_c), s	0.1	18.7		8.5	0.0	8.4	0.2	11.0				

Intersection Summary

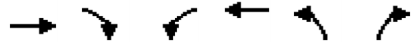
HCM 6th Ctrl Delay, s/veh	28.3
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

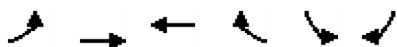
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	853	200	2	685	9	110
Future Volume (veh/h)	853	200	2	685	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	879	206	2	706	9	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1489	349	46	1800	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2796	634	1	3353	2729	1490
Grp Volume(v), veh/h	546	539	379	329	9	113
Grp Sat Flow(s),veh/h/ln	1683	1658	1755	1520	1365	1490
Q Serve(g_s), s	17.3	17.3	0.0	9.9	0.2	4.5
Cycle Q Clear(g_c), s	17.3	17.3	9.9	9.9	0.2	4.5
Prop In Lane		0.38	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	926	912	1010	836	870	475
V/C Ratio(X)	0.59	0.59	0.38	0.39	0.01	0.24
Avail Cap(c_a), veh/h	926	912	1010	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	12.0	12.0	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.8	2.8	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.8	0.9	0.9	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.8	14.8	11.3	11.6	18.6	21.3
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1085			708	122	
Approach Delay, s/veh	14.8			11.5	21.1	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+1), s		6.5		19.3		11.9
Green Ext Time (p_c), s		0.6		17.4		13.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1037	542	145	27	52
Future Volume (veh/h)	0	1037	542	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1092	571	153	28	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1580	422	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2694	696	3118	1335
Grp Volume(v), veh/h	0	1092	365	359	28	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1633	1559	1335
Q Serve(g_s), s	0.0	15.1	8.8	8.9	0.5	2.5
Cycle Q Clear(g_c), s	0.0	15.1	8.8	8.9	0.5	2.5
Prop In Lane	0.00			0.43	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	990	877	375
V/C Ratio(X)	0.00	0.54	0.36	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	990	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.2	7.9	7.9	20.9	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	0.3	0.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.2	8.9	9.0	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1092	724		83	
Approach Delay, s/veh		10.2	9.0		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				17.1	4.5	10.9
Green Ext Time (p_c), s				21.2	0.3	14.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			10.2			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	0	23	75	13	10	0
Future Vol, veh/h	0	23	75	13	10	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	82	14	11	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	189	11	11	0	0
Stage 1	11	-	-	-	-
Stage 2	178	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	800	1070	1608	-	-
Stage 1	1012	-	-	-	-
Stage 2	853	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	759	1070	1608	-	-
Mov Cap-2 Maneuver	759	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	853	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	6.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1070	-	-
HCM Lane V/C Ratio	0.051	-	0.023	-	-
HCM Ctrl Dly (s/v)	7.4	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.2	-	0.1	-	-

Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	10	13	0	0	0
Future Vol, veh/h	0	10	13	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	14	0	0	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	29	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	28	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	986	1084	1622	-	-
Stage 1	1022	-	-	-	-
Stage 2	995	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	977	1084	1622	-	-
Mov Cap-2 Maneuver	977	-	-	-	-
Stage 1	1013	-	-	-	-
Stage 2	995	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.009	-	0.01	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

HCM 6th Signalized Intersection Summary

Future Total 2037 PM

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/09/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗		↖	↖	↖	↖	↖	↖	↖		↖	↖
Traffic Volume (veh/h)	7	0	18	809	13	755	5	1121	231	0	1434	434
Future Volume (veh/h)	7	0	18	809	13	755	5	1121	231	0	1434	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1688	0	1800	1800	1786	1800	1786	1800	1702	0	1702	1702
Adj Flow Rate, veh/h	7	0	19	853	0	786	5	1168	241	0	1494	452
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	0	0	0	1	0	1	0	7	0	7	7
Cap, veh/h	0	0	0	1026	0	913	186	1714	351	0	2817	875
Arrive On Green	0.00	0.00	0.00	0.30	0.00	0.30	0.61	0.61	0.61	0.00	0.61	0.61
Sat Flow, veh/h		0		3429	0	3051	336	2827	579	0	4799	1442
Grp Volume(v), veh/h		0.0		853	0	786	5	703	706	0	1494	452
Grp Sat Flow(s),veh/h/ln				1714	0	1525	336	1710	1696	0	1549	1442
Q Serve(g_s), s				37.1	0.0	38.9	1.4	44.0	44.9	0.0	29.8	28.7
Cycle Q Clear(g_c), s				37.1	0.0	38.9	31.2	44.0	44.9	0.0	29.8	28.7
Prop In Lane				1.00		1.00	1.00		0.34	0.00		1.00
Lane Grp Cap(c), veh/h				1026	0	913	186	1037	1028	0	2817	875
V/C Ratio(X)				0.83	0.00	0.86	0.03	0.68	0.69	0.00	0.53	0.52
Avail Cap(c_a), veh/h				1089	0	969	186	1037	1028	0	2817	875
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				52.3	0.0	52.9	27.3	21.0	21.2	0.0	18.3	18.0
Incr Delay (d2), s/veh				5.3	0.0	7.7	0.3	3.6	3.7	0.0	0.7	2.2
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.5	0.0	12.9	0.1	11.6	11.8	0.0	6.7	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				57.7	0.0	60.6	27.6	24.6	24.9	0.0	19.0	20.2
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1639			1414			1946	
Approach Delay, s/veh					59.1			24.8			19.3	
Approach LOS					E			C			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		104.5		55.5		104.5						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		31.8		40.9		46.9						
Green Ext Time (p_c), s		15.7		7.0		1.7						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	33.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Future Total 2037 PM  
 03/09/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	330	5	962	1755	572
Future Volume (veh/h)	340	330	5	962	1755	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1603	1744	1772	1744	1772	1772
Adj Flow Rate, veh/h	468	238	5	1023	1867	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	14	4	2	4	2	2
Cap, veh/h	590	286	27	3215	2585	802
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3054	1478	6	4692	3818	1134
Grp Volume(v), veh/h	468	238	377	651	1634	842
Grp Sat Flow(s),veh/h/ln	1527	1478	1667	1444	1612	1568
Q Serve(g_s), s	23.4	24.8	0.0	13.7	48.2	54.4
Cycle Q Clear(g_c), s	23.4	24.8	12.9	13.7	48.2	54.4
Prop In Lane	1.00	1.00	0.01			0.72
Lane Grp Cap(c), veh/h	590	286	1201	2041	2279	1108
V/C Ratio(X)	0.79	0.83	0.31	0.32	0.72	0.76
Avail Cap(c_a), veh/h	792	383	1201	2041	2279	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	61.5	62.1	8.8	8.9	13.9	14.9
Incr Delay (d2), s/veh	4.0	11.1	0.6	0.4	2.0	4.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	8.8	2.3	2.0	8.0	9.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.5	73.2	9.4	9.2	15.9	19.8
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	706			1028	2476	
Approach Delay, s/veh	68.1			9.3	17.2	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.6		39.4		120.6
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		102.5		41.5		102.5
Max Q Clear Time (g_c+I1), s		15.7		26.8		56.4
Green Ext Time (p_c), s		32.2		4.1		45.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			23.8			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 3: Winston Churchill Blvd & Argentia Rd

Future Total 2037 PM  
 03/09/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	354	332	202	268	576	284	221	755	94	229	1235	358
Future Volume (veh/h)	354	332	202	268	576	284	221	755	94	229	1235	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.98		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870
Adj Flow Rate, veh/h	358	335	204	271	582	287	223	763	0	231	1247	362
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	4	2	1	1	2	3	1	5	2	4	2
Cap, veh/h	416	1077	594	482	1013	557	269	1848		278	1814	762
Arrive On Green	0.12	0.31	0.31	0.11	0.28	0.28	0.08	0.36	0.00	0.16	0.72	0.72
Sat Flow, veh/h	3428	3497	1523	1795	3582	1518	3428	5147	1547	3456	5025	1577
Grp Volume(v), veh/h	358	335	204	271	582	287	223	763	0	231	1247	362
Grp Sat Flow(s),veh/h/ln	1714	1749	1523	1795	1791	1518	1714	1716	1547	1728	1675	1577
Q Serve(g_s), s	16.4	11.7	15.2	17.3	22.3	23.8	10.3	17.8	0.0	10.4	21.9	15.3
Cycle Q Clear(g_c), s	16.4	11.7	15.2	17.3	22.3	23.8	10.3	17.8	0.0	10.4	21.9	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	1077	594	482	1013	557	269	1848		278	1814	762
V/C Ratio(X)	0.86	0.31	0.34	0.56	0.57	0.52	0.83	0.41		0.83	0.69	0.48
Avail Cap(c_a), veh/h	514	1215	654	482	1052	573	321	1848		367	1814	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	69.0	42.4	34.8	35.1	49.1	40.0	72.7	38.6	0.0	66.1	17.3	11.1
Incr Delay (d2), s/veh	11.8	0.2	0.3	1.5	0.7	0.7	14.2	0.7	0.0	7.1	1.3	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	4.1	4.4	6.1	8.2	7.1	4.4	6.1	0.0	3.9	4.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	80.7	42.5	35.1	36.6	49.8	40.7	86.8	39.3	0.0	73.2	18.5	12.3
LnGrp LOS	F	D	D	D	D	D	F	D		E	B	B
Approach Vol, veh/h		897			1140			986			1840	
Approach Delay, s/veh		56.1			44.4			50.0			24.2	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	65.3	24.4	52.8	17.9	65.0	20.4	56.8				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	49.0	24.0	47.0	17.0	47.0	17.4	55.6				
Max Q Clear Time (g_c+1/3), s	11.3	23.9	18.4	25.8	12.4	19.8	19.3	17.2				
Green Ext Time (p_c), s	0.3	20.7	1.0	10.6	0.5	13.3	0.0	7.8				

Intersection Summary























HCM 6th Ctrl Delay, s/veh	40.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
4: Tenth Line W & Argentia Rd

Future Total 2037 PM  
03/10/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	362	111	451	532	8	66	2	281	7	6	4
Future Volume (veh/h)	2	362	111	451	532	8	66	2	281	7	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1826	1870	1900	1856	1841	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	389	119	485	572	9	71	2	302	8	6	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	3	5	2	0	3	4	0	0	0	0	0
Cap, veh/h	369	627	514	546	1048	858	442	3	448	209	190	126
Arrive On Green	0.34	0.34	0.34	0.18	0.55	0.55	0.07	0.28	0.28	0.18	0.18	0.18
Sat Flow, veh/h	840	1856	1520	1781	1900	1555	1753	11	1588	1085	1057	705
Grp Volume(v), veh/h	2	389	119	485	572	9	71	0	304	8	0	10
Grp Sat Flow(s),veh/h/ln	840	1856	1520	1781	1900	1555	1753	0	1598	1085	0	1762
Q Serve(g_s), s	0.1	14.8	4.7	14.5	16.3	0.2	2.6	0.0	14.2	0.6	0.0	0.4
Cycle Q Clear(g_c), s	0.1	14.8	4.7	14.5	16.3	0.2	2.6	0.0	14.2	6.1	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.40
Lane Grp Cap(c), veh/h	369	627	514	546	1048	858	442	0	451	209	0	316
V/C Ratio(X)	0.01	0.62	0.23	0.89	0.55	0.01	0.16	0.00	0.67	0.04	0.00	0.03
Avail Cap(c_a), veh/h	369	627	514	546	1048	858	501	0	844	439	0	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	23.4	20.0	15.8	12.1	8.5	23.4	0.0	26.8	33.4	0.0	28.5
Incr Delay (d2), s/veh	0.0	4.6	1.1	16.2	2.0	0.0	0.2	0.0	1.8	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	1.0	3.9	2.1	0.0	0.7	0.0	3.6	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	27.9	21.1	32.0	14.2	8.5	23.6	0.0	28.6	33.4	0.0	28.6
LnGrp LOS	B	C	C	C	B	A	C		C	C		C
Approach Vol, veh/h		510			1066			375				18
Approach Delay, s/veh		26.3			22.2			27.6				30.7
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	18.0	36.0		30.3		54.0	8.7	21.6				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	15.0	28.5		44.5		46.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	16.5	16.8		16.2		18.3	4.6	8.1				
Green Ext Time (p_c), s	0.0	4.6		5.7		10.7	0.1	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh				24.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
5: Ninth Line & Argentia Rd

Future Total 2037 PM  
03/09/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	275	205	1006	134	75	747
Future Volume (veh/h)	275	205	1006	134	75	747
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1856	1811
Adj Flow Rate, veh/h	286	214	1048	140	78	778
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	1	1	1	3	6
Cap, veh/h	375	337	2179	972	327	2094
Arrive On Green	0.21	0.21	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1781	1598	3676	1598	468	3532
Grp Volume(v), veh/h	286	214	1048	140	78	778
Grp Sat Flow(s),veh/h/ln	1781	1598	1791	1598	468	1721
Q Serve(g_s), s	9.2	7.4	9.8	2.3	6.7	7.0
Cycle Q Clear(g_c), s	9.2	7.4	9.8	2.3	16.6	7.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	375	337	2179	972	327	2094
V/C Ratio(X)	0.76	0.64	0.48	0.14	0.24	0.37
Avail Cap(c_a), veh/h	527	473	2179	972	327	2094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	21.9	6.6	5.1	11.2	6.0
Incr Delay (d2), s/veh	4.2	2.0	0.8	0.3	1.7	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.3	0.2	0.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.7	23.9	7.4	5.4	12.9	6.5
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	500		1188			856
Approach Delay, s/veh	25.5		7.1			7.1
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	17.3
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		18.6			11.8	11.2
Green Ext Time (p_c), s		11.7			18.0	1.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			10.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 6: Ninth Line & Derry Rd E/Derry Rd W

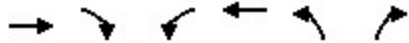
Future Total 2037 PM  
 03/09/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗		↘	↗		↘	↗	↘	↗	↗	↘
Traffic Volume (veh/h)	259	667	130	164	941	57	80	715	144	61	540	260
Future Volume (veh/h)	259	667	130	164	941	57	80	715	144	61	540	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1885	1885	1900	1885	1885	1811	1841	1885	1870	1900	1885
Adj Flow Rate, veh/h	276	710	138	174	1001	61	85	761	153	65	574	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	1	1	0	1	1	6	4	1	2	0	1
Cap, veh/h	362	1552	302	406	1678	102	196	1105	504	122	894	395
Arrive On Green	0.09	0.52	0.52	0.07	0.49	0.49	0.05	0.32	0.32	0.25	0.25	0.25
Sat Flow, veh/h	1781	2990	581	1810	3429	209	1725	3497	1596	611	3610	1596
Grp Volume(v), veh/h	276	425	423	174	523	539	85	761	153	65	574	277
Grp Sat Flow(s),veh/h/ln	1781	1791	1780	1810	1791	1847	1725	1749	1596	611	1805	1596
Q Serve(g_s), s	11.8	23.9	24.0	7.6	33.7	33.7	5.7	30.4	11.6	16.7	22.8	25.3
Cycle Q Clear(g_c), s	11.8	23.9	24.0	7.6	33.7	33.7	5.7	30.4	11.6	36.2	22.8	25.3
Prop In Lane	1.00		0.33	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	930	924	406	876	904	196	1105	504	122	894	395
V/C Ratio(X)	0.76	0.46	0.46	0.43	0.60	0.60	0.43	0.69	0.30	0.53	0.64	0.70
Avail Cap(c_a), veh/h	533	930	924	634	876	904	440	1607	733	123	903	399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	24.3	24.3	19.1	29.5	29.5	42.3	47.9	41.4	68.5	53.8	54.8
Incr Delay (d2), s/veh	3.3	1.4	1.4	0.7	3.0	2.9	1.5	0.8	0.3	4.3	1.5	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	7.5	7.4	2.2	11.1	11.5	2.1	10.7	3.7	2.3	8.7	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	25.7	25.7	19.9	32.4	32.4	43.8	48.6	41.8	72.8	55.4	60.1
LnGrp LOS	C	C	C	B	C	C	D	D	D	E	E	E
Approach Vol, veh/h		1124			1236			999			916	
Approach Delay, s/veh		26.0			30.6			47.2			58.0	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.4	89.6		57.0	18.2	84.8	10.9	46.1				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+1), s	19.6	26.0		32.4	13.8	35.7	7.7	38.2				
Green Ext Time (p_c), s	0.8	9.2		18.1	1.3	3.7	0.4	1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh											39.1	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

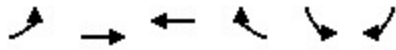
Future Total 2037 PM  
 03/09/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	948	70	2	1233	40	147
Future Volume (veh/h)	948	70	2	1233	40	147
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1786	1688	1786	1702	1772
Adj Flow Rate, veh/h	967	71	2	1258	41	150
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	8	1	7	2
Cap, veh/h	1496	110	61	1553	1048	501
Arrive On Green	0.47	0.47	0.47	0.47	0.33	0.33
Sat Flow, veh/h	3294	235	1	3409	3144	1502
Grp Volume(v), veh/h	512	526	676	584	41	150
Grp Sat Flow(s),veh/h/ln	1697	1744	1784	1544	1572	1502
Q Serve(g_s), s	13.8	13.8	0.0	19.5	0.5	4.4
Cycle Q Clear(g_c), s	13.8	13.8	19.5	19.5	0.5	4.4
Prop In Lane		0.13	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	814	893	721	1048	501
V/C Ratio(X)	0.65	0.65	0.76	0.81	0.04	0.30
Avail Cap(c_a), veh/h	792	814	893	721	1048	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	1.00	1.00
Uniform Delay (d), s/veh	12.2	12.2	13.7	13.7	13.5	14.8
Incr Delay (d2), s/veh	4.1	3.9	4.7	7.7	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	2.5	2.7	0.1	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.3	16.2	18.4	21.4	13.6	16.3
LnGrp LOS	B	B	B	C	B	B
Approach Vol, veh/h	1038			1260	191	
Approach Delay, s/veh	16.2			19.8	15.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.8		21.5
Green Ext Time (p_c), s		0.8		9.4		5.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			18.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary  
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Future Total 2037 PM  
 03/09/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	863	1104	148	166	235
Future Volume (veh/h)	0	863	1104	148	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1786	1772	1786
Adj Flow Rate, veh/h	0	881	1127	151	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	1	2	1
Cap, veh/h	0	1711	1529	204	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3097	402	3274	1514
Grp Volume(v), veh/h	0	881	635	643	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1714	1637	1514
Q Serve(g_s), s	0.0	10.5	17.6	17.7	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.5	17.6	17.7	2.2	7.4
Prop In Lane	0.00			0.23	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	871	1119	517
V/C Ratio(X)	0.00	0.51	0.74	0.74	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	871	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.8	11.6	11.6	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.6	5.6	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.3	1.3	0.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.9	17.1	17.2	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		881	1278		409	
Approach Delay, s/veh		10.9	17.2		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.5	9.4	19.7
Green Ext Time (p_c), s				11.7	1.8	9.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay, s/veh			14.9			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	73	28	6	13	0
Future Vol, veh/h	0	73	28	6	13	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	79	30	7	14	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	81	14	14	0	0
Stage 1	14	-	-	-	-
Stage 2	67	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	921	1066	1604	-	-
Stage 1	1009	-	-	-	-
Stage 2	956	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	904	1066	1604	-	-
Mov Cap-2 Maneuver	904	-	-	-	-
Stage 1	990	-	-	-	-
Stage 2	956	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.6	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1604	-	1066	-	-
HCM Lane V/C Ratio	0.019	-	0.074	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	7.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		R
Traffic Vol, veh/h	0	13	6	0	0	0
Future Vol, veh/h	0	13	6	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	7	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	15	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1004	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1000	1084	1622	-	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	7.2	0
HCM LOS	A		

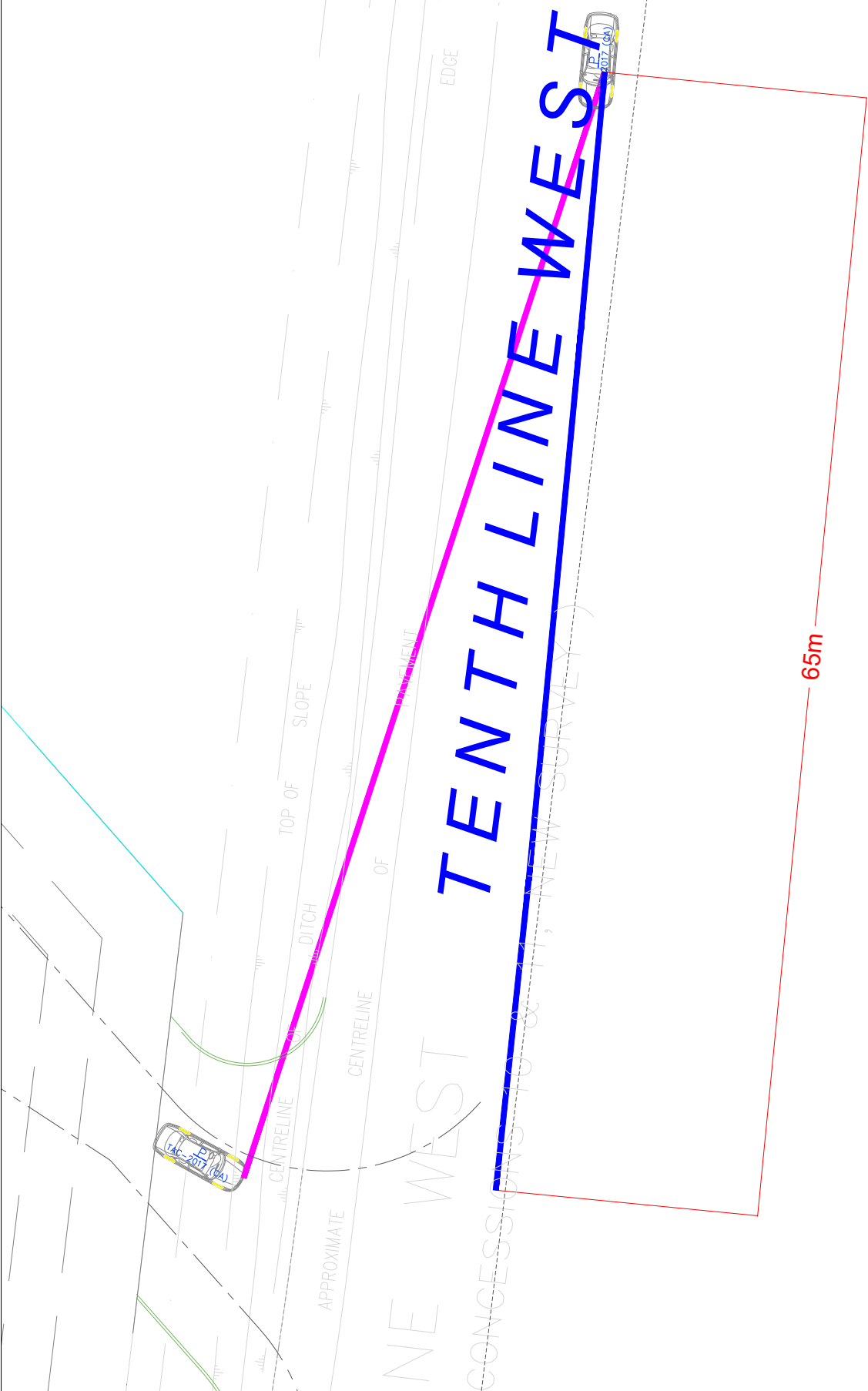
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.004	-	0.013	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-



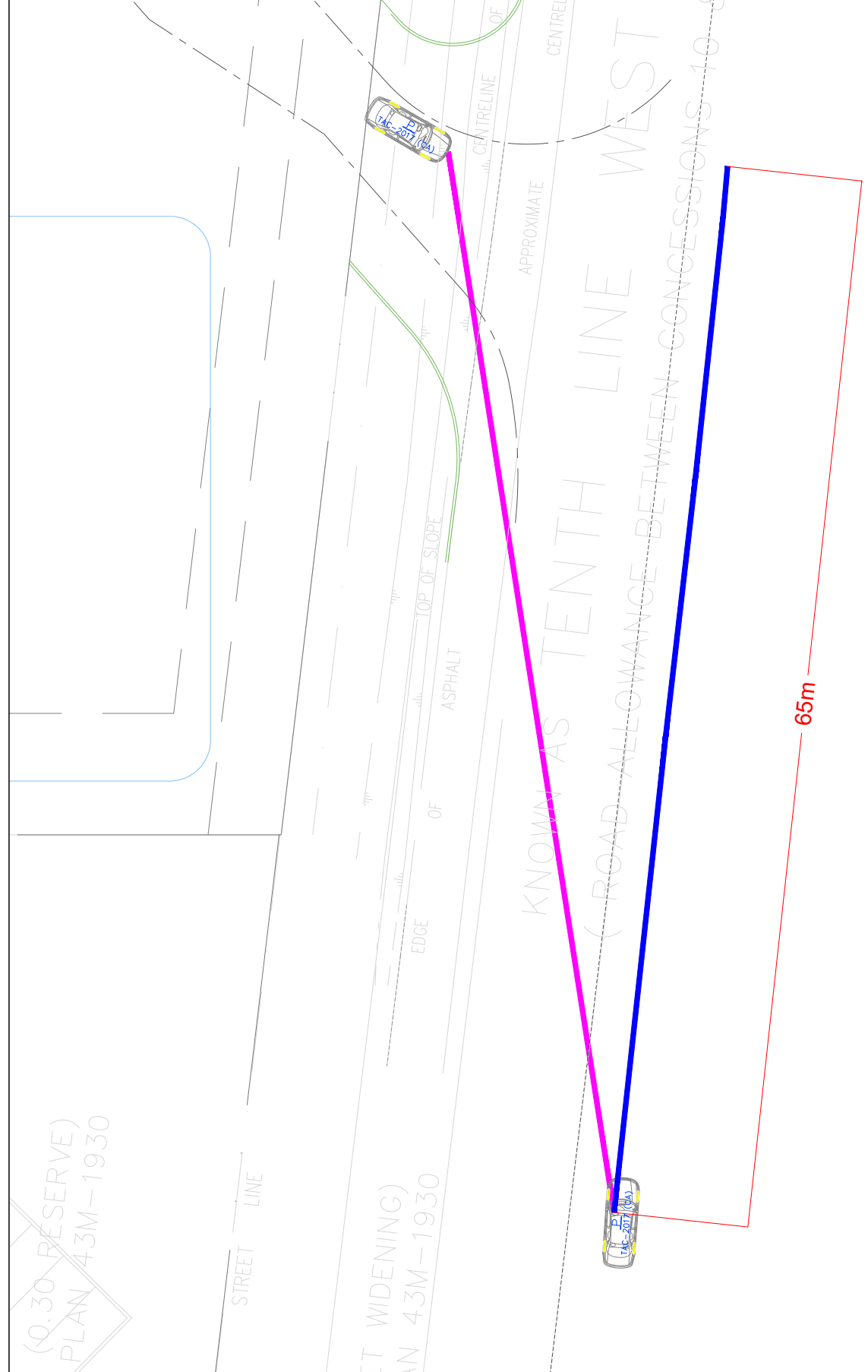
# Appendix F: Site Access Review



G:\Projects\2025\100658-7564\_10th Line West-Industrial-Proposals\03 Analysis\03 Site review & Circulation\03 Intersection Sight Distance

SOUTHBOUND TENTH LINE W TRAFFIC



NORTHBOUND TENTH LINE W TRAFFIC



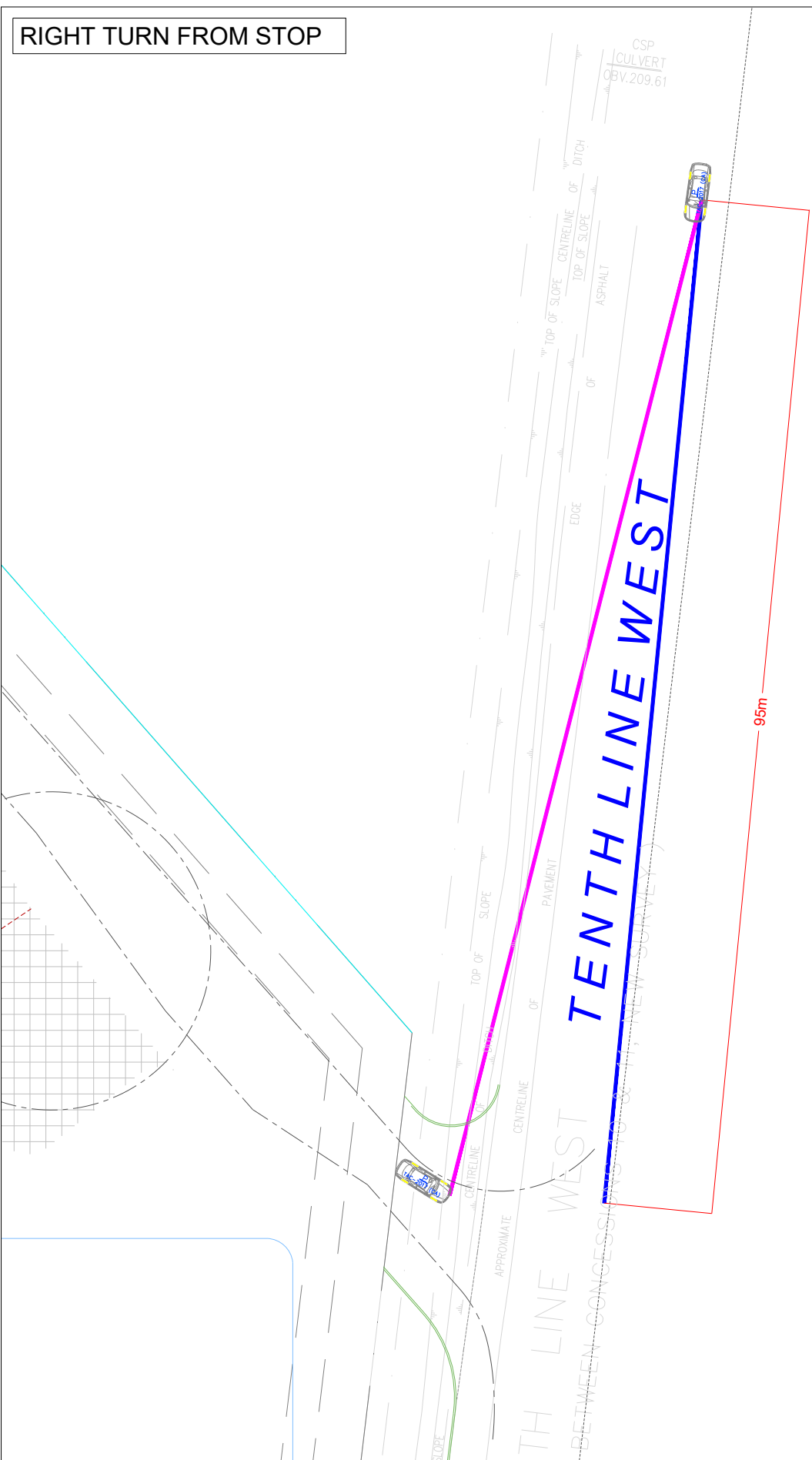
**LEGEND**  
 SIGHT LINE   
 STOPPING SIGHT DISTANCE (SSD) 

**NOTES:**

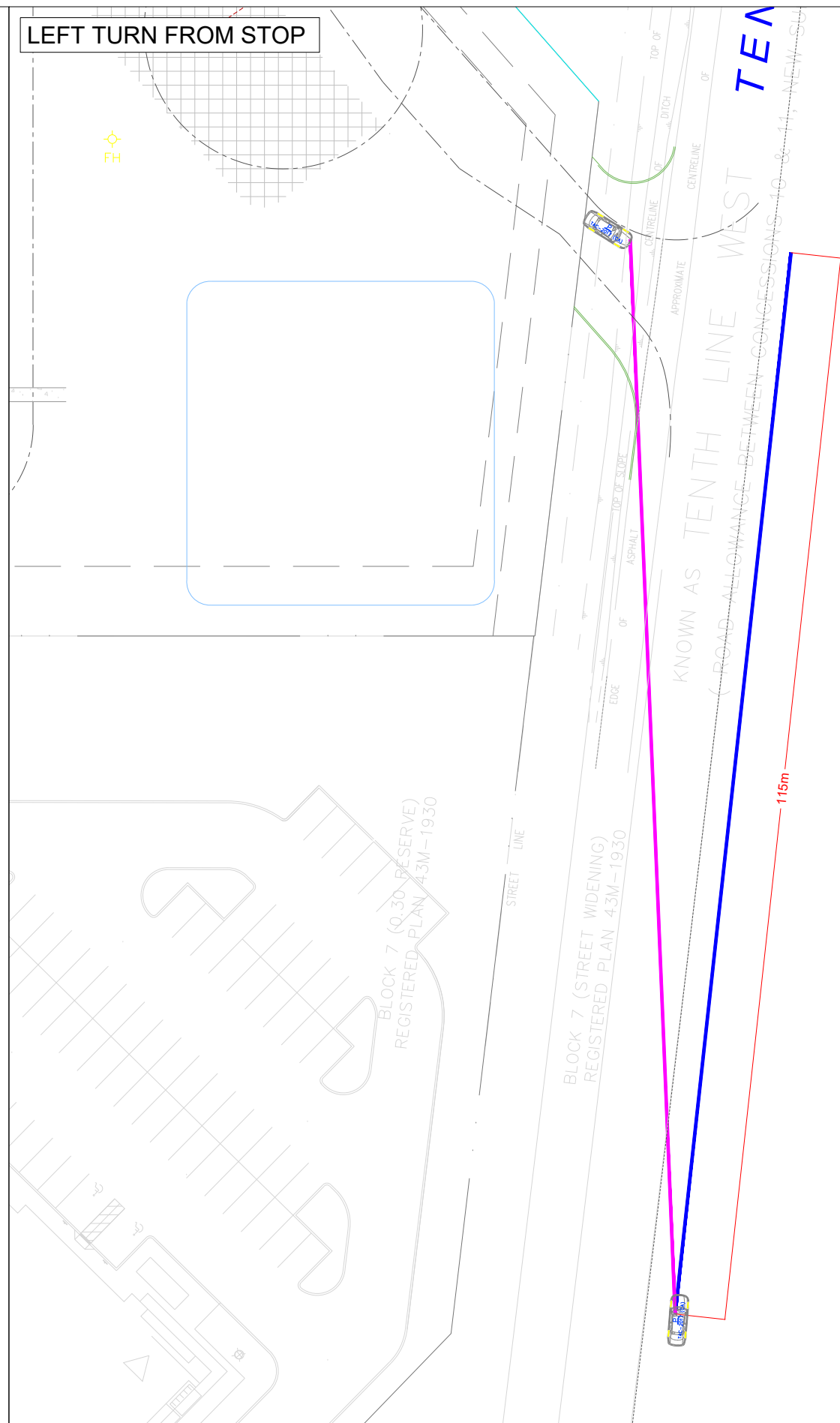
- Posted Speed Limit = 50 km/hr
- Design Speed = 50 km/hr  
 (As per City of Mississauga Complete Streets Guide: For major collectors with posted speed 50 km/h or higher, the design speed = posted speed, consistent with best practices across Canada.)
- SSD = 65m, based on TAC Geometric Design Guide for Canadian Roads

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RIGHT TURN FROM STOP



LEFT TURN FROM STOP



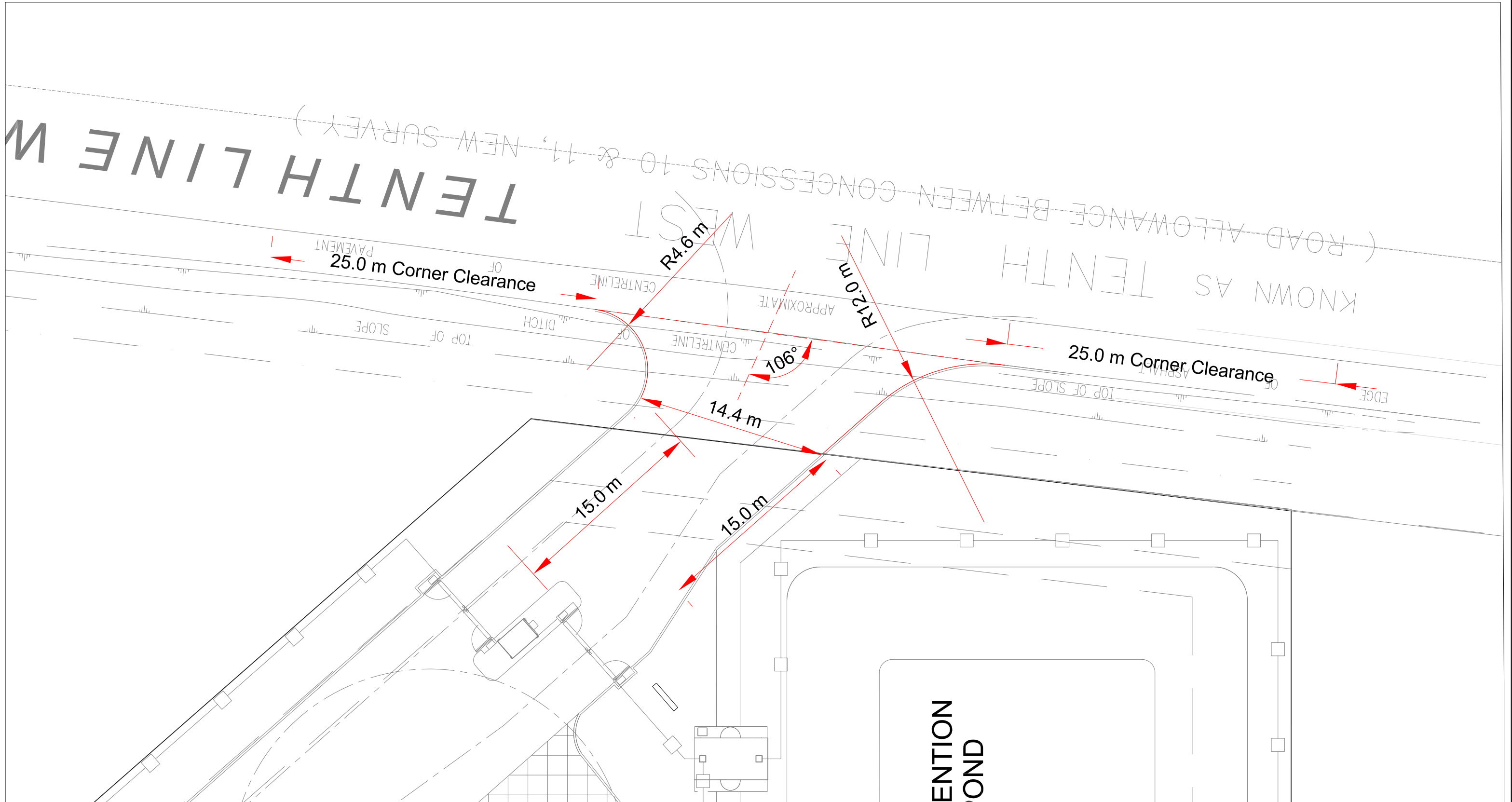
**LEGEND**  
 SIGHT LINE —  
 INTERSECTION SIGHT DISTANCE (ISD) —

**NOTES:**

- Posted Speed Limit = 50 km/hr
- Design Speed = 50 km/hr  
 (As per City of Mississauga Complete Streets Guide: For major collectors with posted speed 50 km/h or higher, the design speed = posted speed, consistent with best practices across Canada.)
- ISD- Passenger Car (from stop):
  - Right Turn= 95m
  - Left Turn= 115m
- ISD- Combination Truck (from stop):
  - Right Turn= 150m
  - Left Turn= 170m



- **Intersection Angle:** The intersection angle of  $106^\circ$  meets TAC guidelines, which recommend an angle between  $70^\circ$  and  $110^\circ$ .
- **Access Width:** The site access width (14.4 m) is within TAC's recommended 9–15 m range for two-way industrial driveways and is considered acceptable.
- **Curb Return Radii:** The south curb radius of 12 m meets the TAC design guidelines for industrial land uses with a minimum curb radius of 6 m. The north curb is shown to have radius of 4.6 m which does not meet the standard, however, all site generated traffic will be entering the site from the south.
- **Clear Throat Length:** For industrial developments, TAC recommends a minimum throat length of 15 m, measured from the curb return. This requirement has been met for the proposed access.



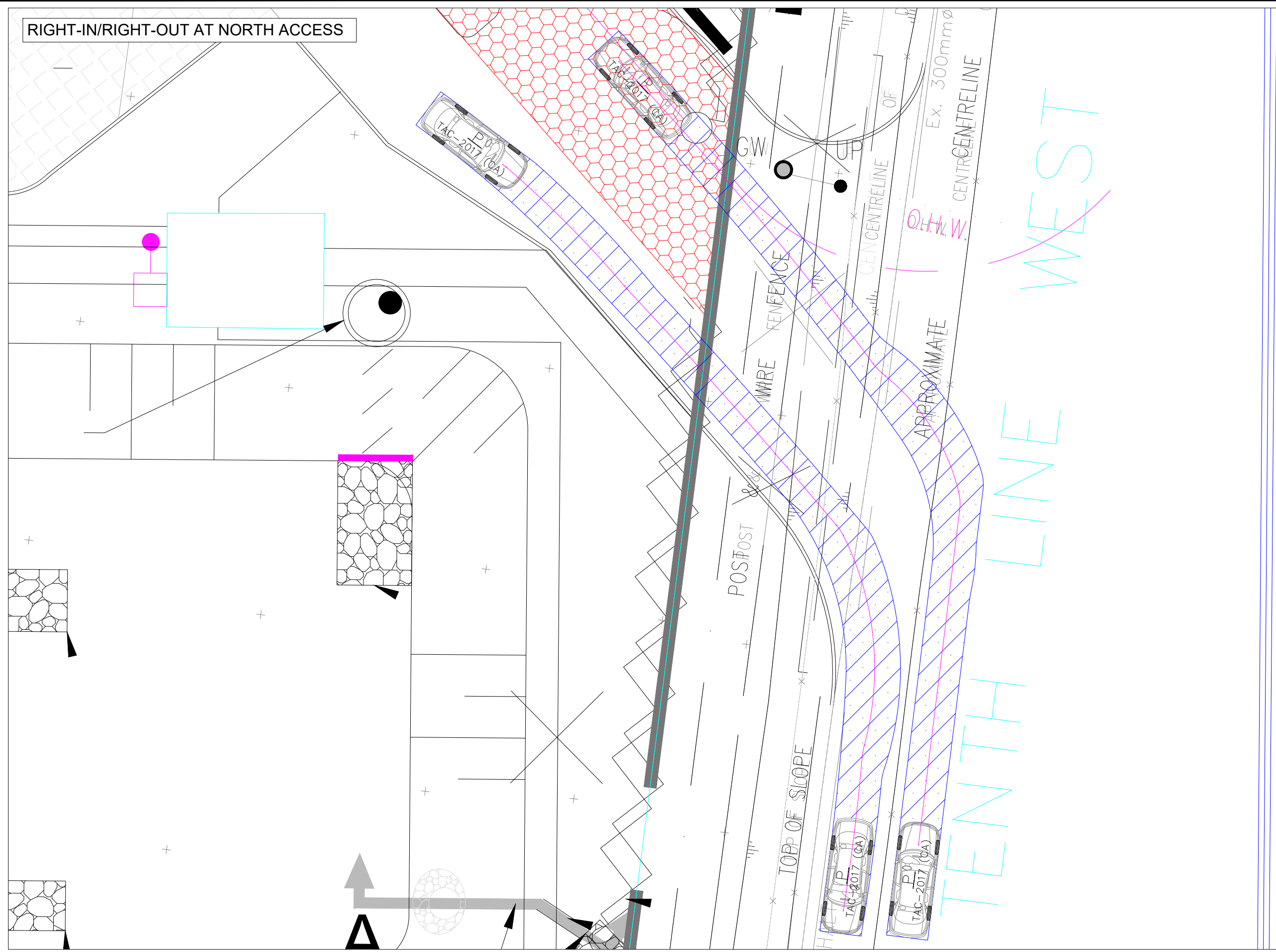
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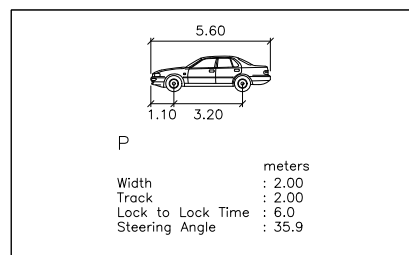
# **Appendix G:** **Vehicle Maneuvering Diagrams**

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RIGHT-IN/RIGHT-OUT AT NORTH ACCESS



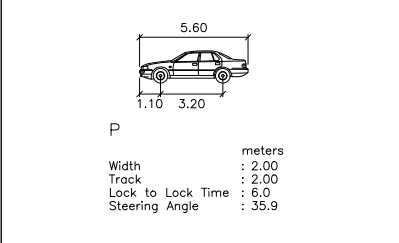
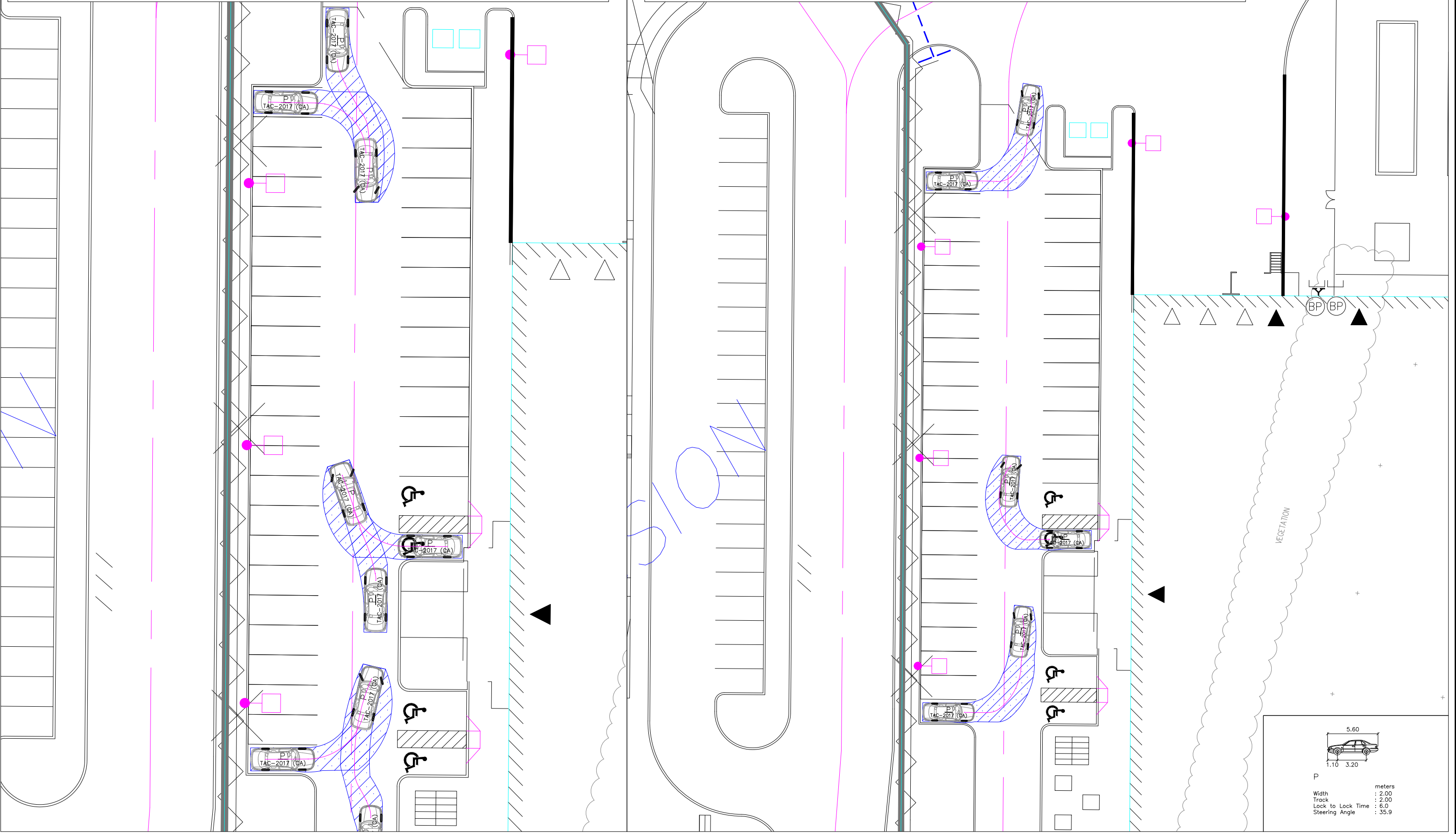
TENTH LINE WEST



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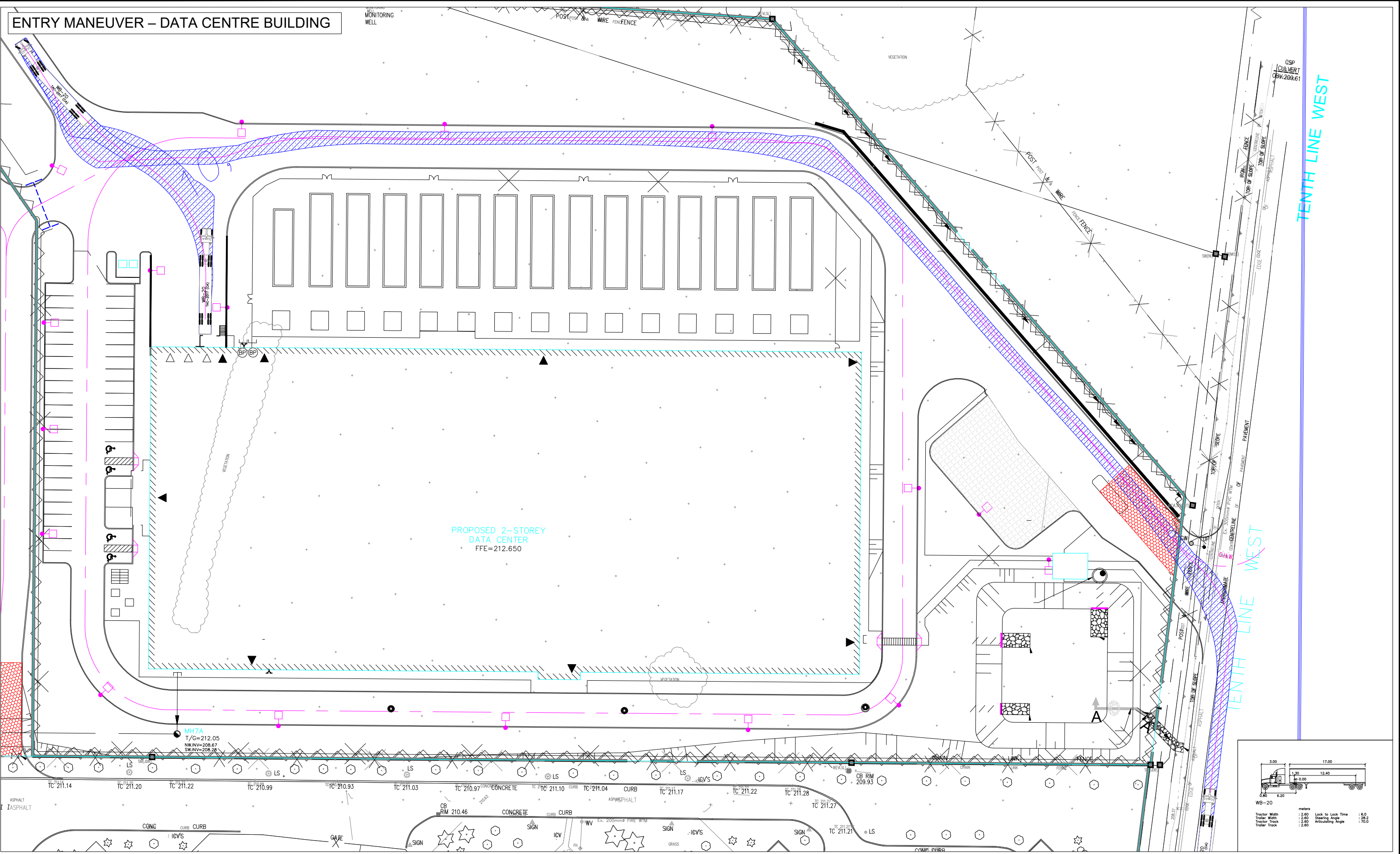
ENTRY MANEUVER- PASSENGER PARKING – WEST OF DATA CENTRE & RIGHT OF INDUSTRIAL BUILDING DC 5

EXIT MANEUVER- PASSENGER PARKING – WEST OF DATA CENTRE & RIGHT OF INDUSTRIAL BUILDING DC 5

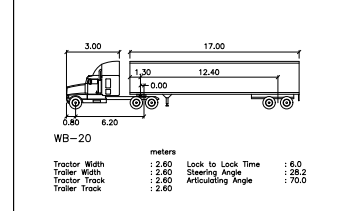


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ENTRY MANEUVER – DATA CENTRE BUILDING

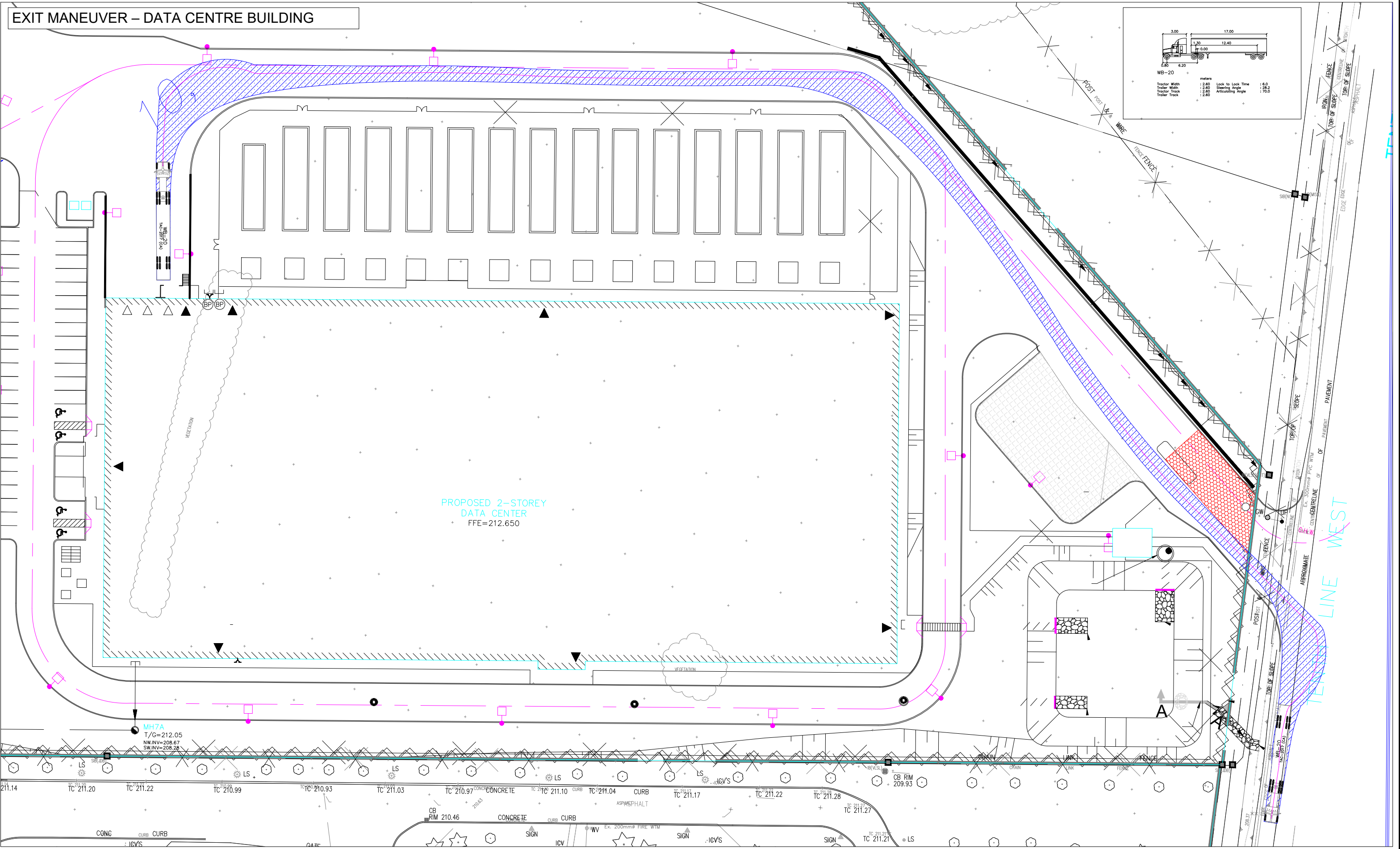
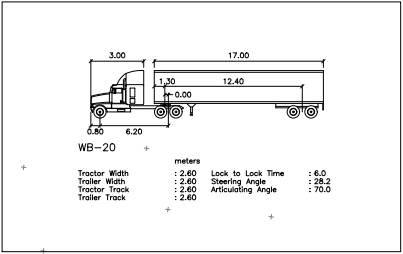


PROPOSED 2-STOREY  
DATA CENTER  
FFE=212.650



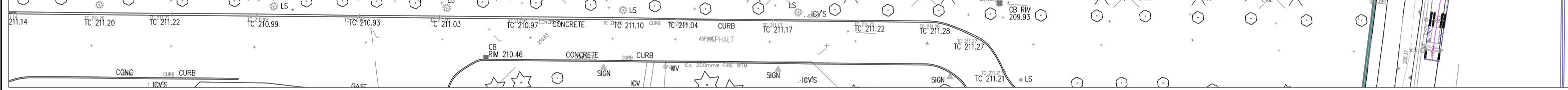
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EXIT MANEUVER – DATA CENTRE BUILDING



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MH7A  
T/G=212.05  
NW.INV=208.67  
SW.INV=208.26



**TYLin**  
3381 STEELES AVE E.  
Suite 315  
Toronto, ON  
M2H 3S8  
P: 905.738.5700

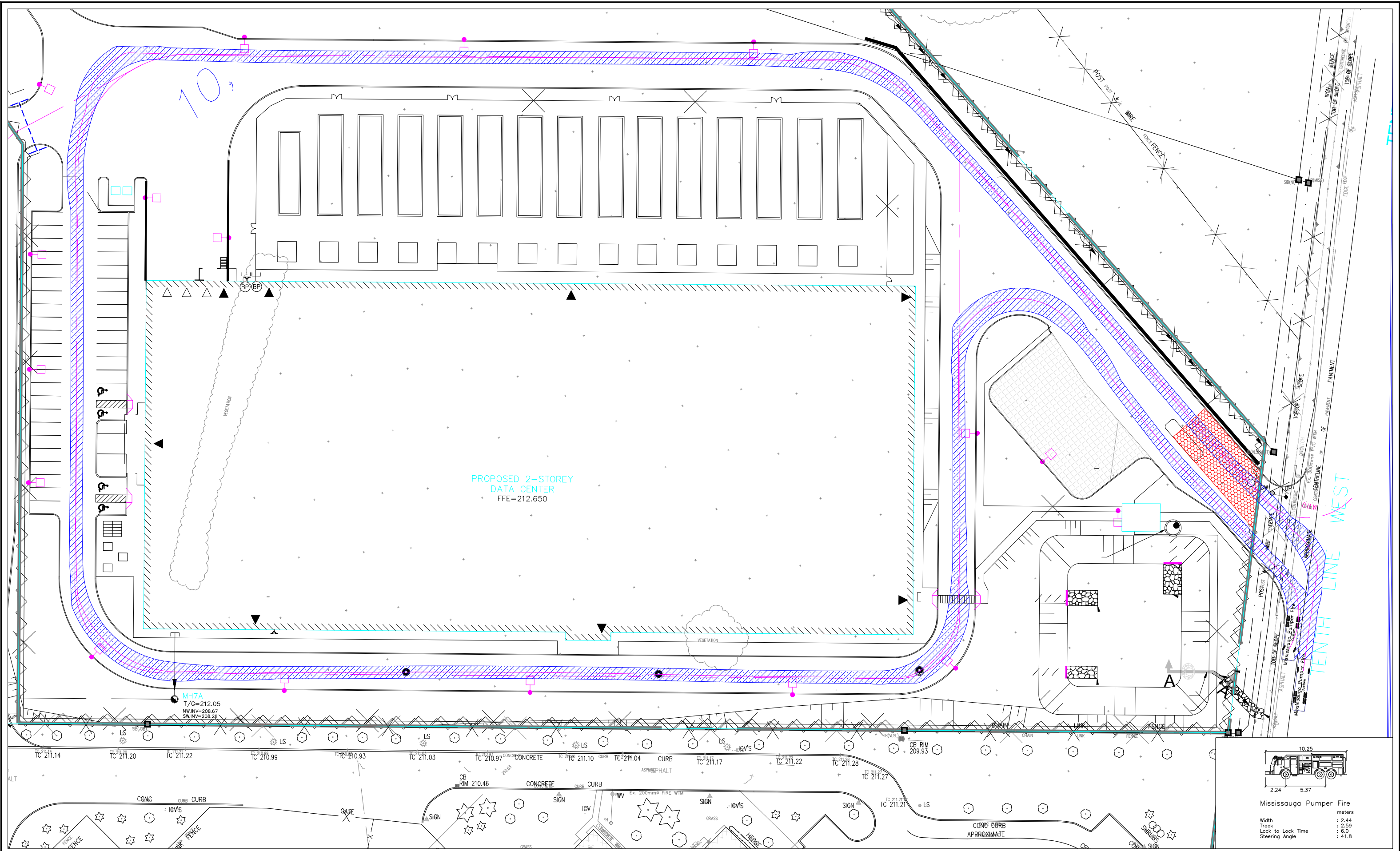
7564 TENTH LINE WEST  
VEHICLE MANEUVERING DIAGRAMS  
WB20 TRAILER TRUCK CIRCULATION



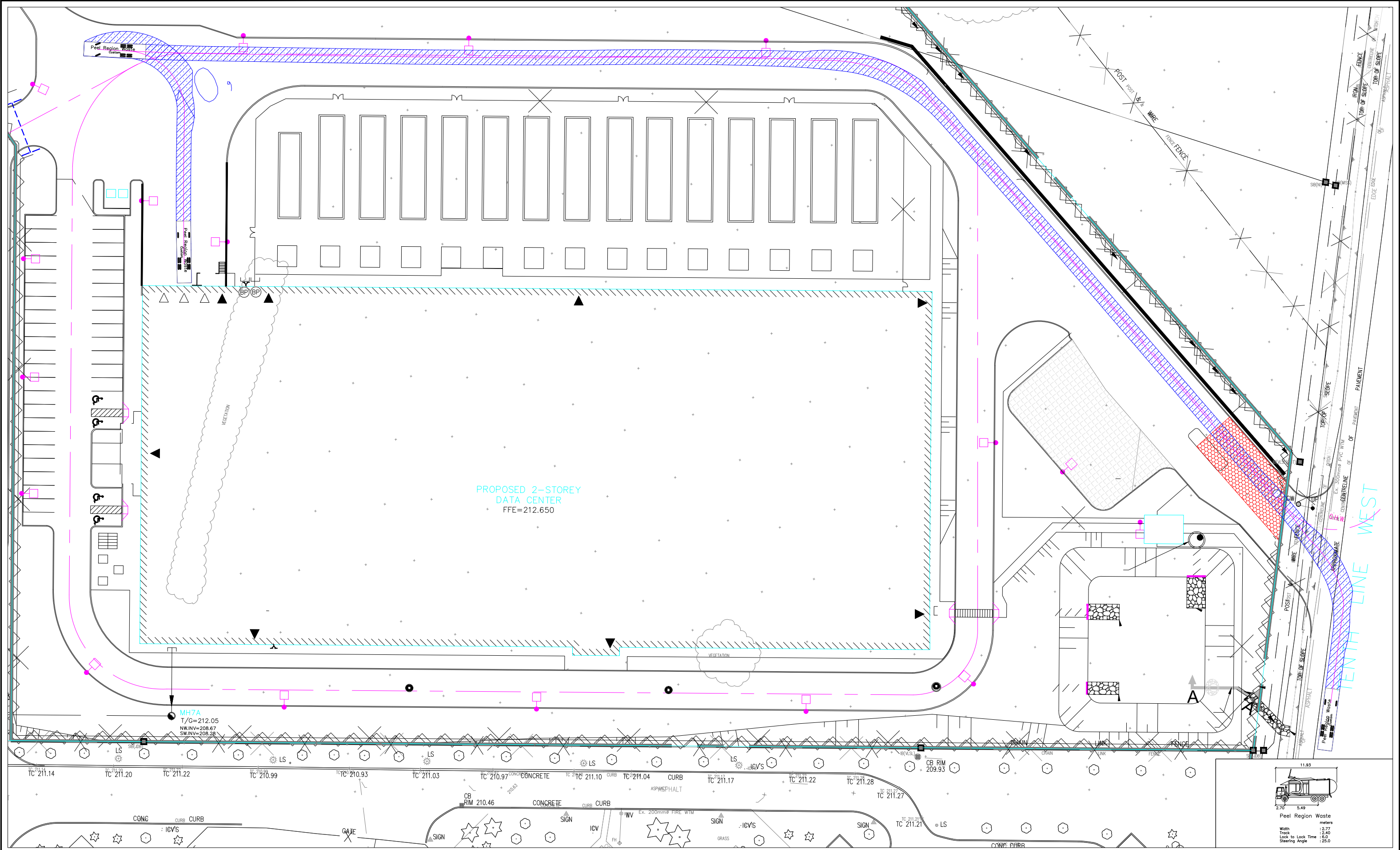
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DRAWING No. 04  
DATE MAR 2026

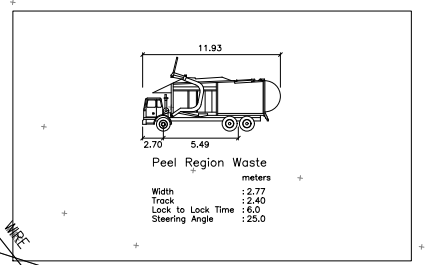
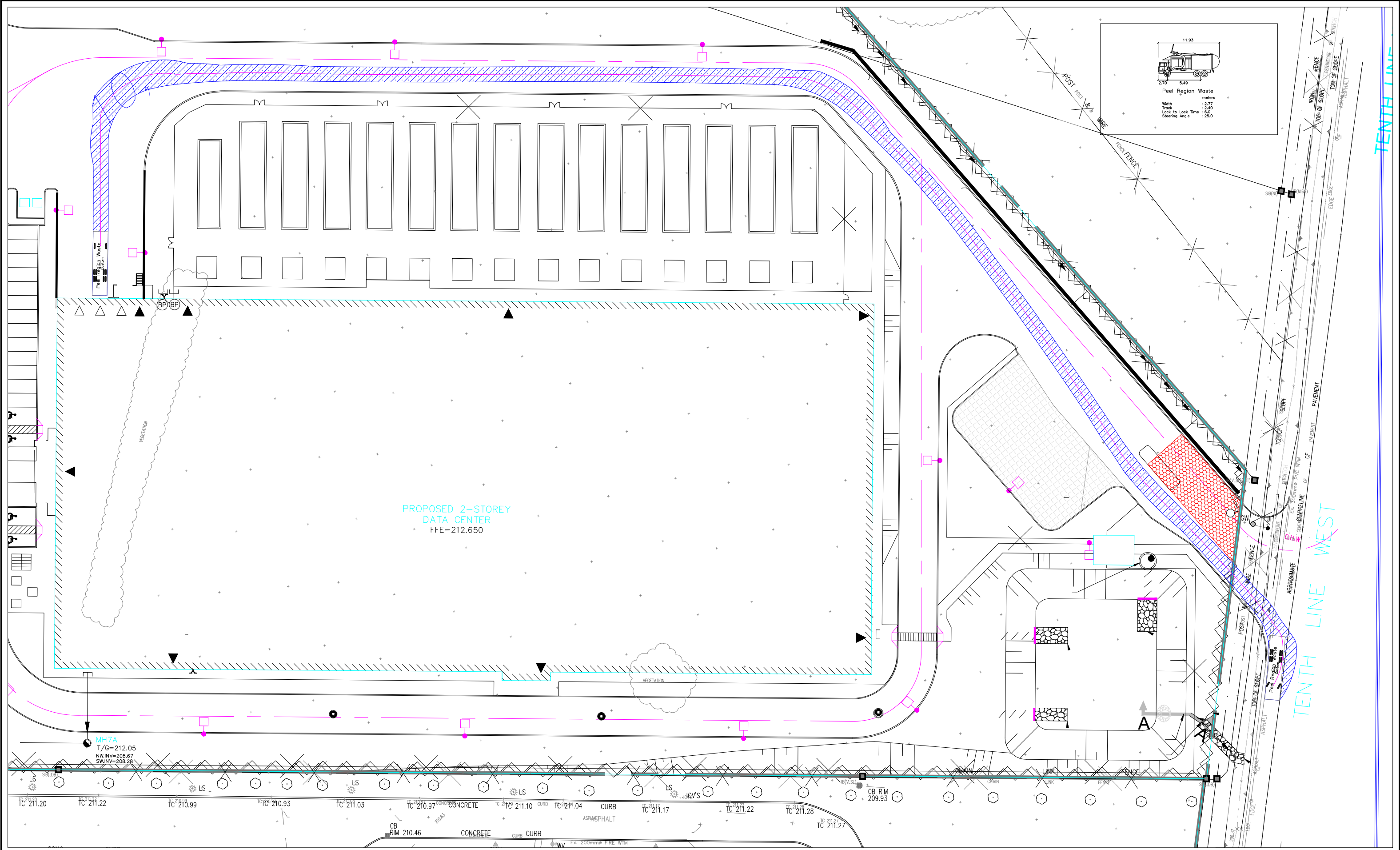
City of Mississauga - 7564 Tenth Line West - Industrial - Prologis03 Analysis03 Site review & Circulation02 Vehicle Swept Path:20250730



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# **Appendix H:** **Pedestrian Circulation Plan**

G:\Projects\2025\100658-7564\_10th Line West-Industrial-Prologis\03 Analysis\03 Site review & Circulation\03 Intersection Sight Distance

