COMMITTEE OF ADJUSTMENT NOTICE OF PUBLIC HEARING
APPLICATION NO. A-032-2025, A-033-2025 & A-034-2025

TAKE NOTICE that an application has been received by the Town of Innisfil from **Baldassarra Architects Inc., Applicant** on behalf of **Watersand ICI Developments Inc. C/O Metrus Construction Limited, Owner,** for a minor variance from Zoning By-law 080-13, pursuant to Section 45 of the *Planning Act*, R.S.O. 1990, c. P.13, as amended.

The subject properties are described legally as **CON 9 PT LOT 8 RP 51R4315 PART 1** known municipally as **3260 9th Line** and is zoned **"Industrial Business Park Exception 8 (IBP-8)".**

The applicant is proposing to construct an industrial development on the proposed lands and seeking relief from Section 3.35.1.1 of the Zoning By-law to reduce the number of required parking spaces from 234 to 145 spaces.

The applicant is seeking relief from Section 3.34(c) of the Zoning By-law to permit outdoor storage in the minimum required rear yard setback where the By-law prohibits storage in this location.

The applicant is also seeking relief from Section 6.2 of the Zoning By-law to increase the building height from the maximum permitted of 11m to approximately 23.8m.

The Committee of Adjustment for the Town of Innisfil will consider this application in person at Town Hall and virtually through Zoom on **Thursday, July 17, 2025, at 6:30 PM.**

To participate in the hearing and/or provide comments, you must register by following the link below or scanning the above QR code: https://innisfil.ca/en/building-and-development/committee-of-adjustment-hearings.aspx

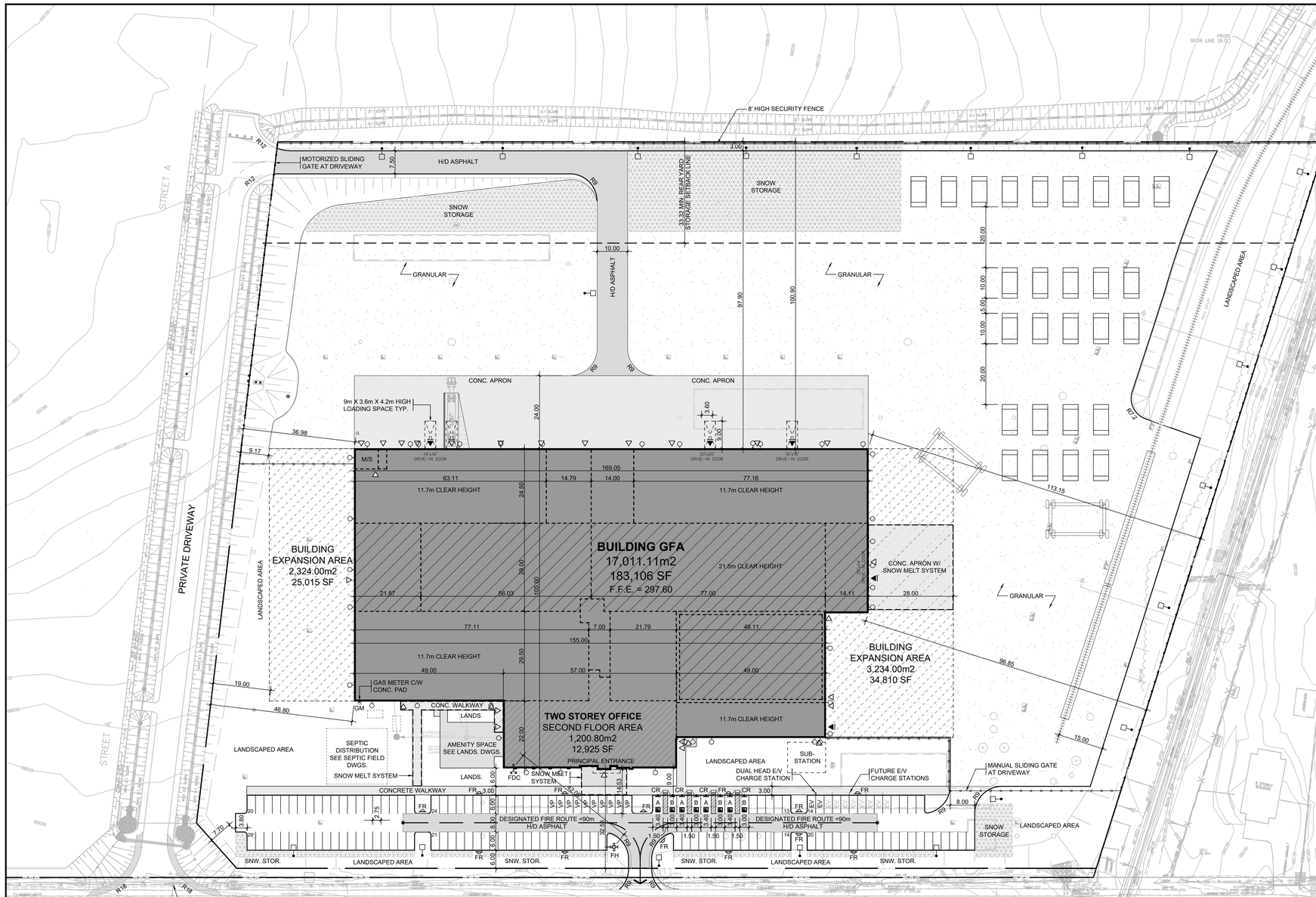
Requests can also be submitted in writing to: Town of Innisfil Committee of Adjustment, 2101 Innisfil Beach Road, Innisfil, Ontario, L9S 1A1 or by email to planning@innisfil.ca.

If you wish to receive a copy of the decision of the Committee of Adjustment in respect of the proposed consent, you must make a written request to the Secretary-Treasurer of the Committee of Adjustment by way of email or regular mail. The Notice of Decision will also explain the process for appealing a decision to the Ontario Land Tribunal (OLT).

Additional information relating to the proposed application is available on the Town of Innisfil website. Accessible formats are available on request, to support participation in all aspects of the feedback process. To request an alternate format please contact Planning Services at planning@innisfil.ca.

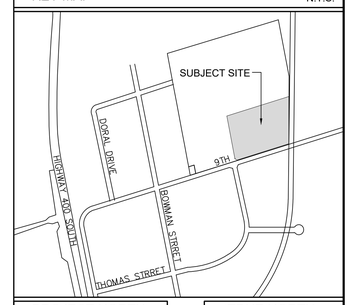
Dated: **June 27, 2025**

Sarah Burton Hopkins,
Secretary Treasurer
sburtonhopkins@innisfil.ca
705-436-3710 ext. 3504



KEY MAP

N.T.S.



PROJECT NORTH

TRUE NORTH

LEGAL DESCRIPTION

PLAN OF SURVEY
PART OF THE SOUTH HALF OF LOT 8
CONCESSION 9

(GEOGRAPHIC TOWNSHIP OF INNISFIL)
TOWN OF INNISFIL
COUNTY OF SIMCOE

AS PREPARED BY:
HOLDING JONES VANDERVEEN INC.
ONTARIO LAND SURVEYORS

SITE STATISTICS

ZONING	INDUSTRIAL	IBP-8	
OVERALL SITE AREA	387,155.00 m2	or	95.67 acres
DEVELOPABLE SITE AREA	76,638.08 m2	or	18.94 acres
SITE COVERAGE	15,463.42 m2	or	20.18%
GROUND FLOOR AREA	15,463.32 m2	or	166,446 SF
MEZZANINE AREA	347.00 m2	or	3,735 SF
SECOND FLOOR AREA	1,200.80 m2	or	12,925 SF
TOTAL BUILDING G.F.A.	17,011.11 m2	or	183,106 SF

		REQUIRED	PROVIDED
LOT FRONTAGE			288.52 m
SETBACKS	FRONT YARD	8.00 m	32.53 m
	REAR YARD	32.76 m	100.90 m
	EXTERIOR SIDE YARD	8.00 m	36.98 m
	INTERIOR SIDE YARD	3.00 m	96.85 m
BUILDING HEIGHT (MAX.)		11.0 m	23.8 m

		REQUIRED	PROVIDED
PARKING	OFFICE AREA 1 space per 28 m2 of GFA on 1st floor + 1 space per 37 m2 of GFA above 1st floor (1/28 * 1,507.18 m2 + 1/37 * 1,200.80 m2)	87 spaces	
	WAREHOUSE AREAS 1 space per 100 m2 of GFA up to 7,000 m2 + 0.6 spaces per 100 m2 GFA over 7,000 m2 (1/100 * 3,951.72 m2)	40 spaces	
	INDUSTRIAL AREA 1 space per 45 m2 of GFA up to 2,000 m2 + 1 space per 100 m2 of GFA up to 6,000 m2 + 1 spaces per 200 m2 of GFA over 6,000 m2 (1/45 * 2,000 m2 + 1/100 * 4,000 m2 + 1/200 * 4,351.41 m2)	107 spaces	
	TOTAL SPACES (Including barrier-free spaces)	234 spaces	146 spaces
	BARRIER- FREE 1 + Parking Spaces (3% of total)	8 spaces	8 spaces
	LOADING SPACES	4 spaces	4 spaces
LANDSCAPED AREA (20% MIN.)		19,204.09 m2 or	25.06%
PAVED AREA		41,970.57 m2 or	54.76%
SNOW STORAGE (10% MIN.)		4,210.38 m2 or	10.03%

Firm Name: Baldassarra Architects Inc.
Certificate of Practice Number: 5810

30 Great Gulf Drive, Unit 20
Concord, ON L4K 0K7
Tel: (905) 660-0722
Fax: (905) 660-7019

Name of Project: Northern Transformer Innisfil
Location: 3260 9th Line, Innisfil, Ontario

A. BALDASSARRA LICENSE 3654

The architect noted above has exercised responsible control with respect to design activities. The architect's seal number is the architect's AKDN.

Ontario's 2024 Building Code Data Matrix Part 3 — OBC References [A] for Division A, [C] for Division C

PROJECT TYPE	■ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE	■ Part 3	[A] 1.3.3.2.
MAJOR OCCUPANCY	GROUP: D, F Div. 2		3.1.2.
BUILDING AREA (m2)	EXISTING:	NEW: 15,463.32 TOTAL: 15,463.32	[A] 1.4.1.2.
GROSS AREA (m2)	EXISTING:	NEW: 17,011.11 TOTAL: 17,011.11	[A] 1.4.1.2.
MEZZANINE AREA (m2)	347.00		3.2.1.1.
EQUIPMENT PLATFORM AREA (m2)	211.11		3.2.1.1.(6)
BUILDING HEIGHT	STOREYS ABOVE GRADE: 2 STOREYS BELOW GRADE: 0 HEIGHT ABOVE GRADE (m): 23.17		[A] 1.4.1.2. & 3.2.1.1.
HIGH BUILDING	☐ YES ■ NO		3.2.6.
NUMBER OF STREETS / ACCESS ROUTES:	1		3.2.2.10. & 3.2.5.
BUILDING CLASSIFICATION:	3.2.2.76.		3.2.2.20.-93.
SPRINKLER SYSTEM PROPOSED	■ ENTIRE BUILDING ☐ BASEMENT ONLY ☐ IN LIEU OF ROOF RATING ☐ NOT REQUIRED		3.2.1.5. & 3.2.2.18., 21., 22., 29., 3.2.4.1., 3.2.4.9., 3.2.4.15., 3.2.5.12.-14.
STANDPIPE REQUIRED	■ YES ☐ NO		3.2.5.8.-11.
FIRE ALARM REQUIRED	■ YES ☐ NO		3.2.4.
WATER SERVICE / SUPPLY IS ADEQUATE	■ YES ☐ NO		3.2.5.7.
PERMITTED CONSTRUCTION	☐ COMBUSTIBLE ■ NON COMBUSTIBLE REQUIRED		3.2.2.20.-93. & 3.1.6.
ACTUAL CONSTRUCTION	☐ COMBUSTIBLE ■ NON COMBUSTIBLE ☐ BOTH		
OCCUPANT LOAD BASED ON	☐ m2 / PERSON ☐ DESIGN OF BUILDING		3.1.17.
1ST FLOOR MEZZANINE 2ND FLOOR	OCCUPANCY: LOAD: PERSONS OCCUPANCY: LOAD: PERSONS OCCUPANCY: LOAD: PERSONS		
BARRIER FREE DESIGN	■ YES ☐ NO (EXPLAIN)		3.8.
HAZARDOUS SUSTANCES	☐ YES ■ NO		3.3.1.2. & 3.3.1.19.

REQUIRED FIRE RESISTANCE RATING (FRR)	HORIZONTAL ASSEMBLIES FRR (HOURS)	LISTED DESIGN NO. OR DESCRIPTION (SB-2)	
	FLOORS: 2 HOURS		3.2.2.20.-93., 3.2.1.2., 3.2.1.4., 3.2.2.15., & 3.3.2.1.
	ROOF: - HOURS		
	MEZZANINE: 1 HOURS		
	FRR OF SUPPORTING MEMBERS	LISTED DESIGN NO. OR DESCRIPTION (SB-2)	
	FLOORS: 2 HOURS		
	ROOF: - HOURS		
	MEZZANINE: 1 HOURS		

SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS — 3.2.3.

WALL	AREA OF EBF m2 Max. Unit	L.D. (m)	L/H or H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	FRR (HOURS)	LISTED DESIGN or DESIRIPTION	COMB CONST. PERMITTED	NON-COMB. CLADDING REQUIRED
NORTH	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SOUTH	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EAST	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WEST	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SITE PLAN NOTES

SURVEYOR'S INFO.

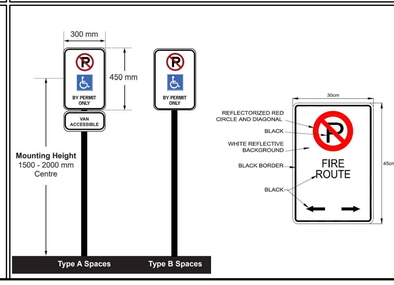
TOPOGRAPHIC SURVEY HERON WAS COMPLETED BY R-PE SURVEYING LTD. PROJECT NUMBER 23-191, DATED NOVEMBER 14TH, 2023.

BENCHMARK NOTE

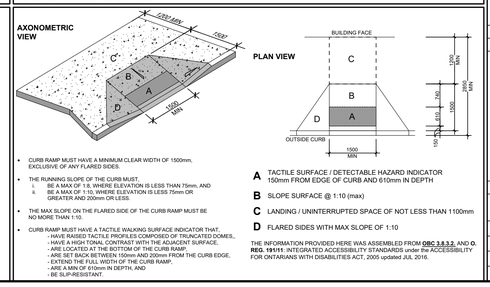
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO CITY OF BARRIE SPECIFIED CONTROL POINT 01019565453, HAVING AN ORTHOMETRIC ELEVATION OF 245.930 METRES.
ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL DATUM OF 1928, 1978 ADJUSTMENT (CGVD-1928:1978).

LOCATION DESCRIPTION:
CONCRETE BRIDGE CARRYING LOCKHART ROAD OVER LOVERS CREEK, 0.25KM EAST OF HURONIA ROAD. TABLET IS SET HORIZONTALLY IN THE WEST FACE OF COPING AT THE WEST END OF BRIDGE, 6.95M SOUTH OF CENTRELINE OF ROAD, 18CM BELOW TOP OF COPING.

SIGNAGE DETAILS



CURB RAMP DETAIL



- CURB RAMP MUST HAVE A MINIMUM CLEAR WIDTH OF 1500mm, EXCLUSIVE OF ANY FLARED SIDES.
- THE RUNNING SLOPE OF THE CURB MUST,
  i. BE A MAX OF 1:8, WHERE ELEVATION IS LESS THAN 75mm, AND
  ii. BE A MAX OF 1:10, WHERE ELEVATION IS LESS 75mm OR GREATER AND 200mm OR LESS.
- THE MAX SLOPE ON THE FLARED SIDE OF THE CURB RAMP MUST BE NO MORE THAN 1:10.
- CURB RAMP MUST HAVE A TACTILE WALKING SURFACE INDICATOR THAT,
  - HAVE RAISED TACTILE PROFILES COMPOSED OF TRUNCATED DOMES,
  - ARE LOCATED AT THE BOTTOM OF THE CURB RAMP,
  - ARE SET BACK BETWEEN 150mm AND 200mm FROM THE CURB EDGE,
  - EXTEND THE FULL WIDTH OF THE CURB RAMP,
  - ARE A MIN OF 610mm IN DEPTH, AND
  - BE SLIP-RESISTANT.

A TACTILE SURFACE / DETECTABLE HAZARD INDICATOR 150mm FROM EDGE OF CURB AND 610mm IN DEPTH

B SLOPE SURFACE @ 1:10 (max)

C LANDING / UNINTERRUPTED SPACE OF NOT LESS THAN 1100mm

D FLARED SIDES WITH MAX SLOPE OF 1:10

THE INFORMATION PROVIDED HERE WAS ASSEMBLED FROM **OBC 3.8.3.2.** AND **O. REG. 191/11**: INTEGRATED ACCESSIBILITY STANDARDS under the ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT, 2005 updated JUL 2016.

SYMBOL LEGEND

▷	MAN DOOR LOCATIONS
▷	LOADING DOCK LOCATIONS
▶	DRIVE-IN OVERHEAD DOORS
FH	HYDRANT+VALVE
	CATCH BASIN
CB	CATCH BASIN-MANHOLE
	STORM SEWER MANHOLE
LS	LIGHT STANDARD
BR	BICYCLE RACK (2 BIKE SPACES EACH RACK) 1.8m x 0.6m BIKE SPACE TYP. - SEE LANDSCAPING DWGS.
	CARPOOL SPACE AND SIGN
BF	BARRIER-FREE ENTRANCE
	HANDICAP PARKING
SNW.	SNOW STORAGE AREA
CR	CURB RAMP - BARRIER-FREE ACCESS
	CONC. FILLED STEEL BOLLARD
FDC	SIAMESE CONNECTION
	HANDICAP RB-93 SIGNAGE PER BY LAW
FR	FIRE ROUTE SIGN < 30"-45" to line parallel to traffic flow mounted on a pole or mounted to building face.
SS	STOP SIGN
GM	GAS METERS

No.	ISSUED	DATE
1	ISSUED FOR SITE ALTERATION PERMIT	APR. 25, 2025
2	ISSUED FOR SPECIFICATIONS	MAY 6, 2025
3	RE-ISSUED FOR SITE ALTERATION PERMIT	MAY 9, 2025
4	ISSUED FOR SPA	JUNE 13, 2025
5	ISSUED FOR MINOR VARIANCE	JUNE 20, 2025

No.	REVISION	DATE

BALDASSARRA Architects Inc.
30 Great Gulf Drive, Unit 20 | Concord ON | L4K 0K7
T. 905.660.0722 | www.baldassarra.ca
OWNERS INFORMATION:

ONTARIO ASSOCIATION OF ARCHITECTS — A. BALDASSARRA LICENSE 3654

Northern Transformer Innisfil

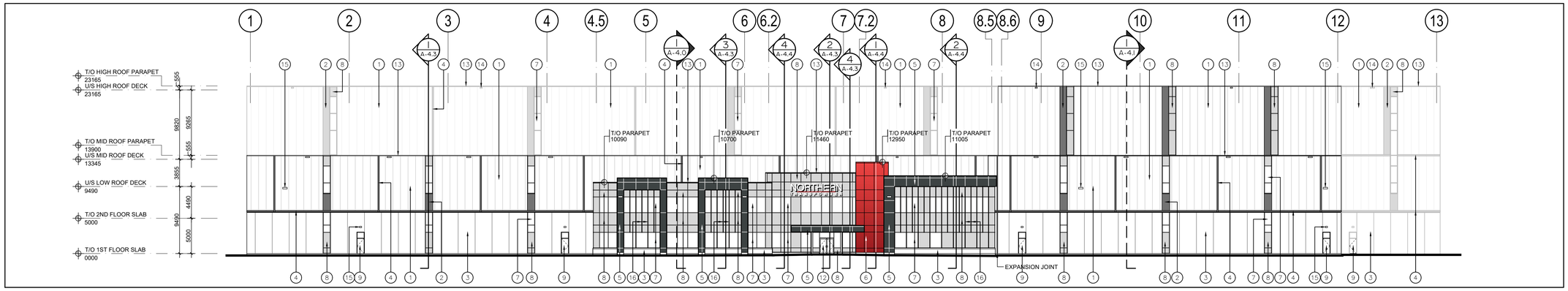
3260 9th Line
Innisfil, ON

Development Area Site Plan
SP-2024-016

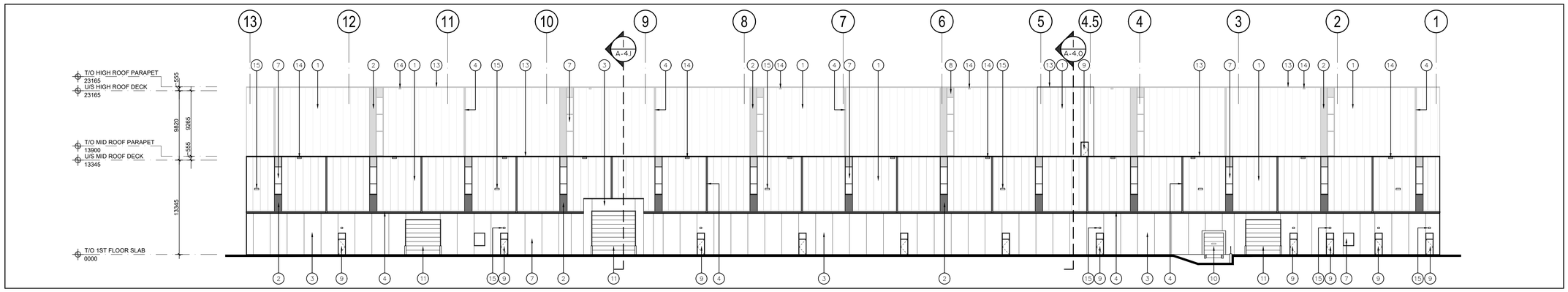
DATE:	DRAWN BY:	CHECKED:	SCALE:
DEC. 2024	KW/LY	MB	1:600

PROJECT No.: 25-18
DRAWING No.: A-1.1

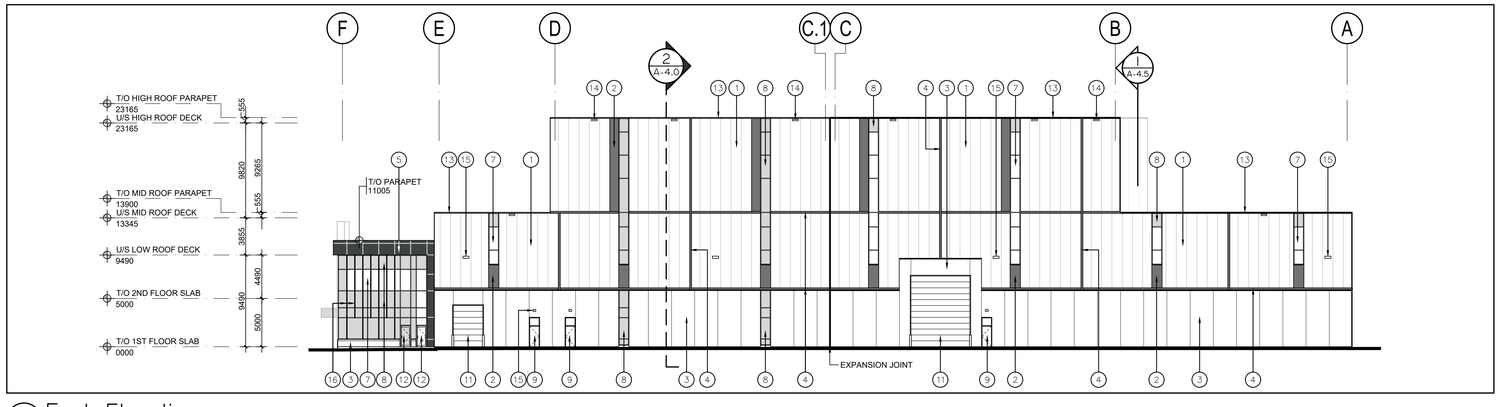
P:\25th Northern Transformer Innisfil\Drawings\05 Sheet Drawings\25th_A-1.1.dwg



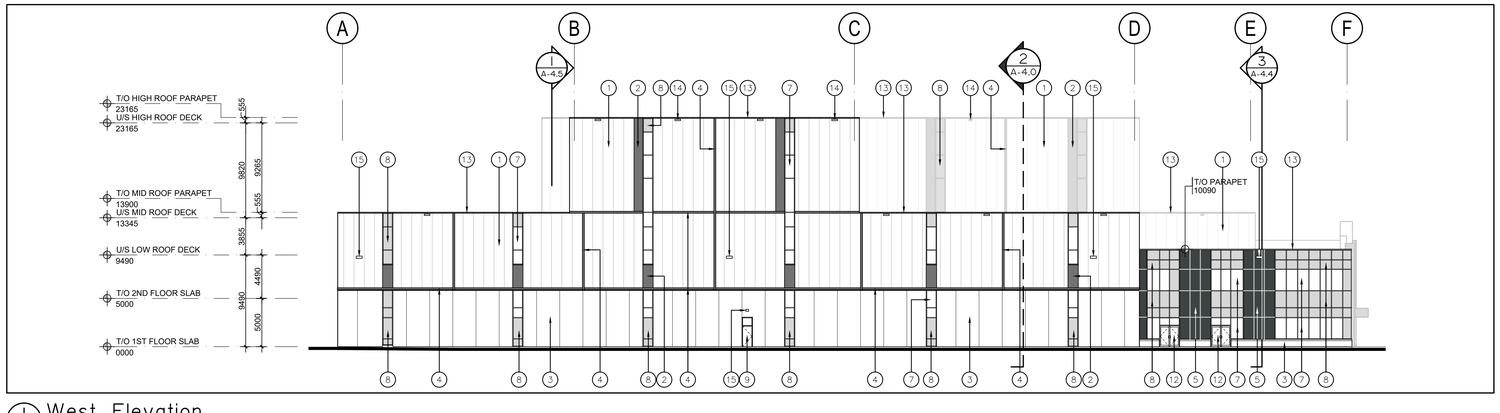
4 A-3.0 South Elevation
Scale = 1:250



3 A-3.0 North Elevation
Scale = 1:250



2 A-3.0 East Elevation
Scale = 1:250



1 A-3.0 West Elevation
Scale = 1:250

EXTERIOR MATERIAL LEGEND - THIS SHEET ONLY

1. INSULATED METAL PANELS 'KS SERIES' BY KINGSPAN OR APPROVED EQUAL. COLOUR TO BE IMPERIAL WHITE W/ 'SHADOWLINE' PROFILE.
2. INSULATED METAL PANELS 'KS SERIES' BY KINGSPAN OR APPROVED EQUAL. COLOUR TO BE ZINC GREY W/ 'SHADOWLINE' PROFILE.
3. INSULATED PRECAST CONCRETE PANELS. COLOUR TO BE WHITE W/ LIGHT SANDBLAST FINISH.
4. 200mm WIDE 19mm DEEP ACCENT BAND MOUNTED TO INSULATED METAL PANELS. COLOUR TO BE ZINC GREY.
5. ALUMINUM COMPOSITE METAL PANELS BY ALPOLIC OR APPROVED EQUAL. COLOUR TO BE CNC CHARCOAL.
6. ALUMINUM COMPOSITE METAL PANELS BY ALPOLIC OR APPROVED EQUAL. COLOUR TO BE TRC RED.
7. TINT THERMAL GLAZING IN BLACK ANODIZED CURTAIN WALL FRAMES. GLASS TINT COLOUR TO BE SOLAR GREY.
8. SPANDREL GLAZING IN BLACK ANODIZED CURTAIN WALL FRAMES. SPANDREL GLASS COLOUR TO BE OPTI-COAT #3-3747 'COSMIC GREY 2'.
9. INSULATED HOLLOW METAL DOOR IN THERMAL PRESSED STEEL FRAMES WITH GLAZING TRANSOMS WHERE SHOWN. DOOR AND FRAME PRIMED AND PAINTED TO PRECAST PANELS.
10. INSULATED SECTIONAL OVERHEAD LOADING DOCK DOOR C/W DOCK SEAL, DOCK LEVELER, DOCK BUMPERS AND 610x150mm VISION PANEL. COLOUR TO BE WHITE.
11. INSULATED SECTIONAL OVERHEAD DRIVE-IN DOOR. COLOUR TO BE WHITE. SEE DOOR SCHEDULE SHEET A-6.0 FOR DOOR SIZE.
12. ALUMINUM AND THERMAL GLASS DOOR(S) IN CURTAIN WALL DOOR FRAMING SYSTEM. COLOUR TO MATCH CURTAIN WALL SYSTEM.
13. PRE-FINISHED METAL COPING. COLOUR TO MATCH MATERIAL BELOW.
14. SCUPPER. SEE ROOF PLAN SHEET A-2.4
15. WALL-MOUNTED LIGHTING. SEE ELECTRICAL DRAWINGS.
16. 200mm DEEP ALUMINUM FIN MOUNTED TO CURTAIN WALL SYSTEM. COLOUR TO BE WOOD GRAIN FINISH, TO FUTURE SELECTION.
17. TENANT SIGNAGE ON ALUMINUM RAILS.

No.	ISSUED	DATE
1	ISSUED FOR SPECIFICATIONS	MAY 6, 2025
2	ISSUED FOR SPA	JUNE 13, 2025
3	ISSUED FOR MINOR VARIANCE	JUNE 20, 2025

No.	REVISION	DATE

BALDASSARRA Architects Inc.
30 Great Gulf Drive, Unit 20 | Concord ON | L4K 0K7
T. 905.660.0722 | www.baldassarra.ca

ONTARIO ASSOCIATION OF ARCHITECTS
A. BALDASSARRA
LICENSE
3654

OWNERS INFORMATION:

Northern Transformer Innisfil

3260 9th Line
Innisfil, ON

Elevations

SP-2024-016

DATE:	DRAWN BY:	CHECKED:	SCALE:
DEC 2024	KW		1:250

PROJECT No.: 25-18
DRAWING No.: A-3.0

© 2024 Northern Transformer Innisfil\Drawings\05 Current Drawings\25-18 A-3.0.dwg

BLOCK 28

26.00

R=26.00

6.00m x 6.00m
DAYLIGHT

26.00

344.84

225.59

250.59

PARECL AREA =7.6638 ha
=18.938Acres

15.00m x 15.00m
DAYLIGHT

15.00m x 15.00m
DAYLIGHT

287.69

STREET LIMIT

9TH LINE

26.17

13.56

13.11

3.000

1.948

9TH LINE

STREET LIMIT

26.00

THOMAS STREET

N

HOLDING JONES VANDERVEEN INC.
DATE: JUNE 03, 2025
SCALE 1:1000
04-1579-CALC-2025

PLAN 51R-34962

I require this plan to be deposited under the Land Titles Act.

Date OCTOBER 03, 2006

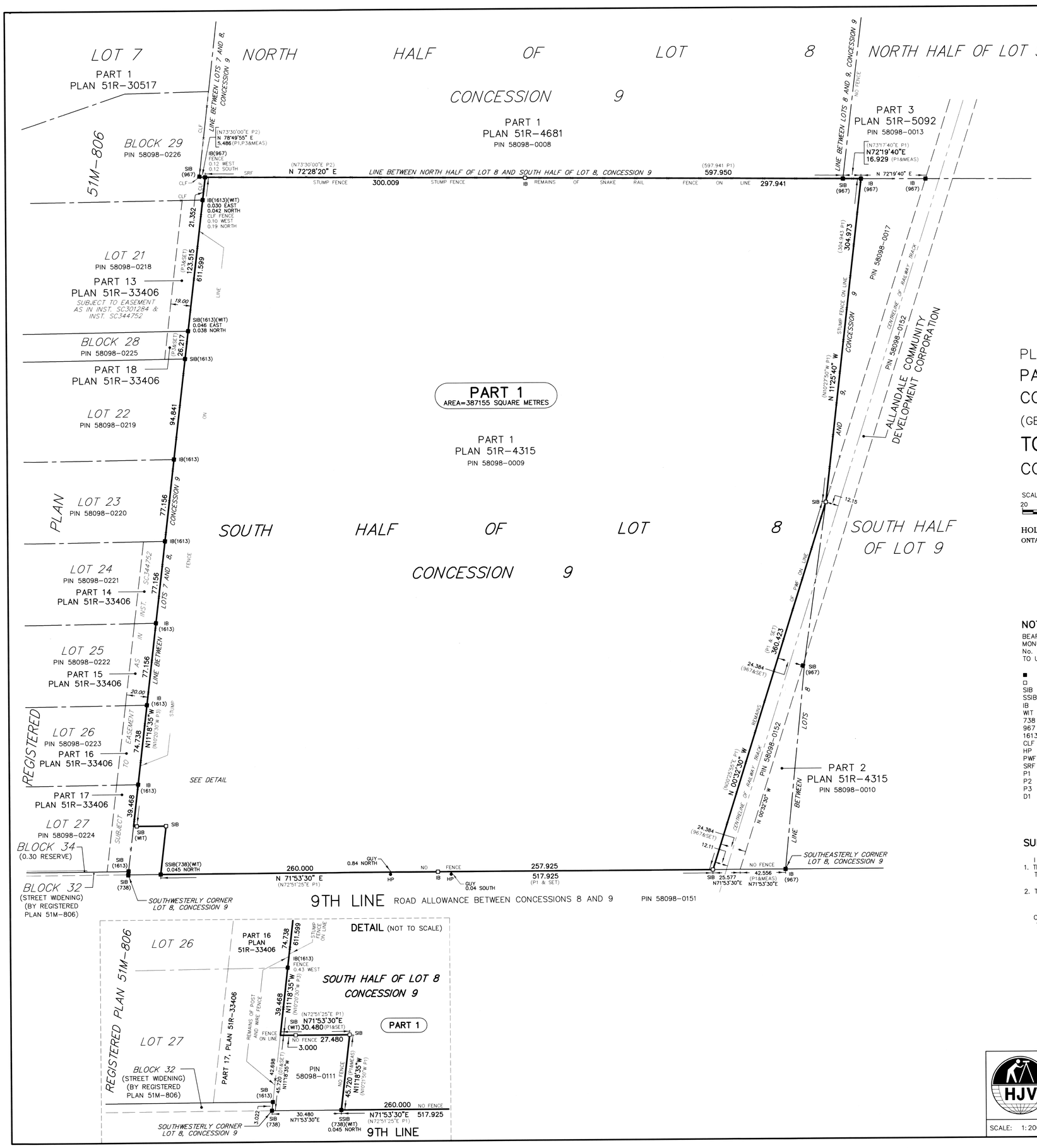
G. Vanderveen

GARY B. VANDERVEEN O.L.S.

RECEIVED AND DEPOSITED
Date Oct. 24, 2006
"M. Lack"
Ass't Dep. Land Registrar for the Land Titles Division of SIMCOE (No. 51)

SCHEDULE

PART	LOT	CONCESSION	ALL OF PIN
1	PART OF THE SOUTH HALF OF LOT 8	9	58098-0009



PLAN OF SURVEY OF
PART OF THE SOUTH HALF OF LOT 8
CONCESSION 9
(GEOGRAPHIC TOWNSHIP OF INNISFIL)
TOWN OF INNISFIL
COUNTY OF SIMCOE

SCALE 1 : 2000
20 0 50 100 150 METRES

HOLDING JONES VANDERVEEN INC.
ONTARIO LAND SURVEYORS

NOTES

BEARINGS HEREON ARE GRID AND ARE DERIVED FROM MTO HORIZONTAL CONTROL MONUMENTS No. 00819680538 (E. 602292.403, N. 4901286.928) AND No. 03119910016 (E. 605071.848, N. 4908657.916), AND ARE REFERRED TO U.T.M. ZONE 17, NAD83.

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
IB	DENOTES	IRON BAR
WIT	DENOTES	WITNESS
738	DENOTES	R. C. KIRKPATRICK, O.L.S.
967	DENOTES	W. N. WILDMAN LIMITED, O.L.S.
1613	DENOTES	EPLETT & WOROBEC SURVEYING LTD., O.L.S.
CLF	DENOTES	CHAIN LINK FENCE
HP	DENOTES	HYDRO POLE
PWF	DENOTES	POST AND WIRE FENCE
SRF	DENOTES	SNAKE RAIL FENCE
P1	DENOTES	PLAN 51R-4315
P2	DENOTES	PLAN 51R-4681
P3	DENOTES	REGISTERED PLAN 51M-806
D1	DENOTES	INST. RO727170

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.

2. THE SURVEY WAS COMPLETED ON SEPTEMBER 29, 2006.

OCTOBER 03, 2006
DATE

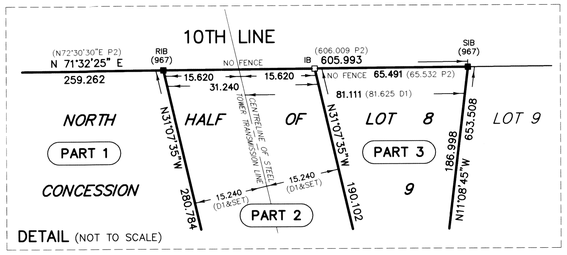
G. Vanderveen
GARY B. VANDERVEEN
ONTARIO LAND SURVEYOR

METRIC

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

HOLDING JONES VANDERVEEN INC.
ONTARIO LAND SURVEYORS
1700 LANGSTAFF ROAD, SUITE 1002
VAUGHAN, ON L4K 3S3
PHONE: 905-660-4000, 416-445-3800 EMAIL: hjv@planeteer.com

SCALE: 1:2000	DRAWN BY: J.Y.	CHKD. BY: D.H./Y.Y.	JOB NO: 04-1579-REF2



METRIC

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

I require this plan to be deposited under the Land Titles Act.

Date OCTOBER 04, 2006

G. Vanderveen

GARY B. VANDERVEEN O.L.S.

PLAN 51R-34961

RECEIVED AND DEPOSITED

Date Oct. 24, 2006

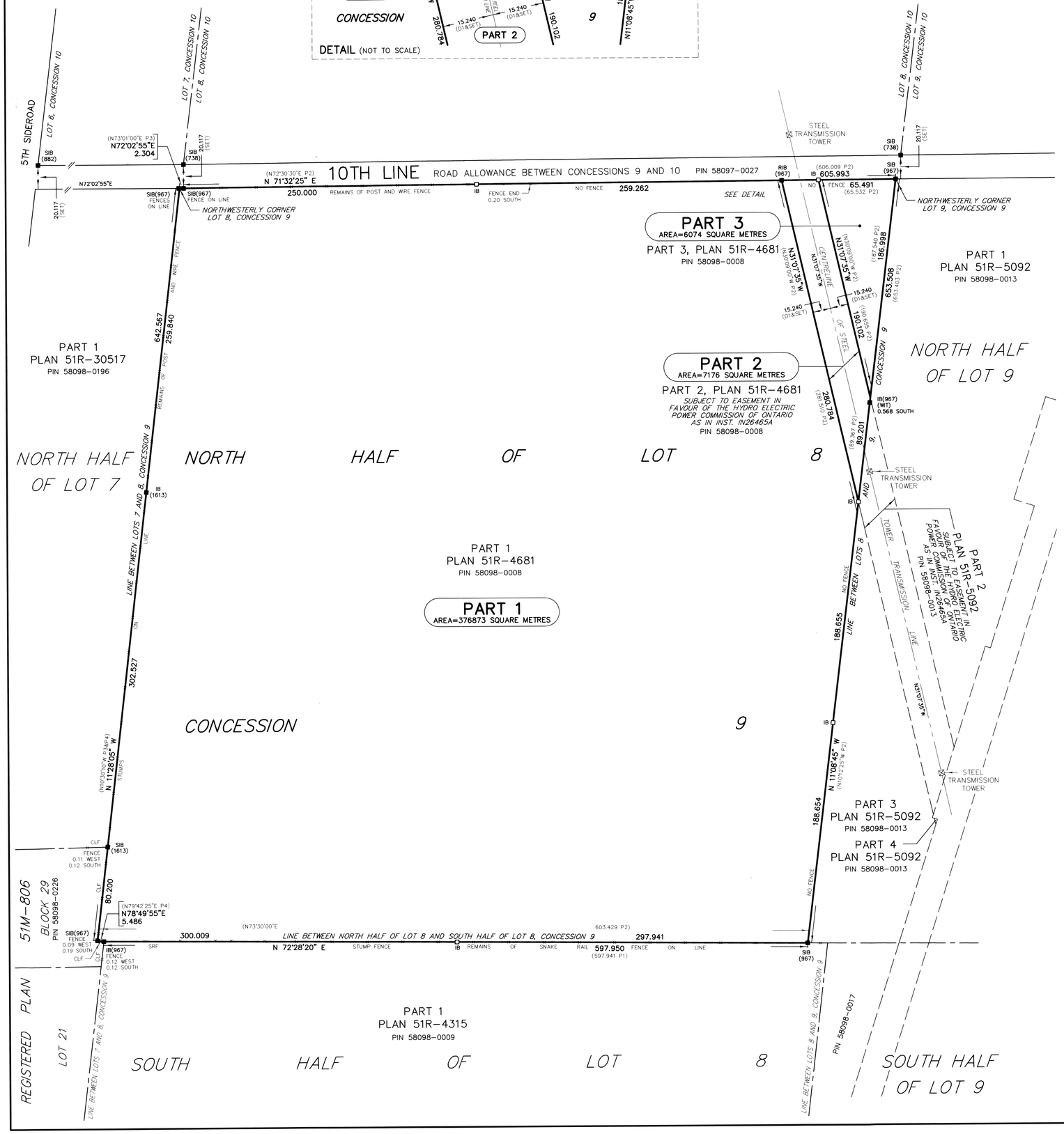
"M. Lock"

Ass't Dep. Land Registrar for the Land Titles Division of SIMCOE (No. 51)

SCHEDULE

PART	PART OF LOT	CONCESSION	ALL OF PIN
1	NORTH HALF OF LOT 8	9	58098-0008
2			
3			

PART 2 – SUBJECT TO EASEMENT IN FAVOUR OF THE HYDRO ELECTRIC POWER COMMISSION OF ONTARIO AS IN INST. IN26465A.



PLAN OF SURVEY OF

NORTH HALF OF LOT 8

CONCESSION 9

(GEOGRAPHIC TOWNSHIP OF INNISFIL)

TOWN OF INNISFIL

COUNTY OF SIMCOE

SCALE 1 : 2000

20 0 50 100 150 METRES

HOLDING JONES VANDERVEEN INC.
ONTARIO LAND SURVEYORS

NOTES

BEARINGS HEREON ARE GRID AND ARE DERIVED FROM MTO HORIZONTAL CONTROL MONUMENTS No. 00819680538 (E. 602292.403, N. 4901286.928) AND No. 03119910016 (E. 605071.848, N. 4908657.916), AND ARE REFERRED TO U.T.M. ZONE 17, NAD83.

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
RIB	DENOTES	ROUND IRON BAR
SIB	DENOTES	STANDARD IRON BAR
IB	DENOTES	IRON BAR
WIT	DENOTES	WITNESS
738	DENOTES	R. C. KIRKPATRICK, O.L.S.
882	DENOTES	JOHN C. MOORE, O.L.S.
967	DENOTES	W. N. WILDMAN, O.L.S.
1613	DENOTES	EPLETT & WOROBEC SURVEYING LTD., O.L.S.
CLF	DENOTES	CHAIN LINK FENCE
SRF	DENOTES	SNAKE RAIL FENCE
P1	DENOTES	PLAN 51R-4315
P2	DENOTES	PLAN 51R-4681
P3	DENOTES	PLAN 51R-30517
P4	DENOTES	REGISTERED PLAN 51M-806
D1	DENOTES	INST. IN26465A

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.

2. THE SURVEY WAS COMPLETED ON SEPTEMBER 29, 2006.

OCTOBER 04, 2006
DATE

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3260 9th Line (SP-2024-016)

Town of Innisfil

Traffic Impact Study

DG Group

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Legal Notification

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Executive Summary

This report summarizes the traffic impact study for the proposed industrial development on a site municipally known as 3260 9th Line, located at the north of 9th Line, east of the existing development on Bowman Street, in the Town of Innisfil [Town]. The report assesses the impact of traffic related to the development on the adjacent roadway and provides recommendations to accommodate this traffic in a safe and efficient manner.

The proposed development will include a single industrial building with warehouse and office space (183,106 sq.ft. (17,011 sq.m.) of GFA).

The Town has designated a future north / south industrial road, parallel to Bowman Street, which will have a connection with 9th Line, across from Thomas Street [Private Driveway]. At the north end, the Private Driveway will connect to the future road extension of Doral Drive [Future Road Extension].

The proposed development includes a single full-movement access driveway onto 9th Line [South Access]. The proposed development will also have a single full-movement access driveway onto St the Private Driveway [North Access]. Prior to the construction of the Private Driveway, the proposed development will operate with the South Access driveway exclusively.

The scope of this analysis includes a review of the following intersections:

- Innisfil Beach Road / Industrial Park Road / Commerce Gate;
- 9th Line / 10th Sideroad;
- 9th Line / Thomas Street / Private Driveway;
- 9th Line / Bowman Street;
- 9th Line / South Access; and
- Private Driveway / North Access.

Conclusions

1. The proposed addition is expected to generate and additional 114 AM and 107 PM new peak hour trips in the study area.
2. Detailed traffic and pedestrian counts were completed at the study area intersections, on Thursday March 27th, 2025.
3. An intersection operational analysis was completed at the study area intersections, using the existing (2025) and background (2028, 2033 and 2038) traffic volumes, without the proposed development traffic. This enabled a review of existing and future traffic deficiencies that would be present without the influence of the proposed development.

   The County is planning to construct the following improvements in the study area by the 2028 horizon year:

   2028 Horizon Year

   - **Innisfil Beach Road (between 20th Sideroad and County Road 27)**
     - Widen road from two lanes to four lanes.
     - Construct a multi-use trail to connect the Alcona Community to the intersection at Industrial Park Road / Commerce Gate.

   The following additional transportation improvements are recommended within the study area:

   Short-Term (2025 - 2028)

- **9th Line / 10th Sideroad**
  - Signalization of the intersection.

Background (2028) Horizon Year

- **Innisfil Beach Road / Industrial Park Road / Commerce Gate**
  - Increase cycle length and adjust signal timing splits.

4. An estimate of the amount of traffic that would be generated by the Subject Site was prepared and assigned to the study area streets and intersection.
5. An intersection operation analysis was completed for the study area intersections, using the total (2028, 2033 and 2038) with proposed traffic volumes. No further improvements are recommended as a result of the proposed development within the study area.
6. The South Access and North Access driveway will operate efficiently as a full-movement access driveway. A single ingress and egress lane at the South Access and North Access driveway will provide the necessary capacity to service the proposed development.
7. There are no operational or traffic safety issues with the proposed development operating with one driveway at the South Access.
8. The Private Driveway will operate efficiently as a full-movement intersection. A single northbound and southbound lane at the Private Driveway will provide the necessary capacity to service the study area.
9. The study area intersections will provide the necessary capacity to accommodate the construction of the Future Road Extension and traffic added by the Future Employment Development. Minor adjustments to the signal timing plan at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection will be required in the AM peak hour.
10. The following additional improvements are conceptually warranted prior to the build-out of the Future Employment Development lands; however, the scope and timing of the improvements will need to be confirmed as additional details regarding the development of this area are confirmed:

    9th Line / Bowman Street

    - Construction of an eastbound left turn lane with a 15 metre storage, 40 metre parallel length and 75 metre taper length.
11. The sight distance available for the proposed South Access driveway and the Private Driveway meets the minimum stopping sight distance and intersection sight distance requirements.
12. A review of the existing 9th Line crossing of the Barrie-Collingwood Railway (BCRY) [9th Line Railway Crossing] was completed as part of this analysis. Based anticipated increase in background traffic from adjacent developments, it is recommended that Transport Canada consider installing Cantilevered Light Units and bells at the 9th Line Railway Crossing.
13. The sight distance available between the South Access driveway and the 9th Line Railway Crossing exceeds the railway sight distance requirements, west of the 9th Line Railway Crossing (D_{SSD}) as identified in the Transport Canada's Grade Crossing Standards. There are no issues regarding the location of the proposed South Access driveway and the Private Driveway on 9th Line as it relates to the 9th Line Railway Crossing.
14. The proposed parking supply meets the minimum parking requirements identified in the Town's Zoning By-law for the office and accessible parking component of the proposed development. The parking supply for the warehouse and other industrial uses is based on the projected

staffing for the proposed development, assuming one parking space will be required per employee.

15. In summary, the traffic generation from the proposed development does not cause any operational or traffic safety issues.

Table of Contents

1 Introduction 10
1.1 Background 10
1.2 Study Area 10
1.3 Study Scope and Objectives 12
1.4 Horizon Year & Analysis Periods 12

2 Information Gathering 12
2.1 Street and Intersection Characteristics 12
2.2 Local Transportation Infrastructure Improvements 14
2.3 Transit Access 16
2.4 Other Developments within Study Area 16
2.4.1 Traffic Generation for the Proposed Adjacent Developments 16
2.4.2 2411 Bowman Development 17
2.4.3 2429 Bowman Development 19
2.4.4 2456 Bowman Development 21
2.5 Background Traffic Growth 26
2.6 Traffic Counts 26
2.7 Horizon Year Traffic Volumes 28

3 Intersection Operation without Proposed Development 31
3.1 Intersection Capacity Analysis Criteria 31
3.2 Existing (2025) Intersection Operation 32
3.3 Background (2028) Intersection Operation 33
3.4 Background (2033) Intersection Operation 34
3.5 Background (2038) Intersection Operation 35

4 Proposed Development Traffic Generation and Assignment 36
4.1 Traffic Generation 36
4.2 Traffic Assignment 37
4.3 Total Horizon Year Traffic Volumes 41

5 Intersection Operation with Proposed Development 44
5.1 Total (2028) Intersection Operation 44
5.2 Total (2033) Intersection Operation 45
5.3 Total (2038) Intersection Operation 47
5.4 Supplementary Analysis – South Access Driveway 48

5.5 Supplementary Analysis – Future Road Extension & Future Employment Development.....52
5.5.1 Future Employment Development.....52
5.5.2 Total (2038) Intersection Operation - Future Employment Development.....57
5.6 Site Access.....59
5.7 Sight Distance Review.....59
5.8 Railway Crossing Review.....60
5.8.1 Railway Crossing Infrastructure Review.....60
5.8.2 Railway Crossing Sight Distance Review.....61
5.9 Swept Path Analysis.....62
5.10 Parking Review.....62
6 Summary.....63

List of Tables

Table 1 – Estimated Traffic Generation of Adjacent Developments 17
Table 2 - Traffic Count Data 26
Table 3 – Level of Service Criteria for Intersections 31
Table 4 – Existing (2025) LOS 32
Table 5 – Background (2028) LOS 33
Table 6 – Background (2033) LOS 34
Table 7 – Background (2038) LOS 35
Table 8 – Estimated Traffic Generation of the Proposed Development 37
Table 9 – Proposed Development Traffic Distribution (Work-Based Traffic Distribution) 38
Table 10 – Proposed Development Traffic Distribution (Existing Traffic Distribution) 38
Table 11 – Total (2028) LOS 44
Table 12 – Total (2033) LOS 46
Table 13 – Total (2038) LOS 47
Table 14 – Total (2038) LOS – Supplementary Analysis (South Access) 52
Table 15 – Estimated Traffic Generation of the Future Employment Development 53
Table 16 – Total (2038) LOS – Supplementary Analysis (Future Rd Ext.) 58
Table 17 – GGCS Specified Crossing Protections based on the CEI 60
Table 18 – GGCS Specified Crossing Protections based on the CEI 61
Table 19 - Zoning By-law Parking Requirements 62

List of Figures

Figure 1 – Proposed Site Location and Study Area 11
Figure 2 – Existing Intersection Spacing and Lane Configuration within Study Area 13
Figure 3 – Planned Lane Configuration within Study Area 15
Figure 4 – Traffic Assignment for 2411 Bowman Development (2028) 18
Figure 5 – Traffic Assignment for 2429 Bowman Development (2028) – Automobile Traffic 19
Figure 6 – Traffic Assignment for 2429 Bowman Development (2028) – Heavy Vehicle Traffic 20
Figure 7 – Traffic Assignment for 2456 Bowman Development (2028) – Automobile Traffic 22
Figure 8 – Traffic Assignment for 2456 Bowman Development (2028) – Heavy Vehicle Traffic 23
Figure 9 – Total Adjacent Development – Automobile Traffic 24
Figure 10 – Total Adjacent Development – Heavy Vehicle Traffic 25
Figure 11 – Existing (2025) Traffic Volumes 27
Figure 12 – Background (2028) Traffic Volumes 28
Figure 13 – Background (2033) Traffic Volumes 29
Figure 14 – Background (2038) Traffic Volumes 30
Figure 15 – Traffic Assignment for Proposed Development – Automobile Traffic 39
Figure 16 – Traffic Assignment for Proposed Development – Heavy Vehicle Traffic 40
Figure 17 - Total (2028) Traffic Volumes 41
Figure 18 - Total (2033) Traffic Volumes 42
Figure 19 - Total (2038) Traffic Volumes 43
Figure 20 – Traffic Assignment for Proposed South Access – Automobile Traffic 49
Figure 21 – Traffic Assignment for Proposed South Access – Heavy Vehicle Traffic 50
Figure 22 - Total (2038) Traffic Volumes – Supplementary Analysis (South Access) 51
Figure 23 – Automobile Traffic Assignment for Future Employment Development (2038) 54
Figure 24 – Heavy Vehicle Traffic Assignment for Future Employment Development (2038) 55
Figure 25 - Total (2038) Traffic Volumes – Supplementary Analysis (Future Rd Ext.) 56

List of Appendices

APPENDIX A – Site Plan
APPENDIX B – 60% Design Files IBR Phase 3
APPENDIX C – Town TMP Excerpts
APPENDIX D – Traffic Count Data
APPENDIX E – Synchro Analysis Output – Existing Traffic Volumes
APPENDIX F – Synchro Analysis Output – Background Traffic Volumes
APPENDIX G – Synchro Analysis Output – Total Traffic Volumes
APPENDIX H – MTO DS Left Turn Lane Warrant Graphs
APPENDIX I – OTM Signal Justification Sheets
APPENDIX J – ITE Trip Generation Manual Excerpts
APPENDIX K – Transportation Tomorrow Survey Excerpts
APPENDIX L – County's Employment Area Land Needs Assessment Excerpts
APPENDIX M – Town's Land Budget & Municipal Comprehensive Review Excerpts
APPENDIX N – Swept Path Analysis

1 Introduction

1.1 Background

DG Group [The Developer] is proposing an industrial development on a site municipally known as 3260 9th Line, located north of 9th Line, east of the existing industrial development on Bowman Street, in the Town of Innisfil [Town].

The proposed development will include a single industrial building with warehouse and office space (183,106 sq.ft. (17,011 sq.m.) of GFA).

The Town has designated a future north / south industrial road, parallel to Bowman Street, which will have a connection with 9th Line, across from Thomas Street [Private Driveway]. At the north end, the Private Driveway will connect to the future road extension of Doral Drive [Future Road Extension].

The proposed development includes a single full-movement access driveway onto 9th Line [South Access]. The proposed development will also have a single full-movement access driveway onto the Private Driveway [North Access]. Prior to the construction of the Private Driveway, the proposed development will operate with the South Access driveway exclusively.

The Developer has retained **JD Engineering Inc.** [JD Engineering] to prepare this traffic impact study in support of the proposed development.

1.2 Study Area

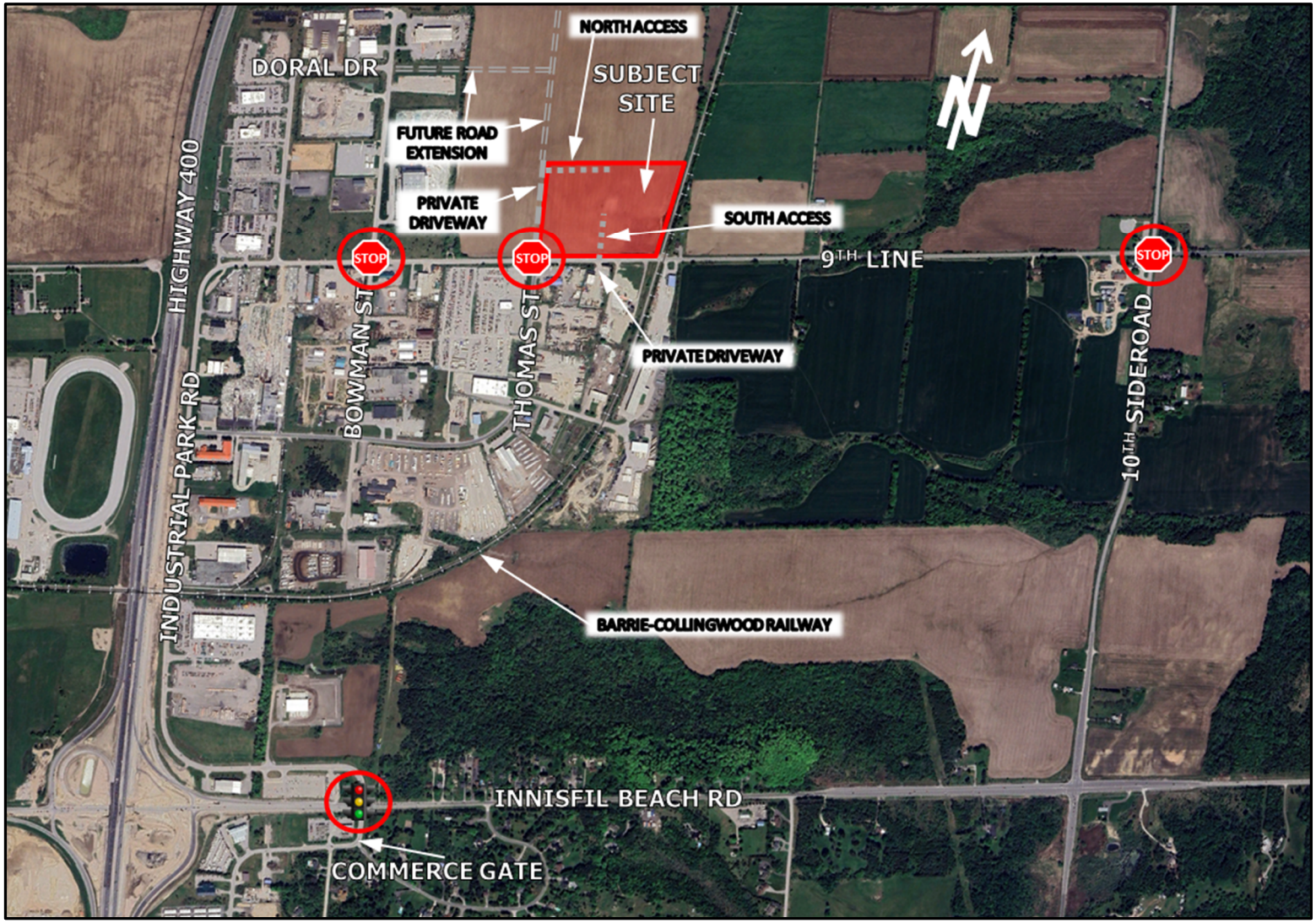
Figure 1 illustrates the location of the subject site and study area intersections, in relation to the surrounding area. The Site Plan by Baldassarra Architects Inc. is included in **Appendix A.**

The subject site is bound by 9th Line to the south, the Private Driveway to the west, the Beeton Spur of the Barrie-Collingwood Railway [BCRY] to the east and undeveloped industrial business park lands to the north.

Based on our correspondence with the Town, the scope of our analysis will include a review of the following intersections:

- Innisfil Beach Road / Industrial Park Road / Commerce Gate;
- 9th Line / 10th Sideroad;
- 9th Line / Thomas Street / Private Driveway;
- 9th Line / Bowman Street;
- 9th Line / South Access; and
- Private Driveway / North Access.

Figure 1 – Proposed Site Location and Study Area



1.3 Study Scope and Objectives

The purpose of this study is to identify the potential impacts to traffic flow at the site access and on the surrounding roadway network. The study analysis includes the following tasks:

- Determine existing traffic volumes and circulation patterns;
- Estimate future traffic volumes if the proposed development was not constructed, including the impact of additional proposed developments in the area;
- Complete level-of-service [LOS] analysis of horizon year (without the proposed development) traffic conditions and identify additional operational deficiencies;
- Estimate the amount of traffic that would be generated by the proposed development and assign to the roadway network;
- Complete LOS analysis of horizon year (with the proposed development) traffic conditions and identify additional operational deficiencies;
- Identify improvement options to address operational deficiencies;
- Review the configuration of the site access driveways;
- Review the proposed parking supply in relation to the Town's zoning by-law requirements; and
- Document findings and recommendations in a final report.

1.4 Horizon Year & Analysis Periods

Traffic scenarios for the existing (2025) year and horizon years (2028, 2033 and 2038) were selected for analysis of traffic operations in the study area. The weekday morning [AM] and afternoon [PM] peak hour has selected as the analysis periods for this study.

2 Information Gathering

2.1 Street and Intersection Characteristics

9th Line is a two-lane local roadway with a rural cross-section and a posted speed limit of 60 km/h in the study area. 9th line is under jurisdiction of the Town.

Innisfil Beach Road (County Road 21) is a two-lane arterial roadway with a rural cross-section and gravel shoulders in the study area. Innisfil Beach Road has a posted speed limit of 60 km/h and is under the jurisdiction of the County, in the study area. Innisfil Beach Road has axle weight restrictions east of Industrial Park Road.

10th Sideroad (County Road 54) is a two-lane arterial roadway with a rural cross-section and gravel shoulders in the study area.10th Sideroad has a posted speed limit of 80 km/h and is under the jurisdiction of the County, in the study area.

Industrial Park Road is a two-lane local roadway with a rural cross-section and gravel shoulders. Industrial Park Road has a posted speed limit of 60 km/h and is under jurisdiction of the Town.

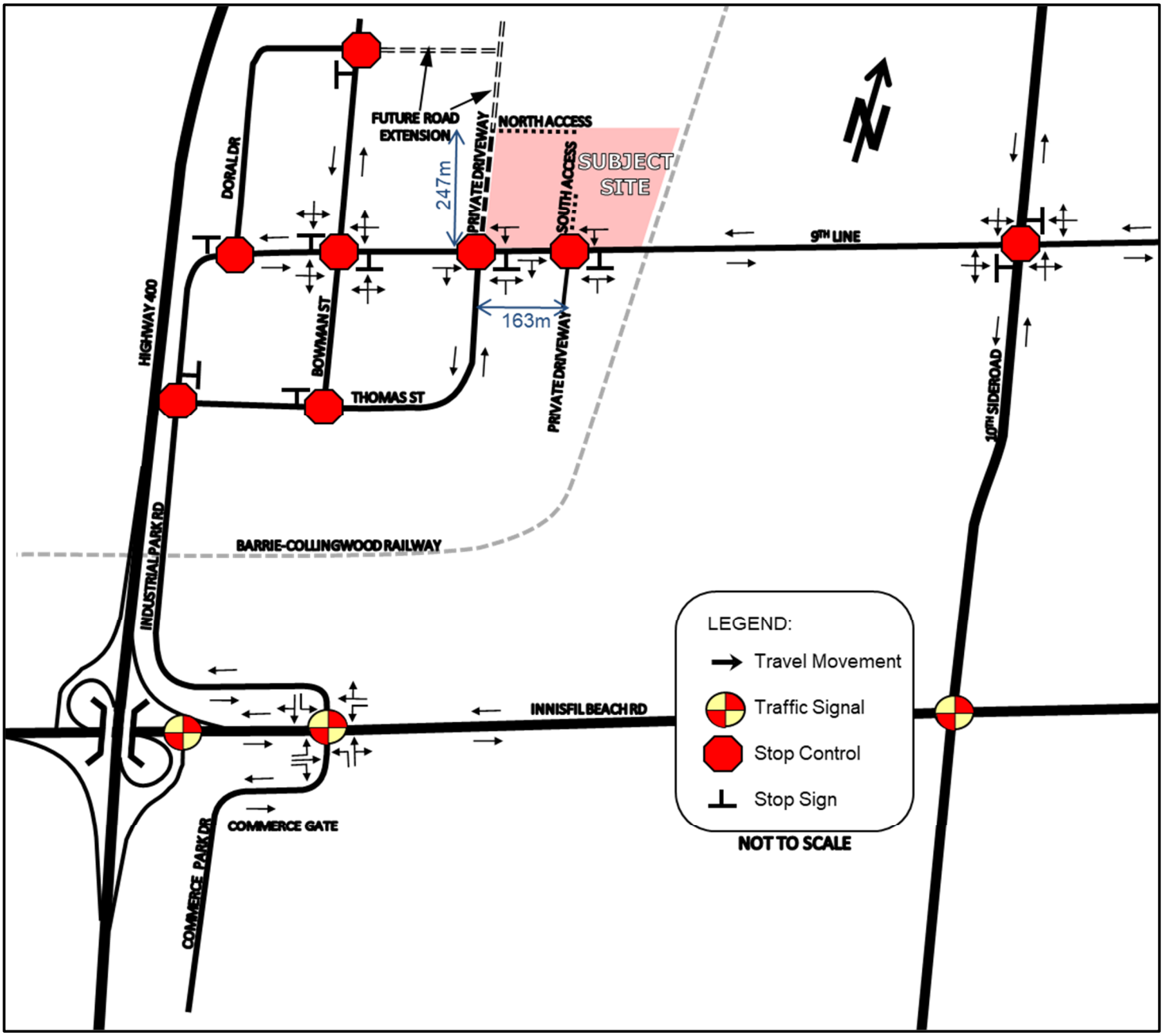
Commerce Gate is a two-lane local roadway with an urban cross-section and no sidewalk, within the study area. Commerce Gate has a posted speed limit of 50 km/h and is under jurisdiction of the Town.

Bowman Street is a two-lane local roadway with a rural cross-section and gravel shoulders. Bowman Street has a posted speed limit of 60 km/h and is under jurisdiction of the Town.

Thomas Street is a two-lane local roadway with a rural cross-section and gravel shoulders. Thomas Street has a posted speed limit of 60 km/h and is under jurisdiction of the Town.

The existing intersection spacing and lane configuration within the study area is illustrated in **Figure 2.**

Figure 2 – Existing Intersection Spacing and Lane Configuration within Study Area



2.2 Local Transportation Infrastructure Improvements

Based on a review of the County's 2025 Capital Budget and correspondence with the County, the following improvements are planned to start construction by 2027:

- Innisfil Beach Road (between 20th Sideroad and County Road 27)
  - Widen road from two lanes to four lanes.
  - Construct a multi-use trail to connect the Alcona Community to the intersection at Industrial Park Road / Commerce Gate.
  - The construction between 10th Sideroad and Industrial Park Road / Commerce Gate on Innisfil Beach Road (also known as IBR Phase 3) is planned to start construction by 2027.
  - Currently, the section on Innisfil Beach Road between Yonge Street and 10th Sideroad (also known as IBR Phase 2) is under construction and will be complete by 2027.

The 60% design files for the Innisfil Beach Road road widening at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection are provided in **Appendix B**. For the purposes of this report, we have assumed the road widening on Innisfil Beach Road to be completed by the 2028 horizon year. The planned lane configuration on Innisfil Beach Road for IBR Phase 3, within the study area, is illustrated in **Figure 3.**

Based on a review of the County's Transportation Master Plan Update (2024) [County TMP], the following improvements are planned in the medium-term (by 2041):

- 10th Sideroad (between Innisfil Beach Road and the northern limit of the Town)
  - Widen road from two lanes to four lanes.

Since the improvements are planned by 2041 and the improvement is not detailed in the County's 2025 Capital Budget, we have assumed the road widening on 10th Sideroad in this study. The need for recommended improvements on 10th Sideroad in the study area will be assessed based on our analysis in Sections 3 and 5.

The Town's Transportation Master Plan (2022) [TMP] identified the following active transportation improvements to be completed by 2041 or earlier:

- Construction of a sidewalk at the following locations:
  - Industrial Park Road along the north/east side of the road between Innisfil Beach Road to the property municipally at 2207 Industrial Park Road (400 Market property).
  - Commerce Gate along the south/east side of the road between Innisfil Beach Road to Forest Valley Drive.

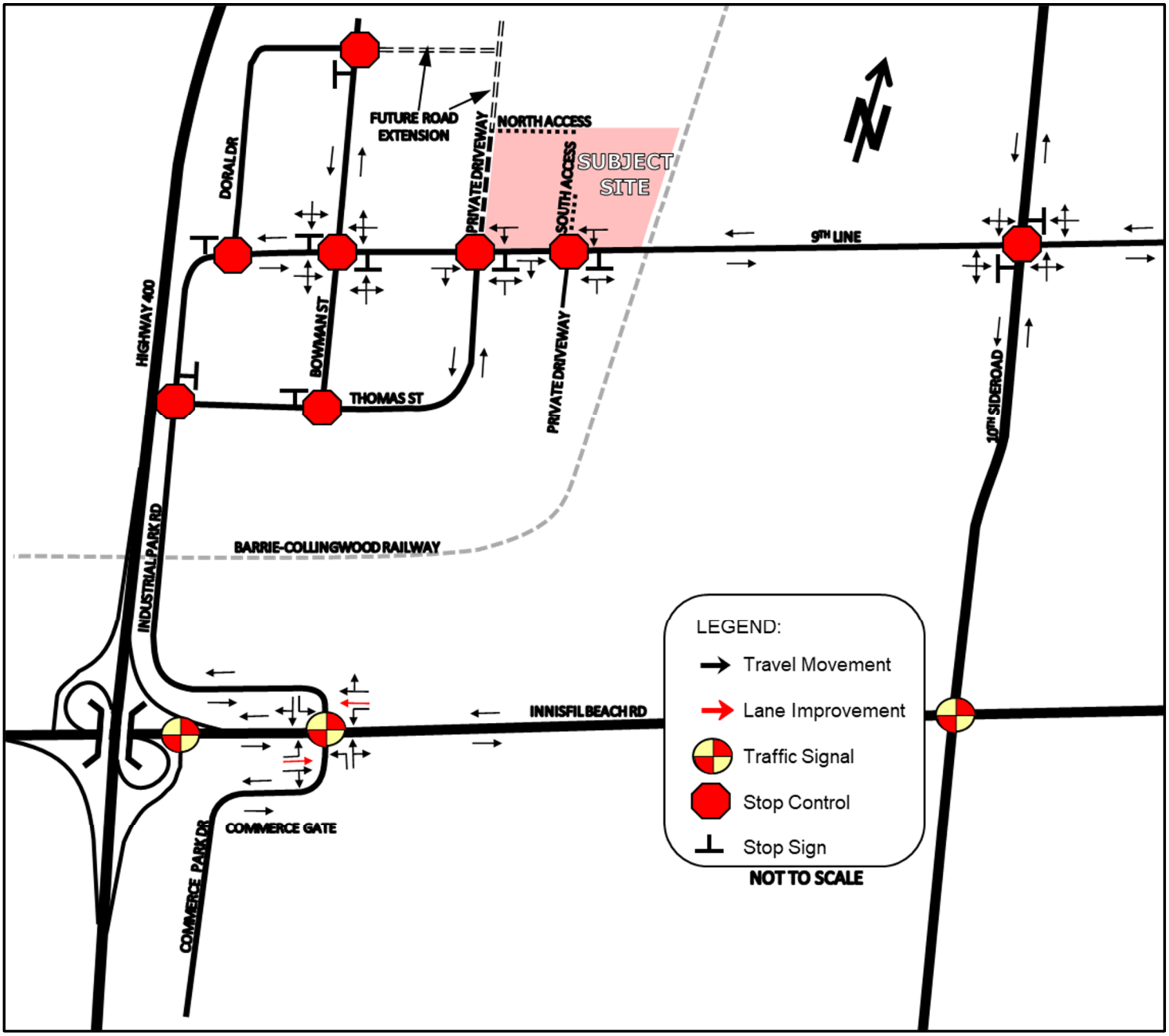
The reconstruction of the Highway 400 / Innisfil Beach Road interchange was under construction at the time this study was completed. Based on correspondence with the MTO, there are currently (as of March 2025) no traffic access restrictions at the interchange; however, there were restrictions on height for the underpass at Highway 400 on Innisfil Beach Road of 4.3 metres. Reconstruction is anticipated to be completed by late 2025.

As noted in Section 1.1, the Town has designated a future north / south industrial road between 9th Line and Doral Drive. As per the Town's Official Plan, the Town has noted long-term plans to extend the Private Driveway / Future Road Extension and Bowman Street to have a connection from these roadways into the City of Barrie. For the purpose of this report, the extension of the Private Driveway / Future Road Extension and Bowman Street into the City of Barrie has not been included. A

supplementary analysis is provided in Section 5.5 to review the Future Road Extension which will ultimately connect the Private Driveway to Doral Drive.

Based on a review of the Town's 2025 – 2026 Capital Budget and the Town's TMP, no other improvements are planned along the Town roads in the study area.

Figure 3 – Planned Lane Configuration within Study Area



2.3 Transit Access

The County provides transit service within their geographical jurisdiction; however, there are no existing or planned transit routes near the study area.

The study area is serviced by Innisfil Transit. Innisfil Transit provides residents with an on-demand transit service to essential services in the Town via the Uber application, with a subsidy to regular Uber fares.

The Town is also exploring alternative transit options as part of the Town's TMP. The Town's TMP identified the following potential alternatives

i. Convert and/or supplement the On-Demand Uber Partnership to a Dedicated Fleet On-Demand Transit System.
ii. Supplement On-Demand transit with Scheduled Fixed Route Service.
iii. Seek partners for alternative first-mile / last-mile programs and services including:
    - A Bike Share and Scooter Program
    - Autonomous Pilot Projects

Furthermore, the Town TMP detailed a conceptual transit route map which identifies three routes passing through the Innisfil Heights Employment Area; This would potentially connect to a number of residential communities in the Town as well as connections into the City of Barrie and Town of New Tecumseth. The Town is currently undertaking a 10-year Transit Master Plan which will look into the potential transit improvements in greater detail.

2.4 Other Developments within Study Area

Based on correspondence with the Town, there are a number of infill developments planned in the Innisfil Heights Employment Area. It is assumed that the background traffic growth rate (noted in Section 2.5) will account for these infill developments in the area. Locally, we have specifically accounted for three developments:

- 2411 Bowman Development (2411 Bowman Street): A proposed motor vehicle garage, tire sales, office and storage building (828.5 sq.m. of GFA)
- 2429 Bowman Development (2429 Bowman Street): Manufacturing warehouse with office space (642.5 sq.m. of office GFA and 5,580.6 sq.m. of manufacturing/warehouse GFA)
- 2456 Bowman Development (2456 Bowman Street): Two storey industrial building (781.6 sq.m. of office GFA and 3.405.3 sq.m. of manufacturing/warehouse GFA)

The above noted developments are in various stages of development. For the purpose of this report, it is assumed that all the above noted developments will be built-out by 2028.

Sections 2.4.1 to 2.4.4 describe the methodology that was used to generate and assign the adjacent development traffic withn the study area.

2.4.1 Traffic Generation for the Proposed Adjacent Developments

The traffic generation for the adjacent developments have been calculated based on the data provided in the Institute of Transportation Engineers [ITE] Trip Generation Manual (11th Edition) [ITE Trip Generation Manual].

The following ITE land uses have been applied to estimate the traffic at the adjacent developments:

- ITE land use 140 (Manufacturing) – General Urban/Suburban Setting; and
- ITE land use 943 (Automobile Parts and Service Center) – General Urban/Suburban Setting.

The estimated trip generation for the adjacent developments is illustrated below in **Table 1.** The AM and PM peak hour traffic generation for the adjacent developments do not exactly align with the AM and PM peak hour in the traffic counts; consequently, we have applied the peak hour of adjacent street traffic values provided in the ITE Trip Generation Manual.

Table 1 – Estimated Traffic Generation of Adjacent Developments

Development	Land Use	Size	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
2411 Bowman Development	Automobile Parts and Service Center ITE Land Use: 943	829 sq.m. (8,918 sq.ft.)	12	5	17	7	11	18
2429 Bowman Development	Manufacturing ITE Land Use: 140	6,223 sq.m. (66,985 sq.ft.)	38	12	50	15	35	50
2456 Bowman Development	Manufacturing ITE Land Use: 140	4,187 sq.m. (45,068 sq.ft.)	28	9	37	10	23	33
TOTAL TRIP GENERATION			**78**	**26**	**104**	**32**	**69**	**101**
TRUCK TRIP GENERATION (2429 Bowman Development)* 30 Daily Heavy Vehicle Trips (15 Ingress & 15 Egress Trips)**			**1**	**1**	**2**	**1**	**2**	**3**
TRUCK TRIP GENERATION (2456 Bowman Development)* 20 Daily Heavy Vehicle Trips (10 Ingress & 10 Egress Trips)**			**1**	**1**	**2**	**1**	**1**	**2**
TOTAL HEAVY VEHICLE TRIP GENERATION			**2**	**2**	**4**	**2**	**3**	**5**
TOTAL AUTOMOBILE TRIP GENERATION			**76**	**24**	**100**	**30**	**66**	**96**

* The % of 24-Hour Truck Trips were obtained from the ITE land use 140 (Manufacturing) in the ITE Trip Generation Appendices.
** The total heavy vehicle trips for a typical weekday were generated based on the ITE land use 140 (Manufacturing) in the Truck Time of Day Distribution appendix in the ITE Trip Generation Manual. The heavy vehicle trips in the AM and PM peak hours were determined by applying the % of 24-Hour Truck Trips for the AM and PM peak periods for the ITE 140 LU (7.8% and 9.7% respectively) to the total daily heavy vehicle trips noted.

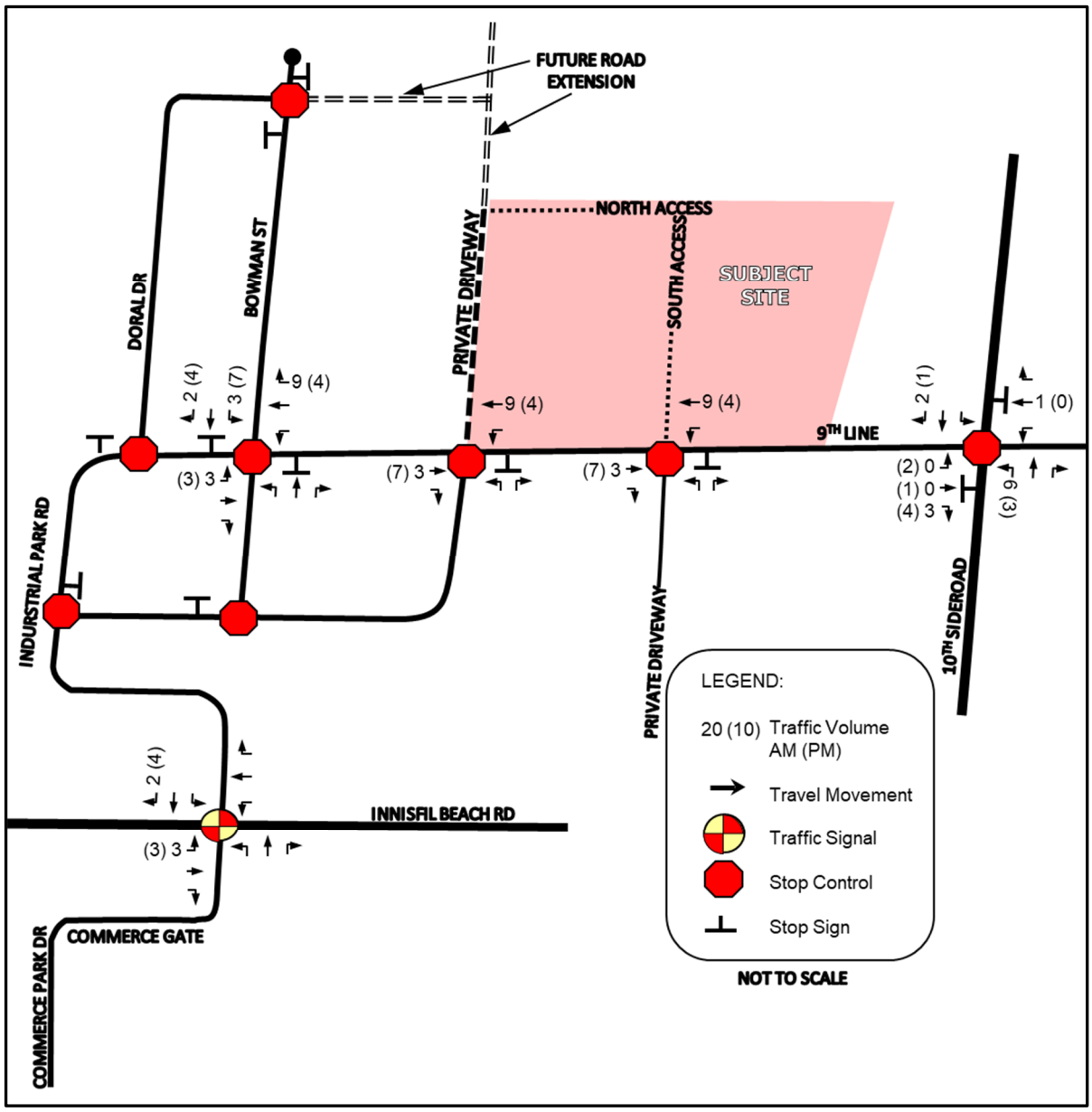
In order to be conservative, no transportation modal split reduction has been applied to the above-noted traffic generation calculation.

2.4.2 2411 Bowman Development

The traffic distribution for the 2411 Bowman Development is assumed to follow the existing trip distribution, as noted in Table 9 in Section 4.2.

Figure 4 illustrates the traffic assignment for the 2411 Bowman Development, in the AM and PM peak hour.

Figure 4 – Traffic Assignment for 2411 Bowman Development (2028)



2.4.3 2429 Bowman Development

The traffic distribution for automobile traffic in the 2429 Bowman Development is assumed to follow work-based trip distribution, as noted in Table 9 in Section 4.2.

The traffic distribution for heavy vehicle traffic in the 2429 Bowman Development is assumed to follow the existing trip distribution, as noted in Table 10 in Section 4.2.

Figures 5 and **6** illustrates the automobile and heavy vehicle traffic assignment for the 2429 Bowman Development respectively, in the AM and PM peak hour.

Figure 5 – Traffic Assignment for 2429 Bowman Development (2028) – Automobile Traffic

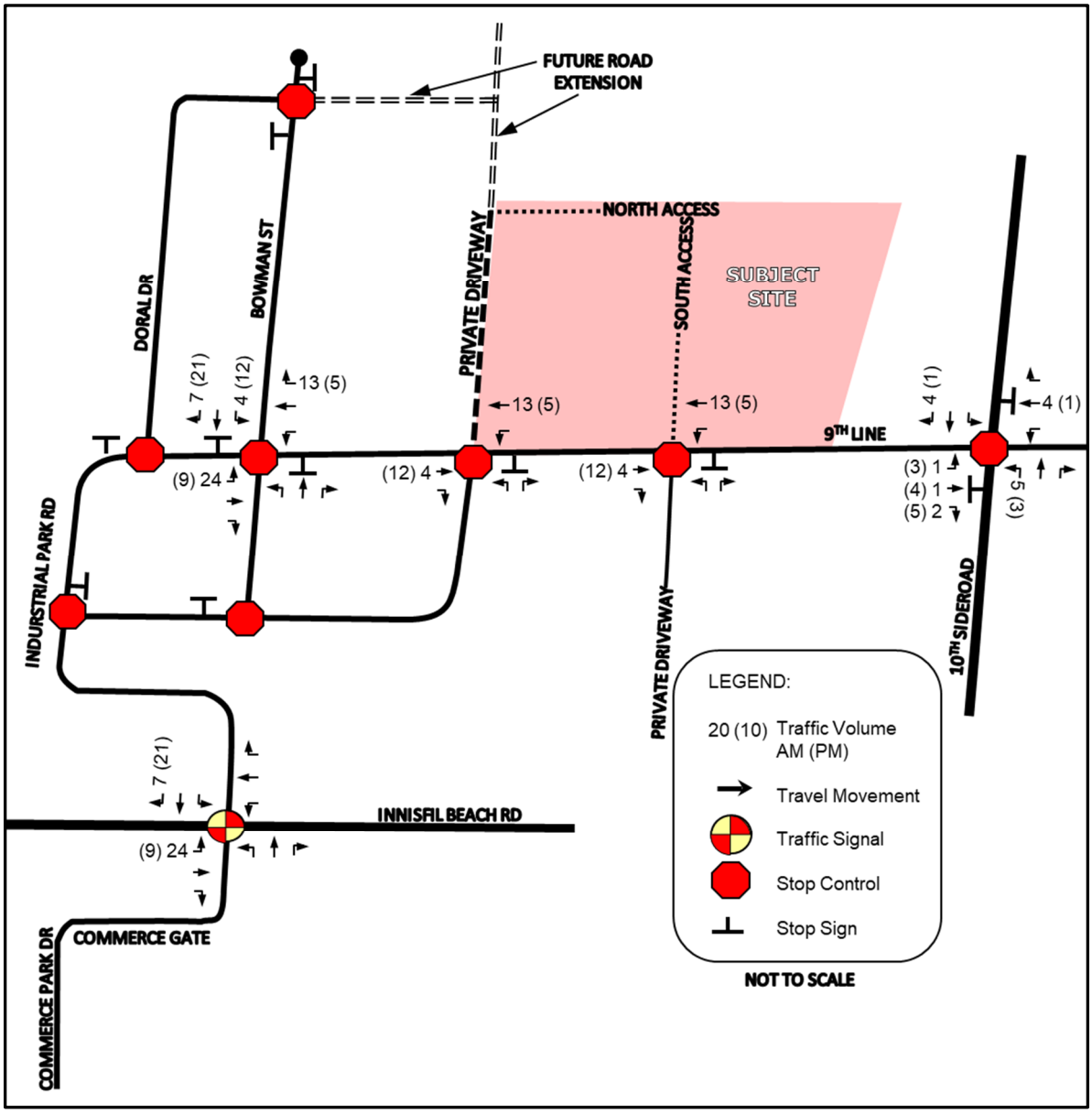
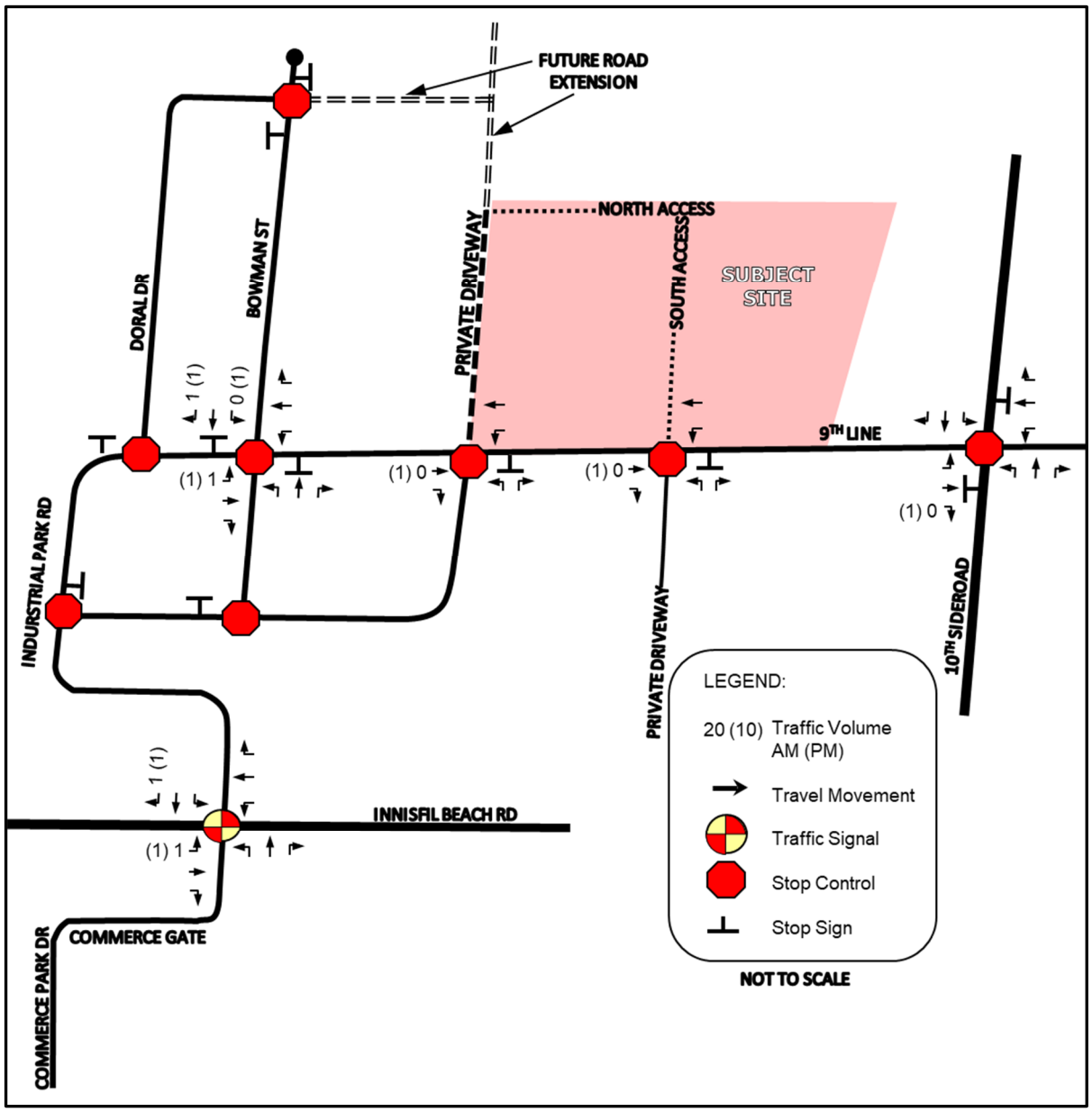


Figure 6 – Traffic Assignment for 2429 Bowman Development (2028) – Heavy Vehicle Traffic



2.4.4 2456 Bowman Development

The traffic distribution for automobile traffic in the 2456 Bowman Development is assumed to follow work-based trip distribution, as noted in Table 9 in Section 4.2.

The traffic distribution for heavy vehicle traffic in the 2456 Bowman Development is assumed to follow the existing trip distribution, as noted in Table 10 in Section 4.2.

Figures 7 and **8** illustrates the automobile and heavy vehicle traffic assignment for the 2456 Bowman Development respectively, in the AM and PM peak hour.

Figures 9 and **10** illustrates the automobile and heavy vehicle traffic assignment for all the adjacent development traffic respectively, in the AM and PM peak hour.

Figure 7 – Traffic Assignment for 2456 Bowman Development (2028) – Automobile Traffic

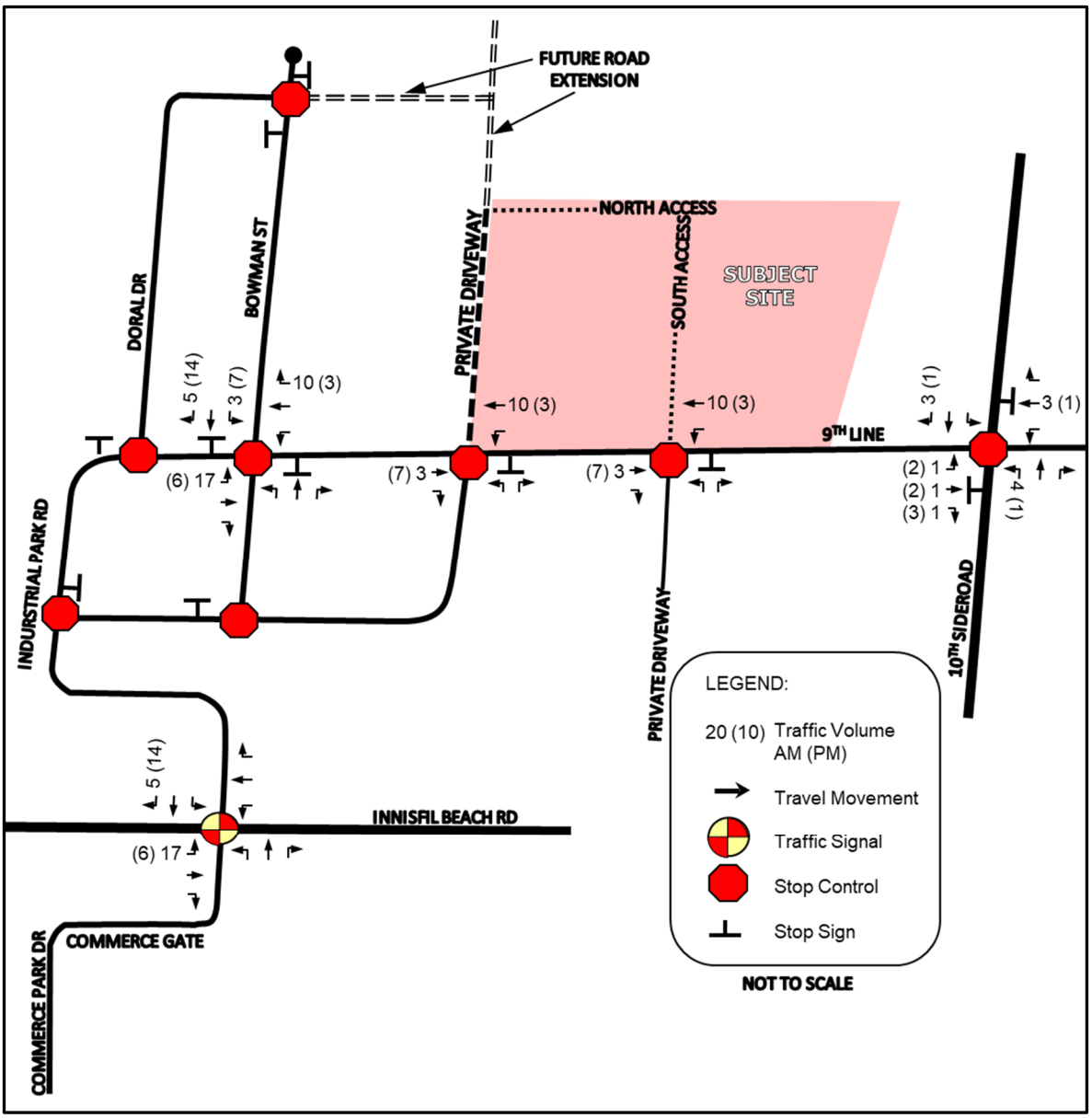


Figure 8 – Traffic Assignment for 2456 Bowman Development (2028) – Heavy Vehicle Traffic

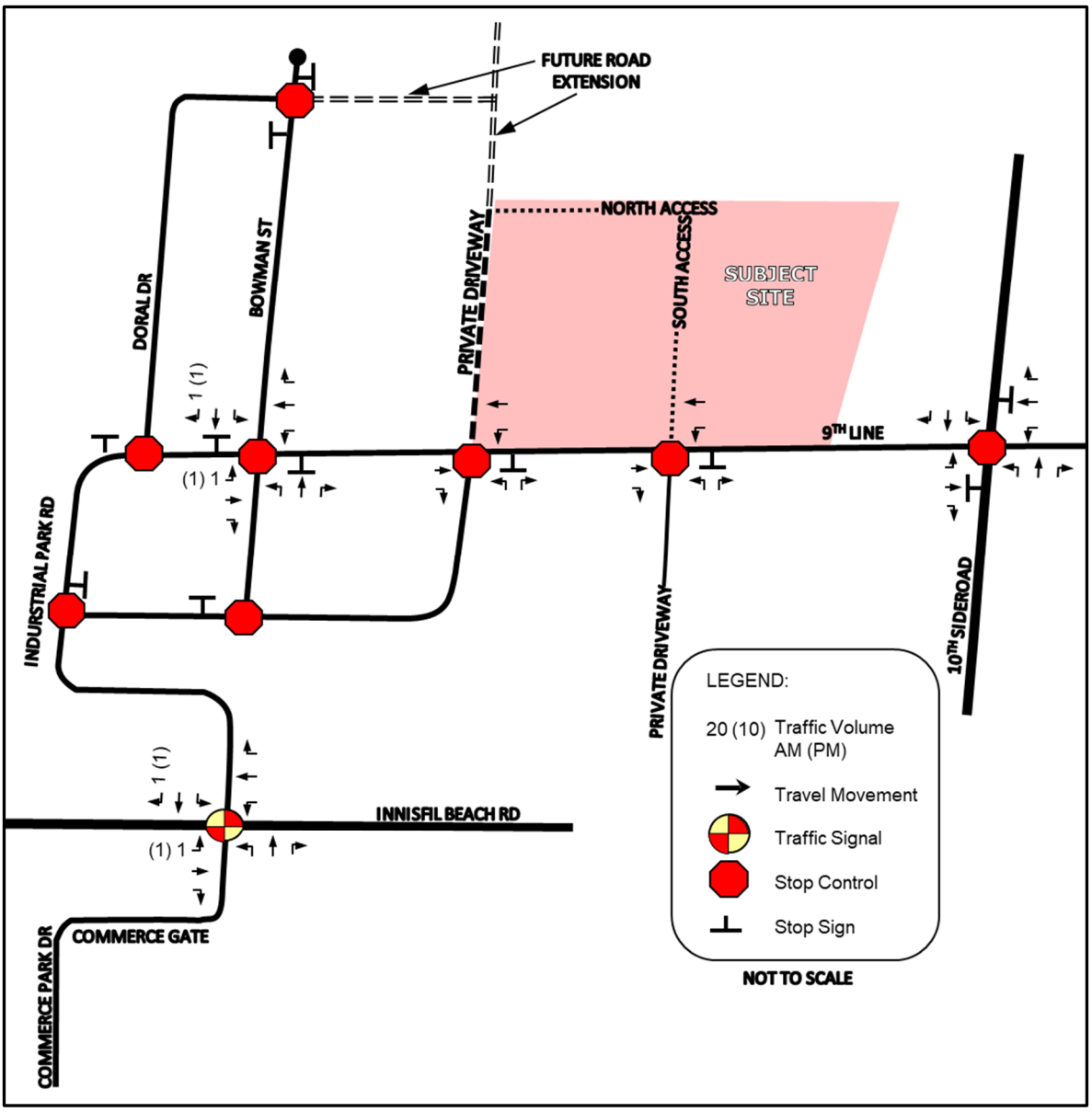


Figure 9 – Total Adjacent Development – Automobile Traffic

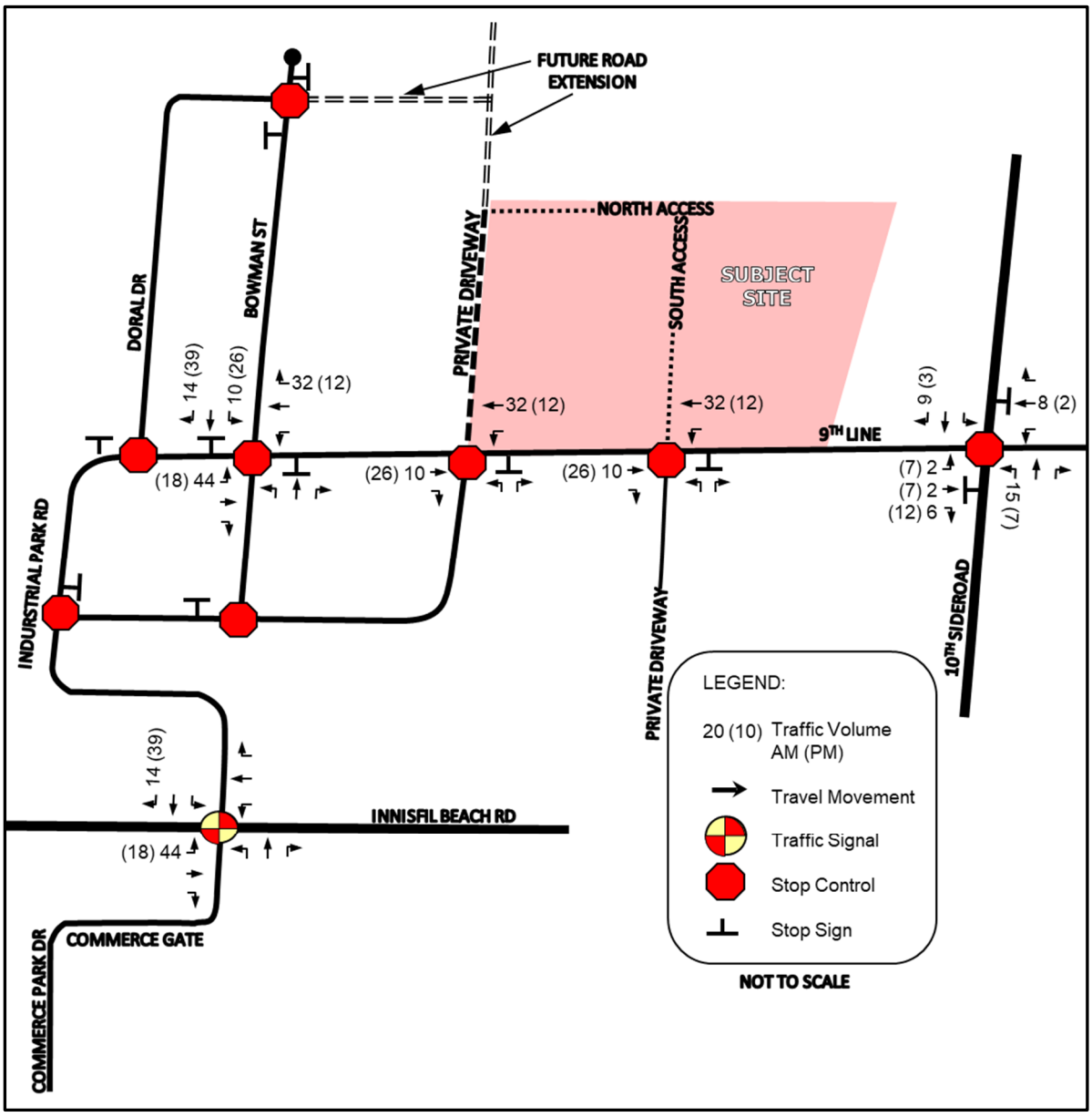
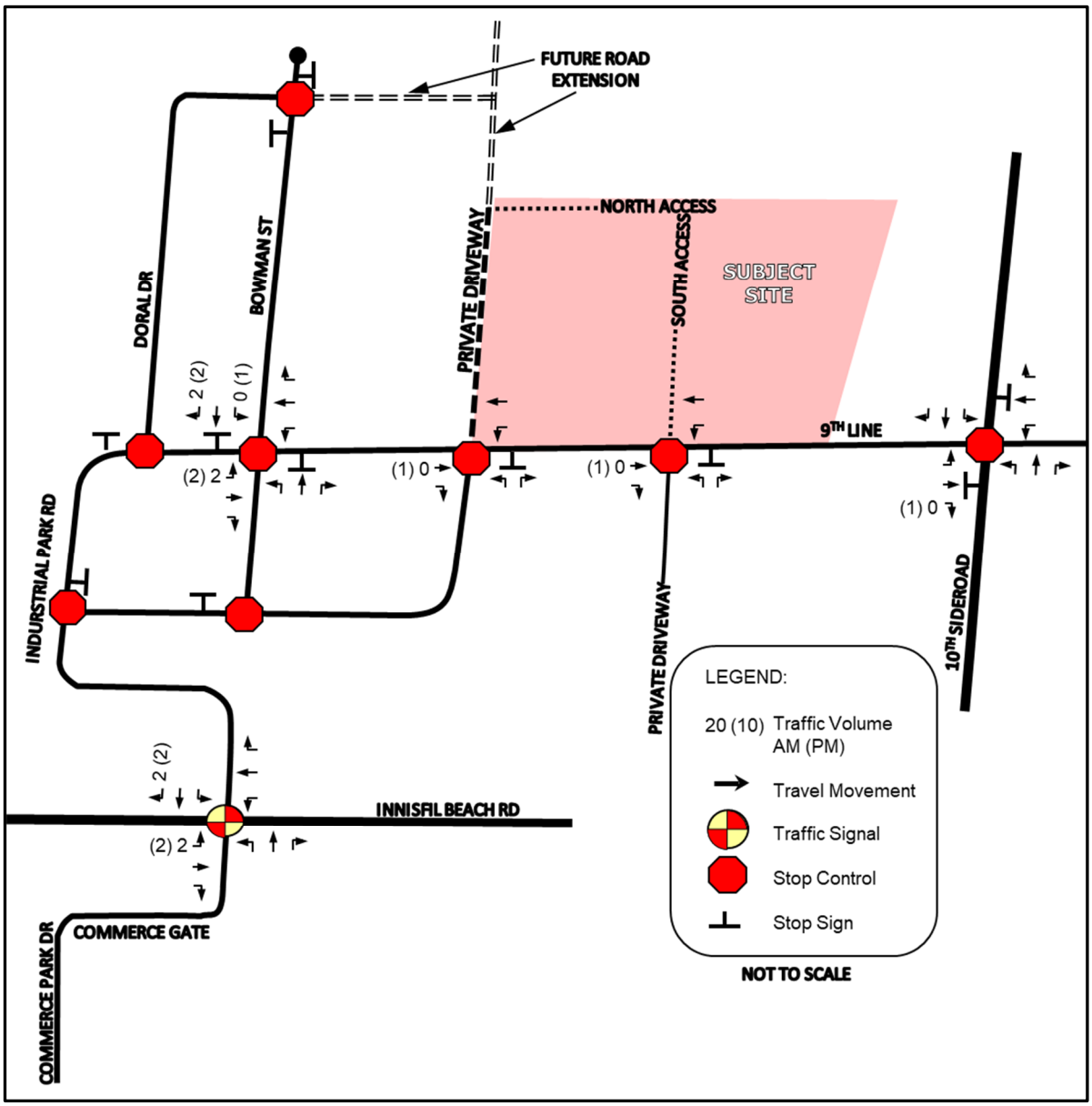


Figure 10 – Total Adjacent Development – Heavy Vehicle Traffic



2.5 Background Traffic Growth

The background traffic growth rate selected for use in this report is based on our review of the planned developments in the area, supporting documents in the study area and historic traffic data in the study area.

Appendix H of the Town's TMP identified an employment growth of 3% between 2041 – 2051 for the Innisfil Heights Employment Area (excerpts provided in **Appendix C**).

The background traffic growth rate on Highway 400 at Innisfil Beach Road was calculated based on historic traffic volume data from the MTO between 2014 – 2019 in the study area. A background traffic growth rate of 1.8% was calculated.

Based on this information, we have selected a background traffic growth rate of 3% for roadways in the Innisfil Heights Employment Area along 9th Line, Bowman Street, Thomas Street and Industrial Park Road. Furthermore, a background traffic growth rate of 2.5% was applied on Innisfil Beach Road and 10th Sideroad in the study area.

The background traffic growth rate would theoretically include the additional traffic generation from the subject site and the local developments outlined in Section 2.4. Consequently, the overall traffic projections in the area are a conservative estimate of the future traffic volumes.

2.6 Traffic Counts

Detailed traffic and pedestrian counts were completed at the study area intersections, on Thursday March 27th, 2025. **Table 2** summarizes the traffic count data collection information.

Table 2 - Traffic Count Data

Intersection (N-S Street / E-W Street)	Count Date	AM Peak Hour	PM Peak Hour	Source
Innisfil Beach Road / Industrial Park Road / Commerce Gate	Thursday March 27th, 2025	07:15 – 08:15	16:00 – 17:00	JD Eng.*
9th Line / 10th Sideroad	Thursday March 27th, 2025	07:45 – 08:45	16:00 – 17:00	JD Eng.*
9th Line / Thomas Street	Thursday March 27th, 2025	07:00 – 08:00	16:15 – 17:15	JD Eng.*
9th Line / Bowman Street	Thursday March 27th, 2025	07:00 – 08:00	16:00 – 17:00	JD Eng.*

*Traffic counts were completed by Ontario Traffic Inc. on behalf of JD Engineering.

Detailed traffic count data can be found in **Appendix D**. The peak hours of traffic generation for the study area intersections generally aligned with the anticipated peak hour of traffic generation by the proposed development.

Heavy vehicle percentages from the traffic count data have also been included in the Synchro analysis.

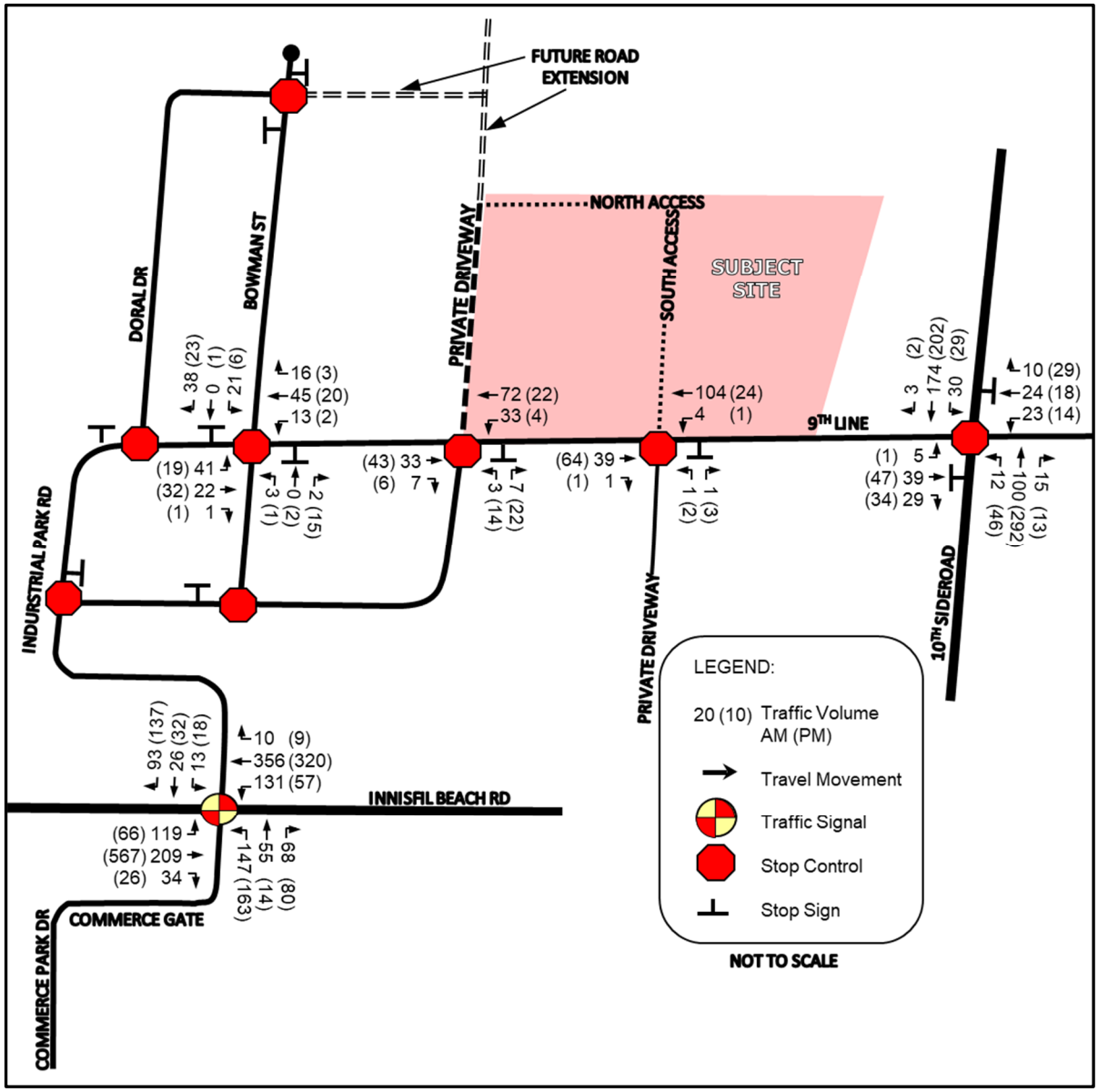
The proposed South Access driveway will be located across a driveway for an existing development that specializes in heavy equipment rental, sales and repairs, municipally known as 3281 9th Line [Private Driveway]. Based on our review of the business operations, this is a low-volume development and the traffic from this driveway will have a negligible impact on the traffic operations in the study area.

Notwithstanding, for the purposes of this report, we have generated traffic at this driveway using the following ITE land uses from the ITE Trip Generation Manual:

- ITE land use 811 (Construction Equipment Rental Store) – General Urban/Suburban Setting; and

Figure 11 illustrates the existing (2025) AM and PM peak hour traffic volumes in the study area.

Figure 11 – Existing (2025) Traffic Volumes



2.7 Horizon Year Traffic Volumes

In addition to the adjacent development traffic volumes (outlined in Section 2.4), the background traffic growth rate discussed in Section 2.5 has also been applied to the existing (2025) traffic volumes to estimate the background (2028, 2033 and 2038) horizon year traffic volumes.

Figures 12, 13 and **14** illustrate the background (2028, 2033 and 2038) AM and PM peak hour traffic volumes respectively, in the study area.

Figure 12 – Background (2028) Traffic Volumes

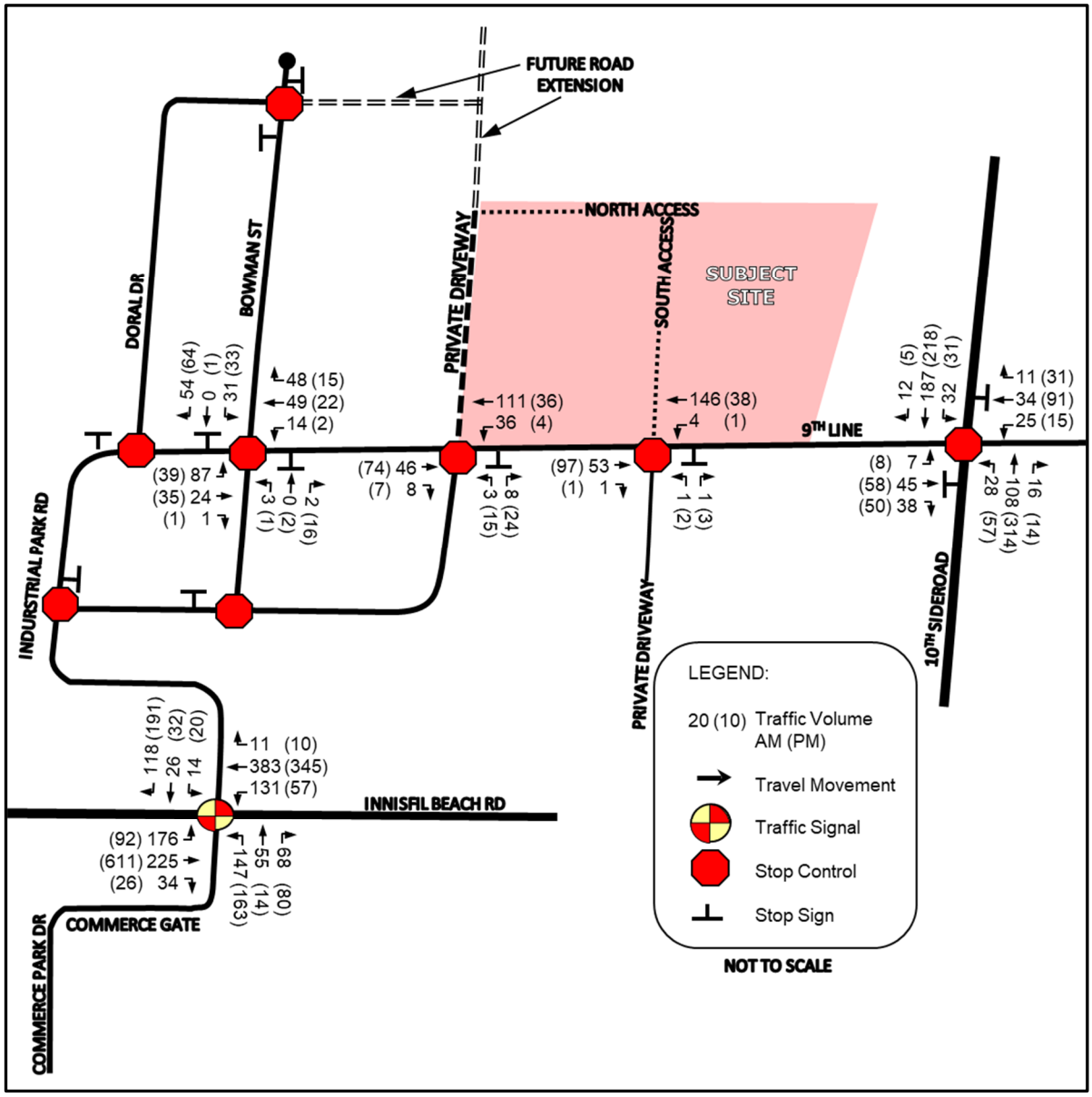


Figure 13 – Background (2033) Traffic Volumes

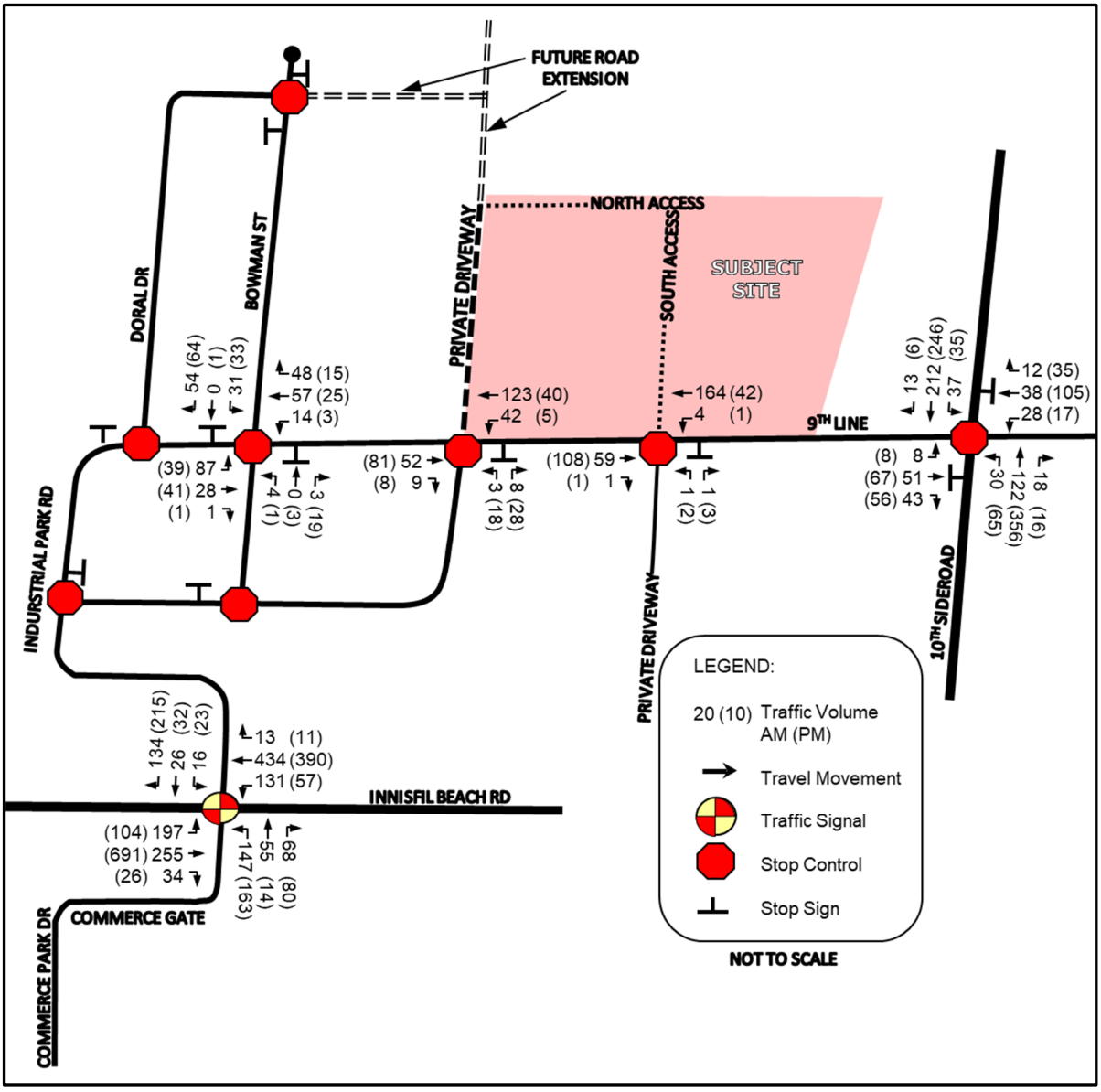
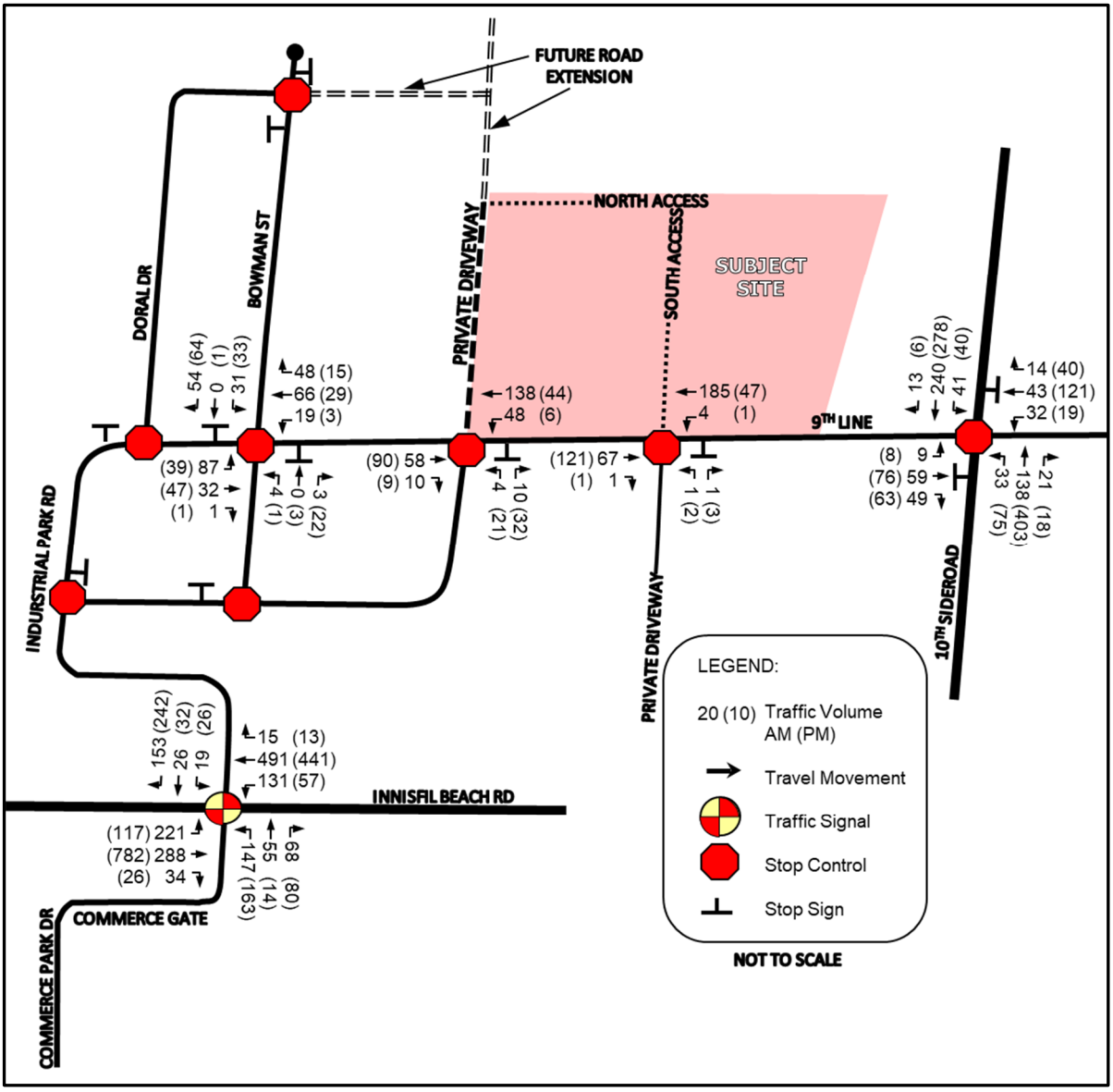


Figure 14 – Background (2038) Traffic Volumes



3 Intersection Operation without Proposed Development

3.1 Intersection Capacity Analysis Criteria

Intersection performance was measured using the traffic analysis software, Synchro 12, a deterministic model that employs Highway Capacity Manual and Intersection Capacity Utilization methodologies for analysing intersection operations. These procedures are accepted by provincial and municipal agencies throughout North America.

Synchro 12 enables the study area to be graphically defined in terms of streets and intersections, along with their geometric and traffic control characteristics. The user is able to evaluate both signalized and unsignalized intersections in relation to each other, thus not only providing level of service for the individual intersections, but also enabling an assessment of the impact the various intersections in a network have on each other in terms of spacing, traffic congestion, delay, and queuing.

Individual turning movements with a volume-to-capacity [V/C] ratio of 0.85 or greater are considered to be critical movements and have been highlighted in the LOS tables.

The intersection operations were also evaluated in terms of the LOS. LOS is a common measure of the quality of performance at an intersection and is defined in terms of vehicular delay. This delay includes deceleration delay, queue move-up time, stopped delay, and acceleration delay. LOS is expressed on a scale of A through F, where LOS A represents very little delay (i.e. less than 10 seconds per vehicle) and LOS F represents very high delay (i.e. greater than 50 seconds per vehicle for a stop sign controlled intersection and greater than 80 seconds per vehicle for a signalized intersection).

The LOS criteria for signalized and stop sign controlled intersections are shown in **Table 3.** A description of traffic performance characteristics is included for each LOS.

Table 3 – Level of Service Criteria for Intersections

LOS	LOS Description	Control Delay (seconds per vehicle)	
		Signalized Intersections	**Stop Controlled Intersections**
A	Very low delay; most vehicles do not stop (**Excellent**)	less than 10.0	less than 10.0
B	Higher delay; more vehicles stop (**Very Good**)	between 10.0 and 20.0	between 10.0 and 15.0
C	Higher level of congestion; number of vehicles stopping is significant, although many still pass through intersection without stopping **(Good**)	between 20.0 and 35.0	between 15.0 and 25.0
D	Congestion becomes noticeable; vehicles must sometimes wait through more than one red light; many vehicles stop (**Satisfactory**)	between 35.0 and 55.0	between 25.0 and 35.0
E	Vehicles must often wait through more than one red light; considered by many agencies to be the limit of **acceptable** delay	between 55.0 and 80.0	between 35.0 and 50.0
F	This level is considered to be unacceptable to most drivers; occurs when arrival flow rates exceed the capacity of the intersection (**Unacceptable**)	greater than 80.0	greater than 50.0

3.2 Existing (2025) Intersection Operation

The results of the LOS analysis under existing (2025) traffic volumes during the AM and PM peak hours can be found below in **Table 4**. The existing intersection geometry at the study area intersections has been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix E**.

Table 4 – Existing (2025) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	22.6	C	-	-	-	26.9	C	-	-
EBL	0.29	12.5	B	29	250	0.19	13.0	B	27	250
EBT	0.28	16.4	B	40	-	0.75	27.3	C	87	-
EBR	0.07	14.1	B	12	110	0.04	14.4	B	11	110
WBL	0.26	11.6	B	26	60	0.20	16.1	B	19	60
WBTR	0.46	18.8	B	57	-	0.45	19.6	B	53	-
NBL	0.63	32.9	C	44	115	0.63	31.6	C	44	115
NBTR	0.32	26.1	C	34	-	0.24	24.5	C	19	-
SBL	0.08	35.6	D	13	135	0.08	33.8	C	14	135
SBTR	0.80	46.6	D	36	-	0.83	45.0	D	45	-
9th Line / 10th Sideroad (unsignalized)	-	5.0	A	-	-	-	9.2	A	-	-
EB	0.18	13.5	B	19	-	0.35	18.9	D	19	-
WB	0.21	15.6	C	20	-	0.60	33.1	C	20	-
9th Line / Thomas Street (unsignalized)	-	2.2	A	-	-	-	3.9	A	-	-
NB	0.03	9.4	A	13	-	0.08	10.2	B	26	-
9th Line / Bowman Street (unsignalized)	-	6.1	A	-	-	-	5.1	A	-	-
NB	0.01	10.6	B	11	-	0.04	9.1	A	13	-
SB	0.14	10.1	B	16	-	0.06	9.3	A	16	-

The results of the intersection operation analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the Ontario Ministry of Transportation Design Supplement for TAC Geometric Design Guide for Canadian Roads (dated June 2017) [MTO DS]. Based on our review, a left turn lane is warranted in the northbound and southbound direction of the 9th Line / 10th Sideroad intersection. In consideration of the planned road widening on 10th Sideroad (as noted in Section 2.2) and the delay for westbound movements, which increases with the increase in background traffic in the study area, it is recommended that the County consider installing temporary traffic signals at this intersection in the short-term (2025-2028). Section 3.3 provides the traffic operation analysis for signalized traffic control at this intersection. This temporary configuration (with a single lane in each direction), is consistent with the intersection configuration at the following nearby intersections:

- 10th Sideroad / McKay Road;
- 10th Sideroad / Lockhart Road; and
- 20th Sideroad / Killarney Beach Road

A left-turn lane is not warranted for all other unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No additional infrastructure improvements are required for the existing (2025) scenario.

3.3 Background (2028) Intersection Operation

The results of the LOS analysis under background (2028) traffic volumes during the AM and PM peak hours can be found below in **Table 5**. The planned infrastructure improvements noted in Section 2.2 and improvements recommended in Section 3.2 have been utilized in this scenario. The cycle length for the phasing at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection was increased to accommodate the planned lane widening on Innisfil Beach Road.

Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix F**.

Table 5 – Background (2028) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	22.1	C	-	-	-	22.7	C	-	-
EBL	0.34	11.9	B	36	250	0.22	13.2	B	32	250
EBT	0.19	15.2	B	27	-	0.49	20.9	C	45	-
EBTR	0.20	15.2	B	25	-	0.49	20.8	C	48	-
WBL	0.25	11.8	B	26	70	0.16	13.8	B	16	70
WBT	0.26	16.6	B	36	-	0.28	18.3	B	33	-
WBTR	0.26	16.6	B	33	-	0.28	18.3	B	27	-
NBL	0.70	37.3	D	45	115	0.62	28.1	C	40	115
NBTR	0.32	26.6	C	36	-	0.22	20.4	C	23	-
SBL	0.08	34.6	C	14	135	0.08	28.1	C	14	135
SBTR	0.81	45.8	D	41	-	0.80	37.6	D	50	-
9th Line / 10th Sideroad (signalized)	-	8.3	A	-	-	-	9.4	A	-	-
EB	0.38	19.4	B	24	-	0.36	18.4	B	24	-
WB	0.34	19.2	B	22	-	0.49	19.3	B	29	-
NB	0.17	3.6	A	21	-	0.38	5.8	A	40	-
SB	0.25	4.0	A	26	-	0.29	5.2	A	31	-
9th Line / Thomas Street (unsignalized)	-	2.3	A	-	-	-	3.6	A	-	-
NB	0.03	9.4	A	13	-	0.09	10.4	B	25	-
9th Line / Bowman Street (unsignalized)	-	5.4	A	-	-	-	6.0	A	-	-
NB	0.01	11.0	B	9	-	0.04	9.1	A	12	-
SB	0.12	10.4	B	19	-	0.13	9.8	A	21	-

The results of the intersection operation analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

No infrastructure improvements are required for the background (2028) scenario.

3.4 Background (2033) Intersection Operation

The results of the LOS analysis under background (2033) traffic volumes during the AM and PM peak hours can be found below in **Table 6**. The planned infrastructure improvements noted in Section 2.2 and improvements recommended in Section 3.2 have been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix F**.

Table 6 – Background (2033) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	22.9	C	-	-	-	24.1	C	-	-
EBL	0.41	13.0	B	43	250	0.27	14.4	B	34	250
EBT	0.22	16.2	B	28	-	0.56	23.4	C	53	-
EBTR	0.22	16.2	B	28	-	0.56	23.3	C	55	-
WBL	0.26	13.1	B	26	70	0.18	15.2	B	19	70
WBT	0.31	18.6	B	43	-	0.32	20.0	B	37	-
WBTR	0.31	18.6	B	41	-	0.33	19.9	B	32	-
NBL	0.71	37.8	D	44	115	0.64	28.5	C	42	115
NBTR	0.31	26.1	C	34	-	0.21	20.0	C	23	-
SBL	0.09	34.1	C	14	135	0.08	27.6	C	14	135
SBTR	0.82	45.8	D	49	-	0.82	37.7	D	50	-
9th Line / 10th Sideroad (unsignalized)	-	8.5	A	-	-	-	10.0	B	-	-
EB	0.41	19.5	B	26	-	0.38	18.2	B	29	-
WB	0.37	19.2	B	25	-	0.53	19.3	B	33	-
NB	0.20	3.9	A	22	-	0.44	6.8	A	44	-
SB	0.28	4.3	A	28	-	0.34	5.9	A	33	-
9th Line / Thomas Street (unsignalized)	-	2.4	A	-	-	-	3.8	A	-	-
NB	0.04	9.5	A	14	-	0.10	10.6	B	26	-
9th Line / Bowman Street (unsignalized)	-	5.3	A	-	-	-	5.9	A	-	-
NB	0.02	11.1	B	13	-	0.05	9.2	A	14	-
SB	0.12	10.5	B	17	-	0.13	10.0	B	21	-

The results of the intersection operation analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No infrastructure improvements are required for the background (2033) scenario.

3.5 Background (2038) Intersection Operation

The results of the LOS analysis under background (2038) traffic volumes during the AM and PM peak hours can be found below in **Table 7**. The planned infrastructure improvements noted in Section 2.2 and the improvements recommended in Section 3.2 have been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix F**.

Table 7 – Background (2038) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	24.0	C	-	-	-	26.1	C	-	-
EBL	0.49	14.1	B	46	250	0.33	15.9	B	38	250
EBT	0.24	17.4	B	28	-	0.65	27.0	C	60	-
EBTR	0.25	17.4	B	29	-	0.65	26.8	C	64	-
WBL	0.28	14.5	B	25	70	0.21	16.9	B	21	70
WBT	0.36	21.1	C	46	-	0.38	22.0	C	43	-
WBTR	0.36	21.0	C	45	-	0.38	21.9	C	36	-
NBL	0.72	38.4	D	42	115	0.65	19.1	C	43	115
NBTR	0.29	25.6	C	31	-	0.20	19.6	B	21	-
SBL	0.09	33.5	C	14	135	0.09	27.0	C	15	135
SBTR	0.84	45.9	D	50	-	0.83	37.7	D	58	-
9th Line / 10th Sideroad (signalized)	-	8.8	A	-	-	-	10.8	B	-	-
EB	0.43	19.4	B	26	-	0.39	18.0	B	29	-
WB	0.39	19.2	B	27	-	0.56	19.3	B	37	-
NB	0.22	4.3	A	23	-	0.51	8.0	A	55	-
SB	0.32	4.9	A	33	-	0.40	6.8	A	36	-
9th Line / Thomas Street (unsignalized)	-	2.4	A	-	-	-	4.0	A	-	-
NB	0.04	9.6	A	16	-	0.12	10.9	B		-
9th Line / Bowman Street (unsignalized)	-	5.2		-	-	-	5.8	A	-	-
NB	0.02	11.3	B	11	-	0.05	9.2	A		-
SB	0.13	10.7	B	17	-	0.13	10.1	B		-

The results of the intersection operation analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No infrastructure improvements are required for the background (2038) scenario.

4 Proposed Development Traffic Generation and Assignment

4.1 Traffic Generation

The traffic generation for the subject site has been based on the ITE Trip Generation Manual. The following ITE land uses have been applied to estimate the traffic from the proposed development (excerpts provided in **Appendix J**):

- ITE land use #110 (General Light Industrial) – General Urban/Suburban
- ITE land use #150 (Warehousing) – General Urban/Suburban

The estimated trip generation for the proposed development is illustrated below in **Table 8.** The AM and PM peak traffic generation for the proposed development is not expected to exactly align with the AM and PM peak hour; consequently, we have applied the peak hour of adjacent street traffic values provided in the ITE Trip Generation Manual. For trip rates showing a strong statistical relationship, fitted curve equations have been utilized.

Table 8 – Estimated Traffic Generation of the Proposed Development

Land Use	Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
General Light Industrial ITE Land Use: 110	10,351 sq.m.* (111,422 sq.ft.)	Average Rate					
		0.65	0.09	0.74	0.09	0.56	0.65
		73	9	82	10	62	72
Warehousing ITE Land Use: 150	6,660 sq.m.** (71,684 sq.ft.)	Fitted Curve Equation: Trips = 0.12(X) + 23.62			Fitted Curve Equation: Trips = 0.12(X) + 26.48		
		Directional Split					
		0.77	0.23	-	0.28	0.72	-
		25	7	32	10	25	35
TOTAL TRIP GENERATION		**98**	**16**	**114**	**20**	**87**	**107**
TRUCK TRIP GENERATION ITE LU 110* 28 Daily Heavy Vehicle Trips**** (14 Ingress & 14 Egress Trips)**		**1**	**1**	**2**	**0**	**1**	**1**
TRUCK TRIP GENERATION ITE LU 150 46 Daily Heavy Vehicle Trips**** (23 Ingress & 23 Egress Trips)**		**1**	**1**	**2**	**2**	**1**	**3**
TOTAL HEAVY VEHICLE TRIP GENERATION		**2**	**2**	**4**	**2**	**2**	**4**
TOTAL AUTOMOBILE TRIP GENERATION		**96**	**14**	**110**	**18**	**85**	**103**

* The traffic generation applied in the figures and analysis is based on a previous version of the site plan that had a total of 179,989 sq.ft. of GFA (113,641 sq.ft. of industrial area plus 66,348 sq.ft. of warehousing/office area) that generated a slightly higher traffic generation. The traffic generation for the previous statistics in the figures and analysis were applied, to be conservative.
** The proposed warehouse and office space were assumed as part of the trip generation for the ITE 150 LU.
*** The % of 24-Hour Truck Trips were obtained from the ITE land uses 110 (General Light Industrial) and 150 (Warehousing) in the ITE Trip Generation Appendices (excerpts provided in **Appendix J**).
**** The total heavy vehicle trips for a typical weekday were generated based on the ITE land use 110 (General Light Industrial) and 150 (Warehousing) in the Truck Time of Day Distribution appendix in the ITE Trip Generation Manual. The heavy vehicle trips in the AM and PM peak hours were determined by applying the % of 24-Hour Truck Trips for the AM and PM peak periods for ITE 110 LU (9.5% and 3.4% respectively) and ITE 150 LU (5.5% and 6.9% respectively) to the total daily heavy vehicle trips noted.

No transportation modal split reduction has been applied to the above-noted traffic generation calculation.

4.2 Traffic Assignment

For the purposes of this study, it has been assumed that all traffic generated by the proposed development will be new traffic and would not be in the study area if the development was not constructed.

The ITE data provides the anticipated percentage of new traffic entering and exiting during the peak hour. The distribution of traffic for work-based automobile trips has been calculated based on the 2022 Transportation Tomorrow Survey [TTS] data for traffic zone 17019, retrieved using the TTS IDRS (output attached as **Appendix K**). TTS data provides historical origin and destination work trip percentages for specific areas within the Town and southern Ontario.

Traffic distribution for the trips generated by the proposed development during the AM and PM peak hour is expected to generally follow commuter travel patterns. Our analysis is based on ingress traffic during the AM peak hour. Logically, the distribution of ingress traffic will follow the inverse of the exiting traffic distribution. For each of the individual areas identified in the TTS data, we have selected the probable route of travel, assuming people will select their route primarily based on travel time.

Table 9 illustrates the work-based traffic distribution for automobile traffic in the proposed development.

Table 9 – Proposed Development Traffic Distribution (Work-Based Traffic Distribution)

Travel Direction (to / from)	Percentage of Total Traffic Generation
West via Innisfil Beach Road	65%
North via 10th Sideroad	10%
South via 10th Sideroad	15%
East via 9th Line	10%
TOTAL	**100%**

For the heavy vehicle traffic, the traffic distribution will be based on existing traffic patterns. As a result of the Based on our review of the existing road network, relative to the proposed development, the traffic distribution east on Innisfil Beach Road, calculated in the existing traffic distribution, was reallocated to the trip distribution west on Innisfil Beach Road and south on 10th Sideroad. **Table 10** illustrates the existing traffic distribution for the heavy vehicle traffic in the proposed development.

Table 10 – Proposed Development Traffic Distribution (Existing Traffic Distribution)

Travel Direction (to / from)	Percentage of Total Traffic Generation			
	AM Peak Hour		PM Peak Hour	
	Ingress	Egress	Ingress	Egress
West via Innisfil Beach Road	49%	57%	49%	49%
North via 10th Sideroad	16%	9%	13%	16%
South via 10th Sideroad	30%	28%	31%	30%
East via 9th Line	5%	6%	7%	5%
TOTAL	**100%**	**100%**	**100%**	**100%**

Using the traffic distribution patterns noted above, the proposed development's automobile and heavy vehicle traffic assignment was calculated for the AM and PM peak hours and is illustrated in **Figures 15** and **16** respectively**.**

Figure 15 – Traffic Assignment for Proposed Development – Automobile Traffic

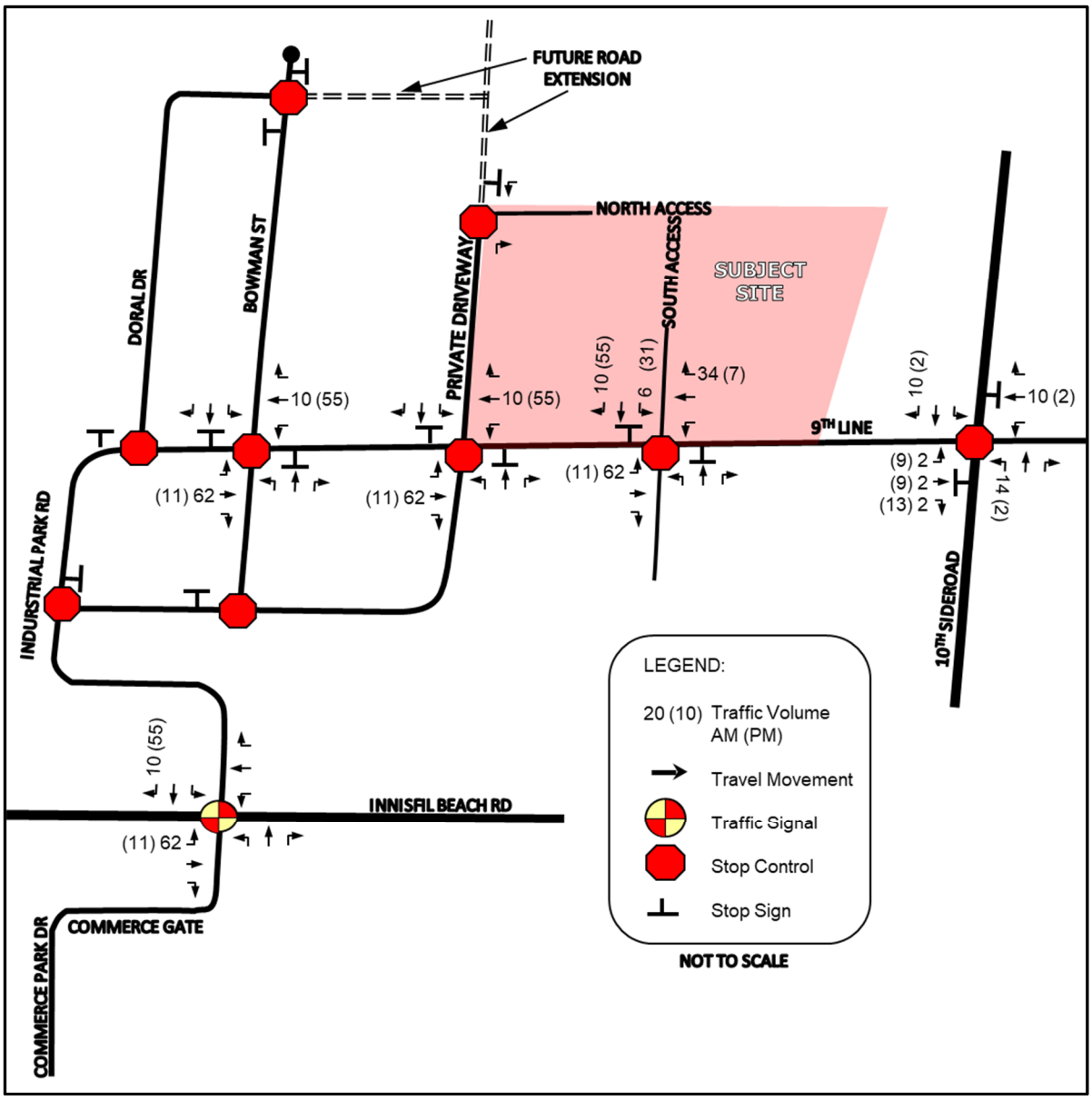
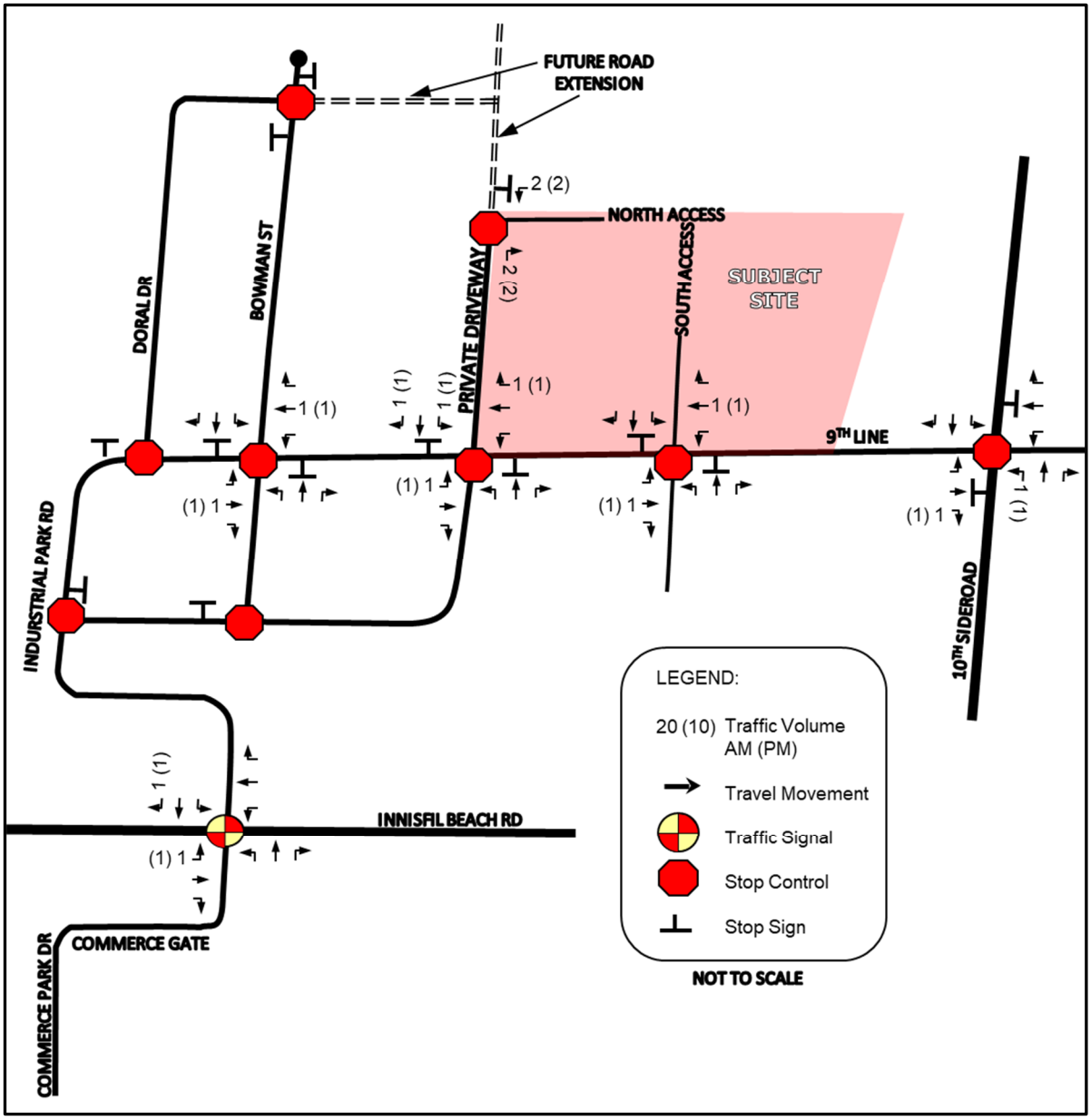


Figure 16 – Traffic Assignment for Proposed Development – Heavy Vehicle Traffic



4.3 Total Horizon Year Traffic Volumes

The total (2028, 2033 and 2038) traffic volumes the proposed development traffic was added to the background (2028, 2033 and 2038) traffic volumes. The resulting total (2028, 2033 and 2038) traffic volumes for the AM and PM peak hour in the study area, can be found in **Figures 17, 18** and **19** respectively**.**

Figure 17 - Total (2028) Traffic Volumes

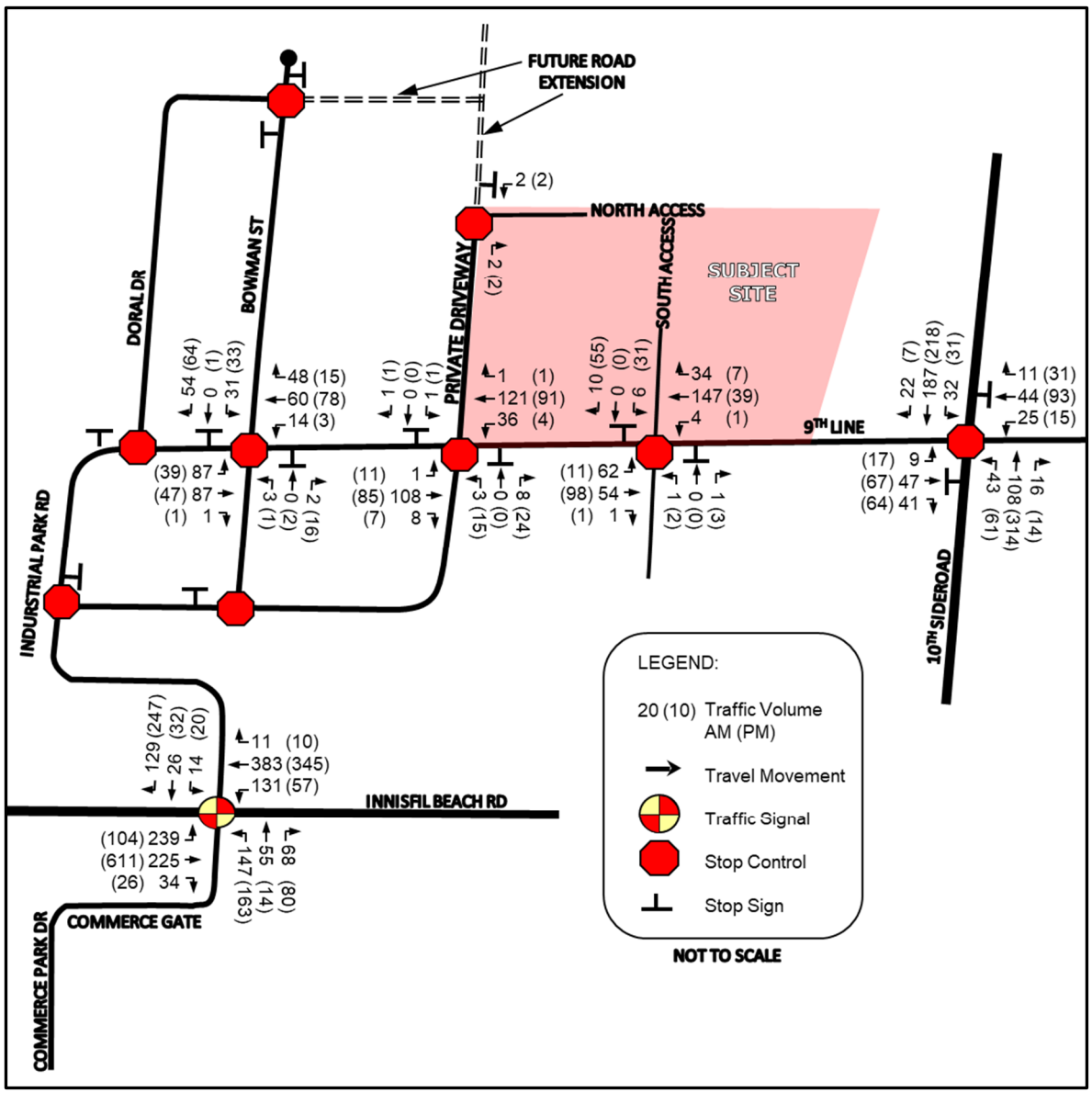


Figure 18 - Total (2033) Traffic Volumes

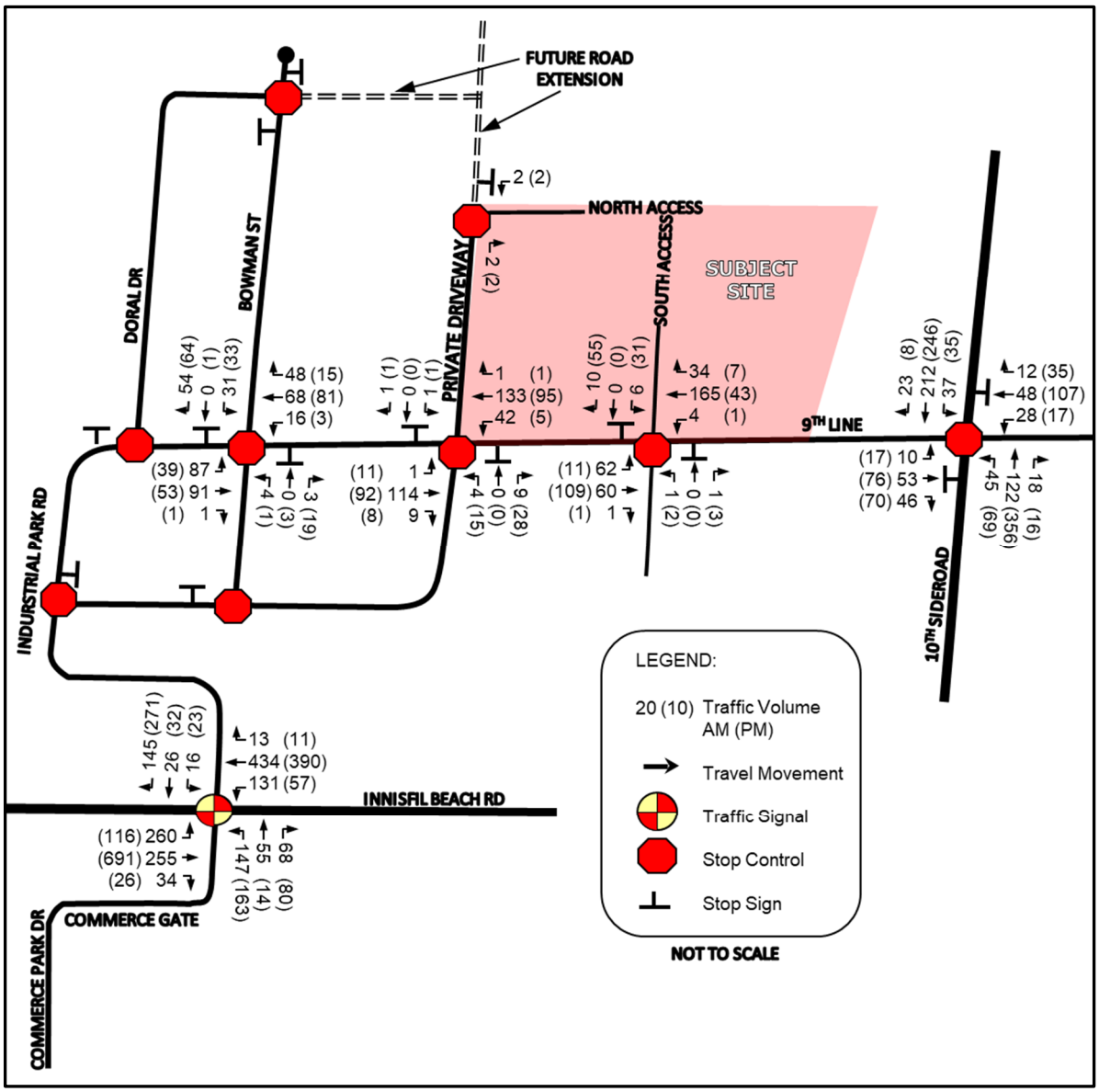
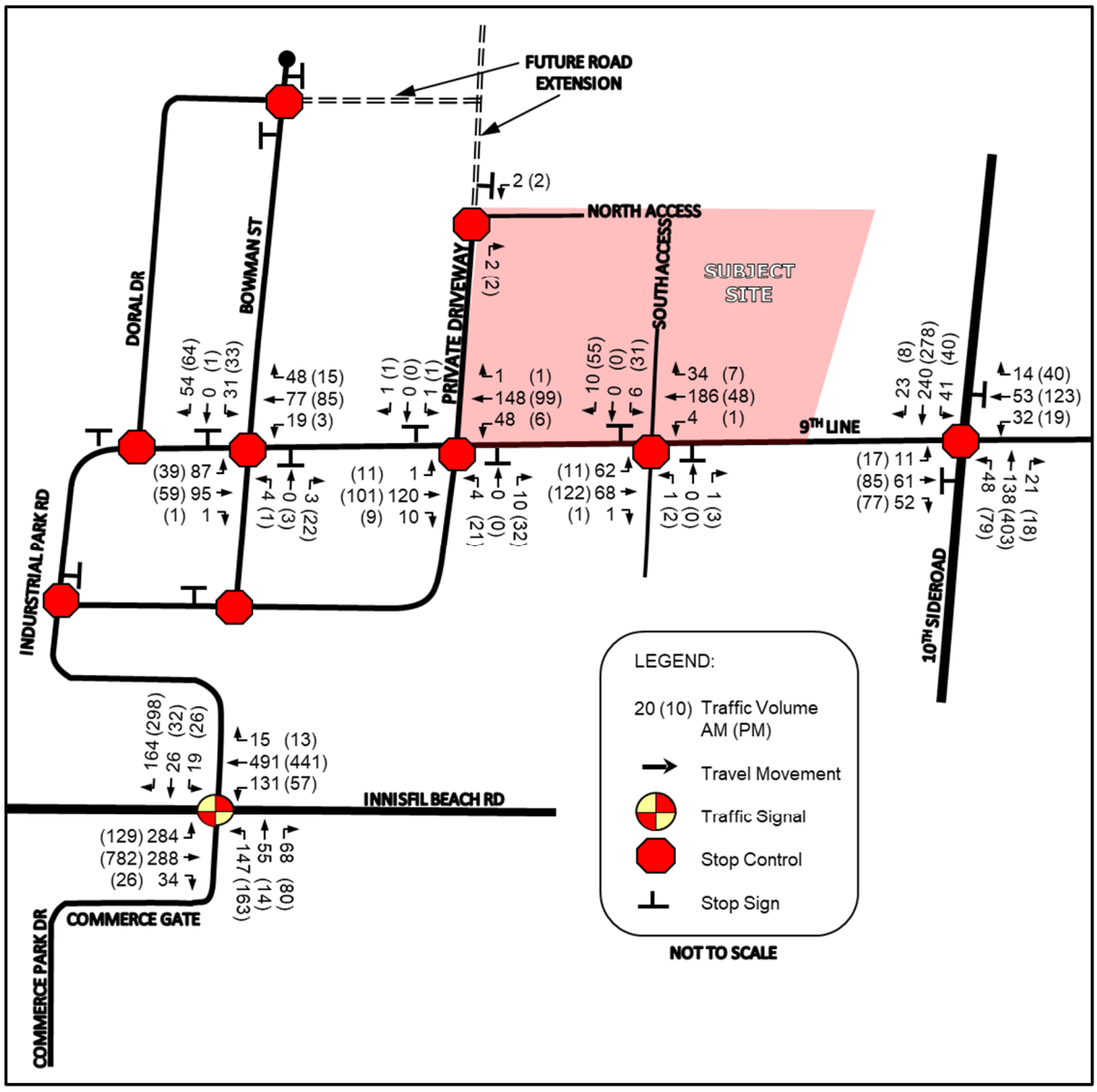


Figure 19 - Total (2038) Traffic Volumes



5 Intersection Operation with Proposed Development

5.1 Total (2028) Intersection Operation

The results of the LOS analysis under total (2028) traffic volumes during the AM and PM peak hours can be found below in **Table 11**. The planned infrastructure improvements noted in Section 2.2 and the improvements recommended in Section 3.2 have been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix G**.

Table 11 – Total (2028) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	22.7	C	-	-	-	25.0	C	-	-
EBL	0.46	12.5	B	44	250	0.27	15.6	B	32	250
EBT	0.19	15.7	B	28	-	0.51	24.0	C	49	-
EBTR	0.20	15.7	B	27	-	0.52	23.9	C	50	-
WBL	0.25	13.5	B	25	70	0.18	16.0	B	17	70
WBT	0.28	18.9	B	38	-	0.30	21.0	C	40	-
WBTR	0.28	18.8	B	35	-	0.30	20.9	C	36	-
NBL	0.71	37.6	D	44	115	0.65	29.2	C	46	115
NBTR	0.31	26.3	C	32	-	0.20	19.4	B	22	-
SBL	0.08	34.2	C	13	135	0.07	26.6	C	13	135
SBTR	0.82	45.9	D	49	-	0.83	37.8	D	58	-
9th Line / 10th Sideroad (signalized)	-	8.5	A	-	-	-	9.8	A	-	-
EB	0.39	19.4	B	28	-	0.46	19.1	B	31	-
WB	0.38	19.3	B	27	-	0.49	19.3	B	29	-
NB	0.19	3.9	A	26	-	0.38	5.9	A	41	-
SB	0.26	4.2	A	27	-	0.30	5.2	A	30	-
9th Line / Thomas Street / Private Driveway (unsignalized)	-	1.9	A	-	-	-	2.8	A	-	-
NB	0.04	9.9	A	14	-	0.09	10.9	B	26	-
SB	0.01	11.8	B	6	-	0.01	10.9	B	7	-
9th Line / Bowman Street (unsignalized)	-	4.6	A	-	-	-	5.2	A	-	-
NB	0.02	11.8	B	8	-	0.04	9.2	A	12	-
SB	0.13	10.8	B	19	-	0.14	10.3	B	22	-
9th Line / South Access (unsignalized)	-	2.2	A	-	-	-	3.8	A	-	-
NB	0.01	10.1	B	6	-	0.01	9.4	A	6	-
SB	0.02	10.1	B	11	-	0.10	9.4	A	14	-
Private Driveway / North Access (unsignalized)	-	3.8	A	-	-	-	3.8	A	-	-
WB	0.01	9.4	A	6	-	0.01	9.4	A	7	-

The results of the intersection operation analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No infrastructure improvements are required for the total (2028) scenario.

5.2 Total (2033) Intersection Operation

The results of the LOS analysis under total (2033) traffic volumes during the AM and PM peak hours can be found below in **Table 12**. The planned infrastructure improvements noted in Section 2.2 and the improvements recommended in Section 3.2 have been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix G**.

Table 12 – Total (2033) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	23.8	C	-	-	-	26.8	C	-	-
EBL	0.53	13.9	B	50	250	0.33	17.1	B	37	250
EBT	0.22	16.7	B	27	-	0.59	27.0	C	56	-
EBTR	0.22	16.8	B	25	-	0.59	26.9	C	58	-
WBL	0.26	14.9	B	26	70	0.20	17.7	B	17	70
WBT	0.33	21.1	C	42	-	0.35	22.9	C	42	-
WBTR	0.33	21.1	C	40	-	0.35	22.9	C	37	-
NBL	0.72	38.2	D	45	115	0.67	30.1	C	42	115
NBTR	0.30	25.8	C	30	-	0.20	19.0	B	21	-
SBL	0.08	33.7	C	13	135	0.07	26.2	C	14	135
SBTR	0.83	46.0	D	47	-	0.85	37.9	D	59	-
9th Line / 10th Sideroad (signalized)	-	8.7	A	-	-	-	10.3	B	-	-
EB	0.42	19.5	B	34	-	0.47	18.9	B	33	-
WB	0.39	19.2	B	25	-	0.53	19.3	B	28	-
NB	0.22	4.2	A	27	-	0.44	6.8	A	50	-
SB	0.29	4.6	A	27	-	0.34	5.9	A	35	-
9th Line / Thomas Street / Private Driveway (unsignalized)	-	2.0	A	-	-	-	3.1	A	-	-
NB	0.04	10.1	B	13	-	0.11	11.1	B	27	-
SB	0.01	12.1	B	3	-	0.01	11.1	B	7	-
9th Line / Bowman Street (unsignalized)	-	4.5	A	-	-	-	5.2	A	-	-
NB	0.02	11.9	B	11	-	0.05	9.3	A	15	-
SB	0.13	10.9	B	18	-	0.14	10.5	B	21	-
9th Line / South Access (unsignalized)	-	2.0	A	-	-	-	3.6	A	-	-
NB	0.01	10.3	B	5	-	0.01	9.5	A	7	-
SB	0.03	10.3	B	11	-	0.10	9.4	A	14	-
Private Driveway / North Access (unsignalized)	-	3.8	A	-	-	-	3.8	A	-	-
WB	0.01	9.4	A	4	-	0.01	9.4	A	8	-

The results of the intersection operation analysis indicates that the V/C ratio for the southbound through-right movement at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection is operating marginally outside the typical design limits noted in Section 3.1; however, there are no issues with the delay and anticipated queuing as noted below. Consequently, no further improvements are recommended.

The results of the intersection operation analysis indicate that all other intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No infrastructure improvements are required for the total (2033) scenario.

5.3 Total (2038) Intersection Operation

The results of the LOS analysis under total (2038) traffic volumes during the AM and PM peak hours can be found below in **Table 13**. The planned infrastructure improvements noted in Section 2.2 and the improvements recommended in Section 3.2 have been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix G**.

Table 13 – Total (2038) LOS

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	25.2	C	-	-	-	29.2	C	-	-
EBL	0.61	16.2	B	54	250	0.40	18.9	B	41	250
EBT	0.25	18.0	B	31	-	0.69	31.4	C	63	-
EBTR	0.25	18.0	B	29	-	0.69	31.2	C	67	-
WBL	0.28	16.6	B	26	70	0.23	19.7	B	17	70
WBT	0.39	24.0	C	45	-	0.40	25.2	C	44	-
WBTR	0.40	24.0	C	45	-	0.40	25.2	C	40	-
NBL	0.73	39.0	D	42	115	0.69	31.2	C	43	115
NBTR	0.29	25.3	C	30	-	0.19	18.5	B	21	-
SBL	0.09	33.2	C	14	135	0.08	25.6	C	18	135
SBTR	0.84	46.1	D	52	-	0.86	38.0	D	67	-
9th Line / 10th Sideroad (signalized)	-	9.1	A	-	-	-	11.1	B	-	-
EB	0.45	19.4	B	31	-	0.48	18.7	B	36	-
WB	0.42	19.2	B	31	-	0.56	19.3	B	35	-
NB	0.25	4.5	A	28	-	0.52	8.1	A	58	-
SB	0.33	5.1	A	37	-	0.40	6.8	A	40	-
9th Line / Thomas Street / Private Driveway (unsignalized)	-	2.0	A	-	-	-	3.3	A	-	-
NB	0.05	10.2	B	14	-	0.13	11.4	B	29	-
SB	0.01	12.5	B	7	-	0.01	11.3	B	9	-
9th Line / Bowman Street (unsignalized)	-	4.5	A	-	-	-	5.1	A	-	-
NB	0.02	12.1	B	12	-	0.05	9.3	A	14	-
SB	0.14	11.1	B	19	-	0.14	10.5	B	21	-
9th Line / South Access (unsignalized)	-	1.9	A	-	-	-	3.4	A	-	-
NB	0.01	10.5	B	4	-	0.01	9.6	A	6	-
SB	0.03	10.5	B	11	-	0.11	9.5	A	13	-
Private Driveway / North Access (unsignalized)	-	3.8	A	-	-	-	3.8	A	-	-
WB	0.01	9.4	A	7	-	0.01	9.4	A	9	-

The results of the intersection operation analysis indicates that the V/C ratio for the southbound through-right movement at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection is operating marginally outside the typical design limits noted in Section 3.1; however, there are no issues with the delay and anticipated queuing as noted below. Consequently, no further improvements are recommended.

The results of the intersection operation analysis indicate that all other intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No infrastructure improvements are required for the total (2038) scenario.

5.4 Supplementary Analysis – South Access Driveway

In the event that the Private Driveway is not constructed prior to opening of the proposed development, all traffic generated by the proposed development would access the subject site via the South Access driveway. A supplementary analysis was completed to review the traffic operations for this scenario.

This supplementary analysis includes the intersections of 9th Line / South Access and 9th Line / Thomas Street. The site access configuration will not change the future traffic volume projections for any other study area intersections.

Using the traffic distribution patterns noted in Section 4.2, the automobile and heavy vehicle traffic assignment for the proposed development was calculated for the AM and PM peak hours and is illustrated in **Figures 20** and **21** respectively**.**

The critical total (2038) scenario was reviewed for this scenario. The total (2038) traffic volumes with only the South Access operational for the AM and PM peak hour can be found in **Figure 22**.

Figure 20 – Traffic Assignment for Proposed South Access – Automobile Traffic

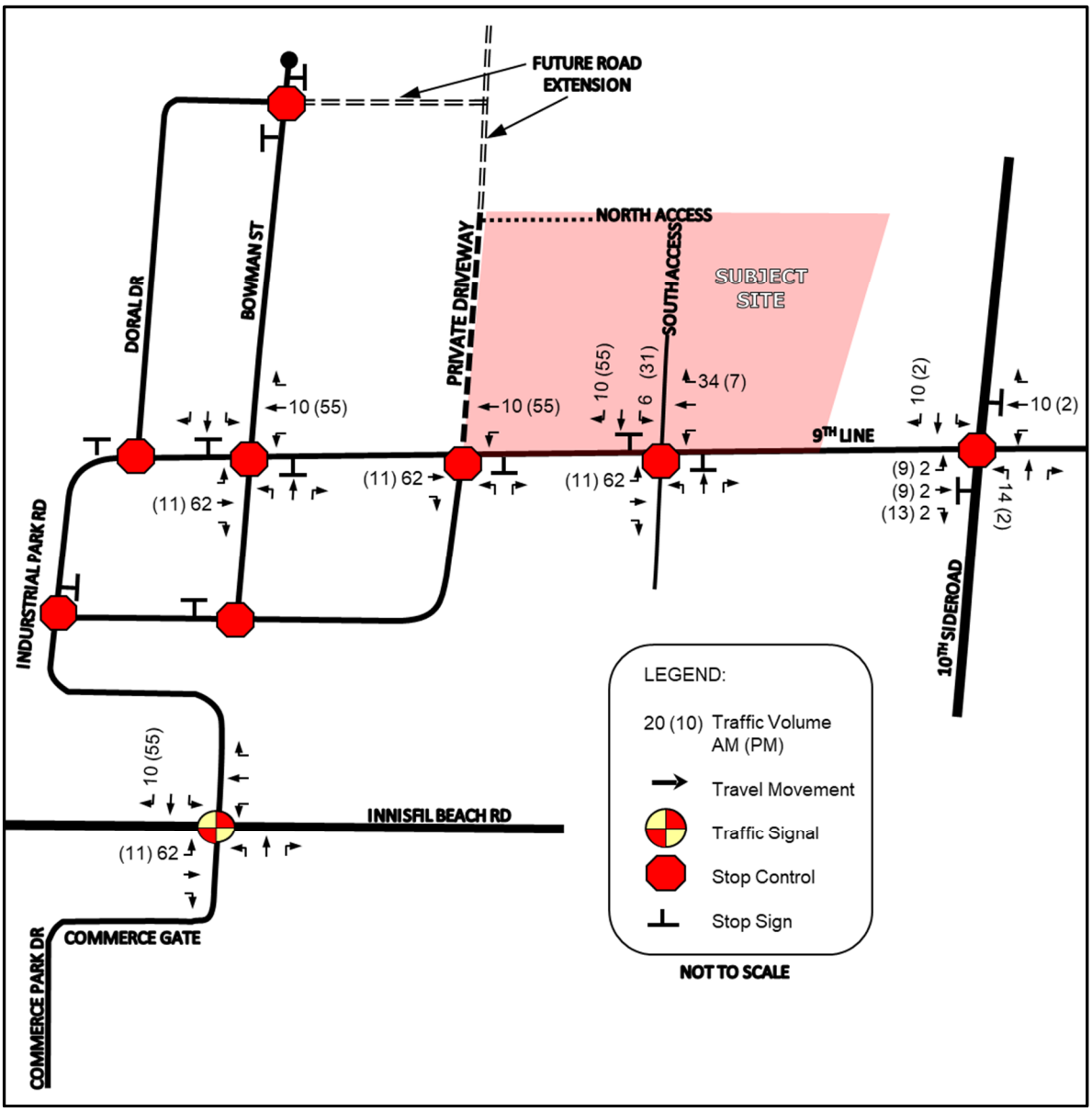


Figure 21 – Traffic Assignment for Proposed South Access – Heavy Vehicle Traffic

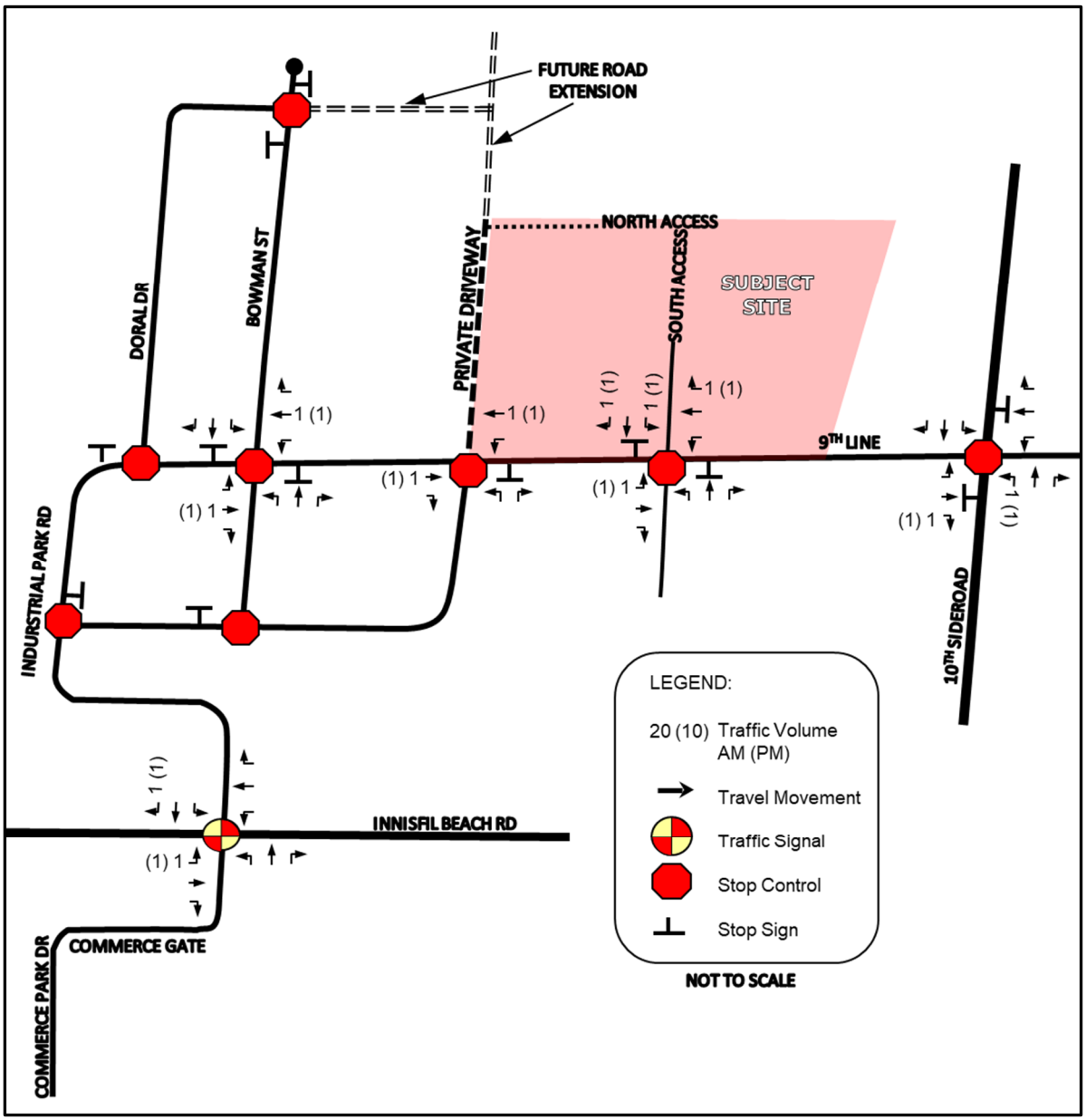
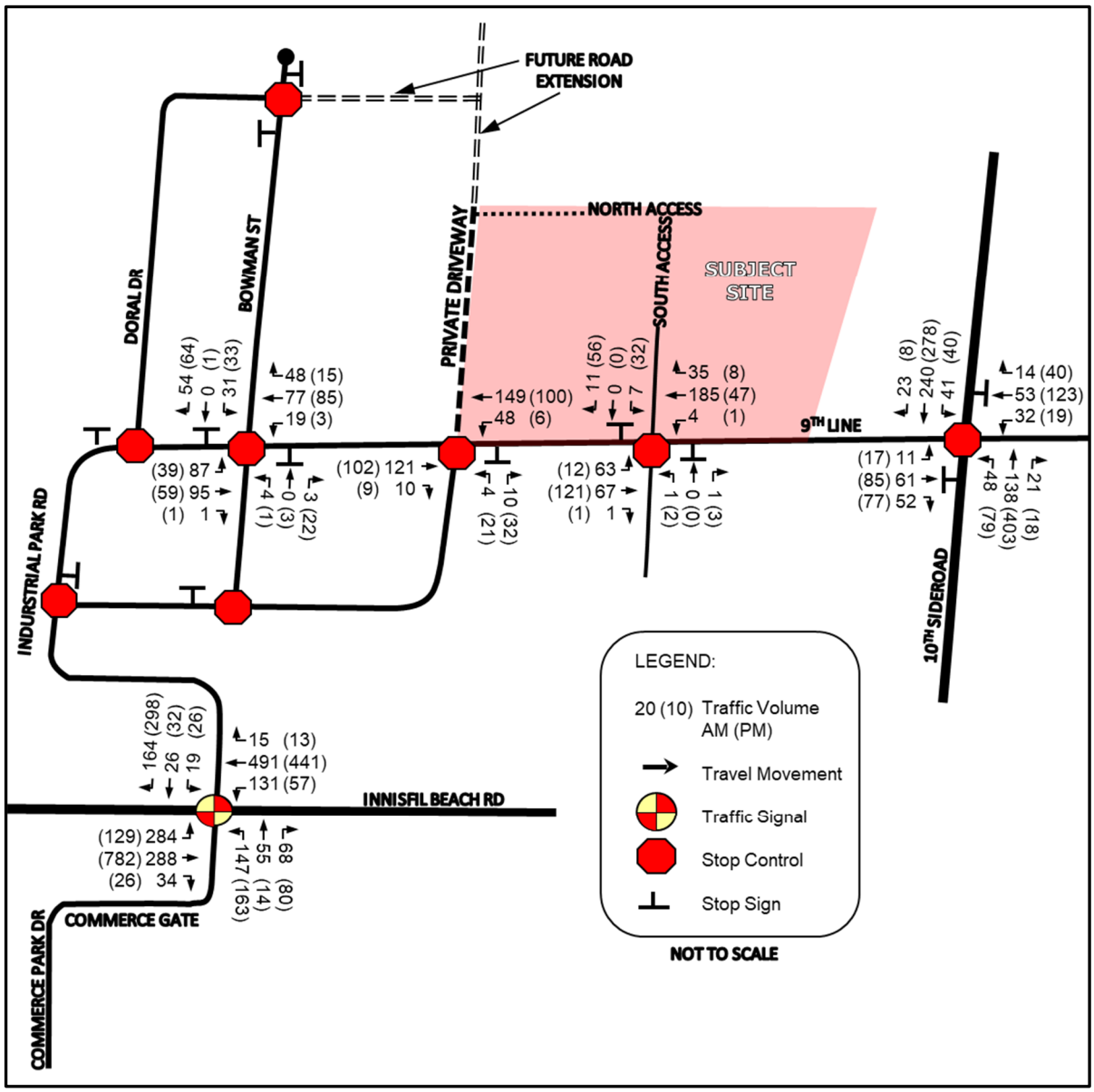


Figure 22 - Total (2038) Traffic Volumes – Supplementary Analysis (South Access)



The results of the LOS analysis under total (2038) traffic volumes with only the South Access operational during the AM and PM peak hours can be found below in **Table 14**. The planned infrastructure improvements noted in Section 2.2 and the improvements recommended in Section 3.2 have been utilized in this scenario. Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix G**.

Table 14 – Total (2038) LOS – Supplementary Analysis (South Access)

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
9th Line / Thomas Street (unsignalized)	-	1.9	A	-	-	-	3.2	A	-	-
NB	0.05	10.1	B	14	-	0.13	11.3	B	28	-
9th Line / South Access (unsignalized)	-	2.0	A	-	-	-	3.5	A	-	-
NB	0.01	10.5	B	3	-	0.01	9.6	A	6	-
SB	0.03	10.8	B	12	-	0.11	9.7	A	19	-

The results of the intersection operation analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

Based on our review, there are no operational or traffic safety issues with the proposed development operating with one driveway at the South Access.

5.5 Supplementary Analysis – Future Road Extension & Future Employment Development

As noted in Section 1.1 and 2.2, the Private Driveway will ultimately extend north of the North Access to connect to the future road extension of Doral Drive, this section of the Private Driveway is referred to as the Future Road Extension. A supplementary analysis was completed to review the impact of the Future Road Extension and future development adjacent to the road extension in the study area (detailed below).

5.5.1 Future Employment Development

Currently there are undeveloped industrial business park lands adjacent to the subject site and Future Road Extension [Future Employment Development]. The Future Employment Development is bound by 9th Line to the south, existing industrial developments to the west, the CN Railway to the east and

the boundary between Town of Innisfil and City of Barrie to the north. For the purposes of this section, the build-out of the Future Employment Development has been assumed to occur along with the Future Road Extension.

The County's Employment Area Land Needs Assessment (dated March 2022) [Employment Area LNA] assumed an employment density of 20 employees per net hectare in the County, forecast to the 2051 horizon year (excerpts provided in **Appendix L**). Furthermore, the Town's Land Budget & Municipal Comprehensive Review (dated October 2015) [Land Budget Review] also estimated an employment density of approximately 20 new jobs per hectare for Innisfil Heights community, for the 2031 horizon year (excerpts provided in **Appendix M**). It is noted that the employment data found in the County's Employment Area LNA is consistent with the information found in the Town's TMP.

Based on this employment density, a total of 621 employees has been estimated for the Future Employment Development[1].

The traffic generation for the Future Employment Development has been based on the ITE Trip Generation Manual. The following ITE land uses have been applied to estimate the traffic from the Future Employment Development (excerpts provided in **Appendix J**):

- ITE land use #130 (Industrial Park) – General Urban/Suburban

The estimated trip generation for the Future Employment Development is illustrated below in **Table 15.**

Table 15 – Estimated Traffic Generation of the Future Employment Development

Land Use	Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Industrial Park ITE Land Use: 130	621 employees	Fitted Curve Equation: Trips = 0.82 Ln(X) + 0.39			Fitted Curve Equation: Trips = 0.74 Ln(X) + 0.93		
		Directional Split					
		0.86	0.14	-	0.20	0.80	-
		248	40	288	59	237	296
TOTAL HEAVY VEHICLE TRIP GENERATION*		**5**	**5**	**10**	**5**	**6**	**11**
TOTAL AUTOMOBILE TRIP GENERATION		**243**	**35**	**278**	**54**	**231**	**285**

* ITE land use 130 did not have a truck trip generation in the ITE Trip Generation Manual. The truck trip percentages for the proposed development obtained from Table 8 in Section 4.1 (3.4% and 3.7% in the AM and PM peak hour respectively), were assumed for the Future Employment Development.

The traffic distribution for automobile traffic in the Future Employment Development is assumed to follow work-based trip distribution as noted in Table 9 in Section 4.2.

The traffic distribution for heavy vehicle traffic in the Future Employment Development is assumed to follow the existing trip distribution of the traffic counts as noted in Table 10 in Section 4.2.

Figures 23 and **24** illustrates the automobile and heavy vehicle traffic assignment for the Future Employment Development, respectively, for the AM and PM peak hour. With the construction of the Future Road Extension, some traffic from the Future Employment Development has been distributed to the north, with access via the future connection at Doral Drive.

[1] The total area of the Future Employment Development, with the proposed development, is 387,155 sq.m. (38.72 ha.), as identified on the Site Plan (provided in **Appendix A**). Consequently, the net area for the Future Employment Development is 310,256 sq.m. (31.03 ha.).

The total (2038) traffic volumes with the Future Road Extension and Future Employment Development traffic assignment for the AM and PM peak hour can be found in **Figure 25**.

Figure 23 – Automobile Traffic Assignment for Future Employment Development (2038)

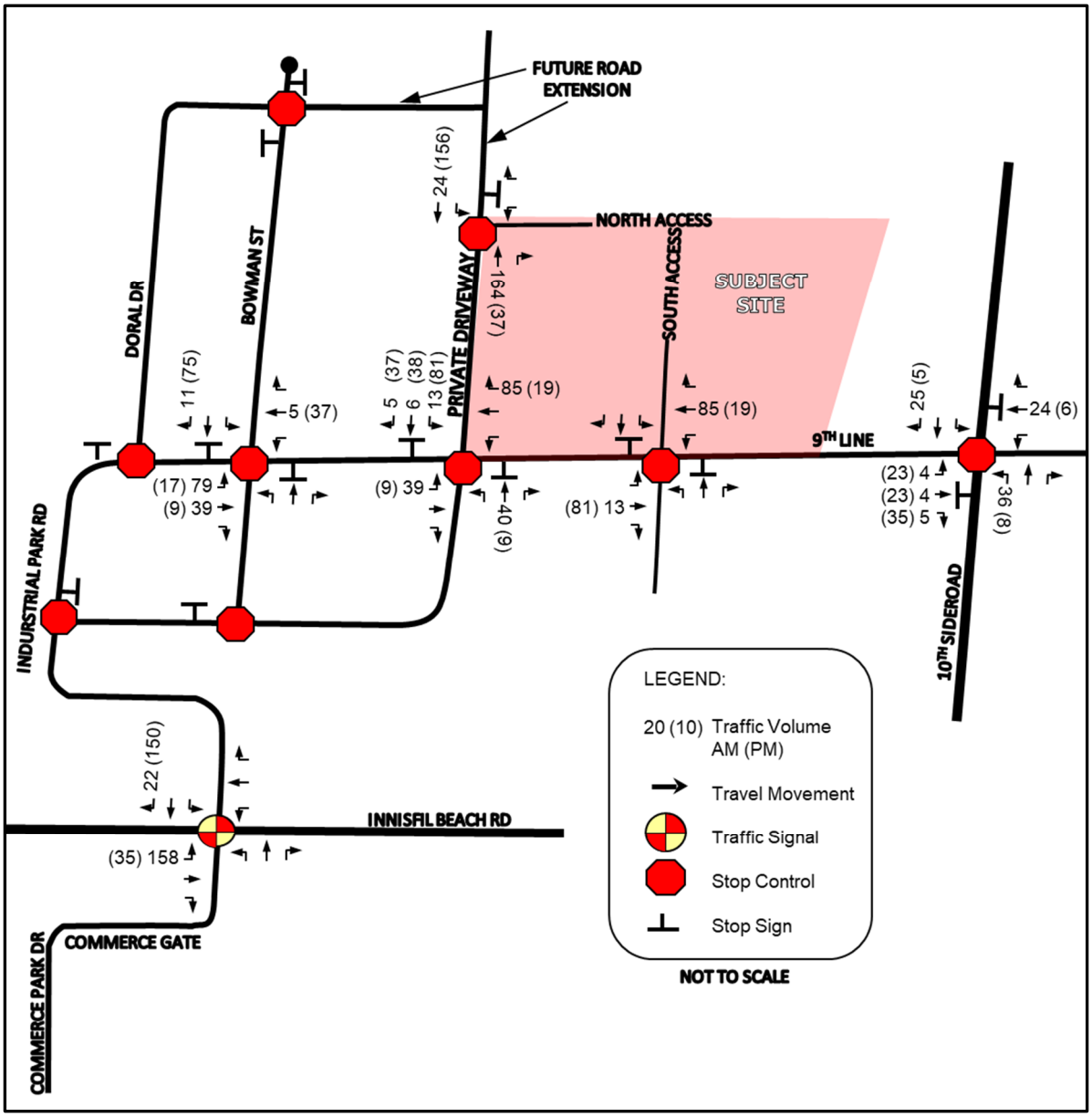


Figure 24 – Heavy Vehicle Traffic Assignment for Future Employment Development (2038)

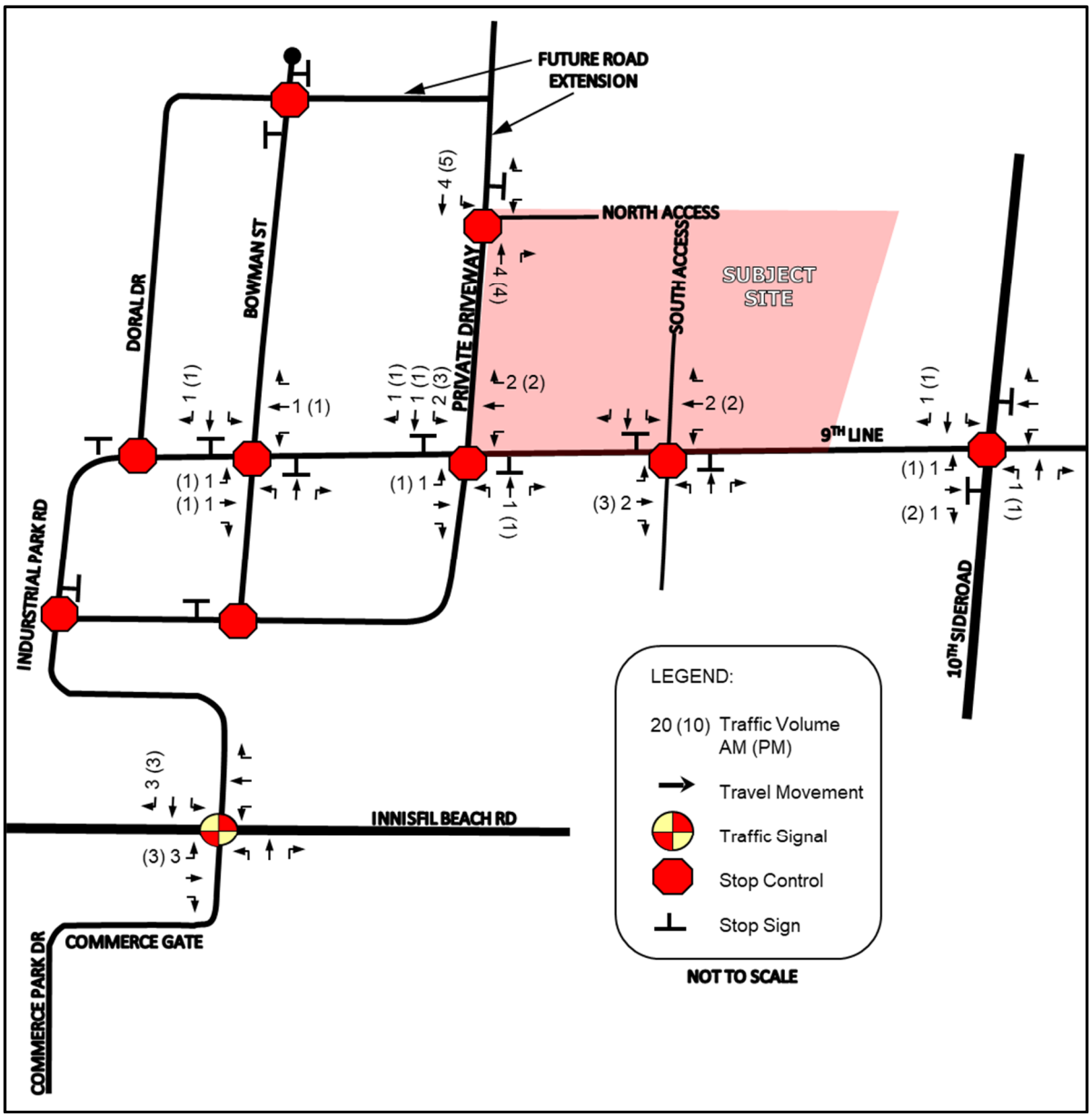
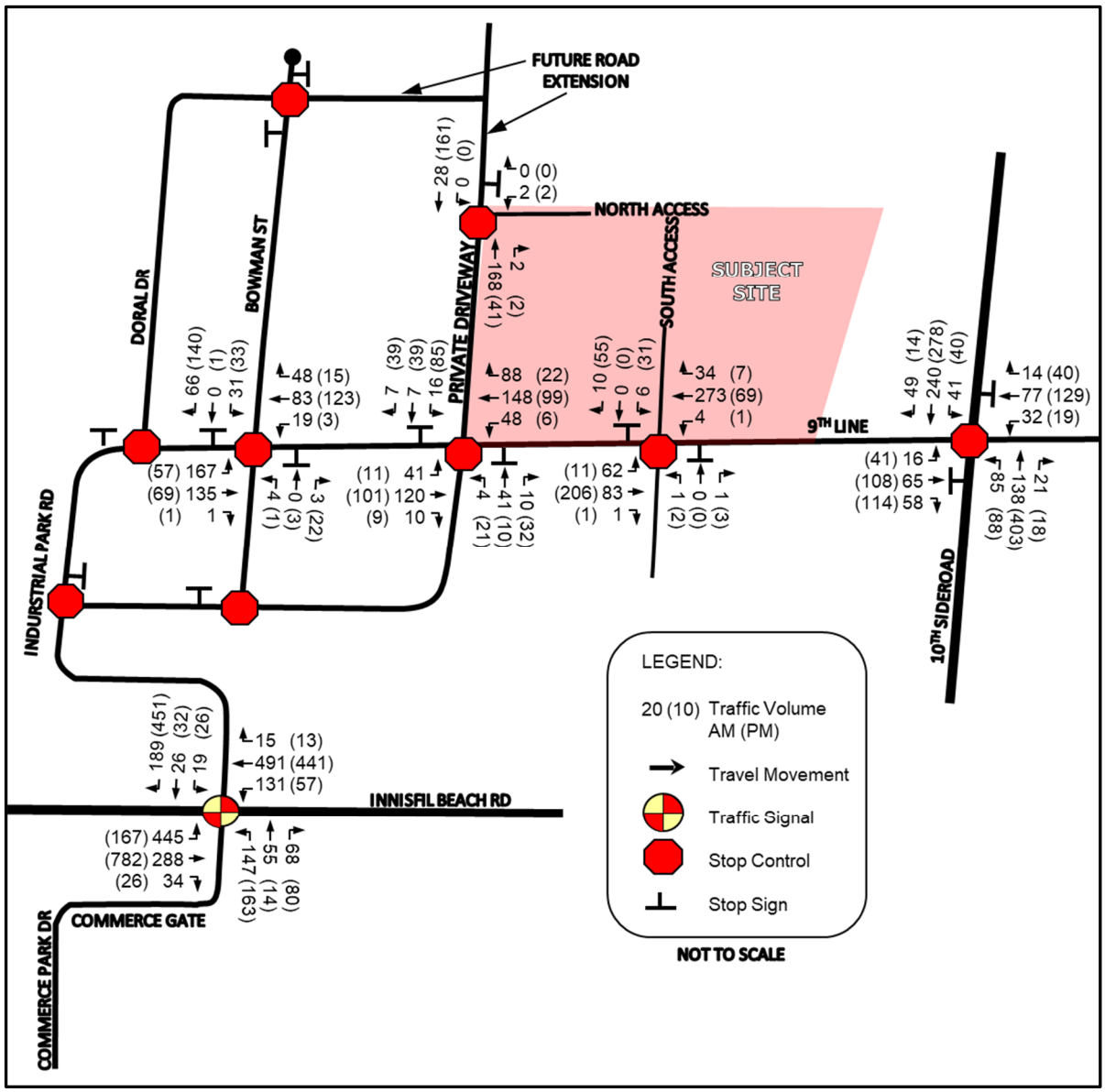


Figure 25 - Total (2038) Traffic Volumes – Supplementary Analysis (Future Rd Ext.)



5.5.2 Total (2038) Intersection Operation - Future Employment Development

The results of the LOS analysis under total (2038) traffic volumes with the Future Road Extension and Future Employment Development during the AM and PM peak hours can be found below in **Table 16**. The planned infrastructure improvements noted in Section 2.2 and the improvements recommended in Section 3.2 have been utilized in this scenario. The signal timing plan at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection was adjusted in the AM peak hour to accommodate the future traffic volume projections with the Future Employment Development. As outlined in Section 2.5, the background traffic growth rate would theoretically include the additional traffic generation from the Future Employment Development. Consequently, the overall traffic projections in the area are a conservative estimate of the future traffic volumes.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is warranted in the eastbound direction of the 9th Line / Bowman Street intersection. It is recommended the following improvement is constructed prior to build-out of the Future Employment Development:

- 9th Line / Bowman Street
    - Construction of an eastbound left turn lane with a 15 metre storage, 40 metre parallel length and 75 metre taper length.

It is recommended that the traffic projection assumptions identified in this report are confirmed as development in the area occurs, to determine the timing and scope of the above-noted infrastructure improvements.

Detailed output of the Synchro and SimTraffic analysis can be found in **Appendix G**.

Table 16 – Total (2038) LOS – Supplementary Analysis (Future Rd Ext.)

Location (N-S Street / E-W Street)	Weekday AM Peak Hour					Weekday PM Peak Hour				
	V/C	Delay (s)	LOS	95% Queue (m)		V/C	Delay (s)	LOS	95% Queue (m)	
				Model	Storage				Model	Storage
Innisfil Beach Road / Industrial Park Road / Commerce Gate (signalized)	-	33.0	C	-	-	-	42.4	D	-	-
EBL	0.88	34.8	C	92	250	0.64	36.0	D	58	250
EBT	0.24	18.8	B	31	-	0.81	47.4	D	78	-
EBTR	0.25	18.9	B	33	-	0.81	47.0	D	78	-
WBL	0.32	22.5	C	27	70	0.30	28.0	C	21	70
WBT	0.47	31.8	C	53	-	0.47	34.7	C	54	-
WBTR	0.47	31.7	C	51	-	0.47	34.6	C	51	-
NBL	0.79	47.8	D	47	115	0.83	48.0	D	48	115
NBTR	0.28	26.4	C	32	-	0.16	15.9	B	23	-
SBL	0.09	34.0	C	15	135	0.06	21.9	C	13	135
SBTR	0.88	53.1	D	59	-	0.93	51.0	D	89	-
9th Line / 10th Sideroad (signalized)	-	9.7	A	-	-	-	12.4	B	-	-
EB	0.46	19.2	B	33	-	0.62	19.5	B	47	-
WB	0.47	19.3	B	33	-	0.50	18.2	B	35	-
NB	0.31	5.3	A	32	-	0.56	9.7	A	75	-
SB	0.37	5.8	A	37	-	0.42	8.0	A	50	-
9th Line / Thomas Street / Private Driveway (unsignalized)	-	3.9	A	-	-	-	6.6	A	-	-
NB	0.17	14.2	B	17	-	0.17	12.4	B	27	-
SB	0.08	15.0	C	17	-	0.28	12.8	B	23	-
9th Line / Bowman Street (unsignalized)	-	5.1	A	-	-	-	5.9	A	-	-
NB	0.03	15.1	C	11	-	0.06	9.7	A	14	-
SB	0.19	12.8	B	19	-	0.25	11.4	B	28	-
9th Line / South Access (unsignalized)	-	1.6	A	-	-	-	2.6	A	-	-
NB	0.01	11.2	B	5	-	0.01	10.3	B	7	-
SB	0.03	11.4	B	12	-	0.12	10.0	B	14	-
Private Driveway / North Access (unsignalized)	-	0.1	A	-	-	-	0.1	A	-	-
WB	0.01	11.0	B	10	-	0.01	11.1	B	7	-

The results of the intersection operation analysis indicates that the V/C ratio for the eastbound left and southbound through-right movement at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection is operating marginally outside the typical design limits noted in Section 3.1; however, there are no issues with the delay and anticipated queuing as noted below. As outlined in Section 2.5, the overall traffic projections in the area are a conservative estimate of the future traffic volumes. Consequently, no further improvements are recommended.

The results of the intersection operation analysis indicate that all other intersections in the study area are operating within the typical design limits noted in Section 3.1.

There are no issues with the anticipated queuing for all movements in the study area.

A review of the need for additional auxiliary right turn lanes at the study area intersections was completed as part of our analysis. The results of the Synchro analysis indicate that there are no concerns regarding delay and queuing for all movements; consequently, additional auxiliary right turn lanes are not recommended.

An analysis was completed for left turn movements at the unsignalized intersections in the study area, based on the criteria outlined in Appendix 9A of the MTO DS. Based on the above noted criteria, a left-turn lane is not warranted at the unsignalized intersections in the study area (results are provided in **Appendix H**).

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at the unsignalized intersections in the study area (results are provided in **Appendix I**).

No additional infrastructure improvements are required for the total (2038) scenario with the Future Road Extension and Future Employment Development.

5.6 Site Access

The South Access and North Access driveway will operate efficiently as a full-movement access driveway. A single ingress and egress lane at the South Access and North Access driveway will provide the necessary capacity to service the proposed development.

The Private Driveway will operate efficiently as a full-movement intersection. A single ingress and egress lane at the Private Driveway access will provide the necessary capacity to service the proposed development.

The proposed spacing between the South Access and the Private Driveway (153 metres – measured edge of driveway to edge of roadway) and between the North Access and 9th Line (244 metres – measured edge of driveway to edge of roadway) are greater than the suggested minimum corner clearance requirements for a driveway as identified in the TAC Guidelines Figure 8.8.2 (Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections) – 35 metres for the unsignalized condition.

The proposed spacing between the Private Driveway and Bowman Street (420 metres – measured centre to centre of roadways) is greater than minimum spacing requirements for a local road identified in Section 9.4.2.3 in the TAC Guidelines – 60 metres.

5.7 Sight Distance Review

A review of the available sight distance for the proposed South Access driveway and the Private Driveway intersection was completed as part of this analysis.

The sight distance at the Site Access on 9th Line, to the east (280 metres) and to the west (greater than 400 metres), is greater than the minimum stopping and intersection sight distance requirements as identified in the Transportation Association of Canada *Design Guide for Canadian Roads* (2017) [TAC Guidelines] for a design speed of 80 km/h (130 and 170 metres).

The sight distance at the Private Driveway on 9th Line, to the east (270 metres) and to the west (greater than 400 metres), is greater than the minimum stopping and intersection sight distance requirements as identified in the TAC Guidelines for a design speed of 80 km/h (130 and 170 metres).

Consequently, there are no issues with the sight distance available for the proposed South Access driveway and the Private Driveway.

5.8 Railway Crossing Review

The existing Beeton Spur of the Barrie-Collingwood Railway [BCRY] is located along the east boundary of the subject site. There is an existing active at-grade railway crossing on 9th Line, located 320 metres east of Thomas Street [9th Line Railway Crossing]. The 9th Line Railway Crossing has a single track, and is equipped with a Standard Railway Crossing Sign in the eastbound and westbound direction. There are no railway crossing lights and gates at the 9th Line Railway Crossing. There is a railway warning sign approximately 209 metres west of the 9th Line Railway Crossing.

As noted in Section 2.1, 9th Line is a two-lane local roadway with a rural cross-section and a posted speed limit of 60 km/h in the study area.

5.8.1 Railway Crossing Infrastructure Review

The purpose of this section is to review the warranted road-rail crossing protections required for the 9th Line Railway Crossing. For this analysis, the type of crossing protection is selected based on a comparison of the Crossing Exposure Index [CEI] at the crossing location and the thresholds set in Transport Canada's Grade Crossing Standards (2019) [GCS]. The CEI is the product of the forecasted daily number of trains and the forecasted annual average daily traffic [AADT] at a crossing location. The GCS specifies crossing protection types based on the CEI as per **Table 17**.

Table 17 – GGCS Specified Crossing Protections based on the CEI

CEI (# of trains / day x AADT)	Warranted Crossing Protection
2,000 – 49,999	Flashing Lights and Bells
50,000 or more	Flashing Lights Bells and Gates

An additional crossing protection is grade separation, which can be an overpass (road over railway) or underpass (road under railway) structure. Currently, the GCS do not specify criteria for the grade separation of a crossing. However, railway companies and road authorities generally apply a minimum CEI threshold value of 200,000 as a warrant for grade separation.

Based on information provided in Transport Canada's Grade Crossing Inventory (last updated 2023) the 9th Line Railway Crossing services 1 train daily.

The AADT at the 9th Line Railway Crossing was calculated using the traffic volumes projections in this report and methodology detailed below:

$$AADT = (AM + PM) \times 5$$
$$AADT_{2025} = (148 \text{ vph} + 92 \text{ vph}) \times 5$$
$$AADT_{2025} = 1{,}200 \text{ vehicles}$$

$$AADT_{Background2038} = AADT_{2025} \times GF_{2025\text{-}2038} + Adj$$
$$AADT_{Background2038} = 1200 \text{ veh} \times (1+3\%)^{(2038-2025)} + (42 \text{ vph} + 39 \text{ vph}) \times 5$$
$$AADT_{Background2038} = 2{,}167 \text{ vehicles}$$

$$AADT_{Total2038} = AADT_{2025} \times GF_{2025\text{-}2038} + Adj + Site$$
$$AADT_{Total2038} = 1200 \text{ veh} \times (1+3\%)^{(2038-2025)} + (42 \text{ vph} + 39 \text{ vph}) \times 5 + (42 \text{ vph} + 40 \text{ vph}) \times 5$$
$$AADT_{Total2038} = 2{,}577 \text{ vehicles}$$

Using the AADT and train data above the following was calculated for the CEI in **Table 18.**

Table 18 – GGCS Specified Crossing Protections based on the CEI

Scenario	AADT (vehicles)	Trains per Day	CEI (# of trains / day x AADT)
Existing (2025)	1,200	1	1,200
Background (2038)	2,167	1	2,167
Total (2038)	2,577	1	2,577

As noted above, the 9th Line Railway Crossing currently has a Standard Railway Crossing Sign. Based on the anticipated increase in traffic generated by the background traffic, it is recommended that the railway crossing is equipped to consider the installation of Cantilevered Light Units and bells at the 9th Line Railway Crossing.

5.8.2 Railway Crossing Sight Distance Review

The following from Section 7 of the GCS determines the distance required for the design vehicle at its road crossing design speed to go from the stopping sight distance completely past the clearance point on the other side of the grade crossing identified as D_{SSD}.

$$D_{SSD} \text{ (in metres)} = 0.278\ V_T \times T_{SSD}$$
$$\text{Where, } T_{SSD} \text{ (in seconds)} = [(SSD + cd + L) / 0.278V]$$
$$\text{Where, SSD (in metres)} = 0.278 \times 2.5 \times V + d_b$$

Where,
D_{SSD} = distance required for the design vehicle at its road crossing design speed to go from the stopping sight distance completely past the clearance point on the other side of the grade crossing
SSD = Stopping Sight Distance (m), calculated below
V_T = road crossing design speed (km/h) = 80 km/h
cd = grade crossing clearance distance (m) = 12 metres
L = length of the grade crossing design vehicle (m) = 11.5 metres (for Heavy Single-unit Trucks)
d_b = braking distance (m) = 73.4 metres as per Table 2.5.2 of the TAC Guidelines
V = initial speed (km/h) = 15 km/h (assumed turning speed of design vehicles from the site access driveways onto 9th Line)

$$SSD = 0.278 \times 2.5 \times 15 \text{ km/h} + 73.4 \text{ metres}$$
$$SSD = 83.8 \text{ metres}$$
$$T_{SSD} = [(SSD + cd + L) / 0.278V]$$
$$T_{SSD} = [(83.8 \text{ m} + 12\text{m} + 11.5\text{m}) / 0.278 \times (80 \text{ km/h})]$$
$$T_{SSD} = 4.825 \text{ seconds}$$
$$D_{SSD} = 0.278 \times (80 \text{ km/h}) \times 4.469 \text{ seconds}$$
$$D_{SSD} = 107.3 \text{ metres}$$

The location of the South Access driveway (154 metres) and the Private Driveway (314 metres) exceeds the D_{SSD} (107.3 metres) west of the 9th Line Railway Crossing. Consequently, there are no issues with the location of the proposed South Access driveway and the Private Driveway .

5.9 Swept Path Analysis

A swept path analysis has been provided in **Appendix N** to illustrate that the following vehicles can access the site as intended:

- Town of Innisfil Fire Truck (104' Cobra);
- County of Simcoe Waste Collection Vehicle;
- TAC Passenger Vehicle (TAC P); and
- Compact passenger vehicle.

5.10 Parking Review

The proposed parking supply for the subject site is lower than the minimum parking requirements specified in the Town's Zoning By-law Number 080-13 [ZBL]. The proposed parking breakdown is provided in **Table 19.**

Table 19 - Zoning By-law Parking Requirements

Category	Zoning By-Law Section	Parking Standard	Size	Parking	
				Required	Provided
Other Industrial Uses	3.35.1.1	1 parking space for every 45 sq.m.of GFA up to 2,000 sq.m., plus 1 parking space for each additional 100 square metres of GFA up to 6,000 sq.m., and 1 parking space for each 200 sq.m. over 6,000 sq.m.	10,351.41 sq.m.	107 spaces	43 spaces
Warehouse	3.35.1.1	1 parking space for every 100 sq.m. of GFA up to 7,000 sq.m., plus 0.6 parking spaces per 100 sq.m.of GFA over 7,000 sq.m. of GFA	3,951.72 sq.m.	40 spaces	16 spaces
Office	3.35.1.1	1 parking space for every 28 sq.m.of GFA on the first floor plus 1 parking space for every 37 sq.m.of GFA above the first floor	1st floor: 1,507.18 sq.m. Above 1st floor: 1,200.8 sq.m.	87 spaces	87 spaces
TOTAL PARKING SPACES				**234 spaces**	**146 spaces**
Accessible Parking	3.35.3	3% of total required spaces	-	8 spaces	8 spaces

The proposed parking supply meets the ZBL requirement for the office and accessible parking component of the proposed development. The parking supply for the warehouse and other industrial uses is based on the projected staffing for the proposed development, assuming one parking space will be required per employee.

6 Summary

DG Group retained **JD Engineering** to prepare this traffic impact study in support of the proposed development on a site municipally known as 3260 9th Line, located at the north of 9th Line, east of the existing development on Bowman Street in the Town of Innisfil [Town]. The proposed Site Plan is shown in **Appendix A.** This chapter summarizes the conclusions and recommendations from the study.

The proposed development will include a single industrial building with warehouse and office space (183,106 sq.ft. (17,011 sq.m.) of GFA).

1. The proposed addition is expected to generate and additional 114 AM and 107 PM new peak hour trips in the study area.
2. Detailed traffic and pedestrian counts were completed at the study area intersections, on Thursday March 27th, 2025.
3. An intersection operational analysis was completed at the study area intersections, using the existing (2025) and background (2028, 2033 and 2038) traffic volumes, without the proposed development traffic. This enabled a review of existing and future traffic deficiencies that would be present without the influence of the proposed development.

   The County is planning to construct the following improvements in the study area by the 2028 horizon year:

   2028 Horizon Year

   - **Innisfil Beach Road (between 20th Sideroad and County Road 27)**
     - Widen road from two lanes to four lanes.
     - Construct a multi-use trail to connect the Alcona Community to the intersection at Industrial Park Road / Commerce Gate.

   The following additional transportation improvements are recommended within the study area:

   Short-Term (2025 - 2028)

   - **9th Line / 10th Sideroad**
     - Signalization of the intersection.

   Background (2028) Horizon Year

   - **Innisfil Beach Road / Industrial Park Road / Commerce Gate**
     - Increase cycle length and adjust signal timing splits.
4. An estimate of the amount of traffic that would be generated by the Subject Site was prepared and assigned to the study area streets and intersection.
5. An intersection operation analysis was completed for the study area intersections, using the total (2028, 2033 and 2038) with proposed traffic volumes. No further improvements are recommended as a result of the proposed development within the study area.
6. The South Access and North Access driveway will operate efficiently as a full-movement access driveway. A single ingress and egress lane at the South Access and North Access driveway will provide the necessary capacity to service the proposed development.
7. There are no operational or traffic safety issues with the proposed development operating with one driveway at the South Access.

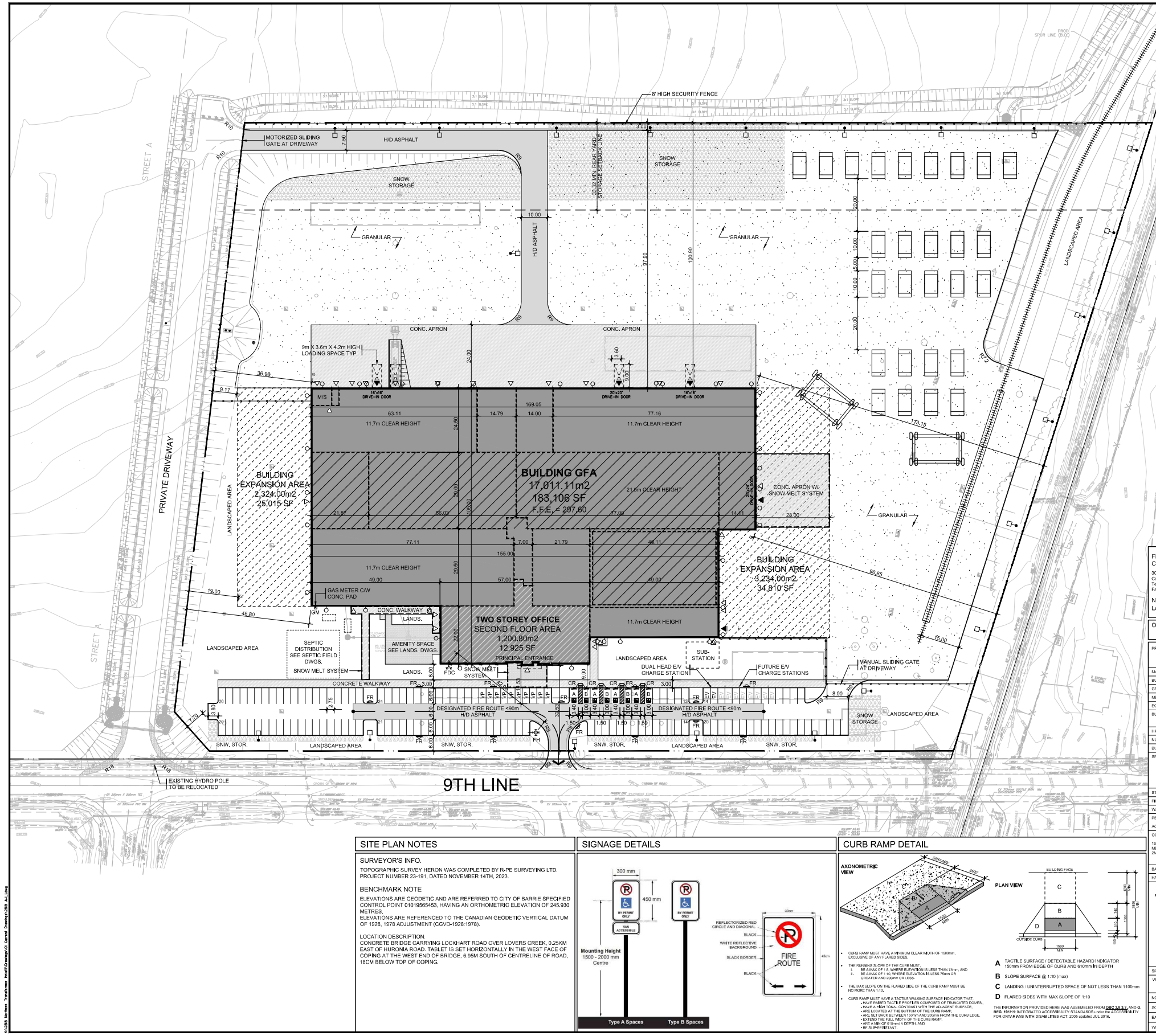
8. The Private Driveway will operate efficiently as a full-movement intersection. A single northbound and southbound lane at the Private Driveway will provide the necessary capacity to service the study area.
9. The study area intersections will provide the necessary capacity to accommodate the construction of the Future Road Extension and traffic added by the Future Employment Development. Minor adjustments to the signal timing plan at the Innisfil Beach Road / Industrial Park Road / Commerce Gate intersection will be required in the AM peak hour.
10. The following additional improvements are conceptually warranted prior to the build-out of the Future Employment Development lands; however, the scope and timing of the improvements will need to be confirmed as additional details regarding the development of this area are confirmed:

    9th Line / Bowman Street

    - Construction of an eastbound left turn lane with a 15 metre storage, 40 metre parallel length and 75 metre taper length.

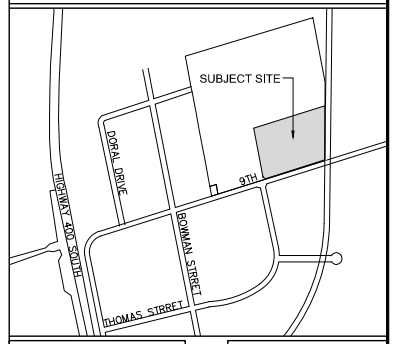
11. The sight distance available for the proposed South Access driveway and the Private Driveway meets the minimum stopping sight distance and intersection sight distance requirements.
12. A review of the existing 9th Line crossing of the Barrie-Collingwood Railway (BCRY) [9th Line Railway Crossing] was completed as part of this analysis. Based anticipated increase in background traffic from adjacent developments, it is recommended that Transport Canada consider installing Cantilevered Light Units and bells at the 9th Line Railway Crossing.
13. The sight distance available between the South Access driveway and the 9th Line Railway Crossing exceeds the railway sight distance requirements, west of the 9th Line Railway Crossing (D_{SSD}) as identified in the Transport Canada's Grade Crossing Standards. There are no issues regarding the location of the proposed South Access driveway and the Private Driveway on 9th Line as it relates to the 9th Line Railway Crossing.
14. The proposed parking supply meets the minimum parking requirements identified in the Town's Zoning By-law for the office and accessible parking component of the proposed development. The parking supply for the warehouse and other industrial uses is based on the projected staffing for the proposed development, assuming one parking space will be required per employee.
15. In summary, the traffic generation from the proposed development does not cause any operational or traffic safety issues.

Appendix A – Site Plan



KEY MAP

N.T.S.



PROJECT NORTH

TRUE NORTH

LEGAL DESCRIPTION

PLAN OF SURVEY
PART OF THE SOUTH HALF OF LOT 8
CONCESSION 9

(GEOGRAPHIC TOWNSHIP OF INNISFIL)
TOWN OF INNISFIL
COUNTY OF SIMCOE

AS PREPARED BY:
HOLDING JONES VANDERVEEN INC.
ONTARIO LAND SURVEYORS

SITE STATISTICS

ZONING		INDUSTRIAL	IBP-8
OVERALL SITE AREA	387,155.00 m2	or	95.67 acres
DEVELOPABLE SITE AREA	76,638.08 m2	or	18.94 acres
SITE COVERAGE	15,463.42 m2	or	20.18%
GROUND FLOOR AREA	15,463.32 m2	or	166,446 SF
MEZZANINE AREA	347.00 m2	or	3,735 SF
SECOND FLOOR AREA	1,200.80 m2	or	12,925 SF
TOTAL BUILDING G.F.A.	17,011.11 m2	or	183,106 SF

		REQUIRED	PROVIDED
LOT FRONTAGE			288.52 m
SETBACKS	FRONT YARD	8.00 m	32.53 m
	REAR YARD	32.76 m	100.90 m
	EXTERIOR SIDE YARD	8.00 m	36.98 m
	INTERIOR SIDE YARD	3.00 m	96.85 m
BUILDING HEIGHT (MAX.)		11.0 m	23.8 m

		REQUIRED	PROVIDED
PARKING	OFFICE AREA 1 space per 28 m2 of GFA on 1st floor + 1 space per 37 m2 of GFA above 1st floor (1/28 * 1,507.18 m2 + 1/37 * 1,200.80 m2)	87 spaces	
	WAREHOUSE AREAS 1 space per 100 m2 of GFA up to 7,000 m2 + 0.6 spaces per 100 m2 GFA over 7,000 m2 (1/100 * 3,951.72 m2) INDUSTRIAL AREA 1 space per 45 m2 of GFA up to 2,000 m2 + 1 space per 100 m2 of GFA up to 6,000 m2 + 1 spaces per 200 m2 of GFA over 6,000 m2 (1/45 * 2,000 m2 + 1/100 * 4,000 m2 + 1/200 * 4,351.41 m2)	40 spaces	
		107 spaces	
	TOTAL SPACES (Including barrier-free spaces)	234 spaces	146 spaces
	BARRIER- FREE 1 + Parking Spaces (3% of total)	8 spaces	8 spaces
	LOADING SPACES	4 spaces	4 spaces
LANDSCAPED AREA (20% MIN.)		19,004.87 m2 or	24.80%
PAVED AREA		42,169.79 m2 or	55.02%
SNOW STORAGE (10% MIN.)		4,228.20 m2 or	10.03%

SYMBOL LEGEND

▷	MAN DOOR LOCATIONS
▷	LOADING DOCK LOCATIONS
▶	DRIVE-IN OVERHEAD DOORS
FH	HYDRANT-VALVE
CB	CATCH BASIN
CBMH	CATCH BASIN-MANHOLE
○	STORM SEWER MANHOLE
LS	LIGHT STANDARD
BR	BICYCLE RACK (2 BIKE SPACES EACH RACK) 1.8m x 0.6m BIKE SPACE TYP. - SEE LANDSCAPING DWGS.
CP	CARPOOL SPACE AND SIGN
BF	BARRIER-FREE ENTRANCE
HP	HANDICAP PARKING
SNW	SNOW STORAGE AREA
CR	CURB RAMP - BARRIER-FREE ACCESS
x5	CONC. FILLED STEEL BOLLARD
FDC	SIAMESE CONNECTION
	HANDICAP RB-93 SIGNAGE PER BY LAW
FR	FIRE ROUTE SIGN • 30"-45" to line parallel to traffic flow mounted on a pole or mounted to building face.
SS	STOP SIGN
GM	GAS METERS

SITE PLAN NOTES

SURVEYOR'S INFO.
TOPOGRAPHIC SURVEY HERON WAS COMPLETED BY R-PE SURVEYING LTD. PROJECT NUMBER 23-191, DATED NOVEMBER 14TH, 2023.

BENCHMARK NOTE
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO CITY OF BARRIE SPECIFIED CONTROL POINT 01019565453, HAVING AN ORTHOMETRIC ELEVATION OF 245.930 METRES.
ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL DATUM OF 1928, 1978 ADJUSTMENT (CGVD-1928:1978).

LOCATION DESCRIPTION:
CONCRETE BRIDGE CARRYING LOCKHART ROAD OVER LOVERS CREEK, 0.25KM EAST OF HURONIA ROAD. TABLET IS SET HORIZONTALLY IN THE WEST FACE OF COPING AT THE WEST END OF BRIDGE, 6.95M SOUTH OF CENTRELINE OF ROAD, 18CM BELOW TOP OF COPING.

SIGNAGE DETAILS

CURB RAMP DETAIL

- CURB RAMP MUST HAVE A MINIMUM CLEAR WIDTH OF 1000mm, EXCLUSIVE OF ANY FLARED SIDES.
- THE RUNNING SLOPE OF THE CURB MUST:
  i. BE A MAX OF 15, WHERE ELEVATION IS LESS THAN 15mm; AND
  ii. BE A MAX OF 1:10, WHERE ELEVATION IS LESS 75mm OR GREATER AND 200mm OR LESS.
- THE MAX SLOPE ON THE FLARED SIDE OF THE CURB RAMP MUST BE NO MORE THAN 1:10.
- CURB RAMP MUST HAVE A TACTILE WALKING SURFACE INDICATOR THAT:
  - HAVE RAISED TACTILE PROFILES COMPOSED OF TRUNCATED DOMES,
  - HAVE A HIGH TONAL CONTRAST WITH THE ADJACENT SURFACES,
  - BE LOCATED AT THE BASE OF THE CURB RAMP,
  - ARE SET BACK BETWEEN 170mm AND 230mm FROM THE CURB EDGE,
  - EXTEND THE FULL WIDTH OF THE CURB RAMP,
  - ARE A MIN OF 610mm IN DEPTH, AND
  - BE SLIP-RESISTANT.

A TACTILE SURFACE / DETECTABLE HAZARD INDICATOR 150mm FROM EDGE OF CURB AND 610mm IN DEPTH

B SLOPE SURFACE @ 1:10 (max)

C LANDING / UNINTERRUPTED SPACE OF NOT LESS THAN 1100mm

D FLARED SIDES WITH MAX SLOPE OF 1:10

THE INFORMATION PROVIDED HERE WAS ASSIMILED FROM **OBC 3.8.3.2.** AND **O. REG. 191/11:** INTEGRATED ACCESSIBILITY STANDARDS Under the ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT, 2005 (update) JUL 2016.

Firm Name: Baldassarra Architects Inc.
Certificate of Practice Number: 5810
30 Great Gulf Drive, Unit 20
Concord, ON L4K 0K7
Tel: (905) 660-0722
Fax: (905) 660-7019

Name of Project: Northern Transformer Innisfil
Location: 3260 9th Line, Innisfil, Ontario

ONTARIO ASSOCIATION OF ARCHITECTS — A. BALDASSARRA LICENCE 3654

Ontario's 2024 Building Code Data Matrix Part 3 — OBC References [A] for Division A [C] for Division C

PROJECT TYPE	■ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE	■ Part 3	[A] 1.3.3.2.
MAJOR OCCUPANCY	GROUP D, F Div. 2		3.1.2.
BUILDING AREA (m2)	EXISTING: ____ NEW: 15,463.32 TOTAL: 15,463.32		[A] 1.4.1.2.
GROSS AREA (m2)	EXISTING: ____ NEW: 17,011.11 TOTAL: 17,011.11		[A] 1.4.1.2.
MEZZANINE AREA (m2)	347.00		3.2.1.1.
EQUIPMENT PLATFORM AREA (m2)	211.11		3.2.1.1.(6)
BUILDING HEIGHT	STOREYS ABOVE GRADE: 2 STOREYS BELOW GRADE: 0 HEIGHT ABOVE GRADE (m): 23.17		[A] 1.4.1.2. & 3.2.1.1.
HIGH BUILDING	☐ YES ■ NO		3.2.6.
NUMBER OF STREETS / ACCESS ROUTES	1		3.2.2.10. & 3.2.5.
BUILDING CLASSIFICATION	3.2.2.76.		3.2.2.20.-93.
SPRINKLER SYSTEM PROPOSED	■ ENTIRE BUILDING ☐ BASEMENT ONLY ☐ IN LIEU OF ROOF RATING ☐ NOT REQUIRED		3.2.1.5. & 3.2.2.18., 21., 22., 29. 3.2.4.1., 3.2.4.5., 3.2.4.15., 3.2.5.12.-14.
STANDPIPE REQUIRED	■ YES ☐ NO		3.2.5.8.-11.
FIRE ALARM REQUIRED	■ YES ☐ NO		3.2.4.
WATER SERVICE / SUPPLY IS ADEQUATE	■ YES ☐ NO		3.2.5.7.
PERMITTED CONSTRUCTION	☐ COMBUSTIBLE ■ NON-COMBUSTIBLE REQUIRED		3.2.2.20.-93. & 3.1.6.
ACTUAL CONSTRUCTION	☐ COMBUSTIBLE ■ NON-COMBUSTIBLE ☐ BOTH		
OCCUPANT LOAD BASED ON	☐ m2 / PERSON ☐ DESIGN OF BUILDING		3.1.17.
1ST FLOOR	OCCUPANCY: ____ LOAD: ____ PERSONS		
MEZZANINE	OCCUPANCY: ____ LOAD: ____ PERSONS		
2ND FLOOR	OCCUPANCY: ____ LOAD: ____ PERSONS		
BARRIER FREE DESIGN	■ YES ☐ NO (EXPLAIN) ____		3.8.
HAZARDOUS SUBTANCES	☐ YES ■ NO		3.3.1.2. & 3.3.1.19.

REQUIRED FIRE RESISTANCE RATING (FRR)	HORIZONTAL ASSEMBLIES FRR (HOURS)	LISTED DESIGN NO. OR DESCRIPTION (SB-2)	3.2.2.20.-93., 3.2.1.2., 3.2.2.7.5. & 3.3.2.1.
	FLOORS: 2 HOURS		
	ROOF: - HOURS		
	MEZZANINE: 1 HOURS		
	FIRE-OF SUPPORTING MEMBERS	LISTED DESIGN NO. OR DESCRIPTION (SB-2)	
	FLOORS: 2 HOURS		
	ROOF: - HOURS		
	MEZZANINE: 1 HOURS		

SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS — 3.2.3.

WALL	AREA OF EBF (m2)	L/D (m)	L/H or H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	FRR (HOURS)	LISTED DESIGN OR DESIGNATION	COMB. CONST. PERMITTED	NON-COMB. CLADDING REQUIRED
		Max 1,000							
NORTH	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SOUTH	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EAST	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WEST	N/A	>15	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No.	ISSUED	DATE
1	ISSUED FOR SITE ALTERATION PERMIT	APR. 25, 2025
2	ISSUED FOR SPECIFICATIONS	MAY 6, 2025
3	RE-ISSUED FOR SITE ALTERATION PERMIT	MAY 9, 2025

No.	REVISION	DATE

BALDASSARRA Architects Inc.
30 Great Gulf Drive, Unit 20 | Concord ON | L4K 0K7
T. 905.660.0722 | www.baldassarra.ca
OWNERS INFORMATION:

ONTARIO ASSOCIATION OF ARCHITECTS — A. BALDASSARRA LICENSE 3654

Northern Transformer Innisfil

3260 9th Line
Innisfil, ON

Site Plan

SP-2024-016

DATE	DRAWN BY	CHECKED	SCALE
DEC. 2024	KW/LY	MB	1:600

PROJECT No.: 25-18

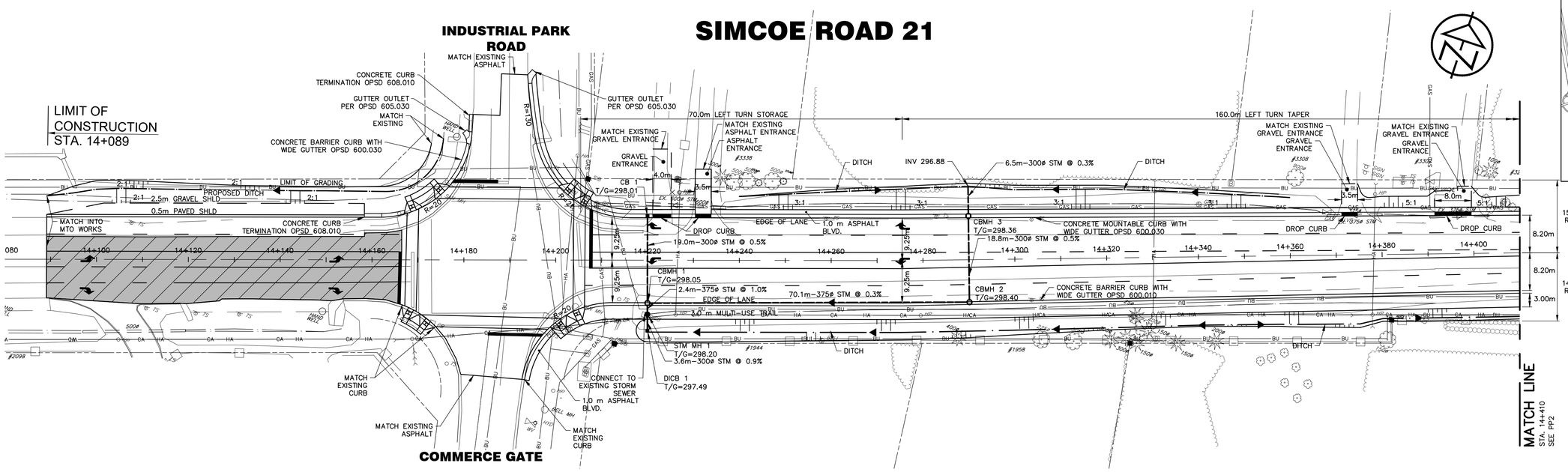
DRAWING No.: A-1.1

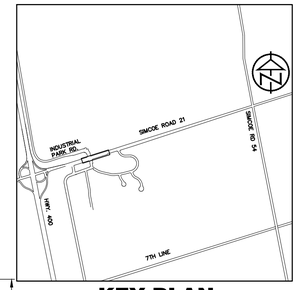
Appendix B –
60% Design Files IBR Phase 3

Appendix B – Design Files

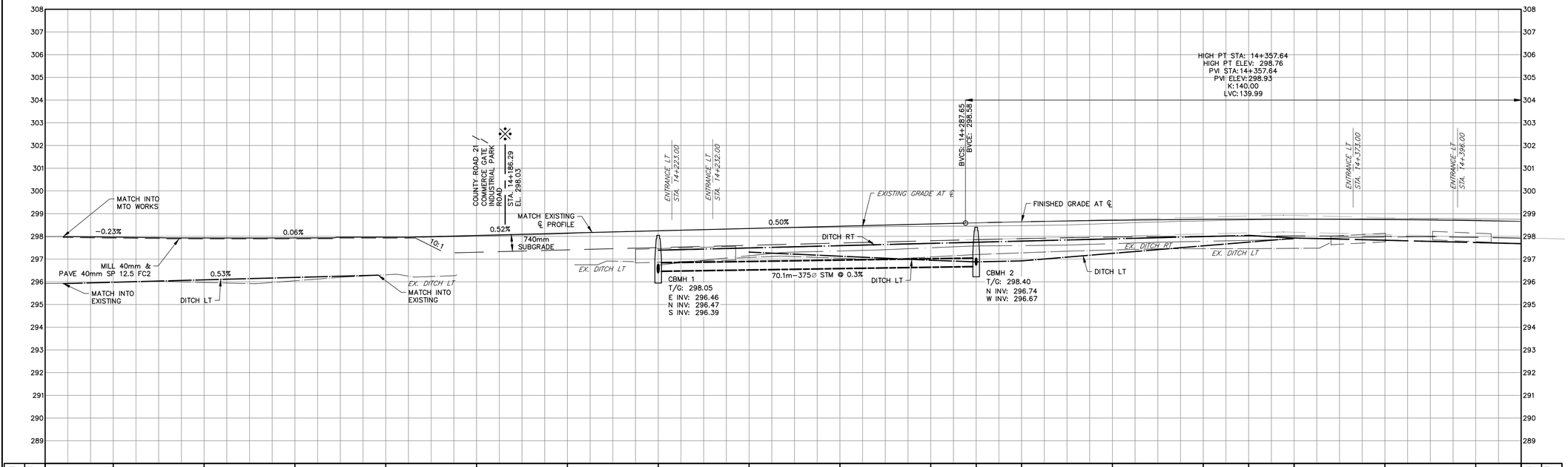
60% Design Files IBR Phase 3

SIMCOE ROAD 21





KEY PLAN
N.T.S.



LEGEND

MILL 40mm & PAVE 40mm SP 12.5 FC2

CHAINAGE	PROPOSED C/L ELEV	EXISTING C/L ELEV	PR. DITCH RT EL	PR. DITCH LT EL
14+100	297.97	297.97		
14+120	297.93	297.93		
14+140	297.93	297.93		
14+160	297.96	297.96		
14+180	298.04	298.00		
14+200	298.14	298.10		
14+220	298.25	298.20		
14+240	298.35	298.35	297.31	
14+260	298.45	298.40	297.13	
14+280	298.55	298.50	296.95	
14+300	298.64	298.61	296.88	296.92
14+320	298.71	298.67	297.25	
14+340	298.75	298.68	297.58	
14+360	298.76	298.76	297.75	297.91
14+380	298.74	298.75		
14+400	298.69	298.77		

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BENCHMARKS

NOTES

No.	REVISION DESCRIPTION	DATE
1.		

ENGINEER STAMP

COUNTY OF SIMCOE

RECONSTRUCTION OF SIMCOE ROAD 21 (PHASE 3)
INDUSTRIAL PARK RD. TO INNISBROOK ST.

PLAN AND PROFILE
STA. 14+080 TO STA. 14+410

TATHAM ENGINEERING

DESIGN: SKR	FILE: 409390	DWG: PP-1
DRAWN: KBS	DATE: SEPT 2019	
CHECK: MJC	SCALE: 1:500	

Highway 400 / IBR Interchange Design Files

DISTRICT OF INNISFIL
GEOGRAPHIC TOWNSHIP OF INNISFIL

METRIC

PLATE No
CONT 2020–XXXX
GWP 2493–15–00

INNISFIL BEACH ROAD
NEW CONSTRUCTION
FROM STA. 10+100 TO STA. 10+450

SHEET 243

McINTOSH PERRY

MINISTRY OF TRANSPORTATION, ONTARIO PH–D–302 89–10

STA 4+150
2.50 SHLD
4.75
1.00 SHLD
SNOW FENCE
4+100
E–N RAMP
TIE–IN TO EXISTING CHAIN LINK FENCE
LEAVING END TREATMENT MTOD 912.255
2.0 x 2.0m RIP–RAP (R–10)
CHAIN LINK FENCE OPSD 972.130
RAMP CLOSURE GATE MTOD 960.012
CC&G OUTLET OPSD 605.010
3.0 x 1.5m RIP–RAP (R–10)
CC&G OPSD 600.030
TIE–IN TO EXISTING CHAIN LINK FENCE
TYPE M30 SBGR MTOD 912.188
POE 2+514.866
TYPE M30 SBGR MTOD 912.189
0.8 x 1.5m RIP–RAP (R–10)
SBEAT
INNISFIL BEACH ROAD
CC&G OPSD 600.040
CC&G TERMINATION OPSD 608.010
STA 10+100
STA 10+450
STA 14+000
2+500
RAMP CLOSURE GATE MTOD 960.010
R10 RIP–RAP 2.0m x 16.6m
S–E/W RAMP
800ø x 29.0m
3.0 X 1.5m RIP–RAP (R–10)
CC&G OUTLET OPSD 605.030
ST 2+454.259
STA 2+450
800ø x 19.0m
STA 14+100
14+100
3.0 x 2.4m RIP–RAP (R–10)
BM 299.705
SW ON BOLT LS
SCALE
5m 0 10m
Horizontal

DISTRICT OF INNISFIL
GEOGRAPHIC TOWNSHIP OF INNISFIL

METRIC

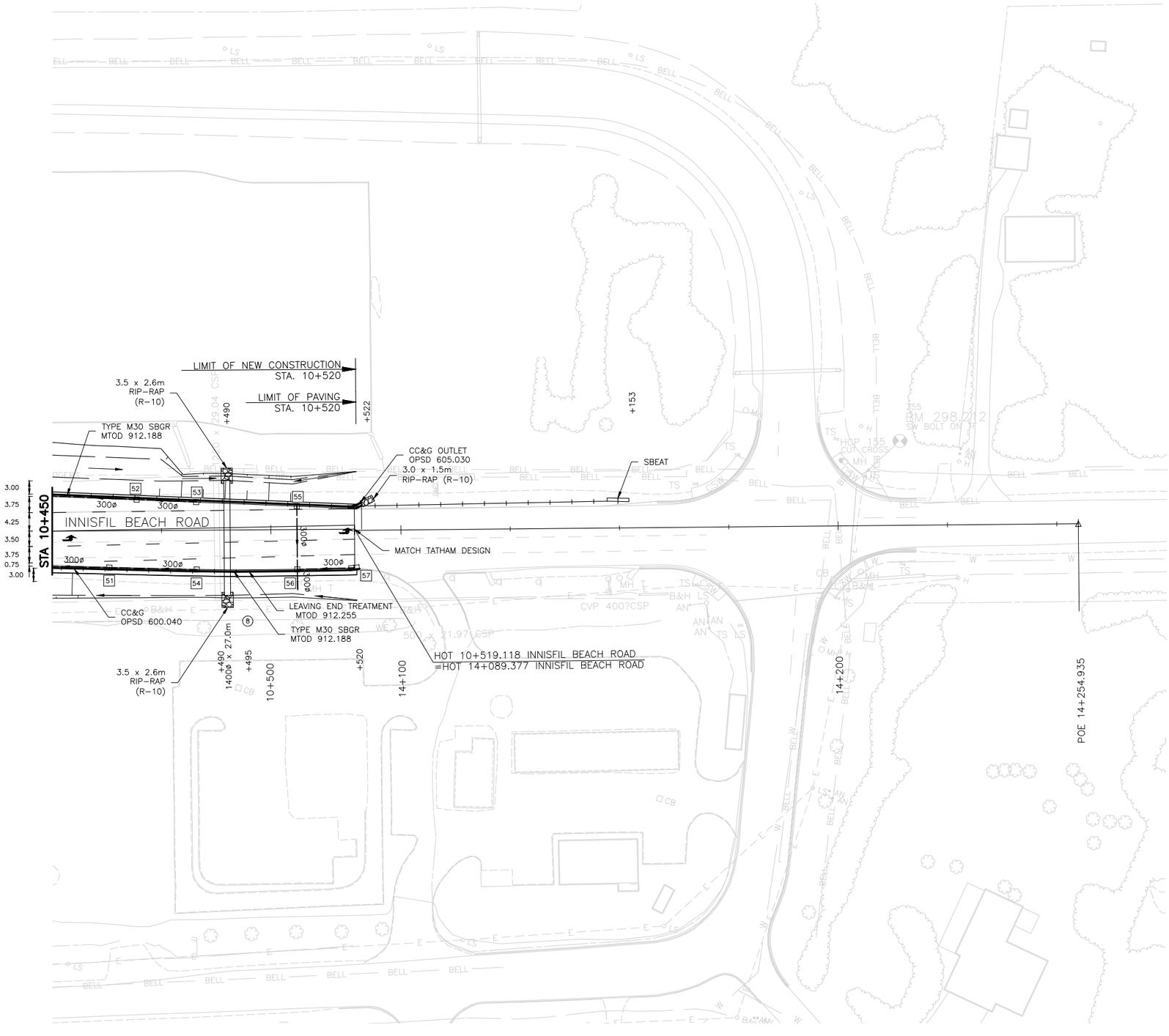
PLATE No
CONT 2020-XXXX
GWP 2493-15-00

INNISFIL BEACH ROAD
NEW CONSTRUCTION
FROM STA. 10+450 TO STA. 10+800

SHEET
244

McINTOSH PERRY

MINISTRY OF TRANSPORTATION, ONTARIO
PH-D-302 89-10



SCALE
5m 0 10m
Horizontal

Appendix C –
Town TMP Excerpts

Appendix H

Appendix H

Road Capacity Analysis and Safety Review

BURNSIDE

Innisfil

Appendix H | Road Capacity Analysis and Safety Review

Date:	July 12, 2022	**Project No.:**	300053011.0000
Project Name:	Innisfil Transportation Master Plan Update		
To:	Town of Innisfil		
From:	R.J Burnside & Associates Limited / TraffMobility		

1.0 Road Capacity Analysis

A road capacity analysis was conducted for existing and future conditions using EMME, a modelling software for travel forecasting. The travel demand model for the Town of Innisfil was previously developed by HDR Inc. as part of the 2018 Transportation Master Plan.

The model was updated as part of the 2022 Transportation Master Plan Update through network refinements and input changes to reflect existing “base” conditions, planned improvements and land uses, and the latest population and employment allocations. Updates to the model have been documented and summarized below. This updated model was used to inform future traffic conditions and recommended improvements as part of this TMP.

1.1 Previous EMME Model

The model was developed to reflect the worst-case peak hour travel conditions, which occurs during the PM peak period for the Town. The geographic scope of the model covers the Town of Innisfil and connectors that represent travel to the surrounding municipalities. Data from the 2011 Transportation Tomorrow Survey (TTS) was used to determine trip rates and mode shares as inputs to the base year model.

1.1.1 Base Model Calibration and Validation

The model was calibrated using hourly vehicle count data provided along Town, County and Provincial roads to better reflect existing conditions. The validity of the model was assessed based on a screenline analysis, whereby modelled and observed peak hour volumes crossing Town boundaries and major corridors were compared. The results showed that most of the modelled screenline volumes were within a 10% difference of observed volumes, which indicates an acceptable level of model accuracy.

1.1.2 Previous Growth Forecasts

A key input in the travel forecasting model is future population and employment, as it directly impacts travel demand. Growth projections for the Town and adjacent municipalities were

The 2041 employment target was allocated to the settlement areas in the same proportion as the 2018 Transportation Master Plan (TMP), except for the Campus Node which represents the location of the future Royal Victoria Regional Health Centre (RVH) campus. The RVH was assumed to provide an additional 2,000 jobs by 2041.

1.2.4 2051 Growth Assumptions

The approach to derive 2051 population and employment allocations include applying compounded annual growth rates to settlement areas that are expected to grow based on discussions with Town staff and Council reports.

The 2051 population allocations to settlement areas within Innisfil were developed to consider the updated 2051 population target of 84,570 persons. In addition, growth assumptions consider the following excerpt from the Town's Council Report, subject "County of Simcoe Municipal Comprehensive Review - Update No. 2" (September 22, 2021), which noted the following:

> *Based on the above Provincial and County policy directions, the majority of Innisfil's population growth will therefore be directed to Alcona, which is the Town's sole designated PSA in the Growth Plan. Furthermore, the majority of Alcona's growth will be directed to The Orbit/Innisfil GO Station (Major Transit Station Area) as well as intensification of the Downtown Commercial Area along Innisfil Beach Road. Outside of Alcona, only a limited amount of growth may be considered for the Town's other fully serviced settlements of Sandy Cove and Lefroy, and only to Cookstown and Stroud if the current servicing restrictions are planned to be resolved.*

Therefore, the following assumptions were applied to derive population in 2051:

- 0.50% per annum growth from 2041 to 2051 in Big Bay Point, Leonard's Beach, Alcona South Existing Settlement, and Gilford.
- 0.75% per annum growth from 2041 to 2051 in Lefroy-Belle Ewart.
- 1.50% per annum growth from 2041 to 2051 in Stroud and Cookstown.
- 2.00% per annum growth from 2041 to 2051 in Sandy Cove.
- 4.00% per annum growth from 2041 to 2051 in Alcona North Expansion Area and Alcona North Existing Settlement.
- A population of 29,000 was assumed for The Orbit MTSA.
- Additional population in Friday Harbour (+6,790 people) was added, like the 2041 population assumptions.

The 2051 growth allocations to settlement areas within Innisfil were developed to consider the updated 2051 employment target of 26,190 jobs.

The following assumptions were applied to derive employment in 2051:

- 1.00% per annum growth from 2041 to 2051 in Alcona North Existing Settlement, Alcona South Existing Settlement, Lefroy-Belle Ewart, Gilford, and Cookstown.
- 2.00% per annum growth from 2041 to 2051 in Churchill.

- 3.00% per annum growth in Alcona South Expansion Area, Stroud, Innisfil Heights.
- 4.00% per annum growth in Big Bay Point, Sandy Cove, and Innisfil Heights Expansion.

1.2.5 External-External Trip Growth

The previous model derived existing external-to-external (through) trips using 2011 Transportation Tomorrow Survey (TTS) data, which was then distributed based on directional splits from existing traffic counts. Future external-to-external trips were estimated based on population and employment growth in surrounding municipalities.

A comparison between previous (2018 TMP) and updated (based on the 2019 Barrie TMP and County's Growth Management and Lands Needs Assessment) population and employment forecasts are summarized **in** Table H-5 and Table H-6, respectively. These updated population and employment allocations were used to inform the growth rates used to estimate 2051 external-to-external trips.

Table H-5: Population Growth in Surrounding Municipalities

Municipality	Updated Population		Previous Population	
	2041	2051	2041	2051
City of Barrie	253,000	298,000	253,000	-
Town of Bradford West Gwillimbury	72,290	85,610	60,267	-
Township of Essa	30,730	34,800	25,658	-
Town of New Tecumseth	68,540	81,530	66,831	-

Table H-6: Employment Growth in Surrounding Municipalities

Municipality	Updated Employment		Previous Employment	
	2041	2051	2041	2051
City of Barrie	129,000	150,000	132,000	-
Town of Bradford West Gwillimbury	23,170	30,470	21,543	-
Township of Essa	12,330	13,890	10,772	-
Town of New Tecumseth	29,970	35,780	31,717	-

1.2.6 Orbit Mode Split Adjustment

Considering The Orbit is planned be developed surrounding the future GO station at 6th Line and 20th Sideroad, it is expected that trips generated to/from this area would have a greater non-auto mode share due to the proximity to higher-order transit and the potential for the station to be serve as a transit hub for a Town-wide transit system.

According to the Metrolinx GO Rail Station Access Plan (December 2016), the daily auto mode split (including carpooling passengers, pick up/drop off and drive and park) for trips accessing the station is estimated to be 77% by 2031. The current daily auto mode share for Town trips is 94%. Therefore, auto trips travelling to/from The Orbit development were factored down accordingly for the future 2041 and 2051 horizon year.

Appendix D –
Traffic Count Data

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #25-093 - JD Engineering Inc

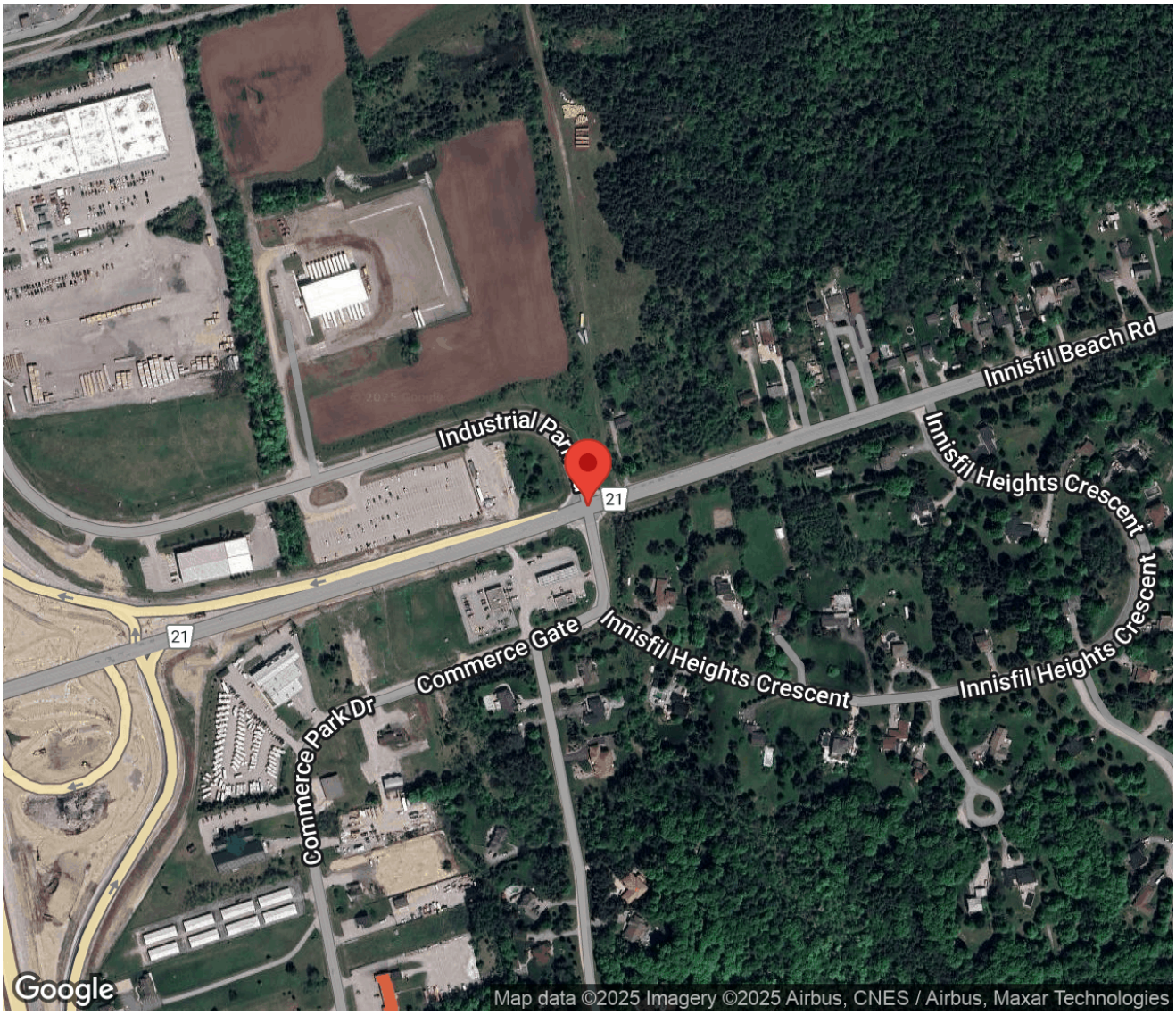
Intersection Count Report

Intersection:	Innisfil Beach Rd & Industrial Park Rd
Municipality:	Innisfil
Count Date:	Thursday, Mar 27, 2025
Site Code:	2509300004
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Innisfil Beach Rd & Industrial Park Rd
Site Code:	2509300004
Municipality:	Innisfil
Count Date:	Mar 27, 2025



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Innisfil Beach Rd & Industrial Park Rd
Site Code:	2509300004
Municipality:	Innisfil
Count Date:	Mar 27, 2025

Industrial Park Rd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	13	26	93	0	132	0	147	55	68	0	270	0	402
08:00 - 09:00	7	34	77	0	118	0	151	33	102	0	286	0	404
BREAK													
16:00 - 17:00	18	32	137	0	187	0	163	14	80	0	257	0	444
17:00 - 18:00	17	15	87	0	119	0	110	7	73	0	190	0	309
18:00 - 19:00	9	8	44	0	61	0	61	6	42	0	109	0	170
GRAND TOTAL	**64**	**115**	**438**	**0**	**617**	**0**	**632**	**115**	**365**	**0**	**1112**	**0**	**1729**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Innisfil Beach Rd & Industrial Park Rd
Site Code:	2509300004
Municipality:	Innisfil
Count Date:	Mar 27, 2025

Innisfil Beach Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	131	356	10	0	497	0	119	209	34	0	362	0	859
08:00 - 09:00	160	327	5	0	492	0	93	221	33	0	347	0	839
BREAK													
16:00 - 17:00	57	320	9	0	386	0	66	567	26	0	659	0	1045
17:00 - 18:00	47	266	8	0	321	0	52	477	18	0	547	0	868
18:00 - 19:00	31	243	8	0	282	0	28	332	3	0	363	0	645
GRAND TOTAL	**426**	**1512**	**40**	**0**	**1978**	**0**	**358**	**1806**	**114**	**0**	**2278**	**0**	**4256**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

North Approach - Industrial Park Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	5	6	10	0	21	0	0	12	0	12	0	0	0	0	0	0
07:15	3	11	9	0	23	0	0	7	0	7	0	0	0	0	0	0
07:30	3	2	21	0	26	0	0	6	0	6	0	0	0	0	0	0
07:45	2	7	25	0	34	0	0	3	0	3	0	0	0	0	0	0
08:00	0	3	15	0	18	0	1	9	0	10	0	0	0	0	0	0
08:15	2	9	15	0	26	1	1	5	0	7	0	0	0	0	0	0
08:30	1	9	18	0	28	0	1	4	0	5	0	0	0	0	0	0
08:45	3	9	9	0	21	0	1	2	0	3	0	0	0	0	0	0
SUBTOTAL	19	56	122	0	197	1	4	48	0	53	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

North Approach - Industrial Park Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	4	8	32	0	44	0	0	9	0	9	0	0	0	0	0	0
16:15	6	6	32	0	44	0	0	2	0	2	0	0	0	0	0	0
16:30	3	8	44	0	55	0	2	0	0	2	0	0	0	0	0	0
16:45	5	8	16	0	29	0	0	2	0	2	0	0	0	0	0	0
17:00	6	2	32	0	40	0	1	1	0	2	0	0	0	0	0	0
17:15	4	6	12	0	22	0	1	1	0	2	0	0	0	0	0	0
17:30	4	2	28	0	34	0	0	3	0	3	0	0	0	0	0	0
17:45	3	3	8	0	14	0	0	2	0	2	0	0	0	0	0	0
18:00	3	3	16	0	22	0	0	1	0	1	0	0	0	0	0	0
18:15	3	3	9	0	15	0	0	2	0	2	0	0	0	0	0	0
18:30	1	0	7	0	8	0	0	2	0	2	0	0	0	0	0	0
18:45	2	2	5	0	9	0	0	2	0	2	0	0	0	0	0	0
SUBTOTAL	44	51	241	0	336	0	4	27	0	31	0	0	0	0	0	0
GRAND TOTAL	63	107	363	0	533	1	8	75	0	84	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - Industrial Park Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	46	14	14	0	74	3	0	0	0	3	0	0	0	0	0	0
07:15	34	12	12	0	58	1	2	0	0	3	0	0	0	0	0	0
07:30	31	15	23	0	69	0	0	1	0	1	0	0	0	0	0	0
07:45	29	12	18	0	59	3	0	0	0	3	0	0	0	0	0	0
08:00	36	7	22	0	65	1	0	1	0	2	0	0	0	0	0	0
08:15	36	7	25	0	68	1	0	1	0	2	0	0	0	0	0	0
08:30	38	12	21	0	71	1	0	0	0	1	0	0	0	0	0	0
08:45	37	4	31	0	72	1	3	1	0	5	0	0	0	0	0	0
SUBTOTAL	287	83	166	0	536	11	5	4	0	20	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - Industrial Park Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	39	3	23	0	65	2	0	0	0	2	0	0	0	0	0	0
16:15	42	2	14	0	58	1	1	0	0	2	0	0	0	0	0	0
16:30	47	3	26	0	76	0	0	0	0	0	0	0	0	0	0	0
16:45	31	4	17	0	52	1	1	0	0	2	0	0	0	0	0	0
17:00	26	3	17	0	46	1	0	0	0	1	0	0	0	0	0	0
17:15	25	0	14	0	39	4	0	0	0	4	0	0	0	0	0	0
17:30	34	1	28	0	63	1	0	0	0	1	0	0	0	0	0	0
17:45	19	3	14	0	36	0	0	0	0	0	0	0	0	0	0	0
18:00	19	3	5	0	27	0	0	0	0	0	0	0	0	0	0	0
18:15	16	2	10	0	28	1	0	0	0	1	0	0	0	0	0	0
18:30	12	0	15	0	27	1	0	1	0	2	0	0	0	0	0	0
18:45	11	1	11	0	23	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	321	25	194	0	540	13	2	1	0	16	0	0	0	0	0	0
GRAND TOTAL	608	108	360	0	1076	24	7	5	0	36	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - Innisfil Beach Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	29	95	2	0	126	0	2	0	0	2	0	0	0	0	0	0
07:15	38	88	3	0	129	0	1	0	0	1	0	0	0	0	0	0
07:30	21	78	2	0	101	3	0	1	0	4	0	0	0	0	0	0
07:45	40	91	1	0	132	0	1	1	0	2	0	0	0	0	0	0
08:00	38	82	0	0	120	2	1	0	0	3	0	0	0	0	0	0
08:15	43	80	4	0	127	0	4	0	0	4	0	0	0	0	0	0
08:30	40	77	0	0	117	0	2	0	0	2	0	0	0	0	0	0
08:45	36	80	1	0	117	1	1	0	0	2	0	0	0	0	0	0
SUBTOTAL	285	671	13	0	969	6	12	2	0	20	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - Innisfil Beach Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	16	87	3	0	106	0	3	0	0	3	0	0	0	0	0	0
16:15	15	66	2	0	83	0	3	1	0	4	0	0	0	0	0	0
16:30	14	80	1	0	95	0	5	0	0	5	0	0	0	0	0	0
16:45	12	74	2	0	88	0	2	0	0	2	0	0	0	0	0	0
17:00	13	73	1	0	87	1	2	0	0	3	0	0	0	0	0	0
17:15	12	65	1	0	78	0	1	0	0	1	0	0	0	0	0	0
17:30	11	63	3	0	77	0	1	0	0	1	0	0	0	0	0	0
17:45	10	58	3	0	71	0	3	0	0	3	0	0	0	0	0	0
18:00	8	63	1	0	72	1	4	0	0	5	0	0	0	0	0	0
18:15	12	77	2	0	91	1	1	0	0	2	0	0	0	0	0	0
18:30	5	51	2	0	58	0	2	0	0	2	0	0	0	0	0	0
18:45	4	44	3	0	51	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	132	801	24	0	957	3	28	1	0	32	0	0	0	0	0	0
GRAND TOTAL	**417**	**1472**	**37**	**0**	**1926**	**9**	**40**	**3**	**0**	**52**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - Innisfil Beach Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	24	52	5	0	81	2	7	0	0	9	0	0	0	0	0	0
07:15	34	49	7	0	90	2	1	0	0	3	0	0	0	0	0	0
07:30	26	38	8	0	72	4	4	0	0	8	0	0	0	0	0	0
07:45	25	55	14	0	94	2	3	0	0	5	0	0	0	0	0	0
08:00	18	45	6	0	69	1	4	0	0	5	0	0	0	0	0	0
08:15	32	49	7	0	88	1	0	2	0	3	0	0	0	0	0	0
08:30	17	52	9	0	78	3	2	1	0	6	0	0	0	0	0	0
08:45	16	65	8	0	89	5	4	0	0	9	0	0	0	0	0	0
SUBTOTAL	192	405	64	0	661	20	25	3	0	48	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - Innisfil Beach Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	15	133	8	0	156	3	1	0	0	4	0	0	0	0	0	0
16:15	11	131	6	0	148	6	2	1	0	9	0	0	0	0	0	0
16:30	15	161	3	0	179	5	2	0	0	7	0	0	0	0	0	0
16:45	8	134	8	0	150	3	3	0	0	6	0	0	0	0	0	0
17:00	8	127	4	0	139	4	3	0	0	7	0	0	0	0	0	0
17:15	10	119	7	0	136	5	3	0	0	8	0	0	0	0	0	0
17:30	9	115	5	0	129	0	0	0	0	0	0	0	0	0	0	0
17:45	9	110	2	0	121	7	0	0	0	7	0	0	0	0	0	0
18:00	7	105	2	0	114	1	4	0	0	5	0	0	0	0	0	0
18:15	2	78	0	0	80	7	1	0	0	8	0	0	0	0	0	0
18:30	4	70	0	0	74	1	4	0	0	5	0	0	0	0	0	0
18:45	5	68	1	0	74	1	2	0	0	3	0	0	0	0	0	0
SUBTOTAL	103	1351	46	0	1500	43	25	1	0	69	0	0	0	0	0	0
GRAND TOTAL	**295**	**1756**	**110**	**0**	**2161**	**63**	**50**	**4**	**0**	**117**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:00:00
To:	09:00:00	To:	08:00:00

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Innisfil Beach Rd runs E/W

North Approach

	Out	In	Total
Cars	104	170	274
Trucks	28	14	42
Bicycles	0	0	0
	132	**184**	**316**

Industrial Park Rd

Bicycles	0	0	0	0
Trucks	28	0	0	0
Cars	65	26	13	0
Totals	**93**	**26**	**13**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	488	274	762
Trucks	9	16	25
Bicycles	0	0	0
	497	**290**	**787**

Innisfil Beach Rd

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	10	109	**119**
0	15	194	**209**
0	0	34	**34**

Peds: 0

Peds: 0

Innisfil Beach Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	10	8	2	0
	356	352	4	0
	131	128	3	0

Peds: 0

West Approach

	Out	In	Total
Cars	337	557	894
Trucks	25	39	64
Bicycles	0	0	0
	362	**596**	**958**

Industrial Park Rd

Totals	**147**	**55**	**68**	**0**
Cars	140	53	67	0
Trucks	7	2	1	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	260	188	448
Trucks	10	3	13
Bicycles	0	0	0
	270	**191**	**461**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Count Date: Mar 27, 2025
Period: 07:00 - 09:00

Peak Hour Data (07:00 - 08:00)

Start Time	North Approach Industrial Park Rd						South Approach Industrial Park Rd						East Approach Innisfil Beach Rd						West Approach Innisfil Beach Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:00	5	6	22	0	0	33	49	14	14	0	0	77	29	97	2	0	0	128	26	59	5	0	0	90	328
07:15	3	11	16	0	0	30	35	14	12	0	0	61	38	89	3	0	0	130	36	50	7	0	0	93	314
07:30	3	2	27	0	0	32	31	15	24	0	0	70	24	78	3	0	0	105	30	42	8	0	0	80	287
07:45	2	7	28	0	0	37	32	12	18	0	0	62	40	92	2	0	0	134	27	58	14	0	0	99	332
Grand Total	**13**	**26**	**93**	**0**	**0**	**132**	**147**	**55**	**68**	**0**	**0**	**270**	**131**	**356**	**10**	**0**	**0**	**497**	**119**	**209**	**34**	**0**	**0**	**362**	**1261**
Approach %	9.8	19.7	70.5	0		-	54.4	20.4	25.2	0		-	26.4	71.6	2	0		-	32.9	57.7	9.4	0		-	
Totals %	1	2.1	7.4	0		10.5	11.7	4.4	5.4	0		21.4	10.4	28.2	0.8	0		39.4	9.4	16.6	2.7	0		28.7	
PHF	**0.65**	**0.59**	**0.83**	**0**		**0.89**	**0.75**	**0.92**	**0.71**	**0**		**0.88**	**0.82**	**0.92**	**0.83**	**0**		**0.93**	**0.83**	**0.89**	**0.61**	**0**		**0.91**	**0.95**
Cars	13	26	65	0		104	140	53	67	0		260	128	352	8	0		488	109	194	34	0		337	1189
% Cars	100	100	69.9	0		78.8	95.2	96.4	98.5	0		96.3	97.7	98.9	80	0		98.2	91.6	92.8	100	0		93.1	94.3
Trucks	0	0	28	0		28	7	2	1	0		10	3	4	2	0		9	10	15	0	0		25	72
% Trucks	0	0	30.1	0		21.2	4.8	3.6	1.5	0		3.7	2.3	1.1	20	0		1.8	8.4	7.2	0	0		6.9	5.7
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:00:00
To:	19:00:00	To:	17:00:00

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Innisfil Beach Rd runs E/W

North Approach

	Out	In	Total
Cars	172	69	241
Trucks	15	20	35
Bicycles	0	0	0
	187	**89**	**276**

Industrial Park Rd

Bicycles	0	0	0	0
Trucks	13	2	0	0
Cars	124	30	18	0
Totals	**137**	**32**	**18**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	372	657	1029
Trucks	14	8	22
Bicycles	0	0	0
	386	**665**	**1051**

Innisfil Beach Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	17	49	**66**	
0	8	559	**567**	
0	1	25	**26**	

Peds: 0

Peds: 0

Innisfil Beach Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	9	8	1	0
	320	307	13	0
	57	57	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	633	590	1223
Trucks	26	30	56
Bicycles	0	0	0
	659	**620**	**1279**

Totals	**163**	**14**	**80**	**0**
Cars	159	12	80	0
Trucks	4	2	0	0
Bicycles	0	0	0	0

Industrial Park Rd

South Approach

	Out	In	Total
Cars	251	112	363
Trucks	6	3	9
Bicycles	0	0	0
	257	**115**	**372**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Innisfil Beach Rd & Industrial Park Rd
Site Code: 2509300004
Count Date: Mar 27, 2025
Period: 16:00 - 19:00

Peak Hour Data (16:00 - 17:00)

Start Time	North Approach Industrial Park Rd						South Approach Industrial Park Rd						East Approach Innisfil Beach Rd						West Approach Innisfil Beach Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:00	4	8	41	0	0	53	41	3	23	0	0	67	16	90	3	0	0	109	18	134	8	0	0	160	389
16:15	6	6	34	0	0	46	43	3	14	0	0	60	15	69	3	0	0	87	17	133	7	0	0	157	350
16:30	3	10	44	0	0	57	47	3	26	0	0	76	14	85	1	0	0	100	20	163	3	0	0	186	419
16:45	5	8	18	0	0	31	32	5	17	0	0	54	12	76	2	0	0	90	11	137	8	0	0	156	331
Grand Total	**18**	**32**	**137**	**0**	**0**	**187**	**163**	**14**	**80**	**0**	**0**	**257**	**57**	**320**	**9**	**0**	**0**	**386**	**66**	**567**	**26**	**0**	**0**	**659**	**1489**
Approach %	9.6	17.1	73.3	0		-	63.4	5.4	31.1	0		-	14.8	82.9	2.3	0		-	10	86	3.9	0		-	
Totals %	1.2	2.1	9.2	0		12.6	10.9	0.9	5.4	0		17.3	3.8	21.5	0.6	0		25.9	4.4	38.1	1.7	0		44.3	
PHF	**0.75**	**0.8**	**0.78**	**0**		**0.82**	**0.87**	**0.7**	**0.77**	**0**		**0.85**	**0.89**	**0.89**	**0.75**	**0**		**0.89**	**0.83**	**0.87**	**0.81**	**0**		**0.89**	**0.89**
Cars	18	30	124	0		172	159	12	80	0		251	57	307	8	0		372	49	559	25	0		633	1428
% Cars	100	93.8	90.5	0		92	97.5	85.7	100	0		97.7	100	95.9	88.9	0		96.4	74.2	98.6	96.2	0		96.1	95.9
Trucks	0	2	13	0		15	4	2	0	0		6	0	13	1	0		14	17	8	1	0		26	61
% Trucks	0	6.3	9.5	0		8	2.5	14.3	0	0		2.3	0	4.1	11.1	0		3.6	25.8	1.4	3.8	0		3.9	4.1
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #25-093 - JD Engineering Inc

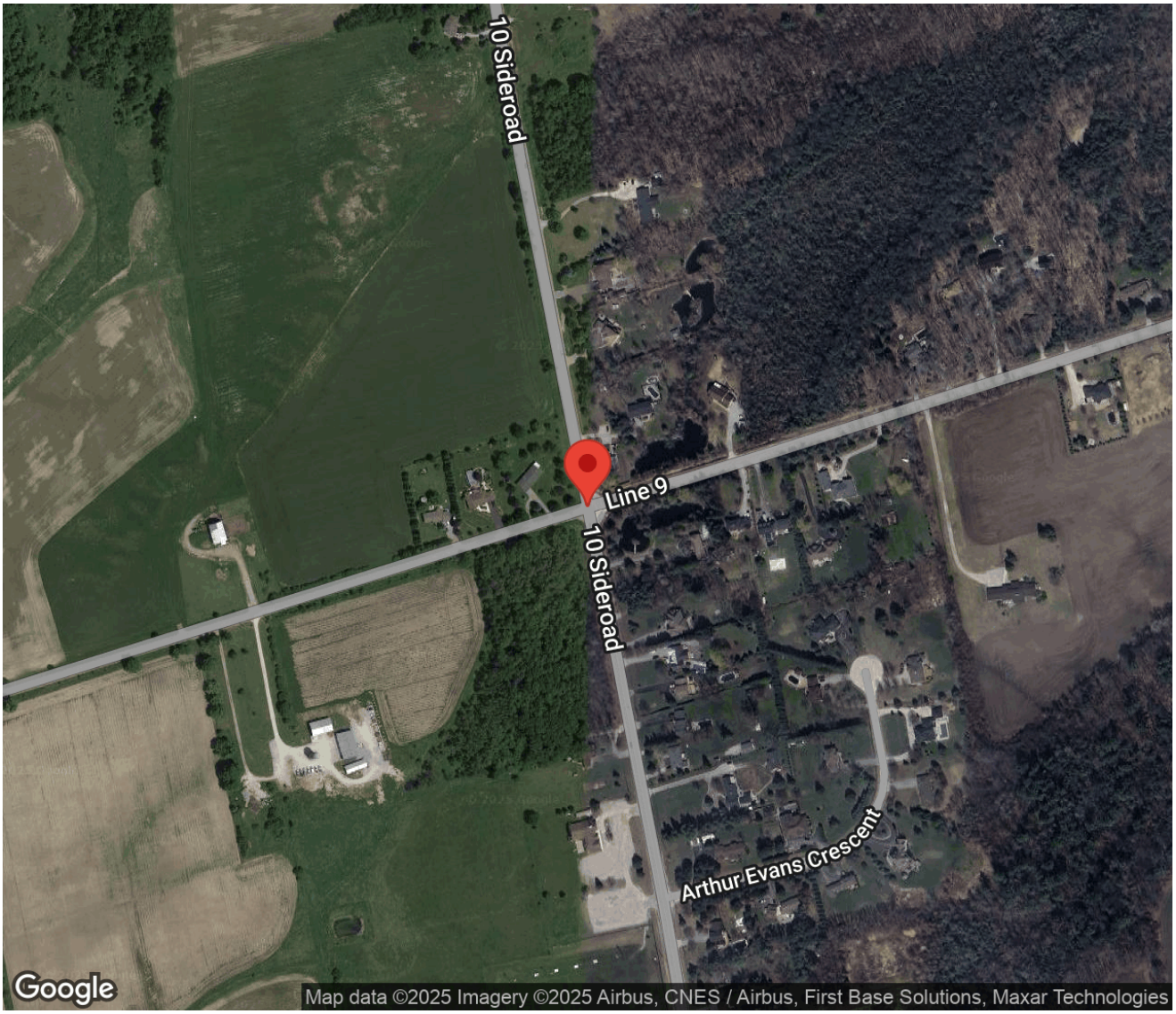
Intersection Count Report

Intersection:	9th Line & 10th Sideroad
Municipality:	Innisfil
Count Date:	Thursday, Mar 27, 2025
Site Code:	2509300003
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	9th Line & 10th Sideroad
Site Code:	2509300003
Municipality:	Innisfil
Count Date:	Mar 27, 2025



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	9th Line & 10th Sideroad
Site Code:	2509300003
Municipality:	Innisfil
Count Date:	Mar 27, 2025

10th Sideroad - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	32	154	3	0	189	0	11	89	13	0	113	0	302
08:00 - 09:00	23	157	1	0	181	0	22	113	14	0	149	0	330
BREAK													
16:00 - 17:00	29	202	2	0	233	0	46	292	13	0	351	0	584
17:00 - 18:00	17	111	1	0	129	0	23	191	16	0	230	2	359
18:00 - 19:00	10	83	0	0	93	0	10	130	7	0	147	0	240
GRAND TOTAL	**111**	**707**	**7**	**0**	**825**	**0**	**112**	**815**	**63**	**0**	**990**	**2**	**1815**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	9th Line & 10th Sideroad
Site Code:	2509300003
Municipality:	Innisfil
Count Date:	Mar 27, 2025

9th Line - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	15	27	13	0	55	1	5	40	28	0	73	1	128
08:00 - 09:00	20	16	11	0	47	0	3	26	15	1	45	0	92
BREAK													
16:00 - 17:00	14	81	29	0	124	0	1	47	34	0	82	0	206
17:00 - 18:00	8	59	31	0	98	0	2	27	30	0	59	1	157
18:00 - 19:00	10	24	8	0	42	0	5	11	22	0	38	0	80
GRAND TOTAL	**67**	**207**	**92**	**0**	**366**	**1**	**16**	**151**	**129**	**1**	**297**	**2**	**663**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

North Approach - 10th Sideroad

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	11	26	0	0	37	1	2	0	0	3	0	0	0	0	0	0
07:15	9	55	1	0	65	0	0	0	0	0	0	0	0	0	0	0
07:30	6	38	0	0	44	0	2	0	0	2	0	0	0	0	0	0
07:45	5	31	2	0	38	0	0	0	0	0	0	0	0	0	0	0
08:00	9	44	0	0	53	1	4	0	0	5	0	0	0	0	0	0
08:15	5	40	1	0	46	0	0	0	0	0	0	0	0	0	0	0
08:30	2	27	0	0	29	0	1	0	0	1	0	0	0	0	0	0
08:45	4	36	0	0	40	2	5	0	0	7	0	0	0	0	0	0
SUBTOTAL	51	297	4	0	352	4	14	0	0	18	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

North Approach - 10th Sideroad

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	3	46	0	0	49	0	0	0	0	0	0	0	0	0	0	0
16:15	5	63	0	0	68	0	0	0	0	0	0	0	0	0	0	0
16:30	9	36	2	0	47	0	0	0	0	0	0	0	0	0	0	0
16:45	12	56	0	0	68	0	1	0	0	1	0	0	0	0	0	0
17:00	8	32	0	0	40	0	1	0	0	1	0	0	0	0	0	0
17:15	4	25	0	0	29	0	0	0	0	0	0	0	0	0	0	0
17:30	4	26	0	0	30	0	0	0	0	0	0	0	0	0	0	0
17:45	1	27	1	0	29	0	0	0	0	0	0	0	0	0	0	0
18:00	6	20	0	0	26	0	0	0	0	0	0	0	0	0	0	0
18:15	3	28	0	0	31	0	0	0	0	0	0	0	0	0	0	0
18:30	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0
18:45	1	20	0	0	21	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	56	394	3	0	453	0	2	0	0	2	0	0	0	0	0	0
GRAND TOTAL	107	691	7	0	805	4	16	0	0	20	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - 10th Sideroad

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	5	22	3	0	30	0	1	0	0	1	0	0	0	0	0	0
07:15	1	24	4	0	29	0	3	0	0	3	0	0	0	0	0	0
07:30	3	25	1	0	29	0	0	0	0	0	0	0	0	0	0	0
07:45	2	14	4	0	20	0	0	1	0	1	0	0	0	0	0	0
08:00	6	31	5	0	42	0	3	0	0	3	0	0	0	0	0	0
08:15	4	18	3	0	25	0	2	0	0	2	0	1	0	0	1	0
08:30	4	27	1	0	32	1	1	0	0	2	0	0	0	0	0	0
08:45	7	29	5	0	41	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	32	190	26	0	248	1	11	1	0	13	0	1	0	0	1	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - 10th Sideroad

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	15	80	3	0	98	0	0	0	0	0	0	0	0	0	0	0
16:15	13	78	5	0	96	0	0	0	0	0	0	0	0	0	0	0
16:30	10	67	2	0	79	0	1	0	0	1	0	0	0	0	0	0
16:45	8	65	3	0	76	0	1	0	0	1	0	0	0	0	0	0
17:00	6	50	2	0	58	0	0	0	0	0	0	0	0	0	0	0
17:15	5	46	6	0	57	0	0	1	0	1	0	0	0	0	0	2
17:30	6	56	3	0	65	0	1	1	0	2	0	0	0	0	0	0
17:45	6	37	3	0	46	0	1	0	0	1	0	0	0	0	0	0
18:00	4	42	2	0	48	0	1	0	0	1	0	0	0	0	0	0
18:15	3	28	1	0	32	0	0	0	0	0	0	0	0	0	0	0
18:30	1	33	3	0	37	0	1	0	0	1	0	0	0	0	0	0
18:45	2	25	1	0	28	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	79	607	34	0	720	0	6	2	0	8	0	0	0	0	0	2
GRAND TOTAL	111	797	60	0	968	1	17	3	0	21	0	1	0	0	1	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	2	6	6	0	14	0	1	0	0	1	0	0	0	0	0	1
07:15	3	10	3	0	16	0	0	0	0	0	0	0	0	0	0	0
07:30	3	2	2	0	7	0	1	0	0	1	0	0	0	0	0	0
07:45	6	6	2	0	14	1	1	0	0	2	0	0	0	0	0	0
08:00	8	3	3	0	14	2	1	0	0	3	0	0	0	0	0	0
08:15	3	2	2	0	7	0	1	1	0	2	0	0	0	0	0	0
08:30	6	2	3	0	11	0	0	0	0	0	0	0	0	0	0	0
08:45	1	6	1	0	8	0	1	1	0	2	0	0	0	0	0	0
SUBTOTAL	32	37	22	0	91	3	6	2	0	11	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	4	19	10	0	33	0	0	0	0	0	0	0	0	0	0	0
16:15	7	17	5	0	29	0	0	0	0	0	0	0	0	0	0	0
16:30	3	17	5	0	25	0	0	0	0	0	0	0	0	0	0	0
16:45	0	28	9	0	37	0	0	0	0	0	0	0	0	0	0	0
17:00	2	25	9	0	36	0	0	0	0	0	0	0	0	0	0	0
17:15	1	16	10	0	27	0	0	0	0	0	0	0	0	0	0	0
17:30	1	11	8	0	20	0	0	0	0	0	0	0	0	0	0	0
17:45	4	6	3	0	13	0	1	1	0	2	0	0	0	0	0	0
18:00	2	9	3	0	14	0	1	0	0	1	0	0	0	0	0	0
18:15	3	5	3	0	11	0	0	0	0	0	0	0	0	0	0	0
18:30	3	8	1	0	12	0	0	0	0	0	0	0	0	0	0	0
18:45	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	32	162	67	0	261	0	2	1	0	3	0	0	0	0	0	0
GRAND TOTAL	**64**	**199**	**89**	**0**	**352**	**3**	**8**	**3**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**1**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	9	5	0	14	0	1	0	0	1	0	0	0	0	0	0
07:15	0	13	7	0	20	1	0	0	0	1	0	0	0	0	0	0
07:30	1	8	8	0	17	1	0	0	0	1	0	0	0	0	0	0
07:45	2	9	7	0	18	0	0	1	0	1	0	0	0	0	0	1
08:00	0	7	6	0	13	0	2	0	0	2	0	0	0	0	0	0
08:15	2	6	2	0	10	0	0	0	0	0	0	0	0	0	0	0
08:30	0	5	4	0	9	1	1	1	0	3	0	0	0	0	0	0
08:45	0	5	2	1	8	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	5	62	41	1	109	3	4	2	0	9	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	17	7	0	24	0	0	0	0	0	0	0	0	0	0	0
16:15	0	12	16	0	28	0	0	0	0	0	0	0	0	0	0	0
16:30	0	10	7	0	17	0	0	0	0	0	0	0	0	0	0	0
16:45	1	8	3	0	12	0	0	1	0	1	0	0	0	0	0	0
17:00	1	4	8	0	13	0	0	0	0	0	0	0	0	0	0	0
17:15	1	8	7	0	16	0	0	0	0	0	0	0	0	0	0	1
17:30	0	7	9	0	16	0	0	0	0	0	0	0	0	0	0	0
17:45	0	8	6	0	14	0	0	0	0	0	0	0	0	0	0	0
18:00	1	5	7	0	13	0	0	1	0	1	0	0	0	0	0	0
18:15	0	3	8	0	11	0	0	0	0	0	0	0	0	0	0	0
18:30	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0
18:45	2	3	5	0	10	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	7	85	84	0	176	1	0	2	0	3	0	0	0	0	0	1
GRAND TOTAL	12	147	125	1	285	4	4	4	0	12	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:15:00
To:	09:00:00	To:	08:15:00

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: 9th Line runs E/W

North Approach

	Out	In	Total
Cars	200	107	307
Trucks	7	8	15
Bicycles	0	0	0
	207	**115**	**322**

10th Sideroad

Bicycles	0	0	0	0
Trucks	0	6	1	0
Cars	3	168	29	0
Totals	**3**	**174**	**30**	**0**

East Approach

	Out	In	Total
Cars	51	80	131
Trucks	6	4	10
Bicycles	0	0	0
	57	**84**	**141**

Peds: 0

9th Line

			Totals
0	0	0	**0**
0	2	3	**5**
0	2	37	**39**
0	1	28	**29**

Peds: 1

Peds: 0

9th Line

	Totals			
	0	0	0	0
	10	10	0	0
	24	21	3	0
	23	20	3	0

Peds: 0

West Approach

	Out	In	Total
Cars	68	36	104
Trucks	5	3	8
Bicycles	0	0	0
	73	**39**	**112**

Totals	**12**	**100**	**15**	**0**
Cars	12	94	14	0
Trucks	0	6	1	0
Bicycles	0	0	0	0

10th Sideroad

South Approach

	Out	In	Total
Cars	120	216	336
Trucks	7	10	17
Bicycles	0	0	0
	127	**226**	**353**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Count Date: Mar 27, 2025
Period: 07:00 - 09:00

Peak Hour Data (07:15 - 08:15)

Start Time	North Approach 10th Sideroad						South Approach 10th Sideroad						East Approach 9th Line						West Approach 9th Line						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:15	9	55	1	0	0	65	1	27	4	0	0	32	3	10	3	0	0	16	1	13	7	0	0	21	134
07:30	6	40	0	0	0	46	3	25	1	0	0	29	3	3	2	0	0	8	2	8	8	0	0	18	101
07:45	5	31	2	0	0	38	2	14	5	0	0	21	7	7	2	0	0	16	2	9	8	0	1	19	94
08:00	10	48	0	0	0	58	6	34	5	0	0	45	10	4	3	0	0	17	0	9	6	0	0	15	135
Grand Total	**30**	**174**	**3**	**0**	**0**	**207**	**12**	**100**	**15**	**0**	**0**	**127**	**23**	**24**	**10**	**0**	**0**	**57**	**5**	**39**	**29**	**0**	**1**	**73**	**464**
Approach %	14.5	84.1	1.4	0		-	9.4	78.7	11.8	0		-	40.4	42.1	17.5	0		-	6.8	53.4	39.7	0		-	
Totals %	6.5	37.5	0.6	0		44.6	2.6	21.6	3.2	0		27.4	5	5.2	2.2	0		12.3	1.1	8.4	6.3	0		15.7	
PHF	**0.75**	**0.79**	**0.38**	**0**		**0.8**	**0.5**	**0.74**	**0.75**	**0**		**0.71**	**0.58**	**0.6**	**0.83**	**0**		**0.84**	**0.63**	**0.75**	**0.91**	**0**		**0.87**	**0.86**
Cars	29	168	3	0		200	12	94	14	0		120	20	21	10	0		51	3	37	28	0		68	439
% Cars	96.7	96.6	100	0		96.6	100	94	93.3	0		94.5	87	87.5	100	0		89.5	60	94.9	96.6	0		93.2	94.6
Trucks	1	6	0	0		7	0	6	1	0		7	3	3	0	0		6	2	2	1	0		5	25
% Trucks	3.3	3.4	0	0		3.4	0	6	6.7	0		5.5	13	12.5	0	0		10.5	40	5.1	3.4	0		6.8	5.4
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					1	-	1
% Peds					0	-					0	-					0	-					100	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:00:00
To:	19:00:00	To:	17:00:00

Intersection: 9th Line & 10th Sideroad
Site Code: 2509300003
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: 9th Line runs E/W

North Approach

	Out	In	Total
Cars	232	320	552
Trucks	1	2	3
Bicycles	0	0	0
	233	**322**	**555**

10th Sideroad

Bicycles	0	0	0	0
Trucks	0	1	0	0
Cars	2	201	29	0
Totals	**2**	**202**	**29**	**0**

East Approach

	Out	In	Total
Cars	124	89	213
Trucks	0	0	0
Bicycles	0	0	0
	124	**89**	**213**

Peds: 0

9th Line

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	1	**1**	
0	0	47	**47**	
0	1	33	**34**	

Peds: 0

Peds: 0

9th Line

Totals	Cars	Trucks	Bicycles
0	0	0	0
29	29	0	0
81	81	0	0
14	14	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	81	129	210
Trucks	1	0	1
Bicycles	0	0	0
	82	**129**	**211**

10th Sideroad

Totals	**46**	**292**	**13**	**0**
Cars	46	290	13	0
Trucks	0	2	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	349	248	597
Trucks	2	2	4
Bicycles	0	0	0
	351	**250**	**601**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection:	9th Line & 10th Sideroad
Site Code:	2509300003
Count Date:	Mar 27, 2025
Period:	16:00 - 19:00

Peak Hour Data (16:00 - 17:00)

Start Time	North Approach 10th Sideroad						South Approach 10th Sideroad						East Approach 9th Line						West Approach 9th Line						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:00	3	46	0	0	0	49	15	80	3	0	0	98	4	19	10	0	0	33	0	17	7	0	0	24	204
16:15	5	63	0	0	0	68	13	78	5	0	0	96	7	17	5	0	0	29	0	12	16	0	0	28	221
16:30	9	36	2	0	0	47	10	68	2	0	0	80	3	17	5	0	0	25	0	10	7	0	0	17	169
16:45	12	57	0	0	0	69	8	66	3	0	0	77	0	28	9	0	0	37	1	8	4	0	0	13	196
Grand Total	**29**	**202**	**2**	**0**	**0**	**233**	**46**	**292**	**13**	**0**	**0**	**351**	**14**	**81**	**29**	**0**	**0**	**124**	**1**	**47**	**34**	**0**	**0**	**82**	**790**
Approach %	12.4	86.7	0.9	0		-	13.1	83.2	3.7	0		-	11.3	65.3	23.4	0		-	1.2	57.3	41.5	0		-	
Totals %	3.7	25.6	0.3	0		29.5	5.8	37	1.6	0		44.4	1.8	10.3	3.7	0		15.7	0.1	5.9	4.3	0		10.4	
PHF	**0.6**	**0.8**	**0.25**	**0**		**0.84**	**0.77**	**0.91**	**0.65**	**0**		**0.9**	**0.5**	**0.72**	**0.73**	**0**		**0.84**	**0.25**	**0.69**	**0.53**	**0**		**0.73**	**0.89**
Cars	29	201	2	0		232	46	290	13	0		349	14	81	29	0		124	1	47	33	0		81	786
% Cars	100	99.5	100	0		99.6	100	99.3	100	0		99.4	100	100	100	0		100	100	100	97.1	0		98.8	99.5
Trucks	0	1	0	0		1	0	2	0	0		2	0	0	0	0		0	0	0	1	0		1	4
% Trucks	0	0.5	0	0		0.4	0	0.7	0	0		0.6	0	0	0	0		0	0	0	2.9	0		1.2	0.5
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #25-093 - JD Engineering Inc

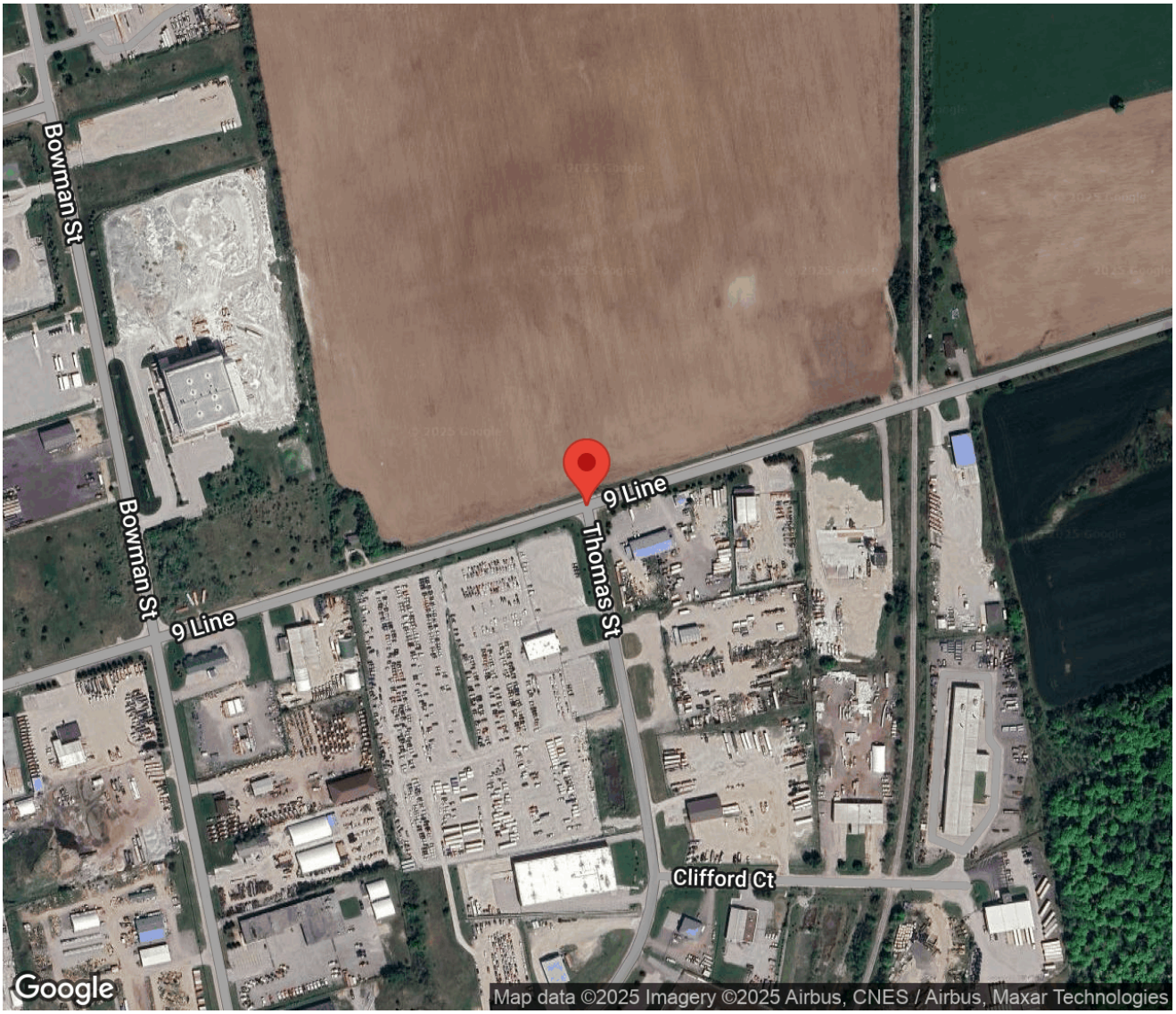
Intersection Count Report

Intersection:	9th Line & Thomas St
Municipality:	Innisfil
Count Date:	Thursday, Mar 27, 2025
Site Code:	2509300002
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	9th Line & Thomas St
Site Code:	2509300002
Municipality:	Innisfil
Count Date:	Mar 27, 2025



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	9th Line & Thomas St
Site Code:	2509300002
Municipality:	Innisfil
Count Date:	Mar 27, 2025

Thomas St - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	0	0	0	0	0	3	0	7	0	10	0	10
08:00 - 09:00	0	0	0	0	0	0	2	0	7	0	9	2	9
BREAK													
16:00 - 17:00	0	0	0	0	0	0	11	0	20	0	31	0	31
17:00 - 18:00	0	0	0	0	0	0	8	0	20	1	29	0	29
18:00 - 19:00	0	0	0	0	0	0	1	0	2	0	3	0	3
GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**0**	**56**	**1**	**82**	**2**	**82**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	9th Line & Thomas St
Site Code:	2509300002
Municipality:	Innisfil
Count Date:	Mar 27, 2025

9th Line - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	33	72	0	0	105	0	0	33	7	0	40	0	145
08:00 - 09:00	18	48	0	0	66	0	0	27	4	0	31	0	97
BREAK													
16:00 - 17:00	3	24	0	0	27	0	0	45	7	0	52	0	79
17:00 - 18:00	3	13	0	0	16	0	0	28	2	0	30	0	46
18:00 - 19:00	0	14	0	0	14	0	0	22	0	0	22	0	36
GRAND TOTAL	**57**	**171**	**0**	**0**	**228**	**0**	**0**	**155**	**20**	**0**	**175**	**0**	**403**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - Thomas St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	4	0	4	0	0	1	0	1	0	0	0	0	0	0
07:30	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0
07:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
08:15	1	0	2	0	3	1	0	0	0	1	0	0	0	0	0	0
08:30	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	3	0	11	0	14	2	0	3	0	5	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - Thomas St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	1	0	7	0	8	0	0	0	0	0	0	0	0	0	0	0
16:15	4	0	4	0	8	0	0	0	0	0	0	0	0	0	0	0
16:30	5	0	9	0	14	0	0	0	0	0	0	0	0	0	0	0
16:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:00	2	0	9	1	12	1	0	0	0	1	0	0	0	0	0	0
17:15	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0
18:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	18	0	42	1	61	2	0	0	0	2	0	0	0	0	0	0
GRAND TOTAL	**21**	**0**	**53**	**1**	**75**	**4**	**0**	**3**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**2**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	9	18	0	0	27	1	2	0	0	3	0	0	0	0	0	0
07:15	4	24	0	0	28	0	1	0	0	1	0	0	0	0	0	0
07:30	10	14	0	0	24	0	1	0	0	1	0	0	0	0	0	0
07:45	8	12	0	0	20	1	0	0	0	1	0	0	0	0	0	0
08:00	9	13	0	0	22	0	0	0	0	0	0	0	0	0	0	0
08:15	4	12	0	0	16	0	1	0	0	1	0	0	0	0	0	0
08:30	2	6	0	0	8	0	1	0	0	1	0	0	0	0	0	0
08:45	2	14	0	0	16	1	1	0	0	2	0	0	0	0	0	0
SUBTOTAL	48	113	0	0	161	3	7	0	0	10	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0
16:15	2	3	0	0	5	0	1	0	0	1	0	0	0	0	0	0
16:30	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
16:45	1	7	0	0	8	0	2	0	0	2	0	0	0	0	0	0
17:00	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	0
17:15	0	5	0	0	5	2	0	0	0	2	0	0	0	0	0	0
17:30	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
17:45	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:00	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:15	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0
18:30	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:45	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	4	45	0	0	49	2	6	0	0	8	0	0	0	0	0	0
GRAND TOTAL	52	158	0	0	210	5	13	0	0	18	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:15	0	8	2	0	10	0	0	0	0	0	0	0	0	0	0	0
07:30	0	13	1	0	14	0	2	1	0	3	0	0	0	0	0	0
07:45	0	6	3	0	9	0	2	0	0	2	0	0	0	0	0	0
08:00	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0
08:15	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
08:30	0	5	3	0	8	0	0	0	0	0	0	0	0	0	0	0
08:45	0	5	0	0	5	0	1	1	0	2	0	0	0	0	0	0
SUBTOTAL	0	55	9	0	64	0	5	2	0	7	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	0	11	1	0	12	0	0	1	0	1	0	0	0	0	0	0
16:15	0	10	0	0	10	0	0	1	0	1	0	0	0	0	0	0
16:30	0	14	0	0	14	0	0	2	0	2	0	0	0	0	0	0
16:45	0	9	2	0	11	0	1	0	0	1	0	0	0	0	0	0
17:00	0	8	1	0	9	0	1	0	0	1	0	0	0	0	0	0
17:15	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0
17:30	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0
17:45	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	0
18:00	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
18:15	0	6	0	0	6	0	1	0	0	1	0	0	0	0	0	0
18:30	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0
18:45	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	92	4	0	96	0	3	5	0	8	0	0	0	0	0	0
GRAND TOTAL	0	147	13	0	160	0	8	7	0	15	0	0	0	0	0	0

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:00:00
To:	09:00:00	To:	08:00:00

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: 9th Line runs E/W

East Approach

	Out	In	Total
Cars	99	33	132
Trucks	6	7	13
Bicycles	0	0	0
	105	**40**	**145**

9th Line

			Totals
0	0	0	**0**
0	4	29	**33**
0	1	6	**7**

Peds: 0

Peds: 0

Peds: 0

9th Line

	Totals			
	0	0	0	0
	72	68	4	0
	33	31	2	0

West Approach

	Out	In	Total
Cars	35	70	105
Trucks	5	5	10
Bicycles	0	0	0
	40	**75**	**115**

Totals	3	7	0
Cars	2	4	0
Trucks	1	3	0
Bicycles	0	0	0

Thomas St

South Approach

	Out	In	Total
Cars	6	37	43
Trucks	4	3	7
Bicycles	0	0	0
	10	**40**	**50**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Count Date: Mar 27, 2025
Period: 07:00 - 09:00

Peak Hour Data (07:00 - 08:00)

Start Time	North Approach						South Approach Thomas St						East Approach 9th Line						West Approach 9th Line						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:00					0		1		0	0	0	1	10	20		0	0	30		2	0	0	0	2	33
07:15					0		0		5	0	0	5	4	25		0	0	29		8	2	0	0	10	44
07:30					0		1		2	0	0	3	10	15		0	0	25		15	2	0	0	17	45
07:45					0		1		0	0	0	1	9	12		0	0	21		8	3	0	0	11	33
Grand Total					**0**	**0**	**3**		**7**	**0**	**0**	**10**	**33**	**72**		**0**	**0**	**105**		**33**	**7**	**0**	**0**	**40**	**155**
Approach %						-	30		70	0		-	31.4	68.6		0		-		82.5	17.5	0		-	
Totals %						0	1.9		4.5	0		6.5	21.3	46.5		0		67.7		21.3	4.5	0		25.8	
PHF						**0**	**0.75**		**0.35**	**0**		**0.5**	**0.83**	**0.72**		**0**		**0.88**		**0.55**	**0.58**	**0**		**0.59**	**0.86**
Cars						0	2		4	0		6	31	68		0		99		29	6	0		35	140
% Cars						0	66.7		57.1	0		60	93.9	94.4		0		94.3		87.9	85.7	0		87.5	90.3
Trucks						0	1		3	0		4	2	4		0		6		4	1	0		5	15
% Trucks						0	33.3		42.9	0		40	6.1	5.6		0		5.7		12.1	14.3	0		12.5	9.7
Bicycles						0	0		0	0		0	0	0		0		0		0	0	0		0	0
% Bicycles						0	0		0	0		0	0	0		0		0		0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Specified Period
From: 16:00:00
To: 19:00:00

One Hour Peak
From: 16:15:00
To: 17:15:00

Intersection: 9th Line & Thomas St
Site Code: 2509300002
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: 9th Line runs E/W

East Approach

	Out	In	Total
Cars	22	63	85
Trucks	4	2	6
Bicycles	0	0	0
	26	**65**	**91**

Peds: 0

9th Line

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	2	41	**43**	
0	3	3	**6**	

Peds: 0

Peds: 0

9th Line

Totals	Cars	Trucks	Bicycles
0	0	0	0
22	18	4	0
4	4	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	44	30	74
Trucks	5	5	10
Bicycles	0	0	0
	49	**35**	**84**

Totals	13	22	1
Cars	12	22	1
Trucks	1	0	0
Bicycles	0	0	0

Thomas St

South Approach

	Out	In	Total
Cars	35	8	43
Trucks	1	3	4
Bicycles	0	0	0
	36	**11**	**47**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection:	9th Line & Thomas St
Site Code:	2509300002
Count Date:	Mar 27, 2025
Period:	16:00 - 19:00

Peak Hour Data (16:15 - 17:15)

Start Time	North Approach						South Approach Thomas St						East Approach 9th Line						West Approach 9th Line						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:15					0		4		4	0	0	8	2	4		0	0	6		10	1	0	0	11	25
16:30					0		5		9	0	0	14	0	7		0	0	7		14	2	0	0	16	37
16:45					0		1		0	0	0	1	1	9		0	0	10		10	2	0	0	12	23
17:00					0		3		9	1	0	13	1	2		0	0	3		9	1	0	0	10	26
Grand Total					**0**	**0**	**13**		**22**	**1**	**0**	**36**	**4**	**22**		**0**	**0**	**26**		**43**	**6**	**0**	**0**	**49**	**111**
Approach %						-	36.1		61.1	2.8		-	15.4	84.6		0		-		87.8	12.2	0		-	
Totals %						0	11.7		19.8	0.9		32.4	3.6	19.8		0		23.4		38.7	5.4	0		44.1	
PHF						**0**	**0.65**		**0.61**	**0.25**		**0.64**	**0.5**	**0.61**		**0**		**0.65**		**0.77**	**0.75**	**0**		**0.77**	**0.75**
Cars						0	12		22	1		35	4	18		0		22		41	3	0		44	101
% Cars						0	92.3		100	100		97.2	100	81.8		0		84.6		95.3	50	0		89.8	91
Trucks						0	1		0	0		1	0	4		0		4		2	3	0		5	10
% Trucks						0	7.7		0	0		2.8	0	18.2		0		15.4		4.7	50	0		10.2	9
Bicycles						0	0		0	0		0	0	0		0		0		0	0	0		0	0
% Bicycles						0	0		0	0		0	0	0		0		0		0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #25-093 - JD Engineering Inc

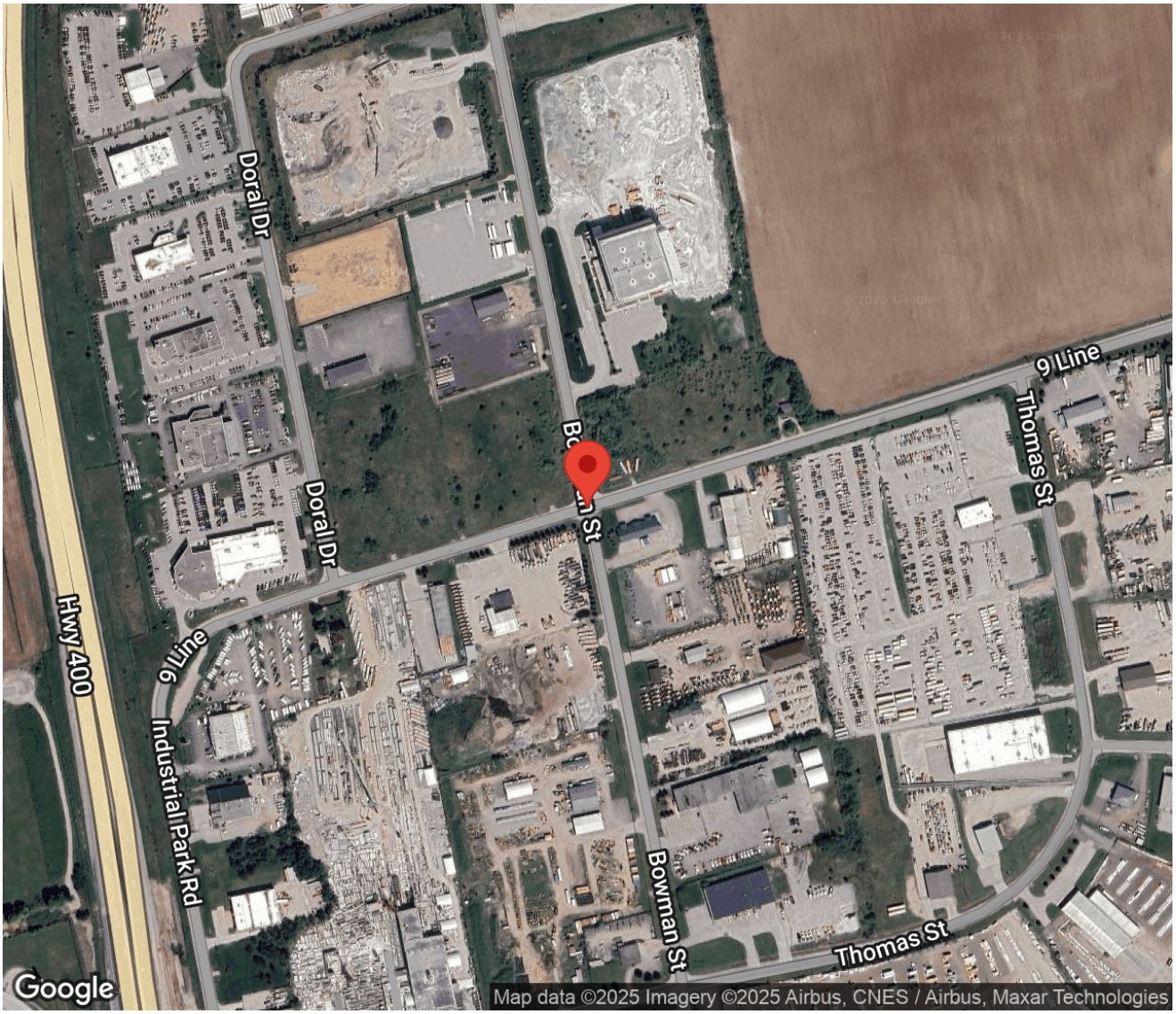
Intersection Count Report

Intersection:	9th Line & Bowman St
Municipality:	Innisfil
Count Date:	Thursday, Mar 27, 2025
Site Code:	2509300001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-19:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	9th Line & Bowman St
Site Code:	2509300001
Municipality:	Innisfil
Count Date:	Mar 27, 2025



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	9th Line & Bowman St
Site Code:	2509300001
Municipality:	Innisfil
Count Date:	Mar 27, 2025

Bowman St - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	4	0	15	0	19	0	5	0	1	0	6	0	25
08:00 - 09:00	18	0	31	0	49	0	2	1	2	0	5	0	54
BREAK													
16:00 - 17:00	6	1	23	0	30	0	1	2	15	0	18	0	48
17:00 - 18:00	5	0	3	0	8	0	1	1	11	0	13	0	21
18:00 - 19:00	1	0	5	0	6	0	2	0	4	0	6	0	12
GRAND TOTAL	**34**	**1**	**77**	**0**	**112**	**0**	**11**	**4**	**33**	**0**	**48**	**0**	**160**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	9th Line & Bowman St
Site Code:	2509300001
Municipality:	Innisfil
Count Date:	Mar 27, 2025

9th Line - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	16	46	6	0	68	0	46	23	0	0	69	0	137
08:00 - 09:00	8	45	11	0	64	0	28	23	1	0	52	0	116
BREAK													
16:00 - 17:00	2	20	3	0	25	0	19	32	1	0	52	0	77
17:00 - 18:00	5	33	3	0	41	0	1	27	1	1	30	0	71
18:00 - 19:00	0	12	1	0	13	0	0	16	1	0	17	0	30
GRAND TOTAL	**31**	**156**	**24**	**0**	**211**	**0**	**94**	**121**	**4**	**1**	**220**	**0**	**431**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

North Approach - Bowman St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0
07:45	3	0	8	0	11	0	0	1	0	1	0	0	0	0	0	0
08:00	10	0	8	0	18	0	0	1	0	1	0	0	0	0	0	0
08:15	5	0	12	0	17	0	0	0	0	0	0	0	0	0	0	0
08:30	3	0	6	0	9	0	0	2	0	2	0	0	0	0	0	0
08:45	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	22	0	40	0	62	0	0	6	0	6	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

North Approach - Bowman St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0
16:15	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	5	0	6	0	0	2	0	2	0	0	0	0	0	0
16:45	2	0	7	0	9	1	0	2	0	3	0	0	0	0	0	0
17:00	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
17:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0
18:00	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	11	1	26	0	38	1	0	5	0	6	0	0	0	0	0	0
GRAND TOTAL	33	1	66	0	100	1	0	11	0	12	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - Bowman St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0
07:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:00	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0
08:15	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	3	0	3	0	6	4	1	0	0	5	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

South Approach - Bowman St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	1	0	6	0	7	0	0	1	0	1	0	0	0	0	0	0
16:15	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
16:45	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	5	0	5	1	0	1	0	2	0	0	0	0	0	0
17:15	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0
17:30	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
18:15	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	3	2	27	0	32	1	1	3	0	5	0	0	0	0	0	0
GRAND TOTAL	6	2	30	0	38	5	2	3	0	10	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	9	0	0	10	0	0	0	0	0	0	0	0	0	0	0
07:15	6	9	1	0	16	0	2	0	0	2	0	0	0	0	0	0
07:30	4	11	0	0	15	0	2	0	0	2	0	0	0	0	0	0
07:45	5	12	5	0	22	0	1	0	0	1	0	0	0	0	0	0
08:00	5	8	4	0	17	0	2	1	0	3	0	0	0	0	0	0
08:15	1	12	2	0	15	0	1	0	0	1	0	0	0	0	0	0
08:30	2	9	4	0	15	0	0	0	0	0	0	0	0	0	0	0
08:45	0	11	0	0	11	0	2	0	0	2	0	0	0	0	0	0
SUBTOTAL	24	81	16	0	121	0	10	1	0	11	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

East Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	0	6	0	0	6	0	1	0	0	1	0	0	0	0	0	0
16:15	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0
16:30	0	5	2	0	7	0	0	1	0	1	0	0	0	0	0	0
16:45	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:00	1	12	0	0	13	0	1	0	0	1	0	0	0	0	0	0
17:15	2	9	2	0	13	0	0	1	0	1	0	0	0	0	0	0
17:30	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	0
17:45	1	8	0	0	9	0	1	0	0	1	0	0	0	0	0	0
18:00	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0
18:15	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0
18:30	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0
18:45	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0
SUBTOTAL	7	59	5	0	71	0	6	2	0	8	0	0	0	0	0	0
GRAND TOTAL	31	140	21	0	192	0	16	3	0	19	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	8	6	0	0	14	3	1	0	0	4	0	0	0	0	0	0
07:15	6	7	0	0	13	0	0	0	0	0	0	0	0	0	0	0
07:30	10	4	0	0	14	0	0	0	0	0	0	0	0	0	0	0
07:45	18	5	0	0	23	1	0	0	0	1	0	0	0	0	0	0
08:00	8	3	0	0	11	0	3	0	0	3	0	0	0	0	0	0
08:15	5	6	1	0	12	0	0	0	0	0	0	0	0	0	0	0
08:30	9	4	0	0	13	0	1	0	0	1	0	0	0	0	0	0
08:45	6	6	0	0	12	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	70	41	1	0	112	4	5	0	0	9	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Municipality: Innisfil
Count Date: Mar 27, 2025

West Approach - 9th Line

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	5	7	0	0	12	2	1	0	0	3	0	0	0	0	0	0
16:15	3	5	0	0	8	2	0	0	0	2	0	0	0	0	0	0
16:30	3	11	0	0	14	3	0	1	0	4	0	0	0	0	0	0
16:45	1	6	0	0	7	0	2	0	0	2	0	0	0	0	0	0
17:00	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0
17:15	1	6	0	0	7	0	1	0	0	1	0	0	0	0	0	0
17:30	0	8	1	1	10	0	1	0	0	1	0	0	0	0	0	0
17:45	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0
18:00	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	4	1	0	5	0	1	0	0	1	0	0	0	0	0	0
18:45	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	13	68	2	1	84	7	7	1	0	15	0	0	0	0	0	0
GRAND TOTAL	**83**	**109**	**3**	**1**	**196**	**11**	**12**	**1**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:45:00
To:	09:00:00	To:	08:45:00

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: 9th Line runs E/W

North Approach

	Out	In	Total
Cars	55	55	110
Trucks	4	2	6
Bicycles	0	0	0
	59	**57**	**116**

Bowman St

Bicycles	0	0	0	0
Trucks	4	0	0	0
Cars	34	0	21	0
Totals	**38**	**0**	**21**	**0**

East Approach

	Out	In	Total
Cars	69	41	110
Trucks	5	4	9
Bicycles	0	0	0
	74	**45**	**119**

9th Line

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	1	40	**41**
0	4	18	**22**
0	0	1	**1**

Peds: 0

Peds: 0

Peds: 0

9th Line

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	16	15	1	0
	45	41	4	0
	13	13	0	0

West Approach

	Out	In	Total
Cars	59	76	135
Trucks	5	10	15
Bicycles	0	0	0
	64	**86**	**150**

Totals	**3**	**0**	**2**	**0**
Cars	1	0	2	0
Trucks	2	0	0	0
Bicycles	0	0	0	0

Bowman St

South Approach

	Out	In	Total
Cars	3	14	17
Trucks	2	0	2
Bicycles	0	0	0
	5	**14**	**19**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Count Date: Mar 27, 2025
Period: 07:00 - 09:00

Peak Hour Data (07:45 - 08:45)

Start Time	North Approach Bowman St						South Approach Bowman St						East Approach 9th Line						West Approach 9th Line						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:45	3	0	9	0	0	12	1	0	0	0	0	1	5	13	5	0	0	23	19	5	0	0	0	24	60
08:00	10	0	9	0	0	19	1	0	1	0	0	2	5	10	5	0	0	20	8	6	0	0	0	14	55
08:15	5	0	12	0	0	17	1	0	1	0	0	2	1	13	2	0	0	16	5	6	1	0	0	12	47
08:30	3	0	8	0	0	11	0	0	0	0	0	0	2	9	4	0	0	15	9	5	0	0	0	14	40
Grand Total	**21**	**0**	**38**	**0**	**0**	**59**	**3**	**0**	**2**	**0**	**0**	**5**	**13**	**45**	**16**	**0**	**0**	**74**	**41**	**22**	**1**	**0**	**0**	**64**	**202**
Approach %	35.6	0	64.4	0		-	60	0	40	0		-	17.6	60.8	21.6	0		-	64.1	34.4	1.6	0		-	
Totals %	10.4	0	18.8	0		29.2	1.5	0	1	0		2.5	6.4	22.3	7.9	0		36.6	20.3	10.9	0.5	0		31.7	
PHF	**0.53**	**0**	**0.79**	**0**		**0.78**	**0.75**	**0**	**0.5**	**0**		**0.63**	**0.65**	**0.87**	**0.8**	**0**		**0.8**	**0.54**	**0.92**	**0.25**	**0**		**0.67**	**0.84**
Cars	21	0	34	0		55	1	0	2	0		3	13	41	15	0		69	40	18	1	0		59	186
% Cars	100	0	89.5	0		93.2	33.3	0	100	0		60	100	91.1	93.8	0		93.2	97.6	81.8	100	0		92.2	92.1
Trucks	0	0	4	0		4	2	0	0	0		2	0	4	1	0		5	1	4	0	0		5	16
% Trucks	0	0	10.5	0		6.8	66.7	0	0	0		40	0	8.9	6.3	0		6.8	2.4	18.2	0	0		7.8	7.9
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:00:00
To:	19:00:00	To:	17:00:00

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Count Date: Mar 27, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: 9th Line runs E/W

North Approach

	Out	In	Total
Cars	25	15	40
Trucks	5	9	14
Bicycles	0	0	0
	30	**24**	**54**

Bowman St

Bicycles	0	0	0	0
Trucks	4	0	1	0
Cars	19	1	5	0
Totals	**23**	**1**	**6**	**0**

East Approach

	Out	In	Total
Cars	23	48	71
Trucks	2	5	7
Bicycles	0	0	0
	25	**53**	**78**

Peds: 0

9th Line

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	7	12	**19**	
0	3	29	**32**	
0	1	0	**1**	

Peds: 0

Peds: 0

9th Line

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	3	2	1	0
	20	19	1	0
	2	2	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	41	39	80
Trucks	11	5	16
Bicycles	0	0	0
	52	**44**	**96**

Totals	**1**	**2**	**15**	**0**
Cars	1	1	14	0
Trucks	0	1	1	0
Bicycles	0	0	0	0

Bowman St

South Approach

	Out	In	Total
Cars	16	3	19
Trucks	2	1	3
Bicycles	0	0	0
	18	**4**	**22**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: 9th Line & Bowman St
Site Code: 2509300001
Count Date: Mar 27, 2025
Period: 16:00 - 19:00

Peak Hour Data (16:00 - 17:00)

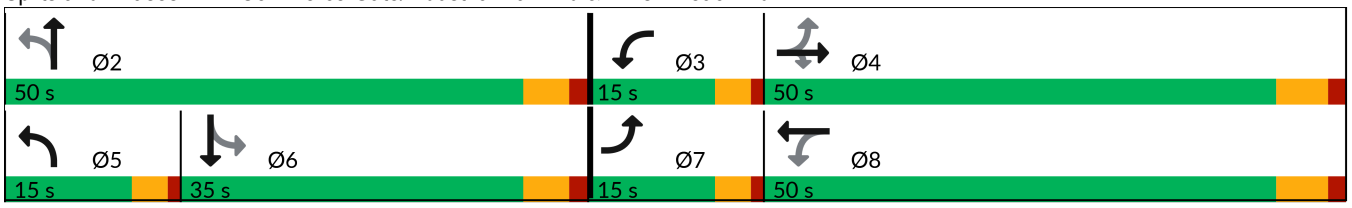
Start Time	North Approach Bowman St						South Approach Bowman St						East Approach 9th Line						West Approach 9th Line						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:00	2	0	3	0	0	5	1	0	7	0	0	8	0	7	0	0	0	7	7	8	0	0	0	15	35
16:15	0	1	4	0	0	5	0	1	3	0	0	4	2	4	0	0	0	6	5	5	0	0	0	10	25
16:30	1	0	7	0	0	8	0	1	1	0	0	2	0	5	3	0	0	8	6	11	1	0	0	18	36
16:45	3	0	9	0	0	12	0	0	4	0	0	4	0	4	0	0	0	4	1	8	0	0	0	9	29
Grand Total	**6**	**1**	**23**	**0**	**0**	**30**	**1**	**2**	**15**	**0**	**0**	**18**	**2**	**20**	**3**	**0**	**0**	**25**	**19**	**32**	**1**	**0**	**0**	**52**	**125**
Approach %	20	3.3	76.7	0		-	5.6	11.1	83.3	0		-	8	80	12	0		-	36.5	61.5	1.9	0		-	
Totals %	4.8	0.8	18.4	0		24	0.8	1.6	12	0		14.4	1.6	16	2.4	0		20	15.2	25.6	0.8	0		41.6	
PHF	**0.5**	**0.25**	**0.64**	**0**		**0.63**	**0.25**	**0.5**	**0.54**	**0**		**0.56**	**0.25**	**0.71**	**0.25**	**0**		**0.78**	**0.68**	**0.73**	**0.25**	**0**		**0.72**	**0.87**
Cars	5	1	19	0		25	1	1	14	0		16	2	19	2	0		23	12	29	0	0		41	105
% Cars	83.3	100	82.6	0		83.3	100	50	93.3	0		88.9	100	95	66.7	0		92	63.2	90.6	0	0		78.8	84
Trucks	1	0	4	0		5	0	1	1	0		2	0	1	1	0		2	7	3	1	0		11	20
% Trucks	16.7	0	17.4	0		16.7	0	50	6.7	0		11.1	0	5	33.3	0		8	36.8	9.4	100	0		21.2	16
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Appendix E –
Synchro Analysis Output – Existing Traffic Volumes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	209	34	131	356	10	147	55	68	13	26	93
Future Volume (vph)	119	209	34	131	356	10	147	55	68	13	26	93
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	30%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	7	4	4	3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0	35.0	7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0	41.0	11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	15.0	50.0	50.0	15.0	50.0		15.0	50.0		35.0	35.0	
Total Split (%)	13.0%	43.5%	43.5%	13.0%	43.5%		13.0%	43.5%		30.4%	30.4%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max	Max	None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 115
Actuated Cycle Length: 93.4
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	209	34	131	356	10	147	55	68	13	26	93
Future Volume (veh/h)	119	209	34	131	356	10	147	55	68	13	26	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1759	1776	1900	1863	1871	1900	1810	1849	1900	1900	1563	1900
Adj Flow Rate, veh/h	143	235	56	160	387	12	196	60	96	20	44	112
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.83
Percent Heavy Veh, %	8	7	0	2	1	20	5	4	2	0	0	30
Cap, veh/h	495	828	752	622	842	26	310	190	305	252	55	140
Arrive On Green	0.07	0.47	0.47	0.07	0.47	0.47	0.11	0.30	0.30	0.14	0.14	0.14
Sat Flow, veh/h	1675	1776	1613	1774	1805	56	1723	641	1026	1250	391	996
Grp Volume(v), veh/h	143	235	56	160	0	399	196	0	156	20	0	156
Grp Sat Flow(s),veh/h/ln	1675	1776	1613	1774	0	1861	1723	0	1668	1250	0	1387
Q Serve(g_s), s	4.1	7.7	1.8	4.3	0.0	13.7	8.8	0.0	6.9	1.3	0.0	10.3
Cycle Q Clear(g_c), s	4.1	7.7	1.8	4.3	0.0	13.7	8.8	0.0	6.9	1.3	0.0	10.3
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.62	1.00		0.72
Lane Grp Cap(c), veh/h	495	828	752	622	0	868	310	0	495	252	0	195
V/C Ratio(X)	0.29	0.28	0.07	0.26	0.00	0.46	0.63	0.00	0.32	0.08	0.00	0.80
Avail Cap(c_a), veh/h	569	828	752	700	0	868	315	0	786	467	0	434
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.2	15.5	13.9	11.4	0.0	17.1	28.9	0.0	25.8	35.4	0.0	39.3
Incr Delay (d2), s/veh	0.3	0.9	0.2	0.2	0.0	1.7	4.0	0.0	0.4	0.1	0.0	7.3
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	4.0	0.8	2.1	0.0	7.4	4.5	0.0	3.2	0.5	0.0	4.3
LnGrp Delay(d), s/veh	12.5	16.4	14.1	11.6	0.0	18.8	32.9	0.0	26.1	35.6	0.0	46.6
LnGrp LOS	B	B	B	B		B	C		C	D		D
Approach Vol, veh/h		434			559			352			176	
Approach Delay, s/veh		14.8			16.8			29.9			45.4	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		33.5	10.9	50.0	14.7	18.8	10.8	50.1
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		44.5	11.0	44.0	11.0	29.5	11.0	44.0
Max Q Clear Time (g_c+I1), s		8.9	6.3	9.7	10.8	12.3	6.1	15.7
Green Ext Time (p_c), s		1.2	0.2	2.0	0.0	1.0	0.2	3.2

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	22.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	39	29	23	24	10	12	100	15	30	174	3
Future Vol, veh/h	5	39	29	23	24	10	12	100	15	30	174	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	75	91	58	60	83	50	74	75	75	79	38
Heavy Vehicles, %	40	5	3	13	13	0	0	6	7	3	3	0
Mvmt Flow	8	52	32	40	40	12	24	135	20	40	220	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	523	507	224	539	501	145	228	0	0	155	0	0
Stage 1	304	304	-	193	193	-	-	-	-	-	-	-
Stage 2	219	203	-	346	308	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.55	6.23	7.23	6.63	6.2	4.1	-	-	4.13	-	-
Critical Hdwy Stg 1	6.5	5.55	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.55	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.86	4.045	3.327	3.617	4.117	3.3	2.2	-	-	2.227	-	-
Pot Cap-1 Maneuver	410	464	813	437	457	908	1352	-	-	1419	-	-
Stage 1	631	658	-	784	721	-	-	-	-	-	-	-
Stage 2	705	728	-	647	641	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	362	441	813	368	434	908	1352	-	-	1419	-	-
Mov Cap-2 Maneuver	362	441	-	368	434	-	-	-	-	-	-	-
Stage 1	619	637	-	769	707	-	-	-	-	-	-	-
Stage 2	644	714	-	553	620	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.5	15.6	1	1.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1352	-	-	513	430	1419	-	-
HCM Lane V/C Ratio	0.018	-	-	0.179	0.213	0.028	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	13.5	15.6	7.6	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.8	0.1	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	7	33	72	3	7
Future Vol, veh/h	33	7	33	72	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	58	83	72	75	35
Heavy Vehicles, %	12	14	6	6	33	43
Mvmt Flow	60	12	40	100	4	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	72	0	246	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	180	-
Critical Hdwy	-	-	4.16	-	6.73	6.63
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.254	-	3.797	3.687
Pot Cap-1 Maneuver	-	-	1503	-	680	894
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	661	894
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	760	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.1	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	844	-	-	1503	-
HCM Lane V/C Ratio	0.028	-	-	0.026	-
HCM Ctrl Dly (s/v)	9.4	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	41	22	1	13	45	16	3	0	2	21	0	38
Future Vol, veh/h	41	22	1	13	45	16	3	0	2	21	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	92	25	65	87	80	75	92	50	53	92	53
Heavy Vehicles, %	2	18	0	0	9	6	67	0	0	0	0	11
Mvmt Flow	76	24	4	20	52	20	4	0	4	40	0	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	28	0	0	316	290	26	282	282	62
Stage 1	-	-	-	-	-	-	178	178	-	102	102	-
Stage 2	-	-	-	-	-	-	138	112	-	180	180	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.399
Pot Cap-1 Maneuver	1528	-	-	1599	-	-	528	624	1056	674	630	978
Stage 1	-	-	-	-	-	-	694	756	-	909	815	-
Stage 2	-	-	-	-	-	-	731	807	-	826	754	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1599	-	-	466	585	1056	639	590	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	466	585	-	639	590	-
Stage 1	-	-	-	-	-	-	659	717	-	863	804	-
Stage 2	-	-	-	-	-	-	669	797	-	781	716	-

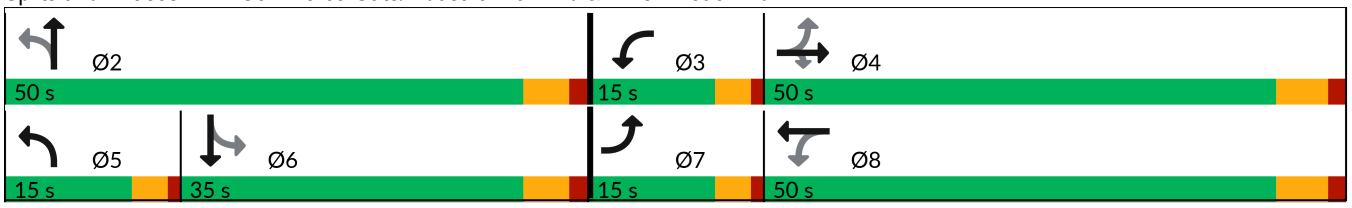
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.5	1.6	10.6	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	647	1528	-	-	1599	-	-	823
HCM Lane V/C Ratio	0.012	0.05	-	-	0.013	-	-	0.135
HCM Ctrl Dly (s/v)	10.6	7.5	0	-	7.3	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	567	26	57	320	9	163	14	80	18	32	137
Future Volume (vph)	66	567	26	57	320	9	163	14	80	18	32	137
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	26%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	7	4	4	3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0	35.0	7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0	41.0	11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	15.0	50.0	50.0	15.0	50.0		15.0	50.0		35.0	35.0	
Total Split (%)	13.0%	43.5%	43.5%	13.0%	43.5%		13.0%	43.5%		30.4%	30.4%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max	Max	None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 115
Actuated Cycle Length: 89.7
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	567	26	57	320	9	163	14	80	18	32	137
Future Volume (veh/h)	66	567	26	57	320	9	163	14	80	18	32	137
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1508	1881	1827	1900	1823	1900	1845	1858	1900	1900	1739	1900
Adj Flow Rate, veh/h	80	652	32	64	360	12	187	20	104	24	40	176
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.78
Percent Heavy Veh, %	26	1	4	0	4	11	3	14	0	0	6	10
Cap, veh/h	425	868	717	318	802	27	298	83	432	296	48	213
Arrive On Green	0.06	0.46	0.46	0.06	0.46	0.46	0.10	0.32	0.32	0.17	0.17	0.17
Sat Flow, veh/h	1436	1881	1553	1810	1754	58	1757	261	1357	1287	282	1239
Grp Volume(v), veh/h	80	652	32	64	0	372	187	0	124	24	0	216
Grp Sat Flow(s),veh/h/ln	1436	1881	1553	1810	0	1813	1757	0	1618	1287	0	1520
Q Serve(g_s), s	2.7	27.5	1.1	1.7	0.0	13.5	8.1	0.0	5.4	1.5	0.0	13.2
Cycle Q Clear(g_c), s	2.7	27.5	1.1	1.7	0.0	13.5	8.1	0.0	5.4	1.5	0.0	13.2
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.84	1.00		0.81
Lane Grp Cap(c), veh/h	425	868	717	318	0	828	298	0	515	296	0	261
V/C Ratio(X)	0.19	0.75	0.04	0.20	0.00	0.45	0.63	0.00	0.24	0.08	0.00	0.83
Avail Cap(c_a), veh/h	497	868	717	417	0	828	315	0	748	469	0	466
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	21.4	14.3	15.8	0.0	17.9	28.0	0.0	24.3	33.6	0.0	38.5
Incr Delay (d2), s/veh	0.2	5.9	0.1	0.3	0.0	1.8	3.6	0.0	0.2	0.1	0.0	6.5
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	1.1	15.6	0.5	0.9	0.0	7.1	4.2	0.0	2.5	0.5	0.0	6.0
LnGrp Delay(d), s/veh	13.0	27.3	14.4	16.1	0.0	19.6	31.6	0.0	24.5	33.8	0.0	45.0
LnGrp LOS	B	C	B	B		B	C		C	C		D
Approach Vol, veh/h		764			436			311			240	
Approach Delay, s/veh		25.3			19.1			28.8			43.9	
Approach LOS		C			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		36.1	9.7	50.4	14.1	22.1	10.2	50.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		44.5	11.0	44.0	11.0	29.5	11.0	44.0
Max Q Clear Time (g_c+I1), s		7.4	3.7	29.5	10.1	15.2	4.7	15.5
Green Ext Time (p_c), s		0.9	0.1	4.7	0.1	1.3	0.1	2.9

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	26.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	47	34	14	81	29	46	292	13	29	202	2
Future Vol, veh/h	1	47	34	14	81	29	46	292	13	29	202	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	69	53	50	72	73	77	91	65	60	80	25
Heavy Vehicles, %	0	0	3	0	0	0	0	1	0	0	1	0
Mvmt Flow	4	68	64	28	113	40	60	321	20	48	253	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	881	814	257	870	808	331	261	0	0	341	0	0
Stage 1	353	353	-	451	451	-	-	-	-	-	-	-
Stage 2	528	461	-	419	357	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.23	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.327	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	269	315	779	274	317	715	1315	-	-	1229	-	-
Stage 1	668	634	-	592	574	-	-	-	-	-	-	-
Stage 2	538	569	-	616	632	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	164	284	779	190	286	715	1315	-	-	1229	-	-
Mov Cap-2 Maneuver	164	284	-	190	286	-	-	-	-	-	-	-
Stage 1	631	605	-	559	542	-	-	-	-	-	-	-
Stage 2	380	537	-	479	603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.9	33.1	1.2	1.3
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1315	-	-	393	302	1229	-	-
HCM Lane V/C Ratio	0.045	-	-	0.347	0.597	0.039	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	18.9	33.1	8	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	3.6	0.1	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	43	6	4	22	14	22
Future Vol, veh/h	43	6	4	22	14	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	75	50	61	65	61
Heavy Vehicles, %	5	50	0	18	92	100
Mvmt Flow	56	8	8	36	22	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	64	0	112	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	-	-	4.1	-	7.32	7.2
Critical Hdwy Stg 1	-	-	-	-	6.32	-
Critical Hdwy Stg 2	-	-	-	-	6.32	-
Follow-up Hdwy	-	-	2.2	-	4.328	4.2
Pot Cap-1 Maneuver	-	-	1551	-	708	787
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1551	-	704	787
Mov Cap-2 Maneuver	-	-	-	-	704	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	779	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.3	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	754	-	-	1551	-
HCM Lane V/C Ratio	0.076	-	-	0.005	-
HCM Ctrl Dly (s/v)	10.2	-	-	7.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	32	1	2	20	3	1	2	15	6	1	23
Future Vol, veh/h	19	32	1	2	20	3	1	2	15	6	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	73	25	25	71	25	25	50	54	50	25	64
Heavy Vehicles, %	37	9	100	0	5	33	0	50	7	17	0	17
Mvmt Flow	28	44	4	8	28	12	4	4	28	12	4	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	40	0	0	48	0	0	172	158	46	168	154	34
Stage 1	-	-	-	-	-	-	102	102	-	50	50	-
Stage 2	-	-	-	-	-	-	70	56	-	118	104	-
Critical Hdwy	4.47	-	-	4.1	-	-	7.1	7	6.27	7.27	6.5	6.37
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.27	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.27	5.5	-
Follow-up Hdwy	2.533	-	-	2.2	-	-	3.5	4.45	3.363	3.653	4	3.453
Pot Cap-1 Maneuver	1371	-	-	1572	-	-	796	655	1009	763	741	998
Stage 1	-	-	-	-	-	-	909	726	-	926	857	-
Stage 2	-	-	-	-	-	-	945	763	-	851	813	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1371	-	-	1572	-	-	749	638	1009	724	722	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	749	638	-	724	722	-
Stage 1	-	-	-	-	-	-	890	711	-	907	853	-
Stage 2	-	-	-	-	-	-	902	759	-	806	796	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.8	1.2	9.1	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	914	1371	-	-	1572	-	-	894
HCM Lane V/C Ratio	0.039	0.02	-	-	0.005	-	-	0.058
HCM Ctrl Dly (s/v)	9.1	7.7	0	-	7.3	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1926	1876	1917	1881	1822	1884
Vehs Exited	1929	1883	1912	1880	1826	1887
Starting Vehs	41	55	42	45	48	43
Ending Vehs	38	48	47	46	44	42
Travel Distance (km)	1918	1874	1897	1890	1818	1879
Travel Time (hr)	47.3	46.5	47.6	46.6	45.0	46.6
Total Delay (hr)	7.3	7.4	8.1	7.2	6.9	7.4
Total Stops	970	949	995	938	916	954
Fuel Used (l)	146.0	143.6	145.1	144.7	137.6	143.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	1926	1876	1917	1881	1822	1884
Vehs Exited	1929	1883	1912	1880	1826	1887
Starting Vehs	41	55	42	45	48	43
Ending Vehs	38	48	47	46	44	42
Travel Distance (km)	1918	1874	1897	1890	1818	1879
Travel Time (hr)	47.3	46.5	47.6	46.6	45.0	46.6
Total Delay (hr)	7.3	7.4	8.1	7.2	6.9	7.4
Total Stops	970	949	995	938	916	954
Fuel Used (l)	146.0	143.6	145.1	144.7	137.6	143.4

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (m)	34.1	46.8	12.9	32.2	69.2	54.3	41.6	15.3	40.6
Average Queue (m)	14.9	20.7	3.7	12.9	30.3	24.1	15.8	4.0	19.9
95th Queue (m)	28.7	39.8	11.1	25.1	56.3	43.4	33.2	12.2	36.0
Link Distance (m)		560.6			460.0		225.0		487.4
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (m)	250.0		110.0	60.0		115.0		135.0	
Storage Blk Time (%)					1				
Queuing Penalty (veh)					1				

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	21.1	24.5	7.9	7.9
Average Queue (m)	10.7	9.9	0.5	0.7
95th Queue (m)	19.0	19.1	3.8	4.7
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	8.2	18.1
Average Queue (m)	0.3	3.2
95th Queue (m)	3.4	12.7
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.0	3.4	15.5	18.3
Average Queue (m)	0.9	0.2	2.2	8.3
95th Queue (m)	5.5	2.1	10.1	15.5
Link Distance (m)	356.0	396.9	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2357	2385	2435	2315	2382	2372
Vehs Exited	2361	2391	2445	2320	2369	2376
Starting Vehs	53	57	71	59	47	54
Ending Vehs	49	51	61	54	60	53
Travel Distance (km)	2275	2304	2333	2252	2279	2288
Travel Time (hr)	56.0	57.6	58.2	56.4	58.1	57.3
Total Delay (hr)	8.9	9.8	10.1	9.6	10.9	9.9
Total Stops	1135	1164	1176	1192	1226	1178
Fuel Used (l)	172.7	175.3	177.0	171.7	174.7	174.3

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2357	2385	2435	2315	2382	2372
Vehs Exited	2361	2391	2445	2320	2369	2376
Starting Vehs	53	57	71	59	47	54
Ending Vehs	49	51	61	54	60	53
Travel Distance (km)	2275	2304	2333	2252	2279	2288
Travel Time (hr)	56.0	57.6	58.2	56.4	58.1	57.3
Total Delay (hr)	8.9	9.8	10.1	9.6	10.9	9.9
Total Stops	1135	1164	1176	1192	1226	1178
Fuel Used (l)	172.7	175.3	177.0	171.7	174.7	174.3

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (m)	31.7	108.6	18.1	21.8	61.1	50.4	21.7	17.7	62.0
Average Queue (m)	12.0	50.4	2.8	9.4	28.3	25.5	8.8	5.0	22.7
95th Queue (m)	26.3	86.3	10.9	18.8	52.1	43.6	18.2	14.0	44.4
Link Distance (m)		560.6			460.0		225.0		487.4
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (m)	250.0		110.0	60.0		115.0		135.0	
Storage Blk Time (%)		0			1				
Queuing Penalty (veh)		0			0				

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	23.3	24.2	16.0	16.1
Average Queue (m)	10.6	11.7	2.8	2.3
95th Queue (m)	18.9	19.3	10.7	9.7
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	NB
Directions Served	LR
Maximum Queue (m)	27.5
Average Queue (m)	12.7
95th Queue (m)	25.9
Link Distance (m)	397.1
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: 9th Line & Bowman St

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (m)	16.2	20.9
Average Queue (m)	3.9	6.0
95th Queue (m)	12.1	15.3
Link Distance (m)	354.0	497.2
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

Appendix F –
Synchro Analysis Output – Background Traffic Volumes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	176	225	34	131	383	11	147	55	68	14	26	118
Future Volume (vph)	176	225	34	131	383	11	147	55	68	14	26	118
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	21.0	51.0		11.0	41.0		13.0	58.0		45.0	45.0	
Total Split (%)	17.5%	42.5%		9.2%	34.2%		10.8%	48.3%		37.5%	37.5%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.4
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	225	34	131	383	11	147	55	68	14	26	118
Future Volume (veh/h)	176	225	34	131	383	11	147	55	68	14	26	118
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1797	1900	1863	1871	1900	1810	1849	1900	1900	1535	1900
Adj Flow Rate, veh/h	191	253	56	160	416	13	196	60	96	22	44	128
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	557	1316	286	649	1613	50	279	188	301	272	55	159
Arrive On Green	0.09	0.47	0.47	0.07	0.46	0.46	0.09	0.29	0.29	0.16	0.16	0.16
Sat Flow, veh/h	1645	2789	607	1774	3518	110	1723	641	1026	1250	347	1009
Grp Volume(v), veh/h	191	153	156	160	210	219	196	0	156	22	0	172
Grp Sat Flow(s),veh/h/ln	1645	1707	1689	1774	1777	1851	1723	0	1668	1250	0	1356
Q Serve(g_s), s	5.7	5.0	5.1	4.4	6.9	6.9	8.9	0.0	7.0	1.4	0.0	11.7
Cycle Q Clear(g_c), s	5.7	5.0	5.1	4.4	6.9	6.9	8.9	0.0	7.0	1.4	0.0	11.7
Prop In Lane	1.00		0.36	1.00		0.06	1.00		0.62	1.00		0.74
Lane Grp Cap(c), veh/h	557	805	797	649	815	849	279	0	490	272	0	214
V/C Ratio(X)	0.34	0.19	0.20	0.25	0.26	0.26	0.70	0.00	0.32	0.08	0.00	0.81
Avail Cap(c_a), veh/h	710	805	797	651	815	849	279	0	918	593	0	562
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	11.6	14.6	14.7	11.6	15.9	15.9	29.7	0.0	26.3	34.5	0.0	38.8
Incr Delay (d2), s/veh	0.4	0.5	0.5	0.2	0.8	0.7	7.7	0.0	0.4	0.1	0.0	7.0
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	2.6	2.5	2.5	2.2	3.6	3.7	4.7	0.0	3.3	0.5	0.0	4.8
LnGrp Delay(d), s/veh	11.9	15.2	15.2	11.8	16.6	16.6	37.3	0.0	26.6	34.6	0.0	45.8
LnGrp LOS	B	B	B	B	B	B	D		C	C		D
Approach Vol, veh/h		500			589			352			194	
Approach Delay, s/veh		13.9			15.3			32.6			44.5	
Approach LOS		B			B			C			D	

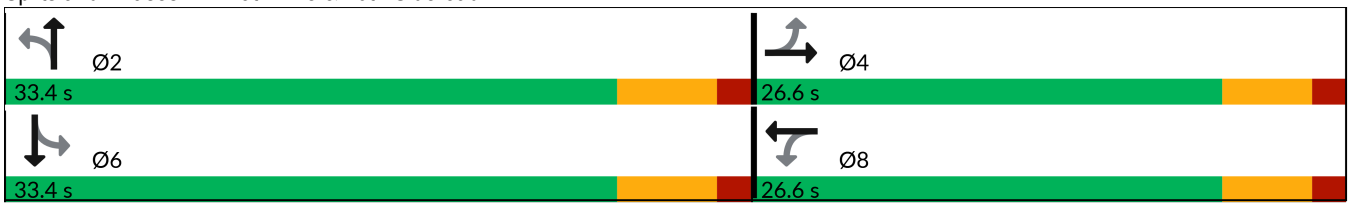
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		33.5	10.9	51.0	13.0	20.5	12.2	49.7
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		52.5	7.0	45.0	9.0	39.5	17.0	35.0
Max Q Clear Time (g_c+I1), s		9.0	6.4	7.1	10.9	13.7	7.7	8.9
Green Ext Time (p_c), s		1.2	0.0	2.3	0.0	1.3	0.5	3.2

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	22.1
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	45	38	25	34	11	28	108	16	32	187	12
Future Volume (vph)	7	45	38	25	34	11	28	108	16	32	187	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	5%	3%	13%	13%	0%	0%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 47.7
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	45	38	25	34	11	28	108	16	32	187	12
Future Volume (veh/h)	7	45	38	25	34	11	28	108	16	32	187	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1776	1900	1900	1708	1900	1900	1806	1900	1900	1847	1900
Adj Flow Rate, veh/h	8	49	42	43	40	13	30	146	21	43	237	14
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	40	5	3	13	13	0	0	6	7	3	3	0
Cap, veh/h	98	90	73	183	77	22	194	844	112	193	954	53
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	83	866	699	600	737	209	156	1337	178	155	1512	83
Grp Volume(v), veh/h	99	0	0	96	0	0	197	0	0	294	0	0
Grp Sat Flow(s),veh/h/ln	1647	0	0	1546	0	0	1672	0	0	1750	0	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	2.4	0.0	0.0	2.0	0.0	0.0	3.1	0.0	0.0
Prop In Lane	0.08		0.42	0.45		0.14	0.15		0.11	0.15		0.05
Lane Grp Cap(c), veh/h	261	0	0	281	0	0	1151	0	0	1199	0	0
V/C Ratio(X)	0.38	0.00	0.00	0.34	0.00	0.00	0.17	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	874	0	0	817	0	0	1151	0	0	1199	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	18.5	0.0	0.0	3.3	0.0	0.0	3.5	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.7	0.0	0.0	0.3	0.0	0.0	0.5	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	1.2	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	1.6	0.0	0.0
LnGrp Delay(d), s/veh	19.4	0.0	0.0	19.2	0.0	0.0	3.6	0.0	0.0	4.0	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		99			96			197			294	
Approach Delay, s/veh		19.4			19.2			3.6			4.0	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		10.0		33.4		10.0
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		4.0		4.4		5.1		4.4
Green Ext Time (p_c), s		1.3		0.5		2.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	8.3
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	8	36	111	3	8
Future Vol, veh/h	46	8	36	111	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	58	83	92	75	35
Heavy Vehicles, %	12	14	6	6	33	43
Mvmt Flow	50	14	43	121	4	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	64	0	264	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.16	-	6.73	6.63
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.254	-	3.797	3.687
Pot Cap-1 Maneuver	-	-	1513	-	663	905
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1513	-	643	905
Mov Cap-2 Maneuver	-	-	-	-	643	-
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	736	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	853	-	-	1513	-
HCM Lane V/C Ratio	0.031	-	-	0.029	-
HCM Ctrl Dly (s/v)	9.4	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	24	1	14	49	48	3	0	2	31	0	54
Future Vol, veh/h	87	24	1	14	49	48	3	0	2	31	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	87	92	75	92	50	92	92	92
Heavy Vehicles, %	5	18	0	0	9	6	67	0	0	0	0	14
Mvmt Flow	95	26	4	22	56	52	4	0	4	34	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	30	0	0	374	370	28	346	346	82
Stage 1	-	-	-	-	-	-	218	218	-	126	126	-
Stage 2	-	-	-	-	-	-	156	152	-	220	220	-
Critical Hdwy	4.15	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.426
Pot Cap-1 Maneuver	1464	-	-	1596	-	-	481	563	1053	612	580	945
Stage 1	-	-	-	-	-	-	658	726	-	883	796	-
Stage 2	-	-	-	-	-	-	714	775	-	787	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1464	-	-	1596	-	-	423	518	1053	572	534	945
Mov Cap-2 Maneuver	-	-	-	-	-	-	423	518	-	572	534	-
Stage 1	-	-	-	-	-	-	615	678	-	825	784	-
Stage 2	-	-	-	-	-	-	660	763	-	732	677	-

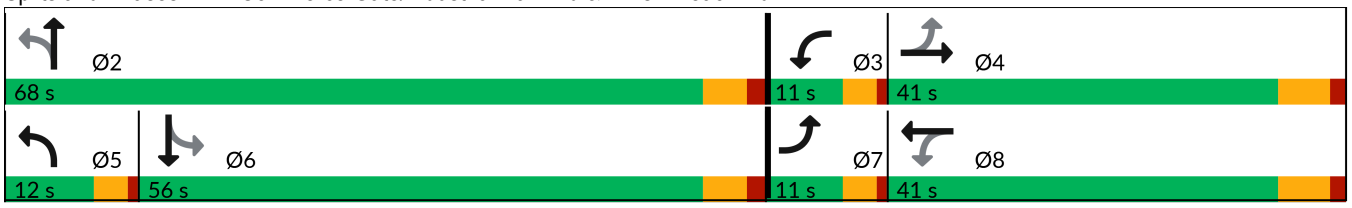
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.8	1.2	11	10.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	604	1464	-	-	1596	-	-	763
HCM Lane V/C Ratio	0.013	0.065	-	-	0.013	-	-	0.121
HCM Ctrl Dly (s/v)	11	7.6	0	-	7.3	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	611	26	57	345	10	163	14	80	20	32	191
Future Volume (vph)	92	611	26	57	345	10	163	14	80	20	32	191
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	27%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	11.0	41.0		11.0	41.0		12.0	68.0		56.0	56.0	
Total Split (%)	9.2%	34.2%		9.2%	34.2%		10.0%	56.7%		46.7%	46.7%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 76.7
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	611	26	57	345	10	163	14	80	20	32	191
Future Volume (veh/h)	92	611	26	57	345	10	163	14	80	20	32	191
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1496	1879	1900	1900	1823	1900	1845	1858	1900	1900	1737	1900
Adj Flow Rate, veh/h	100	702	32	64	388	13	187	20	104	27	40	208
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Percent Heavy Veh, %	27	1	4	0	4	11	3	14	0	0	6	10
Cap, veh/h	446	1441	66	394	1383	46	300	90	466	346	50	259
Arrive On Green	0.07	0.41	0.41	0.06	0.40	0.40	0.09	0.34	0.34	0.20	0.20	0.20
Sat Flow, veh/h	1425	3477	158	1810	3420	114	1757	261	1357	1287	244	1269
Grp Volume(v), veh/h	100	360	374	64	196	205	187	0	124	27	0	248
Grp Sat Flow(s),veh/h/ln	1425	1785	1851	1810	1732	1803	1757	0	1618	1287	0	1513
Q Serve(g_s), s	3.4	12.8	12.8	1.7	6.6	6.6	7.0	0.0	4.7	1.5	0.0	13.5
Cycle Q Clear(g_c), s	3.4	12.8	12.8	1.7	6.6	6.6	7.0	0.0	4.7	1.5	0.0	13.5
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.84	1.00		0.84
Lane Grp Cap(c), veh/h	446	740	767	394	700	729	300	0	555	346	0	309
V/C Ratio(X)	0.22	0.49	0.49	0.16	0.28	0.28	0.62	0.00	0.22	0.08	0.00	0.80
Avail Cap(c_a), veh/h	457	740	767	425	700	729	300	0	1169	834	0	883
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	13.0	18.6	18.6	13.6	17.3	17.3	24.1	0.0	20.2	28.0	0.0	32.8
Incr Delay (d2), s/veh	0.3	2.3	2.2	0.2	1.0	1.0	4.0	0.0	0.2	0.1	0.0	4.8
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	6.8	7.0	0.8	3.4	3.5	3.7	0.0	2.1	0.5	0.0	6.1
LnGrp Delay(d), s/veh	13.2	20.9	20.8	13.8	18.3	18.3	28.1	0.0	20.4	28.1	0.0	37.6
LnGrp LOS	B	C	C	B	B	B	C		C	C		D
Approach Vol, veh/h		834			465			311			275	
Approach Delay, s/veh		19.9			17.7			25.0			36.7	
Approach LOS		B			B			C			D	

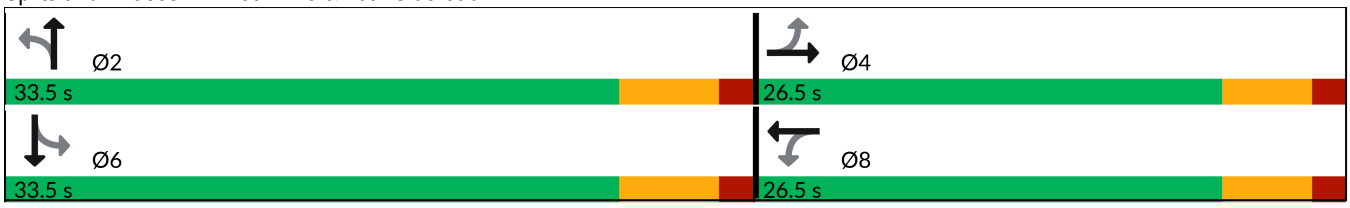
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		35.2	9.5	41.9	12.0	23.2	10.4	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		62.5	7.0	35.0	8.0	50.5	7.0	35.0
Max Q Clear Time (g_c+I1), s		6.7	3.7	14.8	9.0	15.5	5.4	8.6
Green Ext Time (p_c), s		1.0	0.0	5.5	0.0	2.2	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	22.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	58	50	15	91	31	57	314	14	31	218	5
Future Volume (vph)	8	58	50	15	91	31	57	314	14	31	218	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.5	26.5		26.5	26.5		33.5	33.5		33.5	33.5	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 49.4
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	58	50	15	91	31	57	314	14	31	218	5
Future Volume (veh/h)	8	58	50	15	91	31	57	314	14	31	218	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1876	1900	1900	1900	1900	1900	1885	1900	1900	1884	1900
Adj Flow Rate, veh/h	9	63	54	30	107	42	62	345	22	52	272	6
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Percent Heavy Veh, %	0	0	3	0	0	0	0	1	0	0	1	0
Cap, veh/h	93	144	115	120	178	64	180	906	54	191	915	19
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	59	931	742	189	1155	412	152	1520	90	169	1535	32
Grp Volume(v), veh/h	126	0	0	179	0	0	429	0	0	330	0	0
Grp Sat Flow(s),veh/h/ln	1732	0	0	1756	0	0	1763	0	0	1736	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	4.3	0.0	0.0	5.6	0.0	0.0	4.0	0.0	0.0
Prop In Lane	0.07		0.43	0.17		0.23	0.14		0.05	0.16		0.02
Lane Grp Cap(c), veh/h	351	0	0	363	0	0	1140	0	0	1125	0	0
V/C Ratio(X)	0.36	0.00	0.00	0.49	0.00	0.00	0.38	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	859	0	0	873	0	0	1140	0	0	1125	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	0.0	0.0	18.3	0.0	0.0	4.9	0.0	0.0	4.6	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.7	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	1.5	0.0	0.0	2.2	0.0	0.0	3.0	0.0	0.0	2.2	0.0	0.0
LnGrp Delay(d), s/veh	18.4	0.0	0.0	19.3	0.0	0.0	5.8	0.0	0.0	5.2	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		126			179			429			330	
Approach Delay, s/veh		18.4			19.3			5.8			5.2	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		12.6		33.5		12.6
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.5		21.0		27.5		21.0
Max Q Clear Time (g_c+I1), s		7.6		5.0		6.0		6.3
Green Ext Time (p_c), s		3.2		0.6		2.4		1.0

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	9.4
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	74	7	4	36	15	24
Future Vol, veh/h	74	7	4	36	15	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	75	50	92	65	61
Heavy Vehicles, %	6	50	0	22	92	100
Mvmt Flow	80	9	8	39	23	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	89	0	140	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	55	-
Critical Hdwy	-	-	4.1	-	7.32	7.2
Critical Hdwy Stg 1	-	-	-	-	6.32	-
Critical Hdwy Stg 2	-	-	-	-	6.32	-
Follow-up Hdwy	-	-	2.2	-	4.328	4.2
Pot Cap-1 Maneuver	-	-	1519	-	680	760
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	677	760
Mov Cap-2 Maneuver	-	-	-	-	677	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.3	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	727	-	-	1519	-
HCM Lane V/C Ratio	0.086	-	-	0.005	-
HCM Ctrl Dly (s/v)	10.4	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	35	1	2	22	15	1	2	16	33	1	64
Future Vol, veh/h	39	35	1	2	22	15	1	2	16	33	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	73	25	25	71	92	25	92	54	92	92	92
Heavy Vehicles, %	40	9	100	0	5	33	0	50	7	19	0	20
Mvmt Flow	42	48	4	8	31	16	4	2	30	36	1	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	47	0	0	52	0	0	225	197	50	205	191	39
Stage 1	-	-	-	-	-	-	134	134	-	55	55	-
Stage 2	-	-	-	-	-	-	91	63	-	150	136	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.48
Pot Cap-1 Maneuver	1348	-	-	1567	-	-	735	621	1004	718	708	983
Stage 1	-	-	-	-	-	-	874	702	-	916	853	-
Stage 2	-	-	-	-	-	-	921	757	-	814	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1348	-	-	1567	-	-	663	598	1004	676	682	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	663	598	-	676	682	-
Stage 1	-	-	-	-	-	-	846	680	-	887	849	-
Stage 2	-	-	-	-	-	-	850	753	-	762	763	-

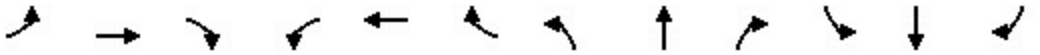
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.5	1.1	9.1	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	914	1348	-	-	1567	-	-	849
HCM Lane V/C Ratio	0.039	0.031	-	-	0.005	-	-	0.125
HCM Ctrl Dly (s/v)	9.1	7.8	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	255	34	131	434	13	147	55	68	16	26	134
Future Volume (vph)	197	255	34	131	434	13	147	55	68	16	26	134
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	21.0	51.0		11.0	41.0		13.0	58.0		45.0	45.0	
Total Split (%)	17.5%	42.5%		9.2%	34.2%		10.8%	48.3%		37.5%	37.5%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.7
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	255	34	131	434	13	147	55	68	16	26	134
Future Volume (veh/h)	197	255	34	131	434	13	147	55	68	16	26	134
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1795	1900	1863	1870	1900	1810	1849	1900	1900	1525	1900
Adj Flow Rate, veh/h	214	287	56	160	472	16	196	60	96	25	44	146
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	525	1322	254	616	1541	52	275	196	314	290	54	178
Arrive On Green	0.09	0.46	0.46	0.07	0.44	0.44	0.09	0.31	0.31	0.17	0.17	0.17
Sat Flow, veh/h	1645	2853	549	1774	3506	119	1723	641	1026	1250	311	1032
Grp Volume(v), veh/h	214	170	173	160	239	249	196	0	156	25	0	190
Grp Sat Flow(s),veh/h/ln	1645	1705	1697	1774	1776	1849	1723	0	1668	1250	0	1343
Q Serve(g_s), s	6.7	5.8	5.9	4.7	8.5	8.5	8.9	0.0	7.0	1.6	0.0	13.3
Cycle Q Clear(g_c), s	6.7	5.8	5.9	4.7	8.5	8.5	8.9	0.0	7.0	1.6	0.0	13.3
Prop In Lane	1.00		0.32	1.00		0.06	1.00		0.62	1.00		0.77
Lane Grp Cap(c), veh/h	525	790	786	616	781	812	275	0	511	290	0	231
V/C Ratio(X)	0.41	0.22	0.22	0.26	0.31	0.31	0.71	0.00	0.31	0.09	0.00	0.82
Avail Cap(c_a), veh/h	657	790	786	617	781	812	275	0	901	582	0	546
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	12.5	15.5	15.6	12.9	17.6	17.6	29.4	0.0	25.8	34.0	0.0	38.8
Incr Delay (d2), s/veh	0.5	0.6	0.6	0.2	1.0	1.0	8.3	0.0	0.3	0.1	0.0	7.1
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	3.0	2.8	2.9	2.3	4.3	4.5	4.8	0.0	3.3	0.6	0.0	5.4
LnGrp Delay(d), s/veh	13.0	16.2	16.2	13.1	18.6	18.6	37.8	0.0	26.1	34.1	0.0	45.8
LnGrp LOS	B	B	B	B	B	B	D		C	C		D
Approach Vol, veh/h		557			648			352			215	
Approach Delay, s/veh		15.0			17.3			32.6			44.5	
Approach LOS		B			B			C			D	

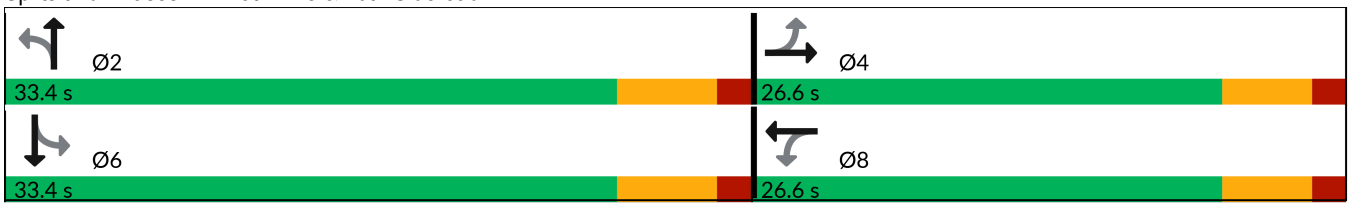
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		35.2	10.9	51.0	13.0	22.2	13.2	48.7
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		52.5	7.0	45.0	9.0	39.5	17.0	35.0
Max Q Clear Time (g_c+I1), s		9.0	6.7	7.9	10.9	15.3	8.7	10.5
Green Ext Time (p_c), s		1.2	0.0	2.6	0.0	1.5	0.5	3.6

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	22.9
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	51	43	28	38	12	30	122	18	37	212	13
Future Volume (vph)	8	51	43	28	38	12	30	122	18	37	212	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	5%	3%	13%	13%	0%	0%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.8
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	8	51	43	28	38	12	30	122	18	37	212	13
Future Volume (veh/h)	8	51	43	28	38	12	30	122	18	37	212	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1776	1900	1900	1707	1900	1900	1806	1900	1900	1847	1900
Adj Flow Rate, veh/h	9	55	47	48	45	14	33	165	24	49	268	15
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	40	5	3	13	13	0	0	6	7	3	3	0
Cap, veh/h	98	98	78	186	85	23	188	836	113	192	944	49
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	80	870	697	593	752	203	150	1338	180	156	1510	79
Grp Volume(v), veh/h	111	0	0	107	0	0	222	0	0	332	0	0
Grp Sat Flow(s),veh/h/ln	1647	0	0	1548	0	0	1668	0	0	1745	0	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.7	0.0	0.0	2.4	0.0	0.0	3.6	0.0	0.0
Prop In Lane	0.08		0.42	0.45		0.13	0.15		0.11	0.15		0.05
Lane Grp Cap(c), veh/h	274	0	0	293	0	0	1137	0	0	1185	0	0
V/C Ratio(X)	0.41	0.00	0.00	0.37	0.00	0.00	0.20	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	866	0	0	808	0	0	1137	0	0	1185	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	18.4	0.0	0.0	3.5	0.0	0.0	3.8	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.8	0.0	0.0	0.4	0.0	0.0	0.6	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	1.3	0.0	0.0	1.3	0.0	0.0	1.2	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d), s/veh	19.5	0.0	0.0	19.2	0.0	0.0	3.9	0.0	0.0	4.3	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		111			107			222			332	
Approach Delay, s/veh		19.5			19.2			3.9			4.3	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		10.4		33.4		10.4
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		4.4		4.8		5.6		4.7
Green Ext Time (p_c), s		1.5		0.5		2.4		0.5

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	8.5
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	52	9	42	123	4	9
Future Vol, veh/h	52	9	42	123	4	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	58	83	92	75	35
Heavy Vehicles, %	12	14	6	6	33	43
Mvmt Flow	57	16	51	134	5	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	73	0	301	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	-	-	4.16	-	6.73	6.63
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.254	-	3.797	3.687
Pot Cap-1 Maneuver	-	-	1502	-	630	895
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	736	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1502	-	607	895
Mov Cap-2 Maneuver	-	-	-	-	607	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	709	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	828	-	-	1502	-
HCM Lane V/C Ratio	0.037	-	-	0.034	-
HCM Ctrl Dly (s/v)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	28	1	16	57	48	4	0	3	31	0	54
Future Vol, veh/h	87	28	1	16	57	48	4	0	3	31	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	87	92	75	92	50	92	92	92
Heavy Vehicles, %	5	18	0	0	9	6	67	0	0	0	0	14
Mvmt Flow	95	30	4	25	66	52	5	0	6	34	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	34	0	0	394	390	32	367	366	92
Stage 1	-	-	-	-	-	-	222	222	-	142	142	-
Stage 2	-	-	-	-	-	-	172	168	-	225	224	-
Critical Hdwy	4.15	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.426
Pot Cap-1 Maneuver	1452	-	-	1591	-	-	465	548	1048	593	566	933
Stage 1	-	-	-	-	-	-	654	723	-	866	783	-
Stage 2	-	-	-	-	-	-	699	763	-	782	722	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1452	-	-	1591	-	-	408	503	1048	552	519	933
Mov Cap-2 Maneuver	-	-	-	-	-	-	408	503	-	552	519	-
Stage 1	-	-	-	-	-	-	610	675	-	808	770	-
Stage 2	-	-	-	-	-	-	644	750	-	725	674	-

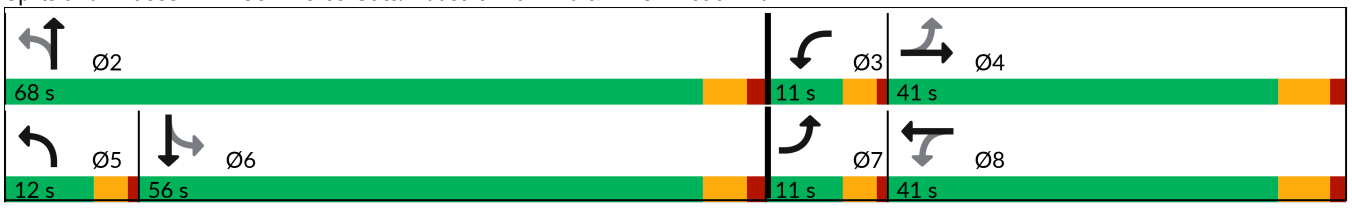
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.6	1.3	11.1	10.5
HCM LOS			B	B

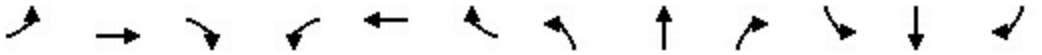
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	603	1452	-	-	1591	-	-	745
HCM Lane V/C Ratio	0.019	0.065	-	-	0.015	-	-	0.124
HCM Ctrl Dly (s/v)	11.1	7.7	0	-	7.3	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	691	26	57	390	11	163	14	80	23	32	215
Future Volume (vph)	104	691	26	57	390	11	163	14	80	23	32	215
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	27%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	11.0	41.0		11.0	41.0		12.0	68.0		56.0	56.0	
Total Split (%)	9.2%	34.2%		9.2%	34.2%		10.0%	56.7%		46.7%	46.7%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 79.1
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	691	26	57	390	11	163	14	80	23	32	215
Future Volume (veh/h)	104	691	26	57	390	11	163	14	80	23	32	215
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1496	1879	1900	1900	1823	1900	1845	1858	1900	1900	1736	1900
Adj Flow Rate, veh/h	113	794	32	64	438	15	187	20	104	31	40	234
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Percent Heavy Veh, %	27	1	4	0	4	11	3	14	0	0	6	10
Cap, veh/h	415	1418	57	350	1346	46	294	93	485	367	49	287
Arrive On Green	0.07	0.41	0.41	0.06	0.39	0.39	0.09	0.36	0.36	0.22	0.22	0.22
Sat Flow, veh/h	1425	3498	141	1810	3417	117	1757	261	1357	1287	220	1289
Grp Volume(v), veh/h	113	405	421	64	222	231	187	0	124	31	0	274
Grp Sat Flow(s),veh/h/ln	1425	1785	1854	1810	1732	1802	1757	0	1618	1287	0	1509
Q Serve(g_s), s	4.1	15.5	15.5	1.8	7.9	7.9	7.0	0.0	4.7	1.7	0.0	15.3
Cycle Q Clear(g_c), s	4.1	15.5	15.5	1.8	7.9	7.9	7.0	0.0	4.7	1.7	0.0	15.3
Prop In Lane	1.00		0.08	1.00		0.06	1.00		0.84	1.00		0.85
Lane Grp Cap(c), veh/h	415	724	752	350	682	710	294	0	579	367	0	336
V/C Ratio(X)	0.27	0.56	0.56	0.18	0.32	0.33	0.64	0.00	0.21	0.08	0.00	0.82
Avail Cap(c_a), veh/h	422	724	752	379	682	710	294	0	1139	813	0	858
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	14.1	20.3	20.3	14.9	18.7	18.7	24.0	0.0	19.9	27.5	0.0	32.8
Incr Delay (d2), s/veh	0.4	3.1	3.0	0.2	1.3	1.2	4.5	0.0	0.2	0.1	0.0	4.9
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	1.6	8.3	8.6	0.9	4.0	4.2	3.7	0.0	2.1	0.6	0.0	6.8
LnGrp Delay(d), s/veh	14.4	23.4	23.3	15.2	20.0	19.9	28.5	0.0	20.0	27.6	0.0	37.7
LnGrp LOS	B	C	C	B	B	B	C		C	C		D
Approach Vol, veh/h		939			517			311			305	
Approach Delay, s/veh		22.3			19.4			25.1			36.6	
Approach LOS		C			B			C			D	

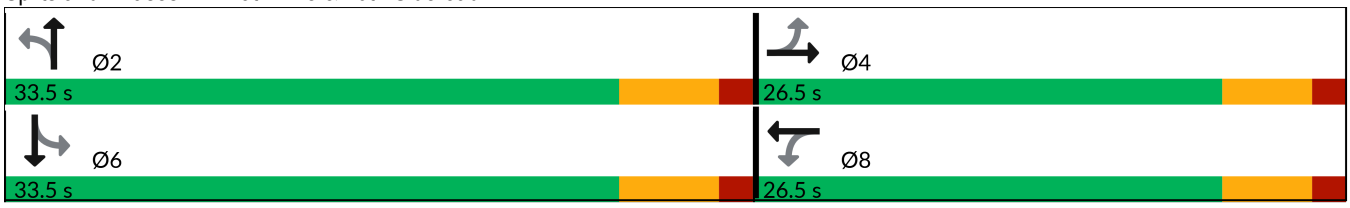
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		37.3	9.6	42.0	12.0	25.3	10.6	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		62.5	7.0	35.0	8.0	50.5	7.0	35.0
Max Q Clear Time (g_c+I1), s		6.7	3.8	17.5	9.0	17.3	6.1	9.9
Green Ext Time (p_c), s		1.0	0.0	5.9	0.0	2.4	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	24.1
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	67	56	17	105	35	65	356	16	35	246	6
Future Volume (vph)	8	67	56	17	105	35	65	356	16	35	246	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.5	26.5		26.5	26.5		33.5	33.5		33.5	33.5	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	67	56	17	105	35	65	356	16	35	246	6
Future Volume (veh/h)	8	67	56	17	105	35	65	356	16	35	246	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1876	1900	1900	1900	1900	1900	1885	1900	1900	1884	1900
Adj Flow Rate, veh/h	9	73	61	34	124	48	71	391	25	58	308	7
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Percent Heavy Veh, %	0	0	3	0	0	0	0	1	0	0	1	0
Cap, veh/h	90	163	127	121	200	70	178	880	53	184	893	19
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	48	946	740	184	1162	409	155	1506	90	164	1530	32
Grp Volume(v), veh/h	143	0	0	206	0	0	487	0	0	373	0	0
Grp Sat Flow(s),veh/h/ln	1734	0	0	1755	0	0	1751	0	0	1726	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	0.0	5.1	0.0	0.0	6.9	0.0	0.0	4.9	0.0	0.0
Prop In Lane	0.06		0.43	0.17		0.23	0.15		0.05	0.16		0.02
Lane Grp Cap(c), veh/h	379	0	0	391	0	0	1110	0	0	1096	0	0
V/C Ratio(X)	0.38	0.00	0.00	0.53	0.00	0.00	0.44	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	843	0	0	855	0	0	1110	0	0	1096	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.6	0.0	0.0	18.2	0.0	0.0	5.5	0.0	0.0	5.1	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.1	0.0	0.0	1.3	0.0	0.0	0.8	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	1.7	0.0	0.0	2.6	0.0	0.0	3.9	0.0	0.0	2.7	0.0	0.0
LnGrp Delay(d), s/veh	18.2	0.0	0.0	19.3	0.0	0.0	6.8	0.0	0.0	5.9	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		143			206			487			373	
Approach Delay, s/veh		18.2			19.3			6.8			5.9	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		13.6		33.5		13.6
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.5		21.0		27.5		21.0
Max Q Clear Time (g_c+I1), s		8.9		5.5		6.9		7.1
Green Ext Time (p_c), s		3.7		0.7		2.8		1.1

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	10.0
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	81	8	5	40	18	28
Future Vol, veh/h	81	8	5	40	18	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	75	50	92	65	61
Heavy Vehicles, %	6	50	0	22	92	100
Mvmt Flow	88	11	10	43	28	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	99	0	157	94
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	-	-	4.1	-	7.32	7.2
Critical Hdwy Stg 1	-	-	-	-	6.32	-
Critical Hdwy Stg 2	-	-	-	-	6.32	-
Follow-up Hdwy	-	-	2.2	-	4.328	4.2
Pot Cap-1 Maneuver	-	-	1507	-	663	750
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1507	-	658	750
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.4	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	1507	-
HCM Lane V/C Ratio	0.103	-	-	0.007	-
HCM Ctrl Dly (s/v)	10.6	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	41	1	3	25	15	1	3	19	33	1	64
Future Vol, veh/h	39	41	1	3	25	15	1	3	19	33	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	73	25	25	71	92	25	92	54	92	92	92
Heavy Vehicles, %	40	9	100	0	5	33	0	50	7	19	0	20
Mvmt Flow	42	56	4	12	35	16	4	3	35	36	1	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	51	0	0	60	0	0	245	217	58	228	211	43
Stage 1	-	-	-	-	-	-	142	142	-	67	67	-
Stage 2	-	-	-	-	-	-	103	75	-	161	144	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.48
Pot Cap-1 Maneuver	1343	-	-	1556	-	-	713	605	994	693	690	978
Stage 1	-	-	-	-	-	-	866	696	-	902	843	-
Stage 2	-	-	-	-	-	-	908	748	-	803	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1343	-	-	1556	-	-	642	581	994	645	662	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	642	581	-	645	662	-
Stage 1	-	-	-	-	-	-	838	674	-	873	836	-
Stage 2	-	-	-	-	-	-	836	742	-	746	757	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.2	1.4	9.2	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	899	1343	-	-	1556	-	-	830
HCM Lane V/C Ratio	0.047	0.032	-	-	0.008	-	-	0.128
HCM Ctrl Dly (s/v)	9.2	7.8	0	-	7.3	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	288	34	131	491	15	147	55	68	19	26	153
Future Volume (vph)	221	288	34	131	491	15	147	55	68	19	26	153
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	21.0	51.0		11.0	41.0		13.0	58.0		45.0	45.0	
Total Split (%)	17.5%	42.5%		9.2%	34.2%		10.8%	48.3%		37.5%	37.5%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.9
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	288	34	131	491	15	147	55	68	19	26	153
Future Volume (veh/h)	221	288	34	131	491	15	147	55	68	19	26	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1793	1900	1863	1870	1900	1810	1849	1900	1900	1516	1900
Adj Flow Rate, veh/h	240	324	56	160	534	18	196	60	96	29	44	166
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	493	1321	226	581	1470	50	271	205	328	309	53	199
Arrive On Green	0.10	0.45	0.45	0.07	0.42	0.42	0.09	0.32	0.32	0.19	0.19	0.19
Sat Flow, veh/h	1645	2910	498	1774	3507	118	1723	641	1026	1250	279	1052
Grp Volume(v), veh/h	240	188	192	160	270	282	196	0	156	29	0	210
Grp Sat Flow(s),veh/h/ln	1645	1703	1705	1774	1776	1849	1723	0	1668	1250	0	1331
Q Serve(g_s), s	7.8	6.7	6.9	5.0	10.3	10.4	8.9	0.0	7.0	1.9	0.0	15.1
Cycle Q Clear(g_c), s	7.8	6.7	6.9	5.0	10.3	10.4	8.9	0.0	7.0	1.9	0.0	15.1
Prop In Lane	1.00		0.29	1.00		0.06	1.00		0.62	1.00		0.79
Lane Grp Cap(c), veh/h	493	773	774	581	745	775	271	0	533	309	0	251
V/C Ratio(X)	0.49	0.24	0.25	0.28	0.36	0.36	0.72	0.00	0.29	0.09	0.00	0.84
Avail Cap(c_a), veh/h	603	773	774	582	745	775	271	0	883	571	0	530
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	13.4	16.6	16.7	14.3	19.7	19.7	29.2	0.0	25.3	33.4	0.0	38.7
Incr Delay (d2), s/veh	0.7	0.7	0.8	0.3	1.4	1.3	9.2	0.0	0.3	0.1	0.0	7.2
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	3.6	3.3	3.4	2.5	5.3	5.5	4.9	0.0	3.3	0.7	0.0	6.0
LnGrp Delay(d), s/veh	14.1	17.4	17.4	14.5	21.1	21.0	38.4	0.0	25.6	33.5	0.0	45.9
LnGrp LOS	B	B	B	B	C	C	D		C	C		D
Approach Vol, veh/h		620			712			352			239	
Approach Delay, s/veh		16.1			19.6			32.7			44.4	
Approach LOS		B			B			C			D	

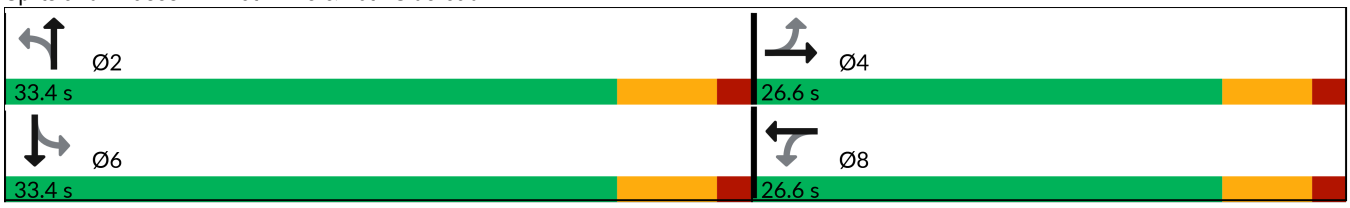
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		37.2	10.9	51.0	13.0	24.2	14.4	47.6
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		52.5	7.0	45.0	9.0	39.5	17.0	35.0
Max Q Clear Time (g_c+I1), s		9.0	7.0	8.9	10.9	17.1	9.8	12.4
Green Ext Time (p_c), s		1.2	0.0	2.9	0.0	1.6	0.6	4.1

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	24.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	59	49	32	43	14	33	138	21	41	240	13
Future Volume (vph)	9	59	49	32	43	14	33	138	21	41	240	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	5%	3%	13%	13%	0%	0%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.8
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	59	49	32	43	14	33	138	21	41	240	13
Future Volume (veh/h)	9	59	49	32	43	14	33	138	21	41	240	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1778	1900	1900	1709	1900	1900	1805	1900	1900	1847	1900
Adj Flow Rate, veh/h	10	64	54	55	51	17	36	186	28	55	304	15
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	40	5	3	13	13	0	0	6	7	3	3	0
Cap, veh/h	96	111	87	190	95	27	180	822	115	188	934	43
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	72	880	695	579	756	214	142	1335	186	155	1517	70
Grp Volume(v), veh/h	128	0	0	123	0	0	250	0	0	374	0	0
Grp Sat Flow(s),veh/h/ln	1647	0	0	1549	0	0	1664	0	0	1741	0	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.1	0.0	0.0	2.8	0.0	0.0	4.4	0.0	0.0
Prop In Lane	0.08		0.42	0.45		0.14	0.14		0.11	0.15		0.04
Lane Grp Cap(c), veh/h	294	0	0	312	0	0	1117	0	0	1165	0	0
V/C Ratio(X)	0.43	0.00	0.00	0.39	0.00	0.00	0.22	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	854	0	0	794	0	0	1117	0	0	1165	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	18.4	0.0	0.0	3.8	0.0	0.0	4.1	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.0	0.7	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	1.6	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	2.4	0.0	0.0
LnGrp Delay(d), s/veh	19.4	0.0	0.0	19.2	0.0	0.0	4.3	0.0	0.0	4.9	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		128			123			250			374	
Approach Delay, s/veh		19.4			19.2			4.3			4.9	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		11.1		33.4		11.1
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		4.8		5.2		6.4		5.1
Green Ext Time (p_c), s		1.8		0.6		2.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	8.8
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	58	10	48	138	4	10
Future Vol, veh/h	58	10	48	138	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	58	83	92	75	35
Heavy Vehicles, %	12	14	6	6	33	43
Mvmt Flow	63	17	58	150	5	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	80	0	338	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	266	-
Critical Hdwy	-	-	4.16	-	6.73	6.63
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.254	-	3.797	3.687
Pot Cap-1 Maneuver	-	-	1493	-	599	887
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	712	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1493	-	574	887
Mov Cap-2 Maneuver	-	-	-	-	574	-
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	682	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.1	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	817	-	-	1493	-
HCM Lane V/C Ratio	0.041	-	-	0.039	-
HCM Ctrl Dly (s/v)	9.6	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	32	1	19	66	48	4	0	3	31	0	54
Future Vol, veh/h	87	32	1	19	66	48	4	0	3	31	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	87	92	75	92	50	92	92	92
Heavy Vehicles, %	5	18	0	0	9	6	67	0	0	0	0	14
Mvmt Flow	95	35	4	29	76	52	5	0	6	34	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	128	0	0	39	0	0	417	413	37	390	389	102
Stage 1	-	-	-	-	-	-	227	227	-	160	160	-
Stage 2	-	-	-	-	-	-	190	186	-	230	229	-
Critical Hdwy	4.15	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.426
Pot Cap-1 Maneuver	1440	-	-	1584	-	-	448	532	1041	573	549	921
Stage 1	-	-	-	-	-	-	650	720	-	847	769	-
Stage 2	-	-	-	-	-	-	683	750	-	777	718	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1584	-	-	392	486	1041	532	502	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	392	486	-	532	502	-
Stage 1	-	-	-	-	-	-	606	672	-	790	754	-
Stage 2	-	-	-	-	-	-	627	735	-	721	670	-

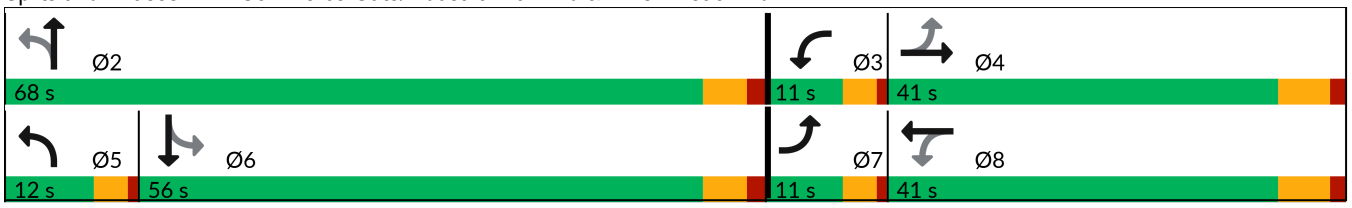
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.4	1.4	11.3	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	585	1440	-	-	1584	-	-	727
HCM Lane V/C Ratio	0.019	0.066	-	-	0.018	-	-	0.127
HCM Ctrl Dly (s/v)	11.3	7.7	0	-	7.3	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.1	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	782	26	57	441	13	163	14	80	26	32	242
Future Volume (vph)	117	782	26	57	441	13	163	14	80	26	32	242
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	27%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	11.0	41.0		11.0	41.0		12.0	68.0		56.0	56.0	
Total Split (%)	9.2%	34.2%		9.2%	34.2%		10.0%	56.7%		46.7%	46.7%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 79.3
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	782	26	57	441	13	163	14	80	26	32	242
Future Volume (veh/h)	117	782	26	57	441	13	163	14	80	26	32	242
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1496	1879	1900	1900	1823	1900	1845	1858	1900	1900	1736	1900
Adj Flow Rate, veh/h	127	899	32	64	496	17	187	20	104	35	40	263
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Percent Heavy Veh, %	27	1	4	0	4	11	3	14	0	0	6	10
Cap, veh/h	381	1389	49	304	1309	45	287	98	507	391	48	317
Arrive On Green	0.07	0.40	0.40	0.06	0.38	0.38	0.09	0.37	0.37	0.24	0.24	0.24
Sat Flow, veh/h	1425	3517	125	1810	3417	117	1757	261	1357	1287	199	1306
Grp Volume(v), veh/h	127	456	475	64	251	262	187	0	124	35	0	303
Grp Sat Flow(s),veh/h/ln	1425	1785	1857	1810	1732	1802	1757	0	1618	1287	0	1505
Q Serve(g_s), s	4.9	19.0	19.0	1.9	9.6	9.6	7.1	0.0	4.7	1.9	0.0	17.4
Cycle Q Clear(g_c), s	4.9	19.0	19.0	1.9	9.6	9.6	7.1	0.0	4.7	1.9	0.0	17.4
Prop In Lane	1.00		0.07	1.00		0.06	1.00		0.84	1.00		0.87
Lane Grp Cap(c), veh/h	381	705	734	304	663	690	287	0	605	391	0	365
V/C Ratio(X)	0.33	0.65	0.65	0.21	0.38	0.38	0.65	0.00	0.20	0.09	0.00	0.83
Avail Cap(c_a), veh/h	385	705	734	332	663	690	287	0	1107	790	0	832
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	15.4	22.5	22.5	16.6	20.3	20.4	24.0	0.0	19.4	26.9	0.0	32.8
Incr Delay (d2), s/veh	0.5	4.5	4.4	0.3	1.6	1.6	5.1	0.0	0.2	0.1	0.0	4.9
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	10.1	10.5	0.9	4.8	5.0	3.8	0.0	2.1	0.7	0.0	7.7
LnGrp Delay(d), s/veh	15.9	27.0	26.8	16.9	22.0	21.9	29.1	0.0	19.6	27.0	0.0	37.7
LnGrp LOS	B	C	C	B	C	C	C		B	C		D
Approach Vol, veh/h		1058			577			311			338	
Approach Delay, s/veh		25.6			21.4			25.3			36.6	
Approach LOS		C			C			C			D	

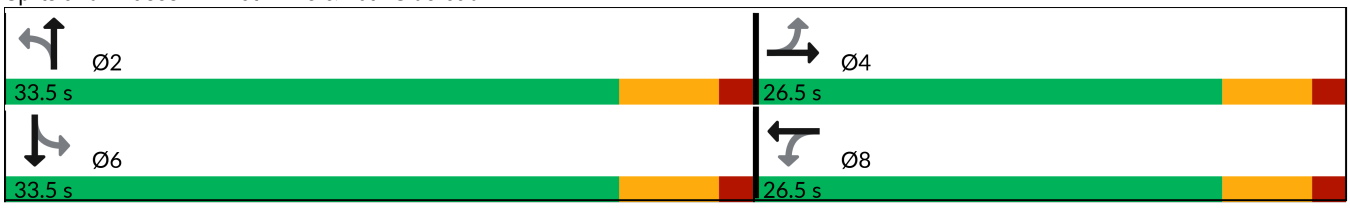
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		39.7	9.6	42.1	12.0	27.7	10.7	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		62.5	7.0	35.0	8.0	50.5	7.0	35.0
Max Q Clear Time (g_c+I1), s		6.7	3.9	21.0	9.1	19.4	6.9	11.6
Green Ext Time (p_c), s		1.0	0.0	6.0	0.0	2.7	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	26.1
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	76	63	19	121	40	75	403	18	40	278	6
Future Volume (vph)	8	76	63	19	121	40	75	403	18	40	278	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.5	26.5		26.5	26.5		33.5	33.5		33.5	33.5	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 51.5
Natural Cycle: 60
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	76	63	19	121	40	75	403	18	40	278	6
Future Volume (veh/h)	8	76	63	19	121	40	75	403	18	40	278	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1876	1900	1900	1900	1900	1900	1885	1900	1900	1884	1900
Adj Flow Rate, veh/h	9	83	68	38	142	55	82	443	28	67	348	7
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Percent Heavy Veh, %	0	0	3	0	0	0	0	1	0	0	1	0
Cap, veh/h	87	182	140	121	221	78	181	845	50	182	864	16
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	41	957	738	180	1163	410	166	1480	88	167	1513	28
Grp Volume(v), veh/h	160	0	0	235	0	0	553	0	0	422	0	0
Grp Sat Flow(s),veh/h/ln	1736	0	0	1753	0	0	1733	0	0	1708	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.9	0.0	0.0	5.9	0.0	0.0	8.7	0.0	0.0	6.0	0.0	0.0
Prop In Lane	0.06		0.42	0.16		0.23	0.15		0.05	0.16		0.02
Lane Grp Cap(c), veh/h	408	0	0	419	0	0	1076	0	0	1063	0	0
V/C Ratio(X)	0.39	0.00	0.00	0.56	0.00	0.00	0.51	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	826	0	0	836	0	0	1076	0	0	1063	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.4	0.0	0.0	18.2	0.0	0.0	6.3	0.0	0.0	5.7	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.2	0.0	0.0	1.8	0.0	0.0	1.1	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	1.9	0.0	0.0	3.0	0.0	0.0	4.8	0.0	0.0	3.4	0.0	0.0
LnGrp Delay(d), s/veh	18.0	0.0	0.0	19.3	0.0	0.0	8.0	0.0	0.0	6.8	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		160			235			553			422	
Approach Delay, s/veh		18.0			19.3			8.0			6.8	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		14.6		33.5		14.6
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.5		21.0		27.5		21.0
Max Q Clear Time (g_c+I1), s		10.7		5.9		8.0		7.9
Green Ext Time (p_c), s		4.2		0.8		3.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	10.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	90	9	6	44	21	32
Future Vol, veh/h	90	9	6	44	21	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	75	50	92	65	61
Heavy Vehicles, %	6	50	0	22	92	100
Mvmt Flow	98	12	12	48	32	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	176	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	72	-
Critical Hdwy	-	-	4.1	-	7.32	7.2
Critical Hdwy Stg 1	-	-	-	-	6.32	-
Critical Hdwy Stg 2	-	-	-	-	6.32	-
Follow-up Hdwy	-	-	2.2	-	4.328	4.2
Pot Cap-1 Maneuver	-	-	1493	-	645	739
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1493	-	640	739
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.5	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	698	-	-	1493	-
HCM Lane V/C Ratio	0.121	-	-	0.008	-
HCM Ctrl Dly (s/v)	10.9	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	47	1	3	29	15	1	3	22	33	1	64
Future Vol, veh/h	39	47	1	3	29	15	1	3	22	33	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	73	25	25	71	92	25	92	54	92	92	92
Heavy Vehicles, %	40	9	100	0	5	33	0	50	7	19	0	20
Mvmt Flow	42	64	4	12	41	16	4	3	41	36	1	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	57	0	0	68	0	0	259	231	66	245	225	49
Stage 1	-	-	-	-	-	-	150	150	-	73	73	-
Stage 2	-	-	-	-	-	-	109	81	-	172	152	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.48
Pot Cap-1 Maneuver	1336	-	-	1546	-	-	698	593	984	675	678	971
Stage 1	-	-	-	-	-	-	857	690	-	896	838	-
Stage 2	-	-	-	-	-	-	901	743	-	792	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1336	-	-	1546	-	-	627	569	984	624	650	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	627	569	-	624	650	-
Stage 1	-	-	-	-	-	-	829	667	-	866	831	-
Stage 2	-	-	-	-	-	-	829	737	-	731	749	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3	1.3	9.2	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	897	1336	-	-	1546	-	-	814
HCM Lane V/C Ratio	0.054	0.032	-	-	0.008	-	-	0.131
HCM Ctrl Dly (s/v)	9.2	7.8	0	-	7.3	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.4

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2172	2219	2125	2149	2171	2168
Vehs Exited	2172	2246	2150	2161	2163	2181
Starting Vehs	44	66	68	68	45	53
Ending Vehs	44	39	43	56	53	48
Travel Distance (km)	2239	2294	2213	2209	2218	2234
Travel Time (hr)	55.2	56.7	54.6	54.7	55.8	55.4
Total Delay (hr)	8.2	8.7	8.3	8.6	9.4	8.6
Total Stops	1181	1242	1137	1143	1243	1187
Fuel Used (l)	171.4	177.2	168.2	169.9	171.2	171.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2172	2219	2125	2149	2171	2168
Vehs Exited	2172	2246	2150	2161	2163	2181
Starting Vehs	44	66	68	68	45	53
Ending Vehs	44	39	43	56	53	48
Travel Distance (km)	2239	2294	2213	2209	2218	2234
Travel Time (hr)	55.2	56.7	54.6	54.7	55.8	55.4
Total Delay (hr)	8.2	8.7	8.3	8.6	9.4	8.6
Total Stops	1181	1242	1137	1143	1243	1187
Fuel Used (l)	171.4	177.2	168.2	169.9	171.2	171.6

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	45.1	32.3	31.5	32.0	42.0	41.6	52.3	43.4	15.3	54.3
Average Queue (m)	19.3	13.4	11.6	13.9	20.2	17.1	26.1	18.3	4.6	21.7
95th Queue (m)	35.8	26.9	24.9	25.6	35.7	33.0	44.3	35.6	13.4	40.9
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	28.0	27.9	29.1	29.1
Average Queue (m)	12.2	11.5	8.7	12.4
95th Queue (m)	23.7	22.0	20.5	25.7
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	12.7	16.8
Average Queue (m)	0.6	3.6
95th Queue (m)	5.1	12.6
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	12.4	3.5	13.2	21.3
Average Queue (m)	2.4	0.1	1.6	10.5
95th Queue (m)	9.5	1.8	8.2	18.7
Link Distance (m)	356.0	396.9	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2710	2715	2627	2624	2737	2682
Vehs Exited	2705	2716	2631	2632	2751	2686
Starting Vehs	64	75	90	57	68	70
Ending Vehs	69	74	86	49	54	63
Travel Distance (km)	2670	2715	2598	2578	2726	2657
Travel Time (hr)	66.2	66.9	63.7	62.4	67.7	65.4
Total Delay (hr)	10.7	10.4	9.7	9.1	11.0	10.2
Total Stops	1567	1530	1466	1375	1536	1491
Fuel Used (l)	205.7	208.0	196.4	194.8	209.1	202.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2710	2715	2627	2624	2737	2682
Vehs Exited	2705	2716	2631	2632	2751	2686
Starting Vehs	64	75	90	57	68	70
Ending Vehs	69	74	86	49	54	63
Travel Distance (km)	2670	2715	2598	2578	2726	2657
Travel Time (hr)	66.2	66.9	63.7	62.4	67.7	65.4
Total Delay (hr)	10.7	10.4	9.7	9.1	11.0	10.2
Total Stops	1567	1530	1466	1375	1536	1491
Fuel Used (l)	205.7	208.0	196.4	194.8	209.1	202.8

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	42.7	53.4	57.5	20.4	37.1	34.3	49.0	30.2	16.5	64.7
Average Queue (m)	13.7	27.1	26.0	7.2	18.5	12.2	23.3	12.0	5.4	26.0
95th Queue (m)	31.8	44.2	47.1	15.8	32.3	26.5	39.9	22.6	14.0	49.2
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	28.3	34.5	46.9	41.0
Average Queue (m)	13.7	16.1	22.0	14.6
95th Queue (m)	23.8	28.3	39.1	30.4
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	24.1
Average Queue (m)	0.1	11.4
95th Queue (m)	1.3	24.5
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.9	1.2	12.0	25.6
Average Queue (m)	0.7	0.0	4.1	12.0
95th Queue (m)	5.4	0.9	11.6	20.9
Link Distance (m)	356.0	396.9	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2314	2443	2356	2361	2322	2356
Vehs Exited	2311	2474	2359	2370	2318	2365
Starting Vehs	47	89	55	70	51	61
Ending Vehs	50	58	52	61	55	52
Travel Distance (km)	2404	2508	2480	2439	2363	2439
Travel Time (hr)	59.6	62.5	61.5	60.9	59.2	60.7
Total Delay (hr)	9.5	10.0	9.7	9.9	9.7	9.7
Total Stops	1267	1357	1340	1339	1291	1318
Fuel Used (l)	184.5	194.0	189.6	189.4	182.6	188.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2314	2443	2356	2361	2322	2356
Vehs Exited	2311	2474	2359	2370	2318	2365
Starting Vehs	47	89	55	70	51	61
Ending Vehs	50	58	52	61	55	52
Travel Distance (km)	2404	2508	2480	2439	2363	2439
Travel Time (hr)	59.6	62.5	61.5	60.9	59.2	60.7
Total Delay (hr)	9.5	10.0	9.7	9.9	9.7	9.7
Total Stops	1267	1357	1340	1339	1291	1318
Fuel Used (l)	184.5	194.0	189.6	189.4	182.6	188.0

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	58.6	30.9	31.6	34.4	47.9	49.3	51.1	42.7	16.7	63.4
Average Queue (m)	23.2	14.6	12.7	13.3	25.8	21.3	24.6	18.2	4.5	26.3
95th Queue (m)	42.4	27.7	27.2	26.0	42.4	40.2	43.4	33.4	13.4	48.4
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	34.3	33.4	24.9	37.3
Average Queue (m)	13.9	12.4	10.4	13.2
95th Queue (m)	25.2	24.8	21.7	27.6
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	14.4	16.8
Average Queue (m)	0.9	4.0
95th Queue (m)	6.4	13.6
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	19.5	6.1	18.3	21.3
Average Queue (m)	3.2	0.2	3.1	9.4
95th Queue (m)	11.8	2.2	12.9	16.6
Link Distance (m)	356.0	396.9	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2962	3013	3005	2959	2956	2982
Vehs Exited	2944	3019	3006	2974	2960	2981
Starting Vehs	63	79	91	86	56	72
Ending Vehs	81	73	90	71	52	71
Travel Distance (km)	2909	3018	2973	2941	2904	2949
Travel Time (hr)	72.4	74.8	74.4	73.6	72.6	73.5
Total Delay (hr)	12.0	12.1	12.6	12.4	12.4	12.3
Total Stops	1693	1739	1711	1751	1724	1725
Fuel Used (l)	223.3	232.2	226.5	226.4	224.1	226.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2962	3013	3005	2959	2956	2982
Vehs Exited	2944	3019	3006	2974	2960	2981
Starting Vehs	63	79	91	86	56	72
Ending Vehs	81	73	90	71	52	71
Travel Distance (km)	2909	3018	2973	2941	2904	2949
Travel Time (hr)	72.4	74.8	74.4	73.6	72.6	73.5
Total Delay (hr)	12.0	12.1	12.6	12.4	12.4	12.3
Total Stops	1693	1739	1711	1751	1724	1725
Fuel Used (l)	223.3	232.2	226.5	226.4	224.1	226.5

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	44.6	62.4	63.7	19.6	41.0	39.1	51.2	29.5	14.2	62.5
Average Queue (m)	17.6	31.9	32.1	9.1	21.8	15.4	24.1	12.0	5.1	27.2
95th Queue (m)	34.0	52.4	54.4	18.5	36.1	31.9	41.1	23.0	13.6	49.6
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	37.2	39.7	50.1	38.7
Average Queue (m)	14.9	18.4	25.4	17.0
95th Queue (m)	28.1	32.2	43.7	32.2
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	3.7	26.4
Average Queue (m)	0.1	12.5
95th Queue (m)	1.9	25.9
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	13.5	17.2	23.6
Average Queue (m)	1.0	4.9	11.5
95th Queue (m)	7.9	13.8	20.4
Link Distance (m)	356.0	354.0	497.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2588	2615	2593	2557	2549	2578
Vehs Exited	2605	2631	2583	2551	2548	2584
Starting Vehs	71	78	57	48	60	63
Ending Vehs	54	62	67	54	61	57
Travel Distance (km)	2647	2760	2722	2646	2614	2678
Travel Time (hr)	67.1	67.5	67.3	65.9	65.3	66.6
Total Delay (hr)	11.8	10.1	10.5	10.8	10.7	10.8
Total Stops	1473	1431	1401	1418	1414	1428
Fuel Used (l)	204.6	212.1	207.9	203.9	200.3	205.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2588	2615	2593	2557	2549	2578
Vehs Exited	2605	2631	2583	2551	2548	2584
Starting Vehs	71	78	57	48	60	63
Ending Vehs	54	62	67	54	61	57
Travel Distance (km)	2647	2760	2722	2646	2614	2678
Travel Time (hr)	67.1	67.5	67.3	65.9	65.3	66.6
Total Delay (hr)	11.8	10.1	10.5	10.8	10.7	10.8
Total Stops	1473	1431	1401	1418	1414	1428
Fuel Used (l)	204.6	212.1	207.9	203.9	200.3	205.8

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	51.6	32.0	37.0	30.0	51.8	54.2	50.8	40.2	19.0	65.2
Average Queue (m)	26.2	15.3	13.7	13.3	28.0	24.9	23.2	16.3	4.6	27.2
95th Queue (m)	45.4	27.7	28.1	24.4	45.8	44.8	41.2	30.9	13.8	49.8
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	31.4	31.9	29.6	37.0
Average Queue (m)	14.5	13.8	10.6	16.8
95th Queue (m)	26.0	26.7	22.4	32.9
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	8.7	21.1
Average Queue (m)	0.8	5.3
95th Queue (m)	5.1	16.0
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.1	12.2	17.1	20.3
Average Queue (m)	2.4	0.5	2.4	9.6
95th Queue (m)	9.7	5.1	10.9	16.6
Link Distance (m)	356.0	396.9	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3238	3430	3382	3266	3352	3335
Vehs Exited	3236	3447	3398	3266	3369	3344
Starting Vehs	69	86	95	87	96	86
Ending Vehs	71	69	79	87	79	75
Travel Distance (km)	3236	3415	3358	3263	3344	3324
Travel Time (hr)	81.2	87.0	85.6	82.8	84.4	84.2
Total Delay (hr)	14.0	16.1	15.7	15.2	14.9	15.2
Total Stops	1873	2089	2083	1965	2002	2001
Fuel Used (l)	249.9	265.5	258.8	252.0	256.5	256.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	3238	3430	3382	3266	3352	3335
Vehs Exited	3236	3447	3398	3266	3369	3344
Starting Vehs	69	86	95	87	96	86
Ending Vehs	71	69	79	87	79	75
Travel Distance (km)	3236	3415	3358	3263	3344	3324
Travel Time (hr)	81.2	87.0	85.6	82.8	84.4	84.2
Total Delay (hr)	14.0	16.1	15.7	15.2	14.9	15.2
Total Stops	1873	2089	2083	1965	2002	2001
Fuel Used (l)	249.9	265.5	258.8	252.0	256.5	256.5

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	54.4	71.7	74.0	25.9	49.3	42.0	52.1	24.8	16.8	72.0
Average Queue (m)	18.8	35.7	37.4	10.1	25.0	18.7	24.9	10.3	6.1	31.5
95th Queue (m)	37.9	59.3	63.3	20.9	42.2	35.1	42.1	20.4	15.0	57.5
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	32.7	45.1	63.8	38.9
Average Queue (m)	17.4	20.5	31.2	20.4
95th Queue (m)	28.9	36.5	54.4	35.5
Link Distance (m)	1432.4	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	25.1
Average Queue (m)	0.1	13.7
95th Queue (m)	1.3	24.5
Link Distance (m)	148.3	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.3	1.7	18.4	22.9
Average Queue (m)	0.7	0.1	5.6	12.0
95th Queue (m)	6.0	1.2	14.8	20.1
Link Distance (m)	356.0	396.9	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

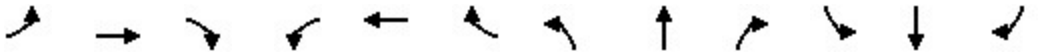
Zone wide Queuing Penalty: 0

Appendix G –
Synchro Analysis Output – Total Traffic Volumes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	225	34	131	383	11	147	55	68	14	26	129
Future Volume (vph)	239	225	34	131	383	11	147	55	68	14	26	129
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	21.0	51.0		11.0	41.0		13.0	58.0		45.0	45.0	
Total Split (%)	17.5%	42.5%		9.2%	34.2%		10.8%	48.3%		37.5%	37.5%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.6
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	225	34	131	383	11	147	55	68	14	26	129
Future Volume (veh/h)	239	225	34	131	383	11	147	55	68	14	26	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1797	1900	1863	1871	1900	1810	1849	1900	1900	1528	1900
Adj Flow Rate, veh/h	260	253	56	160	416	13	196	60	96	22	44	140
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	566	1300	283	640	1503	47	276	194	310	284	54	171
Arrive On Green	0.11	0.47	0.47	0.07	0.43	0.43	0.09	0.30	0.30	0.17	0.17	0.17
Sat Flow, veh/h	1645	2789	607	1774	3518	110	1723	641	1026	1250	322	1025
Grp Volume(v), veh/h	260	153	156	160	210	219	196	0	156	22	0	184
Grp Sat Flow(s),veh/h/ln	1645	1707	1689	1774	1777	1851	1723	0	1668	1250	0	1347
Q Serve(g_s), s	8.1	5.1	5.2	4.8	7.4	7.4	8.9	0.0	7.0	1.4	0.0	12.7
Cycle Q Clear(g_c), s	8.1	5.1	5.2	4.8	7.4	7.4	8.9	0.0	7.0	1.4	0.0	12.7
Prop In Lane	1.00		0.36	1.00		0.06	1.00		0.62	1.00		0.76
Lane Grp Cap(c), veh/h	566	796	787	640	759	791	276	0	503	284	0	225
V/C Ratio(X)	0.46	0.19	0.20	0.25	0.28	0.28	0.71	0.00	0.31	0.08	0.00	0.82
Avail Cap(c_a), veh/h	674	796	787	642	759	791	276	0	907	586	0	551
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	11.9	15.1	15.2	13.3	18.0	18.0	29.5	0.0	26.0	34.1	0.0	38.8
Incr Delay (d2), s/veh	0.6	0.5	0.6	0.2	0.9	0.9	8.1	0.0	0.3	0.1	0.0	7.1
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	3.6	2.5	2.5	2.3	3.8	4.0	4.8	0.0	3.3	0.5	0.0	5.2
LnGrp Delay(d), s/veh	12.5	15.7	15.7	13.5	18.9	18.8	37.6	0.0	26.3	34.2	0.0	45.9
LnGrp LOS	B	B	B	B	B	B	D		C	C		D
Approach Vol, veh/h		569			589			352			206	
Approach Delay, s/veh		14.2			17.4			32.6			44.6	
Approach LOS		B			B			C			D	

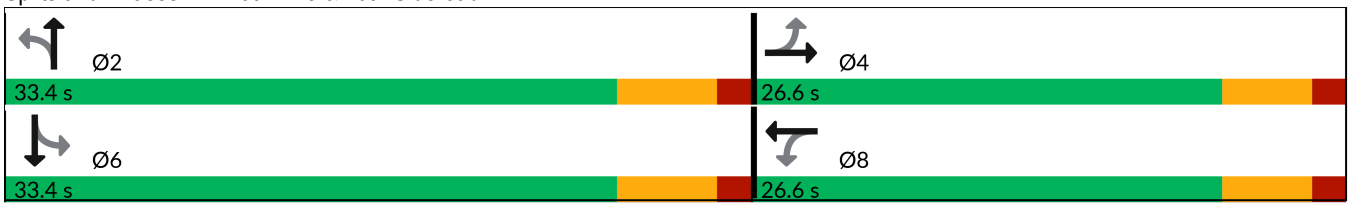
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		34.7	10.9	51.0	13.0	21.7	14.6	47.3
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		52.5	7.0	45.0	9.0	39.5	17.0	35.0
Max Q Clear Time (g_c+I1), s		9.0	6.8	7.2	10.9	14.7	10.1	9.4
Green Ext Time (p_c), s		1.2	0.0	2.3	0.0	1.4	0.6	3.1

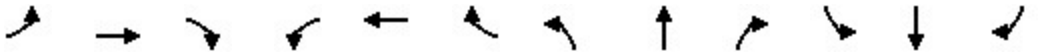
Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	22.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	47	41	25	44	11	43	108	16	32	187	22
Future Volume (vph)	9	47	41	25	44	11	43	108	16	32	187	22
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	5%	6%	13%	13%	0%	2%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.9
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	47	41	25	44	11	43	108	16	32	187	22
Future Volume (veh/h)	9	47	41	25	44	11	43	108	16	32	187	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1748	1900	1900	1705	1900	1900	1806	1900	1900	1849	1900
Adj Flow Rate, veh/h	10	51	45	43	52	13	47	146	21	43	237	26
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	40	5	6	13	13	0	2	6	7	3	3	0
Cap, veh/h	101	92	76	173	94	21	260	748	99	185	910	93
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	95	839	688	522	851	188	255	1193	158	145	1452	148
Grp Volume(v), veh/h	106	0	0	108	0	0	214	0	0	306	0	0
Grp Sat Flow(s),veh/h/ln	1622	0	0	1561	0	0	1606	0	0	1745	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0	2.7	0.0	0.0	2.2	0.0	0.0	3.3	0.0	0.0
Prop In Lane	0.09		0.42	0.40		0.12	0.22		0.10	0.14		0.08
Lane Grp Cap(c), veh/h	269	0	0	287	0	0	1107	0	0	1188	0	0
V/C Ratio(X)	0.39	0.00	0.00	0.38	0.00	0.00	0.19	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	854	0	0	818	0	0	1107	0	0	1188	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	18.5	0.0	0.0	3.5	0.0	0.0	3.7	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.8	0.0	0.0	0.4	0.0	0.0	0.5	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	1.3	0.0	0.0	1.3	0.0	0.0	1.2	0.0	0.0	1.8	0.0	0.0
LnGrp Delay(d), s/veh	19.4	0.0	0.0	19.3	0.0	0.0	3.9	0.0	0.0	4.2	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		106			108			214			306	
Approach Delay, s/veh		19.4			19.3			3.9			4.2	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		10.3		33.4		10.3
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		4.2		4.7		5.3		4.7
Green Ext Time (p_c), s		1.5		0.5		2.2		0.5

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	8.5
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	108	8	36	121	1	3	0	8	1	0	1
Future Vol, veh/h	1	108	8	36	121	1	3	0	8	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	58	83	92	92	75	92	35	92	92	92
Heavy Vehicles, %	100	12	14	6	6	100	33	100	43	100	100	100
Mvmt Flow	1	117	14	43	132	1	4	0	23	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	131	0	0	345	345	124	357	352	133
Stage 1	-	-	-	-	-	-	126	126	-	219	219	-
Stage 2	-	-	-	-	-	-	219	219	-	138	133	-
Critical Hdwy	5.1	-	-	4.16	-	-	7.43	7.5	6.63	8.1	7.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	6.5	-	7.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	6.5	-	7.1	6.5	-
Follow-up Hdwy	3.1	-	-	2.254	-	-	3.797	4.9	3.687	4.4	4.9	4.2
Pot Cap-1 Maneuver	1018	-	-	1430	-	-	555	449	827	452	444	709
Stage 1	-	-	-	-	-	-	808	637	-	605	572	-
Stage 2	-	-	-	-	-	-	718	572	-	677	632	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1018	-	-	1430	-	-	540	434	827	428	429	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	434	-	428	429	-
Stage 1	-	-	-	-	-	-	807	636	-	604	554	-
Stage 2	-	-	-	-	-	-	694	554	-	658	631	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	1.9	9.9	11.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1018	-	-	1430	-	-	534
HCM Lane V/C Ratio	0.035	0.001	-	-	0.03	-	-	0.004
HCM Ctrl Dly (s/v)	9.9	8.5	0	-	7.6	0	-	11.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	87	1	14	60	48	3	0	2	31	0	54
Future Vol, veh/h	87	87	1	14	60	48	3	0	2	31	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	92	92	75	92	50	92	92	92
Heavy Vehicles, %	5	19	0	0	10	6	67	0	0	0	0	14
Mvmt Flow	95	95	4	22	65	52	4	0	4	34	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	99	0	0	452	448	97	424	424	91
Stage 1	-	-	-	-	-	-	287	287	-	135	135	-
Stage 2	-	-	-	-	-	-	165	161	-	289	289	-
Critical Hdwy	4.15	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.426
Pot Cap-1 Maneuver	1453	-	-	1507	-	-	423	509	965	544	525	935
Stage 1	-	-	-	-	-	-	600	678	-	873	789	-
Stage 2	-	-	-	-	-	-	706	769	-	723	677	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1453	-	-	1507	-	-	371	466	965	507	481	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	371	466	-	507	481	-
Stage 1	-	-	-	-	-	-	559	631	-	813	776	-
Stage 2	-	-	-	-	-	-	651	757	-	670	630	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.7	1.2	11.8	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	536	1453	-	-	1507	-	-	715
HCM Lane V/C Ratio	0.015	0.065	-	-	0.014	-	-	0.129
HCM Ctrl Dly (s/v)	11.8	7.7	0	-	7.4	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	54	1	4	147	34	1	0	1	6	0	10
Future Vol, veh/h	62	54	1	4	147	34	1	0	1	6	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	14	2	2	6	0	2	0	2	0	0	0
Mvmt Flow	67	59	1	4	160	37	1	0	1	7	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	197	0	0	60	0	0	386	399	60	381	381	179
Stage 1	-	-	-	-	-	-	194	194	-	187	187	-
Stage 2	-	-	-	-	-	-	192	205	-	194	194	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1388	-	-	1544	-	-	573	542	1005	581	555	869
Stage 1	-	-	-	-	-	-	808	744	-	819	749	-
Stage 2	-	-	-	-	-	-	810	736	-	812	744	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1388	-	-	1544	-	-	543	513	1005	557	526	869
Mov Cap-2 Maneuver	-	-	-	-	-	-	543	513	-	557	526	-
Stage 1	-	-	-	-	-	-	768	707	-	778	747	-
Stage 2	-	-	-	-	-	-	797	734	-	771	707	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.1	0.2	10.1	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	705	1388	-	-	1544	-	-	718
HCM Lane V/C Ratio	0.003	0.049	-	-	0.003	-	-	0.024
HCM Ctrl Dly (s/v)	10.1	7.7	0	-	7.3	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	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, %	100	100	2	100	100	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	816	856	-	-	1159	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	856	-	-	1159	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-

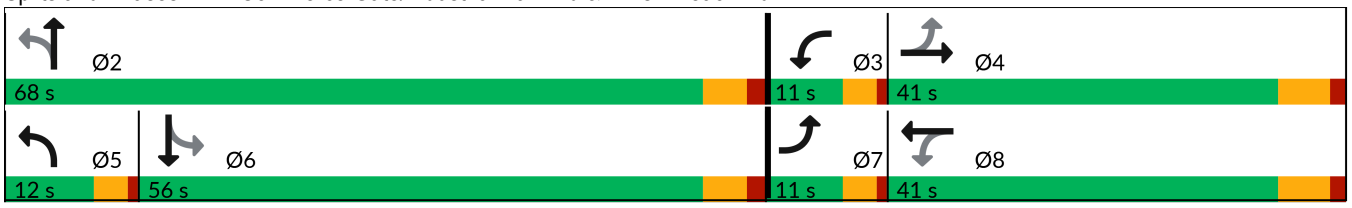
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	816	1159	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Ctrl Dly (s/v)	-	-	9.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	611	26	57	345	10	163	14	80	20	32	247
Future Volume (vph)	104	611	26	57	345	10	163	14	80	20	32	247
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	28%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	11.0	41.0		11.0	41.0		12.0	68.0		56.0	56.0	
Total Split (%)	9.2%	34.2%		9.2%	34.2%		10.0%	56.7%		46.7%	46.7%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 79.4
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	611	26	57	345	10	163	14	80	20	32	247
Future Volume (veh/h)	104	611	26	57	345	10	163	14	80	20	32	247
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1484	1879	1900	1900	1823	1900	1845	1858	1900	1900	1722	1900
Adj Flow Rate, veh/h	113	702	32	64	388	13	187	20	104	27	40	268
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Percent Heavy Veh, %	28	1	4	0	4	11	3	14	0	0	6	11
Cap, veh/h	416	1363	62	364	1304	44	286	99	513	397	48	321
Arrive On Green	0.07	0.39	0.39	0.06	0.38	0.38	0.09	0.38	0.38	0.25	0.25	0.25
Sat Flow, veh/h	1414	3477	158	1810	3420	114	1757	261	1357	1287	194	1299
Grp Volume(v), veh/h	113	360	374	64	196	205	187	0	124	27	0	308
Grp Sat Flow(s),veh/h/ln	1414	1785	1851	1810	1732	1803	1757	0	1618	1287	0	1493
Q Serve(g_s), s	4.4	14.1	14.1	1.9	7.3	7.3	7.0	0.0	4.7	1.5	0.0	18.0
Cycle Q Clear(g_c), s	4.4	14.1	14.1	1.9	7.3	7.3	7.0	0.0	4.7	1.5	0.0	18.0
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.84	1.00		0.87
Lane Grp Cap(c), veh/h	416	700	725	364	660	687	286	0	612	397	0	369
V/C Ratio(X)	0.27	0.51	0.52	0.18	0.30	0.30	0.65	0.00	0.20	0.07	0.00	0.83
Avail Cap(c_a), veh/h	422	700	725	391	660	687	286	0	1102	787	0	821
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	15.2	21.3	21.3	15.8	19.8	19.8	23.9	0.0	19.2	26.6	0.0	32.8
Incr Delay (d2), s/veh	0.3	2.7	2.6	0.2	1.1	1.1	5.3	0.0	0.2	0.1	0.0	5.0
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	1.7	7.4	7.7	0.9	3.6	3.8	3.8	0.0	2.1	0.5	0.0	7.9
LnGrp Delay(d), s/veh	15.6	24.0	23.9	16.0	21.0	20.9	29.2	0.0	19.4	26.6	0.0	37.8
LnGrp LOS	B	C	C	B	C	C	C		B	C		D
Approach Vol, veh/h		847			465			311			335	
Approach Delay, s/veh		22.8			20.3			25.3			36.9	
Approach LOS		C			C			C			D	

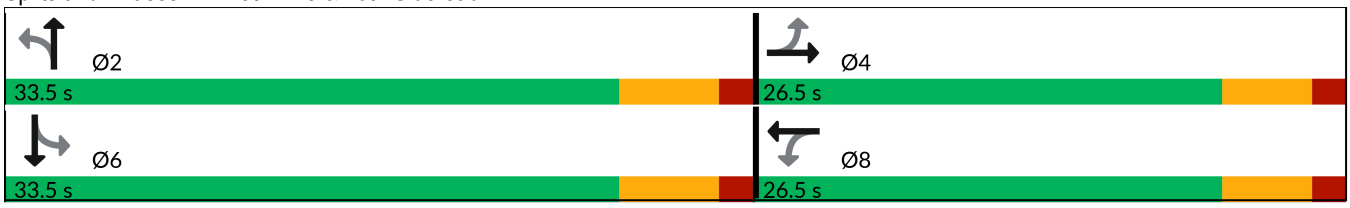
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		40.2	9.6	42.0	12.0	28.2	10.6	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		62.5	7.0	35.0	8.0	50.5	7.0	35.0
Max Q Clear Time (g_c+I1), s		6.7	3.9	16.1	9.0	20.0	6.4	9.3
Green Ext Time (p_c), s		1.0	0.0	5.3	0.0	2.7	0.0	2.9

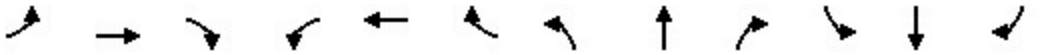
Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	25.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	67	64	15	93	31	61	314	14	31	218	7
Future Volume (vph)	17	67	64	15	93	31	61	314	14	31	218	7
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	0%	0%	2%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.5	26.5		26.5	26.5		33.5	33.5		33.5	33.5	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 49.5
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	67	64	15	93	31	61	314	14	31	218	7
Future Volume (veh/h)	17	67	64	15	93	31	61	314	14	31	218	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1852	1900	1900	1900	1900	1900	1879	1900	1900	1885	1900
Adj Flow Rate, veh/h	18	73	70	30	109	42	66	345	22	52	272	8
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Percent Heavy Veh, %	0	0	6	0	0	0	2	1	0	0	1	0
Cap, veh/h	103	133	115	120	182	64	187	892	53	190	909	25
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	108	856	741	190	1175	412	164	1496	89	168	1526	42
Grp Volume(v), veh/h	161	0	0	181	0	0	433	0	0	332	0	0
Grp Sat Flow(s),veh/h/ln	1705	0	0	1777	0	0	1749	0	0	1736	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	4.3	0.0	0.0	5.6	0.0	0.0	4.0	0.0	0.0
Prop In Lane	0.11		0.43	0.17		0.23	0.15		0.05	0.16		0.02
Lane Grp Cap(c), veh/h	351	0	0	366	0	0	1132	0	0	1125	0	0
V/C Ratio(X)	0.46	0.00	0.00	0.49	0.00	0.00	0.38	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	841	0	0	874	0	0	1132	0	0	1125	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	18.3	0.0	0.0	4.9	0.0	0.0	4.6	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.7	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	2.0	0.0	0.0	2.3	0.0	0.0	3.2	0.0	0.0	2.2	0.0	0.0
LnGrp Delay(d), s/veh	19.1	0.0	0.0	19.3	0.0	0.0	5.9	0.0	0.0	5.2	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		161			181			433			332	
Approach Delay, s/veh		19.1			19.3			5.9			5.2	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		12.6		33.5		12.6
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.5		21.0		27.5		21.0
Max Q Clear Time (g_c+I1), s		7.6		6.0		6.0		6.3
Green Ext Time (p_c), s		3.3		0.9		2.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	9.8
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	85	7	4	91	1	15	0	24	1	0	1
Future Vol, veh/h	1	85	7	4	91	1	15	0	24	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	75	50	92	92	65	92	61	92	92	92
Heavy Vehicles, %	100	6	50	0	22	100	92	100	100	100	100	100
Mvmt Flow	1	92	9	8	99	1	23	0	39	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	100	0	0	101	0	0	215	215	97	234	219	100
Stage 1	-	-	-	-	-	-	99	99	-	116	116	-
Stage 2	-	-	-	-	-	-	116	116	-	118	103	-
Critical Hdwy	5.1	-	-	4.1	-	-	8.02	7.5	7.2	8.1	7.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.02	6.5	-	7.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.02	6.5	-	7.1	6.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	4.328	4.9	4.2	4.4	4.9	4.2
Pot Cap-1 Maneuver	1052	-	-	1504	-	-	585	541	747	556	538	744
Stage 1	-	-	-	-	-	-	727	657	-	698	644	-
Stage 2	-	-	-	-	-	-	711	644	-	696	654	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1052	-	-	1504	-	-	581	537	747	524	534	744
Mov Cap-2 Maneuver	-	-	-	-	-	-	581	537	-	524	534	-
Stage 1	-	-	-	-	-	-	726	656	-	697	640	-
Stage 2	-	-	-	-	-	-	706	640	-	659	653	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	0.5	10.9	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	676	1052	-	-	1504	-	-	615
HCM Lane V/C Ratio	0.092	0.001	-	-	0.005	-	-	0.004
HCM Ctrl Dly (s/v)	10.9	8.4	0	-	7.4	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	47	1	2	78	15	1	2	16	33	1	64
Future Vol, veh/h	39	47	1	2	78	15	1	2	16	33	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	25	92	92	25	92	54	92	92	92
Heavy Vehicles, %	40	11	100	0	6	33	0	50	7	19	0	19
Mvmt Flow	42	51	4	8	85	16	4	2	30	36	1	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	55	0	0	282	254	53	262	248	93
Stage 1	-	-	-	-	-	-	137	137	-	109	109	-
Stage 2	-	-	-	-	-	-	145	117	-	153	139	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.39
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.471
Pot Cap-1 Maneuver	1285	-	-	1563	-	-	674	575	1000	657	658	919
Stage 1	-	-	-	-	-	-	871	700	-	856	809	-
Stage 2	-	-	-	-	-	-	863	715	-	811	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1285	-	-	1563	-	-	604	553	1000	617	632	919
Mov Cap-2 Maneuver	-	-	-	-	-	-	604	553	-	617	632	-
Stage 1	-	-	-	-	-	-	841	676	-	827	805	-
Stage 2	-	-	-	-	-	-	793	711	-	758	758	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.4	0.5	9.2	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	891	1285	-	-	1563	-	-	786
HCM Lane V/C Ratio	0.04	0.033	-	-	0.005	-	-	0.136
HCM Ctrl Dly (s/v)	9.2	7.9	0	-	7.3	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	98	1	1	39	7	2	0	3	31	0	55
Future Vol, veh/h	11	98	1	1	39	7	2	0	3	31	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	7	2	2	20	0	2	0	2	0	0	0
Mvmt Flow	12	107	1	1	42	8	2	0	3	34	0	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	50	0	0	108	0	0	210	184	108	181	180	46
Stage 1	-	-	-	-	-	-	132	132	-	48	48	-
Stage 2	-	-	-	-	-	-	78	52	-	133	132	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1570	-	-	1483	-	-	747	714	946	785	717	1029
Stage 1	-	-	-	-	-	-	871	791	-	971	859	-
Stage 2	-	-	-	-	-	-	931	856	-	875	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1570	-	-	1483	-	-	698	708	946	777	711	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	698	708	-	777	711	-
Stage 1	-	-	-	-	-	-	864	785	-	963	858	-
Stage 2	-	-	-	-	-	-	876	855	-	865	785	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.7	0.2	9.4	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	828	1570	-	-	1483	-	-	921
HCM Lane V/C Ratio	0.007	0.008	-	-	0.001	-	-	0.101
HCM Ctrl Dly (s/v)	9.4	7.3	0	-	7.4	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	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, %	100	100	2	100	100	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	816	856	-	-	1159	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	856	-	-	1159	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	816	1159	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Ctrl Dly (s/v)	-	-	9.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	255	34	131	434	13	147	55	68	16	26	145
Future Volume (vph)	260	255	34	131	434	13	147	55	68	16	26	145
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	21.0	51.0		11.0	41.0		13.0	58.0		45.0	45.0	
Total Split (%)	17.5%	42.5%		9.2%	34.2%		10.8%	48.3%		37.5%	37.5%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.8
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	255	34	131	434	13	147	55	68	16	26	145
Future Volume (veh/h)	260	255	34	131	434	13	147	55	68	16	26	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1795	1900	1863	1870	1900	1810	1849	1900	1900	1520	1900
Adj Flow Rate, veh/h	283	287	56	160	472	16	196	60	96	25	44	158
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	536	1305	251	608	1431	48	272	202	322	301	53	190
Arrive On Green	0.12	0.46	0.46	0.07	0.41	0.41	0.09	0.31	0.31	0.18	0.18	0.18
Sat Flow, veh/h	1645	2853	549	1774	3506	119	1723	641	1026	1250	291	1044
Grp Volume(v), veh/h	283	170	173	160	239	249	196	0	156	25	0	202
Grp Sat Flow(s),veh/h/ln	1645	1705	1697	1774	1776	1849	1723	0	1668	1250	0	1335
Q Serve(g_s), s	9.2	5.9	6.1	5.1	9.0	9.1	8.9	0.0	7.0	1.6	0.0	14.3
Cycle Q Clear(g_c), s	9.2	5.9	6.1	5.1	9.0	9.1	8.9	0.0	7.0	1.6	0.0	14.3
Prop In Lane	1.00		0.32	1.00		0.06	1.00		0.62	1.00		0.78
Lane Grp Cap(c), veh/h	536	780	776	608	725	755	272	0	524	301	0	243
V/C Ratio(X)	0.53	0.22	0.22	0.26	0.33	0.33	0.72	0.00	0.30	0.08	0.00	0.83
Avail Cap(c_a), veh/h	622	780	776	608	725	755	272	0	890	575	0	536
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	13.0	16.1	16.1	14.7	19.9	19.9	29.3	0.0	25.5	33.6	0.0	38.8
Incr Delay (d2), s/veh	0.8	0.6	0.7	0.2	1.2	1.2	8.9	0.0	0.3	0.1	0.0	7.2
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	4.2	2.9	3.0	2.5	4.7	4.9	4.8	0.0	3.3	0.6	0.0	5.8
LnGrp Delay(d), s/veh	13.9	16.7	16.8	14.9	21.1	21.1	38.2	0.0	25.8	33.7	0.0	46.0
LnGrp LOS	B	B	B	B	C	C	D		C	C		D
Approach Vol, veh/h		626			648			352			227	
Approach Delay, s/veh		15.5			19.6			32.7			44.6	
Approach LOS		B			B			C			D	

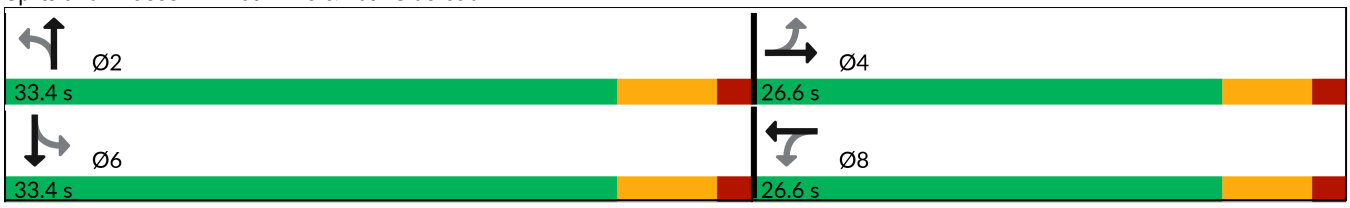
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		36.4	11.0	51.0	13.0	23.4	15.8	46.2
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		52.5	7.0	45.0	9.0	39.5	17.0	35.0
Max Q Clear Time (g_c+I1), s		9.0	7.1	8.1	10.9	16.3	11.2	11.1
Green Ext Time (p_c), s		1.2	0.0	2.6	0.0	1.6	0.6	3.6

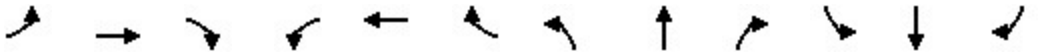
Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	23.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	53	46	28	48	12	45	122	18	37	212	23
Future Volume (vph)	10	53	46	28	48	12	45	122	18	37	212	23
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	5%	6%	13%	13%	0%	2%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.7
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	53	46	28	48	12	45	122	18	37	212	23
Future Volume (veh/h)	10	53	46	28	48	12	45	122	18	37	212	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1749	1900	1900	1705	1900	1900	1805	1900	1900	1849	1900
Adj Flow Rate, veh/h	11	58	51	48	56	14	49	165	24	49	268	27
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	40	5	6	13	13	0	2	6	7	3	3	0
Cap, veh/h	99	102	83	178	103	22	242	751	100	185	902	85
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	88	844	688	523	852	185	233	1213	162	148	1457	137
Grp Volume(v), veh/h	120	0	0	118	0	0	238	0	0	344	0	0
Grp Sat Flow(s),veh/h/ln	1619	0	0	1560	0	0	1608	0	0	1741	0	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	3.0	0.0	0.0	2.6	0.0	0.0	3.9	0.0	0.0
Prop In Lane	0.09		0.42	0.41		0.12	0.21		0.10	0.14		0.08
Lane Grp Cap(c), veh/h	284	0	0	303	0	0	1094	0	0	1171	0	0
V/C Ratio(X)	0.42	0.00	0.00	0.39	0.00	0.00	0.22	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	845	0	0	806	0	0	1094	0	0	1171	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	18.4	0.0	0.0	3.7	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.0	0.6	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	1.4	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	2.1	0.0	0.0
LnGrp Delay(d), s/veh	19.5	0.0	0.0	19.2	0.0	0.0	4.2	0.0	0.0	4.6	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		120			118			238			344	
Approach Delay, s/veh		19.5			19.2			4.2			4.6	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		10.8		33.4		10.8
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		4.6		5.0		5.9		5.0
Green Ext Time (p_c), s		1.7		0.6		2.5		0.6

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	8.7
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	114	9	42	133	1	4	0	9	1	0	1
Future Vol, veh/h	1	114	9	42	133	1	4	0	9	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	58	83	92	92	75	92	35	92	92	92
Heavy Vehicles, %	100	12	14	6	6	100	33	100	43	100	100	100
Mvmt Flow	1	124	16	51	145	1	5	0	26	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	146	0	0	140	0	0	382	382	132	395	390	146
Stage 1	-	-	-	-	-	-	134	134	-	248	248	-
Stage 2	-	-	-	-	-	-	248	248	-	147	142	-
Critical Hdwy	5.1	-	-	4.16	-	-	7.43	7.5	6.63	8.1	7.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	6.5	-	7.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	6.5	-	7.1	6.5	-
Follow-up Hdwy	3.1	-	-	2.254	-	-	3.797	4.9	3.687	4.4	4.9	4.2
Pot Cap-1 Maneuver	1005	-	-	1419	-	-	524	425	819	424	420	696
Stage 1	-	-	-	-	-	-	800	631	-	582	553	-
Stage 2	-	-	-	-	-	-	692	553	-	669	625	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1005	-	-	1419	-	-	507	408	819	398	403	696
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	408	-	398	403	-
Stage 1	-	-	-	-	-	-	799	630	-	581	531	-
Stage 2	-	-	-	-	-	-	664	531	-	647	624	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	2	10.1	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	741	1005	-	-	1419	-	-	506
HCM Lane V/C Ratio	0.042	0.001	-	-	0.036	-	-	0.004
HCM Ctrl Dly (s/v)	10.1	8.6	0	-	7.6	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	91	1	16	68	48	4	0	3	31	0	54
Future Vol, veh/h	87	91	1	16	68	48	4	0	3	31	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	92	92	75	92	50	92	92	92
Heavy Vehicles, %	5	19	0	0	10	6	67	0	0	0	0	14
Mvmt Flow	95	99	4	25	74	52	5	0	6	34	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	126	0	0	103	0	0	471	467	101	444	443	100
Stage 1	-	-	-	-	-	-	291	291	-	150	150	-
Stage 2	-	-	-	-	-	-	180	176	-	294	293	-
Critical Hdwy	4.15	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.426
Pot Cap-1 Maneuver	1442	-	-	1502	-	-	410	496	960	528	512	924
Stage 1	-	-	-	-	-	-	596	675	-	857	777	-
Stage 2	-	-	-	-	-	-	692	757	-	719	674	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1442	-	-	1502	-	-	358	453	960	490	467	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	358	453	-	490	467	-
Stage 1	-	-	-	-	-	-	554	628	-	797	763	-
Stage 2	-	-	-	-	-	-	636	743	-	664	627	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.7	1.2	11.9	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	536	1442	-	-	1502	-	-	698
HCM Lane V/C Ratio	0.021	0.066	-	-	0.016	-	-	0.132
HCM Ctrl Dly (s/v)	11.9	7.7	0	-	7.4	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	60	1	4	165	34	1	0	1	6	0	10
Future Vol, veh/h	62	60	1	4	165	34	1	0	1	6	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	14	2	2	6	0	2	0	2	0	0	0
Mvmt Flow	67	65	1	4	179	37	1	0	1	7	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	66	0	0	411	424	66	406	406	198
Stage 1	-	-	-	-	-	-	200	200	-	206	206	-
Stage 2	-	-	-	-	-	-	211	224	-	200	200	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1366	-	-	1536	-	-	551	525	998	559	537	848
Stage 1	-	-	-	-	-	-	802	739	-	801	735	-
Stage 2	-	-	-	-	-	-	791	722	-	806	739	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1536	-	-	522	497	998	536	508	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	522	497	-	536	508	-
Stage 1	-	-	-	-	-	-	761	701	-	760	733	-
Stage 2	-	-	-	-	-	-	779	720	-	764	701	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.9	0.1	10.3	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	685	1366	-	-	1536	-	-	696
HCM Lane V/C Ratio	0.003	0.049	-	-	0.003	-	-	0.025
HCM Ctrl Dly (s/v)	10.3	7.8	0	-	7.4	0	-	10.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	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, %	100	100	2	100	100	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	816	856	-	-	1159	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	856	-	-	1159	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-

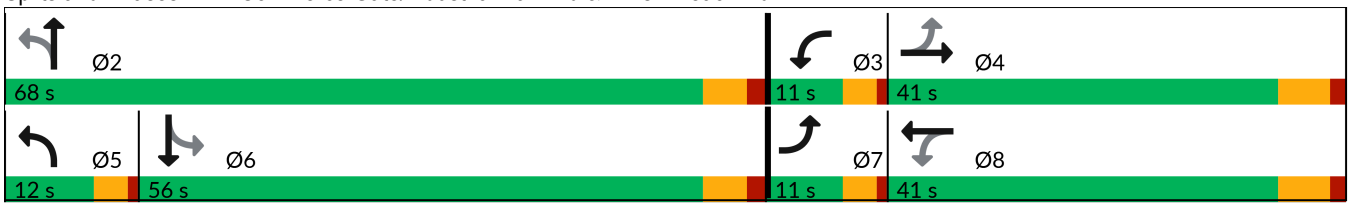
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	816	1159	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Ctrl Dly (s/v)	-	-	9.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	691	26	57	390	11	163	14	80	23	32	271
Future Volume (vph)	116	691	26	57	390	11	163	14	80	23	32	271
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	28%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	11.0	41.0		11.0	41.0		12.0	68.0		56.0	56.0	
Total Split (%)	9.2%	34.2%		9.2%	34.2%		10.0%	56.7%		46.7%	46.7%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 79.6
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	691	26	57	390	11	163	14	80	23	32	271
Future Volume (veh/h)	116	691	26	57	390	11	163	14	80	23	32	271
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1484	1879	1900	1900	1823	1900	1845	1858	1900	1900	1721	1900
Adj Flow Rate, veh/h	126	794	32	64	438	15	187	20	104	31	40	295
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Percent Heavy Veh, %	28	1	4	0	4	11	3	14	0	0	6	11
Cap, veh/h	386	1340	54	321	1266	43	279	102	533	418	47	348
Arrive On Green	0.07	0.38	0.38	0.06	0.37	0.37	0.08	0.39	0.39	0.27	0.27	0.27
Sat Flow, veh/h	1414	3498	141	1810	3417	117	1757	261	1357	1287	178	1312
Grp Volume(v), veh/h	126	405	421	64	222	231	187	0	124	31	0	335
Grp Sat Flow(s),veh/h/ln	1414	1785	1854	1810	1732	1802	1757	0	1618	1287	0	1490
Q Serve(g_s), s	5.1	17.1	17.1	2.0	8.7	8.8	7.1	0.0	4.8	1.7	0.0	20.1
Cycle Q Clear(g_c), s	5.1	17.1	17.1	2.0	8.7	8.8	7.1	0.0	4.8	1.7	0.0	20.1
Prop In Lane	1.00		0.08	1.00		0.06	1.00		0.84	1.00		0.88
Lane Grp Cap(c), veh/h	386	684	710	321	641	668	279	0	635	418	0	396
V/C Ratio(X)	0.33	0.59	0.59	0.20	0.35	0.35	0.67	0.00	0.20	0.07	0.00	0.85
Avail Cap(c_a), veh/h	388	684	710	346	641	668	279	0	1071	764	0	796
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	16.6	23.3	23.3	17.4	21.5	21.5	24.1	0.0	18.9	26.1	0.0	32.9
Incr Delay (d2), s/veh	0.5	3.8	3.6	0.3	1.5	1.4	6.1	0.0	0.1	0.1	0.0	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	2.0	9.2	9.5	1.0	4.4	4.6	3.8	0.0	2.2	0.6	0.0	8.8
LnGrp Delay(d), s/veh	17.1	27.0	26.9	17.7	22.9	22.9	30.1	0.0	19.0	26.2	0.0	37.9
LnGrp LOS	B	C	C	B	C	C	C		B	C		D
Approach Vol, veh/h		952			517			311			366	
Approach Delay, s/veh		25.6			22.3			25.7			36.9	
Approach LOS		C			C			C			D	

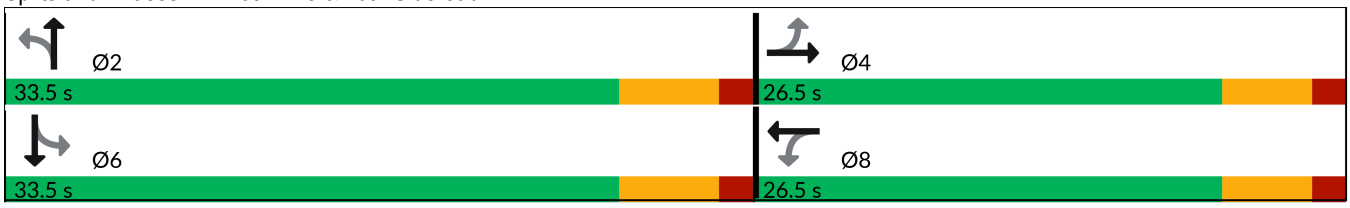
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		42.6	9.7	42.2	12.0	30.6	10.9	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		62.5	7.0	35.0	8.0	50.5	7.0	35.0
Max Q Clear Time (g_c+I1), s		6.8	4.0	19.1	9.1	22.1	7.1	10.8
Green Ext Time (p_c), s		1.0	0.0	5.6	0.0	3.0	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	26.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	76	70	17	107	35	69	356	16	35	246	8
Future Volume (vph)	17	76	70	17	107	35	69	356	16	35	246	8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	0%	0%	2%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.5	26.5		26.5	26.5		33.5	33.5		33.5	33.5	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 50.9
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	76	70	17	107	35	69	356	16	35	246	8
Future Volume (veh/h)	17	76	70	17	107	35	69	356	16	35	246	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1852	1900	1900	1900	1900	1900	1879	1900	1900	1885	1900
Adj Flow Rate, veh/h	18	83	76	34	126	48	75	391	25	58	308	9
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Percent Heavy Veh, %	0	0	6	0	0	0	2	1	0	0	1	0
Cap, veh/h	100	151	126	121	202	70	184	868	52	184	889	24
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	93	882	734	186	1179	409	165	1485	89	163	1522	41
Grp Volume(v), veh/h	177	0	0	208	0	0	491	0	0	375	0	0
Grp Sat Flow(s),veh/h/ln	1709	0	0	1774	0	0	1739	0	0	1726	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	0.0	5.0	0.0	0.0	7.0	0.0	0.0	4.9	0.0	0.0
Prop In Lane	0.10		0.43	0.16		0.23	0.15		0.05	0.15		0.02
Lane Grp Cap(c), veh/h	378	0	0	394	0	0	1104	0	0	1096	0	0
V/C Ratio(X)	0.47	0.00	0.00	0.53	0.00	0.00	0.44	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	827	0	0	856	0	0	1104	0	0	1096	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.0	0.0	0.0	18.2	0.0	0.0	5.5	0.0	0.0	5.1	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.0	0.0	1.3	0.0	0.0	0.9	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	2.2	0.0	0.0	2.6	0.0	0.0	3.9	0.0	0.0	2.8	0.0	0.0
LnGrp Delay(d), s/veh	18.9	0.0	0.0	19.3	0.0	0.0	6.8	0.0	0.0	5.9	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		177			208			491			375	
Approach Delay, s/veh		18.9			19.3			6.8			5.9	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		13.6		33.5		13.6
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.5		21.0		27.5		21.0
Max Q Clear Time (g_c+I1), s		9.0		6.4		6.9		7.0
Green Ext Time (p_c), s		3.7		1.0		2.8		1.1

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	10.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	92	8	5	95	1	18	0	28	1	0	1
Future Vol, veh/h	1	92	8	5	95	1	18	0	28	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	75	50	92	92	65	92	61	92	92	92
Heavy Vehicles, %	100	6	50	0	22	100	92	100	100	100	100	100
Mvmt Flow	1	100	11	10	103	1	28	0	46	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	111	0	0	232	232	106	255	237	104
Stage 1	-	-	-	-	-	-	108	108	-	124	124	-
Stage 2	-	-	-	-	-	-	124	124	-	131	113	-
Critical Hdwy	5.1	-	-	4.1	-	-	8.02	7.5	7.2	8.1	7.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.02	6.5	-	7.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.02	6.5	-	7.1	6.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	4.328	4.9	4.2	4.4	4.9	4.2
Pot Cap-1 Maneuver	1048	-	-	1492	-	-	568	528	737	537	525	739
Stage 1	-	-	-	-	-	-	719	650	-	690	638	-
Stage 2	-	-	-	-	-	-	703	638	-	684	646	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1048	-	-	1492	-	-	563	524	737	500	521	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	563	524	-	500	521	-
Stage 1	-	-	-	-	-	-	718	649	-	689	634	-
Stage 2	-	-	-	-	-	-	697	634	-	641	645	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	0.6	11.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	660	1048	-	-	1492	-	-	596
HCM Lane V/C Ratio	0.112	0.001	-	-	0.007	-	-	0.004
HCM Ctrl Dly (s/v)	11.1	8.4	0	-	7.4	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	53	1	3	81	15	1	3	19	33	1	64
Future Vol, veh/h	39	53	1	3	81	15	1	3	19	33	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	25	92	92	25	92	54	92	92	92
Heavy Vehicles, %	40	11	100	0	6	33	0	50	7	19	0	19
Mvmt Flow	42	58	4	12	88	16	4	3	35	36	1	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	62	0	0	300	272	60	283	266	96
Stage 1	-	-	-	-	-	-	144	144	-	120	120	-
Stage 2	-	-	-	-	-	-	156	128	-	163	146	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.39
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.471
Pot Cap-1 Maneuver	1281	-	-	1554	-	-	656	561	992	636	643	916
Stage 1	-	-	-	-	-	-	864	695	-	845	800	-
Stage 2	-	-	-	-	-	-	851	707	-	801	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1281	-	-	1554	-	-	586	537	992	591	616	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	586	537	-	591	616	-
Stage 1	-	-	-	-	-	-	835	671	-	816	794	-
Stage 2	-	-	-	-	-	-	779	701	-	743	753	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.2	0.8	9.3	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	878	1281	-	-	1554	-	-	770
HCM Lane V/C Ratio	0.048	0.033	-	-	0.008	-	-	0.138
HCM Ctrl Dly (s/v)	9.3	7.9	0	-	7.3	0	-	10.4
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	109	1	1	43	7	2	0	3	31	0	55
Future Vol, veh/h	11	109	1	1	43	7	2	0	3	31	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	7	2	2	20	0	2	0	2	0	0	0
Mvmt Flow	12	118	1	1	47	8	2	0	3	34	0	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	119	0	0	226	200	119	197	196	51
Stage 1	-	-	-	-	-	-	143	143	-	53	53	-
Stage 2	-	-	-	-	-	-	83	57	-	144	143	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1563	-	-	1469	-	-	729	699	933	766	703	1023
Stage 1	-	-	-	-	-	-	860	782	-	965	855	-
Stage 2	-	-	-	-	-	-	925	851	-	864	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1563	-	-	1469	-	-	682	693	933	758	697	1023
Mov Cap-2 Maneuver	-	-	-	-	-	-	682	693	-	758	697	-
Stage 1	-	-	-	-	-	-	853	776	-	957	854	-
Stage 2	-	-	-	-	-	-	870	850	-	854	776	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.7	0.1	9.5	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	813	1563	-	-	1469	-	-	909
HCM Lane V/C Ratio	0.007	0.008	-	-	0.001	-	-	0.103
HCM Ctrl Dly (s/v)	9.5	7.3	0	-	7.5	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	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, %	100	100	2	100	100	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	816	856	-	-	1159	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	856	-	-	1159	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	816	1159	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Ctrl Dly (s/v)	-	-	9.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	284	288	34	131	491	15	147	55	68	19	26	164
Future Volume (vph)	284	288	34	131	491	15	147	55	68	19	26	164
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	21.0	51.0		11.0	41.0		13.0	58.0		45.0	45.0	
Total Split (%)	17.5%	42.5%		9.2%	34.2%		10.8%	48.3%		37.5%	37.5%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 91
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	288	34	131	491	15	147	55	68	19	26	164
Future Volume (veh/h)	284	288	34	131	491	15	147	55	68	19	26	164
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1793	1900	1863	1870	1900	1810	1849	1900	1900	1512	1900
Adj Flow Rate, veh/h	309	324	56	160	534	18	196	60	96	29	44	178
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	506	1304	223	573	1353	46	268	210	336	320	52	211
Arrive On Green	0.13	0.45	0.45	0.07	0.39	0.39	0.09	0.33	0.33	0.20	0.20	0.20
Sat Flow, veh/h	1645	2910	498	1774	3507	118	1723	641	1026	1250	263	1062
Grp Volume(v), veh/h	309	188	192	160	270	282	196	0	156	29	0	222
Grp Sat Flow(s),veh/h/ln	1645	1703	1705	1774	1776	1849	1723	0	1668	1250	0	1325
Q Serve(g_s), s	10.7	6.9	7.0	5.4	11.1	11.1	8.9	0.0	7.0	1.9	0.0	16.2
Cycle Q Clear(g_c), s	10.7	6.9	7.0	5.4	11.1	11.1	8.9	0.0	7.0	1.9	0.0	16.2
Prop In Lane	1.00		0.29	1.00		0.06	1.00		0.62	1.00		0.80
Lane Grp Cap(c), veh/h	506	763	764	573	685	713	268	0	547	320	0	263
V/C Ratio(X)	0.61	0.25	0.25	0.28	0.39	0.40	0.73	0.00	0.29	0.09	0.00	0.84
Avail Cap(c_a), veh/h	568	763	764	573	685	713	268	0	872	563	0	521
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	14.6	17.2	17.2	16.4	22.3	22.4	29.1	0.0	25.0	33.0	0.0	38.8
Incr Delay (d2), s/veh	1.6	0.8	0.8	0.3	1.7	1.6	9.9	0.0	0.3	0.1	0.0	7.3
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	5.0	3.4	3.5	2.7	5.7	6.0	4.9	0.0	3.2	0.7	0.0	6.5
LnGrp Delay(d), s/veh	16.2	18.0	18.0	16.6	24.0	24.0	39.0	0.0	25.3	33.2	0.0	46.1
LnGrp LOS	B	B	B	B	C	C	D		C	C		D
Approach Vol, veh/h		689			712			352			251	
Approach Delay, s/veh		17.2			22.4			32.9			44.6	
Approach LOS		B			C			C			D	

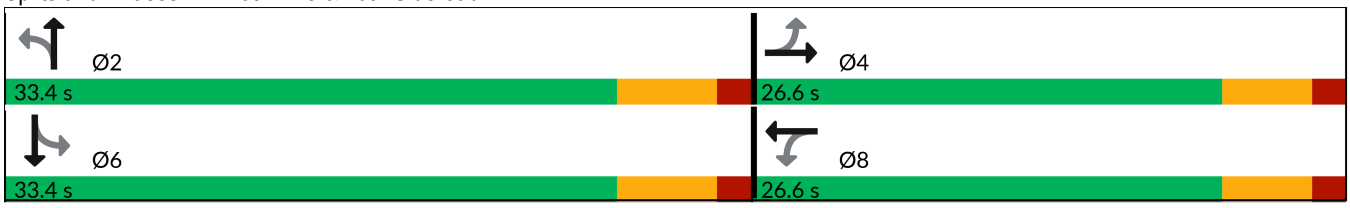
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		38.4	11.0	51.0	13.0	25.4	17.3	44.7
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		52.5	7.0	45.0	9.0	39.5	17.0	35.0
Max Q Clear Time (g_c+I1), s		9.0	7.4	9.0	10.9	18.2	12.7	13.1
Green Ext Time (p_c), s		1.2	0.0	2.9	0.0	1.7	0.5	4.0

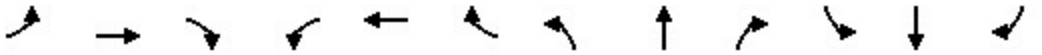
Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	25.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	61	52	32	53	14	48	138	21	41	240	23
Future Volume (vph)	11	61	52	32	53	14	48	138	21	41	240	23
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	5%	6%	13%	13%	0%	2%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 49.2
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	61	52	32	53	14	48	138	21	41	240	23
Future Volume (veh/h)	11	61	52	32	53	14	48	138	21	41	240	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1751	1900	1900	1706	1900	1900	1804	1900	1900	1848	1900
Adj Flow Rate, veh/h	12	66	57	55	62	17	52	186	28	55	304	27
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	40	5	6	13	13	0	2	6	7	3	3	0
Cap, veh/h	98	113	91	182	111	26	228	747	103	182	898	74
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	81	856	685	523	838	198	215	1221	169	147	1469	122
Grp Volume(v), veh/h	135	0	0	134	0	0	266	0	0	386	0	0
Grp Sat Flow(s),veh/h/ln	1622	0	0	1559	0	0	1606	0	0	1738	0	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	0.0	3.4	0.0	0.0	3.1	0.0	0.0	4.7	0.0	0.0
Prop In Lane	0.09		0.42	0.41		0.13	0.20		0.11	0.14		0.07
Lane Grp Cap(c), veh/h	302	0	0	319	0	0	1078	0	0	1154	0	0
V/C Ratio(X)	0.45	0.00	0.00	0.42	0.00	0.00	0.25	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	835	0	0	794	0	0	1078	0	0	1154	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	18.4	0.0	0.0	4.0	0.0	0.0	4.3	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.5	0.0	0.0	0.8	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	1.7	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0	2.5	0.0	0.0
LnGrp Delay(d), s/veh	19.4	0.0	0.0	19.2	0.0	0.0	4.5	0.0	0.0	5.1	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		135			134			266			386	
Approach Delay, s/veh		19.4			19.2			4.5			5.1	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		11.4		33.4		11.4
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		5.1		5.5		6.7		5.4
Green Ext Time (p_c), s		1.9		0.7		2.9		0.7

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	9.1
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	120	10	48	148	1	4	0	10	1	0	1
Future Vol, veh/h	1	120	10	48	148	1	4	0	10	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	58	83	92	92	75	92	35	92	92	92
Heavy Vehicles, %	100	12	14	6	6	100	33	100	43	100	100	100
Mvmt Flow	1	130	17	58	161	1	5	0	29	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	147	0	0	419	419	139	433	427	162
Stage 1	-	-	-	-	-	-	141	141	-	278	278	-
Stage 2	-	-	-	-	-	-	278	278	-	155	149	-
Critical Hdwy	5.1	-	-	4.16	-	-	7.43	7.5	6.63	8.1	7.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	6.5	-	7.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	6.5	-	7.1	6.5	-
Follow-up Hdwy	3.1	-	-	2.254	-	-	3.797	4.9	3.687	4.4	4.9	4.2
Pot Cap-1 Maneuver	989	-	-	1411	-	-	494	403	811	398	398	680
Stage 1	-	-	-	-	-	-	793	626	-	558	534	-
Stage 2	-	-	-	-	-	-	666	534	-	662	620	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	989	-	-	1411	-	-	476	384	811	371	380	680
Mov Cap-2 Maneuver	-	-	-	-	-	-	476	384	-	371	380	-
Stage 1	-	-	-	-	-	-	792	625	-	557	510	-
Stage 2	-	-	-	-	-	-	635	510	-	638	619	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	2	10.2	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	730	989	-	-	1411	-	-	480
HCM Lane V/C Ratio	0.046	0.001	-	-	0.041	-	-	0.005
HCM Ctrl Dly (s/v)	10.2	8.6	0	-	7.7	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	95	1	19	77	48	4	0	3	31	0	54
Future Vol, veh/h	87	95	1	19	77	48	4	0	3	31	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	92	92	75	92	50	92	92	92
Heavy Vehicles, %	5	19	0	0	10	6	67	0	0	0	0	14
Mvmt Flow	95	103	4	29	84	52	5	0	6	34	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	107	0	0	493	489	105	466	465	110
Stage 1	-	-	-	-	-	-	295	295	-	168	168	-
Stage 2	-	-	-	-	-	-	198	194	-	298	297	-
Critical Hdwy	4.15	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.426
Pot Cap-1 Maneuver	1430	-	-	1497	-	-	396	482	955	510	498	912
Stage 1	-	-	-	-	-	-	593	673	-	839	763	-
Stage 2	-	-	-	-	-	-	675	744	-	715	671	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1430	-	-	1497	-	-	345	438	955	472	453	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	438	-	472	453	-
Stage 1	-	-	-	-	-	-	551	625	-	779	747	-
Stage 2	-	-	-	-	-	-	618	728	-	660	623	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.6	1.3	12.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	521	1430	-	-	1497	-	-	681
HCM Lane V/C Ratio	0.022	0.066	-	-	0.02	-	-	0.136
HCM Ctrl Dly (s/v)	12.1	7.7	0	-	7.5	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	68	1	4	186	34	1	0	1	6	0	10
Future Vol, veh/h	62	68	1	4	186	34	1	0	1	6	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	14	2	2	6	0	2	0	2	0	0	0
Mvmt Flow	67	74	1	4	202	37	1	0	1	7	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	239	0	0	75	0	0	443	456	75	438	438	221
Stage 1	-	-	-	-	-	-	209	209	-	229	229	-
Stage 2	-	-	-	-	-	-	234	247	-	209	209	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1340	-	-	1524	-	-	525	504	986	532	515	824
Stage 1	-	-	-	-	-	-	793	733	-	778	718	-
Stage 2	-	-	-	-	-	-	769	706	-	798	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1340	-	-	1524	-	-	496	476	986	509	487	824
Mov Cap-2 Maneuver	-	-	-	-	-	-	496	476	-	509	487	-
Stage 1	-	-	-	-	-	-	752	695	-	738	716	-
Stage 2	-	-	-	-	-	-	757	704	-	756	695	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.7	0.1	10.5	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	660	1340	-	-	1524	-	-	669
HCM Lane V/C Ratio	0.003	0.05	-	-	0.003	-	-	0.026
HCM Ctrl Dly (s/v)	10.5	7.8	0	-	7.4	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	0	2	0	0
Future Vol, veh/h	2	0	0	2	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, %	100	100	2	100	100	2
Mvmt Flow	2	0	0	2	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	816	856	-	-	1159	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	856	-	-	1159	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	816	1159	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Ctrl Dly (s/v)	-	-	9.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	59	1	3	85	15	1	3	22	33	1	64
Future Vol, veh/h	39	59	1	3	85	15	1	3	22	33	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	25	92	92	25	92	54	92	92	92
Heavy Vehicles, %	40	11	100	0	6	33	0	50	7	19	0	19
Mvmt Flow	42	64	4	12	92	16	4	3	41	36	1	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	68	0	0	310	282	66	296	276	100
Stage 1	-	-	-	-	-	-	150	150	-	124	124	-
Stage 2	-	-	-	-	-	-	160	132	-	172	152	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.39
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.471
Pot Cap-1 Maneuver	1276	-	-	1546	-	-	646	554	984	624	635	911
Stage 1	-	-	-	-	-	-	857	690	-	841	797	-
Stage 2	-	-	-	-	-	-	847	704	-	792	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	1546	-	-	577	531	984	577	608	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	577	531	-	577	608	-
Stage 1	-	-	-	-	-	-	828	667	-	812	791	-
Stage 2	-	-	-	-	-	-	775	698	-	730	749	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3	0.7	9.3	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	881	1276	-	-	1546	-	-	759
HCM Lane V/C Ratio	0.054	0.033	-	-	0.008	-	-	0.14
HCM Ctrl Dly (s/v)	9.3	7.9	0	-	7.3	0	-	10.5
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	121	10	48	149	4	10
Future Vol, veh/h	121	10	48	149	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	58	83	92	75	35
Heavy Vehicles, %	13	14	6	6	33	43
Mvmt Flow	132	17	58	162	5	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	149	0	419	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	278	-
Critical Hdwy	-	-	4.16	-	6.73	6.63
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.254	-	3.797	3.687
Pot Cap-1 Maneuver	-	-	1408	-	536	809
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	703	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1408	-	512	809
Mov Cap-2 Maneuver	-	-	-	-	512	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	671	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	741	-	-	1408	-
HCM Lane V/C Ratio	0.046	-	-	0.041	-
HCM Ctrl Dly (s/v)	10.1	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	63	67	1	4	185	35	1	0	1	7	0	11
Future Vol, veh/h	63	67	1	4	185	35	1	0	1	7	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	12	2	2	6	3	2	0	2	14	0	9
Mvmt Flow	68	73	1	4	201	38	1	0	1	8	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	239	0	0	74	0	0	444	457	74	438	438	220
Stage 1	-	-	-	-	-	-	210	210	-	228	228	-
Stage 2	-	-	-	-	-	-	234	247	-	210	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.5	6.22	7.24	6.5	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.24	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.24	5.5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4	3.318	3.626	4	3.381
Pot Cap-1 Maneuver	1328	-	-	1526	-	-	524	503	988	509	515	802
Stage 1	-	-	-	-	-	-	792	732	-	748	719	-
Stage 2	-	-	-	-	-	-	769	706	-	765	732	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1328	-	-	1526	-	-	494	475	988	487	486	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	494	475	-	487	486	-
Stage 1	-	-	-	-	-	-	750	693	-	708	717	-
Stage 2	-	-	-	-	-	-	755	704	-	724	693	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.8	0.1	10.5	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	659	1328	-	-	1526	-	-	641
HCM Lane V/C Ratio	0.003	0.052	-	-	0.003	-	-	0.031
HCM Ctrl Dly (s/v)	10.5	7.9	0	-	7.4	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	102	9	6	100	21	32
Future Vol, veh/h	102	9	6	100	21	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	75	50	92	65	61
Heavy Vehicles, %	7	50	0	23	92	100
Mvmt Flow	111	12	12	109	32	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	250	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	133	-
Critical Hdwy	-	-	4.1	-	7.32	7.2
Critical Hdwy Stg 1	-	-	-	-	6.32	-
Critical Hdwy Stg 2	-	-	-	-	6.32	-
Follow-up Hdwy	-	-	2.2	-	4.328	4.2
Pot Cap-1 Maneuver	-	-	1477	-	579	726
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1477	-	574	726
Mov Cap-2 Maneuver	-	-	-	-	574	-
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	707	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.7	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	659	-	-	1477	-
HCM Lane V/C Ratio	0.129	-	-	0.008	-
HCM Ctrl Dly (s/v)	11.3	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	121	1	1	47	8	2	0	3	32	0	56
Future Vol, veh/h	12	121	1	1	47	8	2	0	3	32	0	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	6	2	2	18	3	2	0	2	14	0	9
Mvmt Flow	13	132	1	1	51	9	2	0	3	35	0	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	133	0	0	247	221	133	218	217	56
Stage 1	-	-	-	-	-	-	159	159	-	58	58	-
Stage 2	-	-	-	-	-	-	88	62	-	160	159	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.24	6.5	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.24	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.24	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.626	4	3.381
Pot Cap-1 Maneuver	1556	-	-	1452	-	-	707	681	916	713	685	991
Stage 1	-	-	-	-	-	-	843	770	-	924	851	-
Stage 2	-	-	-	-	-	-	920	847	-	815	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1556	-	-	1452	-	-	658	674	916	705	678	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	658	674	-	705	678	-
Stage 1	-	-	-	-	-	-	835	763	-	916	850	-
Stage 2	-	-	-	-	-	-	863	846	-	805	763	-

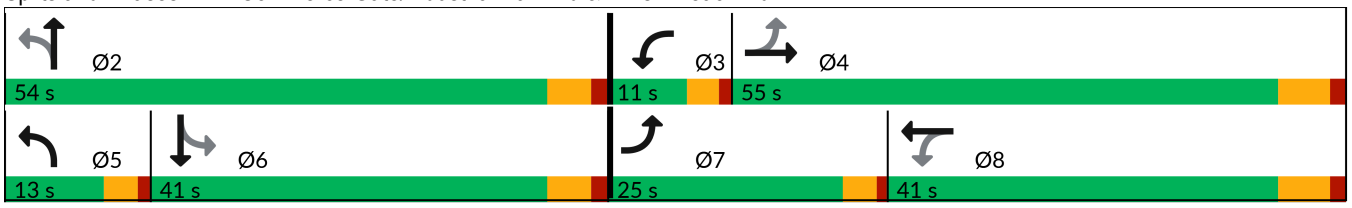
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.7	0.1	9.6	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	792	1556	-	-	1452	-	-	864
HCM Lane V/C Ratio	0.007	0.008	-	-	0.001	-	-	0.111
HCM Ctrl Dly (s/v)	9.6	7.3	0	-	7.5	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	445	288	34	131	491	15	147	55	68	19	26	189
Future Volume (vph)	445	288	34	131	491	15	147	55	68	19	26	189
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	7%	0%	2%	1%	20%	5%	4%	2%	0%	0%	32%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	25.0	55.0		11.0	41.0		13.0	54.0		41.0	41.0	
Total Split (%)	20.8%	45.8%		9.2%	34.2%		10.8%	45.0%		34.2%	34.2%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 96
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	445	288	34	131	491	15	147	55	68	19	26	189
Future Volume (veh/h)	445	288	34	131	491	15	147	55	68	19	26	189
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1727	1793	1900	1863	1870	1900	1810	1849	1900	1900	1504	1900
Adj Flow Rate, veh/h	484	324	56	160	534	18	196	60	96	29	44	205
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.89	0.61	0.82	0.92	0.83	0.75	0.92	0.71	0.65	0.59	0.92
Percent Heavy Veh, %	10	7	0	2	1	20	5	4	2	0	0	32
Cap, veh/h	547	1322	226	506	1138	38	247	216	346	338	50	234
Arrive On Green	0.19	0.45	0.45	0.06	0.32	0.32	0.08	0.34	0.34	0.22	0.22	0.22
Sat Flow, veh/h	1645	2910	498	1774	3507	118	1723	641	1026	1250	232	1081
Grp Volume(v), veh/h	484	188	192	160	270	282	196	0	156	29	0	249
Grp Sat Flow(s),veh/h/ln	1645	1703	1705	1774	1776	1849	1723	0	1668	1250	0	1313
Q Serve(g_s), s	20.8	7.3	7.5	6.5	13.1	13.1	9.0	0.0	7.4	2.0	0.0	19.8
Cycle Q Clear(g_c), s	20.8	7.3	7.5	6.5	13.1	13.1	9.0	0.0	7.4	2.0	0.0	19.8
Prop In Lane	1.00		0.29	1.00		0.06	1.00		0.62	1.00		0.82
Lane Grp Cap(c), veh/h	547	774	774	506	576	600	247	0	562	338	0	284
V/C Ratio(X)	0.88	0.24	0.25	0.32	0.47	0.47	0.79	0.00	0.28	0.09	0.00	0.88
Avail Cap(c_a), veh/h	547	774	774	506	576	600	247	0	750	478	0	432
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	19.1	18.1	18.1	22.1	29.0	29.0	31.7	0.0	26.1	33.9	0.0	40.8
Incr Delay (d2), s/veh	15.8	0.7	0.8	0.4	2.7	2.6	16.1	0.0	0.3	0.1	0.0	12.2
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	11.5	3.6	3.7	3.2	6.8	7.1	5.5	0.0	3.4	0.7	0.0	8.2
LnGrp Delay(d), s/veh	34.8	18.8	18.9	22.5	31.8	31.7	47.8	0.0	26.4	34.0	0.0	53.1
LnGrp LOS	C	B	B	C	C	C	D		C	C		D
Approach Vol, veh/h		864			712			352			278	
Approach Delay, s/veh		27.8			29.6			38.3			51.1	
Approach LOS		C			C			D			D	

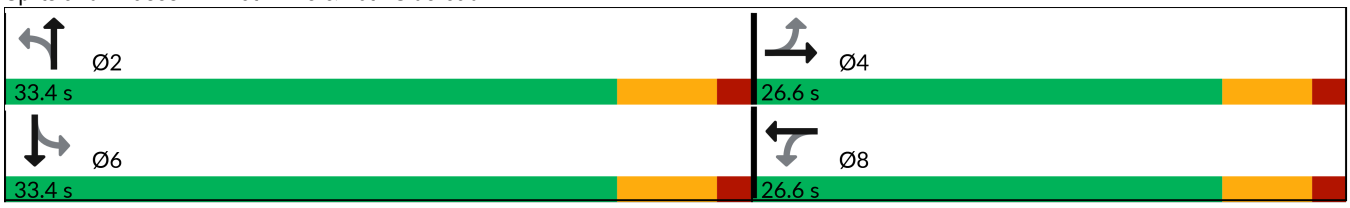
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		41.9	11.0	55.0	13.0	28.9	25.0	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		48.5	7.0	49.0	9.0	35.5	21.0	35.0
Max Q Clear Time (g_c+I1), s		9.4	8.5	9.5	11.0	21.8	22.8	15.1
Green Ext Time (p_c), s		1.2	0.0	3.0	0.0	1.6	0.0	3.9

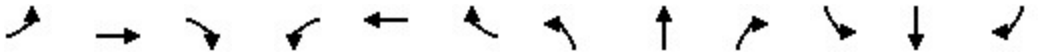
Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	33.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	65	58	32	77	14	85	138	21	41	240	49
Future Volume (vph)	16	65	58	32	77	14	85	138	21	41	240	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	44%	5%	7%	13%	13%	0%	2%	6%	7%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.6	26.6		26.6	26.6		33.4	33.4		33.4	33.4	
Total Split (%)	44.3%	44.3%		44.3%	44.3%		55.7%	55.7%		55.7%	55.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 50.2
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	65	58	32	77	14	85	138	21	41	240	49
Future Volume (veh/h)	16	65	58	32	77	14	85	138	21	41	240	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1724	1900	1900	1702	1900	1900	1811	1900	1900	1852	1900
Adj Flow Rate, veh/h	17	71	64	55	91	17	92	186	28	55	304	58
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.91	0.58	0.85	0.83	0.92	0.74	0.75	0.75	0.79	0.85
Percent Heavy Veh, %	44	5	7	13	13	0	2	6	7	3	3	0
Cap, veh/h	103	125	102	167	151	25	318	599	82	167	813	144
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	101	823	672	409	999	164	361	1003	137	130	1360	241
Grp Volume(v), veh/h	152	0	0	163	0	0	306	0	0	417	0	0
Grp Sat Flow(s),veh/h/ln	1596	0	0	1573	0	0	1501	0	0	1731	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	4.2	0.0	0.0	3.8	0.0	0.0	5.5	0.0	0.0
Prop In Lane	0.11		0.42	0.34		0.10	0.30		0.09	0.13		0.14
Lane Grp Cap(c), veh/h	329	0	0	343	0	0	999	0	0	1124	0	0
V/C Ratio(X)	0.46	0.00	0.00	0.47	0.00	0.00	0.31	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	802	0	0	787	0	0	999	0	0	1124	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	18.3	0.0	0.0	4.5	0.0	0.0	4.8	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	1.0	0.0	0.0	0.8	0.0	0.0	0.9	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	1.9	0.0	0.0	2.0	0.0	0.0	2.1	0.0	0.0	3.0	0.0	0.0
LnGrp Delay(d), s/veh	19.2	0.0	0.0	19.3	0.0	0.0	5.3	0.0	0.0	5.8	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		152			163			306			417	
Approach Delay, s/veh		19.2			19.3			5.3			5.8	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.4		12.4		33.4		12.4
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.4		21.1		27.4		21.1
Max Q Clear Time (g_c+I1), s		5.8		6.0		7.5		6.2
Green Ext Time (p_c), s		2.3		0.8		3.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	9.7
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	41	120	10	48	148	88	4	41	10	16	7	7
Future Vol, veh/h	41	120	10	48	148	88	4	41	10	16	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	58	83	92	92	75	92	35	92	92	92
Heavy Vehicles, %	5	12	14	6	6	3	33	2	43	19	14	29
Mvmt Flow	45	130	17	58	161	96	5	45	29	17	8	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	257	0	0	147	0	0	562	602	139	591	562	209
Stage 1	-	-	-	-	-	-	229	229	-	325	325	-
Stage 2	-	-	-	-	-	-	333	373	-	266	237	-
Critical Hdwy	4.15	-	-	4.16	-	-	7.43	6.52	6.63	7.29	6.64	6.49
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.52	-	6.29	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.52	-	6.29	5.64	-
Follow-up Hdwy	2.245	-	-	2.254	-	-	3.797	4.018	3.687	3.671	4.126	3.561
Pot Cap-1 Maneuver	1290	-	-	1411	-	-	394	414	811	395	420	768
Stage 1	-	-	-	-	-	-	709	715	-	653	628	-
Stage 2	-	-	-	-	-	-	620	618	-	703	687	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1290	-	-	1411	-	-	359	379	811	325	384	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	379	-	325	384	-
Stage 1	-	-	-	-	-	-	682	688	-	628	597	-
Stage 2	-	-	-	-	-	-	576	588	-	610	661	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.8	1.4	14.2	15
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	468	1290	-	-	1411	-	-	392
HCM Lane V/C Ratio	0.168	0.035	-	-	0.041	-	-	0.083
HCM Ctrl Dly (s/v)	14.2	7.9	0	-	7.7	0	-	15
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	167	135	1	19	83	48	4	0	3	31	0	66
Future Vol, veh/h	167	135	1	19	83	48	4	0	3	31	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	15	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	65	92	92	75	92	50	92	92	92
Heavy Vehicles, %	4	19	0	0	11	6	67	0	0	0	0	15
Mvmt Flow	182	147	4	29	90	52	5	0	6	34	0	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	151	0	0	723	713	149	690	689	116
Stage 1	-	-	-	-	-	-	513	513	-	174	174	-
Stage 2	-	-	-	-	-	-	210	200	-	516	515	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.77	6.5	6.2	7.1	6.5	6.35
Critical Hdwy Stg 1	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.77	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	4.103	4	3.3	3.5	4	3.435
Pot Cap-1 Maneuver	1429	-	-	1442	-	-	271	360	903	362	371	902
Stage 1	-	-	-	-	-	-	442	539	-	833	759	-
Stage 2	-	-	-	-	-	-	665	739	-	546	538	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1442	-	-	221	307	903	319	317	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	307	-	319	317	-
Stage 1	-	-	-	-	-	-	386	471	-	727	742	-
Stage 2	-	-	-	-	-	-	599	723	-	473	470	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.3	1.3	15.1	12.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	368	1429	-	-	1442	-	-	569
HCM Lane V/C Ratio	0.031	0.127	-	-	0.02	-	-	0.185
HCM Ctrl Dly (s/v)	15.1	7.9	-	-	7.5	0	-	12.8
HCM Lane LOS	C	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0.1	-	-	0.7

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	83	1	4	273	34	1	0	1	6	0	10
Future Vol, veh/h	62	83	1	4	273	34	1	0	1	6	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	16	2	2	7	0	2	0	2	0	0	0
Mvmt Flow	67	90	1	4	297	37	1	0	1	7	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	334	0	0	91	0	0	554	567	91	549	549	316
Stage 1	-	-	-	-	-	-	225	225	-	324	324	-
Stage 2	-	-	-	-	-	-	329	342	-	225	225	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1209	-	-	1504	-	-	443	436	967	450	446	729
Stage 1	-	-	-	-	-	-	778	721	-	692	653	-
Stage 2	-	-	-	-	-	-	684	642	-	782	721	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1209	-	-	1504	-	-	416	409	967	428	419	729
Mov Cap-2 Maneuver	-	-	-	-	-	-	416	409	-	428	419	-
Stage 1	-	-	-	-	-	-	733	679	-	652	651	-
Stage 2	-	-	-	-	-	-	672	640	-	736	679	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.5	0.1	11.2	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	582	1209	-	-	1504	-	-	577
HCM Lane V/C Ratio	0.004	0.056	-	-	0.003	-	-	0.03
HCM Ctrl Dly (s/v)	11.2	8.2	0	-	7.4	0	-	11.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	168	2	0	28
Future Vol, veh/h	2	0	168	2	0	28
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, %	100	100	2	100	100	14
Mvmt Flow	2	0	183	2	0	30

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	214	184	0	0	185	0
Stage 1	184	-	-	-	-	-
Stage 2	30	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	599	659	-	-	967	-
Stage 1	659	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	599	659	-	-	967	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	790	-	-	-	-	-

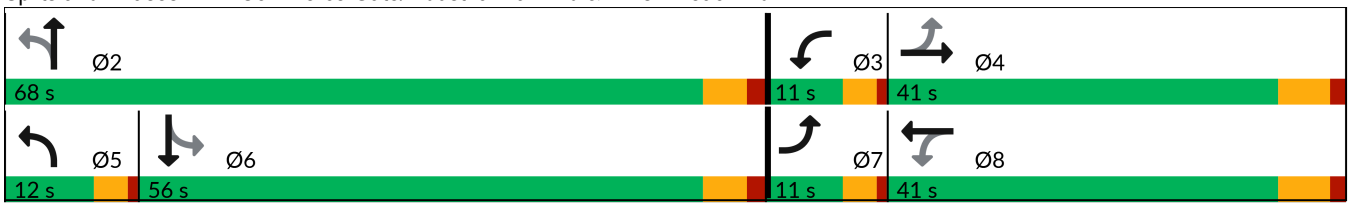
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	599	967	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Ctrl Dly (s/v)	-	-	11	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	782	26	57	441	13	163	14	80	26	32	451
Future Volume (vph)	167	782	26	57	441	13	163	14	80	26	32	451
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	28%	1%	4%	0%	4%	11%	3%	14%	0%	0%	6%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	35.0		7.0	35.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	41.0		11.0	41.0		11.0	32.5		32.5	32.5	
Total Split (s)	11.0	41.0		11.0	41.0		12.0	68.0		56.0	56.0	
Total Split (%)	9.2%	34.2%		9.2%	34.2%		10.0%	56.7%		46.7%	46.7%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	Max		None	Max		None	None		None	None	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 95.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	782	26	57	441	13	163	14	80	26	32	451
Future Volume (veh/h)	167	782	26	57	441	13	163	14	80	26	32	451
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1484	1879	1900	1900	1823	1900	1845	1858	1900	1900	1718	1900
Adj Flow Rate, veh/h	182	899	32	64	496	17	187	20	104	35	40	490
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.87	0.81	0.89	0.89	0.75	0.87	0.70	0.77	0.75	0.80	0.92
Percent Heavy Veh, %	28	1	4	0	4	11	3	14	0	0	6	11
Cap, veh/h	285	1113	40	210	1054	36	226	129	670	562	43	529
Arrive On Green	0.06	0.32	0.32	0.05	0.31	0.31	0.07	0.49	0.49	0.39	0.39	0.39
Sat Flow, veh/h	1414	3517	125	1810	3417	117	1757	261	1357	1287	111	1365
Grp Volume(v), veh/h	182	456	475	64	251	262	187	0	124	35	0	530
Grp Sat Flow(s),veh/h/ln	1414	1785	1857	1810	1732	1802	1757	0	1618	1287	0	1477
Q Serve(g_s), s	7.0	26.6	26.6	2.7	13.3	13.4	7.1	0.0	4.8	1.9	0.0	38.9
Cycle Q Clear(g_c), s	7.0	26.6	26.6	2.7	13.3	13.4	7.1	0.0	4.8	1.9	0.0	38.9
Prop In Lane	1.00		0.07	1.00		0.06	1.00		0.84	1.00		0.92
Lane Grp Cap(c), veh/h	285	565	588	210	534	556	226	0	799	562	0	573
V/C Ratio(X)	0.64	0.81	0.81	0.30	0.47	0.47	0.83	0.00	0.16	0.06	0.00	0.93
Avail Cap(c_a), veh/h	285	565	588	225	534	556	226	0	891	636	0	657
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	31.3	35.6	35.6	27.2	31.8	31.8	26.2	0.0	15.8	21.9	0.0	33.2
Incr Delay (d2), s/veh	4.7	11.8	11.4	0.8	3.0	2.9	21.8	0.0	0.1	0.0	0.0	17.8
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	4.3	14.9	15.4	1.4	6.8	7.1	4.7	0.0	2.2	0.7	0.0	18.6
LnGrp Delay(d), s/veh	36.0	47.4	47.0	28.0	34.7	34.6	48.0	0.0	15.9	21.9	0.0	51.0
LnGrp LOS	D	D	D	C	C	C	D		B	C		D
Approach Vol, veh/h		1113			577			311			565	
Approach Delay, s/veh		45.3			33.9			35.2			49.2	
Approach LOS		D			C			D			D	

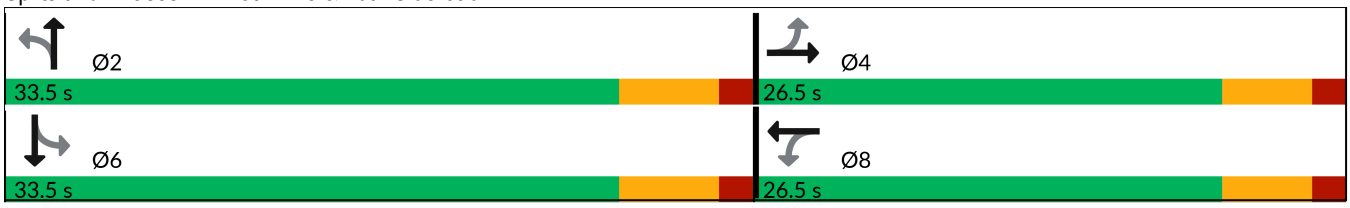
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		61.5	10.1	41.9	12.0	49.5	11.0	41.0
Change Period (Y+Rc), s		5.5	4.0	6.0	4.0	5.5	4.0	6.0
Max Green Setting (Gmax), s		62.5	7.0	35.0	8.0	50.5	7.0	35.0
Max Q Clear Time (g_c+I1), s		6.8	4.7	28.6	9.1	40.9	9.0	15.4
Green Ext Time (p_c), s		1.0	0.0	3.4	0.0	3.1	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	42.4
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	108	114	19	129	40	88	403	18	40	278	14
Future Volume (vph)	41	108	114	19	129	40	88	403	18	40	278	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	6%	0%	0%	0%	2%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	26.5	26.5		26.5	26.5		27.0	27.0		27.0	27.0	
Total Split (s)	26.5	26.5		26.5	26.5		33.5	33.5		33.5	33.5	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 51.7
Natural Cycle: 60
Control Type: Semi Act-Uncoord

Splits and Phases: 2: 9th Line & 10th Sideroad



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	41	108	114	19	129	40	88	403	18	40	278	14
Future Volume (veh/h)	41	108	114	19	129	40	88	403	18	40	278	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1846	1900	1900	1900	1900	1900	1879	1900	1900	1885	1900
Adj Flow Rate, veh/h	45	117	124	38	152	55	96	443	28	67	348	16
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.50	0.85	0.73	0.92	0.91	0.65	0.60	0.80	0.85
Percent Heavy Veh, %	2	0	6	0	0	0	2	1	0	0	1	0
Cap, veh/h	121	175	163	121	275	91	192	774	46	172	813	35
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	169	778	725	169	1223	403	198	1416	84	163	1487	64
Grp Volume(v), veh/h	286	0	0	245	0	0	567	0	0	431	0	0
Grp Sat Flow(s),veh/h/ln	1671	0	0	1796	0	0	1698	0	0	1714	0	0
Q Serve(g_s), s	1.8	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	0.0	0.0	6.0	0.0	0.0	10.5	0.0	0.0	6.8	0.0	0.0
Prop In Lane	0.16		0.43	0.16		0.22	0.17		0.05	0.16		0.04
Lane Grp Cap(c), veh/h	459	0	0	487	0	0	1011	0	0	1019	0	0
V/C Ratio(X)	0.62	0.00	0.00	0.50	0.00	0.00	0.56	0.00	0.00	0.42	0.00	0.00
Avail Cap(c_a), veh/h	762	0	0	807	0	0	1011	0	0	1019	0	0
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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	17.4	0.0	0.0	7.5	0.0	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.8	0.0	0.0	2.2	0.0	0.0	1.3	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	3.8	0.0	0.0	3.1	0.0	0.0	5.7	0.0	0.0	3.8	0.0	0.0
LnGrp Delay(d), s/veh	19.5	0.0	0.0	18.2	0.0	0.0	9.7	0.0	0.0	8.0	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		286			245			567			431	
Approach Delay, s/veh		19.5			18.2			9.7			8.0	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		16.8		33.5		16.8
Change Period (Y+Rc), s		6.0		5.5		6.0		5.5
Max Green Setting (Gmax), s		27.5		21.0		27.5		21.0
Max Q Clear Time (g_c+I1), s		12.5		9.8		8.8		8.0
Green Ext Time (p_c), s		4.1		1.5		3.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay, s/veh	12.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	101	9	6	99	22	21	10	32	85	39	39
Future Vol, veh/h	11	101	9	6	99	22	21	10	32	85	39	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	75	50	92	92	65	92	61	92	92	92
Heavy Vehicles, %	18	6	50	0	22	14	92	10	100	5	3	5
Mvmt Flow	12	110	12	12	108	24	32	11	52	92	42	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	122	0	0	326	296	116	316	290	120
Stage 1	-	-	-	-	-	-	140	140	-	144	144	-
Stage 2	-	-	-	-	-	-	186	156	-	172	146	-
Critical Hdwy	4.28	-	-	4.1	-	-	8.02	6.6	7.2	7.15	6.53	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	7.02	5.6	-	6.15	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.02	5.6	-	6.15	5.53	-
Follow-up Hdwy	2.362	-	-	2.2	-	-	4.328	4.09	4.2	3.545	4.027	3.345
Pot Cap-1 Maneuver	1360	-	-	1478	-	-	486	602	727	631	619	923
Stage 1	-	-	-	-	-	-	688	766	-	852	776	-
Stage 2	-	-	-	-	-	-	646	754	-	823	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1360	-	-	1478	-	-	433	591	727	569	608	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	433	591	-	569	608	-
Stage 1	-	-	-	-	-	-	682	759	-	844	769	-
Stage 2	-	-	-	-	-	-	577	747	-	746	767	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.7	0.6	12.4	12.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	579	1360	-	-	1478	-	-	637
HCM Lane V/C Ratio	0.165	0.009	-	-	0.008	-	-	0.278
HCM Ctrl Dly (s/v)	12.4	7.7	0	-	7.5	0	-	12.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	1.1

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	69	1	3	123	15	1	3	22	33	1	140
Future Vol, veh/h	57	69	1	3	123	15	1	3	22	33	1	140
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	15	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	25	25	92	92	25	92	54	92	92	92
Heavy Vehicles, %	40	12	100	0	7	33	0	50	7	19	0	19
Mvmt Flow	62	75	4	12	134	16	4	3	41	36	1	152

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	79	0	0	444	375	77	389	369	142
Stage 1	-	-	-	-	-	-	201	201	-	166	166	-
Stage 2	-	-	-	-	-	-	243	174	-	223	203	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.1	7	6.27	7.29	6.5	6.39
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6	-	6.29	5.5	-
Follow-up Hdwy	2.56	-	-	2.2	-	-	3.5	4.45	3.363	3.671	4	3.471
Pot Cap-1 Maneuver	1229	-	-	1532	-	-	528	488	970	540	563	863
Stage 1	-	-	-	-	-	-	805	654	-	798	765	-
Stage 2	-	-	-	-	-	-	765	673	-	743	737	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1229	-	-	1532	-	-	414	459	970	491	530	863
Mov Cap-2 Maneuver	-	-	-	-	-	-	414	459	-	491	530	-
Stage 1	-	-	-	-	-	-	765	621	-	758	758	-
Stage 2	-	-	-	-	-	-	624	667	-	672	700	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.6	0.5	9.7	11.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	817	1229	-	-	1532	-	-	752
HCM Lane V/C Ratio	0.059	0.05	-	-	0.008	-	-	0.252
HCM Ctrl Dly (s/v)	9.7	8.1	-	-	7.4	0	-	11.4
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	206	1	1	69	7	2	0	3	31	0	55
Future Vol, veh/h	11	206	1	1	69	7	2	0	3	31	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	7	2	2	22	0	2	0	2	0	0	0
Mvmt Flow	12	224	1	1	75	8	2	0	3	34	0	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	225	0	0	360	334	225	331	330	79
Stage 1	-	-	-	-	-	-	249	249	-	81	81	-
Stage 2	-	-	-	-	-	-	111	85	-	250	249	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1527	-	-	1344	-	-	596	589	814	626	592	987
Stage 1	-	-	-	-	-	-	755	704	-	932	832	-
Stage 2	-	-	-	-	-	-	894	828	-	759	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1527	-	-	1344	-	-	555	583	814	618	586	987
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	583	-	618	586	-
Stage 1	-	-	-	-	-	-	748	698	-	924	831	-
Stage 2	-	-	-	-	-	-	839	827	-	749	698	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.4	0.1	10.3	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	686	1527	-	-	1344	-	-	812
HCM Lane V/C Ratio	0.008	0.008	-	-	0.001	-	-	0.115
HCM Ctrl Dly (s/v)	10.3	7.4	0	-	7.7	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	41	2	0	161
Future Vol, veh/h	2	0	41	2	0	161
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, %	100	100	10	100	100	3
Mvmt Flow	2	0	45	2	0	175

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	221	46	0	0	47	0
Stage 1	46	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	593	803	-	-	1109	-
Stage 1	775	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	593	803	-	-	1109	-
Mov Cap-2 Maneuver	593	-	-	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	666	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	1109	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Ctrl Dly (s/v)	-	-	11.1	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2323	2356	2325	2326	2344	2331
Vehs Exited	2314	2343	2330	2335	2359	2336
Starting Vehs	49	61	72	67	67	63
Ending Vehs	58	74	67	58	52	60
Travel Distance (km)	2379	2428	2455	2458	2508	2446
Travel Time (hr)	59.9	60.5	61.0	60.4	62.4	60.8
Total Delay (hr)	10.0	9.6	9.7	9.1	9.9	9.7
Total Stops	1322	1275	1279	1265	1348	1294
Fuel Used (l)	184.4	186.8	188.0	189.7	193.5	188.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2323	2356	2325	2326	2344	2331
Vehs Exited	2314	2343	2330	2335	2359	2336
Starting Vehs	49	61	72	67	67	63
Ending Vehs	58	74	67	58	52	60
Travel Distance (km)	2379	2428	2455	2458	2508	2446
Travel Time (hr)	59.9	60.5	61.0	60.4	62.4	60.8
Total Delay (hr)	10.0	9.6	9.7	9.1	9.9	9.7
Total Stops	1322	1275	1279	1265	1348	1294
Fuel Used (l)	184.4	186.8	188.0	189.7	193.5	188.5

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	54.5	38.4	35.4	29.1	44.1	42.1	55.8	41.2	15.4	63.0
Average Queue (m)	23.9	13.4	12.6	13.5	22.5	17.4	24.9	15.8	4.2	25.8
95th Queue (m)	43.3	27.4	26.8	24.7	37.9	35.0	43.7	31.6	12.7	48.6
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	41.2	36.2	40.8	35.9
Average Queue (m)	13.9	12.4	10.3	12.7
95th Queue (m)	27.8	26.4	25.2	27.0
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway & 9th Line

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	12.7	19.7	12.2
Average Queue (m)	1.3	3.4	0.6
95th Queue (m)	7.1	13.1	5.4
Link Distance (m)	147.2	397.2	228.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	17.7	6.2	14.9	24.1
Average Queue (m)	3.3	0.3	1.1	9.9
95th Queue (m)	12.2	3.1	7.2	18.8
Link Distance (m)	356.0	398.6	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.0	1.8	8.4	10.0
Average Queue (m)	2.7	0.1	1.0	3.8
95th Queue (m)	10.0	1.3	5.4	10.8
Link Distance (m)	147.2	1429.8	99.1	187.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	12.9
Average Queue (m)	0.6
95th Queue (m)	5.7
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2900	2855	2953	2944	2898	2909
Vehs Exited	2910	2861	2962	2942	2917	2919
Starting Vehs	80	84	75	69	87	78
Ending Vehs	70	78	66	71	68	68
Travel Distance (km)	2898	2863	2979	2952	2904	2919
Travel Time (hr)	71.5	71.5	74.7	73.4	72.7	72.7
Total Delay (hr)	11.2	11.8	12.8	12.0	12.0	11.9
Total Stops	1713	1708	1830	1731	1768	1748
Fuel Used (l)	221.5	221.0	228.6	227.1	223.5	224.3

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2900	2855	2953	2944	2898	2909
Vehs Exited	2910	2861	2962	2942	2917	2919
Starting Vehs	80	84	75	69	87	78
Ending Vehs	70	78	66	71	68	68
Travel Distance (km)	2898	2863	2979	2952	2904	2919
Travel Time (hr)	71.5	71.5	74.7	73.4	72.7	72.7
Total Delay (hr)	11.2	11.8	12.8	12.0	12.0	11.9
Total Stops	1713	1708	1830	1731	1768	1748
Fuel Used (l)	221.5	221.0	228.6	227.1	223.5	224.3

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	38.2	54.0	53.9	19.4	49.4	48.3	55.8	27.3	14.0	78.3
Average Queue (m)	15.5	30.1	29.5	8.4	22.2	16.2	24.6	11.1	4.4	30.9
95th Queue (m)	31.2	49.0	49.4	16.8	39.4	35.3	46.0	21.8	12.4	57.5
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	36.9	38.3	51.8	35.3
Average Queue (m)	17.1	16.0	21.6	15.2
95th Queue (m)	30.6	29.0	40.4	29.6
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway & 9th Line

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	7.0	24.7	13.3
Average Queue (m)	0.2	12.3	0.8
95th Queue (m)	2.6	25.7	6.6
Link Distance (m)	147.2	397.2	228.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	17.8	3.2	15.3	26.2
Average Queue (m)	1.9	0.1	3.9	12.2
95th Queue (m)	9.9	2.3	11.6	21.4
Link Distance (m)	356.0	398.6	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	6.4	8.3	15.8
Average Queue (m)	0.3	1.0	8.8
95th Queue (m)	3.1	5.3	13.3
Link Distance (m)	147.2	99.1	187.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	14.0
Average Queue (m)	0.9
95th Queue (m)	7.0
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2581	2601	2583	2553	2525	2569
Vehs Exited	2580	2615	2586	2569	2537	2577
Starting Vehs	72	78	75	81	75	78
Ending Vehs	73	64	72	65	63	65
Travel Distance (km)	2763	2750	2696	2687	2669	2713
Travel Time (hr)	68.4	68.3	66.7	67.4	66.2	67.4
Total Delay (hr)	10.5	10.9	10.2	11.3	10.1	10.6
Total Stops	1449	1442	1455	1471	1412	1446
Fuel Used (l)	211.5	213.5	207.0	208.1	205.4	209.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2581	2601	2583	2553	2525	2569
Vehs Exited	2580	2615	2586	2569	2537	2577
Starting Vehs	72	78	75	81	75	78
Ending Vehs	73	64	72	65	63	65
Travel Distance (km)	2763	2750	2696	2687	2669	2713
Travel Time (hr)	68.4	68.3	66.7	67.4	66.2	67.4
Total Delay (hr)	10.5	10.9	10.2	11.3	10.1	10.6
Total Stops	1449	1442	1455	1471	1412	1446
Fuel Used (l)	211.5	213.5	207.0	208.1	205.4	209.1

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	64.5	32.8	29.1	30.3	50.3	45.2	50.2	35.8	17.4	56.0
Average Queue (m)	27.3	13.9	12.0	13.8	25.7	20.8	26.0	15.9	3.9	25.9
95th Queue (m)	49.8	26.2	24.4	25.9	41.6	39.3	44.1	29.4	12.4	46.9
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	45.6	29.2	34.1	30.3
Average Queue (m)	16.2	12.7	11.8	13.8
95th Queue (m)	33.2	24.5	26.1	26.4
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway & 9th Line

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	14.0	18.3	2.8
Average Queue (m)	1.3	3.5	0.2
95th Queue (m)	7.2	12.9	2.8
Link Distance (m)	147.2	397.2	228.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	20.8	11.0	17.4	21.2
Average Queue (m)	3.6	0.7	2.4	10.3
95th Queue (m)	13.1	4.8	11.0	18.0
Link Distance (m)	356.0	398.6	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	18.0	6.4	10.0
Average Queue (m)	3.7	0.6	3.9
95th Queue (m)	13.5	4.2	10.8
Link Distance (m)	147.2	99.1	187.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	3.0
Average Queue (m)	0.3
95th Queue (m)	3.6
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3137	3171	3217	3193	3105	3164
Vehs Exited	3157	3189	3220	3196	3130	3179
Starting Vehs	88	85	89	71	88	83
Ending Vehs	68	67	86	68	63	68
Travel Distance (km)	3134	3162	3196	3213	3136	3168
Travel Time (hr)	78.4	79.6	80.7	81.2	77.9	79.6
Total Delay (hr)	13.2	13.6	14.2	14.2	12.4	13.5
Total Stops	1895	1973	2010	1985	1841	1942
Fuel Used (l)	240.1	244.1	246.3	248.2	240.7	243.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	3137	3171	3217	3193	3105	3164
Vehs Exited	3157	3189	3220	3196	3130	3179
Starting Vehs	88	85	89	71	88	83
Ending Vehs	68	67	86	68	63	68
Travel Distance (km)	3134	3162	3196	3213	3136	3168
Travel Time (hr)	78.4	79.6	80.7	81.2	77.9	79.6
Total Delay (hr)	13.2	13.6	14.2	14.2	12.4	13.5
Total Stops	1895	1973	2010	1985	1841	1942
Fuel Used (l)	240.1	244.1	246.3	248.2	240.7	243.9

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	45.5	70.1	72.8	21.6	50.3	48.4	48.6	27.7	19.1	75.3
Average Queue (m)	18.6	32.3	32.5	8.2	24.0	17.9	25.2	10.4	4.6	32.9
95th Queue (m)	36.1	55.1	57.2	17.0	41.4	36.2	41.8	20.5	13.7	58.7
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	40.0	30.8	57.7	42.4
Average Queue (m)	18.2	16.5	27.1	18.7
95th Queue (m)	32.4	27.9	49.1	34.4
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway& 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	1.1	1.8	25.6	15.5
Average Queue (m)	0.0	0.1	13.9	1.0
95th Queue (m)	0.8	1.2	26.6	7.0
Link Distance (m)	398.6	147.2	397.2	228.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 9th Line & Bowman St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	13.6	18.1	27.1
Average Queue (m)	1.2	5.4	12.1
95th Queue (m)	7.0	14.5	20.8
Link Distance (m)	356.0	354.0	497.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	5.3	8.3	14.6
Average Queue (m)	0.2	1.3	8.8
95th Queue (m)	2.5	6.1	13.3
Link Distance (m)	147.2	99.1	187.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	16.4
Average Queue (m)	0.9
95th Queue (m)	7.1
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2737	2782	2724	2717	2748	2741
Vehs Exited	2745	2807	2746	2726	2749	2753
Starting Vehs	81	89	97	81	71	85
Ending Vehs	73	64	75	72	70	67
Travel Distance (km)	2927	2948	2872	2930	2905	2916
Travel Time (hr)	72.8	73.3	72.6	73.3	72.4	72.9
Total Delay (hr)	11.6	11.7	12.6	11.8	11.6	11.9
Total Stops	1541	1528	1518	1599	1565	1551
Fuel Used (l)	225.9	228.0	222.7	225.9	224.4	225.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2737	2782	2724	2717	2748	2741
Vehs Exited	2745	2807	2746	2726	2749	2753
Starting Vehs	81	89	97	81	71	85
Ending Vehs	73	64	75	72	70	67
Travel Distance (km)	2927	2948	2872	2930	2905	2916
Travel Time (hr)	72.8	73.3	72.6	73.3	72.4	72.9
Total Delay (hr)	11.6	11.7	12.6	11.8	11.6	11.9
Total Stops	1541	1528	1518	1599	1565	1551
Fuel Used (l)	225.9	228.0	222.7	225.9	224.4	225.4

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	69.5	36.8	37.3	31.7	54.9	55.8	54.5	37.6	16.3	71.0
Average Queue (m)	29.0	15.4	14.7	13.3	29.0	25.1	26.1	16.3	4.8	27.9
95th Queue (m)	53.1	30.1	28.7	25.6	47.8	47.3	46.0	29.7	13.4	53.4
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	35.0	36.4	33.7	39.3
Average Queue (m)	16.2	14.5	12.8	16.9
95th Queue (m)	29.8	28.3	26.0	31.9
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway & 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	1.2	16.8	21.3	13.5
Average Queue (m)	0.0	2.0	4.1	1.0
95th Queue (m)	0.9	9.8	14.2	7.4
Link Distance (m)	398.6	147.2	397.2	228.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.7	11.3	19.4	21.6
Average Queue (m)	3.1	0.7	2.1	10.2
95th Queue (m)	11.3	5.0	10.2	17.5
Link Distance (m)	356.0	398.6	354.0	497.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.4	8.0	8.2	9.9
Average Queue (m)	3.0	0.3	0.5	3.5
95th Queue (m)	10.7	3.9	3.8	10.4
Link Distance (m)	147.2	1429.8	99.1	187.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	14.0
Average Queue (m)	1.0
95th Queue (m)	7.5
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3479	3542	3471	3499	3467	3490
Vehs Exited	3502	3542	3470	3523	3442	3495
Starting Vehs	98	100	89	101	74	90
Ending Vehs	75	100	90	77	99	86
Travel Distance (km)	3540	3558	3450	3546	3476	3514
Travel Time (hr)	90.7	90.7	88.0	91.3	89.4	90.0
Total Delay (hr)	17.0	16.8	16.2	17.4	17.0	16.9
Total Stops	2183	2280	2171	2189	2168	2197
Fuel Used (l)	274.1	277.4	267.2	275.9	267.6	272.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	3479	3542	3471	3499	3467	3490
Vehs Exited	3502	3542	3470	3523	3442	3495
Starting Vehs	98	100	89	101	74	90
Ending Vehs	75	100	90	77	99	86
Travel Distance (km)	3540	3558	3450	3546	3476	3514
Travel Time (hr)	90.7	90.7	88.0	91.3	89.4	90.0
Total Delay (hr)	17.0	16.8	16.2	17.4	17.0	16.9
Total Stops	2183	2280	2171	2189	2168	2197
Fuel Used (l)	274.1	277.4	267.2	275.9	267.6	272.4

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	51.8	81.7	82.7	17.9	52.3	49.1	49.9	30.8	17.6	84.4
Average Queue (m)	21.3	40.9	41.0	8.5	27.5	21.9	23.2	11.6	6.3	36.7
95th Queue (m)	40.6	70.5	72.6	17.0	44.7	41.0	40.9	23.3	15.5	68.7
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	40.6	41.9	81.1	47.4
Average Queue (m)	20.4	20.3	33.9	20.9
95th Queue (m)	34.5	35.3	60.8	38.6
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway & 9th Line

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	3.6	30.3	19.4
Average Queue (m)	0.2	14.5	1.4
95th Queue (m)	2.2	28.3	9.3
Link Distance (m)	147.2	397.2	228.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: 9th Line & Bowman St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	14.9	18.7	23.4
Average Queue (m)	1.7	5.6	12.6
95th Queue (m)	8.9	14.6	21.2
Link Distance (m)	356.0	354.0	497.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	3.6	8.3	13.8
Average Queue (m)	0.1	1.1	8.3
95th Queue (m)	1.8	5.5	12.7
Link Distance (m)	147.2	99.1	187.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	17.5
Average Queue (m)	1.4
95th Queue (m)	9.1
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2717	2857	2796	2771	2622	2754
Vehs Exited	2700	2850	2801	2766	2635	2751
Starting Vehs	65	77	90	69	71	72
Ending Vehs	82	84	85	74	58	72
Travel Distance (km)	2872	2966	2916	2908	2790	2890
Travel Time (hr)	70.7	74.2	73.2	72.8	69.5	72.1
Total Delay (hr)	10.8	12.3	12.2	12.3	11.2	11.8
Total Stops	1464	1654	1567	1573	1494	1549
Fuel Used (l)	221.4	229.9	226.0	224.8	212.8	223.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	2717	2857	2796	2771	2622	2754
Vehs Exited	2700	2850	2801	2766	2635	2751
Starting Vehs	65	77	90	69	71	72
Ending Vehs	82	84	85	74	58	72
Travel Distance (km)	2872	2966	2916	2908	2790	2890
Travel Time (hr)	70.7	74.2	73.2	72.8	69.5	72.1
Total Delay (hr)	10.8	12.3	12.2	12.3	11.2	11.8
Total Stops	1464	1654	1567	1573	1494	1549
Fuel Used (l)	221.4	229.9	226.0	224.8	212.8	223.0

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	14.6	18.2
Average Queue (m)	2.1	3.7
95th Queue (m)	9.2	13.1
Link Distance (m)	149.9	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	15.6	1.3	4.9	12.5
Average Queue (m)	3.5	0.0	0.3	3.9
95th Queue (m)	12.1	0.9	2.6	11.6
Link Distance (m)	149.9	1429.8	99.1	187.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3459	3518	3518	3520	3498	3500
Vehs Exited	3474	3518	3522	3542	3510	3512
Starting Vehs	81	100	91	102	91	89
Ending Vehs	66	100	87	80	79	81
Travel Distance (km)	3479	3505	3539	3545	3548	3523
Travel Time (hr)	88.6	89.7	92.5	90.4	90.4	90.3
Total Delay (hr)	16.3	16.9	18.8	16.7	16.5	17.0
Total Stops	2181	2236	2307	2217	2216	2232
Fuel Used (l)	269.7	273.6	275.9	276.0	273.6	273.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	3459	3518	3518	3520	3498	3500
Vehs Exited	3474	3518	3522	3542	3510	3512
Starting Vehs	81	100	91	102	91	89
Ending Vehs	66	100	87	80	79	81
Travel Distance (km)	3479	3505	3539	3545	3548	3523
Travel Time (hr)	88.6	89.7	92.5	90.4	90.4	90.3
Total Delay (hr)	16.3	16.9	18.8	16.7	16.5	17.0
Total Stops	2181	2236	2307	2217	2216	2232
Fuel Used (l)	269.7	273.6	275.9	276.0	273.6	273.8

Intersection: 3: Thomas St & 9th Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	3.5	30.1
Average Queue (m)	0.1	14.4
95th Queue (m)	1.9	27.3
Link Distance (m)	149.9	397.1
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	6.9	8.4	22.4
Average Queue (m)	0.3	1.1	10.6
95th Queue (m)	3.2	5.7	18.9
Link Distance (m)	149.9	99.1	187.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3327	3275	3237	3217	3125	3238
Vehs Exited	3299	3257	3239	3242	3125	3234
Starting Vehs	84	73	105	100	97	89
Ending Vehs	112	91	103	75	97	92
Travel Distance (km)	3670	3602	3609	3527	3408	3563
Travel Time (hr)	93.7	91.0	94.0	91.3	85.8	91.1
Total Delay (hr)	16.8	15.5	18.3	17.2	14.1	16.4
Total Stops	2072	1922	2091	2024	1859	1993
Fuel Used (l)	285.3	281.2	281.5	274.8	264.0	277.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	3327	3275	3237	3217	3125	3238
Vehs Exited	3299	3257	3239	3242	3125	3234
Starting Vehs	84	73	105	100	97	89
Ending Vehs	112	91	103	75	97	92
Travel Distance (km)	3670	3602	3609	3527	3408	3563
Travel Time (hr)	93.7	91.0	94.0	91.3	85.8	91.1
Total Delay (hr)	16.8	15.5	18.3	17.2	14.1	16.4
Total Stops	2072	1922	2091	2024	1859	1993
Fuel Used (l)	285.3	281.2	281.5	274.8	264.0	277.4

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	108.3	39.9	41.8	34.4	57.5	56.1	56.1	40.2	17.8	76.2
Average Queue (m)	51.9	15.7	16.7	14.8	33.3	29.7	26.6	16.8	5.1	31.2
95th Queue (m)	91.6	30.1	32.3	26.1	52.7	50.2	46.5	31.8	14.2	58.4
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	38.0	42.3	39.8	45.0
Average Queue (m)	18.2	17.6	17.5	19.7
95th Queue (m)	32.5	32.9	31.4	36.1
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway & 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.1	19.7	18.8	21.2
Average Queue (m)	3.2	2.2	8.5	7.1
95th Queue (m)	11.8	10.7	16.1	17.0
Link Distance (m)	398.4	147.2	397.2	228.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	L	LTR	LTR	LTR
Maximum Queue (m)	24.1	18.2	16.5	23.5
Average Queue (m)	4.8	1.2	2.4	10.3
95th Queue (m)	15.2	8.1	10.5	19.0
Link Distance (m)		398.4	352.1	495.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	15.0			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	1			

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	25.6	8.3	6.3	11.4
Average Queue (m)	5.7	0.4	0.7	3.9
95th Queue (m)	17.1	4.5	4.3	11.1
Link Distance (m)	147.2	1429.8	99.1	187.1
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	19.8
Average Queue (m)	1.6
95th Queue (m)	9.7
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3948	4103	3992	3952	3902	3978
Vehs Exited	3987	4095	4035	3929	3960	3999
Starting Vehs	122	122	127	90	140	114
Ending Vehs	83	130	84	113	82	94
Travel Distance (km)	4196	4327	4216	4174	4151	4213
Travel Time (hr)	110.2	114.8	112.7	110.2	108.0	111.2
Total Delay (hr)	22.5	24.4	24.5	23.0	21.3	23.1
Total Stops	2770	2934	2873	2794	2751	2827
Fuel Used (l)	325.9	340.8	331.2	328.1	322.2	329.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Run Number	1	2	3	4	5	Avg
Vehs Entered	3948	4103	3992	3952	3902	3978
Vehs Exited	3987	4095	4035	3929	3960	3999
Starting Vehs	122	122	127	90	140	114
Ending Vehs	83	130	84	113	82	94
Travel Distance (km)	4196	4327	4216	4174	4151	4213
Travel Time (hr)	110.2	114.8	112.7	110.2	108.0	111.2
Total Delay (hr)	22.5	24.4	24.5	23.0	21.3	23.1
Total Stops	2770	2934	2873	2794	2751	2827
Fuel Used (l)	325.9	340.8	331.2	328.1	322.2	329.7

Intersection: 1: Commerce Gate/Industrial Park Rd & Innisfil Beach Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (m)	68.8	89.3	88.3	22.0	60.0	54.8	56.7	31.8	16.6	108.9
Average Queue (m)	32.0	48.4	49.0	10.3	33.7	28.3	25.3	11.3	4.2	51.4
95th Queue (m)	57.8	77.2	77.6	20.3	53.5	50.8	47.1	22.7	12.3	88.6
Link Distance (m)		560.6	560.6		459.9	459.9		225.3		483.8
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)	250.0			70.0			115.0		135.0	
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 2: 9th Line & 10th Sideroad

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	54.1	40.8	102.6	64.7
Average Queue (m)	27.4	20.9	38.9	25.3
95th Queue (m)	46.8	35.0	74.3	49.7
Link Distance (m)	1429.8	415.3	359.2	305.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Thomas St/Private Driveway& 9th Line

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.8	8.4	29.3	26.8
Average Queue (m)	0.6	0.3	15.2	13.4
95th Queue (m)	4.9	3.2	26.5	22.4
Link Distance (m)	398.4	147.2	397.2	228.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: 9th Line & Bowman St

Movement	EB	WB	NB	SB
Directions Served	L	LTR	LTR	LTR
Maximum Queue (m)	14.8	3.5	17.6	35.2
Average Queue (m)	2.8	0.1	5.3	16.5
95th Queue (m)	11.2	1.8	13.7	27.8
Link Distance (m)		398.4	352.1	495.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	15.0			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 5: Private Driveway/South Access & 9th Line

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	8.9	8.2	15.6
Average Queue (m)	0.5	1.4	8.8
95th Queue (m)	4.9	6.3	13.4
Link Distance (m)	147.2	99.1	187.1
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Private Driveway & North Access

Movement	WB
Directions Served	LR
Maximum Queue (m)	14.0
Average Queue (m)	0.7
95th Queue (m)	6.4
Link Distance (m)	105.2
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

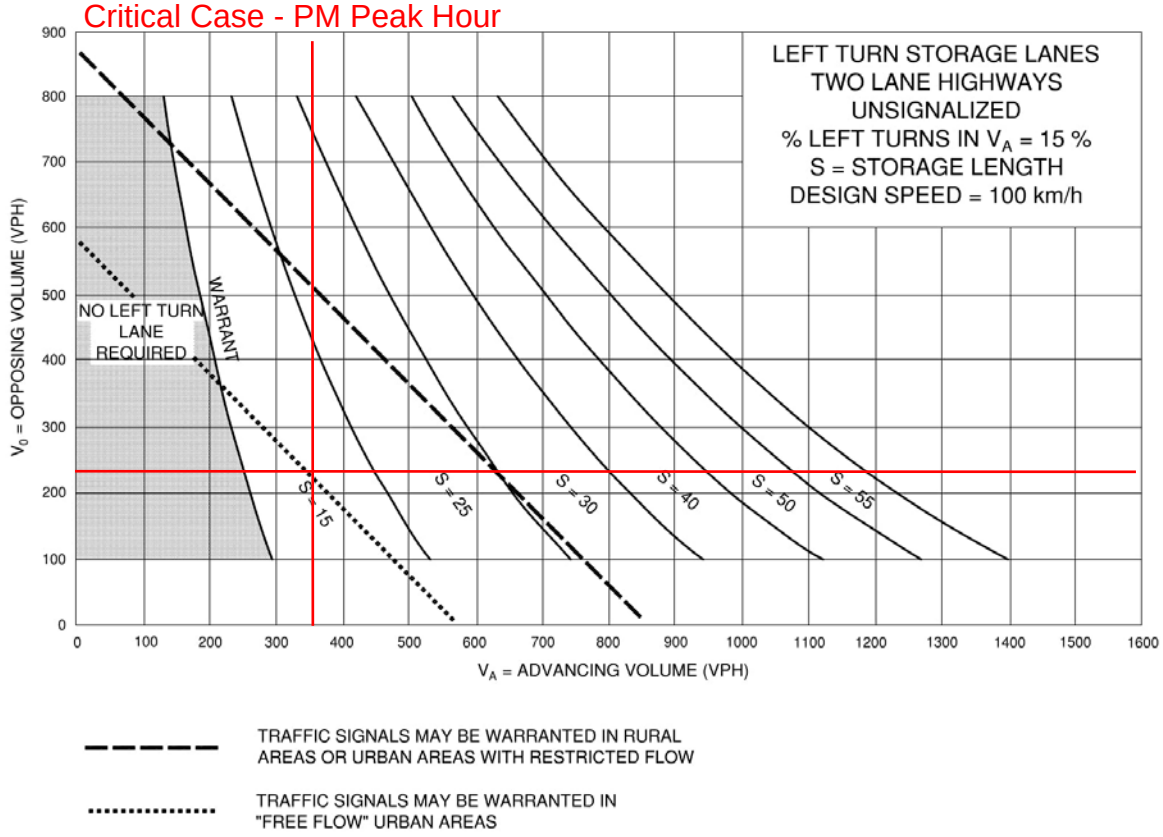
Network wide Queuing Penalty: 0

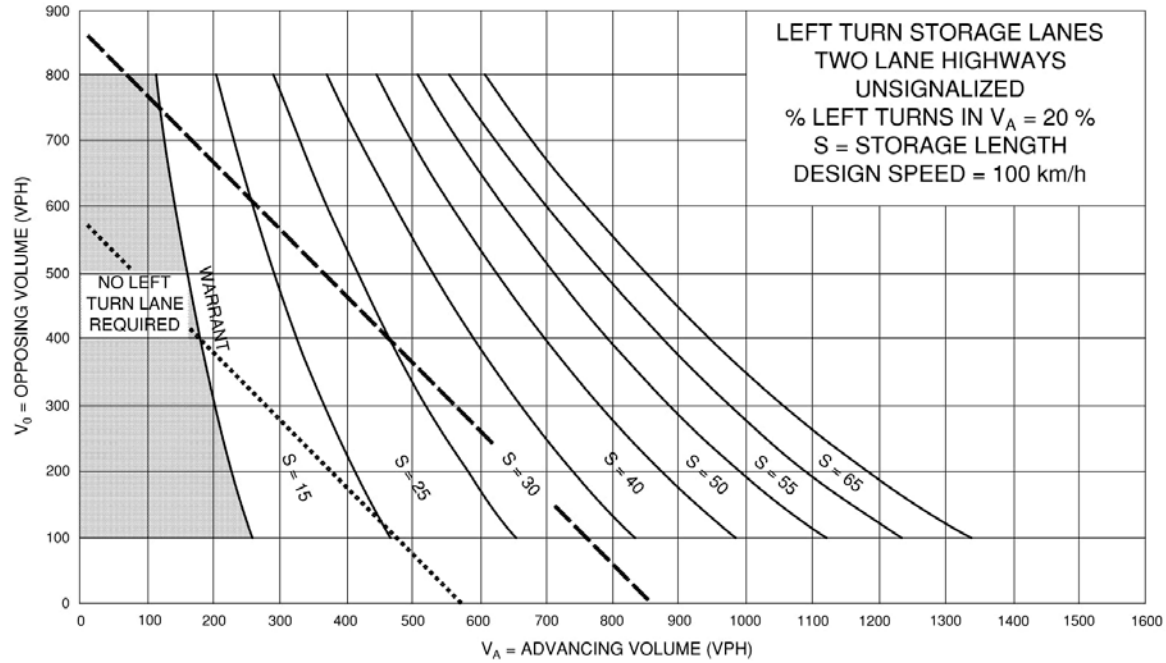
Appendix H –
MTO DS Left Turn Lane Warrant Graphs

9th Line / 10th Sideroad

2025 Existing - Northbound **Exhibit 9A-23**

Critical Case - PM Peak Hour

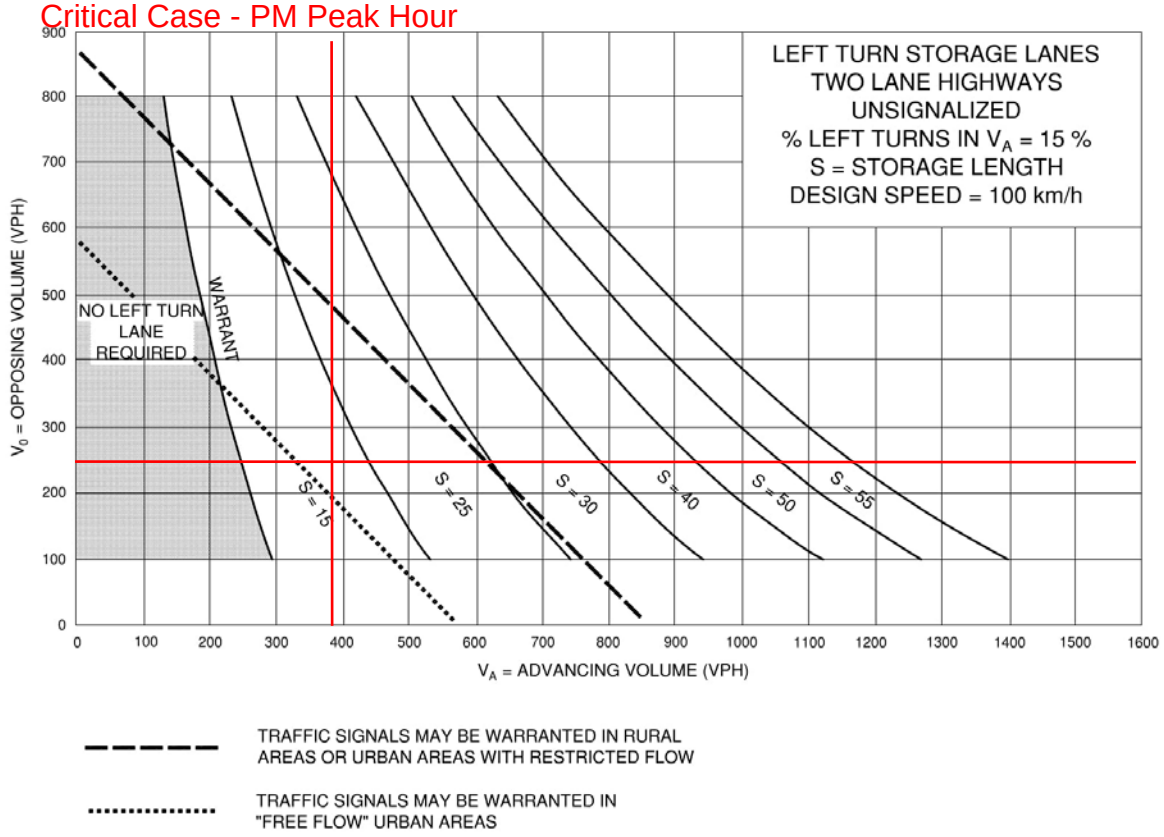


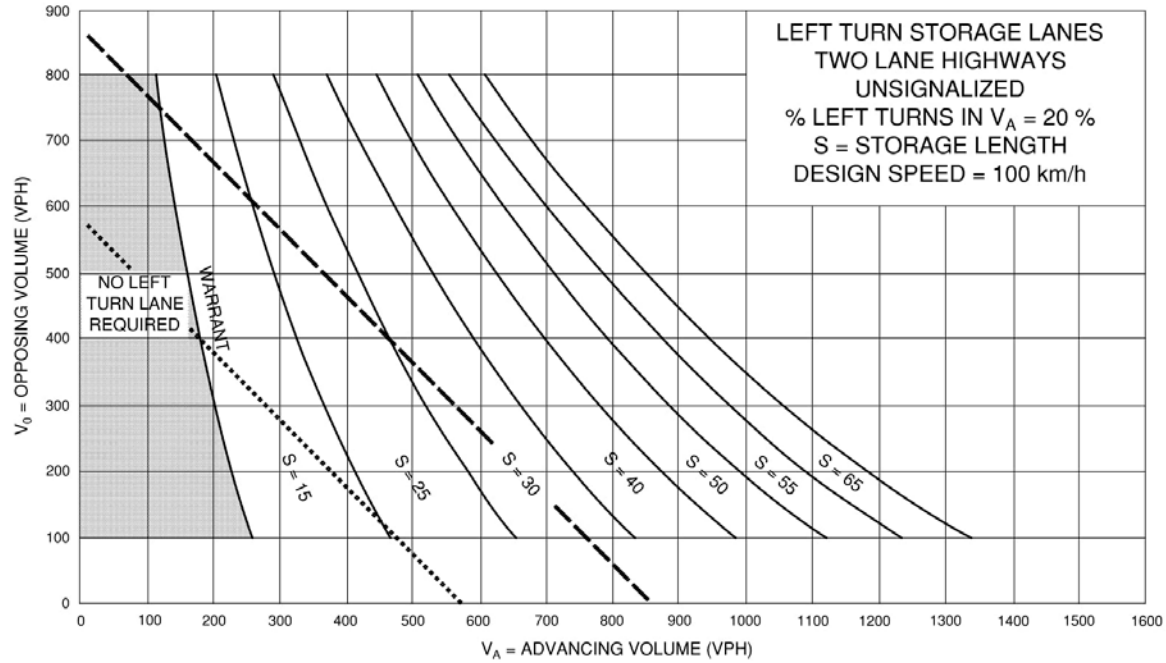


9th Line / 10th Sideroad

2028 Background - Northbound **Exhibit 9A-23**

Critical Case - PM Peak Hour



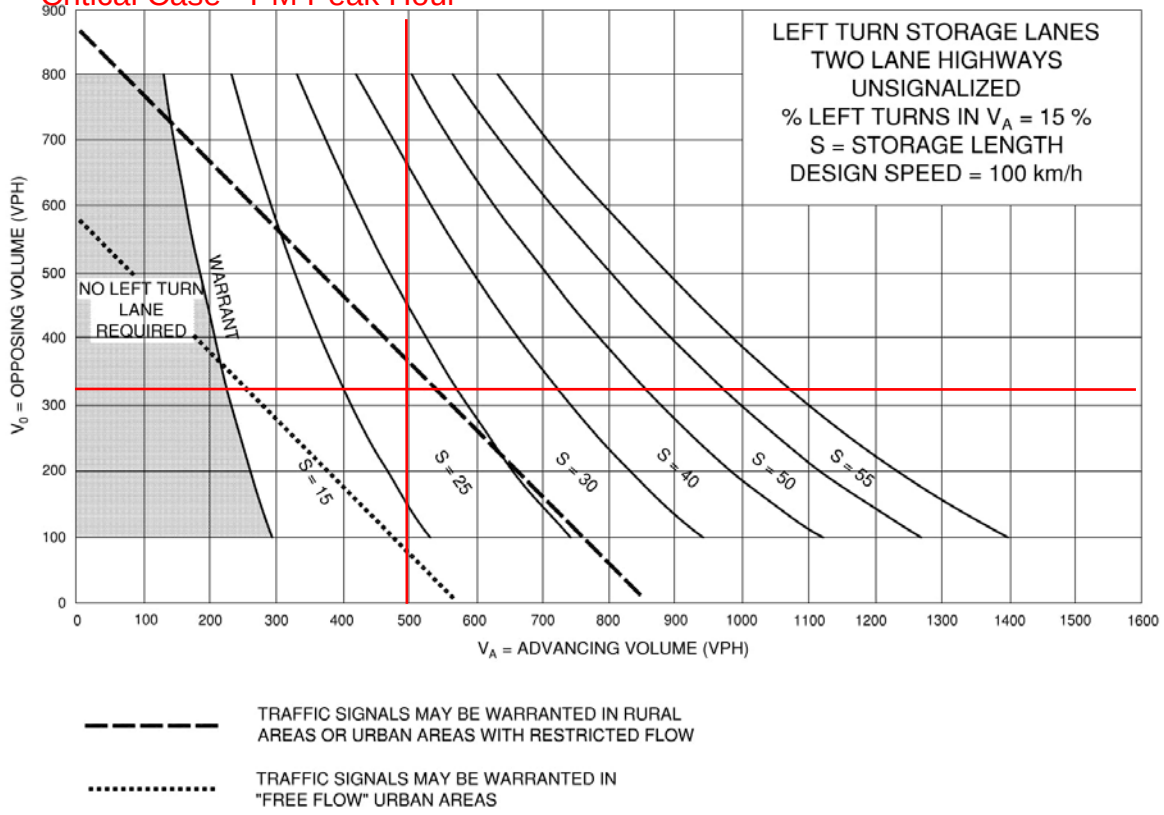


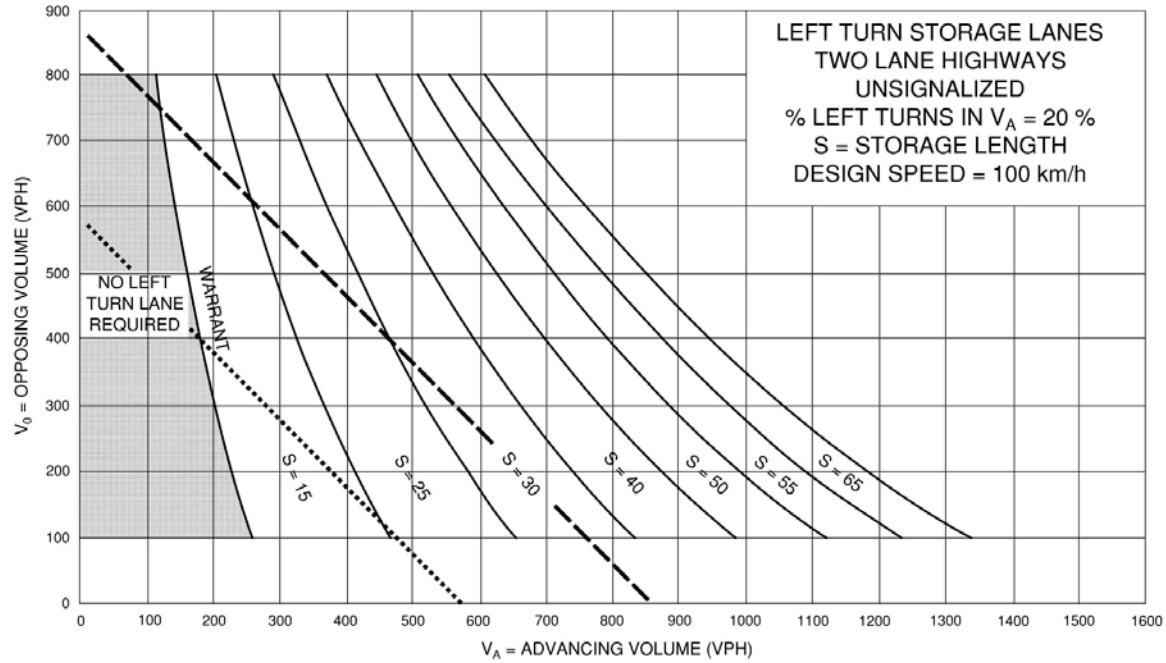
9th Line / 10th Sideroad

2038 Total - Northbound

Critical Case - PM Peak Hour

Exhibit 9A-23



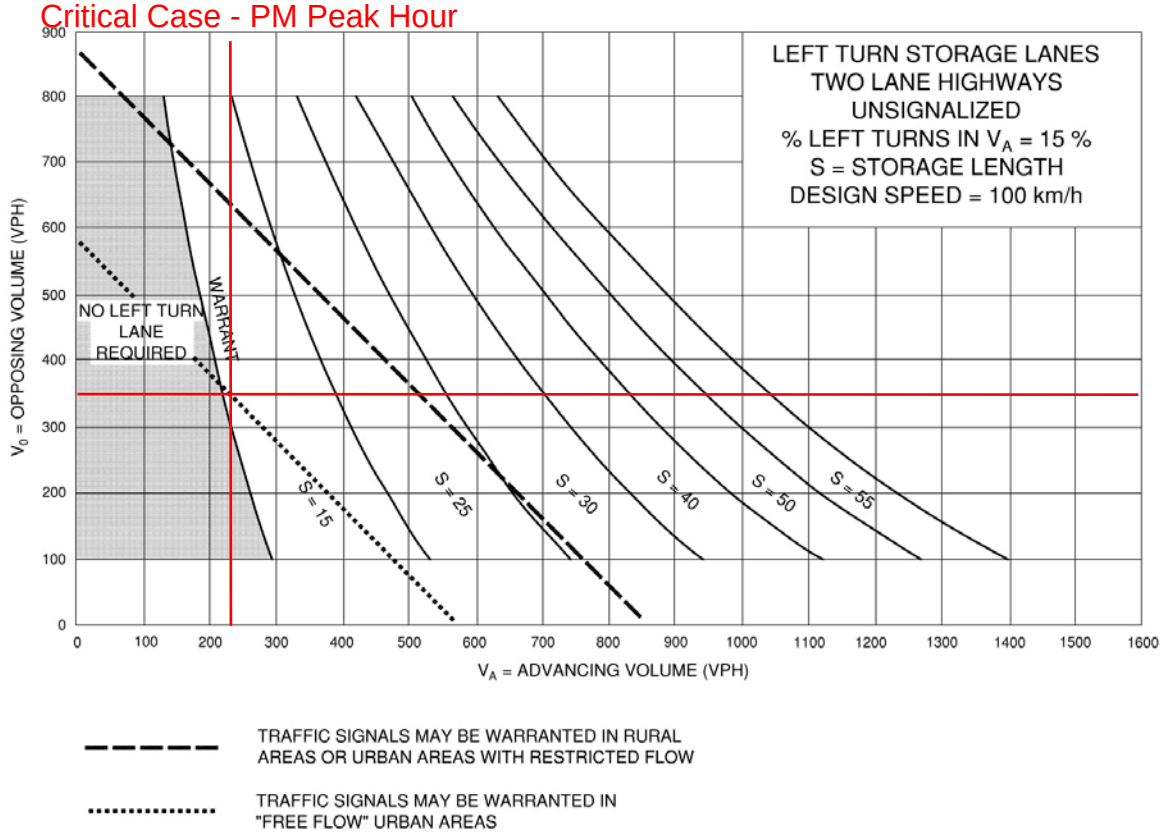


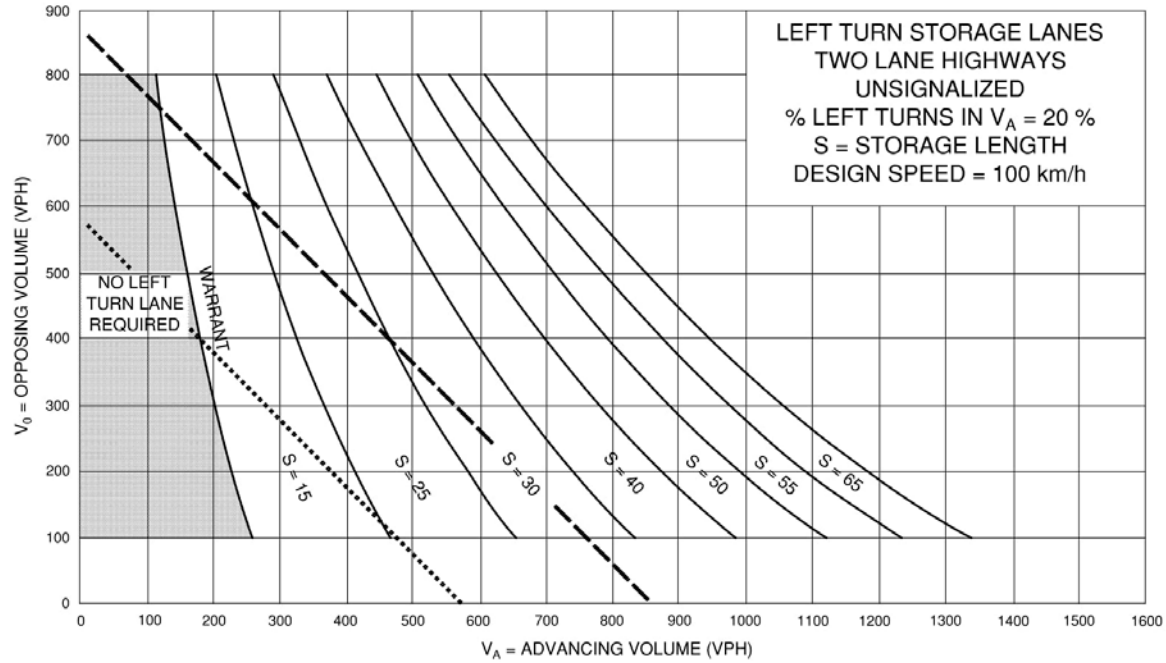
9th Line / 10th Sideroad

2025 Existing - Southbound

Critical Case - PM Peak Hour

Exhibit 9A-23

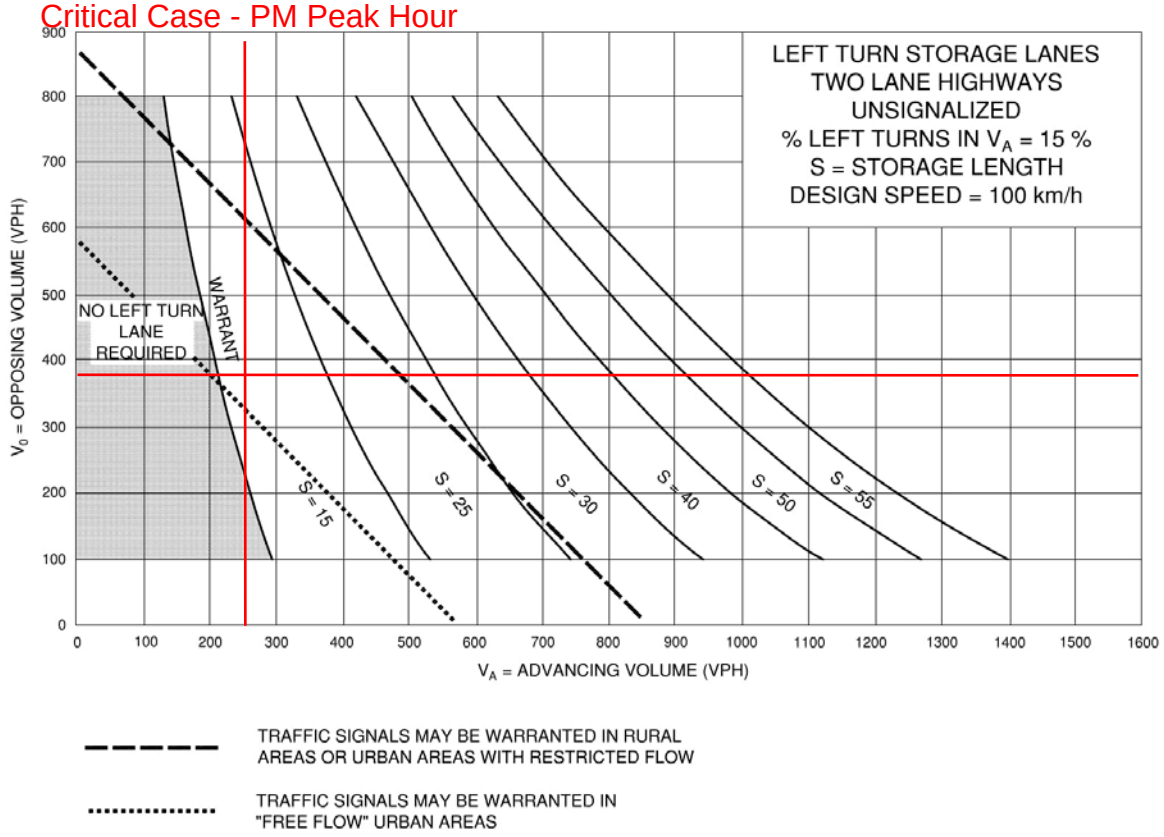


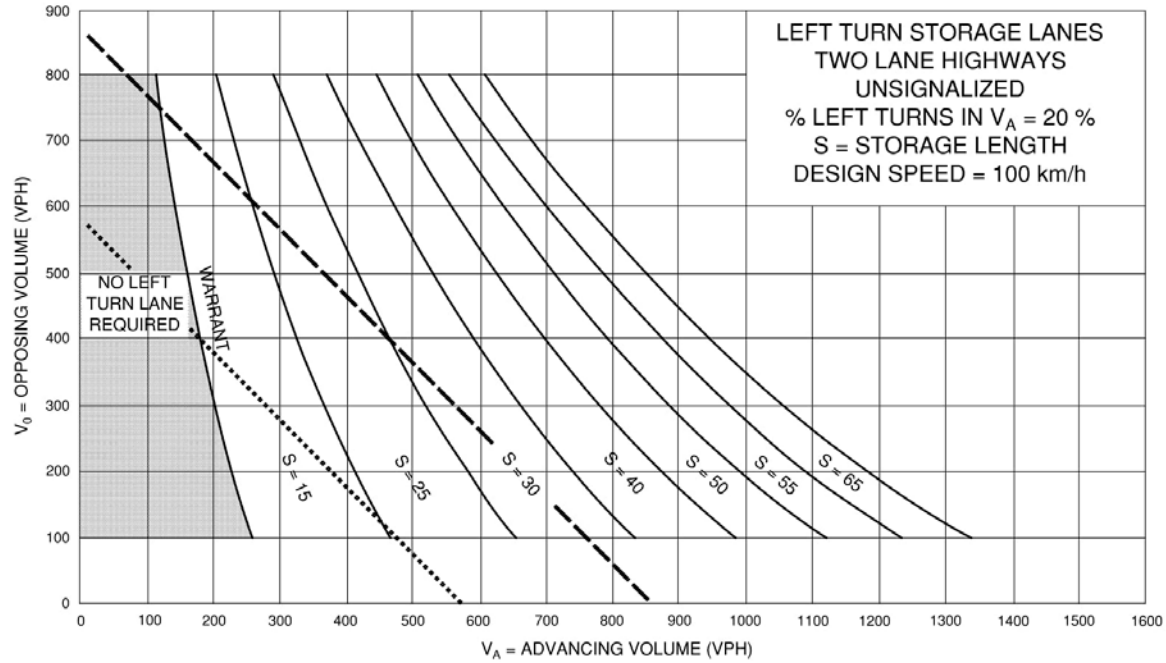


9th Line / 10th Sideroad

2028 Background - Southbound **Exhibit 9A-23**

Critical Case - PM Peak Hour



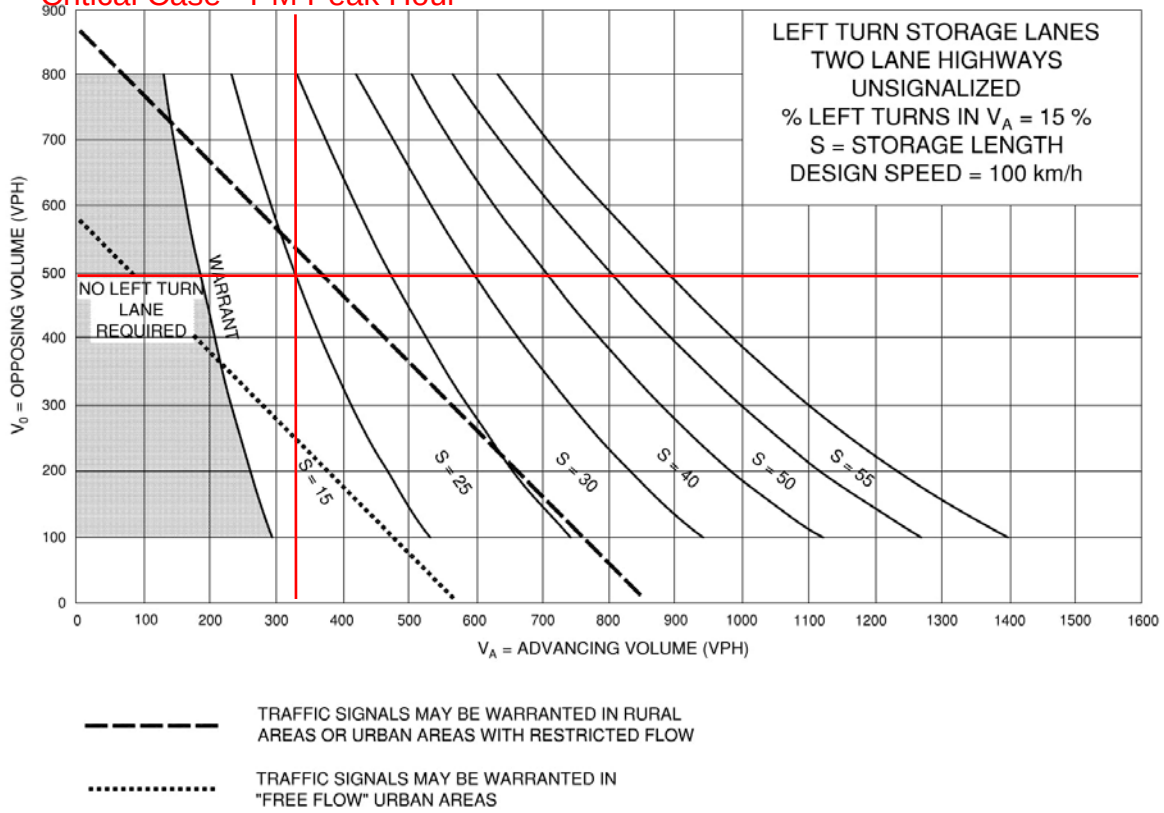


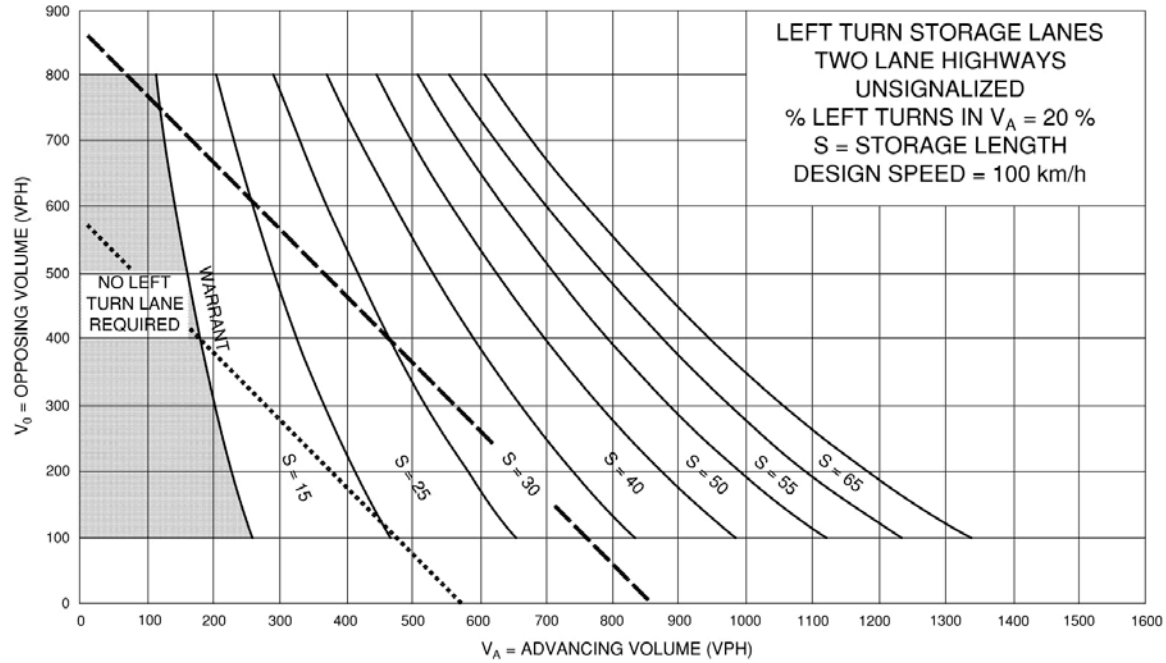
9th Line / 10th Sideroad

2038 Total - Southbound

Critical Case - PM Peak Hour

Exhibit 9A-23



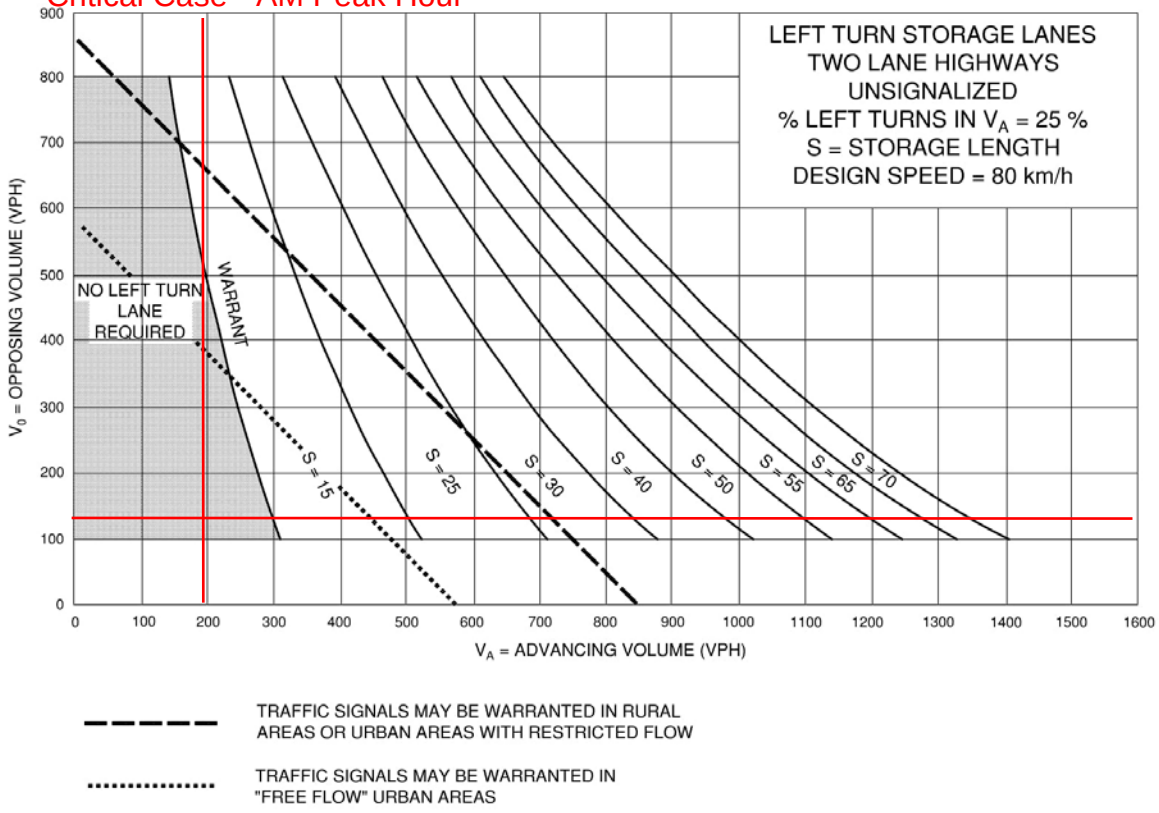


9th Line / Thomas St

2038 Total - Westbound

Critical Case - AM Peak Hour

Exhibit 9A-16



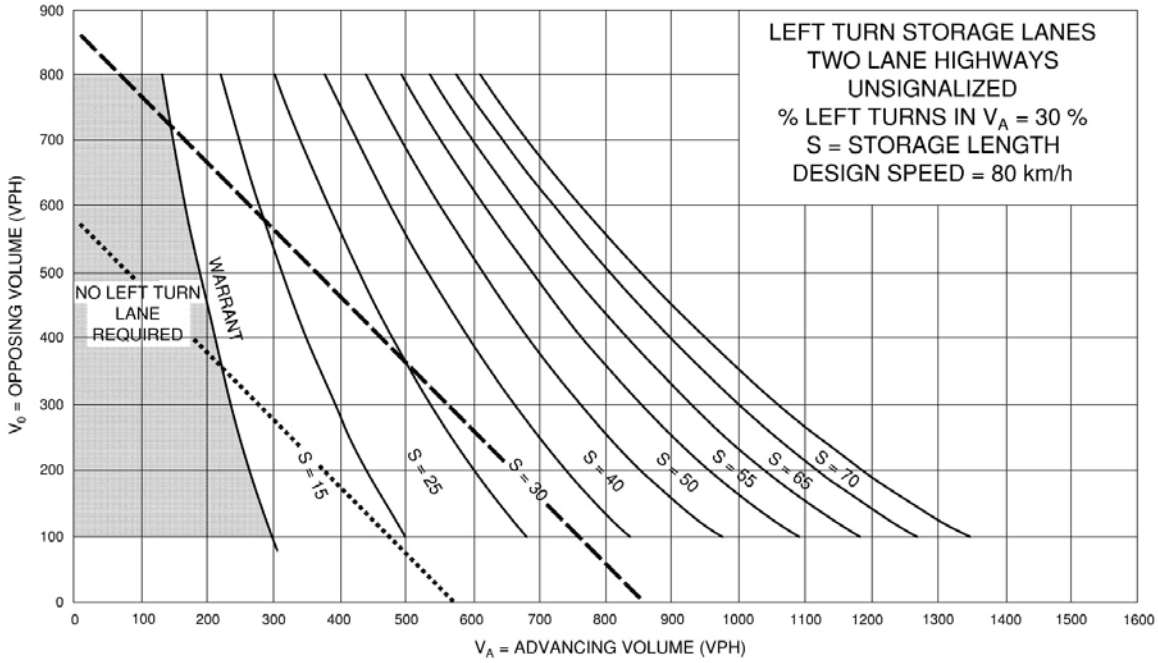
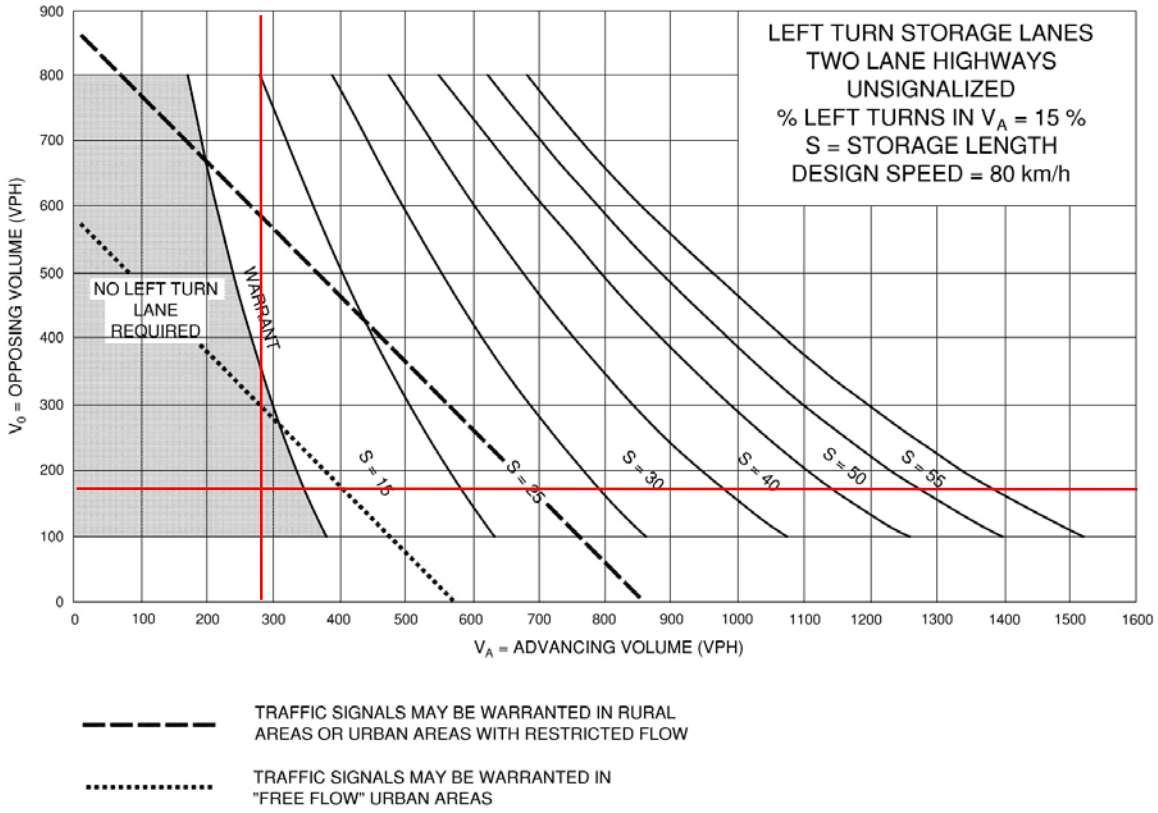


Exhibit 9A-15



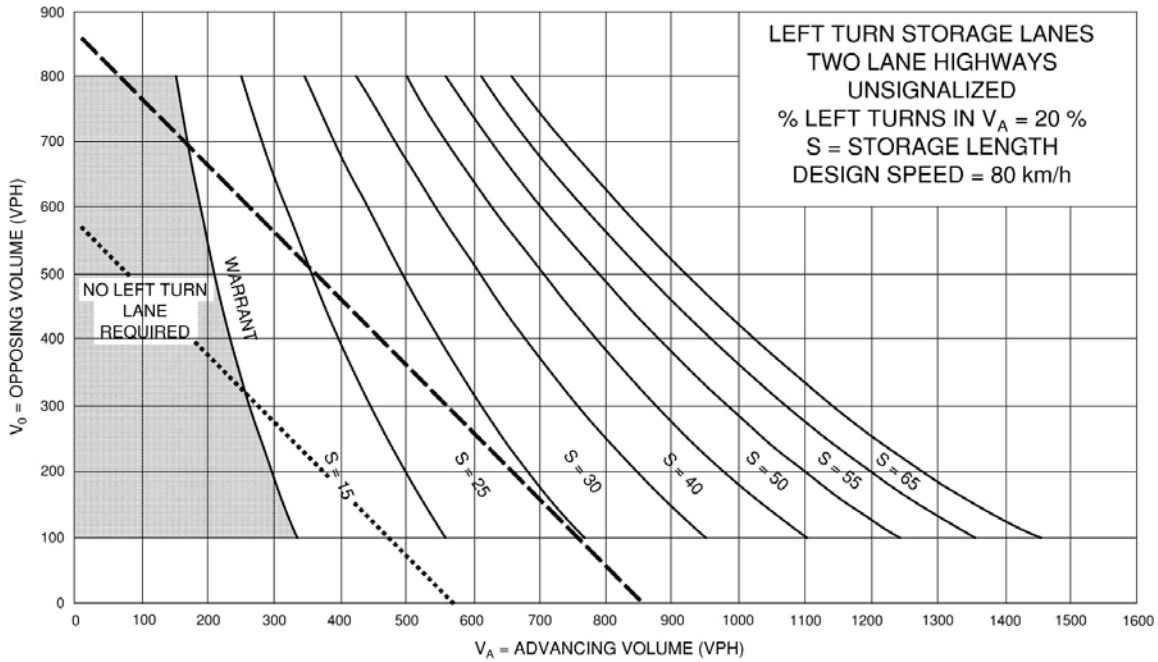
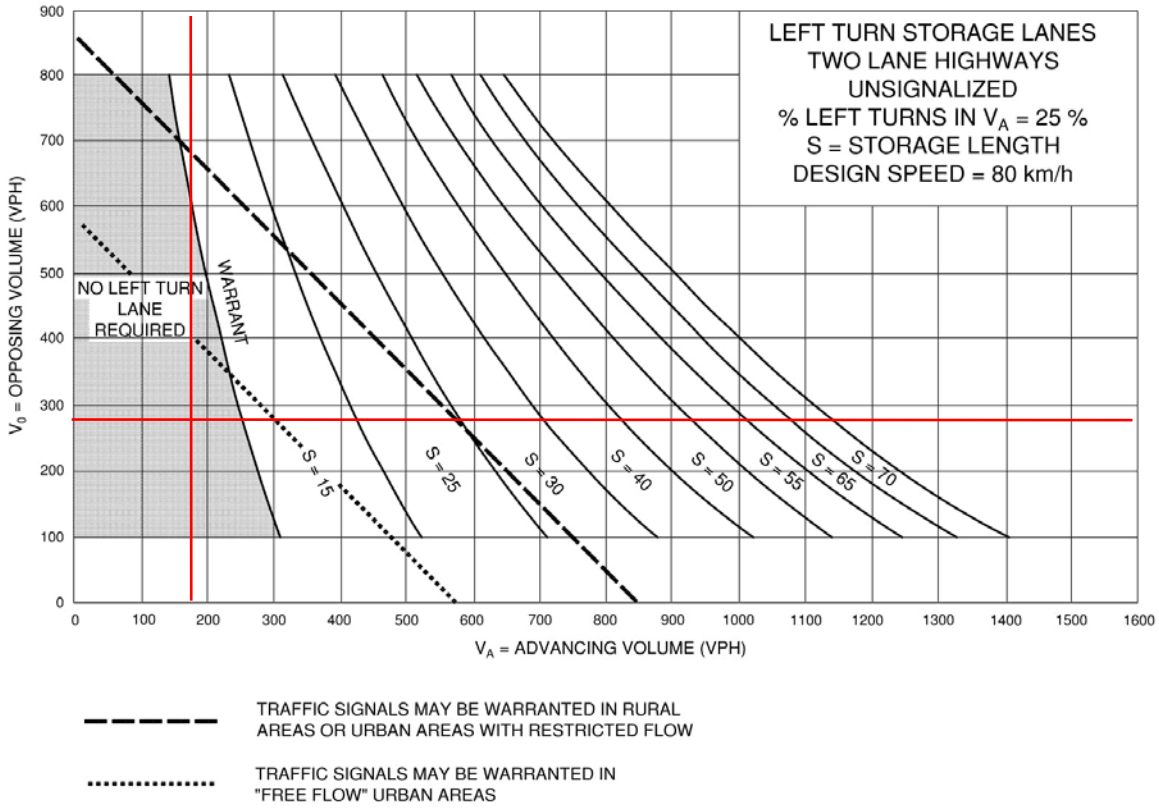
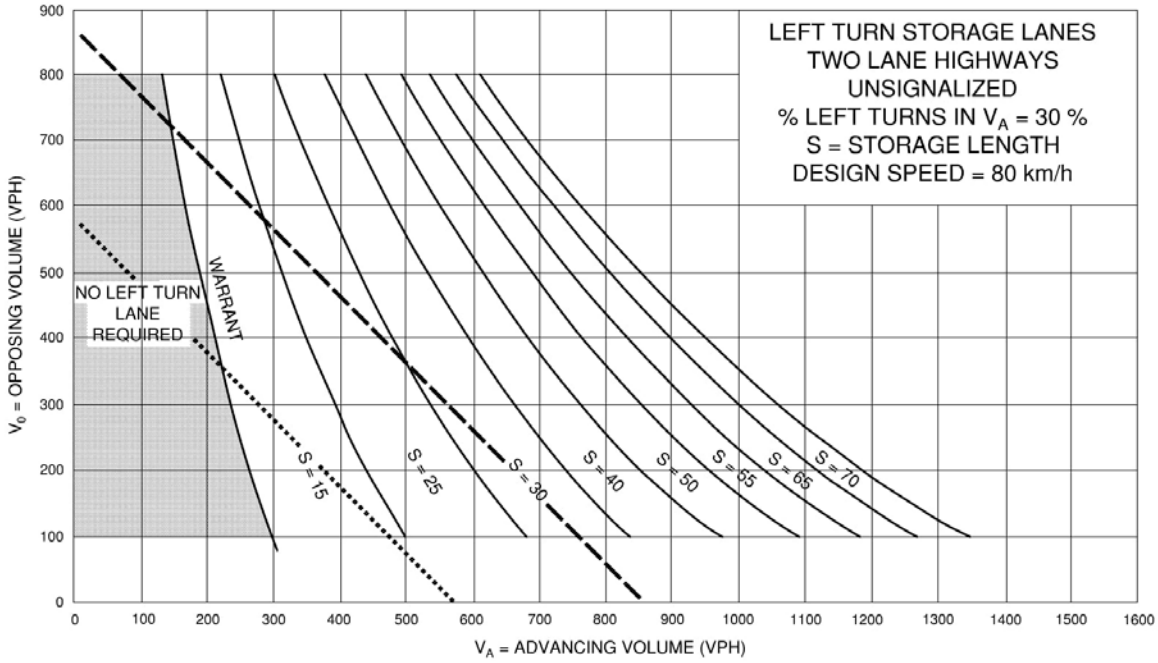


Exhibit 9A-16



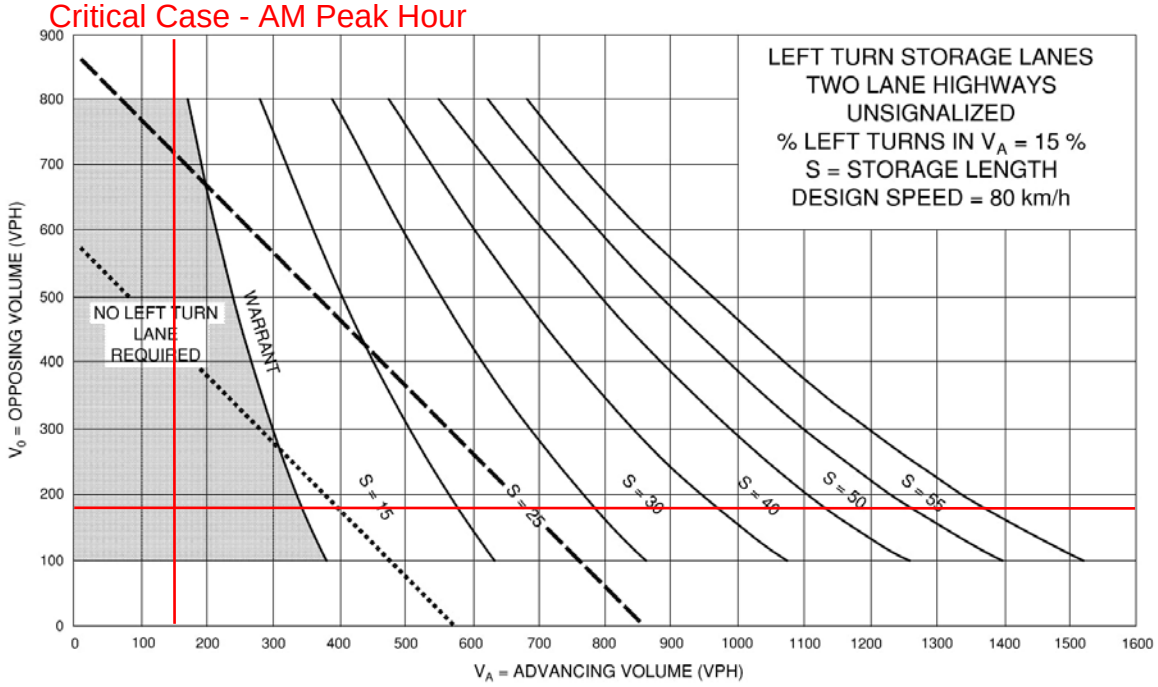


9th Line / Bowman St

2038 Total - Westbound

Critical Case - AM Peak Hour

Exhibit 9A-15



TRAFFIC SIGNALS MAY BE WARRANTED IN RURAL AREAS OR URBAN AREAS WITH RESTRICTED FLOW

TRAFFIC SIGNALS MAY BE WARRANTED IN "FREE FLOW" URBAN AREAS

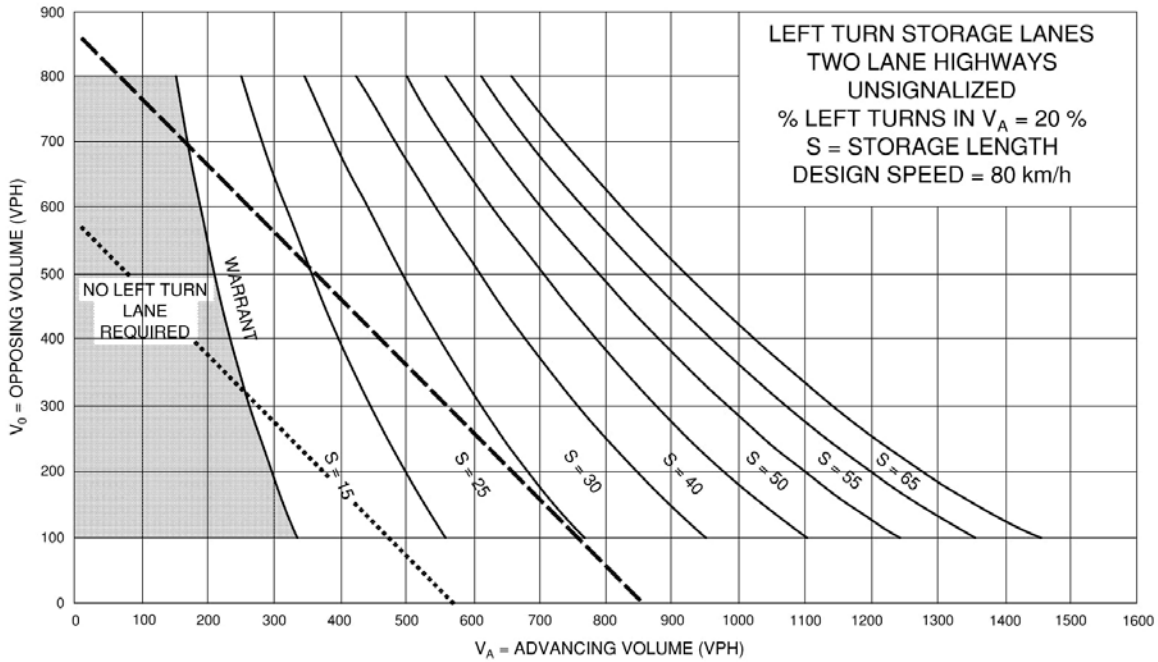
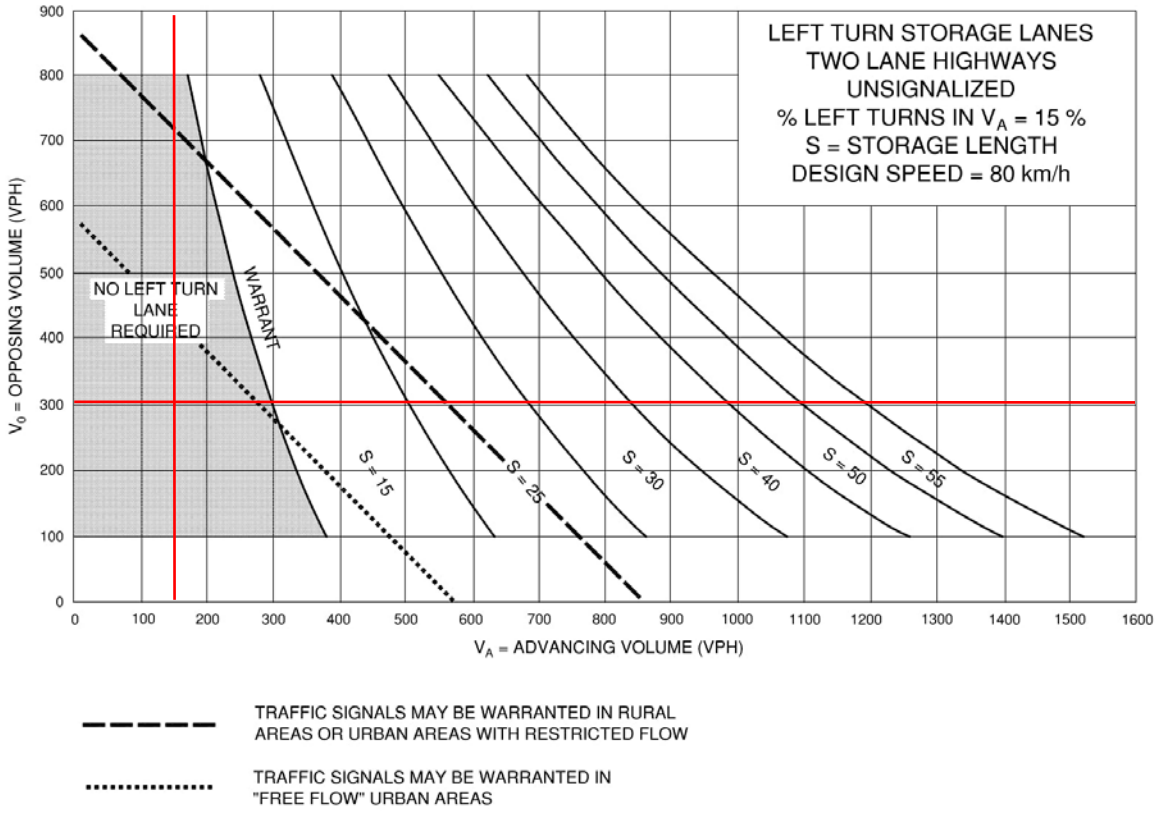


Exhibit 9A-15



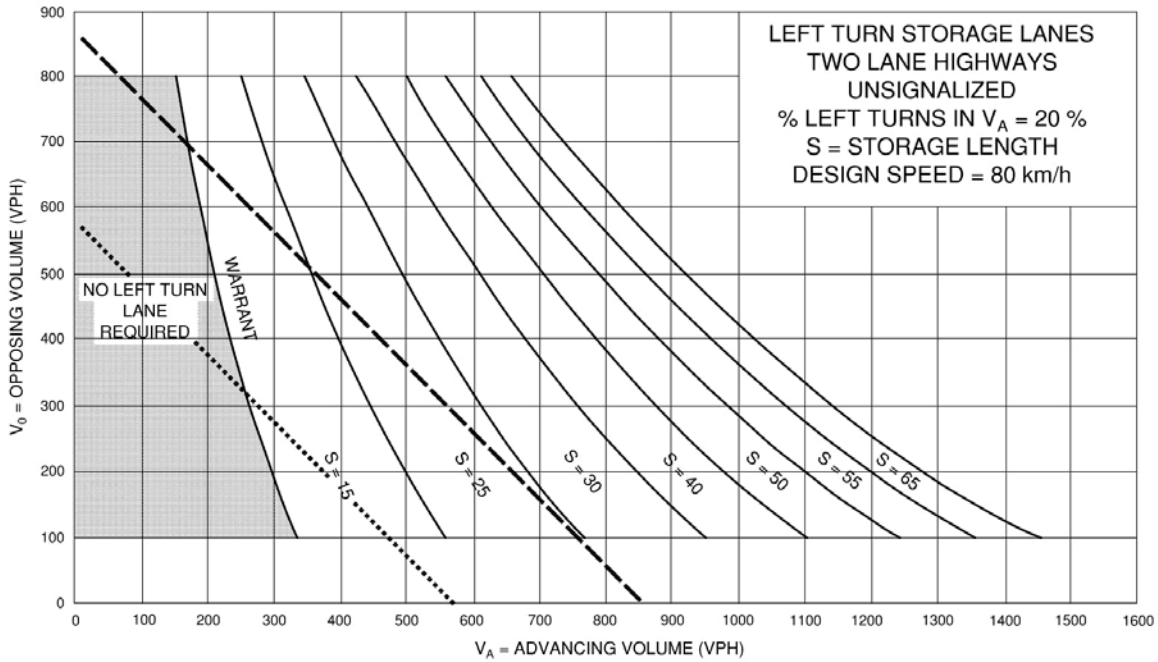
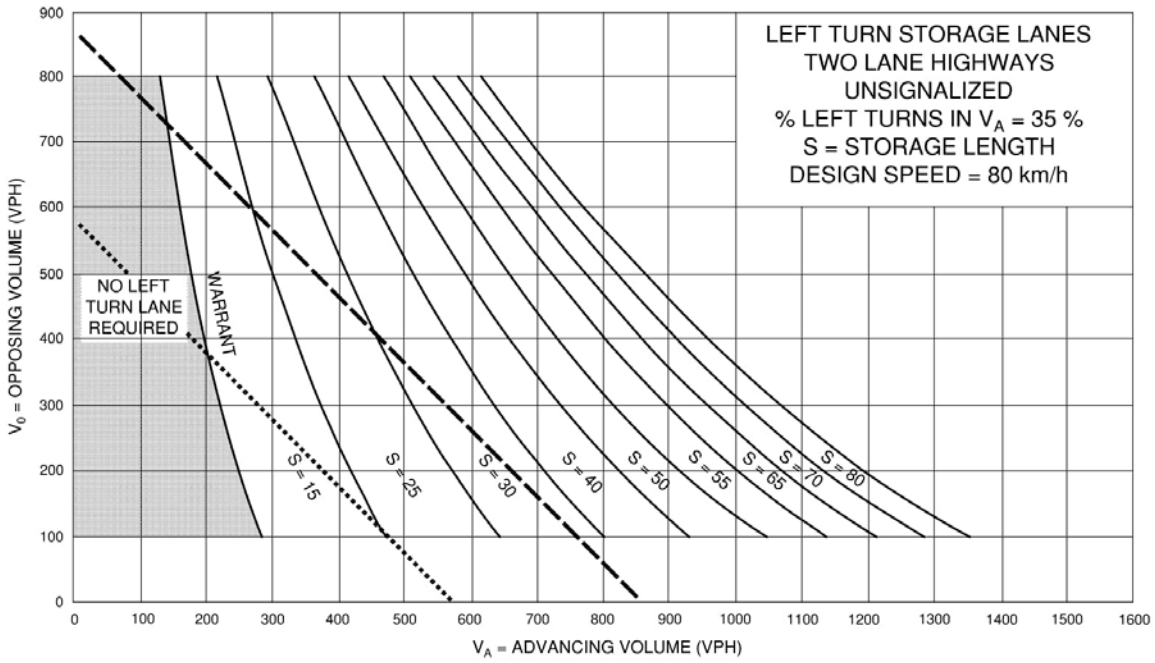


Exhibit 9A-17



TRAFFIC SIGNALS MAY BE WARRANTED IN RURAL AREAS OR URBAN AREAS WITH RESTRICTED FLOW

TRAFFIC SIGNALS MAY BE WARRANTED IN "FREE FLOW" URBAN AREAS

9th Line / Bowman St

2038 Total - Eastbound

Critical Case - AM Peak Hour

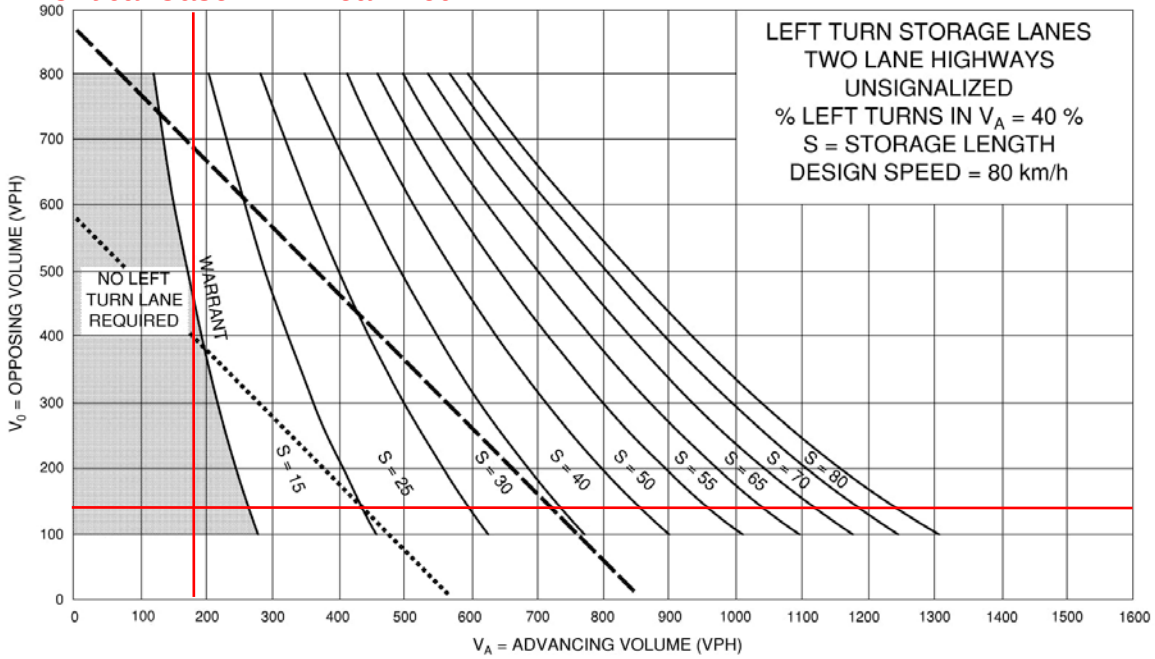
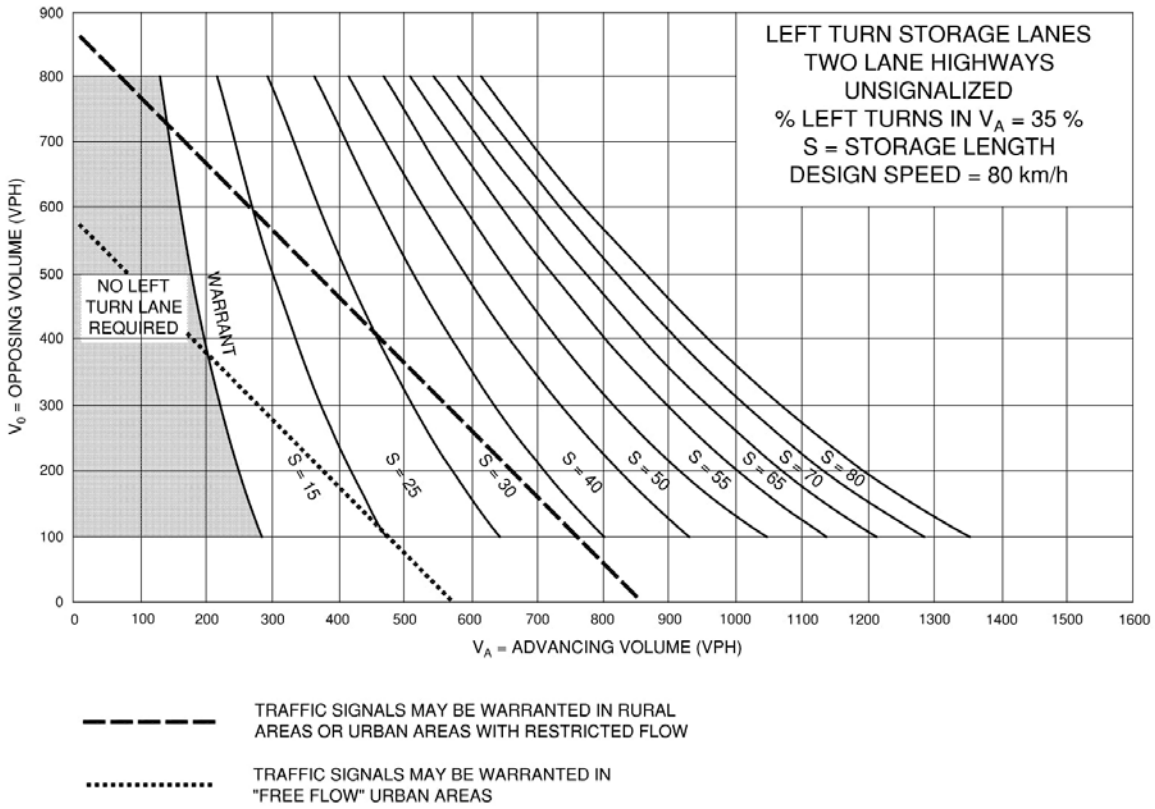


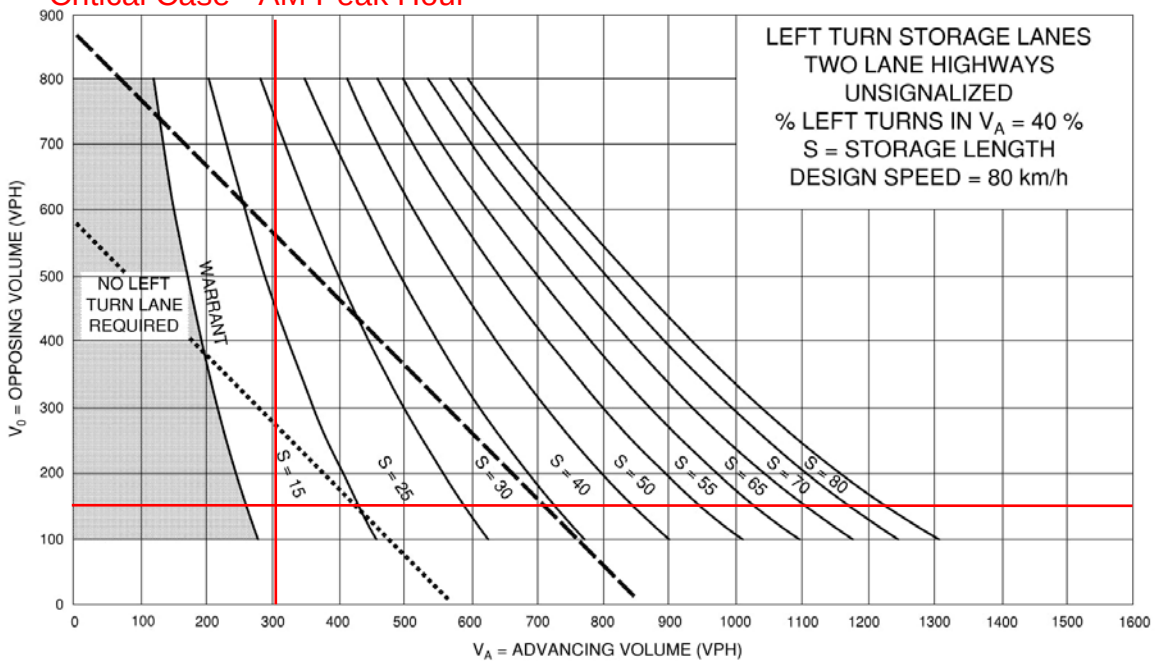
Exhibit 9A-17



9th Line / Bowman St

2038 Total Supp. Analysis Future Rd Ext. - Eastbound

Critical Case - AM Peak Hour



Appendix I –
OTM Signal Justification Sheets

Justification No. 7 - 2025 Existing Traffic (Critical Case)

9th Line / 10th Sideroad

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Free Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	480	314	65%	54%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	120	84	70%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	221	46%	38%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	37	74%		NO	NO

Justification No. 7 - 2038 Total Traffic (Critical Case)

9th Line / 10th Sideroad

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	480	480	100%	83%	NO	YES
	B. Vehicle volume, along minor streets (average hour)	120	146	122%		YES	YES
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	317	66%	55%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	64	128%		YES	YES

Justification No. 7 - 2038 Total Traffic - Future Road Extension (Critical Case)

9th Line / 10th Sideroad

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	480	532	111%	92%	NO	YES
	B. Vehicle volume, along minor streets (average hour)	120	178	149%		YES	YES
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	480	328	68%	57%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	50	79	158%		YES	YES

Justification No. 7 - 2038 Background Traffic (Critical Case)

9th Line / Thomas Street

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	118	16%	6%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	255	17	7%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	96	13%	7%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	6	8%		NO	NO

Justification No. 7 - 2038 Total Traffic (Critical Case)

9th Line / Thomas Street / Private Driveway

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	154	21%	7%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	170	18	11%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	131	18%	6%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	7	9%		NO	NO

Justification No. 7 - 2038 Total Traffic - Future Road Extension (Critical Case)

9th Line / Thomas Street / Private Driveway

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	254	35%	24%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	170	78	46%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	144	20%	13%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	44	59%		NO	NO

Justification No. 7 - 2038 Total Traffic (Critical Case)

9th Line / Bowman Street

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	187	26%	22%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	170	54	32%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	116	16%	13%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	18	24%		NO	NO

Justification No. 7 - 2038 Total Traffic - Future Road Extension (Critical Case)

9th Line / Bowman Street

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	257	36%	30%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	170	76	45%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	164	23%	19%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	18	24%		NO	NO

Justification No. 7 - 2038 Total Traffic (Critical Case)

9th Line / Bowman Street

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	164	23%	11%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	170	27	16%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	126	17%	9%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	10	13%		NO	NO

Justification No. 7 - 2038 Total Traffic - Future Road Extension (Critical Case)

9th Line / Bowman Street

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	215	30%	11%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	170	27	16%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	177	25%	9%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	10	13%		NO	NO

Justification No. 7 - 2038 Total Traffic (Critical Case)

North Access / Private Driveway

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	2	0%	0%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	255	1	0%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	0	0%	0%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	1	1%		NO	NO

Justification No. 7 - 2038 Total Traffic - Future Road Extension (Critical Case)

North Access / Private Driveway

Justification	Description		Compliance			Signal Warrant	Underground Provisions Warrant
			Sectional		Entire %		
		Rest. Flow	Numerical	%			
1. Minimum Vehicluar Volume	A. Vehicle volume, all aproaches (average hour)	720	102	14%	0%	NO	NO
	B. Vehicle volume, along minor streets (average hour)	255	1	0%		NO	NO
2. Delay to cross traffic	A. Vehicle volume, major street (average hour)	720	100	14%	1%	NO	NO
	B. Combined vehicle and pedestrian volume crossing artery from minor streets (average hour)	75	1	1%		NO	NO

Appendix J –
ITE Trip Generation Manual Excerpts

Land Use: 110
General Light Industrial

Description

A light industrial facility is a free-standing facility devoted to a single use. The facility has an emphasis on activities other than manufacturing and typically has minimal office space. Typical light industrial activities include printing, material testing, and assembly of data processing equipment. Industrial park (Land Use 130) and manufacturing (Land Use 140) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 2000s, and the 2010s in Colorado, Connecticut, Indiana, New Jersey, New York, Oregon, Pennsylvania, and Texas.

Source Numbers

106, 157, 174, 177, 179, 184, 191, 251, 253, 286, 300, 611, 874, 875, 912

General Light Industrial
(110)

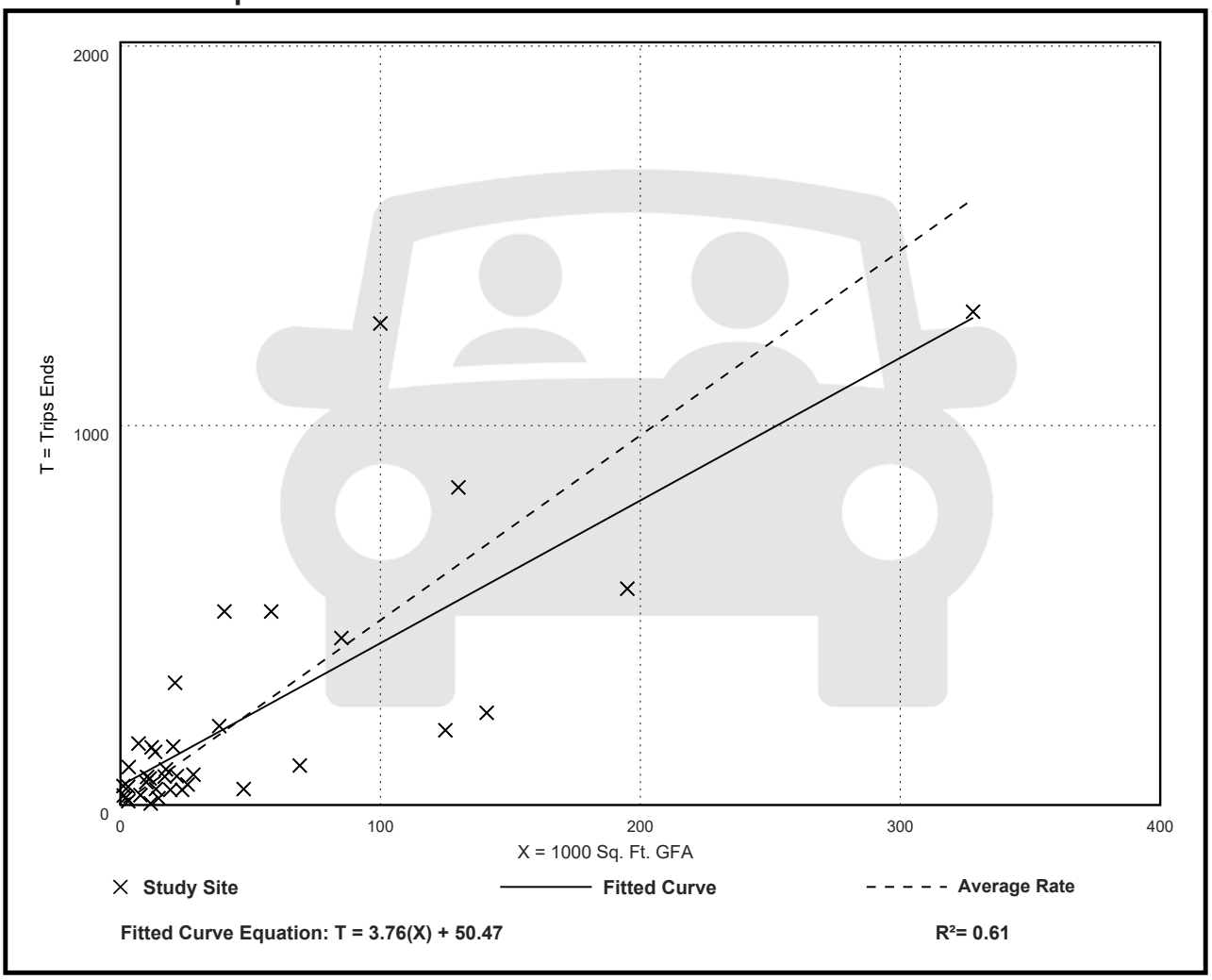
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 37
Avg. 1000 Sq. Ft. GFA: 45
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.87	0.34 - 43.86	4.08

Data Plot and Equation



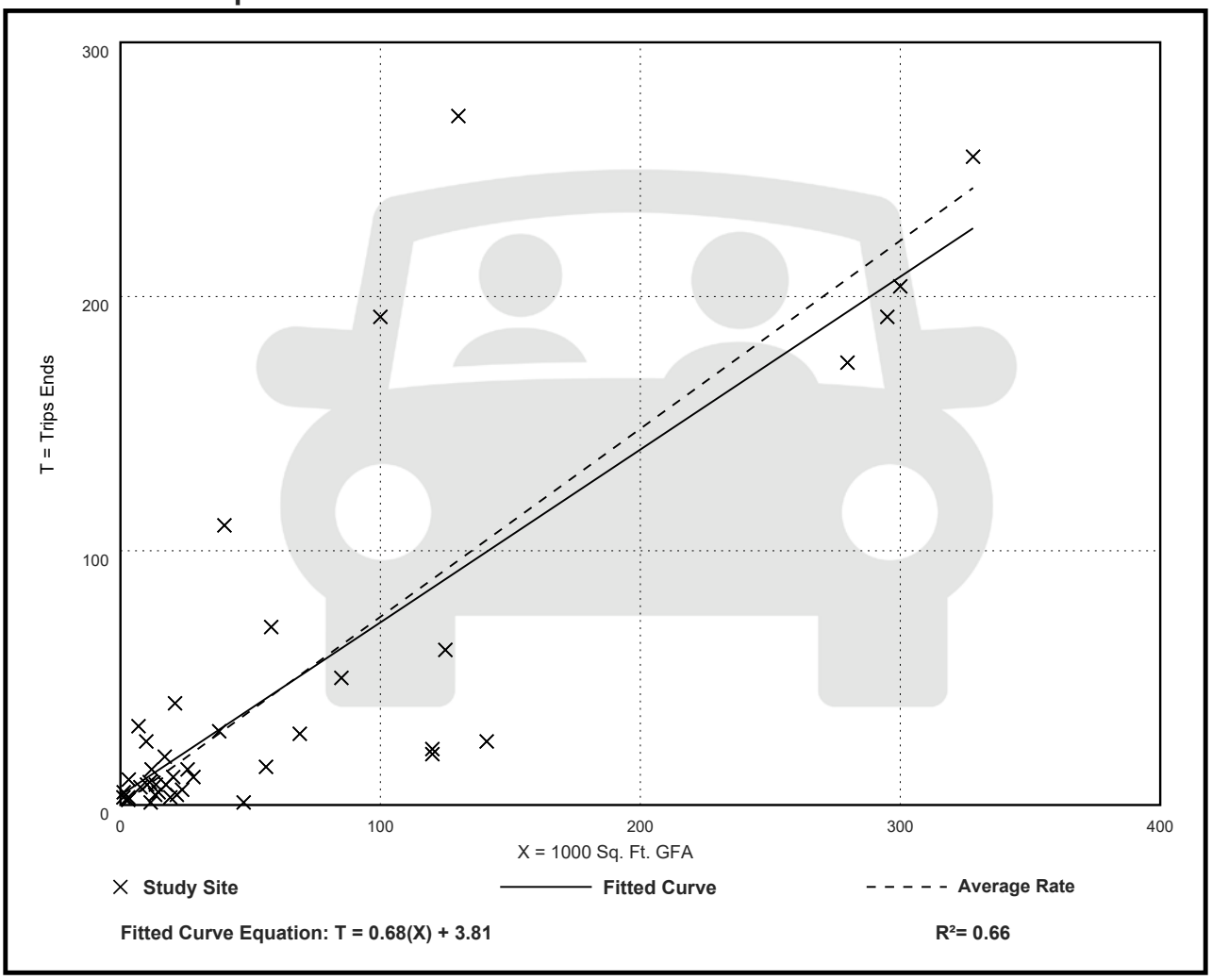
General Light Industrial
(110)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 41
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

Data Plot and Equation



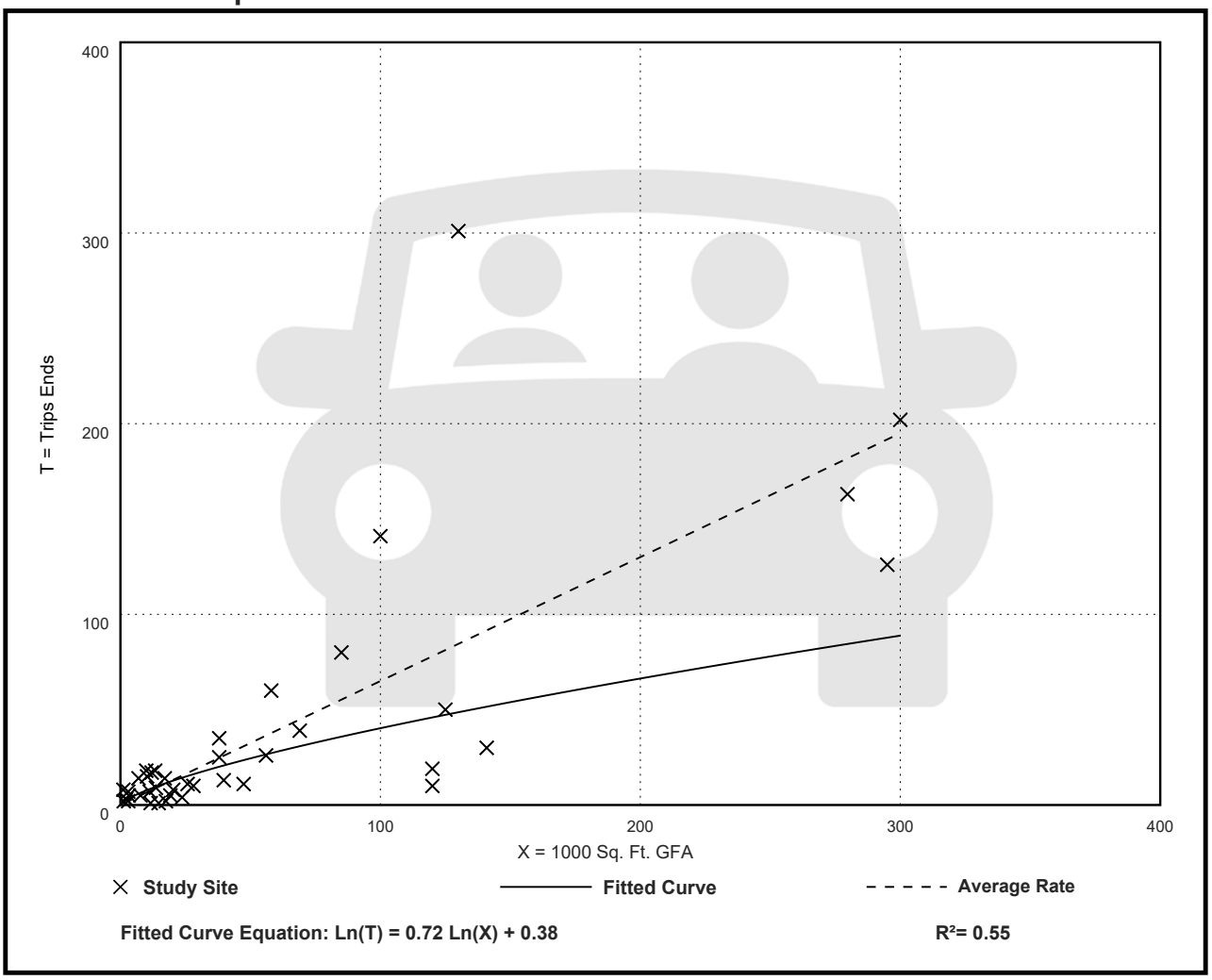
General Light Industrial
(110)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 40
Avg. 1000 Sq. Ft. GFA: 58
Directional Distribution: 14% entering, 86% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

Data Plot and Equation



Land Use: 150
Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

Warehousing
(150)

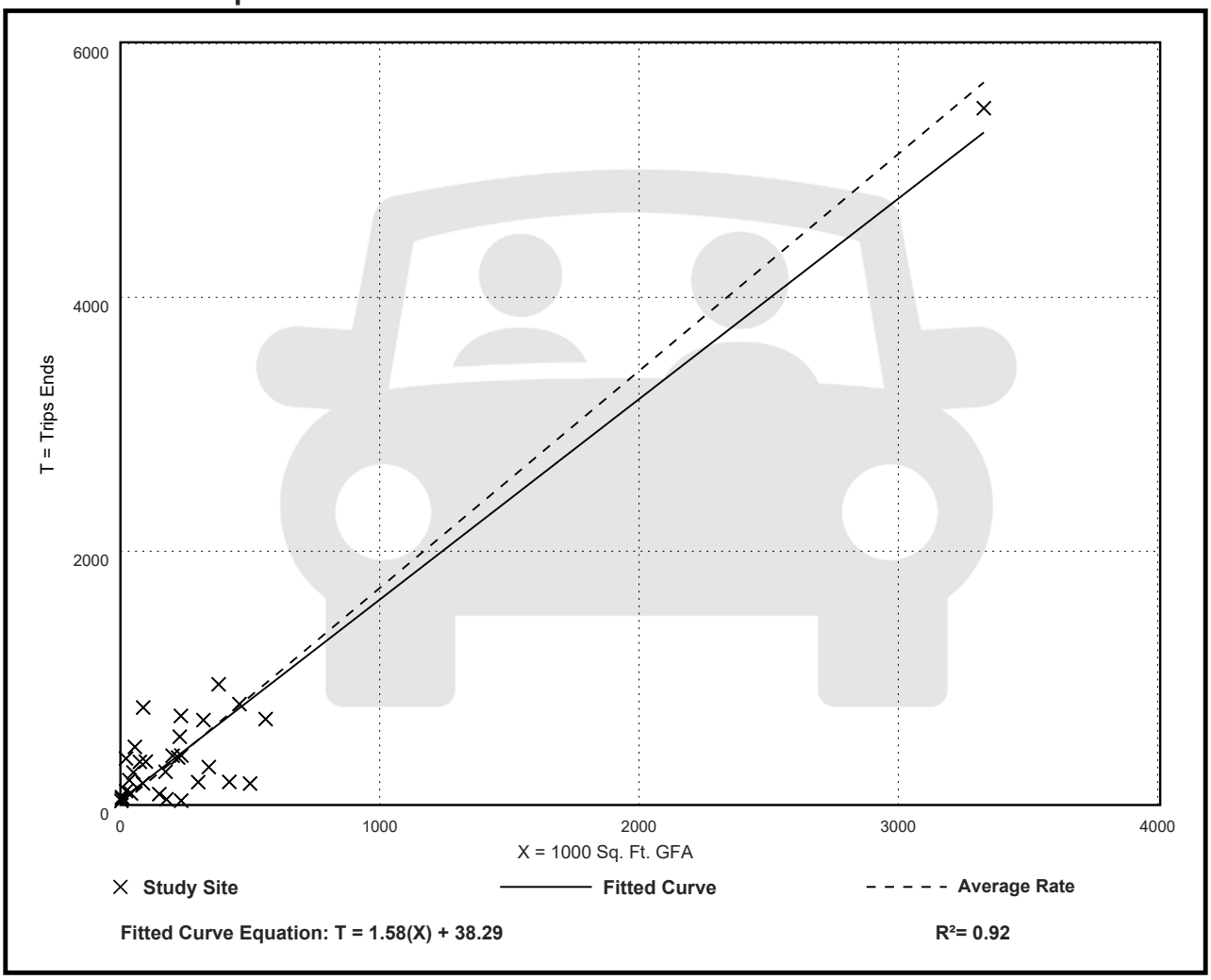
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 292
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

Data Plot and Equation



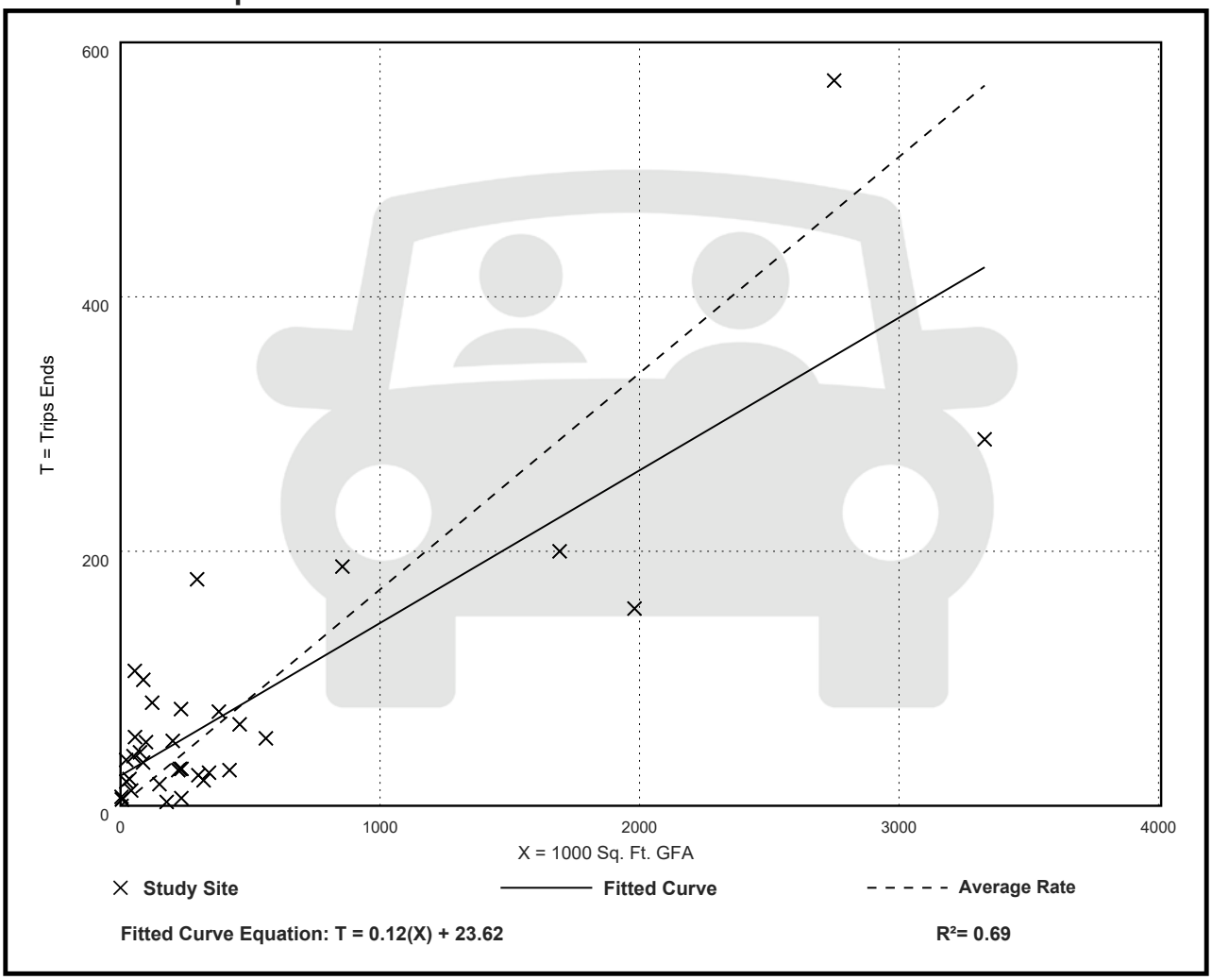
Warehousing
(150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 36
Avg. 1000 Sq. Ft. GFA: 448
Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 23.62

R^2= 0.69

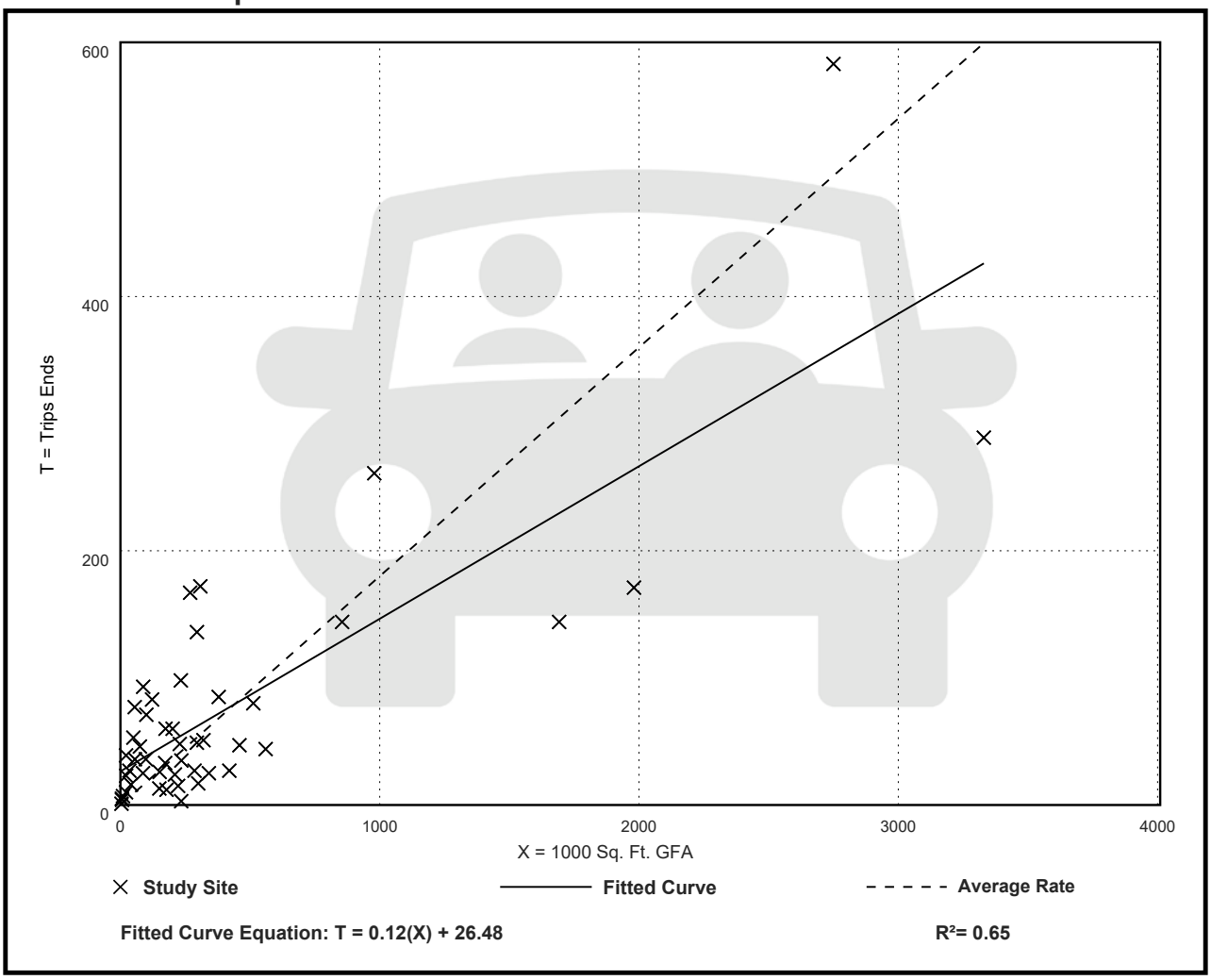
Warehousing
(150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. 1000 Sq. Ft. GFA: 400
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 26.48

R^2= 0.65

Hourly Distribution of Entering and Exiting Truck Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	110		
Land Use	General Light Industrial		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	27		
	% of 24-Hour Truck Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.0%	0.0%	0.0%
1:00 - 2:00 AM	0.0%	0.0%	0.0%
2:00 - 3:00 AM	0.4%	0.0%	0.8%
3:00 - 4:00 AM	0.0%	0.0%	0.0%
4:00 - 5:00 AM	0.0%	0.0%	0.0%
5:00 - 6:00 AM	0.0%	0.0%	0.0%
6:00 - 7:00 AM	0.0%	0.0%	0.0%
7:00 - 8:00 AM	7.6%	9.8%	5.3%
8:00 - 9:00 AM	9.5%	9.1%	9.8%
9:00 - 10:00 AM	15.5%	15.2%	15.9%
10:00 - 11:00 AM	14.8%	12.1%	17.4%
11:00 - 12:00 PM	6.1%	7.6%	4.5%
12:00 - 1:00 PM	8.7%	9.1%	8.3%
1:00 - 2:00 PM	12.9%	12.9%	12.9%
2:00 - 3:00 PM	10.6%	10.6%	10.6%
3:00 - 4:00 PM	9.1%	9.8%	8.3%
4:00 - 5:00 PM	3.4%	3.0%	3.8%
5:00 - 6:00 PM	1.5%	0.8%	2.3%
6:00 - 7:00 PM	0.0%	0.0%	0.0%
7:00 - 8:00 PM	0.0%	0.0%	0.0%
8:00 - 9:00 PM	0.0%	0.0%	0.0%
9:00 - 10:00 PM	0.0%	0.0%	0.0%
10:00 - 11:00 PM	0.0%	0.0%	0.0%
11:00 - 12:00 AM	0.0%	0.0%	0.0%

Hourly Distribution of Entering and Exiting Truck Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	150		
Land Use	Warehousing		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	11		
	% of 24-Hour Truck Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.3%	0.3%	0.3%
1:00 - 2:00 AM	0.2%	0.3%	0.0%
2:00 - 3:00 AM	1.3%	1.3%	1.2%
3:00 - 4:00 AM	1.3%	1.9%	0.6%
4:00 - 5:00 AM	2.4%	1.9%	2.8%
5:00 - 6:00 AM	3.5%	3.8%	3.1%
6:00 - 7:00 AM	4.4%	5.7%	3.1%
7:00 - 8:00 AM	5.3%	3.5%	7.2%
8:00 - 9:00 AM	5.5%	4.8%	6.2%
9:00 - 10:00 AM	9.9%	13.3%	6.5%
10:00 - 11:00 AM	9.7%	8.9%	10.6%
11:00 - 12:00 PM	11.2%	11.7%	10.6%
12:00 - 1:00 PM	6.8%	8.9%	4.7%
1:00 - 2:00 PM	8.0%	9.2%	6.9%
2:00 - 3:00 PM	6.1%	7.0%	5.3%
3:00 - 4:00 PM	9.3%	11.7%	6.9%
4:00 - 5:00 PM	6.9%	8.3%	5.6%
5:00 - 6:00 PM	3.9%	3.8%	4.0%
6:00 - 7:00 PM	0.9%	1.0%	0.9%
7:00 - 8:00 PM	0.6%	0.6%	0.6%
8:00 - 9:00 PM	1.6%	1.9%	1.2%
9:00 - 10:00 PM	0.8%	0.3%	1.2%
10:00 - 11:00 PM	0.0%	0.0%	0.0%
11:00 - 12:00 AM	0.2%	0.3%	0.0%

Appendix K –
Transportation Tomorrow Survey Excerpts

Wed May 07 2025 10:30:52 GMT-0400 (Eastern Daylight Time) - Run Time: 3505ms Cross Tabulation Query Form - Trip - 2022 Row: Planning district of household - pd_hhld Column: 2022 TTS zone of destination - tts22_dest Filters: (2022 TTS zone of destination - tts22_dest In 17019); and (Start time of trip - start_time In 700 - 900); and (2022 Trip purpose of destination - purp_dest2022 In 10, 11) Trip 2022 ROW : pd_hhld COLUMN : tts22_dest	Wed May 07 2025 10:38:41 GMT-0400 (Eastern Daylight Time) - Run Time: 3110ms Cross Tabulation Query Form - Trip - 2022 Row: 2022 TTS zone of household - tts22_hhld Column: 2022 TTS zone of destination - tts22_dest Filters: (2022 TTS zone of destination - tts22_dest In 17019); and (Start time of trip - start_time In 700 - 900); (2022 Trip purpose of destination - purp_dest2022 In 10, 11); and (Planning district of household - pd_hhld In 82). Trip 2022 ROW : tts22_hhld COLUMN : tts22_dest

TTS Cross Tabulation

Cross Tabulation Query Form - Trip - 2022

Filter Variables

Planning district of hous... ✖ ▾ | 2022 TTS zone of desti... ✖ ▾ | (Optional) Table Attribute ▾

Group Attributes

Row Grouping | Column Grouping | Table Grouping

Grouping file: Choose File No file chosen

Filter Selection +

☐ 2022 TTS zone of destination ▾ | In ▾ | 17019

And ▾

☐ Start time of trip ▾ | In ▾ | 700 - 900

And ▾

☐ 2022 Trip purpose of destination ▾ | In ▾ | 10, 11

Add | Delete

Output

◉ Comma-delimited table ○ Column format | Expansion Factor On | Click to Select Load | Load

Execute Query | Select All | Save As

```
Fri Jun 13 2025 10:46:12 GMT-0400 (Eastern Daylight Time) - Run Time: 3226ms

Cross Tabulation Query Form - Trip - 2022

Row: Planning district of household - pd_hhld
Column: 2022 TTS zone of destination - tts22_dest


Filters:
2022 TTS zone of destination - tts22_dest In 17019
and
Start time of trip - start_time In 700 - 900
and
2022 Trip purpose of destination - purp_dest2022 In 10, 11

Trip 2022
Table:

,17019
Whitby,12
Richmond Hill,30
Mississauga,60
Milton,31
Barrie,30
Innisfil,98
Bradford-West Gwillimbury,79
New Tecumseth,57
Springwater,12
Orillia,183
```

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TTS Cross Tabulation

Cross Tabulation Query Form - Trip - 2022

Filter Variables

2022 TTS zone of hous... × | 2022 TTS zone of desti... × | (Optional) Table Attribute

Group Attributes

Row Grouping | Column Grouping | Table Grouping

Grouping file: Choose File No file chosen

Filter Selection +

☐	2022 TTS zone of destination	In	17019
And			
☐	Start time of trip	In	700 - 900
And			
☐	2022 Trip purpose of destination	In	10, 11
And			
☐	Planning district of household	In	82

Add Delete

Output

◉ Comma-delimited table ○ Column format Expansion Factor On Click to Select Load Load

Execute Query Select All Save As

```
Fri Jun 13 2025 10:47:33 GMT-0400 (Eastern Daylight Time) - Run Time: 4201ms

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of household - tts22_hhld
Column: 2022 TTS zone of destination - tts22_dest


Filters:
2022 TTS zone of destination - tts22_dest In 17019
and
Start time of trip - start_time In 700 - 900
and
2022 Trip purpose of destination - purp_dest2022 In 10, 11
and
Planning district of household - pd_hhld In 82

Trip 2022
Table:

,17019
17001,47
17005,34
17008,17
```

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Appendix L – County's Employment Area Land Needs Assessment Excerpts

REPORT

PREPARED BY HEMSON FOR THE COUNTY OF SIMCOE

GROWTH FORECASTS AND LAND NEEDS ASSESSMENT

March 31, 2022

HEMSON

1000 - 30 St. Patrick Street, Toronto ON M5T 3A3

416 593 5090 | hemson@hemson.com | www.hemson.com

v. Location and Density of Employment Lands

The allocation of employment to lower-tier municipalities depends on the land need identified for Employment Areas and on the population allocation from the Community Area land needs assessment. The determination of Employment Area land needs in turn requires an understanding of the density of employment in Employment Areas.

In order to ensure that the employment allocations are informed by current real estate market trends, and the feasibility and appropriate location of Employment Areas, a report titled *Employment Strategy: Real Estate Market and Site Selection Perspectives* was prepared. This report can be found in Appendix B.

Appendix C contains a report *Employment Strategy: Employment Density Analysis* which provides an analysis of employment densities in established employment areas across Simcoe. The report concludes that the average Employment Area density in the County is 15.5 employees per net hectare. For the Employment Area land needs assessment a higher density of 20 employees per net hectare had been assumed for new development (see Section 5 for more discussion).

systems) or are clearly unviable and have been vacant for many years have been removed from the supply.

- The vacant supply in areas is subject net to gross ratio to account for local roads, local stormwater management facilities, and other utilities in Employment Areas. This ensures that the land need is on a common comparable basis in net hectares. The net to gross ratio varies from place to place depending on the size and configuration of the area and the parcel fabric. A standard 85% net to gross adjustment is used for land parcels greater than 5 hectares.

- Over and above the net to gross adjustment, a factor of 15% is applied for long-term vacancy and as a contingency for market choice. Long-term vacancy accounts for individual parcels that do not develop usually due to challenging access or configuration or are regular parcels that are never brought to market or never sold to an end user (typically about 3% of total occupied and vacant lands). The contingency for market choice is included in order to ensure a suitable range and size of sites throughout the period to 2051 so that there is a sufficient supply of large parcels to accommodate land extensive uses and strategic investment sites.

The demand for Employment Area land is based on the growth in employment land employment in the County from the 2021 base year to 2051: 19,110 jobs for the Southern RMA and 15,230 jobs for the Northern RMA as shown in Table 24. These are the employment figures that need to be accommodated on lands in Employment Areas in each regional market area. The demand is attributed to the vacant supply in each regional market area, including Strategic Settlement Employment Areas (in Innisfil and Bradford West Gwillimbury) and Economic Employment Districts (in Oro-Medonte and Ramara, recognizing the latter is primarily zoned for commercial uses) up to full development of those lands. A map showing the location of vacant supply is shown below in Figure 27. Any excess employment land employment that cannot be accommodated becomes the basis for employment land need.

A density of 20 employees per net hectare, somewhat higher than the density of 15.5 employees per net hectare on existing Employment Areas, is assumed for development on vacant lands. The Employment Densities Analysis Report (see Appendix C) supports the general notion of higher densities moving forward and the large strategic employment areas located in Simcoe along Highway 400 are considered to be similar to employment lands along 400 series highways in the Regions of Halton, Peel, and York, where more intense land uses than what exists in Simcoe are observed.

Figure 36 – Map Showing Location of Vacant Employment Areas in Simcoe

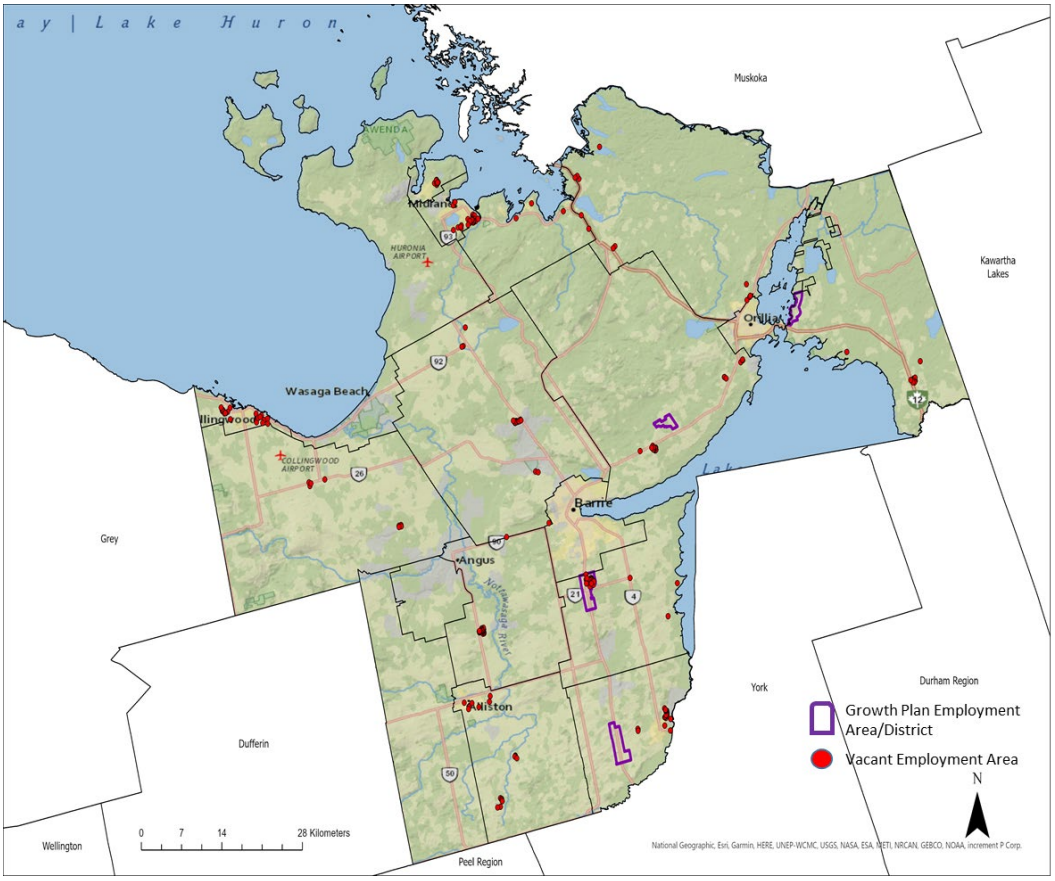


Table 25 shows that the developable Employment Area supply in the County is 1,892.9 hectares, which translates into 1,331.7 hectares of net land area (i.e. less lands for public use, long-term vacancy, and market contingency). At an assumed density of 20 employees per net hectare these lands can accommodate 26,634 jobs, or 7,706 fewer jobs than are being forecast to 2051. There is therefore a need for additional 500.9 hectares of Employment Area on a County Wide basis.

When looking at the regional market area scale:

- The Southern RMA requires an additional 177.4 hectares of Employment Area in order to accommodate 2,730 jobs.
- The Northern RMA requires an additional 323.4 hectares of Employment Area in order to accommodate 4,976 jobs.

CUSHMAN & WAKEFIELD

EMPLOYMENT STRATEGY

EMPLOYMENT DENSITY ANALYSIS

COUNTY OF SIMCOE

CUSHMAN & WAKEFIELD
161 BAY ST., SUITE 1500
P.O. BOX 602
TORONTO, ONTARIO
M5J 2S1
(416) 862-0611

CONTACT PERSON:

ANDREW BROWNING
VICE PRESIDENT
VALUATION & ADVISORY
(416) 359-2510

2.6 Bradford West Gwillimbury

The Town of Bradford West Gwillimbury has two clusters of occupied employment lands – one along Artesian Industrial Parkway (with a mix of smaller-scale industrial and commercial uses, along with aggregate, concrete, and asphalt operations at the north end), and the other east of 10th Sideroad, north of Holland Street West (dominated by large industrial facilities).

2.7 Data Analysis

The employer survey and property data have been aggregated in order to compare our observations across select established employment areas in North Simcoe (Oro-Medonte, Midland, Penetanguishene, and Collingwood) to South Simcoe (Innisfil and Bradford West Gwillimbury – the two Highway 400-oriented employment clusters). The following are some notable observations:

- Among the 35 businesses surveyed across North Simcoe, the average number of employees was 12. This ranged from a low of one (a sole proprietor) to a high of 55, with over two-thirds of the businesses surveyed falling within a range of 5-20 employees. The 16 businesses surveyed in South Simcoe ranged in size from 6-100 employees, with an average of 22. Three-quarters of South Simcoe businesses surveyed had between 10-35 workers.
- The property sizes surveyed were on average larger in South Simcoe (1.4 ha) compared to North Simcoe (0.8 ha). Three-quarters of properties in North Simcoe were less than one hectare in size (27 out of 35) compared to 50% in South Simcoe (eight out of 16).
  - *Note: While smaller properties are the predominant building form in many of Simcoe County's employment areas, the limits to accessing many of the larger industrial facilities in our surveying due to pandemic-related precautions on the part of employers must be acknowledged in drawing any conclusions about this data.*
- On average, the amount of floor space per worker was higher in North Simcoe (75 m^2 per worker) compared to South Simcoe (61 m^2 per worker). The resulting average County-wide among businesses surveyed was 69 m^2 per worker.
- The average employment density figure in terms of employees per hectare was 15.5 across both North and South Simcoe.
- The average site coverage (building area divided by land area) was similar across both North and South Simcoe, in a tight range of 10%-12%. Many businesses surveyed exhibited significant yard space for vehicle parking, as well as storage of equipment and raw materials/finished goods.
  - *Note: It is Cushman & Wakefield's opinion that the inclusion of some of the larger manufacturing uses that were not surveyed would have the effect of increasing the average site coverage figure.*

SUMMARY OF DATA ANALYSIS FROM EMPLOYER SURVEY

Location	Average # of Employees	Average Land Area (ha)	Average Employment Density (m^2 per Employee)	Average Employment Density (Employees per Hectare)	Average Site Coverage (%)
North Simcoe	12	0.8	75	15.5	12%
South Simcoe	22	1.4	61	15.5	10%
TOTAL	**15**	**1.0**	**69**	**15.5**	**11%**

Appendix M –
Town's Land Budget & Municipal Comprehensive Review Excerpts

October 2015

Phase 1 Discussion Paper

Land Budget & Municipal Comprehensive Review

Prepared by:

SGL Planning & Design Inc.

HEMSON Consulting Ltd.

Prepared for:

OUR PLACE INNISFIL

Innisfil

In summary, the residential growth management analysis has confirmed that the Town has sufficient land supply within settlement areas to accommodate forecast population growth to 2031 as per Schedule 7 of the Growth Plan.

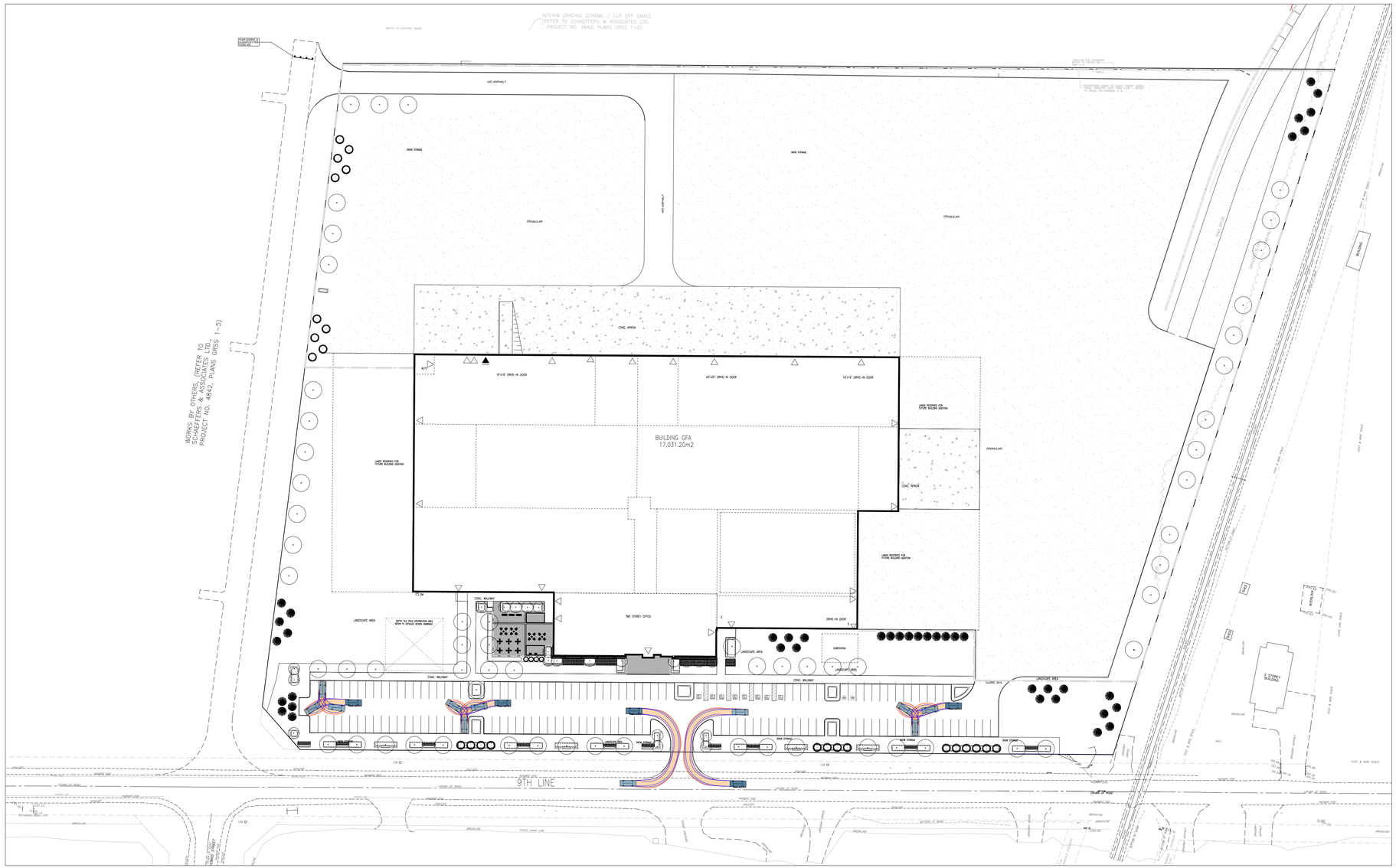
Employment

Employment land employment is generally expected to comprise a smaller share of the growth in employment over time across the Province due in part to structural changes in the economy that will result in a larger share of growth occurring in major offices. Innisfil's supply of employment lands is concentrated primarily in Innisfil Heights, a Provincially designated employment area. Innisfil Heights contains approximately 320 ha of employment lands and has enough capacity to accommodate approximately 6,330 jobs (including existing and future jobs). Of the 320 ha, approximately 154 ha are vacant un-serviced lands. Using a density of approximately 20 jobs per hectare, which is a realistic employment land density for serviced lands in Innisfil, Innisfil Heights could accommodate approximately 3,080 new jobs.

With a current employment land employment of 3,250, the lands designated in Innisfil Heights are sufficient to meet the forecast of a total of 5,990 employment land jobs by 2031. However, this analysis assumes that nearly all the remaining vacant lands will be developed by 2031, which may not be reasonable. In many employment areas, it is common to find vacant parcels decades after the majority of the employment area has been built out. As well, the supply will be quite limited by the end of the planning period, which may affect achieving forecast employment growth near the end of the planning period. Most importantly, key to achieving the forecast employment density will be delivering full municipal services to Innisfil Heights.

More specific descriptions, densities and characteristic are more appropriately addressed in the Innisfil Heights Secondary Plan Strategy currently underway and will be incorporate into the official plan review process. The Secondary Plan Strategy will confirm the sufficiency of the employment land supply,

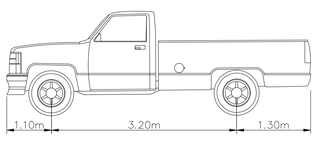
Appendix N –
Swept Path Analysis

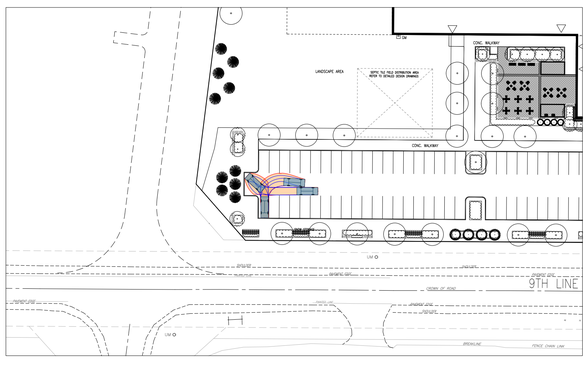


DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m





GENERAL NOTES
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NO.	DATE	APPROVED	REVISIONS
1.	JUNE 2025	JN	FIRST SUBMISSION

JD Northcote Engineering Inc.
Phone: 705.725.4035
86 Cumberland Street
Barrie, ON L4N 2P6
www.JDEngineering.ca

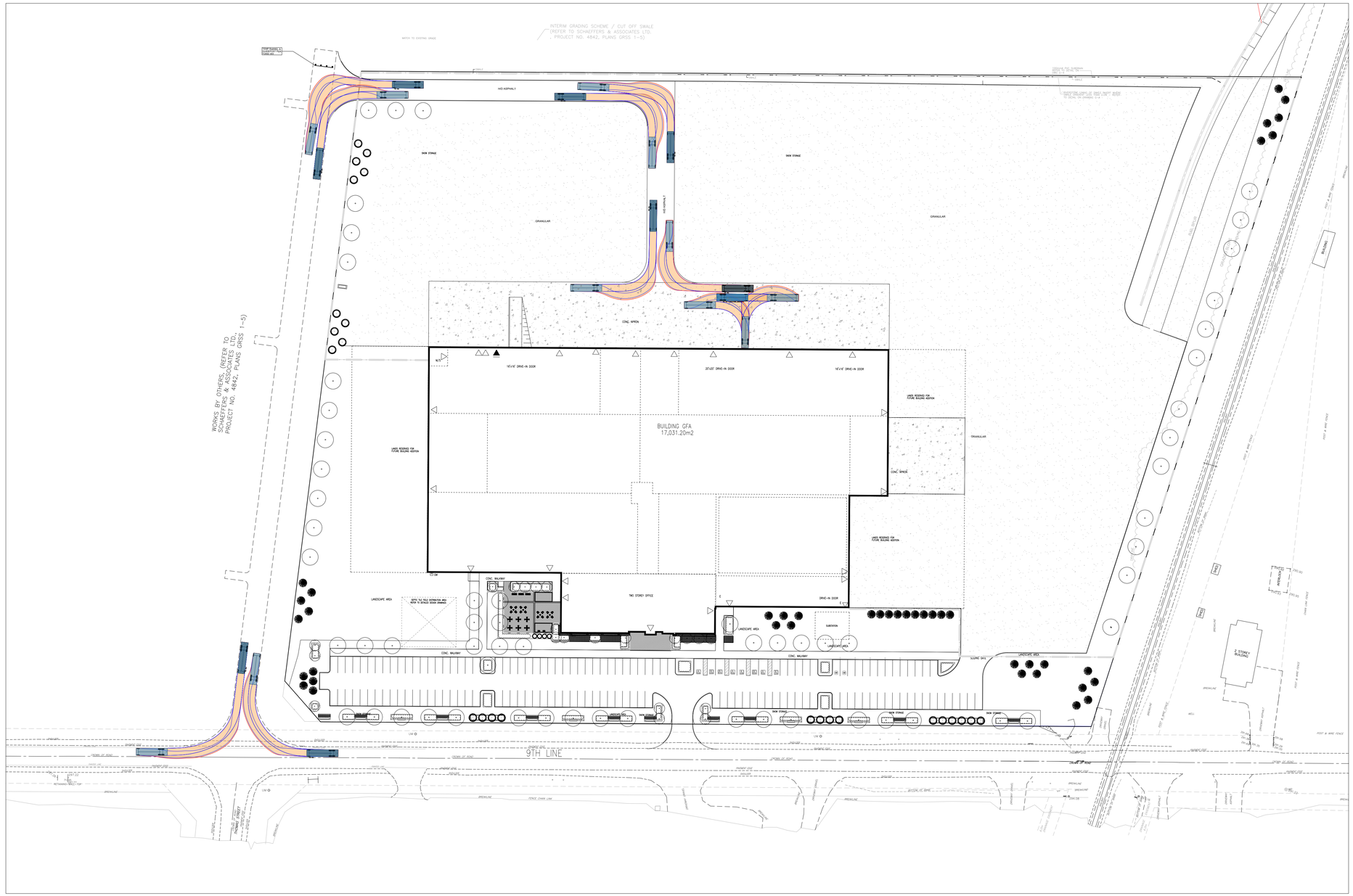
PROJECT
NORTHERN TRANSFORMER INNISFIL
(3260 9TH LINE)

CLIENT
DG GROUP

DRAWING TITLE
PASSENGER VEHICLE
TAC P (PASSENGER VEHICLE)

SUBTITLE
VEHICLE TURNING MOVEMENT ANALYSIS

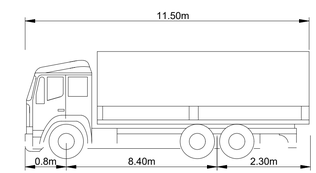
DESIGN:	RH	DATE:	06/25
DRAWN:	RH	DATE:	06/25
REVIEWED:	JN	DATE:	06/25
SCALE HOR.	1:750	SCALE VERT.	N/A
SHEET NO.	20027 - TURN-1		



DESIGN VEHICLE

HEAVY SINGLE UNIT TRUCK (TAC HSU)

VEHICLE WIDTH: 2.60m
OUTSIDE TURNING RADIUS: 14.1m



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Barrie, ON L4N 2P6
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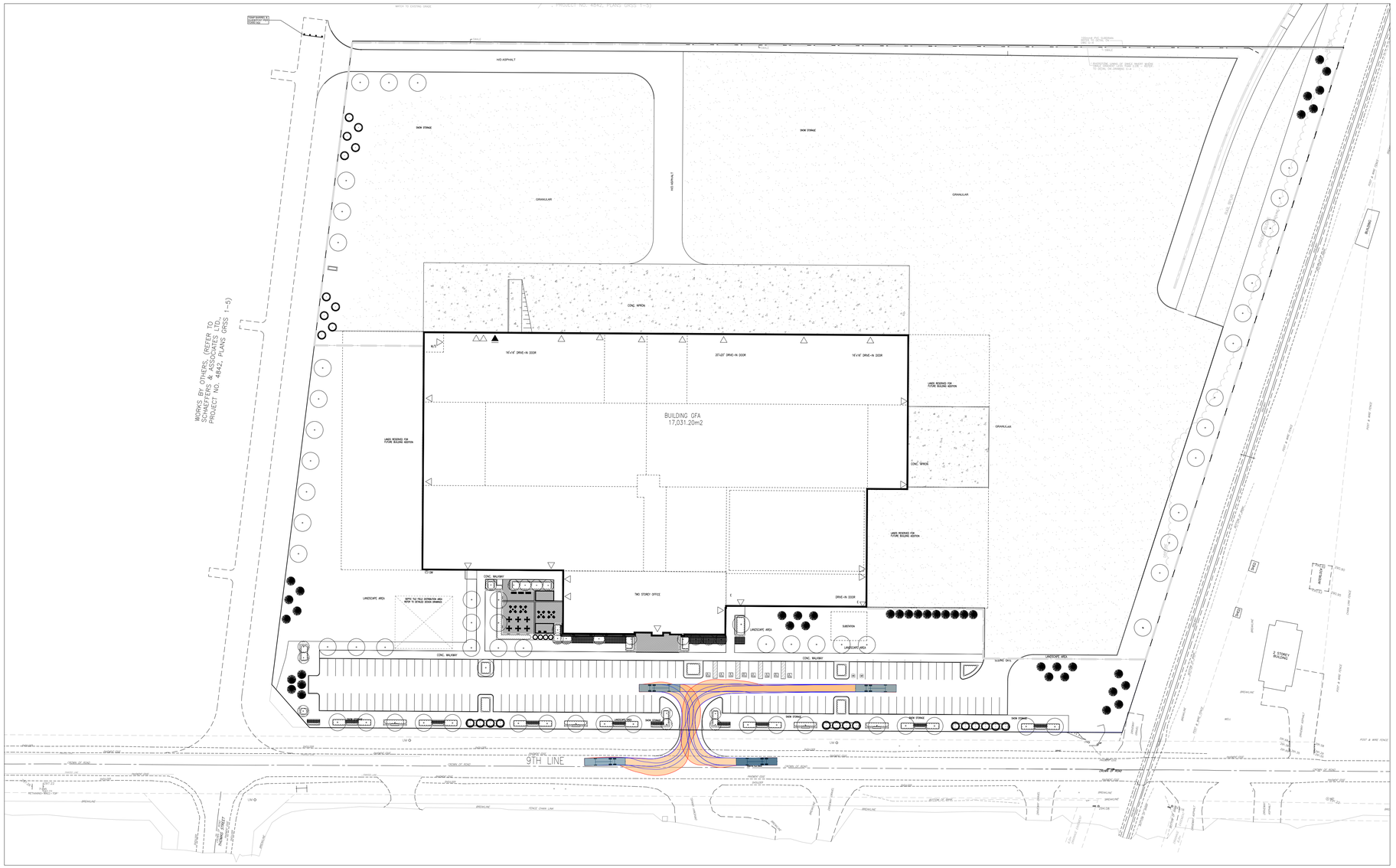
PROJECT
NORTHERN TRANSFORMER INNISFIL
(3260 9TH LINE)

CLIENT
DG GROUP

DRAWING TITLE
TRUCK TURNING MOVEMENT
HEAVY SINGLE UNIT TRUCK (TAC HSU)

SUBTITLE
VEHICLE TURNING MOVEMENT ANALYSIS

DESIGN: RH	DATE: 06/25
DRAWN: RH	DATE: 06/25
REVIEWED: JN	DATE: 06/25
SCALE HOR. 1:750	SCALE VERT. N/A
SHEET NO. 20027 - TURN-2	

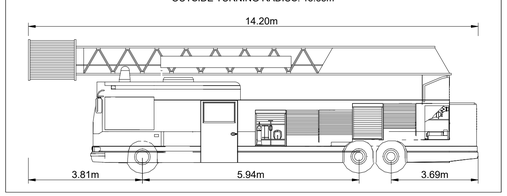


DESIGN VEHICLE

FIRE TRUCK (COBRA)

VEHICLE WIDTH: 2.57m

OUTSIDE TURNING RADIUS: 13.88m



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NO.	DATE	APPROVED	REVISIONS
1.	JUNE 2025	JN	FIRST SUBMISSION

JD Northcote Engineering Inc.
Phone: 705.725.4035
86 Cumberland Street
Barrie, ON L4N 2P6
www.JDEngineering.ca

PROJECT
NORTHERN TRANSFORMER INNISFIL
(3260 9TH LINE)

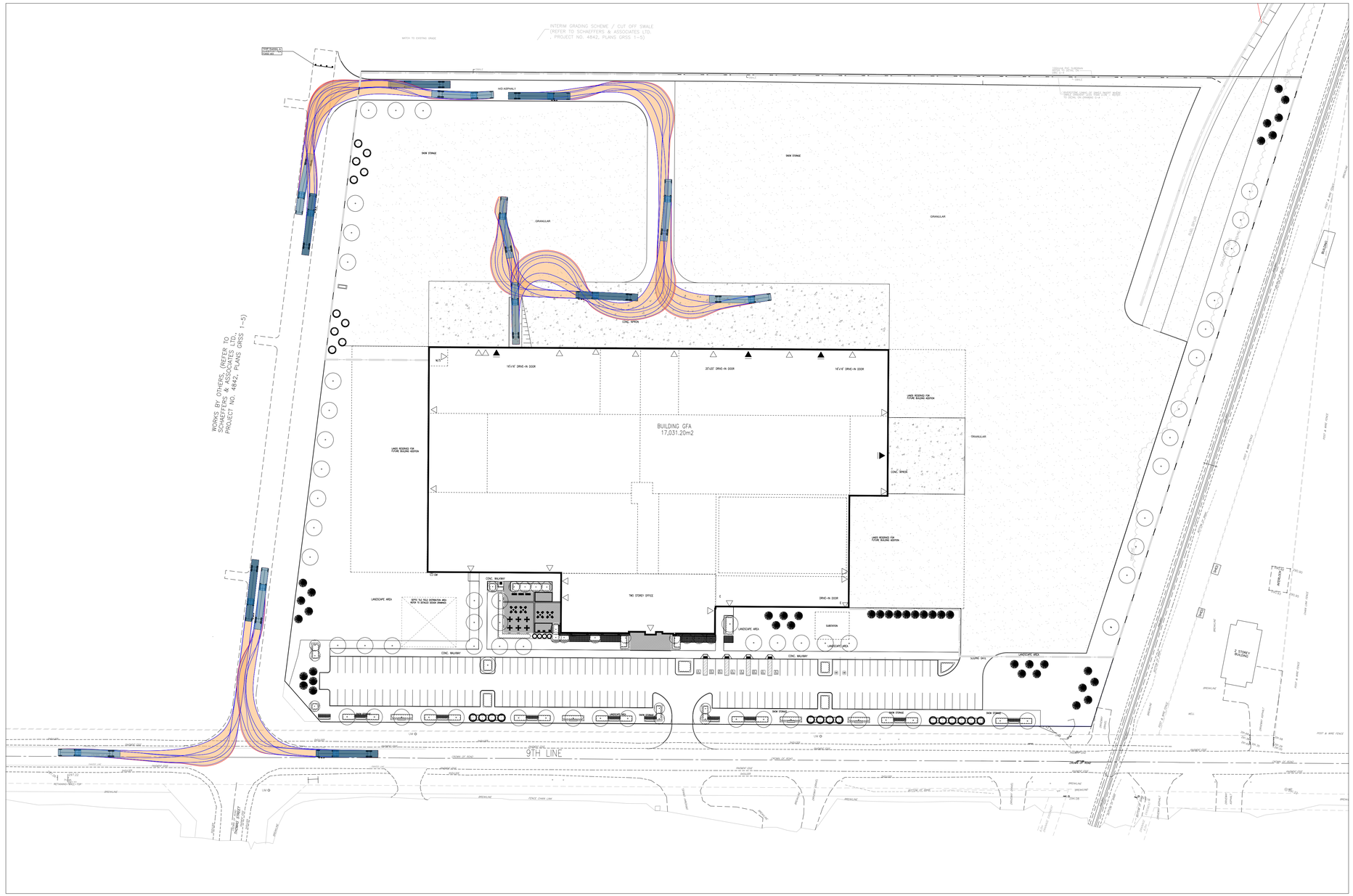
CLIENT
DG GROUP

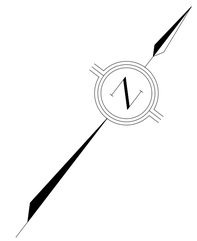
DRAWING TITLE
EMERGENCY VEHICLE
FIRE TRUCK (COBRA)

SUBTITLE
VEHICLE TURNING MOVEMENT ANALYSIS

DESIGN:	RH	DATE:	06/25
DRAWN:	RH	DATE:	06/25
REVIEWED:	JN	DATE:	06/25
SCALE HOR.	1:750	SCALE VERT.	N/A

SHEET NO.
20027 - TURN-3

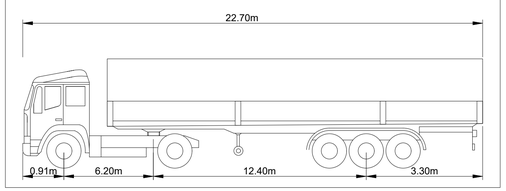




DESIGN VEHICLE

TANDEM TRACTOR TRAILER (TAC WB-20)

VEHICLE WIDTH: 2.60m
OUTSIDE TURNING RADIUS: 14.3m



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NO.	DATE	APPROVED	REVISIONS
1.	JUNE 2025	JN	FIRST SUBMISSION

JD Northcote Engineering Inc.
Phone: 705.725.4035
86 Cumberland Street
Barrie, ON L4N 2P6
www.JDEngineering.ca

PROJECT
NORTHERN TRANSFORMER INNISFIL
(3260 9TH LINE)

CLIENT
DG GROUP

DRAWING TITLE
TRUCK TURNING MOVEMENT
TANDUM TRACTOR TRAILER (TAC WB-20)

SUBTITLE
VEHICLE TURNING MOVEMENT ANALYSIS

DESIGN:	RH	DATE:	06/25
DRAWN:	RH	DATE:	06/25
REVIEWED:	JN	DATE:	06/25
SCALE HOR.	1:750	SCALE VERT.	N/A

SHEET NO.
20027 - TURN-4