2370 Tenth Line Road

Transportation Impact Assessment

Step 1 Screening Report

Step 2 Scoping Report

Step 3 Forecasting Report

Step 4 Strategy Report (SPA revision)

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1 Screening

This study has been prepared according to the City of Ottawa's 2017 Transportation Impact Assessment (TIA) Guidelines. Accordingly, a Step 1 Screening Form has been prepared and is included as Appendix A, along with the Certification Form for the TIA Study PM. As shown in the Screening Form, a TIA is required including the Design Review component and the Network Impact Component. This report is in support of a site plan application.

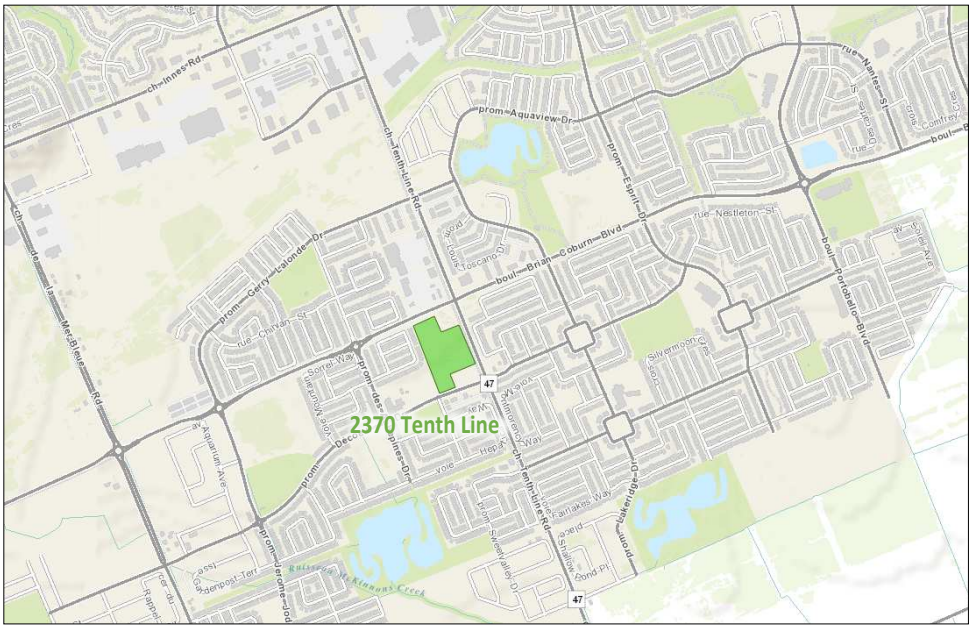
2 Existing and Planned Conditions

2.1 Proposed Development

The existing greenfield property, located at 2370 Tenth Line Road, is zoned as General Mixed Use (GM[950]) and is within the area considered by the Mer Bleue Community Design Plan (CDP). The proposed development consists of 144 stacked townhomes and four low-rise mixed-use buildings comprising 84 dwelling units and approximately 2,691 m^2 of ground floor commercial space. A full-movements access is proposed on Decoeur Drive, and a right-in/right-out access is proposed onto Tenth Line Road. The development is anticipated to be built out in a single phase by 2026 and 377 vehicle parking spaces are proposed in surface lots surrounding the site buildings.

Figure 1 illustrates the Study Area Context. Figure 2 illustrates the proposed concept plan.

Figure 1: Area Context Plan



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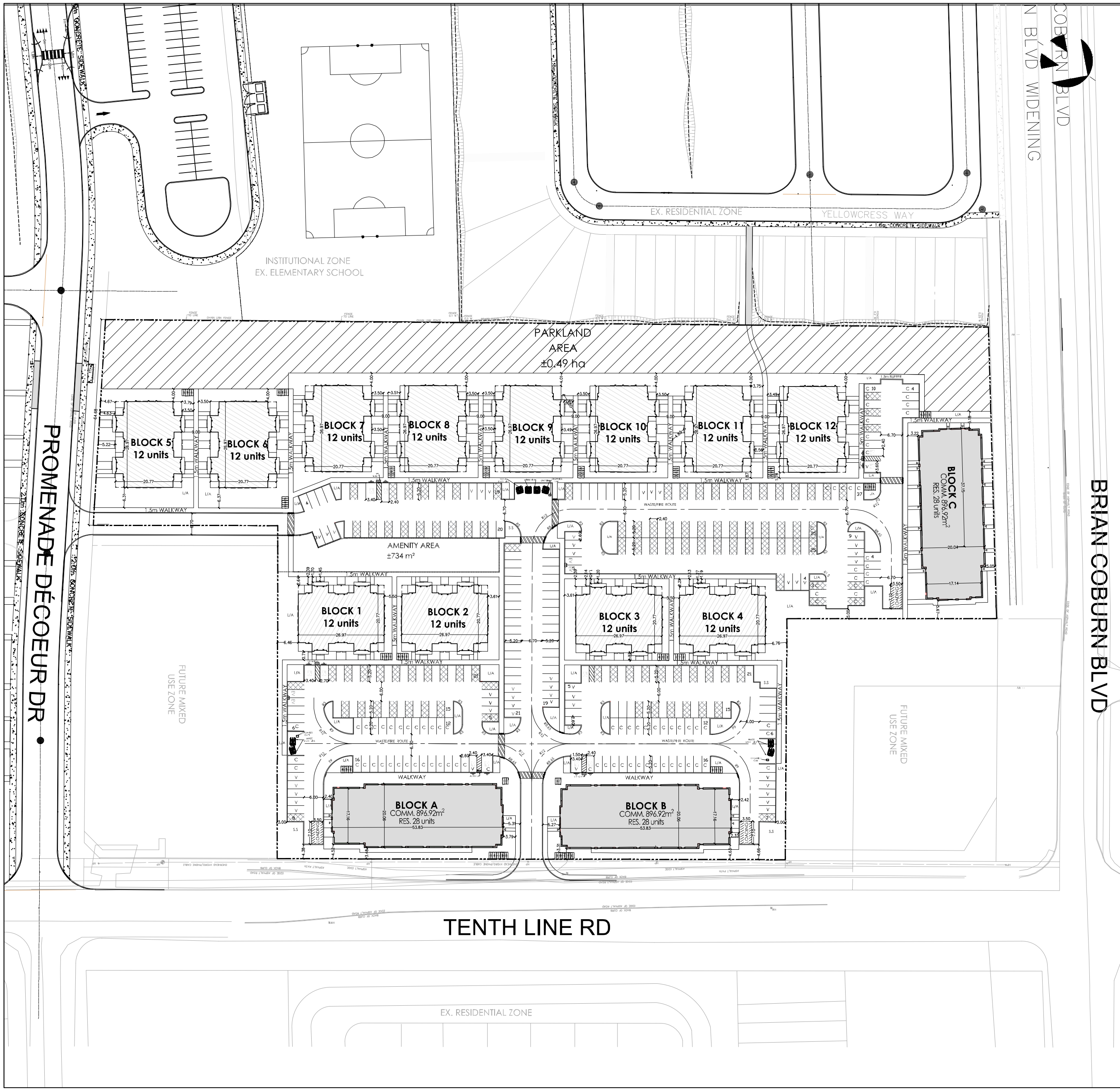


SITE STATISTICS AND DEVELOPMENT DATA

GROSS SITE AREA	36,388 m² (3.64 ha)
PARK AREA	4,890 m² (0.49 ha)
NET SITE AREA	31,498 m² (3.15 ha)
PAVED AREA	11,412 m² (36%)
HARD & SOFT LANDSCAPED AREA	10,130 m² (32%)
TOTAL BUILDING COVERAGE	9,956 m² (32%)
TOTAL UNITS	228
DENSITY (UPH)	63 UPH
ZONE CATEGORY	GM[950]

DWELLING BLOCK	DWELLING TYPE	GROSS FLOOR AREA (m2)		UNITS
BLOCK A	RESIDENTIAL	1,664.04		28
	COMMERCIAL		896.92	
BLOCK B	RESIDENTIAL	1,664.04		28
	COMMERCIAL		896.92	
BLOCK C	RESIDENTIAL	1,664.04		28
	COMMERCIAL		896.92	
	MIXED-USE TOTAL	**4,992.12**	**2,690.76**	**84**
BLOCK 1-12	STACKED TOWNS	15, 576.48 (1,298.04 per Block)		144
		TOTAL 23,259.36 m²		**TOTAL 228**

PARKING RATE SUMMARY	# OF PARKING STALLS
COMMERCIAL PARKING SPACES	91
RESIDENTIAL PARKING SPACES	240
VISITOR PARKING SPACES	46
TOTAL	**377**

SECTION	ZONE PROVISION - PLANNED UNIT DEVELOPMENT	REQUIRED	PROPOSED
187(Table)(a)	MIN. LOT AREA (m²)	No minimum	36,387.61m²
187(Table)(b)	MIN. LOT WIDTH (m)	No minimum	64.68m
2022-364	MIN. YARD SETBACK FROM A LOT LINE ABUTTING A PUBLIC STREET	3.0m	3.0m
2022-364	MIN. YARD SETBACK FROM ALL OTHER LOT LINES	4.0m	4.0m
187(Table)(f)	MAX. BUILDING HEIGHT (m)	18m	11m Mixed-Use 12m Stacked Towns
187(Table)(g)	MAX. FLOOR SPACE INDEX	2	0.6
187(Table)(h)	MIN. WIDTH OF LANDSCAPED AREA:		
	ABUTTING A STREET	3.0m	3.0m
	ABUTTING A RESIDENTIAL OR INSTITUTIONAL ZONE	3.0m	N/A
2022-364	ABUTTING A MIXED USE OR COMMERCIAL ZONE	3.0m	3.0m
R15	RESIDENT PARKING - MIXED-USE (84 units@1/unit)	84	84*
2022-364	- STACKED TOWNS (144 units@1/unit)	144	156*
R10	VISITOR PARKING - MIXED-USE (84 units@0.2/unit)	16.8	17
	- STACKED TOWNS (144 units@0.2/unit)	28.8	29
2022-364	RESTAURANT PARKING 3.4 spaces/100m² (367m²)	12.4	12
N79	RETAIL STORE PARKING 3.4 spaces/100m² (2,323m²)	78.9	79
111A(Table)(b)	BICYCLE PARKING (0.5/unit)	114	114
111A(Table)(e)	COMMERCIAL BICYCLE PARKING (1 space/250m² GFA)	10.8	12
131(Table)(1)	MIN. WIDTH OF PRIVATE WAY (m)	6.0m	6.0m
2022-364	MIN. WIDTH OF AISLE ACCESSING COMMERCIAL PARKING (m)	6.7m	6.7m
131(Table)(2)	MIN. SETBACK OF ANY WALL OF A RESIDENTIAL BUILDING TO PRIVATE WAY (m)	1.8m	2.8m
131(Table)(4)	MIN. SEPARATION DISTANCE BETWEEN BUILDINGS WITHIN PLANNED UNIT DEVELOPMENT (m)	1.2m	5.50m
137(Table)			
137(Table)	MIN. MIXED-USE BUILDING & STACKED TOTAL AMENITY AREA (6m²/unit)	1368m²	1559.73m²**
137(Table)	MIN. MIXED-USE BUILDING & STACKED COMMUNAL AMENITY AREA (min. 50% area)	684m²	734m²

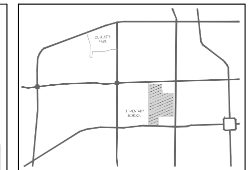
*Section 106 (3a)- Up to 50% of the required parking spaces may be reduced in size to 2.4m x 4.6m for small cars only. Proposed 102 spaces at 2.4m wide for small car parking. Length maintained at 5.2m.

**Individual amenity areas are provided on the balconies

SECTION	ADDITIONAL PROVISIONS	REQUIRED	PROPOSED
65(Table)	PERMITTED PROJECTIONS INTO REQUIRED YARDS		
65(Table)(5)	FIRE ESCAPES, OPEN STAIRWAYS, STOOP:		
	INTERIOR SIDE YARD OR REAR YARD (m)	No limit	3.89m
	FRONT YARD OR CORNER SIDE YARD (m)	>0.6m to lot line	4.67m
65(Table)(6)	COVERED OR UNCOVERED BALCONY, PORCH, DECK:		
	INTERIOR SIDE YARD OR REAR YARD (m)	No limit	3.88m
	FRONT YARD OR CORNER SIDE YARD (m)	>1m to lot line	N/A
106(1)(a)	MIN. PERPENDICULAR PARKING SPACE SIZE (m)	2.6m x 5.2m	2.6m x 5.2m
106(2)	MIN. BARRIER FREE PARKING		
	TOTAL NUMBER OF ACCESSIBLE PARKING SPACES	11	11
	TYPE A PARKING SPACE SIZE (m)	3.4m wide	3.4m wide
	TYPE B PARKING SPACE SIZE (m)	2.4m wide	2.4m wide
	ACCESS AISLE (m)	1.5m	1.5m
106(3)(a)	MIN. REDUCED PARKING SPACE SIZE (m)	2.4m x 4.6m	2.4m x 5.2m
111B(Table)	MIN. BICYCLE PARKING SPACE DIMENSION, HORIZONTAL (m)	Width: 0.6m	0.6m
		Length: 1.8m	1.8m
111(9)	MIN. BICYCLE PARKING SPACE ACCESS AISLE WIDTH (m)	1.5m	1.8m
113B(Table)	VEHICLE LOADING SPACE:		
	MIN. WIDTH OF DRIVEWAY ACCESSING LOADING SPACE (m)	6m	6.0m
	MIN. WIDTH OF AISLE ACCESSING LOADING SPACE BY ANGLE (Between 45° or less)(m)	5m	6.0m
	MIN. WIDTH OF LOADING SPACE (m)	3.5m	3.5m
	MIN. LENGTH OF LOADING SPACE (m)	7m	7m
110(1)	MIN. % OF PARKING LOT LANDSCAPED	15%	20%
110(Table)	LANDSCAPED AREA SURROUNDING PARKING LOT:		
	ABUTTING A STREET (m)	3.0m	4.10m
	NOT ABUTTING A STREET (m)***	3.0m	3.0m
2022-364	ABUTTING AN O1 ZONE	1.5m	1.5m
110(3)(b)	MIN. WASTE COLLECTION SETBACK TO LOT LINE (m)	3.0m	3.0m
110(3)(c)	OPAQUE SCREEN MIN. HEIGHT (m)	2.0m****	2.0m****
2022-364	MAX. GROSS LEASABLE FLOOR AREA FOR A LOT LESS THAN 4 HA	9,999m²	2,690.76m²

***The landscaping provisions of Section 110(1) for parking lots do not apply to a shared driveway divided along the common lot line of abutting properties (Bylaw 2022-364).

****Section 110(3)(d) where an in-ground refuse container is provide, the screening requirement of Section (3)(c) above may be achieved with soft landscaping (Bylaw 2020-299).



KEY MAP
N.T.S.

SCALE 1:600 0 6 12 18 24 30 36

LEGEND

- STACKED TOWNS
- MIXED-USE BUILDING
- CROSSWALK
- CURB (0.2m)
- DEPRESSED CURB
- BALCONY
- PORCH
- PROJECTION (STAIRS)
- S.S SNOW STORAGE AREA
- L/A LANDSCAPED AREA
- BLOCK BOUNDARY
- BARRIER FREE PARKING
- BARRIER FREE PARKING SIGNAGE
- TACTILE WALKING SURFACE INDICATOR
- REDUCED SIZE PARKING SPACES
- CONCRETE/ASPHALT PAD
- BIKE RACKS
- ENTRANCE
- V VISITOR PARKING
- C COMMERCIAL PARKING
- EV CHARGING STATION
- EARTH BIN (5M3)
- ORGANICS CARTS (240L)

DATE (M/D/Y)	REVISION	BY
11/16/22	Second Submission	CR
12/20/21	First Submission	SP

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4. REFERENCES CITY OF OTTAWA T.W.S.I. DETAIL SC7.3
5. SURVEY BOUNDARY BY J.D BARNES LIMITED. 62 STEACIE DRIVE, SUITE 103, KANATA, ON K2K 2A9

PROJECT TEAM

SITE PLAN DESIGN: KORSIAK Urban Planning
LANDSCAPE ARCHITECTURE: NAK design strategies
PLANNING: FOTENN Planning + Design
ARCHITECTURE: BBM STUDIO Kohn
TRANSPORTATION: CGH
CIVIL ENGINEER: Stantec

mattamyHOMES

50 Hines Road, Suite 100, Ottawa, ON Canada K2K 2M5

Orleans

2370 TENTH LINE RD
PART OF BLOCK 173, REGISTERED PLAN 4M-1525
PART OF LOT 11, CONCESSION 3
GEOGRAPHIC TOWNSHIP OF CUMBERLAND
CITY OF OTTAWA

TITLE: SITE PLAN

DATE: November 16, 2022 | DRAWN BY: CR | CHECKED BY: | DRAWING NO. B

FILE NO.: D02-02-21-0156

JOB NO.:

2.2 Existing Conditions

2.2.1 Area Road Network

Tenth Line Road: Tenth Line Road is a City of Ottawa arterial road with a divided four-lane urban cross-section throughout the majority of the study area that transitions to a two-lane rural cross-section 135 metres south of Harvest Valley Avenue. Bike lanes are included on both sides of the road where the cross-section is urban and transition to paved shoulders where the cross-section is rural. North of Gerry Lalonde Drive, the cross-section includes a MUP on the west side and a sidewalk on the east side of the road, and between Gerry Lalonde Drive and the Shops of Tenth Line access, sidewalks are on both sides of the road. Between the Shops of Tenth Line access and 135 metres south of Harvest Valley Avenue, a MUP is present on the west side and a sidewalk is present on the east side of the road. The posted speed limit is 60 km/h and the measured right-of-way is 37.5 metres. Tenth Line Road is a truck route.

Brian Coburn Boulevard: Brian Coburn Boulevard is a City of Ottawa arterial road with a two-lane urban cross-section including a sidewalk on the north side of the road. The posted speed limit is 60 km/h and the measured right-of-way is 40.0 metres. Brian Coburn Boulevard is a truck route east of Tenth Line Road.

Esprit Drive: Esprit Drive is a City of Ottawa major collector road north and a collector road to the south of Brian Coburn Boulevard, each with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road, the posted speed limit is 50 km/h and the measured right-of-way is 26.0 metres.

Decoeur Drive: Decoeur Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road, the unposted speed limit is assumed to be 50 km/h and the measured right-of-way is 28.0 metres.

Gerry Lalonde Drive: Gerry Lalonde Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road, the posted speed limit is 50 km/h and the measured right-of-way is 26.0 metres.

Jerome Jodoin Drive: Jerome Jodoin Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road, the unposted speed limit is assumed to be 50 km/h and the measured right-of-way is 24.0 metres.

Des Aubepines Drive: des Aubepines Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on the west side of the road and in a layby in front of the Notre-Place Elementary School on the east side of the road. The unposted speed limit is assumed to be 50 km/h and the measured right-of-way is 28.0 metres.

Aquaview Drive: Aquaview Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road south of Lakepointe Drive and on the west side of the road to the north. On-street parking is permitted on both sides of the road to the south and one the west side of the road to the north of Lakepointe Drive. The posted speed limit is 40 km/h and the measured right-of-way is 26.0 metres.

Lakeridge Drive: Lakeridge Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road. The unposted speed limit is assumed to be 50 km/h and the measured right-of-way is 26.0 metres.

Lakepointe Drive: Lakepointe Drive is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road, the unposted speed limit is assumed to be 50 km/h and the measured right-of-way is 30.0 metres.

Southfield Way: Southfield Way is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on both sides of the road, the posted speed limit is 50 km/h and the measured right-of-way is 26.0 metres.

Harvest Valley Avenue: Harvest Valley Avenue is a City of Ottawa collector road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on the south side of the road, the posted speed limit is 50 km/h and the measured right-of-way is 26.0 metres.

Strasbourg Street: Strasbourg Street is a City of Ottawa local road with a two-lane urban cross-section including sidewalks on both sides of the road. On-street parking is permitted on the south side of the road, the posted speed limit is 50 km/h and the measured right-of-way is 24.0 metres.

Sweetvalley Drive: Sweetvalley Drive is a City of Ottawa local road with a two-lane urban cross-section including a sidewalk on the north and west sides of the road within the study area. On-street parking is permitted on both sides of the road, the posted speed limit is 40 km/h and the measured right-of-way is 26.0 metres.

2.2.2 Existing Intersections

The key existing signalized area within one kilometre of the site have been summarized below:

Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road	The intersection of Gerry Lalonde Drive/Lakepointe Drive at Tenth Line Road is a signalized intersection. The northbound and southbound approaches each consist of an auxiliary left-turn lane, two through lanes, a bike lane, and an auxiliary right turn lane. The eastbound functionally consists of an unpainted auxiliary left-turn lane and a shared through/right-turn lane, and the westbound approach consists of an auxiliary left-turn lane, a through lane, and an auxiliary right-turn lane. No turn restrictions were noted.
The Shops of Tenth Line Access at Tenth Line Road	The intersection of The Shops of Tenth Line access at Tenth Line Road is a signalized intersection. The northbound approach consists of an auxiliary left-turn lane, two through lanes, and a bike lane and the southbound approach consists of two through lanes, a bike lane, and an auxiliary right-turn lane. The private eastbound approach consists of an unmarked left-turn lane and right-turn lane. No turn restrictions were noted.
Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive	The intersection of Brian Coburn Boulevard at Gerry Lalonde Drive/Jerome Jodoin Drive is a roundabout with shared all-movement lanes yield-controlled on all approaches. No turn restrictions were noted.
Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive	The intersection of Brian Coburn Boulevard at Strasbourg Street/Des Aubepines Drive a roundabout with shared all-movement lanes yield-controlled on all approaches. No turn restrictions were noted.
Brian Coburn Boulevard at Tenth Line Road	The intersection of Brian Coburn Boulevard at Tenth Line Road is a signalized intersection with an auxiliary left-turn lane on each approach. The northbound and southbound approaches each also have a through lane, a shared through/right-turn lane, and a bike lane. The eastbound approach additionally has a shared through/right-turn lane, and the westbound approach additionally has a

	through lane and an auxiliary channelized right-turn lane. No turn restrictions were noted.
Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive	The intersection of Brian Coburn Boulevard at Aquaview Drive/Lakeridge Drive is a signalized intersection with an auxiliary left-turn lane and a shared through/right-turn lane on each approach. No turn restrictions were noted.
Brian Coburn Boulevard at Esprit Drive	The intersection of Brian Coburn Boulevard at Esprit Drive is a signalized intersection with an auxiliary left-turn lane and a shared through/right-turn lane on each approach. No turn restrictions were noted.
Decoeur Drive / Southfield Way at Tenth Line Road	The intersection of Decoeur Drive/Southfield Way at Tenth Line Road is a signalized intersection with an auxiliary left-turn lane on each approach. The northbound and southbound approaches each also have two through lanes, a bike lane, and an auxiliary right-turn lane. The eastbound and westbound approaches additionally each have a shared through/right-turn lane. No turn restrictions were noted.
Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road	The intersection of Sweetvalley Drive/Harvest Valley Avenue at Tenth Line Road is a signalized intersection with an auxiliary left-turn lane on each approach. The northbound and southbound approaches each also have a through lane, a shared through/right-turn lane, and a bike lane. The eastbound and westbound lanes additionally each have a shared through/right-turn lane. No turn restrictions were noted.

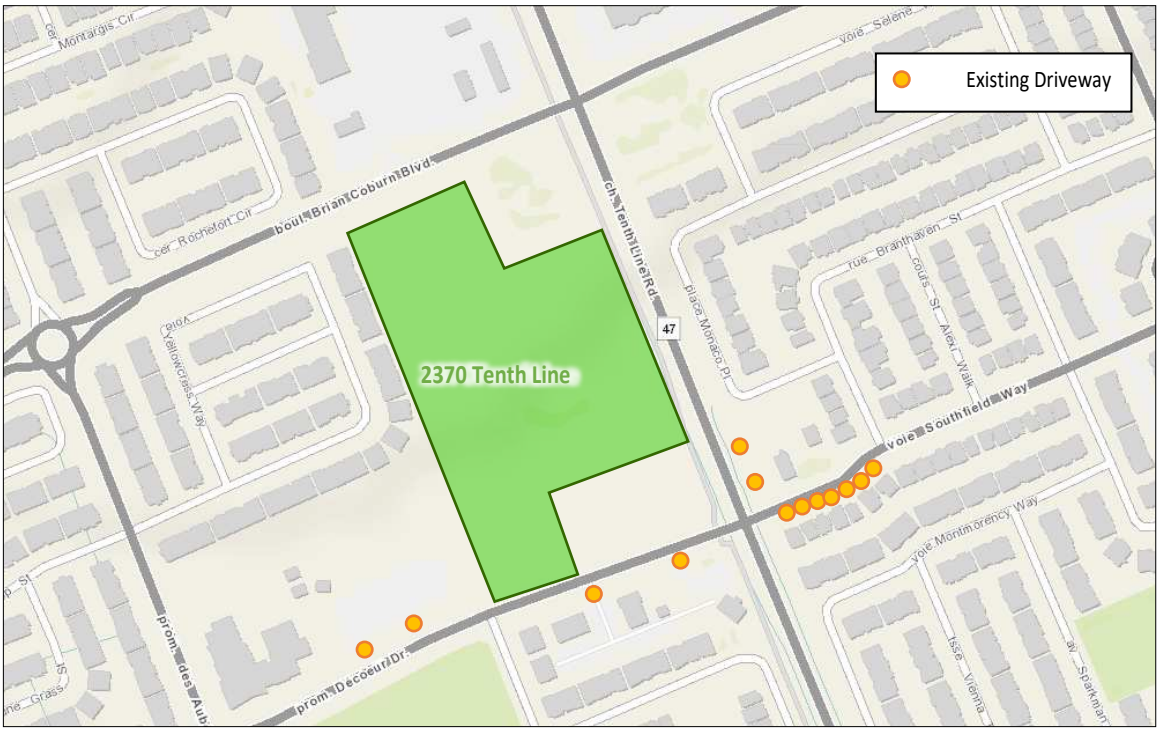
2.2.3 Existing Driveways

Within 200 metres of the proposed site access on Decoeur Drive, a private road accessing a number of townhomes and a driveway to the community home sales centre are present on the south side of Decoeur Drive and a two-driveway loop is present on the north side of Decoeur Drive west of Tenth Line Road. East of Tenth Line Road, seven driveways to single detached homes are present on the south side of Southfield Way.

Within 200 metres of the proposed site access on Tenth Line Road, a two-driveway loop to a home cabinetry business and accompanying workshop is present on the east side of Tenth Line Road. As Tenth Line Road is separated by a median, no potential conflict exists with these driveways.

Figure 3 illustrates the existing area driveways.

Figure 3: Existing Driveways



Source: http://maps.ottawa.ca/geoOttawa/ Accessed: November 10, 2022

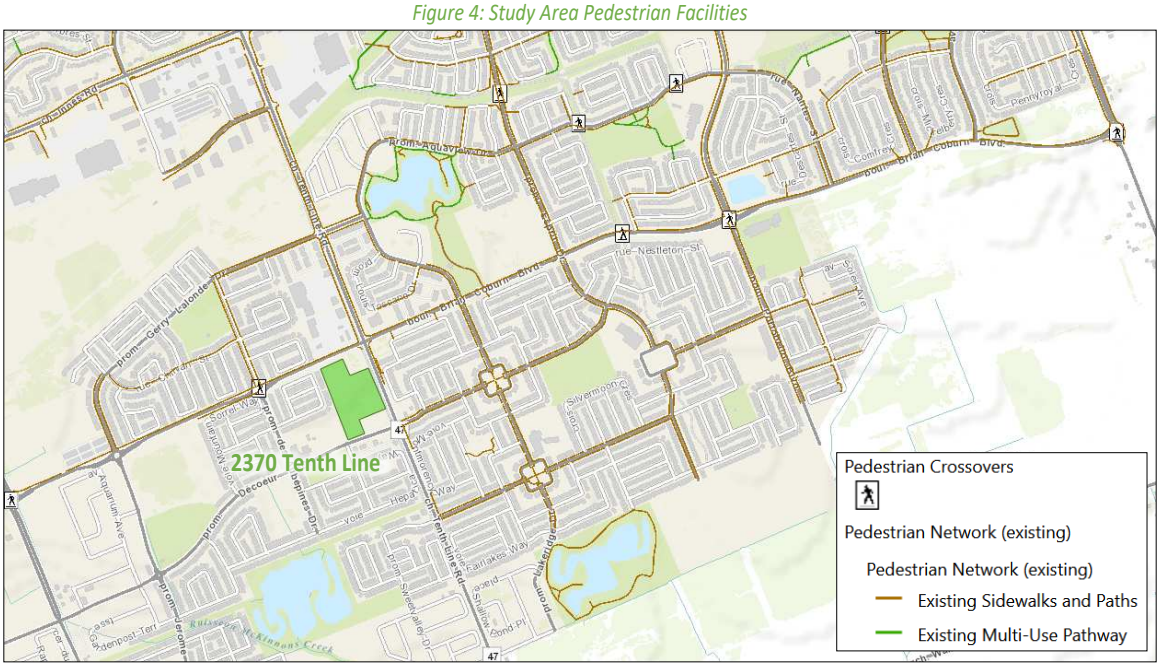
2.2.4 Cycling and Pedestrian Facilities

Figure 4 illustrates the pedestrian facilities in the study area and Figure 5 illustrates the cycling facilities.

Sidewalks are provided along the north side of Brian Coburn Boulevard, the east side of Tenth Line, the west side of Aquaview Drive north of Lakepointe Drive, the north/west side of Sweetvalley Drive, and on both sides of all other study area roadways within the study area. A pathway is provided around the stormwater management facility within Aquaview Park and a mixed-use path (MUP) is provided on the west side of Tenth Line Road.

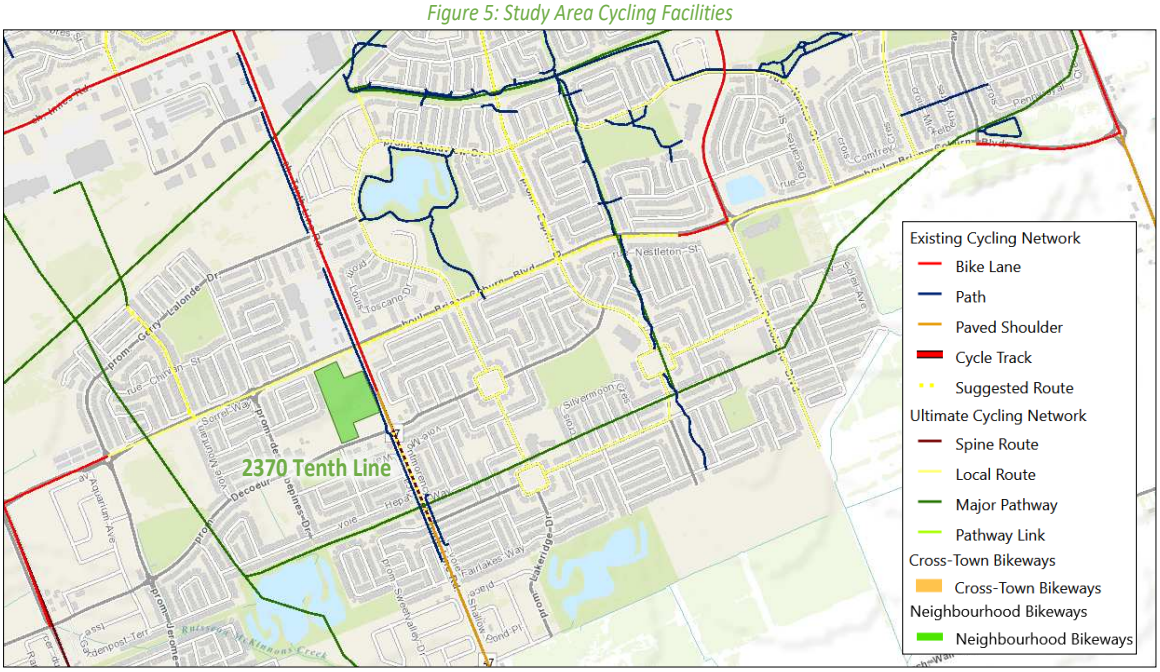
Cycling facilities include the MUP along the west side of Tenth Line Road, bike lanes on Tenth Line Road transitioning to paved shoulders 135 metres south of Harvest Valley Avenue. Tenth Line Road is a spine route, Brian Coburn Boulevard, Cabris Crescent/Azure Street/Trigoria Crescent, Aquaview Drive, Lakeridge Drive, and Esprit Drive are local routes.

Figure 4: Study Area Pedestrian Facilities



Source: http://maps.ottawa.ca/geoOttawa/ Accessed: November 9,2022

Figure 5: Study Area Cycling Facilities



Source: http://maps.ottawa.ca/geoOttawa/ Accessed: November 9,2022

Pedestrian and cyclist volumes included in study area intersection counts, presented in Section 2.2.7, have been compiled and are illustrated in Figure 6 and Figure 7 respectively.

Figure 6: Existing Study Area Pedestrian Volumes

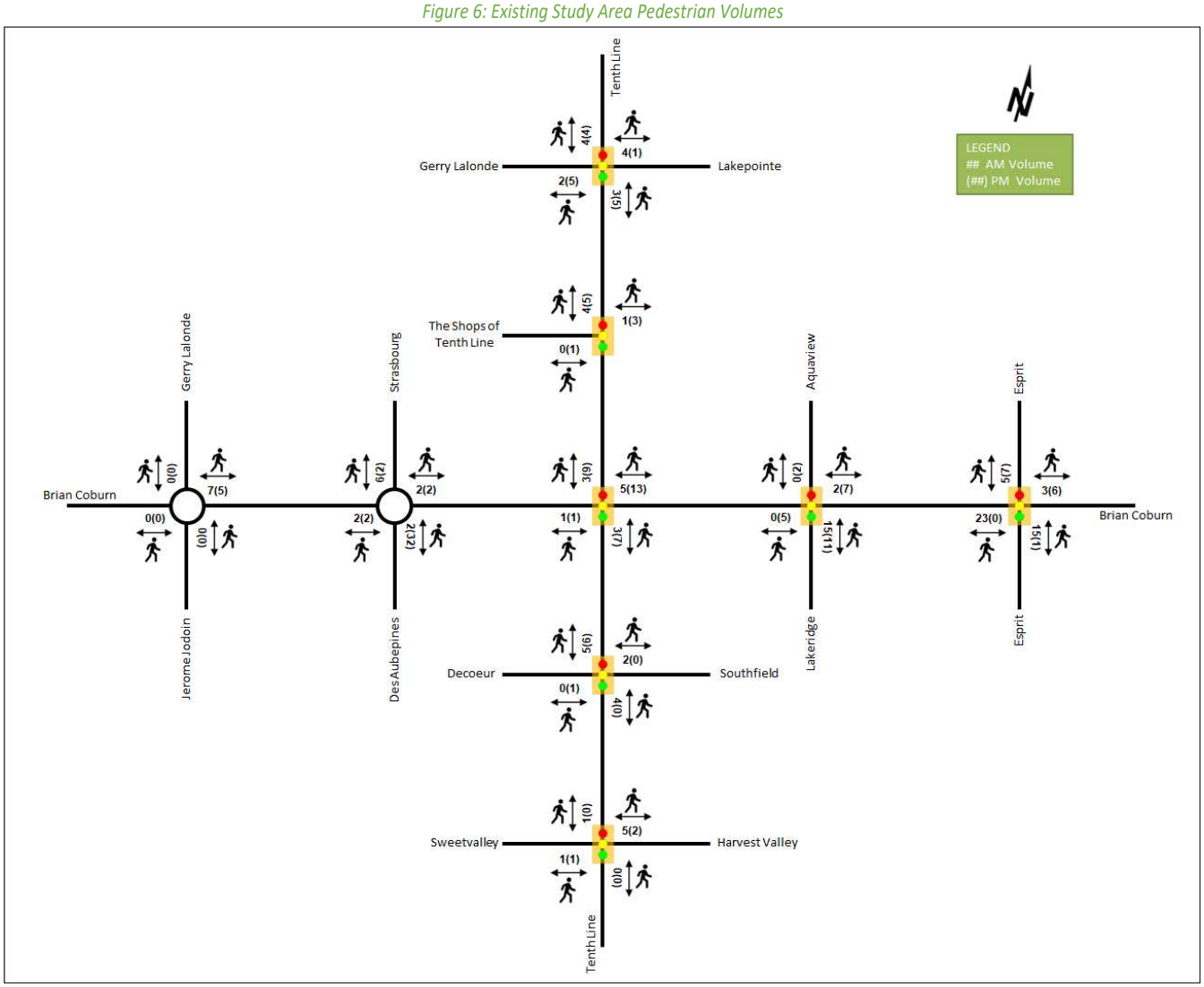
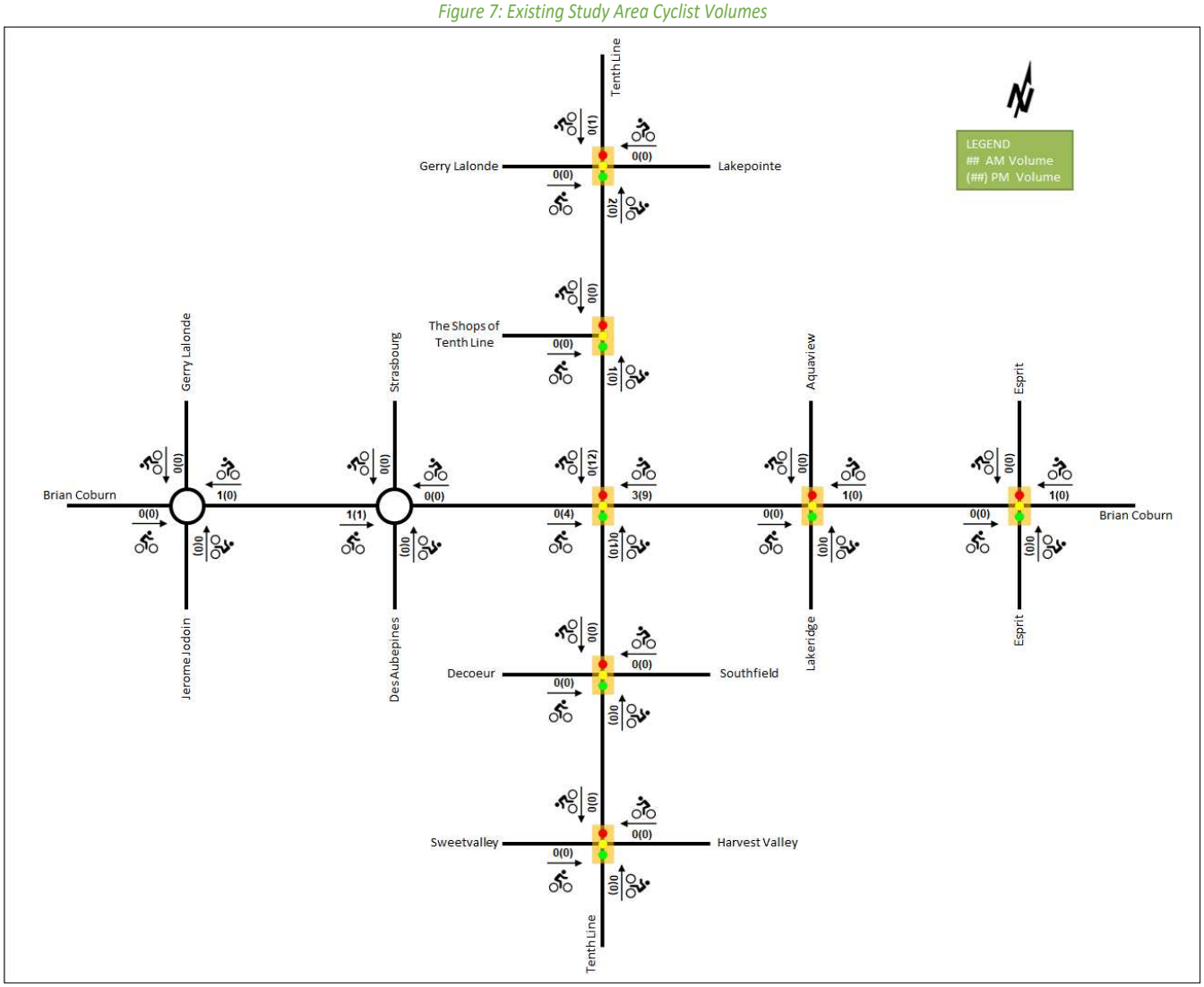


Figure 7: Existing Study Area Cyclist Volumes



2.2.5 Existing Transit

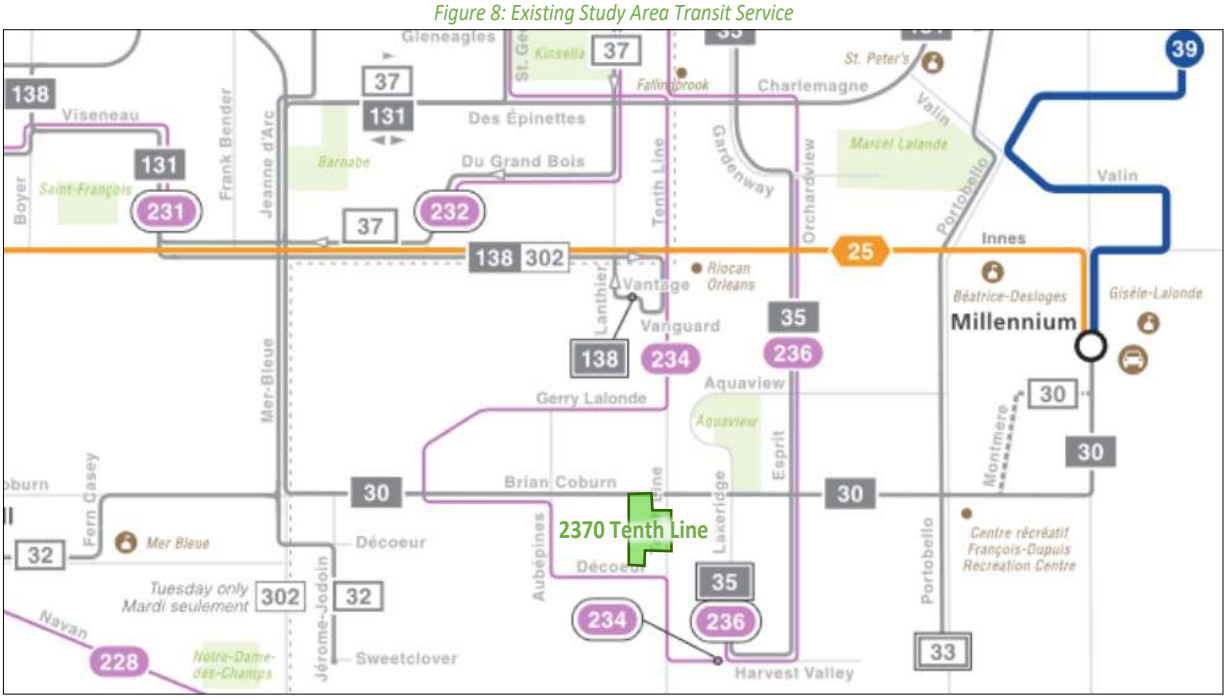
Within the study area, the route #234, connecting to Place d'Orleans and Blair Stations, passes the site on Decoeur Drive and the route #30, connecting to Jeanne d'Arc and Blair Stations, travels along Brian Coburn Boulevard. All transit information is from November 9, 2022 and is included for general information purposes and context to the surrounding area.

The frequency of these routes within proximity of the proposed site are:

- Route # 30 – 15-minute service in the peak period/direction, 30-minute service all-day
- Route # 234 – 30-minute service operating in the peak period/direction

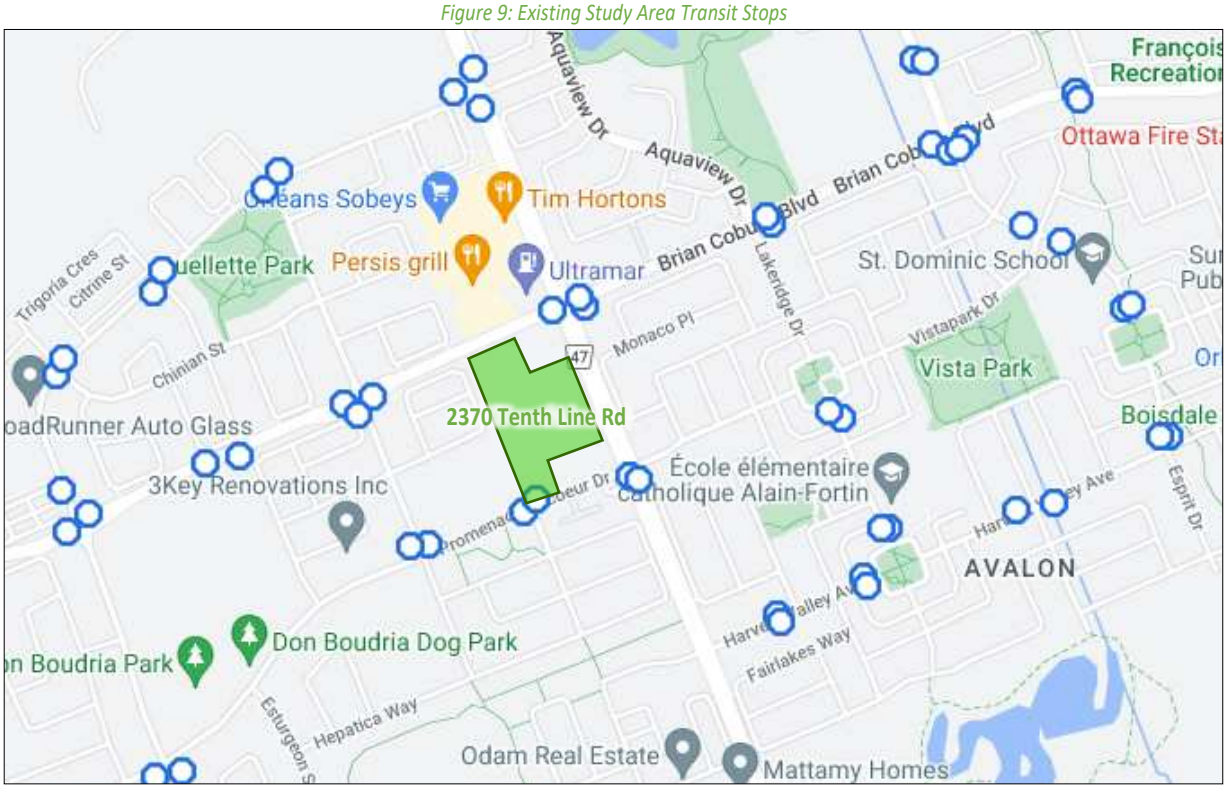
Figure 8 illustrates the transit system map in the study area and Figure 9 illustrates nearby transit stops.

Figure 8: Existing Study Area Transit Service



Source: http://www.octranspo.com/ Accessed: November 9,2022

Figure 9: Existing Study Area Transit Stops



Source: http://www.octranspo.com/ Accessed: November 9, 2022

2.2.6 Existing Area Traffic Management Measures

Speed display devices are present on collector and local roads throughout the study area, and on-road messaging and vertical treatments in the form of flexible bollards are present along collector roads.

2.2.7 Existing Peak Hour Travel Demand

Existing turning movement counts were acquired from the City of Ottawa for the existing Study Area intersections. Table 1 summarizes the intersection count dates.

Table 1: Intersection Count Date

Intersection	Count Date
Gerry Lalonde Drive/Lakepointe Drive at Tenth Line Road	Thursday, April 19, 2018
The Shops of Tenth Line Access at Tenth Line Road	Tuesday, January 15, 2019
Brian Coburn Boulevard at Gerry Lalonde Drive/Jerome Jodoin Drive	Wednesday, October 17, 2018
Brian Coburn Boulevard at Strasbourg Street/Des Aubepines Drive	Thursday, April 20, 2017
Brian Coburn Boulevard at Tenth Line Road	Wednesday, September 19, 2018
Brian Coburn Boulevard at Aquaview Drive/Lakeridge Drive	Tuesday, February 26, 2019
Brian Coburn Boulevard at Esprit Drive	Tuesday, February 26, 2019
Decoeur Drive/Southfield Way at Tenth Line Road	Thursday, February 9, 2017
Sweetvalley Drive/Harvest Valley Avenue at Tenth Line Road	Thursday, April 19, 2018

Figure 10 illustrates the 2021 existing traffic volumes from the counts and forecasted traffic from interim development within the Avalon West and Summerside West communities, and Table 2 summarizes the existing intersection operations. The level of service for signalized intersections is based on volume-to-capacity ratio (v/c) calculations for individual lane movements and HCM 2000 v/c calculations for the overall intersection and HCM 2010 average delay for unsignalized intersections. Synchro 11 has been used to model the signalized intersections and Sidra 8 to model the study area roundabouts. Detailed turning movement count data is included in Appendix B, the Synchro and Sidra worksheets are provided in Appendix C, and the background developments included in the existing conditions are provided in Appendix D.

Figure 10: Existing Traffic Counts

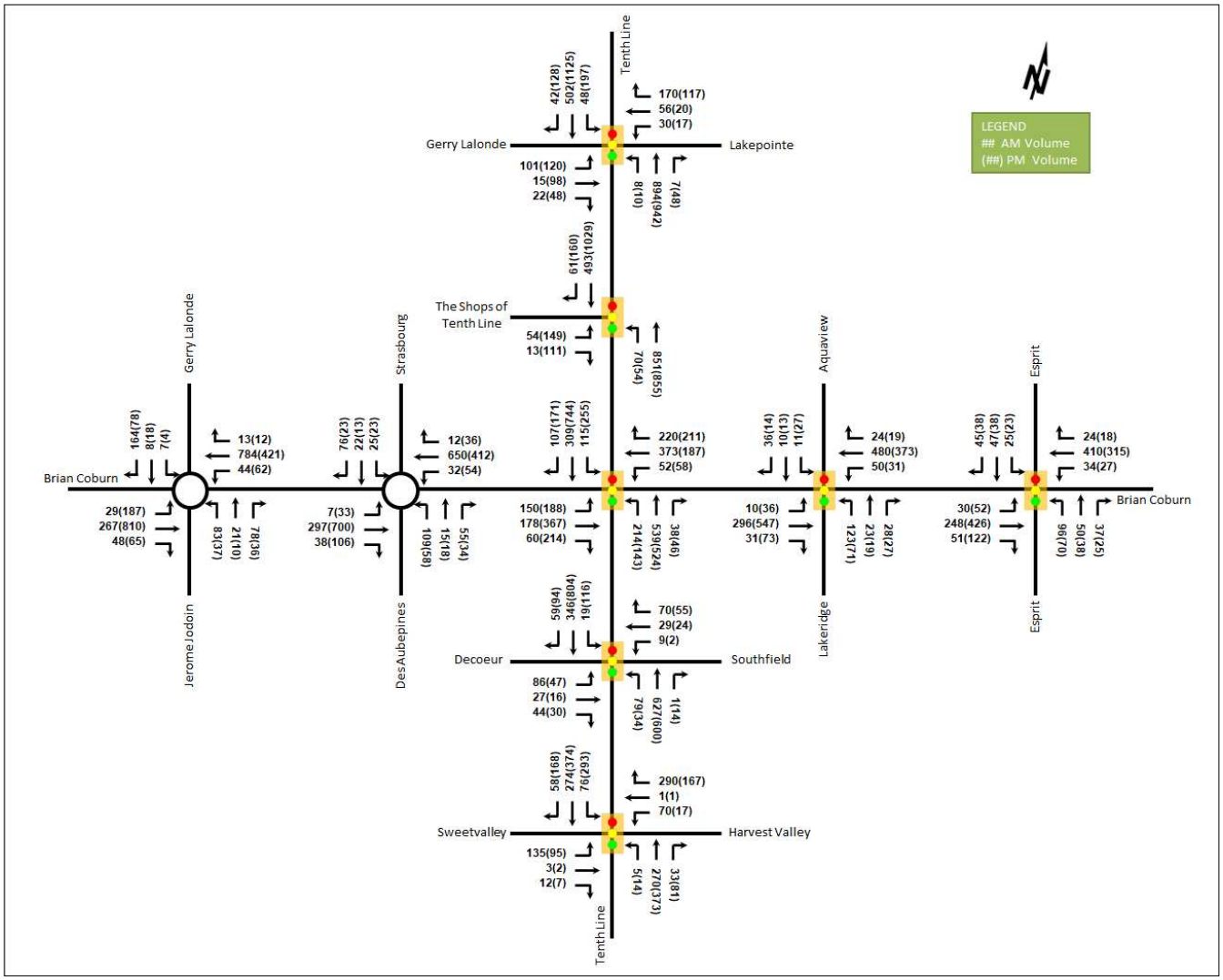


Table 2: Existing Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road ***Signalized***	EBL	A	0.55	42.3	29.0	B	0.62	49.6	38.0
	EBT/R	A	0.14	16.4	9.2	A	0.55	38.0	39.1
	WBL	A	0.15	29.9	10.9	A	0.11	33.1	8.4
	WBT	A	0.20	30.7	16.9	A	0.08	32.1	9.0
	WBR	A	0.56	21.7	28.5	A	0.39	13.2	17.5
	NBL	A	0.02	4.2	m0.9	A	0.05	3.8	m0.9
	NBT	A	0.44	4.8	46.3	A	0.45	4.4	20.8
	NBR	A	0.01	0.0	m0.0	A	0.05	0.7	0.8
	SBL	A	0.17	9.0	11.2	C	0.73	28.9	**#81.1**
	SBT	A	0.26	6.8	35.3	A	0.54	9.1	96.1
	SBR	A	0.05	2.7	4.4	A	0.14	1.7	7.1
	Overall	**A**	**0.46**	**10.3**	-	**B**	**0.70**	**12.1**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
The Shops of Tenth Line Access at Tenth Line Road *Signalized*	EBL	A	0.31	41.1	20.9	A	0.58	44.4	41.8
	EBR	A	0.08	17.8	5.3	A	0.39	19.4	20.7
	NBL	A	0.13	2.9	m4.4	A	0.23	8.6	m13.4
	NBT	A	0.37	3.1	21.2	A	0.41	6.1	66.4
	SBT	A	0.22	2.1	9.6	A	0.50	5.8	34.9
	SBR	A	0.06	0.4	0.1	A	0.17	0.7	2.7
	Overall	**A**	**0.38**	**4.1**	-	**A**	**0.51**	**8.7**	-
Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive *Roundabout*	EB	A	0.27	4.3	12.8	A	0.83	5.9	99.8
	WB	A	0.71	5.3	57.2	A	0.30	6.1	27.7
	NB	A	0.20	6.5	7.8	B	0.24	15.3	12.7
	SB	B	0.41	13.2	23.4	A	0.14	5.9	6.0
	Overall	**A**	**0.71**	**6.2**	-	**A**	**0.83**	**6.4**	-
Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive *Roundabout*	EB	A	0.28	4.1	13.2	A	0.66	4.7	49.9
	WB	A	0.60	5.0	40.2	A	0.43	4.9	23.6
	NB	A	0.20	7.5	7.9	B	0.19	10.9	9.1
	SB	A	0.23	10.0	10.9	A	0.08	7.5	3.2
	Overall	**A**	**0.60**	**5.6**	-	**A**	**0.66**	**5.3**	-
Brian Coburn Boulevard at Tenth Line Road *Signalized*	EBL	F	1.04	111.4	#61.5	A	0.51	27.6	51.4
	EBT/R	A	0.52	25.7	49.9	E	0.96	55.5	#184.7
	WBL	A	0.22	22.1	14.7	C	0.71	68.9	#33.6
	WBT	C	0.76	36.6	85.3	A	0.30	21.8	43.3
	WBR	A	0.41	7.0	19.3	A	0.34	5.4	17.4
	NBL	A	0.52	16.0	21.1	F	1.08	128.7	#70.9
	NBT/R	A	0.36	10.3	23.5	A	0.40	17.5	53.7
	SBL	A	0.37	23.5	40.8	E	0.94	56.9	#96.3
	SBT/R	A	0.27	14.5	47.7	B	0.66	12.3	43.8
	Overall	**B**	**0.70**	**24.3**	-	**F**	**1.02**	**32.4**	-
Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive *Signalized*	EBL	A	0.02	6.5	2.5	A	0.06	4.8	5.2
	EBT/R	A	0.33	7.5	39.4	A	0.54	8.1	81.9
	WBL	A	0.09	6.8	7.8	A	0.08	5.1	4.8
	WBT/R	A	0.48	9.3	69.6	A	0.34	5.8	41.7
	NBL	A	0.54	30.4	28.5	A	0.41	34.7	21.4
	NBT/R	A	0.17	12.8	10.0	A	0.19	16.4	10.9
	SBL	A	0.05	19.7	4.7	A	0.17	28.9	10.3
	SBT/R	A	0.15	10.1	8.1	A	0.12	17.6	8.0
	Overall	**A**	**0.54**	**11.2**	-	**A**	**0.56**	**9.7**	-
Brian Coburn Boulevard at Esprit Drive *Signalized*	EBL	A	0.09	10.4	6.7	A	0.13	10.7	10.2
	EBT/R	A	0.39	12.2	43.8	B	0.68	18.1	97.2
	WBL	A	0.09	10.2	7.2	A	0.11	11.0	6.5
	WBT/R	A	0.54	15.3	71.0	A	0.41	13.1	50.6
	NBL	A	0.27	22.3	24.1	A	0.20	21.1	18.3
	NBT/R	A	0.19	13.2	16.1	A	0.13	13.6	12.9
	SBL	A	0.08	19.4	8.4	A	0.06	19.2	8.0
	SBT/R	A	0.19	12.0	15.8	A	0.16	12.0	13.8
	Overall	**A**	**0.44**	**14.4**	-	**A**	**0.49**	**15.8**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Decoeur Drive / Southfield Way at Tenth Line Road ***Signalized***	EBL	A	0.45	37.0	22.2	A	0.28	38.3	15.5
	EBT/R	A	0.27	14.6	12.0	A	0.19	17.1	10.1
	WBL	A	0.04	24.7	4.3	A	0.01	29.0	1.8
	WBT/R	A	0.32	12.3	13.6	A	0.31	15.8	13.8
	NBL	A	0.15	8.9	18.2	A	0.09	7.8	9.2
	NBT	A	0.31	7.7	55.1	A	0.26	6.2	50.2
	NBR	A	0.00	0.0	0.0	A	0.01	0.5	0.6
	SBL	A	0.05	6.3	m3.4	A	0.24	4.8	m10.5
	SBT	A	0.17	5.5	17.1	A	0.35	3.8	m32.0
	SBR	A	0.07	2.2	2.8	A	0.09	0.4	m0.0
	Overall	**A**	**0.36**	**9.6**	**-**	**A**	**0.36**	**6.3**	**-**
Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road ***Signalized***	EBL	D	0.82	56.2	**#38.7**	B	0.62	49.3	32.0
	EBT/R	A	0.04	10.6	4.1	A	0.04	17.4	4.1
	WBL	A	0.23	21.3	17.3	A	0.09	29.2	8.1
	WBT/R	A	0.53	6.0	15.7	A	0.46	8.4	15.5
	NBL	A	0.01	9.6	2.3	A	0.03	6.9	3.9
	NBT/R	A	0.20	8.6	21.3	A	0.23	5.9	29.0
	SBL	A	0.16	10.6	15.2	A	0.59	14.9	75.6
	SBT/R	A	0.21	8.2	22.0	A	0.28	5.4	31.2
	Overall	**A**	**0.39**	**14.0**	**-**	**A**	**0.59**	**10.6**	**-**

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 0.90
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

During both the AM and PM peak hours, the study area intersections generally operate well with some capacity issues noted at the intersection of Brian Coburn Boulevard and Tenth Line Road.

During the AM peak hour at the intersection of Brian Coburn Boulevard and Tenth Line Road, the eastbound left movement is over theoretical capacity and may be subject to high delays and extended queues. During the PM peak hour, the northbound left movement is over theoretical capacity and may be subject to high delays and extended queues, the eastbound through, westbound left, and southbound left movements may exhibit extended queues, and the overall intersection is over theoretical capacity.

Additionally, within the study area, the southbound left movement at the intersection of Gerry Lalonde Drive/Lakepointe Drive at Tenth Line Road may exhibit extended queues during the PM peak hour and the eastbound left movement at the intersection of Sweetvalley Drive/Harvest Valley Avenue at Tenth Line Road may exhibit extended queues during the AM peak hour.

2.2.8 Collision Analysis

Collision data have been acquired from the City of Ottawa open data website (data.ottawa.ca) for five years prior to the commencement of this TIA for the surrounding study are road network. Table 3 summarizes the collisions types and conditions in the study area, Figure 11 illustrates the intersections and segments analyzed, and Table 4 summarizes the total collisions for each of these locations. Collision data are included in Appendix E.

Table 3: Study Area Collision Summary, 2016-2020

		Number	%
Total Collisions		**77**	**100%**
Classification	**Fatality**	0	0%
	Non-Fatal Injury	17	22%
	Property Damage Only	60	78%
Initial Impact Type	**Approaching**	1	1%
	Angle	8	10%
	Rear end	37	48%
	Sideswipe	7	9%
	Turning Movement	13	17%
	SMV Other	10	13%
	Other	1	1%
Road Surface Condition	**Dry**	44	57%
	Wet	18	23%
	Loose Snow	8	10%
	Ice	6	8%
Pedestrian Involved		3	4%
Cyclists Involved		0	0%

Figure 11: Study Area Collision Records – Representation of 2015-2019

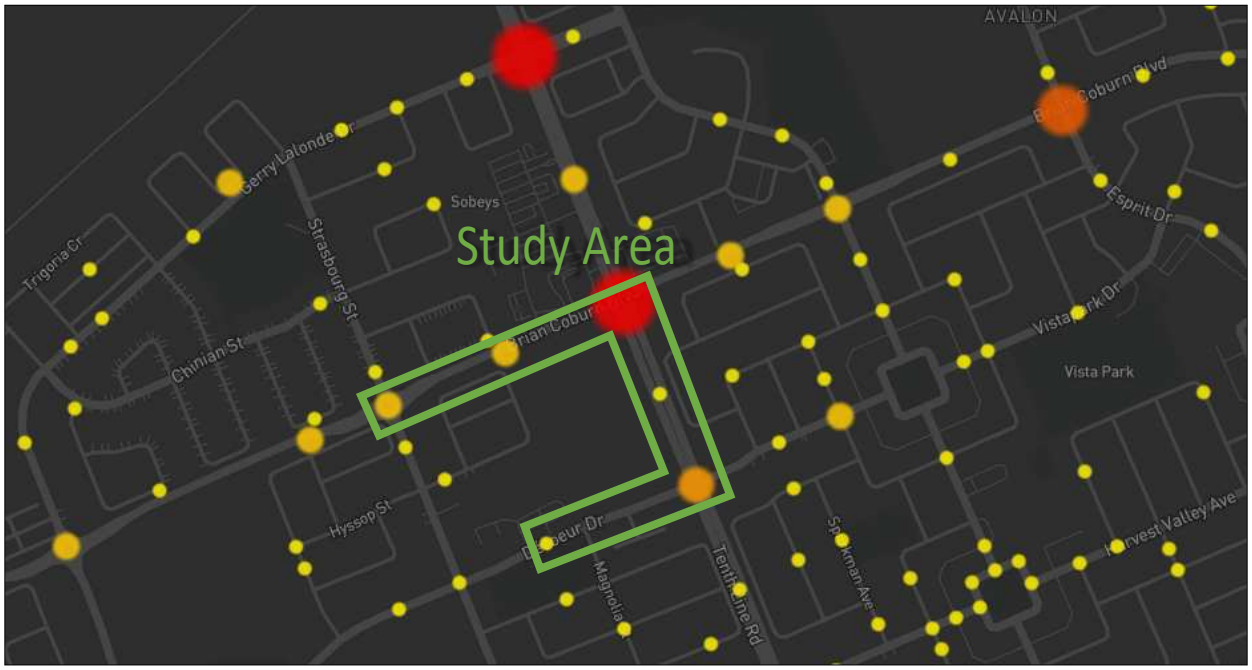


Table 4: Summary of Collision Locations, 2016-2020

	Number	%
Intersections / Segments	**77**	**100%**
Brian Coburn Blvd @ Strasbourg St	11	14%
Brian Coburn Blvd @ Tenth Line Rd	44	57%
Decoeur Dr/Southfield Way @ Tenth Line Rd	12	16%
Brian Coburn Blvd btwn Strasbourg St & Tenth Line Rd	6	8%
Tenth Line Rd btwn Brian Coburn Blvd & Southfield Way	3	4%
Decoeur Dr btwn des Aubepines Dr & Magnolia St	1	1%

Within the study area, the intersection of Brian Coburn Boulevard at Tenth Line Road is noted to have experienced higher collisions than other locations. Table 5 summarizes the collision types and conditions for the intersection of Brian Coburn Boulevard at Tenth Line Road.

Table 5: Brian Coburn Boulevard at Tenth Line Road Collision Summary

		Number	%
Total Collisions		**44**	**100%**
Classification	**Fatality**	0	0%
	Non-Fatal Injury	8	18%
	Property Damage Only	36	82%
Initial Impact Type	**Angle**	2	5%
	Rear end	21	48%
	Sideswipe	5	11%
	Turning Movement	9	20%
	SMV Other	6	14%
	Other	1	2%
Road Surface Condition	**Dry**	24	55%
	Wet	13	30%
	Loose Snow	4	9%
	Ice	3	7%
Pedestrian Involved		2	5%
Cyclists Involved		0	0%

The Brian Coburn Boulevard at Tenth Line Road intersection had a total of 44 collisions during the 2016-2020 time period, with 36 involving property damage only and the remaining eight having non-fatal injuries. The collision types are most represented by rear end with 21 collisions, followed by turning movement with nine, SMV (other) with six, sideswipe with five, angle with two, and other with one. Rear end collisions are typically observed at congested intersections. Turning movement collisions may be influenced by the smart channel on the westbound approach. Weather conditions do may collisions at this location and the City may wish to investigate alternative paving treatments when the intersection is next rehabilitated or is converted to a roundabout. Should the intersection be converted to a roundabout, collision frequencies and types are not anticipated to be of concern.

2.3 Planned Conditions

2.3.1 Changes to the Area Transportation Network

The subject development is within the Mer Bleue CDP area, however no planning considerations contained within this document are considered relevant to the proposed development.

Within the Transportation Master Plan (TMP), the Rapid Transit and Transit Priority Network's (RTTP) Network Concept diagram shows a grade-separated BRT line along Brian Coburn Boulevard West of Mer Bleue Road, continuing north of the communities fronting Gerry Lalonde Drive and Aquaview Drive within the study area, however it is not included in the Affordable Network. It is anticipated that this project will be completed after 2031.

From the TMP's Road Network's Affordable Network diagram, Tenth Line Road is to be widened from 135 metres south of Harvest Valley Avenue southward to limit of the urban boundary as a Phase 2 (2020-2025) project.

Space has been reserved on the south side of Brian Coburn Boulevard within the study area for the widening of the roadway to four lanes. It is assumed that this improvement would take place outside of the study horizons.

2.3.2 Other Study Area Developments

2168 Tenth Line Road

The proposed development application includes a site plan for the construction of four buildings comprising 251 apartment units and 500m^2 of commercial space. The development is anticipated to be built out by 2026 and to generate 107 new AM and 132 new PM peak hour two-way vehicle trips. (Castleglenn, 2020)

353 Gerry Lalonde Drive

The proposed development application includes a zoning amendment to allow the construction of 190 new townhome dwellings and two roadway connections to Gerry Lalonde Drive. The development is anticipated to be built out by 2025 and to generate 102 new AM and 121 new PM peak hour two-way vehicle trips. (Novatech, 2021)

2605 Tenth Line Road

The proposed development application includes a Plan of Subdivision for the construction of 372 detached single dwellings and 194 townhome dwellings. Originally anticipated to be built out by 2019, the development is anticipated to generate 102 new AM and 121 new PM peak hour two-way vehicle trips. (Parsons, 2018)

2275 Mer-Bleue Road

The proposed development application includes a Plan of Subdivision for the construction of 112 townhome dwelling units and a 0.75-hectare mid-rise mixed-use development block. The development is anticipated to be built out by 2024 and to generate 237 new AM and 332 new PM peak hour two-way vehicle trips.

352 Aquaview Drive

The proposed development application included a Plan of Subdivision for the construction of 48 detached single dwellings and 274 townhome dwellings. The development was originally anticipated to be built out by 2020 and to generate 182 new AM and 238 new PM peak hour two-way auto trips. (Parsons, 2018).

3 Study Area and Time Periods

3.1 Study Area

The study area will include the intersections of:

- Tenth Line Road at:
    - Gerry Lalonde Drive/Lakepointe Drive
    - The Shops of Tenth Line Access
    - Brian Coburn Boulevard
    - Decoeur Drive/Southfield Way
    - Sweetvalley Drive/Harvest Drive
    - Site Access (Future Conditions)
- Brian Coburn Boulevard at:
    - Gerry Lalonde Drive/Jerome Jodoin Drive
    - Strasbourg Street/Des Aubepines Drive
    - Aquaview Drive/Lakeridge Drive
    - Esprit Drive
    - Site Access (Future Conditions)
- Site Access at Decoeur Drive (Future Conditions)

The boundary roads will be Tenth Line Road, Brian Coburn Boulevard, and Decoeur Drive, and no screenlines are present within proximity to the site.

3.2 Time Periods

As the proposed development is composed primarily of residential units the AM and PM peak hours will be examined.

3.3 Horizon Years

The anticipated build-out year is 2026. As a result, the full build-out plus five years horizon year is 2031.

4 Exemption Review

Table 6 summarizes the exemptions for this TIA.

Table 6: Exemption Review

Module	Element	Explanation	Exempt/Required
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	Only required for site plans	Exempt – required at Site Plan
	4.2.3 New Street Networks	Only required for plans of subdivision	Exempt
4.2 Parking	4.2.1 Parking Supply	Only required for site plans	Exempt – required at Site Plan
	4.2.2 Spillover Parking	Only required for site plans where parking supply is 15% below unconstrained demand	Exempt – may be required at Site Plan
Network Impact Component			
4.5 Transportation Demand Management	All Elements	Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time	Required
4.6 Neighbourhood Traffic Management	4.6.1 Adjacent Neighbourhoods	Only required when the development relies on local or collector streets for access and total volumes exceed ATM capacity thresholds	Required
4.8 Network Concept		Only required when proposed development generates more than 200 person-trips during the peak hour in excess of equivalent volume permitted by established zoning	Exempt

5 Development-Generated Travel Demand

5.1 Trip Generation and Mode Shares

Examining the mode shares recommended in the TRANS Trip Generation Manual (2020) for the subject district, derived from the most recent National Capital Region Origin-Destination survey (OD Survey), the existing average district mode shares by land use for Orleans have been summarized in Table 7.

Table 7: TRANS Trip Generation Manual Recommended Mode Shares – Orleans

Travel Mode	Multi-Unit (Low-Rise)		Commercial Generator	
	AM	PM	AM	PM
Auto Driver	47%	51%	77%	71%
Auto Passenger	15%	19%	14%	20%
Transit	29%	24%	3%	2%
Cycling	1%	1%	0%	1%
Walking	9%	6%	6%	5%
Total	**100%**	**100%**	**100%**	**100%**

5.2 Trip Generation

This TIA has been prepared using the vehicle and person trip rates for the residential dwellings using the TRANS Trip Generation Manual (2020) and the vehicle trip rates and derived person trip rates for commercial component from the ITE Trip Generation Manual 10th Edition (2017) using the City-prescribed conversion factor of 1.28. Table 8 summarizes the person trip rates for the proposed residential land use for each peak period and the person trip rates for the non-residential land use for each peak hour.

Table 8: Trip Generation Person Trip Rates by Peak Period

Land Use	Land Use Code	Peak Period	Vehicle Trip Rate	Person Trip Rate
Multi-Unit (Low-Rise)	220 (TRANS)	AM	-	1.35
		PM	-	1.58
Land Use	**Land Use Code**	**Peak Hour**	**Vehicle Trip Rate**	**Person Trip Rate**
Shopping Centre	820 (ITE)	AM	0.94	1.20
		PM	3.81	4.88

Using the above person trip rates, the total person trip generation has been estimated. Table 9 summarizes the total person trip generation for the residential land use and for the non-residential land use.

Table 9: Total Residential Person Trip Generation by Peak Period

Land Use	Units	AM Peak Period			PM Peak Period		
		In	Out	Total	In	Out	Total
Multi-Unit (Low-Rise)	228	92	216	308	202	158	360
Land Use	**Units / GFA**	**AM Peak Hour**			**PM Peak Hour**		
		In	**Out**	**Total**	**In**	**Out**	**Total**
Shopping Centre	28,963	22	13	35	68	73	141

Internal capture rates from the ITE Trip Generation Handbook 3rd Edition have been assigned to the development's retail component for mixed-use developments. The rates summarized in Table 10 represent the percentage of trips to/from the retail use based on the residential component.

Table 10: Internal Capture Rates

Land Use	AM		PM	
	In	Out	In	Out
Residential to/from Shopping Centre	17%	14%	10%	26%

Pass-by reductions applied to the retail trip generation at a rate of 35% have been included, a value taken as a moderately conservative interpretation from the rates presented in the ITE Trip Generation Handbook 3rd Edition.

Using the above mode share targets, the internal capture and pass-by rates, and the person trip rates, the person trips by mode have been projected.

Table 11 summarizes the trip generation by mode and peak hour using the residential peak hour adjustment factor and the non-residential trip generation using the internal capture and pass-by reductions.

Table 11: Trip Generation by Mode

Travel Mode		AM Peak Hour				PM Peak Hour			
		Mode Share	In	Out	Total	Mode Share	In	Out	Total
Multi-Unit (Low-Rise)	Auto Driver	**47%**	21	49	70	**51%**	45	36	81
	Auto Passenger	**15%**	7	15	22	**19%**	17	13	30
	Transit	**29%**	15	35	49	**24%**	23	18	40
	Cycling	**1%**	1	1	2	**1%**	1	1	2
	Walking	**9%**	5	11	16	**6%**	6	5	11
	Total	**100%**	**49**	**111**	**159**	**100%**	**92**	**73**	**164**
Shopping Centre	Auto Driver	**77%**	7	4	13	**71%**	21	17	40
	Auto Passenger	**14%**	3	2	4	**20%**	13	12	25
	Transit	**3%**	1	0	1	**2%**	1	1	3
	Cycling	**0%**	0	0	0	**1%**	1	1	1
	Walking	**6%**	1	1	2	**5%**	3	3	6
	Pass-by	*35%*	*-8*	*-5*	*-12*	*35%*	*-24*	*-26*	*-49*
	Internal Capture	*varies*	*-2*	*-1*	*-3*	*varies*	*-4*	*-12*	*-16*
	Total	**100%**	**12**	**7**	**20**	**100%**	**39**	**34**	**75**
Total	Auto Driver	-	28	53	83	-	66	53	121
	Auto Passenger	-	10	17	26	-	30	25	55
	Transit	-	16	35	50	-	24	19	43
	Cycling	-	1	1	2	-	2	2	3
	Walking	-	6	12	18	-	9	8	17
	Total	-	**61**	**118**	**179**	-	**131**	**107**	**239**

As shown above, a total of 83 AM new and 121 PM new peak hour two-way vehicle trips are projected as a result of the proposed development.

5.3 Trip Distribution

To understand the travel patterns of the subject development, the OD Survey has been reviewed to determine the travel for the existing district travel and these patterns were applied based on the build-out of Orleans. Table 12 below summarizes the distributions.

Table 12: OD Survey Distribution – Orleans

To/From	% of Trips	Via
North	30%	20% Tenth Line Rd (N), 10% Brian Coburn Blvd (W)
South	5%	5% Tenth Line Rd (S)
East	5%	5% Tenth Line Rd (N)
West	60%	50% Brian Coburn boulevard (W), 10% Tenth Line Rd (N)
Total	**100%**	**100%**

5.4 Trip Assignment

Using the distribution outlined above, turning movement splits, and access to major transportation infrastructure, the primary and pass-by trips generated by the site have been assigned to the study area road network. Table 12 above summarizes the proportional assignment to the study area roadways, Figure 12 illustrates the new site generated primary auto trip volumes, Figure 13 illustrates the site pass-by trips.

Figure 12: New Site Generated Auto Volumes

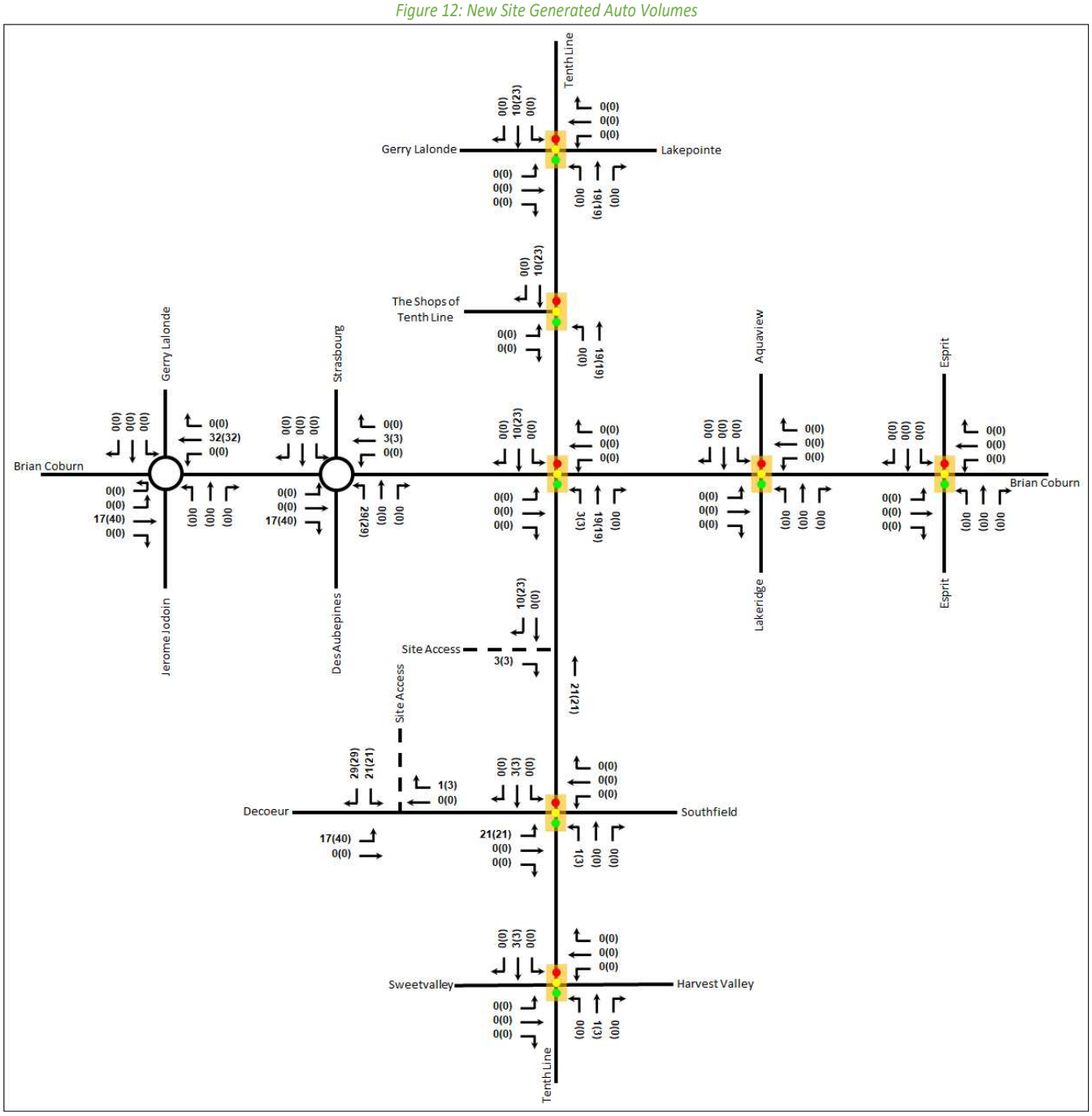
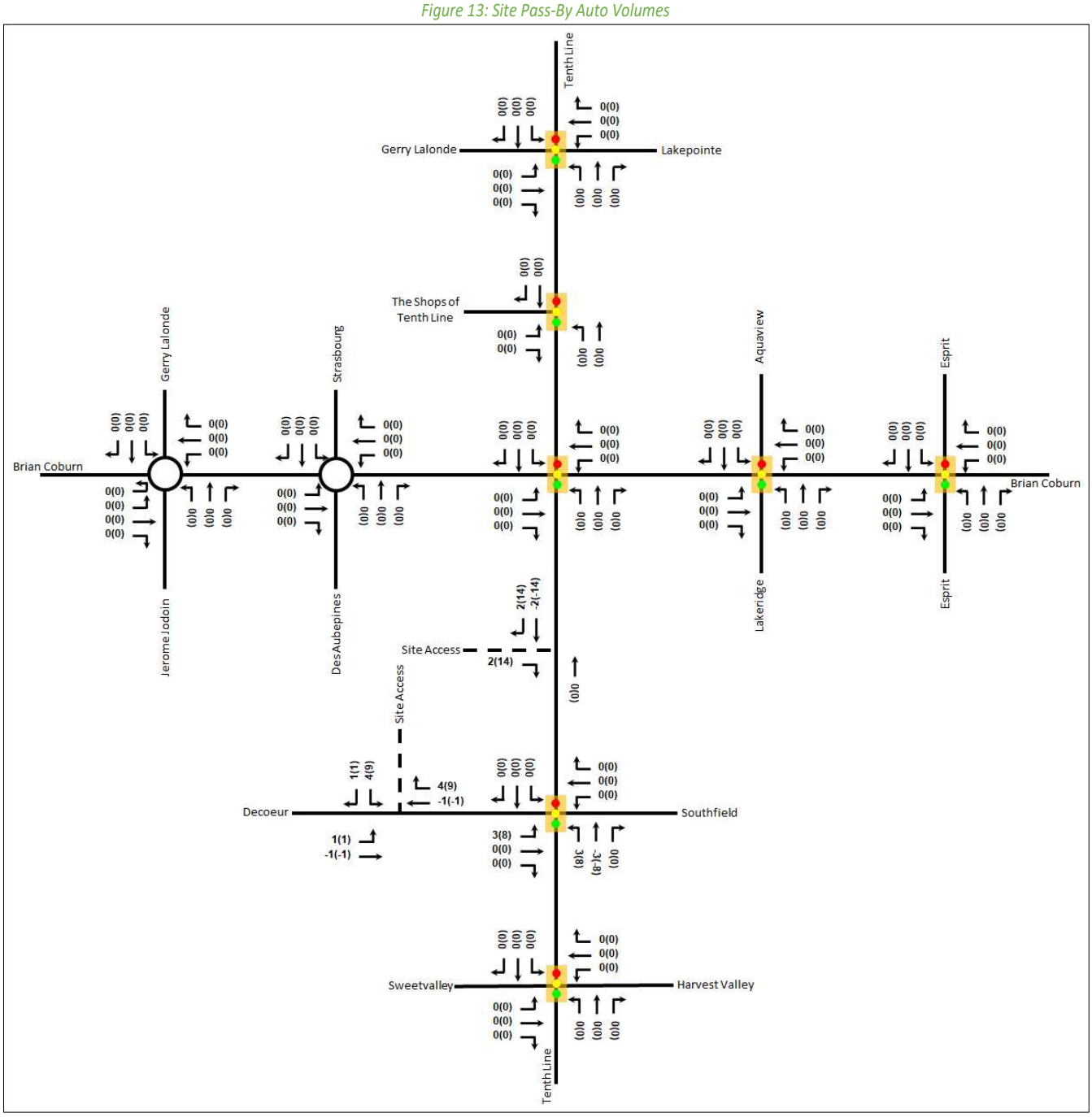


Figure 13: Site Pass-By Auto Volumes



6 Background Network Travel Demands

6.1 Transportation Network Plans

The transportation network plans were discussed in Section 2.3. The Tenth Line Road widening south of Harvest Valley Avenue is the only confirmed project within the study horizons and these conditions have been incorporated into the analysis.

6.2 Background Growth

A review of the background projections from the City's TRANS Regional Model for the 2011 and 2031 horizons was completed to determine the background growth for each of the study area roadways.

In general, the growth rates in the study area derived from the two TRANS model horizons are projected to be positive in all directions. When reviewing the existing volumes, however, it is noted that the majority of growth predicted within the study area has been achieved. Only volumes in the westbound direction in the AM peak hour on Brian Coburn Boulevard have not reached the anticipated 2031 values, and resultantly, growth rates derived from the existing horizon to the 2031 model horizon rounded to the nearest 0.25% will be peak-directionally applied to the roadway's mainline volumes. To account for development south of the study area, an annual rate of 0.50% will be applied in both directions along Tenth Line Road. Table 13 summarizes the growth rates applied within the study area and the TRANS model plots are provided in Appendix F.

Table 13: TRANS Regional Model Projections – Study Area Growth Rates

Street	AM Peak Hour		PM Peak Hour	
	Eastbound	**Westbound**	**Eastbound**	**Westbound**
Brian Coburn Boulevard	-	1.25%	1.25%	-
	Northbound	**Southbound**	**Northbound**	**Southbound**
Tenth Line Road	0.50%	0.50%	0.50%	0.50%

6.3 Other Developments

The background developments explicitly considered in the background conditions (Section 6.2) include:

- 2168 Tenth Line Road
- 353 Gerry Lalonde Drive
- 2605 Tenth Line Road
- 2275 Mer-Bleue Road
- 352 Aquaview Drive

The background development volumes within the study area have been provided in Appendix G.

7 Demand Rationalization

7.1 2026 Future Background Operations

Figure 14 illustrates the 2026 background volumes and Table 14 summarizes the 2026 background intersection operations. The level of service for signalized intersections is based on v/c calculations for individual lane movements and HCM 2000 v/c calculations for the overall intersection, and HCM 2010 average delay for unsignalized intersections. Synchro 11 has been used to model the signalized intersections and Sidra 8 to model the study area roundabouts. The Synchro and Sidra worksheets for the 2026 future background horizon are provided in Appendix H.

Figure 14: 2026 Future Background Volumes

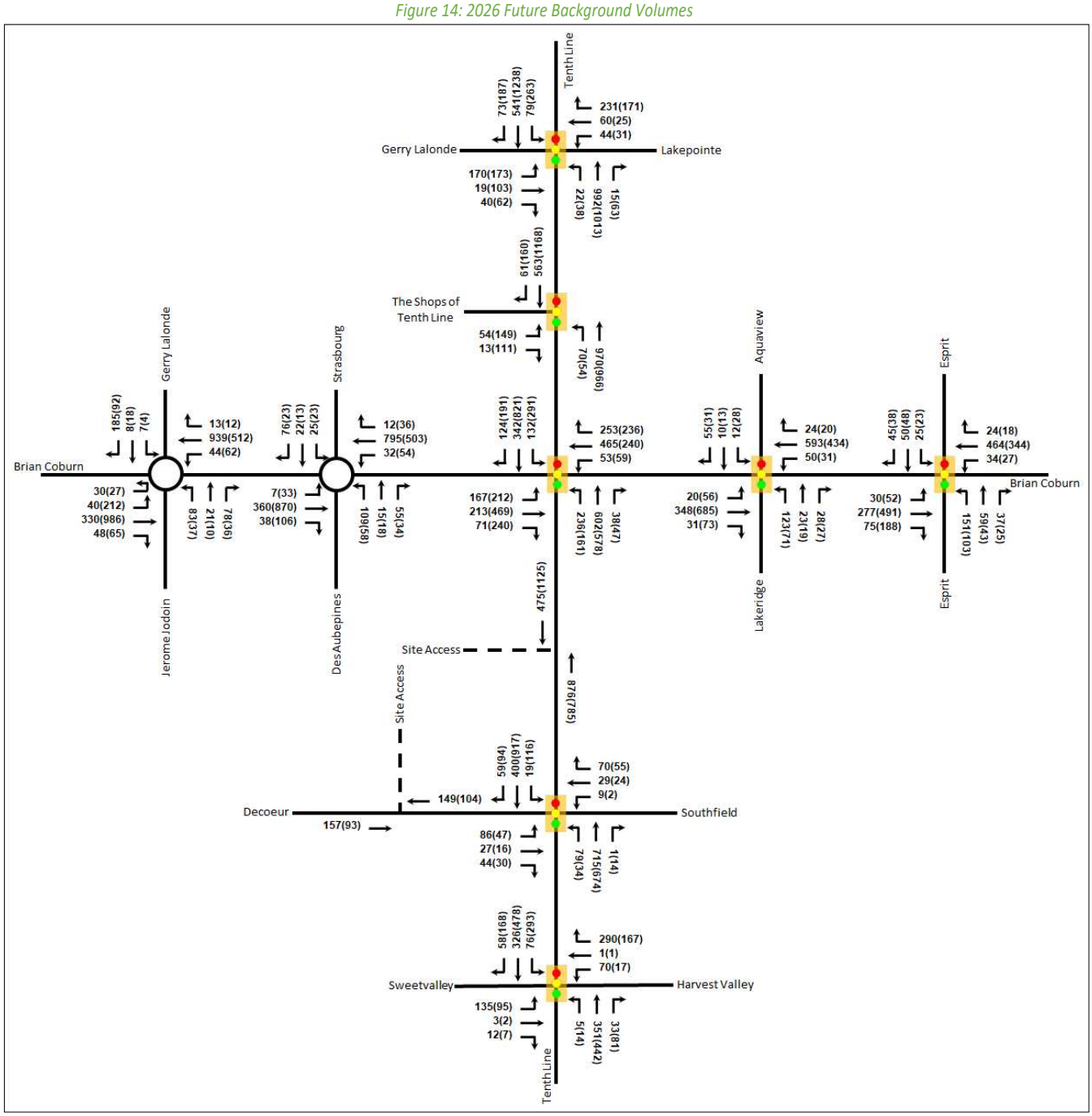


Table 14: 2026 Future Background Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road *Signalized*	EBL	C	0.71	48.1	43.2	C	0.71	53.6	49.0
	EBT/R	A	0.18	13.4	10.9	A	0.50	33.5	38.8
	WBL	A	0.17	28.3	13.4	A	0.16	33.0	11.8
	WBT	A	0.17	27.8	16.5	A	0.08	30.8	9.9
	WBR	B	0.61	24.0	37.9	A	0.47	16.7	25.5
	NBL	A	0.05	4.6	m2.1	A	0.17	5.2	2.6
	NBT	A	0.46	5.3	46.4	A	0.45	4.9	18.2
	NBR	A	0.02	0.1	m0.1	A	0.06	0.6	0.7
	SBL	A	0.28	12.0	17.1	D	0.88	46.9	#100.9
	SBT	A	0.26	7.9	34.2	A	0.55	10.1	94.7
	SBR	A	0.08	2.5	5.5	A	0.18	1.7	8.0
	Overall	**A**	**0.52**	**12.4**	-	**D**	**0.84**	**14.8**	-
The Shops of Tenth Line Access at Tenth Line Road *Signalized*	EBL	A	0.29	40.6	19.3	A	0.54	43.4	37.7
	EBR	A	0.07	18.5	5.2	A	0.37	18.7	18.9
	NBL	A	0.12	2.8	m4.0	A	0.21	8.1	m11.6
	NBT	A	0.38	2.8	m21.3	A	0.42	5.9	66.3
	SBT	A	0.22	2.3	11.7	A	0.50	5.8	37.2
	SBR	A	0.05	0.5	0.1	A	0.15	0.7	2.5
	Overall	**A**	**0.39**	**3.9**	-	**A**	**0.51**	**8.3**	-
Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive *Roundabout*	EB	A	0.31	4.9	15.9	A	0.89	6.2	145.4
	WB	A	0.78	6.5	74.9	A	0.55	6.3	32.7
	NB	A	0.19	7.0	7.4	B	0.30	18.8	16.3
	SB	B	0.50	18.6	31.7	A	0.15	6.4	6.8
	Overall	**A**	**0.78**	**7.5**	-	**A**	**0.89**	**6.7**	-
Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive *Roundabout*	EB	A	0.30	4.1	14.2	A	0.70	5.2	8.2
	WB	A	0.63	4.9	46.1	A	0.45	4.7	25.5
	NB	A	0.18	7.6	7.2	B	0.20	12.1	9.4
	SB	B	0.22	10.7	10.8	A	0.07	7.7	2.9
	Overall	**A**	**0.63**	**5.5**	-	**A**	**0.71**	**5.2**	-
Brian Coburn Boulevard at Tenth Line Road *Signalized*	EBL	F	1.06	118.5	#65.3	A	0.53	28.6	53.5
	EBT/R	A	0.52	24.3	54.0	F	1.03	72.4	#213.2
	WBL	A	0.18	20.3	13.8	D	0.84	104.0	#35.2
	WBT	C	0.79	36.1	98.9	A	0.34	22.2	50.1
	WBR	A	0.40	7.1	21.2	A	0.33	5.3	17.4
	NBL	A	0.55	18.2	19.8	F	1.13	145.6	#71.0
	NBT/R	A	0.38	11.6	22.4	A	0.41	18.0	53.3
	SBL	A	0.41	27.7	42.2	E	0.98	65.4	#99.1
	SBT/R	A	0.29	16.7	46.2	B	0.67	11.9	43.7
	Overall	**C**	**0.75**	**25.8**	-	**F**	**1.08**	**38.3**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive ***Signalized***	EBL	A	0.05	6.4	3.7	A	0.09	5.0	6.8
	EBT/R	A	0.34	7.3	40.2	A	0.59	8.9	97.9
	WBL	A	0.08	6.4	7.0	A	0.08	5.2	4.6
	WBT/R	A	0.53	9.7	78.0	A	0.36	5.9	44.2
	NBL	A	0.50	29.8	26.0	A	0.38	33.9	19.6
	NBT/R	A	0.16	13.0	9.4	A	0.18	16.4	10.2
	SBL	A	0.05	20.0	4.7	A	0.16	28.7	9.8
	SBT/R	A	0.19	9.4	9.0	A	0.17	14.8	9.2
	Overall	**A**	**0.57**	**10.9**	**-**	**A**	**0.60**	**9.7**	**-**
Brian Coburn Boulevard at Esprit Drive ***Signalized***	EBL	A	0.08	10.3	6.2	A	0.11	10.5	9.3
	EBT/R	A	0.41	12.3	46.3	C	0.76	21.0	116.6
	WBL	A	0.08	10.1	6.7	A	0.12	11.4	6.3
	WBT/R	A	0.55	15.4	72.2	A	0.40	12.9	49.1
	NBL	A	0.38	24.3	33.2	A	0.26	22.1	23.4
	NBT/R	A	0.19	13.8	16.5	A	0.13	14.1	12.9
	SBL	A	0.07	19.3	7.8	A	0.06	19.0	7.3
	SBT/R	A	0.18	12.3	15.3	A	0.17	12.9	14.5
	Overall	**A**	**0.48**	**15.1**	**-**	**A**	**0.56**	**17.6**	**-**
Decoeur Drive / Southfield Way at Tenth Line Road ***Signalized***	EBL	A	0.41	36.0	20.2	A	0.26	37.7	14.4
	EBT/R	A	0.25	14.9	11.3	A	0.18	17.2	9.6
	WBL	A	0.04	25.1	3.9	A	0.01	29.0	1.8
	WBT/R	A	0.30	12.6	12.9	A	0.28	15.8	12.8
	NBL	A	0.14	8.7	16.5	A	0.09	7.7	8.5
	NBT	A	0.31	7.6	56.7	A	0.26	6.1	50.8
	NBR	A	0.00	0.0	0.0	A	0.01	0.0	0.3
	SBL	A	0.04	6.1	m3.3	A	0.22	4.6	m9.3
	SBT	A	0.17	5.1	19.0	A	0.36	3.7	m32.8
	SBR	A	0.06	1.9	2.6	A	0.08	0.5	m0.0
	Overall	**A**	**0.35**	**9.1**	**-**	**A**	**0.36**	**6.1**	**-**
Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road ***Signalized***	EBL	C	0.71	44.1	32.7	A	0.55	44.6	28.5
	EBT/R	A	0.04	11.2	4.0	A	0.03	18.1	4.0
	WBL	A	0.23	21.6	15.9	A	0.08	29.4	7.5
	WBT/R	A	0.51	6.2	15.2	A	0.44	8.7	14.7
	NBL	A	0.01	9.0	2.1	A	0.03	6.7	3.6
	NBT/R	A	0.22	8.2	24.3	A	0.23	5.8	30.7
	SBL	A	0.15	9.8	13.9	A	0.53	13.0	63.7
	SBT/R	A	0.21	7.8	23.2	A	0.29	5.7	36.6
	Overall	**A**	**0.36**	**12.1**	**-**	**A**	**0.53**	**9.6**	**-**

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 1.00
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

During both AM and PM peak hours, the study area intersections at the 2026 future background horizon operate similarly to the existing conditions.

At the intersection of Brian Coburn Boulevard and Tenth Line Road during the PM peak hour, the eastbound through/right-turn movement is forecasted to be over theoretical capacity, and the westbound left movement may be subject to extended delays at this horizon.

As much development has recently occurred within the study area, and given the background growth and background development volumes anticipated at this intersection, it is proposed that changes to signal phasing be considered at this intersection. Table 15 summarizes the study area intersection operations with a protected eastbound left-turn phase introduced at the intersection of Brian Coburn Boulevard and Tenth Line Road in the AM peak hour, and the introduction of protected eastbound, northbound, and southbound left-turn phases at this intersection during the PM peak hour. Additionally, during the PM peak hour, the cycle length has been increased at this intersection, although it is noted that coordination with other signals on the Tenth Line Corridor would be required to support this change. The synchro worksheets for the 2026 future background horizon with the phasing/cycle changes are provided in Appendix I.

Table 15: 2026 Future Background Intersection Operations with Phase/Cycle Changes

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Brian Coburn Boulevard at Tenth Line Road ***Signalized***	EBL	D	0.81	47.8	**#40.6**	A	0.55	26.7	46.1
	EBT/R	A	0.41	17.5	47.3	E	0.98	59.5	**#220.7**
	WBL	A	0.18	23.5	15.1	C	0.74	74.4	**#34.1**
	WBT	D	0.89	49.6	**#121.7**	A	0.48	26.9	52.7
	WBR	A	0.46	12.1	31.0	A	0.41	4.9	8.0
	NBL	B	0.69	40.2	**#73.6**	D	0.90	**80.3**	**#64.3**
	NBT/R	A	0.46	24.4	69.7	C	0.76	42.8	54.8
	SBL	A	0.54	23.7	29.1	D	0.83	53.7	**#81.5**
	SBT/R	A	0.34	9.5	21.1	E	0.95	45.5	**#146.9**
	Overall	**C**	**0.78**	**27.1**	-	**F**	**1.06**	**45.5**	-

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 1.00
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

At the intersection of Brian Coburn Boulevard at Tenth Line Road, with the addition of the protected eastbound left-turn phase during the AM peak hour, the eastbound left movement is forecasted to no longer be over theoretical capacity with extended queues on the eastbound left movement, however the westbound through and northbound left movements may exhibit extended queues. During the PM peak hour, with the addition of multiple protected left-turn phases and cycle length increase, the eastbound through/right and northbound left movements are anticipated to no longer be over theoretical capacity, however the southbound through/right movement may exhibit extended queues.

7.2 2031 Future Background Operations

Figure 15 illustrates the 2031 background volumes and Table 16 summarizes the 2031 background intersection operations, including the phasing and cycle length changes applied to the intersection of Brian Coburn Boulevard at Tenth Line Road at the 2026 background horizon. The level of service for signalized intersections is based on v/c calculations for individual lane movements and HCM 2000 v/c calculations for the overall intersection, and HCM 2010 average delay for unsignalized intersections. Synchro 11 has been used to model the signalized intersections and Sidra 8 to model the study area roundabouts. The Synchro and Sidra worksheets for the 2031 future background horizon are provided in Appendix J.

Figure 15: 2031 Future Background Volumes

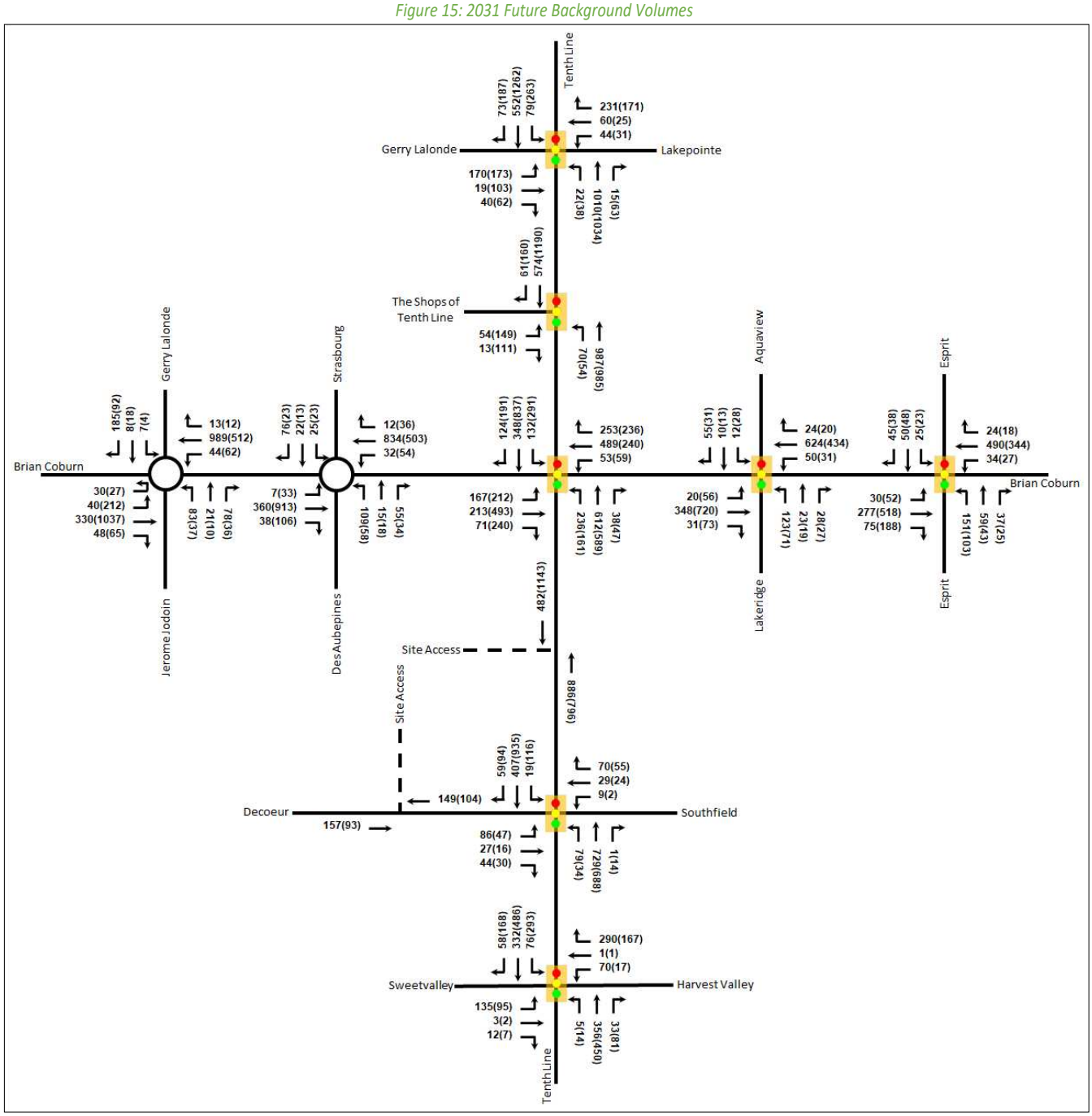


Table 16: 2031 Future Background Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road *Signalized*	EBL	C	0.71	48.1	43.2	C	0.71	53.6	49.0
	EBT/R	A	0.18	13.4	10.9	A	0.50	33.5	38.8
	WBL	A	0.17	28.3	13.4	A	0.16	33.0	11.8
	WBT	A	0.17	27.8	16.5	A	0.08	30.8	9.9
	WBR	B	0.61	24.0	37.9	A	0.47	17.7	26.5
	NBL	A	0.05	8.9	m3.4	A	0.18	5.6	2.8
	NBT	A	0.46	12.7	90.6	A	0.46	5.6	19.8
	NBR	A	0.02	1.2	m0.4	A	0.06	0.6	0.7
	SBL	A	0.28	12.0	17.1	D	0.90	52.1	#102.5
	SBT	A	0.26	7.9	34.2	A	0.56	10.2	97.6
	SBR	A	0.08	2.5	5.5	A	0.18	1.7	8.0
	Overall	**A**	**0.52**	**15.6**	-	**D**	**0.86**	**15.4**	-
The Shops of Tenth Line Access at Tenth Line Road *Signalized*	EBL	A	0.29	40.6	19.3	A	0.54	43.4	37.7
	EBR	A	0.07	18.5	5.2	A	0.37	19.6	19.3
	NBL	A	0.12	6.0	m9.1	A	0.22	10.5	13.5
	NBT	A	0.38	5.6	43.2	A	0.42	8.2	76.0
	SBT	A	0.22	2.3	11.7	A	0.51	5.8	37.7
	SBR	A	0.05	0.5	0.1	A	0.15	0.7	2.5
	Overall	**A**	**0.39**	**5.6**	-	**A**	**0.52**	**9.2**	-
Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive *Roundabout*	EB	A	0.31	4.8	16.1	A	0.92	7.1	180.7
	WB	A	0.82	7.1	89.6	A	0.55	6.3	33.7
	NB	A	0.19	6.9	7.4	C	0.37	24.5	21.1
	SB	C	0.56	23.6	38.0	A	0.15	6.4	6.8
	Overall	**A**	**0.82**	**8.3**	-	**A**	**0.92**	**7.1**	-
Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive *Roundabout*	EB	A	0.30	4.1	14.3	A	0.73	4.7	65.0
	WB	A	0.66	5.0	50.5	A	0.45	4.7	25.7
	NB	A	0.18	7.6	7.2	B	0.21	12.8	10.3
	SB	B	0.23	11.4	11.7	A	0.07	7.7	2.9
	Overall	**A**	**0.66**	**5.5**	-	**A**	**0.73**	**5.3**	-
Brian Coburn Boulevard at Tenth Line Road *Signalized*	EBL	C	0.73	36.5	#36.5	A	0.54	26.5	45.3
	EBT/R	A	0.40	17.0	46.8	E	0.98	59.4	#228.6
	WBL	A	0.18	24.3	15.4	C	0.76	87.6	#35.2
	WBT	D	0.90	52.7	#125.5	A	0.42	31.7	62.2
	WBR	A	0.46	12.3	31.2	A	0.38	5.4	16.6
	NBL	C	0.71	42.7	#74.7	E	0.93	79.8	#61.5
	NBT/R	A	0.47	25.5	69.8	C	0.80	47.8	#90.3
	SBL	A	0.56	25.4	#30.2	D	0.87	49.2	#86.0
	SBT/R	A	0.35	10.0	22.1	E	1.00	64.2	#158.9
	Overall	**C**	**0.79**	**27.5**	-	**F**	**1.09**	**51.9**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive *Signalized*	EBL	A	0.05	6.4	3.7	A	0.09	5.0	6.8
	EBT/R	A	0.34	7.3	40.2	B	0.62	9.5	107.6
	WBL	A	0.08	6.4	7.0	A	0.08	5.3	4.6
	WBT/R	A	0.53	9.7	78.0	A	0.36	5.9	44.2
	NBL	A	0.50	29.8	26.0	A	0.38	33.9	19.6
	NBT/R	A	0.16	13.0	9.4	A	0.18	16.4	10.2
	SBL	A	0.05	20.0	4.7	A	0.16	28.7	9.8
	SBT/R	A	0.19	9.4	9.0	A	0.17	14.8	9.2
	Overall	**A**	**0.57**	**10.9**	-	**B**	**0.62**	**10.0**	-
Brian Coburn Boulevard at Esprit Drive *Signalized*	EBL	A	0.08	10.3	6.2	A	0.11	10.5	9.3
	EBT/R	A	0.41	12.3	46.3	C	0.79	22.7	#126.8
	WBL	A	0.08	10.1	6.7	A	0.13	11.8	6.4
	WBT/R	A	0.55	15.4	72.2	A	0.40	12.9	49.1
	NBL	A	0.38	24.3	33.2	A	0.26	22.1	23.4
	NBT/R	A	0.19	13.8	16.5	A	0.13	14.1	12.9
	SBL	A	0.07	19.3	7.8	A	0.06	19.0	7.3
	SBT/R	A	0.18	12.3	15.3	A	0.17	12.9	14.5
	Overall	**A**	**0.48**	**15.1**	-	**A**	**0.58**	**18.5**	-
Decoeur Drive / Southfield Way at Tenth Line Road *Signalized*	EBL	A	0.41	36.0	20.2	A	0.26	37.7	14.4
	EBT/R	A	0.25	14.9	11.3	A	0.18	17.2	9.6
	WBL	A	0.04	25.1	3.9	A	0.01	29.0	1.8
	WBT/R	A	0.30	12.6	12.9	A	0.28	15.8	12.8
	NBL	A	0.14	8.7	16.5	A	0.09	7.8	8.6
	NBT	A	0.31	7.6	56.7	A	0.27	6.2	52.0
	NBR	A	0.00	0.0	0.0	A	0.01	0.0	0.3
	SBL	A	0.04	6.8	m6.7	A	0.22	8.3	24.5
	SBT	A	0.17	5.0	38.9	A	0.37	6.9	76.0
	SBR	A	0.06	2.3	10.6	A	0.08	2.2	7.0
	Overall	**A**	**0.35**	**9.1**	-	**A**	**0.37**	**7.8**	-
Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road *Signalized*	EBL	C	0.71	44.1	32.7	A	0.55	44.6	28.5
	EBT/R	A	0.04	11.2	4.0	A	0.03	18.1	4.0
	WBL	A	0.23	21.6	15.9	A	0.08	29.4	7.5
	WBT/R	A	0.51	6.2	15.2	A	0.44	8.7	14.7
	NBL	A	0.01	9.0	2.1	A	0.03	6.7	3.6
	NBT/R	A	0.22	8.2	24.3	A	0.24	5.8	31.3
	SBL	A	0.15	9.8	13.9	A	0.53	13.1	64.1
	SBT/R	A	0.21	7.8	23.2	A	0.30	5.8	37.3
	Overall	**A**	**0.36**	**12.1**	-	**A**	**0.54**	**9.6**	-

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 1.00
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

During both AM and PM peak hours, the study area intersections at the 2031 future background horizon operate similarly to the 2026 background conditions, each with phase and cycle changes. At the intersection of Brian Coburn Boulevard at Tenth Line Road, the southbound left movement during the AM peak hour and the northbound through/right movement during the PM peak hour may exhibit extended queues, and the westbound left movement may be subject to high delays during the PM peak hour at this horizon. The eastbound through/right movement at the intersection of Brian Coburn Boulevard at Esprit Drive may also exhibit extended queueing during the PM peak hour at this horizon.

7.3 Modal Share Sensitivity and Demand Rationalization Conclusions

Although some movements are approaching capacity at the intersection of Brian Coburn Boulevard at Tenth Line Road during the PM peak hour at the future background horizons, residual capacity is generally available throughout the study area. Given the site has two accesses onto different study area roadways, the majority of site traffic may avoid this intersection and the impacts will be distributed away from this network constraint. Therefore, no rationalization for adjusted demand is considered to be necessary for this TIA. Modal share shifts towards transit are considered to be likely beyond the study area horizons with the buildout of the grade-separated BRT corridor to the north of the site.

Regionally, it is expected that travel patterns will change once Stage 2 LRT is completed. The effects of this change will need to be realized and assessed prior to any additional rationalization is completed within individual TIAs.

8 Development Design

8.1 Design for Sustainable Modes

The proposed development is a mixed-use site with auto parking for the residential dwellings and commercial units located in surface lots surrounding the site buildings. Bicycle racks for all site buildings are located adjacent to each and a shelter is provided whose location is depicted on the landscape plan.

Walkways circulate the site, connecting each building to the others, the on-site amenities, and the surrounding pedestrian facilities on Tenth Line Road, and Decoeur Drive.

Given the approximately 315-metre-long block length between Brian Coburn Drive and Decoeur Drive, stops for the bus route #30 is within 400 metres' walk of the northern part of the development and stops for the route #234 are within 400 metres' walk of the southern part of the development.

8.2 Circulation and Access

Access is provided through a right-in/right-out driveway on Tenth Line Road and a full move driveway on Decoeur Drive. The internal drive aisles are generally provided at 6.7 metres, with the exception of parking drive aisles in from of Blocks 1-2 and Block 3-4, which at 6.0 metres.

Emergency services can traverse the site along the main drive aisles. Similarly commercial vehicles can navigate these routes, permitting garbage collection from the loading areas. The site circulation operations and turning templates have been provided in Appendix K.

9 Parking

9.1 Parking Supply

The site proposes 126 bicycle parking spaces, and a total of 377 vehicle parking spaces. Vehicle parking spaces are allocated as 240 spaces for residents, 46 spaces for visitors, and 91 spaces for commercial.

The minimum required bicycle parking from the zoning by-law for the site is 125 with 114 for the residential and 11 for the commercial component. The minimum required auto parking from the zoning by-law for the site is 411 with 274 for residents, 46 spaces for visitors, and 91 spaces for the commercial component.

The minimum bicycle parking provision, visitor vehicle parking provision, and commercial vehicle parking provision from the zoning by-law is proposed as being met. The minimum vehicle parking for residents is 34 spaces below the minimum value from the zoning by-law.

10 Boundary Street Design

Table 17 summarizes the MMLOS analysis for the boundary streets of Brian Coburn Boulevard, Tenth Line Road, and Decoeur Drive. The existing and future conditions for each street will be the same and are considered in one row. The boundary street analysis is based on the policy area of "Within 300m of a School". The MMLOS worksheets has been provided in Appendix L.

Table 17: Boundary Street MMLOS Analysis

Segment	Pedestrian LOS		Bicycle LOS		Transit LOS		Truck LOS	
	PLOS	Target	BLOS	Target	TLOS	Target	TrLOS	Target
Brian Coburn Blvd	F	A	F	B	D	D	B	D
Tenth Line Rd	D	A	C	C	-	-	A	D
Decoeur Dr	B	A	D	D	D	D	-	-

The boundary streets do not meet pedestrian LOS targets, and Brian Coburn Boulevard does not meet bicycle LOS targets.

Pedestrian LOS targets cannot be met on Brian Coburn Boulevard and on Tenth Line Road due to vehicle volumes and operating speeds. It is anticipated that pedestrian LOS will improve, however will still not meet targets, with the provision of a sidewalk on the south side of the Brian Coburn Boulevard as part of an eventual road widening. To meet pedestrian LOS targets on Decoeur Drive the boulevard would need to be marginally increased. As the MMLOS scorings group discrete values, no improvement from "two metres" to "greater than two metres" is considered appropriate for Decoeur Drive, and the existing condition is considered adequate.

To meet bicycle LOS, Brian Coburn Boulevard would require physically separated facilities. The City should investigate the provision of such a facility as part of the design of a future widening of Brian Coburn Boulevard.

11 Access Intersections Design

11.1 Location and Design of Access

The site will connect to Tenth Line Road via a right-in/right-out access and to Decoeur Drive via a full moves access. The Decoeur Drive access will be split with the adjacent parcel of 885 Decoeur Drive via a joint use and maintenance agreement.

The throat length for the access on Decoeur Drive meets the suggested minimum of 25 metres from Table 8.9.3 of the TAC Geometric Design Guide.

The throat length of the right-in/right-out access on Tenth Line Road is proposed to be approximately 31.5 metres to the first internal intersection, does not meet the suggested minimum 40 metres from TAC Table 8.9.3. The active throat length is commensurate with the urban design of the site and additional throat length would limit the layout and connectivity internal to the site. Additionally, as a right-in/right-out access, this access will only permit a portion of the site traffic to use this location and site trips are expected to predominantly use the Decoeur Drive access. Therefore, the throat length is considered sufficient for the site, location, and use.

11.2 Intersection Control

Both site accesses are proposed as having minor stop-control with Tenth Line Road and Decoeur Drive operating as free flow corridors.

11.3 Access Intersection Design

11.3.1 2026 Future Total Access Intersection Operations

The 2026 future total intersection volumes are illustrated in Figure 16 and the access intersection operations are summarized below in Table 18. The level of service is based on HCM 2010 average delay for unsignalized intersections. The synchro worksheets have been provided in Appendix M.

Figure 16: 2026 Future Total Volumes

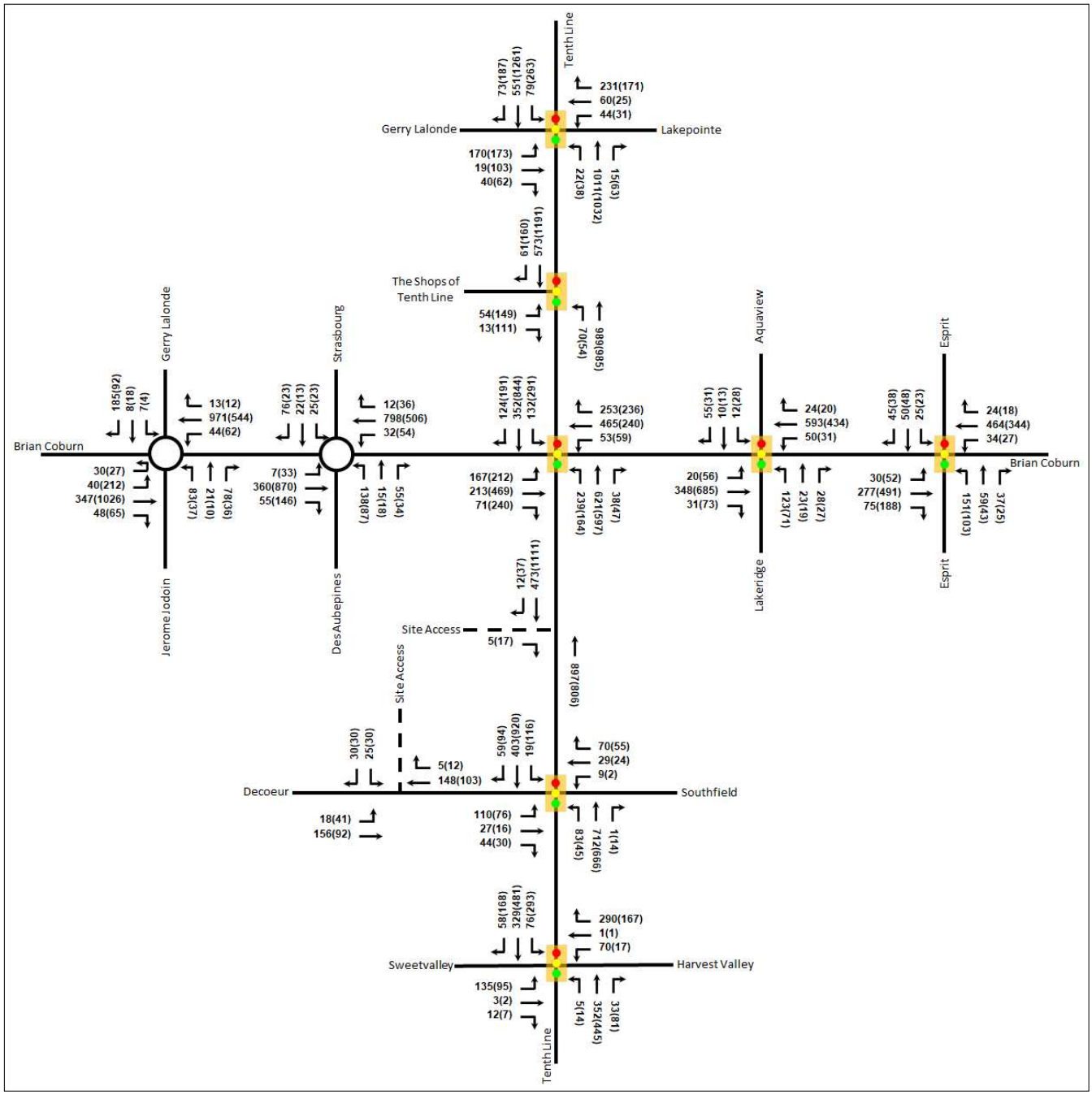


Table 18: 2026 Future Total Access Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Site Access at Tenth Line Road ***Unsignalized***	EBL/R	A	0.01	9.8	0.0	B	0.04	13.1	0.8
	NBT	-	-	-	-	-	-	-	-
	SBT/R	-	-	-	-	-	-	-	-
	Overall	**A**	**-**	**0.0**	**-**	**A**	**-**	**0.1**	**-**
Decoeur Drive at Site Access ***Unsignalized***	EBL/T	A	0.01	7.6	0.0	A	0.03	7.5	0.8
	WBT/R	-	-	-	-	-	-	-	-
	SBL/R	B	0.07	10.1	1.5	A	0.08	9.9	1.5
	Overall	**A**	**-**	**1.8**	**-**	**A**	**-**	**2.9**	**-**

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 1.00
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

The access intersections for the 2026 future total horizon operate well. No capacity issues are noted.

11.3.2 2031 Future Total Access Intersection Operations

The 2031 future total intersection volumes are illustrated in Figure 17 and the access intersection operations are summarized below in Table 19. The level of service is based on HCM 2010 average delay for unsignalized intersections. The synchro worksheets have been provided in Appendix N.

Figure 17: 2031 Future Total Volumes

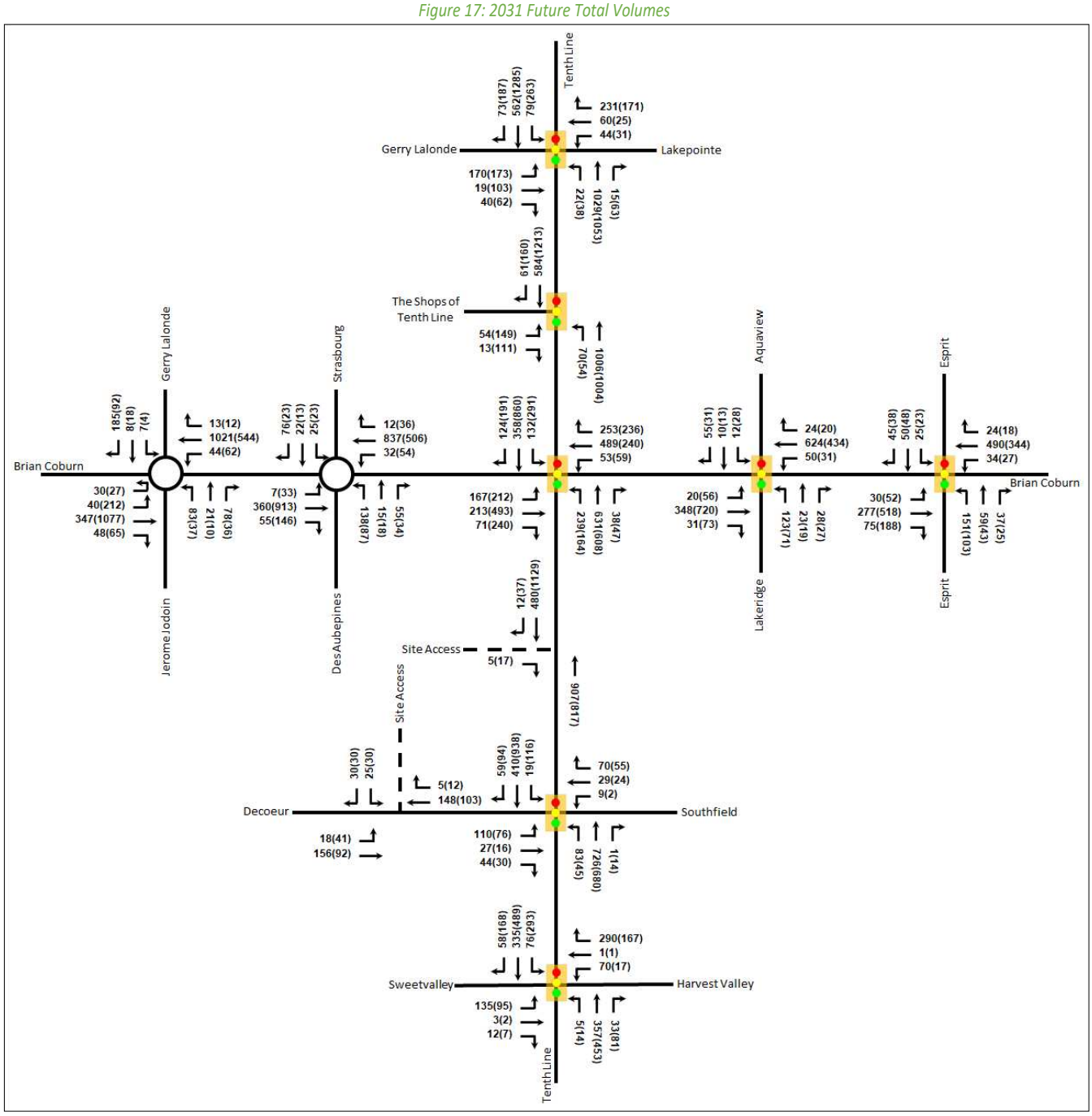


Table 19: 2031 Future Total Access Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Site Access at Tenth Line Road ***Unsignalized***	EBL/R	A	0.01	9.8	0.0	B	0.04	13.2	0.8
	NBT	-	-	-	-	-	-	-	-
	SBT/R	-	-	-	-	-	-	-	-
	Overall	**A**	**-**	**0.0**	**-**	**A**	**-**	**0.1**	**-**
Decoeur Drive at Site Access ***Unsignalized***	EBL/T	A	0.01	7.6	0.0	A	0.03	7.5	0.8
	WBT/R	-	-	-	-	-	-	-	-
	SBL/R	B	0.07	10.1	1.5	A	0.08	9.9	1.5
	Overall	**A**	**-**	**1.8**	**-**	**A**	**-**	**2.9**	**-**

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 1.00
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

The access intersection operations for the 2031 future total horizon operate similarly to the 2026 future total conditions. No capacity issues are noted.

11.3.3 Access Intersection MMLOS

As the access intersections are not signalized, no access intersection MMLOS analysis has been performed.

11.3.4 Recommended Design Elements

No additional design elements are proposed for the site access intersections beyond the typical private approach considerations.

12 Transportation Demand Management

12.1 Context for TDM

The mode shares used within the TIA represent the recommended shares for the Orleans district. Overall, the modal shares are likely to be achieved and supporting TDM measures should be provided.

The subject site is not within a design priority area, the bedroom count within the development is subject to the final unit breakdown and layout selections by purchasers, and no age restrictions are noted.

12.2 Need and Opportunity

The subject site has been assumed to rely predominantly on auto travel and those assumptions have been carried through the analysis. An increase in transit ridership is likely beyond the study horizons with the proximity to the future BRT corridor. The study area intersections are anticipated to have residual capacity in the background conditions and the level of transit ridership is achievable.

12.3 TDM Program

The "suite of post occupancy TDM measures" has been summarized in the TDM checklists for the residential land uses. The checklist is provided in Appendix O. The key TDM measures recommended include:

- Post online links to OC Transpo and post transit routes and maps in employee areas
- Inclusion of a 1-year Presto card for first time new townhome purchase or apartment rental, with a set time frame for this offer (e.g. 6-months) from the initial opening of the site
- Unbundle parking cost from purchase or rental costs, charge for employee parking

13 Neighbourhood Traffic Management

The proposed development will connect to the arterial road network directly at Tenth Line Road, and to Tenth Line Road and Brian Coburn Drive via the collector roads of Decoeur Drive and Des Aubepines Drive. The TIA guidelines describe a volume threshold for the classification of collector roads as 300 vehicles per peak hour, which are to be interpreted as two-way volumes according to City guidance. It is noted that the City has indicated that these thresholds are too low for the purposes of this analysis, and they are presently being revisited.

At the 2031 future total horizon, the forecasted volumes along Decoeur Drive west of the site access are in the range of 266-to-352 two-way vehicles per peak hour, and the forecasted volumes along Des Aubepines Drive south of Brian Coburn Boulevard are in the range of 299-to-352 two-way vehicles per peak hour. Site-generated traffic volumes constitute approximate 14-27% of these future 2031 two vehicle volumes.

The original site concept included an access located on Brian Coburn Boulevard, which was subsequently removed through consultation with City Staff and the Councillor's office. This has resulted in the predominate use of the Decoeur Drive access for new trips. The overall volumes are within the expected ranges for a collector road and results in approximately five cars per minute along the roadway, and site traffic is anticipated to comprise one of these five.

14 Transit

14.1 Route Capacity

In Section 5.1 the trip generation by mode was estimated, including an estimate of the number of transit trips that will be generated by the proposed development. Table 20 summarizes the transit trip generation.

Table 20: Trip Generation by Transit Mode

Travel Mode	Mode Share	AM Peak Period			PM Peak Period		
		In	Out	Total	In	Out	Total
Transit	varies	16	35	50	24	19	43

The proposed development is anticipated to generate an additional 53 AM peak hour transit trips and 45 PM peak hour transit trips. Of these trips, 36 outbound AM trips and 25 inbound PM trips are anticipated. From the trip distribution found in Section 5.3, these values can be further broken down. Table 21 summarizes forecasted site-generated transit ridership trips by direction, the type of transit service that may be used for these trips, and the equivalent bus loads of the increased ridership.

Table 21: Forecasted Site-Generated Transit Ridership

Direction	AM Peak Hour		PM Peak Hour		Service Type	Approximate Equivalent Peak Hour/Direction Bus Loads
	In	Out	In	Out		
North	5	11	7	6	Bus	One fifth of a standard bus
South	1	2	1	1	Bus	Negligible
East	1	2	1	1	Bus	Negligible
West	10	21	14	11	Bus	Two fifths of a standard bus

14.2 Transit Priority

No change in transit LOS is noted on study area intersection approaches as a result of site traffic, and the maximum resultant increase in delay in any transit movement within the study area is 5.9 seconds at the network intersections.

15 Network Intersection Design

15.1 Network Intersection Control

No change to the existing signalized control is recommended for the network intersections. No additional changes to the signal phasing beyond the mitigations included in the background conditions are proposed.

15.2 Network Intersection Design

15.2.1 2026 Future Total Network Intersection Operations

The 2026 future total volumes are illustrated in Figure 16 and the network intersection operations, including the phasing proposed as mitigations for the background conditions, are summarized below in Table 22. The level of service for signalized intersections is based on v/c calculations for individual lane movements and HCM 2000 v/c calculations for the overall intersection, and HCM 2010 average delay for unsignalized intersections. Synchro 11 has been used to model the signalized intersections and Sidra 8 to model the study area roundabouts. The Synchro and Sidra worksheets for the 2026 future total horizon have been provided in Appendix M.

Table 22: 2026 Future Total Network Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road ***Signalized***	EBL	C	0.71	48.1	43.2	C	0.71	53.6	49.0
	EBT/R	A	0.18	13.4	10.9	A	0.50	33.5	38.8
	WBL	A	0.17	28.3	13.4	A	0.16	33.0	11.8
	WBT	A	0.17	27.8	16.5	A	0.08	30.8	9.9
	WBR	B	0.62	25.1	38.8	A	0.47	17.5	26.3
	NBL	A	0.05	8.9	m3.2	A	0.18	5.6	2.8
	NBT	A	0.47	13.1	93.1	A	0.46	5.6	19.7
	NBR	A	0.02	1.1	m0.4	A	0.06	0.6	0.7
	SBL	A	0.28	12.3	17.3	D	0.90	51.2	**#102.2**
	SBT	A	0.27	7.9	34.8	A	0.56	10.2	97.4
	SBR	A	0.08	2.5	5.5	A	0.18	1.7	8.0
	Overall	**A**	**0.53**	**15.8**	-	**D**	**0.86**	**15.3**	-
The Shops of Tenth Line Access at Tenth Line Road ***Signalized***	EBL	A	0.29	40.6	19.3	A	0.54	43.4	37.7
	EBR	A	0.07	18.5	5.2	A	0.37	19.9	19.5
	NBL	A	0.12	6.4	m9.5	A	0.22	10.5	13.5
	NBT	A	0.38	6.1	45.2	A	0.42	8.2	76.0
	SBT	A	0.23	2.3	11.8	A	0.51	5.8	37.7
	SBR	A	0.05	0.5	0.1	A	0.15	0.7	2.5
	Overall	**A**	**0.39**	**5.8**	-	**A**	**0.52**	**9.2**	-
Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive ***Roundabout***	EB	A	0.33	4.8	16.9	A	0.92	6.4	172.8
	WB	A	0.80	6.8	84.6	A	0.58	6.5	37.3
	NB	A	0.19	7.1	7.6	C	0.35	22.6	20.0
	SB	C	0.54	21.7	35.7	A	0.16	6.7	7.2
	Overall	**A**	**0.80**	**8.0**	-	**A**	**0.92**	**7.1**	-
Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive ***Roundabout***	EB	A	0.31	4.1	15.0	A	0.73	4.7	65.1
	WB	A	0.66	5.2	48.8	A	0.47	5.0	27.4
	NB	A	0.20	7.9	8.6	B	0.25	12.7	12.4
	SB	B	0.23	11.3	11.7	A	0.08	8.0	3.1
	Overall	**A**	**0.66**	**5.7**	-	**A**	**0.73**	**5.5**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Brian Coburn Boulevard at Tenth Line Road ***Signalized***	EBL	B	0.68	30.0	**#31.1**	A	0.54	26.6	46.4
	EBT/R	A	0.39	16.2	45.8	E	0.98	59.9	**#221.9**
	WBL	A	0.18	24.3	15.4	C	0.74	**86.3**	**#34.9**
	WBT	D	0.90	52.7	**#125.5**	A	0.49	37.1	66.9
	WBR	A	0.47	12.9	32.4	A	0.41	6.4	17.9
	NBL	C	0.76	48.0	**#78.5**	E	0.94	**82.5**	**#63.9**
	NBT/R	A	0.50	27.4	70.1	C	0.77	44.9	88.6
	SBL	A	0.60	29.4	**#35.4**	D	0.85	45.4	**#82.1**
	SBT/R	A	0.37	10.9	25.9	E	0.97	56.6	**#156.0**
	Overall	**D**	**0.81**	**28.3**	-	**F**	**1.07**	**49.5**	-
Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive ***Signalized***	EBL	A	0.05	6.4	3.7	A	0.09	5.0	6.8
	EBT/R	A	0.34	7.3	40.2	A	0.59	8.9	97.9
	WBL	A	0.08	6.4	7.0	A	0.08	5.2	4.6
	WBT/R	A	0.53	9.7	78.0	A	0.36	5.9	44.2
	NBL	A	0.50	29.8	26.0	A	0.38	33.9	19.6
	NBT/R	A	0.16	13.0	9.4	A	0.18	16.4	10.2
	SBL	A	0.05	20.0	4.7	A	0.16	28.7	9.8
	SBT/R	A	0.19	9.4	9.0	A	0.17	14.8	9.2
	Overall	**A**	**0.57**	**10.9**	-	**A**	**0.60**	**9.7**	-
Brian Coburn Boulevard at Esprit Drive ***Signalized***	EBL	A	0.08	10.3	6.2	A	0.11	10.5	9.3
	EBT/R	A	0.41	12.3	46.3	C	0.76	21.0	116.6
	WBL	A	0.08	10.1	6.7	A	0.12	11.4	6.3
	WBT/R	A	0.55	15.4	72.2	A	0.40	12.9	49.1
	NBL	A	0.38	24.3	33.2	A	0.26	22.1	23.4
	NBT/R	A	0.19	13.8	16.5	A	0.13	14.1	12.9
	SBL	A	0.07	19.3	7.8	A	0.06	19.0	7.3
	SBT/R	A	0.18	12.3	15.3	A	0.17	12.9	14.5
	Overall	**A**	**0.48**	**15.1**	-	**A**	**0.56**	**17.6**	-
Decoeur Drive / Southfield Way at Tenth Line Road ***Signalized***	EBL	A	0.50	37.9	25.0	A	0.39	40.8	21.0
	EBT/R	A	0.24	14.2	11.3	A	0.17	16.6	9.6
	WBL	A	0.04	24.2	3.9	A	0.01	28.0	1.8
	WBT/R	A	0.28	12.0	12.9	A	0.27	15.1	12.8
	NBL	A	0.15	9.2	17.3	A	0.12	8.3	10.7
	NBT	A	0.32	8.0	56.4	A	0.26	6.4	50.0
	NBR	A	0.00	0.0	0.0	A	0.01	0.0	0.3
	SBL	A	0.04	7.0	m6.8	A	0.22	8.5	24.3
	SBT	A	0.18	5.2	39.7	A	0.37	7.2	74.3
	SBR	A	0.06	2.3	10.7	A	0.08	2.2	7.0
	Overall	**A**	**0.37**	**9.8**	-	**A**	**0.39**	**8.5**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road ***Signalized***	EBL	C	0.71	44.1	32.7	A	0.55	44.6	28.5
	EBT/R	A	0.04	11.2	4.0	A	0.03	18.1	4.0
	WBL	A	0.23	21.6	15.9	A	0.08	29.4	7.5
	WBT/R	A	0.51	6.2	15.2	A	0.44	8.7	14.7
	NBL	A	0.01	9.0	2.1	A	0.03	6.7	3.6
	NBT/R	A	0.22	8.3	24.4	A	0.23	5.8	31.0
	SBL	A	0.15	9.8	13.9	A	0.53	13.0	63.7
	SBT/R	A	0.21	7.8	23.4	A	0.29	5.8	37.0
	Overall	**A**	**0.36**	**12.1**	**-**	**A**	**0.53**	**9.6**	**-**

Notes: Saturation flow rate of 1800 veh/h/lane; Queue is measured in metres; Peak Hour Factor = 1.00; Delay = average vehicle delay in seconds; m = metered queue; # = volume for the 95th %ile cycle exceeds capacity

The network intersections for the 2026 future total horizon operate similarly to the 2026 future background conditions.

At the intersection of Brian Coburn Boulevard at Tenth Line Road, the southbound left movement may exhibit extended queuing during the AM peak hour. During the PM peak hour, the westbound left may be subject to high delays.

15.2.2 2031 Future Total Network Intersection Operations

The 2031 future total volumes are illustrated in Figure 17 and the network intersection operations, including the phasing proposed as mitigations for the background conditions, are summarized below in Table 23. The level of service for signalized intersections is based on v/c calculations for individual lane movements and HCM 2000 v/c calculations for the overall intersection, and HCM 2010 average delay for unsignalized intersections. Synchro 11 has been used to model the signalized intersections and Sidra 8 to model the study area roundabouts. The Synchro and Sidra worksheets for the 2031 future total horizon have been provided in Appendix N.

Table 23: 2031 Future Total Network Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road ***Signalized***	EBL	C	0.71	48.1	43.2	C	0.71	53.6	49.0
	EBT/R	A	0.18	13.4	10.9	A	0.50	33.5	38.8
	WBL	A	0.17	28.3	13.4	A	0.16	33.0	11.8
	WBT	A	0.17	27.8	16.5	A	0.08	30.8	9.9
	WBR	B	0.62	25.9	39.5	A	0.48	18.7	27.4
	NBL	A	0.05	8.7	m3.1	A	0.18	5.6	m2.7
	NBT	A	0.48	13.0	96.0	A	0.47	5.6	19.8
	NBR	A	0.02	1.1	m0.3	A	0.06	0.5	0.6
	SBL	A	0.29	12.5	17.5	E	0.92	57.0	**#103.7**
	SBT	A	0.27	8.0	35.6	A	0.57	10.4	100.3
	SBR	A	0.08	2.5	5.5	A	0.18	1.7	8.0
	Overall	**A**	**0.53**	**15.8**	**-**	**D**	**0.88**	**15.8**	**-**

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
The Shops of Tenth Line Access at Tenth Line Road ***Signalized***	EBL	A	0.29	40.6	19.3	A	0.54	43.4	37.7
	EBR	A	0.07	18.5	5.2	A	0.38	20.8	20.0
	NBL	A	0.12	6.5	m9.4	A	0.22	10.8	13.7
	NBT	A	0.39	6.3	47.0	A	0.43	8.3	77.8
	SBT	A	0.23	2.3	11.8	A	0.52	5.8	38.3
	SBR	A	0.05	0.5	0.1	A	0.15	0.7	2.5
	Overall	**A**	**0.40**	**5.9**	-	**A**	**0.52**	**9.2**	-
Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive ***Roundabout***	EB	A	0.33	4.8	17.0	A	0.95	6.8	220.1
	WB	A	0.84	7.7	101.9	A	0.58	6.5	37.6
	NB	A	0.19	7.1	7.6	C	0.40	29.2	23.7
	SB	C	0.61	28.5	43.5	A	0.16	6.7	7.2
	Overall	**A**	**0.84**	**9.1**	-	**A**	**0.95**	**7.6**	-
Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive ***Roundabout***	EB	A	0.31	4.1	15.2	A	0.76	4.8	72.5
	WB	A	0.69	5.3	53.4	A	0.47	5.0	27.5
	NB	A	0.21	7.9	8.6	B	0.27	13.5	13.6
	SB	B	0.25	12.0	12.7	A	0.08	8.0	3.1
	Overall	**A**	**0.69**	**5.8**	-	**A**	**0.76**	**5.6**	-
Brian Coburn Boulevard at Tenth Line Road ***Signalized***	EBL	C	0.74	36.9	#36.5	A	0.55	27.2	46.1
	EBT/R	A	0.39	16.2	45.8	E	1.00	65.3	#232.2
	WBL	A	0.17	23.4	15.1	D	0.87	117.5	#37.6
	WBT	E	0.91	52.6	#131.8	A	0.45	34.1	64.4
	WBR	A	0.46	13.4	33.8	A	0.39	5.8	17.2
	NBL	C	0.77	49.2	#80.2	E	0.95	83.7	#63.6
	NBT/R	A	0.51	27.8	71.3	C	0.79	46.6	90.6
	SBL	B	0.61	30.5	#36.0	D	0.86	48.1	#85.2
	SBT/R	A	0.37	11.0	26.3	E	0.99	61.7	#160.8
	Overall	**D**	**0.83**	**29.2**	-	**F**	**1.10**	**53.1**	-
Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive ***Signalized***	EBL	A	0.05	6.5	3.7	A	0.09	5.0	6.8
	EBT/R	A	0.34	7.3	40.2	B	0.62	9.5	107.6
	WBL	A	0.08	6.4	7.0	A	0.08	5.3	4.6
	WBT/R	A	0.55	10.2	84.6	A	0.36	5.9	44.2
	NBL	A	0.50	29.8	26.0	A	0.38	33.9	19.6
	NBT/R	A	0.16	13.0	9.4	A	0.18	16.4	10.2
	SBL	A	0.05	20.0	4.7	A	0.16	28.7	9.8
	SBT/R	A	0.19	9.4	9.0	A	0.17	14.8	9.2
	Overall	**A**	**0.59**	**11.1**	-	**B**	**0.62**	**10.0**	-

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay	Q (95th)	LOS	V/C	Delay	Q (95th)
Brian Coburn Boulevard at Esprit Drive ***Signalized***	EBL	A	0.09	10.4	6.3	A	0.11	10.5	9.3
	EBT/R	A	0.41	12.3	46.3	C	0.79	22.7	**#126.8**
	WBL	A	0.08	10.1	6.7	A	0.13	11.8	6.4
	WBT/R	A	0.58	16.0	77.7	A	0.40	12.9	49.1
	NBL	A	0.38	24.3	33.2	A	0.26	22.1	23.4
	NBT/R	A	0.19	13.8	16.5	A	0.13	14.1	12.9
	SBL	A	0.07	19.3	7.8	A	0.06	19.0	7.3
	SBT/R	A	0.18	12.3	15.3	A	0.17	12.9	14.5
	Overall	**A**	**0.50**	**15.3**	-	**A**	**0.58**	**18.5**	-
Decoeur Drive / Southfield Way at Tenth Line Road ***Signalized***	EBL	A	0.50	37.9	25.0	A	0.39	40.8	21.0
	EBT/R	A	0.24	14.2	11.3	A	0.17	16.6	9.6
	WBL	A	0.04	24.2	3.9	A	0.01	28.0	1.8
	WBT/R	A	0.28	12.0	12.9	A	0.27	15.1	12.8
	NBL	A	0.15	9.2	17.4	A	0.12	8.4	10.8
	NBT	A	0.32	8.1	57.7	A	0.27	6.4	51.2
	NBR	A	0.00	0.0	0.0	A	0.01	0.0	0.3
	SBL	A	0.05	6.7	m6.4	A	0.23	8.6	24.4
	SBT	A	0.18	4.9	39.8	A	0.37	7.2	76.3
	SBR	A	0.06	2.2	10.9	A	0.08	2.2	7.0
	Overall	**A**	**0.38**	**9.8**	-	**A**	**0.40**	**8.6**	-
Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road ***Signalized***	EBL	C	0.71	44.1	32.7	A	0.55	44.6	28.5
	EBT/R	A	0.04	11.2	4.0	A	0.03	18.1	4.0
	WBL	A	0.23	21.6	15.9	A	0.08	29.4	7.5
	WBT/R	A	0.51	6.2	15.2	A	0.44	8.7	14.7
	NBL	A	0.01	9.0	2.1	A	0.03	6.7	3.6
	NBT/R	A	0.22	8.3	24.7	A	0.24	5.9	31.5
	SBL	A	0.15	9.8	13.9	A	0.54	13.2	64.3
	SBT/R	A	0.21	7.8	23.8	A	0.30	5.8	37.6
	Overall	**A**	**0.36**	**12.0**	-	**A**	**0.54**	**9.7**	-

Notes: Saturation flow rate of 1800 veh/h/lane
Queue is measured in metres
Peak Hour Factor = 1.00
Delay = average vehicle delay in seconds
m = metered queue
# = volume for the 95th %ile cycle exceeds capacity

The network intersection operations for the 2031 future total horizon operate similarly to the 2026 future total conditions.

At the intersection of Brian Coburn Boulevard at Tenth Line Road, the eastbound through/right movement is forecasted to operate at its theoretical capacity and the northbound left may be subject to high delays each during the PM peak hour.

15.2.3 Network Intersection MMLOS

Table 23 summarizes the MMLOS analysis for the signalized network intersections. The existing and future conditions for the intersections will be the same and are considered in one row. The intersection analysis is based on the land use designation of "General Urban Area" for all but the Decoeur Drive/Southfield Way at Tenth Line Road intersection which will be based on the policy area of "Within 300m of a School." The MMLOS worksheets has been provided in Appendix L.

Table 24: Study Area Intersection MMLOS Analysis

Intersection	Pedestrian LOS		Bicycle LOS		Transit LOS		Truck LOS		Auto LOS	
	PLOS	Target	BLOS	Target	TLOS	Target	TrLOS	Target	ALOS	Target
Gerry Lalonde Dr / Lakepointe Dr at Tenth Line Rd	F	C	F	C	F	D	-	-	D	D
The Shops of Tenth Line Access at Tenth Line Rd	F	C	F	C	-	-	-	-	A	D
Brian Coburn Blvd at Tenth Line Rd	F	C	F	B	F	D	C	D	F	D
Brian Coburn Blvd at Aquaview Dr/ Lakeridge Dr	E	C	F	B	C	D	-	-	B	D
Brian Coburn Blvd at Esprit Dr	E	C	F	B	C	D	-	-	B	D
Decoeur Dr / Southfield Way at Tenth Line Rd	F	A	F	C	E	D	-	-	A	E
Sweetvalley Dr / Harvest Valley Ave at Tenth Line Rd	F	C	F	C	C	D	-	-	A	D

The MMLOS targets will not be met for the pedestrian and bicycle LOS at all network intersections, transit LOS at the intersections of Gerry Lalonde Drive/Lakepoint Drive at Tenth Line Road, Brian Coburn Boulevard at Tenth Line Road, and Decoeur Drive/Southfield Way at Tenth Line Road, and auto LOS at the intersection of Brian Coburn Boulevard at Tenth Line Road.

The pedestrian level of service would require a maximum crossing distance of two lane-widths at each crossing to meet a LOS A and generally a maximum distance of three lane-widths to meet LOS C. This cannot be provided and is no mitigation can be provided to meet these targets.

The presence of auxiliary right-turn lanes on mixed traffic approaches for cyclists and left-turn arrangements at the study area intersections each govern the bicycle LOS, requiring separated facilities and two-stage left-turns or left-turn boxes to meet the targets. Mitigation for not meeting these targets is under the responsibility of the City and no mitigation is proposed as part of this site.

The transit LOS will not be met due to the intersection delays on the eastbound approach at the intersection of Gerry Lalonde Drive/Lakepoint Drive at Tenth Line Road, the east and westbound approaches at the intersection of Brian Coburn Boulevard at Tenth Line Road, and the eastbound approach at the intersection of Decoeur Drive/Southfield Way at Tenth Line Road. Delays on these transit movements would need to be reduced to below 30 seconds to meet targets and requires City wide solutions to reduce auto use.

The MMLOS improvements will need to be considered by the City during future rehabilitation and widening projects to improve the overall pedestrian, cycling and transit network levels of service.

15.2.4 Recommended Design Elements

No study area intersection design elements are proposed as part of this study.

16 Summary of Improvements Indicated and Modifications Options

The following summarizes the analysis and results presented in this TIA report:

Proposed Site and Screening

- The proposed site includes 228 townhome/low rise residential dwelling units and 2,691 m^2 of ground floor commercial space
- Accesses will be provided on Decoeur Drive via a full-movement access and along Tenth Line Road via a right-in/right-out access
- The development is proposed to be completed as a single phase by 2026
- The Trip Generation, Location, and Safety Triggers were met for the TIA Screening
- This report is in support of a zoning by-law amendment

Existing Conditions

- Brian Coburn Boulevard and Tenth Line Road are arterial roads, Esprit Drive, Decoeur Drive, Gerry Lalonde Drive, Jerome Jodoin Drive, Des Aubepines Drive, Aquaview Drive, Lakeridge Drive, Lakepointe Drive, Southfield Way, and Harvest Valley Avenue are collector roads in the study area
- Sidewalks/MUPS are generally provided on both sides of the study area roadways, with a sidewalk on only one side of Aquaview Drive north of Lakepointe Drive and of Sweetvalley Drive
- A MUP is along one side of Tenth Line Road, bike lanes are on both sides of Tenth Line Road transitioning to paved shoulders south of Harvest Valley Avenue
- Tenth Line Road is a spine route, Brian Coburn Boulevard, Cabris Crescent/Azure Street/Trigoria Crescent, Aquaview Drive, Lakeridge Drive, and Esprit Drive are local routes
- The high volumes roadways have produced a high number of collisions at the Brian Coburn Boulevard at Tenth Line Road intersection
- The collisions are predominantly rear end collisions indicating that they are lower speed and a result of congestion
- Movements at the intersection of Brian Coburn Boulevard at Tenth Line Road are over capacity in each peak hour, with queuing noted on multiple approaches during the PM peak hour with the overall intersection over capacity

Development Generated Travel Demand

- The proposed development is forecasted produce 179 two-way people trips during the AM peak hour and 239 two-way people trips during the PM peak hour
- Of the forecasted people trips, 83 two-way trips will be vehicle trips during the AM peak hour and 121 two-way trips will be vehicle trips during the PM peak hour based on a 47%-51% residential auto modal share target
- Of the forecasted trips, 30% are anticipated to travel north, 5% to travel each south and east, and 60% to travel west

Background Conditions

- The background developments were explicitly included in the background conditions, along with a total background growth of 1.25% unidirectionally per annum on Brian Coburn Boulevard and 0.50% bidirectionally per annum on Tenth Line Road
- Conditions are anticipated to deteriorate at the intersection of Brian Coburn Boulevard and Tenth Line Road with the background growth and buildout of the study area
- The introduction of protected turn phases at this intersection would reduce the v/c of all movements to 1.00 or below, however the overall intersection will still operate over its theoretical capacity during the PM peak hour

Development Design

- The bike parking is to be located in racks adjacent to each building and within a sheltered area, and auto parking areas are to be located in surface lots interspersed throughout the site
- Pedestrian connections will be made from all building entrances to surrounding pedestrian facilities or to internal site facilities that connect to the external facilities
- Emergency vehicles are anticipated to circulate the site and garbage collection will occur on-site

Parking

- The development proposes the inclusion of 126 bicycle parking spaces and 377 vehicle parking spaces
- The proposed parking provision meets the minimums prescribed by the zoning by-law

Boundary Street Design

- The boundary streets will not meet pedestrian MMLOS targets, due to auto volumes and operating speeds on Brian Coburn Boulevard and Tenth Line Road, and the conditions on Decoeur Drive are considered to be adequate given it being on the threshold of meeting PLOS targets
- Brian Coburn Boulevard will not meet bicycle LOS targets and would require separated facilities to do so

Access Intersections Design

- A full-movements access is proposed on Decoeur Drive, and a right-in/right-out access on Tenth Line Road
- The throat length for the access on Decoeur Drive meets the suggested minimum of 25 metres
- The throat length of the access on Tenth Line Road is approximately 31.5 metres and the proposed throat length is considered sufficient given the right-in/right-out operation and the majority of site traffic being anticipated to use the Decoeur Drive access
- The access intersections along are proposed as being minor stop-controlled, with each boundary road operating as a free flow corridor
- The access intersections are anticipated to operate well with no capacity issues noted
- No specific recommendations or design elements are required outside of typical site design

TDM

- Supportive TDM measures to be included within the proposed development should include:
  - Post online links to OC Transpo and post transit routes and maps in employee areas
  - Inclusion of a 1-year Presto card for first time new townhome purchase or apartment rental, with a set time frame for this offer (e.g. 6-months) from the initial opening of the site
  - Unbundle parking cost from purchase or rental costs, charge for employee parking

NTM

- Volumes on Decoeur Drive and Des Aubepines Drive are anticipated to be in the range of 266-352 vehicles per peak hour in the 2031 future horizon, and site-generated traffic is anticipated to constitute 14%-27% of these volumes
- A previous site concept included an access on Brian Coburn Drive which was removed through consultation with City Staff and the Councillor's Office, resulting in higher site volumes on Decoeur Drive and Des Aubepines Drive of approximately one vehicle per minute on the roadway

Transit

- The site is forecasted to generate 50 new AM and 43 new PM peak hour two-way transit trips
- The increase in travel in any direction is anticipated to represent approximately two fifths of a standard bus load
- No change in transit LOS is anticipated as a result of the development within the study area and a maximum increase in delay of 5.9 seconds is forecasted for transit movements on the study area transit movements

Network Intersection Design

- Generally, the network intersections will operate similarly to the background conditions
- The MMLOS targets will not be met for the pedestrian and bicycle LOS at all network intersections, transit LOS at the intersections of Gerry Lalonde Drive/Lakepoint Drive at Tenth Line Road, Brian Coburn Boulevard at Tenth Line Road, and Decoeur Drive/Southfield Way at Tenth Line Road, and auto LOS at the intersection of Brian Coburn Boulevard at Tenth Line Road
- City implementation of improved cycling facilities, including separated facilities and left-turn configurations out of mixed flow could meet the LOS targets but due to the nature of arterials roadways, the pedestrian and transit LOS cannot be met

17 Conclusion

It is recommended that, from a transportation perspective, the proposed development applications proceed.

Prepared By:

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Transportation Engineering-Intern

Reviewed By:

Andrew Harte, P.Eng.
Senior Transportation Engineer

Appendix A

TIA Screening Form and PM Certification Form

CGH TRANSPORTATION

6 Plaza Court
Ottawa ON K2H 7W1

City of Ottawa 2017 TIA Guidelines
Step 1 - Screening Form

Date: 29-Sep-21
Project Number: 2021-052
Project Reference: 2370 Tenth Line

1.1 Description of Proposed Development	
Municipal Address	2370 Tenth Line Rd
Description of Location	T-shaped parcel fronting Brian Coburn Blvd, Decoeur Dr, Tenth Line Rd
Land Use Classification	General Mixed Use (GM[950])
Development Size	236 dwelling units, 1900m2 of commercial space
Accesses	1 full-moves onto Brian Coburn Blvd, 1 full-moves onto Decoeur Dr, 1 RIRO onto Tenth Line Blvd
Phase of Development	One
Buildout Year	2025
TIA Requirement	Full TIA Required

1.2 Trip Generation Trigger		
Land Use Type	Townhomes or apartments	
Development Size	236	Units
Trip Generation Trigger	Yes	

1.3 Location Triggers	
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?	Yes
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?	No
Location Trigger	Yes

1.4. Safety Triggers	
Are posted speed limits on a boundary street 80 km/hr or greater?	No
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	No
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?	Yes
Is the proposed driveway within auxiliary lanes of an intersection?	No
Does the proposed driveway make use of an existing median break that serves an existing site?	No
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	No
Does the development include a drive-thru facility?	No
Safety Trigger	Yes

TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed[1] or registered[2] professional in good standing, whose field of expertise [check √ appropriate field(s)] is either transportation engineering √ or transportation planning □.

[1,2] **License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.**

City Of Ottawa
Infrastructure Services and Community Sustainability
Planning and Growth Management
110 Laurier Avenue West, 4th fl.
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Ville d'Ottawa
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Urbanisme et Gestion de la croissance
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Ottawa (Ontario) K1P 1J1
Tél. : 613-580-2424
Télécopieur: 613-560-6006

Dated at ___Ottawa_____ this __20__ day of _____September_____, 2018.
(City)

Name: _____Andrew Harte_____
(Please Print)

Professional Title: _____Professional Engineer_____

_____
Signature of Individual certifier that s/he meets the above four criteria

Office Contact Information (Please Print)
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Appendix B

Turning Movement Counts

CGH TRANSPORTATION

Transportation Services - Traffic Services

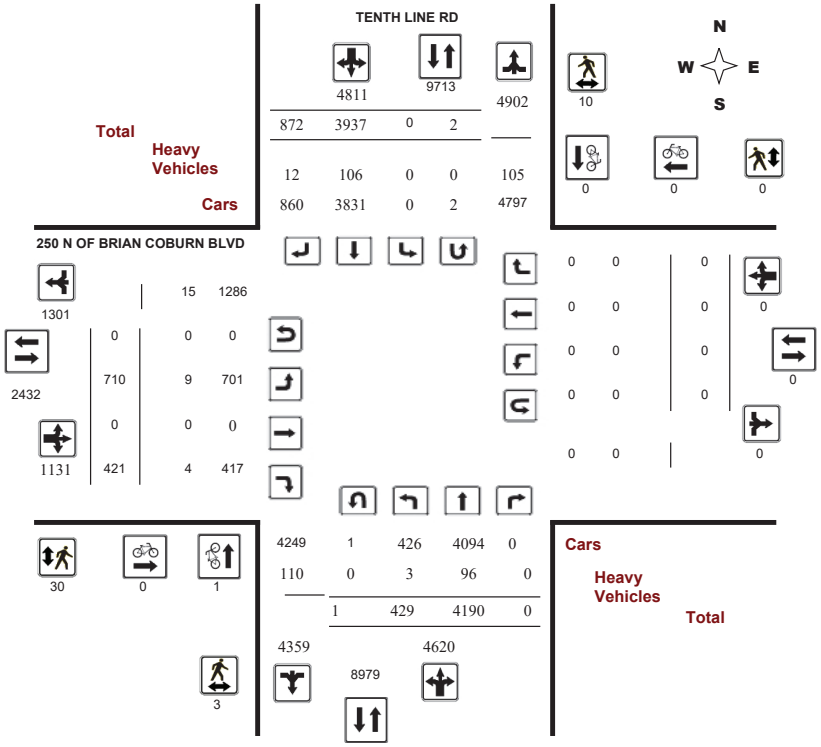
Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

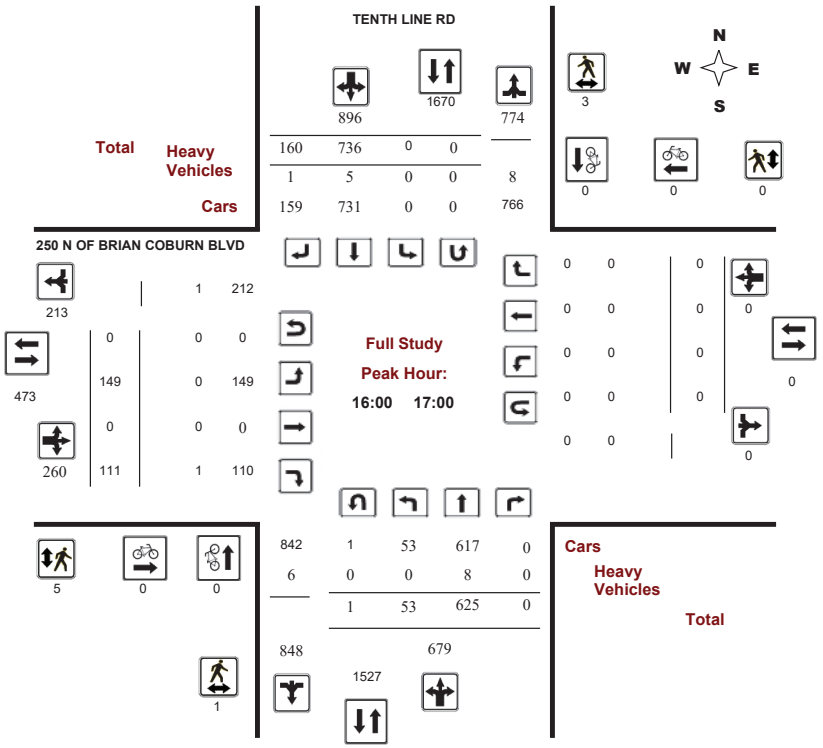
Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



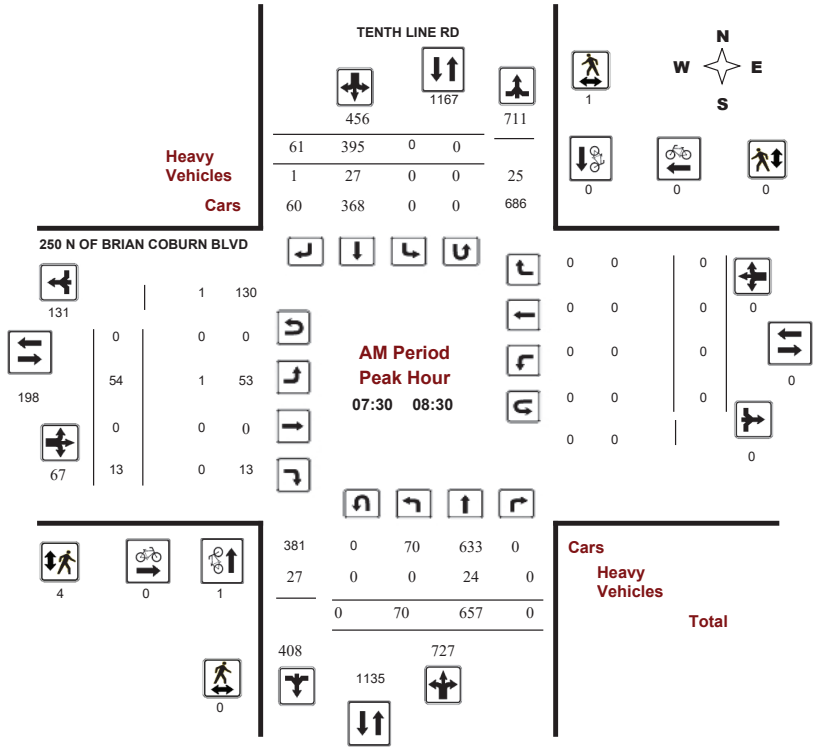
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision



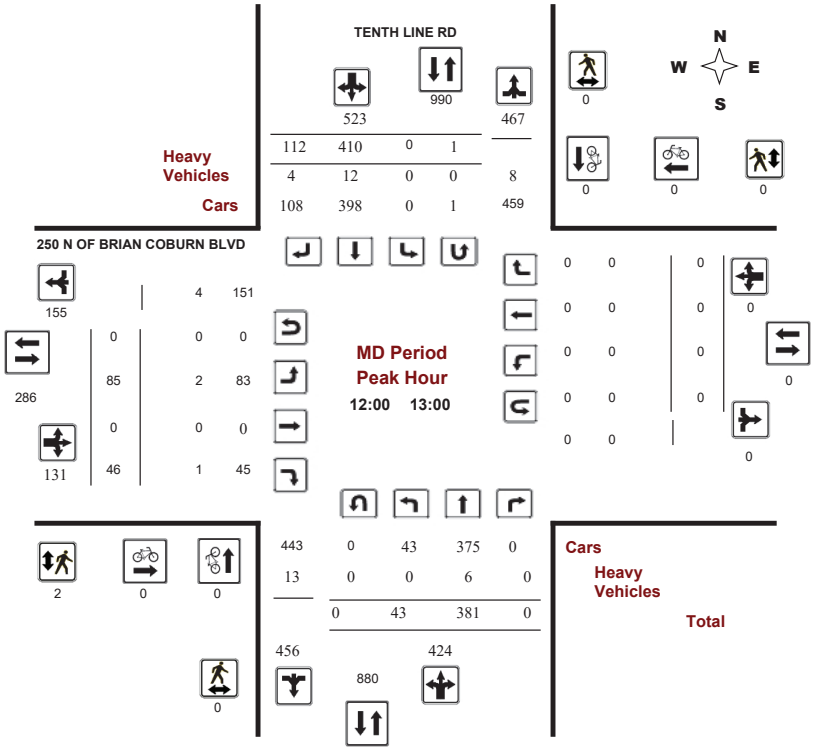
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision



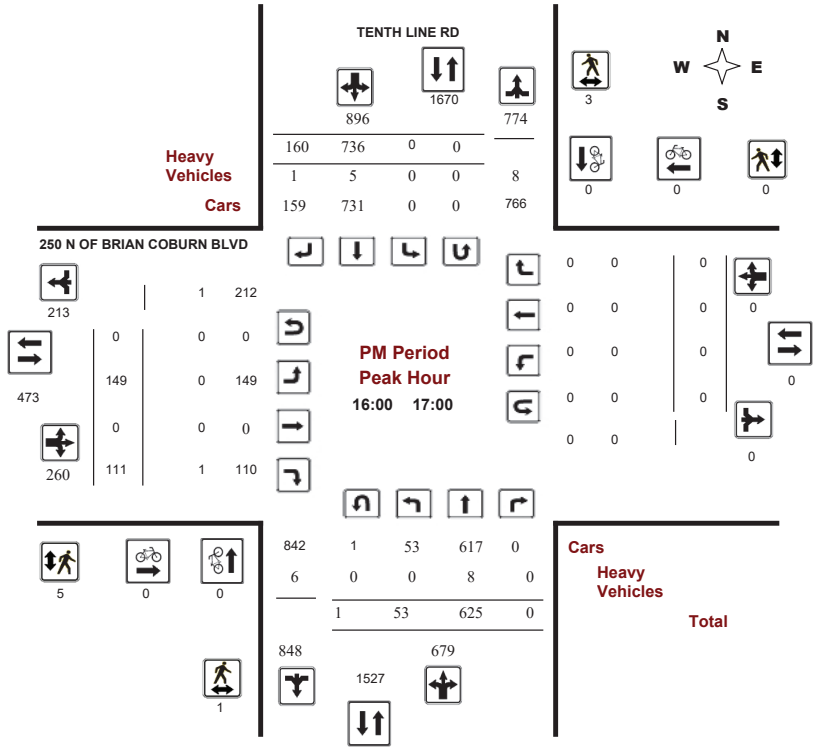
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, January 15, 2019

Total Observed U-Turns

Northbound: 1 Southbound: 2

Eastbound: 0 Westbound: 0

AADT Factor 1.10

	TENTH LINE RD								250 N OF BRIAN COBURN BLVD									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	60	616	0	**676**	0	355	67	**422**	**1098**	56	0	9	**65**	0	0	0	**0**	**65**	**1163**
08:00 09:00	80	591	0	**671**	0	372	71	**443**	**1114**	49	0	17	**66**	0	0	0	**0**	**66**	**1180**
09:00 10:00	61	421	0	**482**	0	278	66	**344**	**826**	56	0	39	**95**	0	0	0	**0**	**95**	**921**
11:30 12:30	42	393	0	**435**	0	400	109	**509**	**944**	80	0	44	**124**	0	0	0	**0**	**124**	**1068**
12:30 13:30	35	367	0	**402**	0	416	111	**527**	**929**	81	0	45	**126**	0	0	0	**0**	**126**	**1055**
15:00 16:00	46	544	0	**590**	0	652	152	**804**	**1394**	118	0	62	**180**	0	0	0	**0**	**180**	**1574**
16:00 17:00	53	625	0	**678**	0	736	160	**896**	**1574**	149	0	111	**260**	0	0	0	**0**	**260**	**1834**
17:00 18:00	52	633	0	**685**	0	728	136	**864**	**1549**	121	0	94	**215**	0	0	0	**0**	**215**	**1764**
Sub Total	429	4190	0	**4619**	0	3937	872	**4809**	**9428**	710	0	421	**1131**	0	0	0	**0**	**1131**	**10559**
U Turns	1			**1**	2			**2**	**3**	**0**			**0**	0			**0**	**0**	**3**
Total	430	4190	0	**4620**	2	3937	872	**4811**	**9431**	710	0	421	**1131**	0	0	0	**0**	**1131**	**10562**
EQ 12Hr	598	5824	0	**6422**	3	5472	1212	**6687**	**13109**	987	0	585	**1572**	0	0	0	**0**	**1572**	**14681**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	658	6406	0	**7064**	3	6019	1333	**7355**	**14419**	1086	0	644	**1730**	0	0	0	**0**	**1730**	**16149**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.10**					
AVG 24Hr	862	8392	0	**9254**	4	7885	1746	**9635**	**18889**	1423	0	844	**2267**	0	0	0	**0**	**2267**	**21156**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		TENTH LINE RD									250 N OF BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	20	121	0	141	0	80	15	95	**236**	7	0	3	10	0	0	0	0	**10**	**246**
07:15	07:30	8	152	0	160	0	89	21	110	**270**	13	0	4	17	0	0	0	0	**17**	**287**
07:30	07:45	16	170	0	186	0	90	15	105	**291**	16	0	0	16	0	0	0	0	**16**	**307**
07:45	08:00	16	173	0	189	0	96	16	112	**301**	20	0	2	22	0	0	0	0	**22**	**323**
08:00	08:15	20	154	0	174	0	94	16	110	**284**	11	0	2	13	0	0	0	0	**13**	**297**
08:15	08:30	18	160	0	178	0	115	14	129	**307**	7	0	9	16	0	0	0	0	**16**	**323**
08:30	08:45	26	154	0	180	0	78	20	98	**278**	22	0	3	25	0	0	0	0	**25**	**303**
08:45	09:00	16	123	0	139	0	85	21	106	**245**	9	0	3	12	0	0	0	0	**12**	**257**
09:00	09:15	21	118	0	139	0	68	19	87	**226**	23	0	8	31	0	0	0	0	**31**	**257**
09:15	09:30	6	107	0	113	0	69	13	82	**195**	9	0	6	15	0	0	0	0	**15**	**210**
09:30	09:45	20	95	0	115	0	74	17	91	**206**	8	0	12	20	0	0	0	0	**20**	**226**
09:45	10:00	14	101	0	115	0	67	17	84	**199**	16	0	13	29	0	0	0	0	**29**	**228**
11:30	11:45	10	107	0	117	0	104	37	141	**258**	12	0	6	18	0	0	0	0	**18**	**276**
11:45	12:00	8	102	0	110	0	80	20	100	**210**	21	0	12	33	0	0	0	0	**33**	**243**
12:00	12:15	10	88	0	98	0	112	21	133	**231**	26	0	16	42	0	0	0	0	**42**	**273**
12:15	12:30	14	96	0	110	0	104	31	135	**245**	21	0	10	31	0	0	0	0	**31**	**276**
12:30	12:45	9	95	0	104	1	102	28	131	**235**	20	0	12	32	0	0	0	0	**32**	**267**
12:45	13:00	10	102	0	112	0	92	32	124	**236**	18	0	8	26	0	0	0	0	**26**	**262**
13:00	13:15	6	85	0	91	0	108	21	129	**220**	28	0	16	44	0	0	0	0	**44**	**264**
13:15	13:30	10	85	0	95	0	114	30	144	**239**	15	0	9	24	0	0	0	0	**24**	**263**
15:00	15:15	11	115	0	126	0	164	42	206	**332**	27	0	12	39	0	0	0	0	**39**	**371**
15:15	15:30	12	140	0	152	1	151	39	191	**343**	26	0	15	41	0	0	0	0	**41**	**384**
15:30	15:45	13	144	0	157	0	164	29	193	**350**	34	0	12	46	0	0	0	0	**46**	**396**
15:45	16:00	10	145	0	155	0	173	42	215	**370**	31	0	23	54	0	0	0	0	**54**	**424**
16:00	16:15	12	152	0	164	0	193	45	238	**402**	35	0	26	61	0	0	0	0	**61**	**463**
16:15	16:30	14	152	0	166	0	173	53	226	**392**	32	0	24	56	0	0	0	0	**56**	**448**
16:30	16:45	10	157	0	167	0	178	35	213	**380**	45	0	31	76	0	0	0	0	**76**	**456**
16:45	17:00	18	164	0	182	0	192	27	219	**401**	37	0	30	67	0	0	0	0	**67**	**468**
17:00	17:15	18	139	0	157	0	190	44	234	**391**	34	0	26	60	0	0	0	0	**60**	**451**
17:15	17:30	13	179	0	192	0	173	27	200	**392**	28	0	30	58	0	0	0	0	**58**	**450**
17:30	17:45	10	142	0	152	0	188	19	207	**359**	33	0	18	51	0	0	0	0	**51**	**410**
17:45	18:00	11	173	0	184	0	177	46	223	**407**	26	0	20	46	0	0	0	0	**46**	**453**
Total:		430	4190	0	4620	2	3937	872	4811	**9431**	710	0	421	1131	0	0	0	0	**9431**	**10,562**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		TENTH LINE RD			250 N OF BRIAN COBURN BLVD			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	0	0	**0**	**0**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	1	0	**1**	0	0	**0**	**1**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	0	**0**	**0**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	0	**0**	0	0	**0**	**0**
16:00	16:15	0	0	**0**	0	0	**0**	**0**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	0	**0**	0	0	**0**	**0**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		1	0	**1**	0	0	**0**	**1**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

		TENTH LINE RD			250 N OF BRIAN COBURN BLVD			
Time Period		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00	07:15	0	0	**0**	1	0	**1**	**1**
07:15	07:30	0	1	**1**	0	0	**0**	**1**
07:30	07:45	0	0	**0**	2	0	**2**	**2**
07:45	08:00	0	1	**1**	1	0	**1**	**2**
08:00	08:15	0	0	**0**	1	0	**1**	**1**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	0	**0**	1	0	**1**	**1**
08:45	09:00	0	1	**1**	1	0	**1**	**2**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	1	0	**1**	**1**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	1	0	**1**	2	0	**2**	**3**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	2	0	**2**	**2**
13:00	13:15	0	0	**0**	1	0	**1**	**1**
13:15	13:30	0	0	**0**	2	0	**2**	**2**
15:00	15:15	0	1	**1**	3	0	**3**	**4**
15:15	15:30	0	0	**0**	2	0	**2**	**2**
15:30	15:45	1	0	**1**	1	0	**1**	**2**
15:45	16:00	0	0	**0**	2	0	**2**	**2**
16:00	16:15	0	1	**1**	0	0	**0**	**1**
16:15	16:30	0	0	**0**	1	0	**1**	**1**
16:30	16:45	1	0	**1**	2	0	**2**	**3**
16:45	17:00	0	2	**2**	2	0	**2**	**4**
17:00	17:15	0	2	**2**	0	0	**0**	**2**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	1	**1**	2	0	**2**	**3**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		3	10	**13**	30	0	**30**	**43**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		TENTH LINE RD									250 N OF BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	2	0	**2**	0	5	0	**5**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
07:15	07:30	0	1	0	**1**	0	7	0	**7**	**8**	1	0	1	**2**	0	0	0	**0**	**2**	**10**
07:30	07:45	0	1	0	**1**	0	6	0	**6**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
07:45	08:00	0	7	0	**7**	0	5	1	**6**	**13**	0	0	0	**0**	0	0	0	**0**	**0**	**13**
08:00	08:15	0	10	0	**10**	0	7	0	**7**	**17**	0	0	0	**0**	0	0	0	**0**	**0**	**17**
08:15	08:30	0	6	0	**6**	0	9	0	**9**	**15**	1	0	0	**1**	0	0	0	**0**	**1**	**16**
08:30	08:45	0	7	0	**7**	0	5	1	**6**	**13**	0	0	0	**0**	0	0	0	**0**	**0**	**13**
08:45	09:00	1	4	0	**5**	0	3	1	**4**	**9**	2	0	0	**2**	0	0	0	**0**	**2**	**11**
09:00	09:15	0	1	0	**1**	0	4	0	**4**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
09:15	09:30	0	5	0	**5**	0	2	1	**3**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
09:30	09:45	1	0	0	**1**	0	2	0	**2**	**3**	1	0	1	**2**	0	0	0	**0**	**2**	**5**
09:45	10:00	0	2	0	**2**	0	2	0	**2**	**4**	2	0	0	**2**	0	0	0	**0**	**2**	**6**
11:30	11:45	0	2	0	**2**	0	0	1	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
11:45	12:00	0	2	0	**2**	0	4	1	**5**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
12:00	12:15	0	0	0	**0**	0	3	1	**4**	**4**	2	0	1	**3**	0	0	0	**0**	**3**	**7**
12:15	12:30	0	1	0	**1**	0	3	0	**3**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
12:30	12:45	0	3	0	**3**	0	3	1	**4**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
12:45	13:00	0	2	0	**2**	0	3	2	**5**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
13:00	13:15	0	4	0	**4**	0	4	0	**4**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
13:15	13:30	0	3	0	**3**	0	2	1	**3**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
15:00	15:15	0	5	0	**5**	0	2	0	**2**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
15:15	15:30	1	4	0	**5**	0	4	0	**4**	**9**	0	0	0	**0**	0	0	0	**0**	**0**	**9**
15:30	15:45	0	5	0	**5**	0	3	0	**3**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
15:45	16:00	0	0	0	**0**	0	4	0	**4**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
16:00	16:15	0	4	0	**4**	0	3	1	**4**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
16:15	16:30	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
16:30	16:45	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
16:45	17:00	0	2	0	**2**	0	0	0	**0**	**2**	0	0	1	**1**	0	0	0	**0**	**1**	**3**
17:00	17:15	0	3	0	**3**	0	2	0	**2**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
17:15	17:30	0	5	0	**5**	0	3	0	**3**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
17:30	17:45	0	1	0	**1**	0	3	0	**3**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
17:45	18:00	0	2	0	**2**	0	1	0	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
Total:	None	3	96	0	**99**	0	106	12	**118**	**217**	9	0	4	**13**	0	0	0	**0**	**13**	**230**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

250 N OF BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Tuesday, January 15, 2019 **WO No:** 38271

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		TENTH LINE RD Northbound U-Turn Total	TENTH LINE RD Southbound U-Turn Total	250 N OF BRIAN COBURN BLVD Eastbound U-Turn Total	250 N OF BRIAN COBURN BLVD Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	0	0	0	**0**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	0	0	0	**0**
12:00	12:15	0	0	0	0	**0**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	1	0	0	**1**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	0	0	0	0	**0**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	0	0	0	0	**0**
15:15	15:30	0	1	0	0	**1**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	0	0	0	**0**
16:00	16:15	0	0	0	0	**0**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	1	0	0	0	**1**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		1	2	0	0	**3**

Transportation Services - Traffic Services

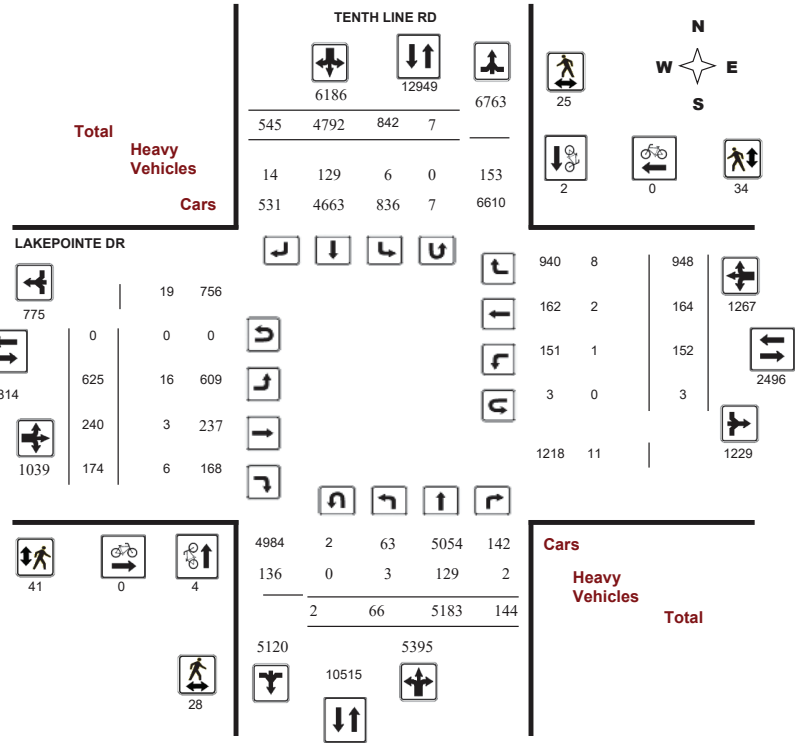
Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

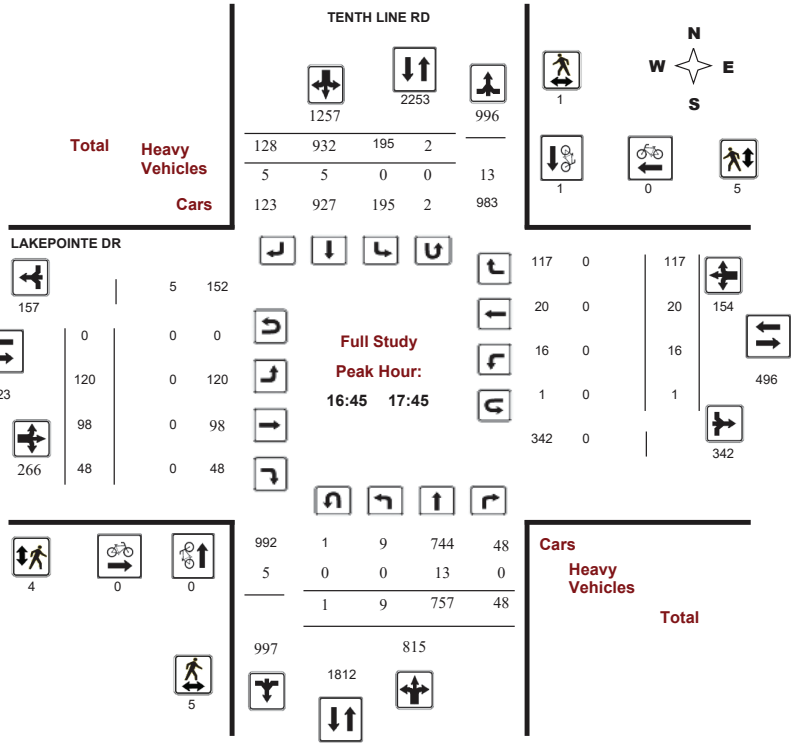
Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



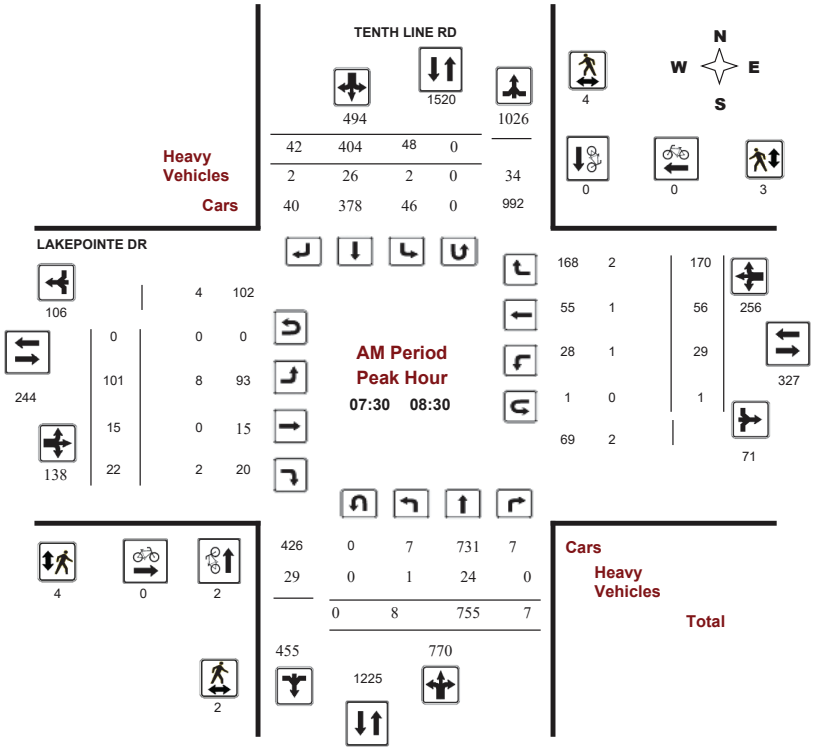
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision



Comments

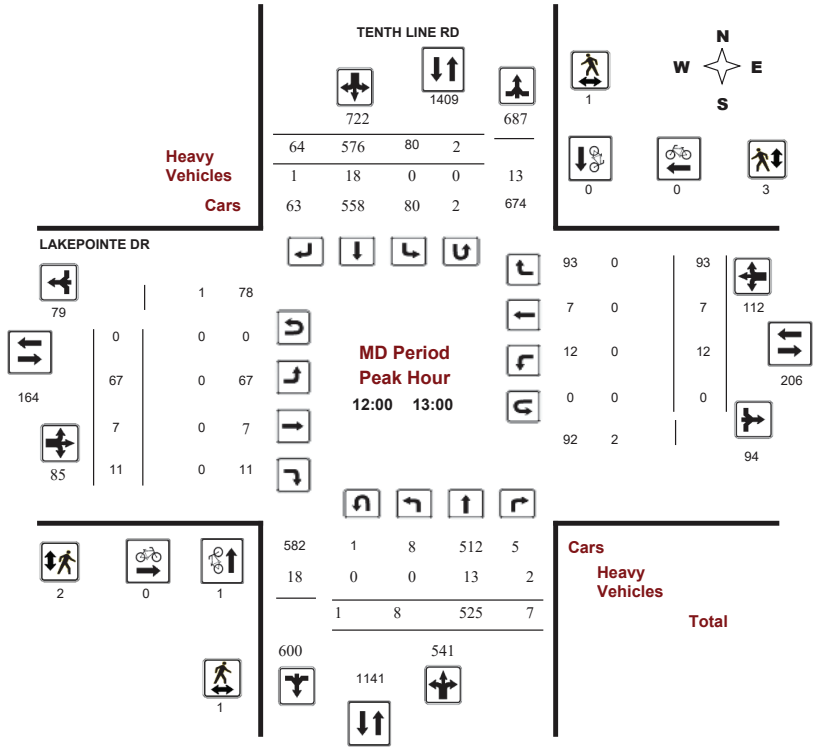
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision



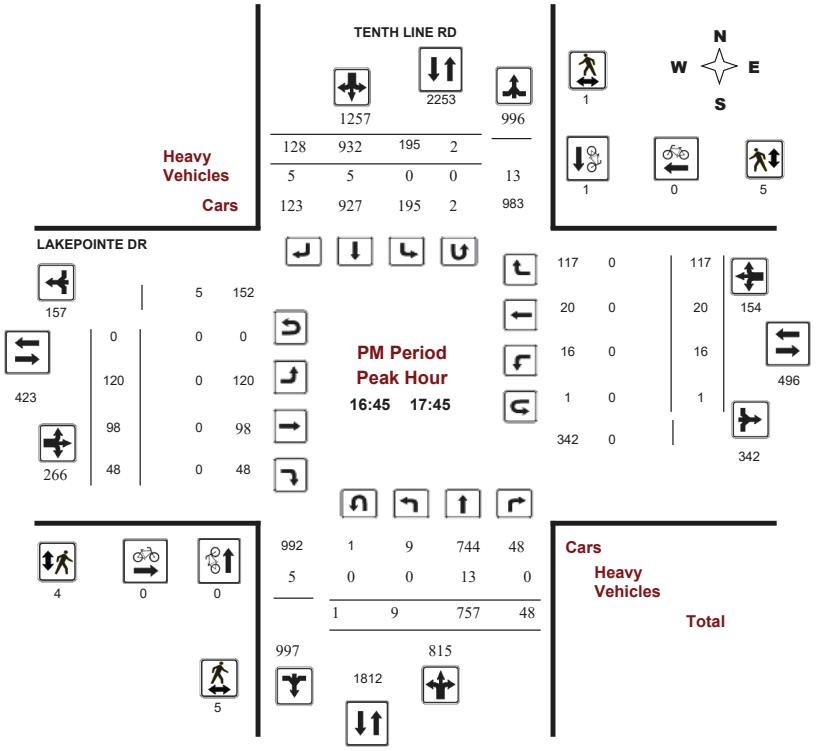
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision



Transportation Services - Traffic Services

Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, April 19, 2018

Total Observed U-Turns

Northbound: 2 Southbound: 7

Eastbound: 0 Westbound: 3

AADT Factor .90

	TENTH LINE RD								LAKEPOINTE DR									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	7	698	8	**713**	41	385	48	**474**	**1187**	84	17	15	**116**	29	59	191	**279**	**395**	**1582**
08:00 09:00	11	703	6	**720**	48	367	43	**458**	**1178**	85	13	21	**119**	24	37	156	**217**	**336**	**1514**
09:00 10:00	5	548	7	**560**	62	327	34	**423**	**983**	67	4	15	**86**	17	6	124	**147**	**233**	**1216**
11:30 12:30	4	543	11	**558**	87	543	48	**678**	**1236**	40	4	9	**53**	13	8	90	**111**	**164**	**1400**
12:30 13:30	8	524	8	**540**	82	564	55	**701**	**1241**	71	8	10	**89**	12	4	70	**86**	**175**	**1416**
15:00 16:00	10	673	23	**706**	133	810	96	**1039**	**1745**	60	25	20	**105**	18	17	95	**130**	**235**	**1980**
16:00 17:00	12	759	33	**804**	186	879	94	**1159**	**1963**	111	88	41	**240**	21	14	107	**142**	**382**	**2345**
17:00 18:00	9	735	48	**792**	203	917	127	**1247**	**2039**	107	81	43	**231**	18	19	115	**152**	**383**	**2422**
Sub Total	66	5183	144	**5393**	842	4792	545	**6179**	**11572**	625	240	174	**1039**	152	164	948	**1264**	**2303**	**13875**
U Turns				**2**				**7**	**9**				**0**				**3**	**3**	**12**
Total	66	5183	144	**5395**	842	4792	545	**6186**	**11581**	625	240	174	**1039**	152	164	948	**1267**	**2306**	**13887**
EQ 12Hr	92	7204	200	**7499**	1170	6661	758	**8599**	**16098**	869	334	242	**1444**	211	228	1318	**1761**	**3205**	**19303**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	78	6111	170	**6361**	993	5650	643	**7293**	**14488**	737	283	205	**1225**	179	193	1118	**1494**	**2884**	**17373**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**0.9**					
AVG 24Hr	102	8005	222	**8333**	1300	7401	842	**9554**	**17887**	965	371	269	**1605**	235	253	1464	**1957**	**3562**	**21449**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		TENTH LINE RD									LAKEPOINTE DR									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	3	160	2	165	10	85	12	107	10	15	4	4	23	11	11	50	72	10	367
07:15	07:30	3	152	2	157	10	92	13	116	15	23	3	6	32	7	20	49	76	15	381
07:30	07:45	1	195	1	197	8	110	13	131	16	25	6	3	34	3	16	50	69	16	431
07:45	08:00	0	191	3	194	13	98	10	121	11	21	4	2	27	8	12	42	62	11	404
08:00	08:15	4	186	2	192	11	97	8	116	11	29	2	13	44	6	15	39	61	11	413
08:15	08:30	3	183	1	187	16	99	11	126	17	26	3	4	33	12	13	39	64	17	410
08:30	08:45	3	184	2	189	10	92	14	116	15	20	5	2	27	5	6	39	50	15	382
08:45	09:00	1	150	1	152	11	79	10	100	10	10	3	2	15	1	3	39	44	10	311
09:00	09:15	3	141	3	147	12	74	8	94	11	24	3	6	33	6	3	41	50	11	324
09:15	09:30	1	139	1	141	19	69	8	96	8	23	1	3	27	5	1	31	37	8	301
09:30	09:45	1	125	1	127	17	94	5	116	7	11	0	2	13	4	1	32	37	7	293
09:45	10:00	0	143	2	145	14	90	13	117	6	9	0	4	13	2	1	20	23	6	298
11:30	11:45	0	140	1	141	20	117	8	146	6	7	0	2	9	3	1	19	23	6	319
11:45	12:00	2	139	6	147	23	143	13	179	10	5	2	2	9	5	4	19	28	10	363
12:00	12:15	0	138	2	140	18	140	12	171	11	16	1	1	18	3	2	31	36	11	365
12:15	12:30	2	126	2	130	26	143	15	185	6	12	1	4	17	2	1	21	24	6	356
12:30	12:45	1	131	2	134	18	149	22	189	8	18	3	3	24	4	4	20	28	8	375
12:45	13:00	5	130	1	137	18	144	15	177	9	21	2	3	26	3	0	21	24	9	364
13:00	13:15	0	136	2	138	18	129	12	160	5	16	0	3	19	4	0	15	19	5	336
13:15	13:30	2	127	3	132	28	142	6	176	8	16	3	1	20	1	0	14	15	8	343
15:00	15:15	1	148	6	155	26	188	25	239	10	9	3	1	13	2	5	21	28	10	435
15:15	15:30	1	183	5	189	28	194	22	244	11	17	6	8	31	6	5	22	33	11	497
15:30	15:45	4	173	8	185	40	213	24	277	8	19	3	6	28	4	4	30	38	8	528
15:45	16:00	4	169	4	177	39	215	25	279	6	15	13	5	33	6	3	22	31	6	520
16:00	16:15	4	161	4	169	46	209	18	273	5	26	9	4	39	6	5	31	42	5	523
16:15	16:30	4	178	10	192	55	223	22	300	7	26	21	3	50	5	0	22	27	7	569
16:30	16:45	3	206	8	217	40	226	24	290	6	22	31	18	71	3	6	23	32	6	610
16:45	17:00	1	214	11	226	45	221	30	297	9	37	27	16	80	7	3	31	41	9	644
17:00	17:15	3	180	14	197	48	230	35	314	6	26	25	8	59	2	4	25	31	6	601
17:15	17:30	4	165	13	182	54	249	33	336	5	28	27	10	65	5	7	26	39	5	622
17:30	17:45	1	198	10	210	48	232	30	310	3	29	19	14	62	2	6	35	43	3	625
17:45	18:00	1	192	11	204	53	206	29	288	7	24	10	11	45	9	2	29	40	7	577
Total:		66	5183	144	5395	842	4792	545	6186	283	625	240	174	1039	152	164	948	1267	283	13,887

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		TENTH LINE RD Northbound	TENTH LINE RD Southbound	TENTH LINE RD Street Total	LAKEPOINTE DR Eastbound	LAKEPOINTE DR Westbound	LAKEPOINTE DR Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	2	0	2	0	0	0	2
08:00	08:15	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	1	0	1	0	0	0	1
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	1	0	1	0	0	0	1
15:30	15:45	0	1	1	0	0	0	1
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	1	1	0	0	0	1
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
Total		4	2	**6**	0	0	0	6

Transportation Services - Traffic Services

Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

Time Period		TENTH LINE RD NB Approach (E or W Crossing)	TENTH LINE RD SB Approach (E or W Crossing)	TENTH LINE RD Total	LAKEPOINTE DR EB Approach (N or S Crossing)	LAKEPOINTE DR WB Approach (N or S Crossing)	LAKEPOINTE DR Total	Grand Total
07:00	07:15	0	1	**1**	1	2	**3**	**4**
07:15	07:30	1	3	**4**	3	1	**4**	**8**
07:30	07:45	0	1	**1**	1	0	**1**	**2**
07:45	08:00	1	0	**1**	3	1	**4**	**5**
08:00	08:15	1	0	**1**	0	2	**2**	**3**
08:15	08:30	0	3	**3**	0	0	**0**	**3**
08:30	08:45	0	0	**0**	1	0	**1**	**1**
08:45	09:00	1	0	**1**	2	1	**3**	**4**
09:00	09:15	0	1	**1**	0	1	**1**	**2**
09:15	09:30	1	1	**2**	0	4	**4**	**6**
09:30	09:45	3	2	**5**	2	1	**3**	**8**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	2	2	**4**	1	2	**3**	**7**
11:45	12:00	0	3	**3**	0	0	**0**	**3**
12:00	12:15	1	0	**1**	0	1	**1**	**2**
12:15	12:30	0	0	**0**	1	1	**2**	**2**
12:30	12:45	0	1	**1**	0	0	**0**	**1**
12:45	13:00	0	0	**0**	1	1	**2**	**2**
13:00	13:15	1	2	**3**	3	0	**3**	**6**
13:15	13:30	1	1	**2**	2	0	**2**	**4**
15:00	15:15	0	1	**1**	0	2	**2**	**3**
15:15	15:30	0	1	**1**	3	4	**7**	**8**
15:30	15:45	0	0	**0**	1	1	**2**	**2**
15:45	16:00	4	0	**4**	2	1	**3**	**7**
16:00	16:15	4	0	**4**	3	0	**3**	**7**
16:15	16:30	0	0	**0**	2	1	**3**	**3**
16:30	16:45	1	1	**2**	3	1	**4**	**6**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	2	0	**2**	1	1	**2**	**4**
17:15	17:30	1	0	**1**	3	0	**3**	**4**
17:30	17:45	2	1	**3**	0	4	**4**	**7**
17:45	18:00	1	0	**1**	2	1	**3**	**4**
Total	.....	28	25	**53**	41	34	**75**	**128**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		TENTH LINE RD									LAKEPOINTE DR									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	4	0	**4**	0	6	0	**6**	**10**	1	0	0	**1**	0	0	0	**0**	**1**	**11**
07:15	07:30	0	4	0	**4**	0	11	0	**11**	**15**	1	0	0	**1**	0	0	0	**0**	**1**	**16**
07:30	07:45	0	7	0	**7**	0	9	0	**9**	**16**	2	0	0	**2**	0	0	0	**0**	**2**	**18**
07:45	08:00	0	4	0	**4**	0	7	0	**7**	**11**	1	0	0	**1**	0	0	1	**1**	**2**	**13**
08:00	08:15	0	5	0	**5**	1	5	0	**6**	**11**	3	0	0	**3**	0	0	1	**1**	**4**	**15**
08:15	08:30	1	8	0	**9**	1	5	2	**8**	**17**	2	0	2	**4**	1	1	0	**2**	**6**	**23**
08:30	08:45	1	7	0	**8**	0	7	0	**7**	**15**	0	1	1	**2**	0	0	1	**1**	**3**	**18**
08:45	09:00	0	4	0	**4**	1	4	1	**6**	**10**	0	0	0	**0**	0	0	1	**1**	**1**	**11**
09:00	09:15	0	6	0	**6**	1	4	0	**5**	**11**	1	0	0	**1**	0	0	0	**0**	**1**	**12**
09:15	09:30	0	5	0	**5**	0	3	0	**3**	**8**	1	0	0	**1**	0	0	0	**0**	**1**	**9**
09:30	09:45	0	4	0	**4**	0	3	0	**3**	**7**	1	0	0	**1**	0	0	0	**0**	**1**	**8**
09:45	10:00	0	3	0	**3**	0	3	0	**3**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
11:30	11:45	0	5	0	**5**	0	1	0	**1**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
11:45	12:00	0	5	0	**5**	0	5	0	**5**	**10**	0	0	0	**0**	0	0	0	**0**	**0**	**10**
12:00	12:15	0	3	1	**4**	0	6	1	**7**	**11**	0	0	0	**0**	0	0	0	**0**	**0**	**11**
12:15	12:30	0	2	0	**2**	0	4	0	**4**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
12:30	12:45	0	4	1	**5**	0	3	0	**3**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
12:45	13:00	0	4	0	**4**	0	5	0	**5**	**9**	0	0	0	**0**	0	0	0	**0**	**0**	**9**
13:00	13:15	0	3	0	**3**	0	2	0	**2**	**5**	0	0	0	**0**	0	0	1	**1**	**1**	**6**
13:15	13:30	0	3	0	**3**	0	5	0	**5**	**8**	0	0	0	**0**	0	0	0	**0**	**0**	**8**
15:00	15:15	0	3	0	**3**	0	7	0	**7**	**10**	0	0	0	**0**	0	0	0	**0**	**0**	**10**
15:15	15:30	1	3	0	**4**	0	5	2	**7**	**11**	1	0	2	**3**	0	1	0	**1**	**4**	**15**
15:30	15:45	0	5	0	**5**	0	3	0	**3**	**8**	1	0	1	**2**	0	0	1	**1**	**3**	**11**
15:45	16:00	0	1	0	**1**	1	3	1	**5**	**6**	0	0	0	**0**	0	0	1	**1**	**1**	**7**
16:00	16:15	0	4	0	**4**	0	1	0	**1**	**5**	1	0	0	**1**	0	0	0	**0**	**1**	**6**
16:15	16:30	0	4	0	**4**	0	3	0	**3**	**7**	0	1	0	**1**	0	0	0	**0**	**1**	**8**
16:30	16:45	0	3	0	**3**	0	2	1	**3**	**6**	0	1	0	**1**	0	0	1	**1**	**2**	**8**
16:45	17:00	0	6	0	**6**	0	1	2	**3**	**9**	0	0	0	**0**	0	0	0	**0**	**0**	**9**
17:00	17:15	0	5	0	**5**	0	0	1	**1**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
17:15	17:30	0	2	0	**2**	0	2	1	**3**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
17:30	17:45	0	0	0	**0**	0	2	1	**3**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
17:45	18:00	0	3	0	**3**	1	2	1	**4**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
Total:	None	3	129	2	**134**	6	129	14	**149**	**283**	16	3	6	**25**	1	2	8	**11**	**36**	**319**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

TENTH LINE RD @ LAKEPOINTE DR

Survey Date: Thursday, April 19, 2018 **WO No:** 37742

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		TENTH LINE RD		LAKEPOINTE DR		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	1	0	0	1
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	1	1
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	1	1
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	1	0	0	1
11:45	12:00	0	0	0	0	0
12:00	12:15	0	1	0	0	1
12:15	12:30	0	1	0	0	1
12:30	12:45	0	0	0	0	0
12:45	13:00	1	0	0	0	1
13:00	13:15	0	1	0	0	1
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	1	0	0	1
17:00	17:15	0	1	0	0	1
17:15	17:30	0	0	0	1	1
17:30	17:45	1	0	0	0	1
17:45	18:00	0	0	0	0	0
Total		2	7	0	3	12

Transportation Services - Traffic Services

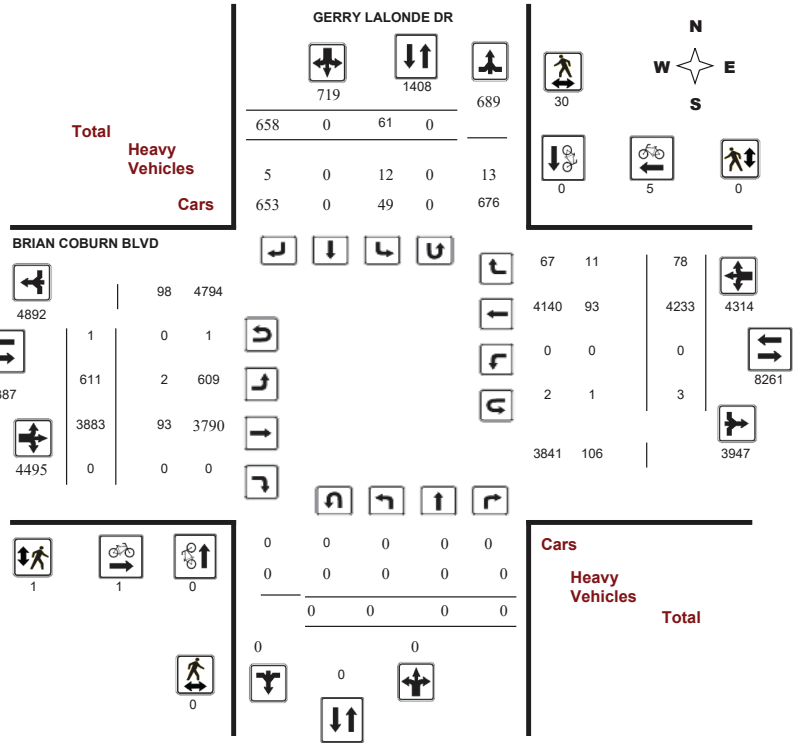
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

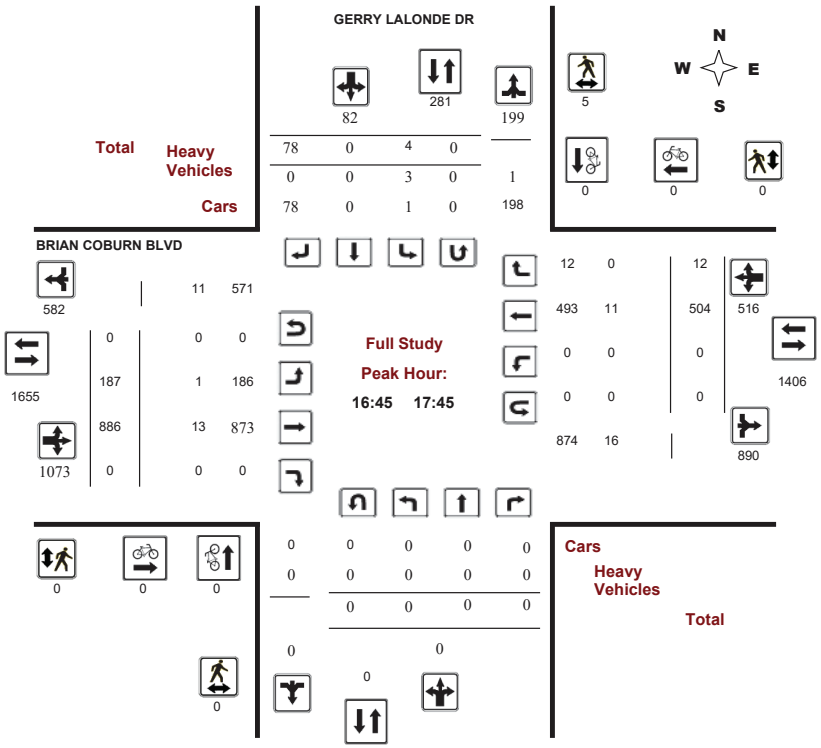
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



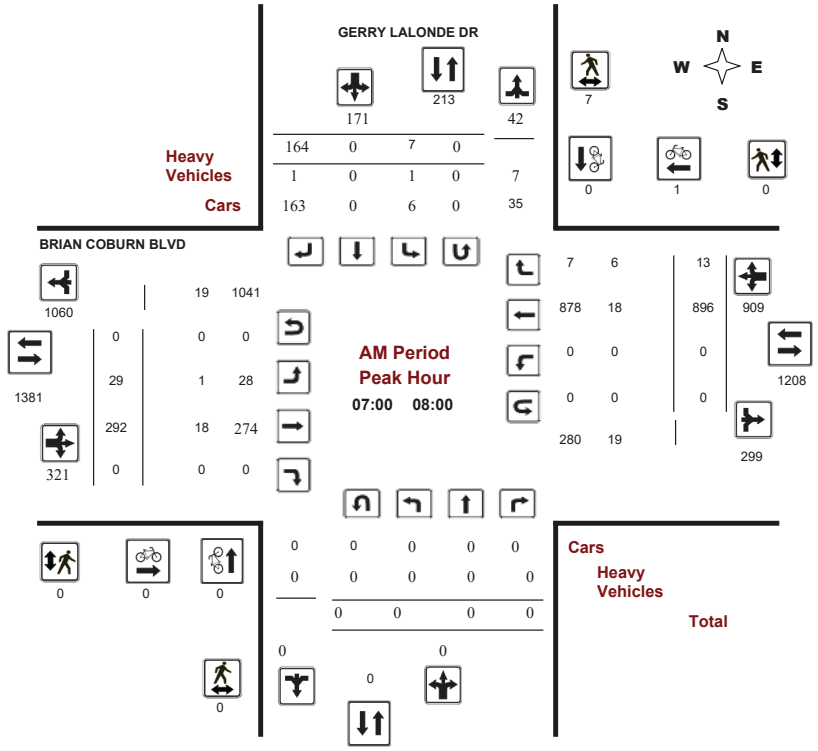
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision



Comments

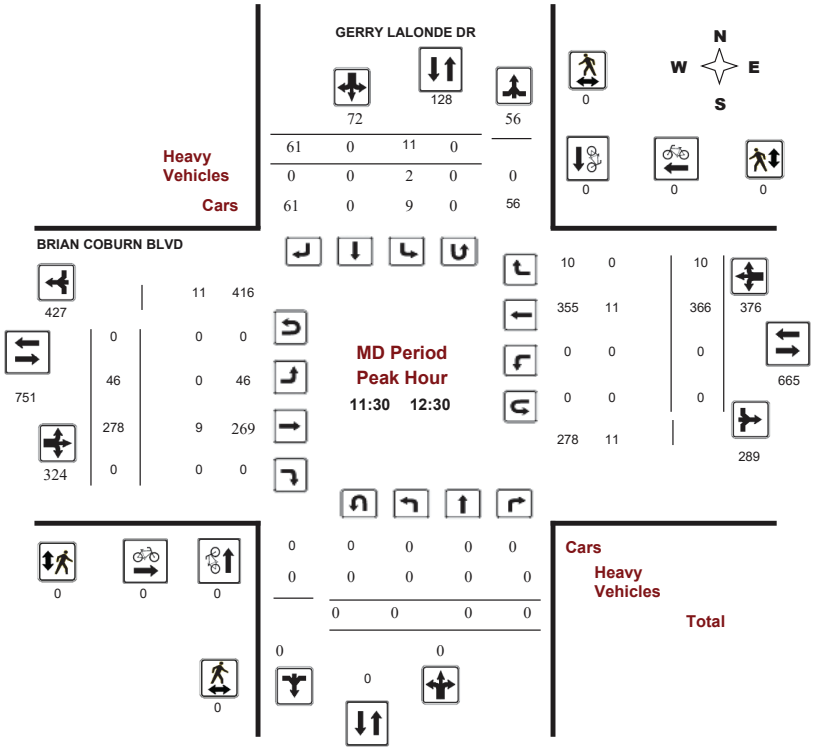
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision



Comments

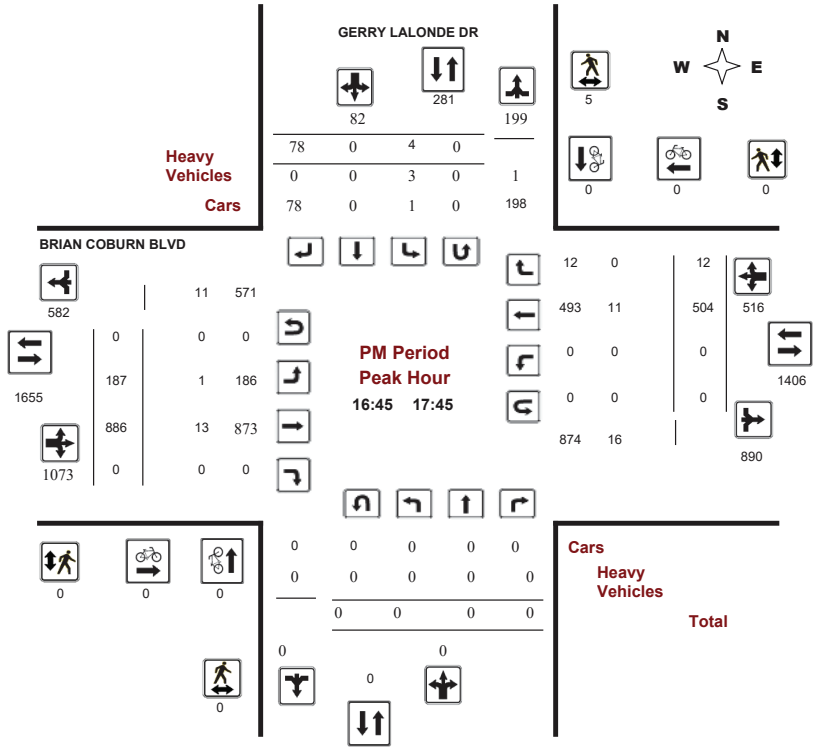
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, October 17, 201

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 1 Westbound: 3

AADT Factor .90

	GERRY LALONDE DR								BRIAN COBURN BLVD								
	Northbound				Southbound				Eastbound				Westbound				
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	0	0	0	**0**	7	0	164	**171**	**171**	29	292	0	**321**	0	896	13	**909**	**1230**	**1401**
08:00 09:00	0	0	0	**0**	9	0	109	**118**	**118**	28	260	0	**288**	0	747	6	**753**	**1041**	**1159**
09:00 10:00	0	0	0	**0**	4	0	71	**75**	**75**	24	244	0	**268**	0	517	9	**526**	**794**	**869**
11:30 12:30	0	0	0	**0**	11	0	61	**72**	**72**	46	278	0	**324**	0	366	10	**376**	**700**	**772**
12:30 13:30	0	0	0	**0**	9	0	57	**66**	**66**	38	327	0	**365**	0	324	6	**330**	**695**	**761**
15:00 16:00	0	0	0	**0**	11	0	55	**66**	**66**	103	750	0	**853**	0	417	13	**430**	**1283**	**1349**
16:00 17:00	0	0	0	**0**	4	0	63	**67**	**67**	173	890	0	**1063**	0	420	10	**430**	**1493**	**1560**
17:00 18:00	0	0	0	**0**	6	0	78	**84**	**84**	170	842	0	**1012**	0	546	11	**557**	**1569**	**1653**
Sub Total	0	0	0	**0**	61	0	658	**719**	**719**	611	3883	0	**4494**	0	4233	78	**4311**	**8805**	**9524**
U Turns				**0**				**0**	**0**				**1**				**3**	**4**	**4**
Total	0	0	0	**0**	61	0	658	**719**	**719**	611	3883	0	**4495**	0	4233	78	**4314**	**8809**	**9528**
EQ 12Hr	0	0	0	**0**	85	0	915	**999**	**999**	849	5397	0	**6248**	0	5884	108	**5996**	**12245**	**13244**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																	**1.39**		
AVG 12Hr	0	0	0	**0**	72	0	776	**848**	**899**	720	4578	0	**5300**	0	4991	92	**5086**	**11020**	**11920**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																	**0.9**		
AVG 24Hr	0	0	0	**0**	94	0	1016	**1110**	**1110**	944	5997	0	**6942**	0	6538	120	**6663**	**13605**	**14715**

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. **1.31**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		GERRY LALONDE DR									BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	0	0	0	41	41	0	2	48	0	50	0	239	5	244	0	335
07:15	07:30	0	0	0	0	3	0	37	40	1	9	52	0	61	0	225	3	228	1	329
07:30	07:45	0	0	0	0	2	0	47	49	1	6	92	0	98	0	236	3	239	1	386
07:45	08:00	0	0	0	0	2	0	39	41	0	12	100	0	112	0	196	2	198	0	351
08:00	08:15	0	0	0	0	1	0	36	37	0	5	68	0	73	0	182	1	183	0	293
08:15	08:30	0	0	0	0	5	0	35	40	0	9	61	0	70	0	226	2	228	0	338
08:30	08:45	0	0	0	0	3	0	20	23	1	8	61	0	69	0	203	2	205	1	297
08:45	09:00	0	0	0	0	0	0	18	18	0	6	70	0	76	0	136	1	137	0	231
09:00	09:15	0	0	0	0	1	0	18	19	1	8	70	0	78	0	178	2	180	1	277
09:15	09:30	0	0	0	0	1	0	20	21	0	4	54	0	58	0	132	4	136	0	215
09:30	09:45	0	0	0	0	2	0	22	24	2	11	66	0	77	0	109	1	112	2	213
09:45	10:00	0	0	0	0	0	0	11	11	0	1	54	0	55	0	98	2	100	0	166
11:30	11:45	0	0	0	0	5	0	15	20	2	11	71	0	82	0	107	3	110	2	212
11:45	12:00	0	0	0	0	4	0	15	19	0	8	70	0	78	0	76	3	79	0	176
12:00	12:15	0	0	0	0	0	0	12	12	0	16	71	0	87	0	91	2	93	0	192
12:15	12:30	0	0	0	0	2	0	19	21	0	11	66	0	77	0	92	2	94	0	192
12:30	12:45	0	0	0	0	1	0	23	24	0	9	89	0	98	0	71	1	73	0	195
12:45	13:00	0	0	0	0	3	0	10	13	0	6	73	0	79	0	95	2	97	0	189
13:00	13:15	0	0	0	0	1	0	13	14	0	13	86	0	99	0	79	2	81	0	194
13:15	13:30	0	0	0	0	4	0	11	15	0	10	79	0	89	0	79	1	80	0	184
15:00	15:15	0	0	0	0	2	0	13	15	1	19	139	0	158	0	101	1	102	1	275
15:15	15:30	0	0	0	0	5	0	15	20	0	22	175	0	197	0	104	6	110	0	327
15:30	15:45	0	0	0	0	0	0	13	13	0	24	235	0	259	0	103	3	106	0	378
15:45	16:00	0	0	0	0	4	0	14	18	1	38	201	0	239	0	109	3	112	1	369
16:00	16:15	0	0	0	0	1	0	11	12	1	51	205	0	256	0	113	1	114	1	382
16:15	16:30	0	0	0	0	2	0	15	17	2	36	218	0	255	0	107	2	109	2	381
16:30	16:45	0	0	0	0	1	0	19	20	1	37	227	0	264	0	103	4	107	1	391
16:45	17:00	0	0	0	0	0	0	18	18	0	49	240	0	289	0	97	3	100	0	407
17:00	17:15	0	0	0	0	3	0	18	21	2	42	199	0	241	0	144	2	146	2	408
17:15	17:30	0	0	0	0	0	0	21	21	0	57	238	0	295	0	132	6	138	0	454
17:30	17:45	0	0	0	0	1	0	21	22	1	39	209	0	248	0	131	1	132	1	402
17:45	18:00	0	0	0	0	2	0	18	20	0	32	196	0	228	0	139	2	141	0	389
Total:		0	0	0	0	61	0	658	719	17	611	3883	0	4495	0	4233	78	4314	17	9,528

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		GERRY LALONDE DR			BRIAN COBURN BLVD			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	1	1	1
08:00	08:15	0	0	0	0	1	1	1
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	1	1	1
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	1	1	1
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	1	0	1	1
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	1	1	1
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
Total		0	0	**0**	1	5	6	6

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	GERRY LALONDE DR			BRIAN COBURN BLVD			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	1	**1**	0	0	**0**	**1**
07:15 07:30	0	2	**2**	0	0	**0**	**2**
07:30 07:45	0	3	**3**	0	0	**0**	**3**
07:45 08:00	0	1	**1**	0	0	**0**	**1**
08:00 08:15	0	5	**5**	0	0	**0**	**5**
08:15 08:30	0	0	**0**	0	0	**0**	**0**
08:30 08:45	0	0	**0**	1	0	**1**	**1**
08:45 09:00	0	0	**0**	0	0	**0**	**0**
09:00 09:15	0	2	**2**	0	0	**0**	**2**
09:15 09:30	0	0	**0**	0	0	**0**	**0**
09:30 09:45	0	0	**0**	0	0	**0**	**0**
09:45 10:00	0	0	**0**	0	0	**0**	**0**
11:30 11:45	0	0	**0**	0	0	**0**	**0**
11:45 12:00	0	0	**0**	0	0	**0**	**0**
12:00 12:15	0	0	**0**	0	0	**0**	**0**
12:15 12:30	0	0	**0**	0	0	**0**	**0**
12:30 12:45	0	0	**0**	0	0	**0**	**0**
12:45 13:00	0	1	**1**	0	0	**0**	**1**
13:00 13:15	0	0	**0**	0	0	**0**	**0**
13:15 13:30	0	0	**0**	0	0	**0**	**0**
15:00 15:15	0	0	**0**	0	0	**0**	**0**
15:15 15:30	0	0	**0**	0	0	**0**	**0**
15:30 15:45	0	1	**1**	0	0	**0**	**1**
15:45 16:00	0	0	**0**	0	0	**0**	**0**
16:00 16:15	0	2	**2**	0	0	**0**	**2**
16:15 16:30	0	0	**0**	0	0	**0**	**0**
16:30 16:45	0	5	**5**	0	0	**0**	**5**
16:45 17:00	0	2	**2**	0	0	**0**	**2**
17:00 17:15	0	1	**1**	0	0	**0**	**1**
17:15 17:30	0	1	**1**	0	0	**0**	**1**
17:30 17:45	0	1	**1**	0	0	**0**	**1**
17:45 18:00	0	2	**2**	0	0	**0**	**2**
Total	0	30	**30**	1	0	**1**	**31**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		GERRY LALONDE DR									BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	3	3	**6**	**8**	**8**
07:15	07:30	0	0	0	**0**	1	0	0	**1**	**1**	0	6	0	**6**	0	3	2	**5**	**11**	**12**
07:30	07:45	0	0	0	**0**	0	0	1	**1**	**1**	1	5	0	**6**	0	9	1	**10**	**16**	**17**
07:45	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	5	0	**5**	0	3	0	**3**	**8**	**8**
08:00	08:15	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	4	1	**5**	**9**	**9**
08:15	08:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	5	1	**6**	**7**	**7**
08:30	08:45	0	0	0	**0**	1	0	0	**1**	**1**	0	7	0	**7**	0	1	0	**1**	**8**	**9**
08:45	09:00	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	1	1	**2**	**4**	**4**
09:00	09:15	0	0	0	**0**	0	0	1	**1**	**1**	0	2	0	**2**	0	4	0	**4**	**6**	**7**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	3	2	**5**	**7**	**7**
09:30	09:45	0	0	0	**0**	1	0	1	**2**	**2**	0	3	0	**3**	0	4	0	**5**	**8**	**10**
09:45	10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	1	0	**1**	**1**	**1**
11:30	11:45	0	0	0	**0**	2	0	0	**2**	**2**	0	4	0	**4**	0	4	0	**4**	**8**	**10**
11:45	12:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	2	0	**2**	**3**	**3**
12:00	12:15	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	1	0	**1**	**4**	**4**
12:15	12:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	4	0	**4**	**5**	**5**
12:30	12:45	0	0	0	**0**	0	0	0	**0**	**0**	0	6	0	**6**	0	3	0	**3**	**9**	**9**
12:45	13:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
13:00	13:15	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	2	0	**2**	**4**	**4**
13:15	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	2	0	**2**	**4**	**4**
15:00	15:15	0	0	0	**0**	0	0	1	**1**	**1**	0	3	0	**3**	0	3	0	**3**	**6**	**7**
15:15	15:30	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	4	0	**4**	**7**	**7**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	2	0	**2**	**4**	**4**
15:45	16:00	0	0	0	**0**	1	0	0	**1**	**1**	0	3	0	**3**	0	5	0	**5**	**8**	**9**
16:00	16:15	0	0	0	**0**	1	0	0	**1**	**1**	0	5	0	**5**	0	4	0	**4**	**9**	**10**
16:15	16:30	0	0	0	**0**	1	0	1	**2**	**2**	0	1	0	**1**	0	1	0	**1**	**2**	**4**
16:30	16:45	0	0	0	**0**	1	0	0	**1**	**1**	0	1	0	**1**	0	2	0	**2**	**3**	**4**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	0	0	**0**	**4**	**4**
17:00	17:15	0	0	0	**0**	2	0	0	**2**	**2**	0	2	0	**2**	0	3	0	**3**	**5**	**7**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	1	4	0	**5**	0	5	0	**5**	**10**	**10**
17:30	17:45	0	0	0	**0**	1	0	0	**1**	**1**	0	3	0	**3**	0	3	0	**3**	**6**	**7**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	1	0	**1**	**4**	**4**
Total:	None	0	0	0	**0**	12	0	5	**17**	**17**	2	93	0	**95**	0	93	11	**105**	**200**	**217**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ GERRY LALONDE DR

Survey Date: Wednesday, October 17, 2018 **WO No:** 38062

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		GERRY LALONDE DR Northbound U-Turn Total	GERRY LALONDE DR Southbound U-Turn Total	BRIAN COBURN BLVD Eastbound U-Turn Total	BRIAN COBURN BLVD Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	2	2
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	1	1
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	1	0	1
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	1	3	4

Transportation Services - Traffic Services

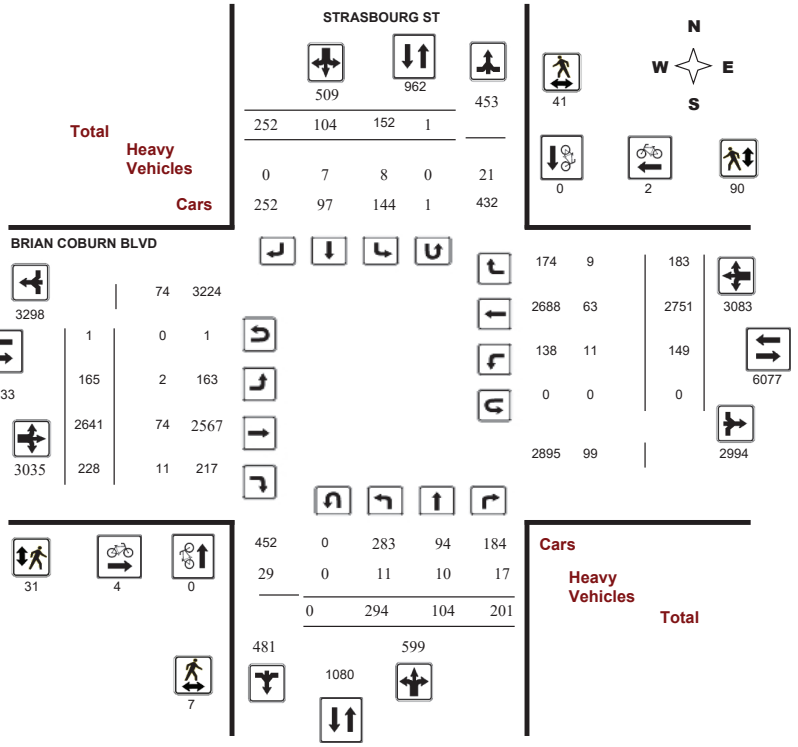
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

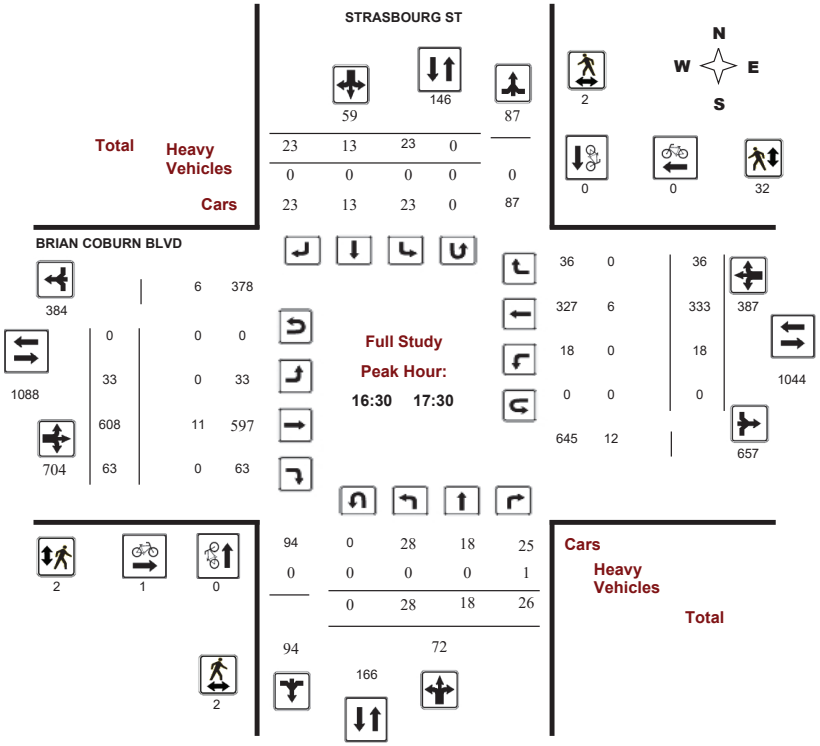
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



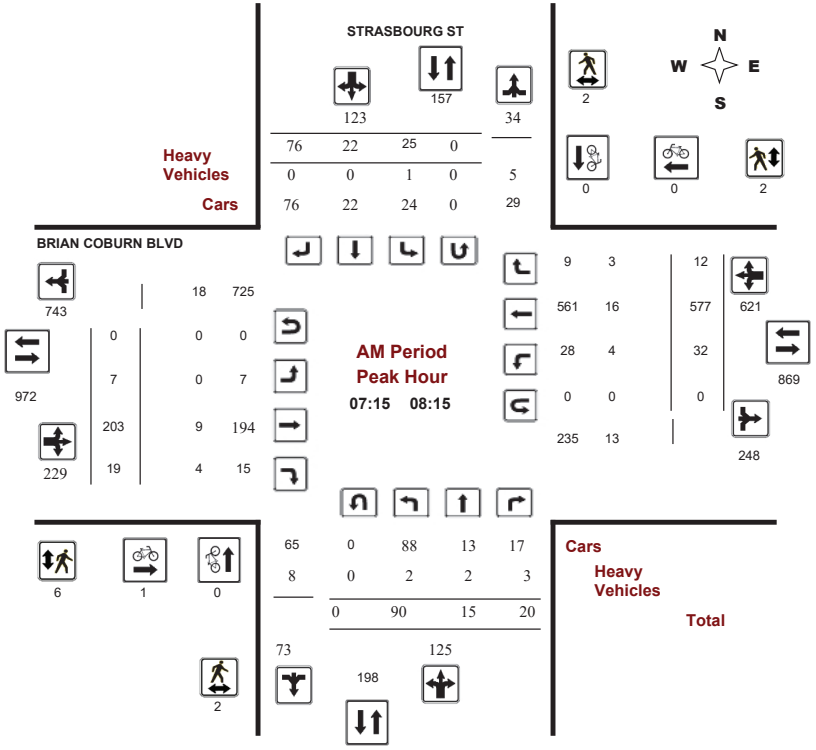
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision



Comments

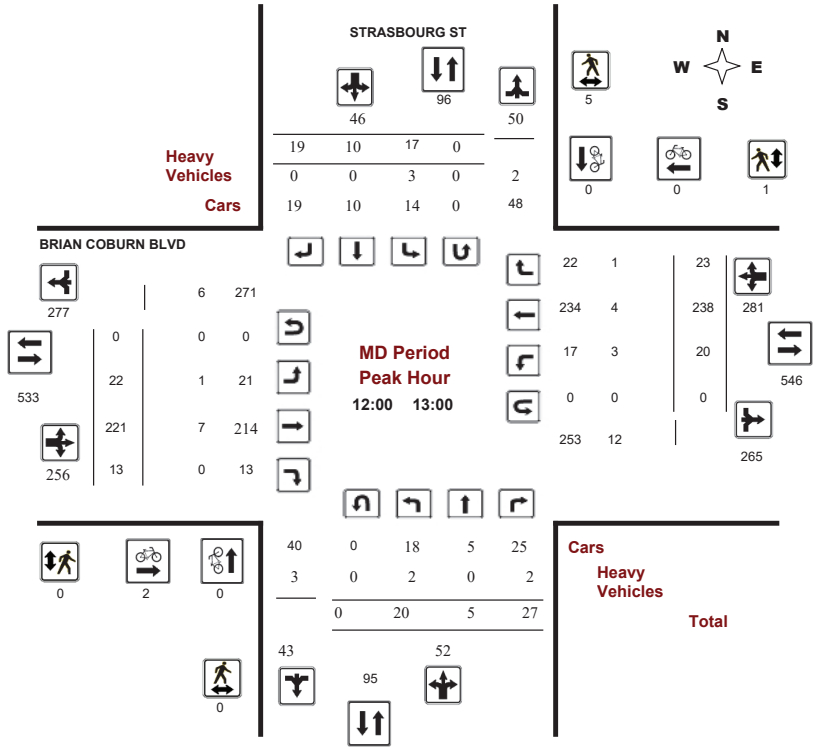
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision



Comments

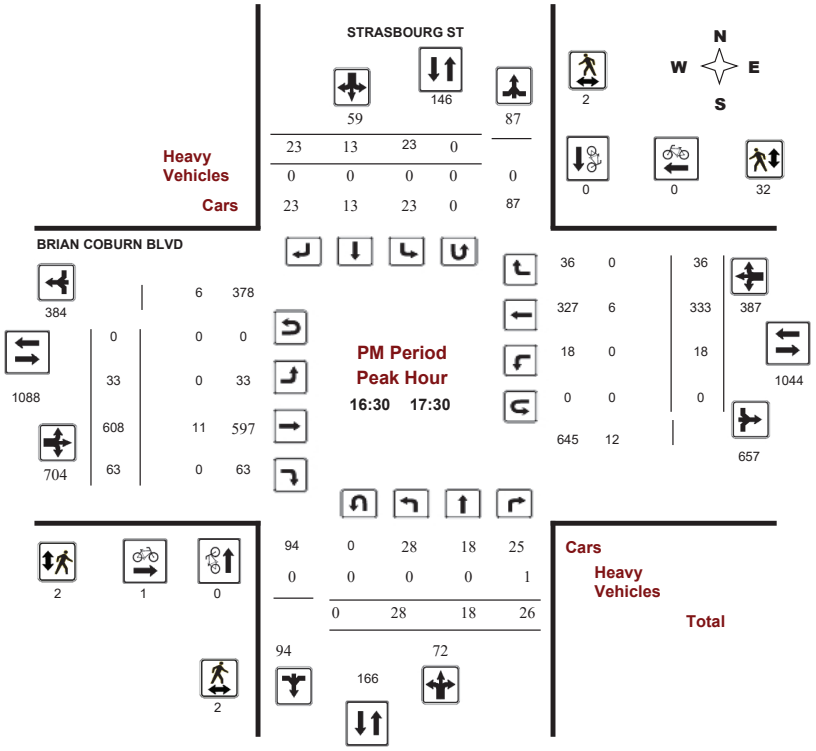
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, April 20, 2017

Total Observed U-Turns

Northbound: 0 Southbound: 1

Eastbound: 1 Westbound: 0

AADT Factor .90

	STRASBOURG ST								BRIAN COBURN BLVD									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	101	15	20	**136**	23	22	74	**119**	**255**	4	172	17	**193**	32	565	14	**611**	**804**	**1059**
08:00 09:00	56	18	22	**96**	18	27	46	**91**	**187**	11	186	19	**216**	21	525	9	**555**	**771**	**958**
09:00 10:00	20	7	23	**50**	11	8	30	**49**	**99**	8	179	10	**197**	20	274	10	**304**	**501**	**600**
11:30 12:30	21	7	32	**60**	17	12	18	**47**	**107**	19	220	12	**251**	21	220	23	**264**	**515**	**622**
12:30 13:30	14	9	18	**41**	16	8	21	**45**	**86**	23	200	28	**251**	13	214	20	**247**	**498**	**584**
15:00 16:00	26	13	40	**79**	25	8	18	**51**	**130**	32	483	34	**549**	10	273	29	**312**	**861**	**991**
16:00 17:00	19	20	21	**60**	26	11	22	**59**	**119**	34	598	65	**697**	16	335	40	**391**	**1088**	**1207**
17:00 18:00	37	15	25	**77**	16	8	23	**47**	**124**	34	603	43	**680**	16	345	38	**399**	**1079**	**1203**
Sub Total	294	104	201	**599**	152	104	252	**508**	**1107**	165	2641	228	**3034**	149	2751	183	**3083**	**6117**	**7224**
U Turns	0			**0**	1			**1**	**1**	**1**			**1**	0			**0**	**1**	**2**
Total	294	104	201	**599**	153	104	252	**509**	**1108**	166	2641	228	**3035**	149	2751	183	**3083**	**6118**	**7226**
EQ 12Hr	409	145	279	**833**	213	145	350	**708**	**1541**	231	3671	317	**4219**	207	3824	254	**4285**	**8504**	**10045**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	368	130	251	**749**	192	130	315	**637**	**1386**	208	3304	285	**3797**	186	3442	229	**3857**	**7654**	**9040**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	482	170	329	**981**	252	170	413	**835**	**1816**	272	4328	373	**4973**	244	4509	300	**5053**	**10026**	**11842**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		STRASBOURG ST									BRIAN COBURN BLVD										
		Northbound				Southbound					Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	29	3	5	37	3	6	15	24	**61**	0	21	4	25	10	135	2	147	**172**	**233**
07:15	07:30	29	2	5	36	9	6	22	37	**73**	2	39	4	45	7	152	5	164	**209**	**282**
07:30	07:45	24	5	5	34	6	6	22	34	**68**	0	52	6	58	7	142	2	151	**209**	**277**
07:45	08:00	19	5	5	29	5	4	15	24	**53**	2	60	3	65	8	136	5	149	**214**	**267**
08:00	08:15	18	3	5	26	5	6	17	28	**54**	3	52	6	61	10	147	0	157	**218**	**272**
08:15	08:30	23	5	4	32	7	13	13	33	**65**	3	48	1	52	4	141	2	147	**199**	**264**
08:30	08:45	11	8	5	24	3	7	7	17	**41**	2	52	8	62	3	139	3	145	**207**	**248**
08:45	09:00	4	2	8	14	3	1	9	13	**27**	3	34	4	41	4	98	4	106	**147**	**174**
09:00	09:15	6	1	9	16	2	3	11	16	**32**	1	49	5	55	6	78	2	86	**141**	**173**
09:15	09:30	6	4	3	13	1	3	6	10	**23**	2	44	2	48	4	60	5	69	**117**	**140**
09:30	09:45	4	1	4	9	5	2	6	13	**22**	2	34	1	37	7	75	2	84	**121**	**143**
09:45	10:00	4	1	7	12	3	0	7	10	**22**	3	52	2	57	3	61	1	65	**122**	**144**
11:30	11:45	5	3	7	15	2	3	7	12	**27**	4	54	3	61	3	59	4	66	**127**	**154**
11:45	12:00	5	2	9	16	6	4	6	16	**32**	5	57	5	67	5	44	6	55	**122**	**154**
12:00	12:15	7	1	9	17	4	3	3	10	**27**	8	55	2	65	8	60	5	73	**138**	**165**
12:15	12:30	4	1	7	12	5	2	2	9	**21**	2	54	2	58	5	57	8	70	**128**	**149**
12:30	12:45	6	0	7	13	4	1	6	11	**24**	3	47	3	53	4	55	4	63	**116**	**140**
12:45	13:00	3	3	4	10	4	4	8	16	**26**	9	65	6	80	3	66	6	75	**155**	**181**
13:00	13:15	2	1	4	7	5	1	2	8	**15**	3	44	9	56	4	49	7	60	**116**	**131**
13:15	13:30	3	5	3	11	3	2	5	10	**21**	8	44	10	62	2	44	3	49	**111**	**132**
15:00	15:15	9	4	9	22	3	2	1	6	**28**	7	89	5	101	2	59	2	63	**164**	**192**
15:15	15:30	3	3	12	18	9	4	7	20	**38**	9	127	10	146	3	75	6	84	**230**	**268**
15:30	15:45	9	4	15	28	7	0	3	10	**38**	7	119	9	135	3	60	12	75	**210**	**248**
15:45	16:00	5	2	4	11	7	2	7	16	**27**	9	148	10	167	2	79	9	90	**257**	**284**
16:00	16:15	2	3	6	11	3	2	5	10	**21**	13	149	12	174	4	89	13	106	**280**	**301**
16:15	16:30	6	6	7	19	5	1	5	11	**30**	6	151	15	172	3	82	11	96	**268**	**298**
16:30	16:45	5	6	7	18	6	0	7	13	**31**	12	151	15	178	2	84	5	91	**269**	**300**
16:45	17:00	6	5	1	12	12	8	5	25	**37**	4	147	23	174	7	80	11	98	**272**	**309**
17:00	17:15	11	5	10	26	3	4	8	15	**41**	9	154	9	172	7	82	12	101	**273**	**314**
17:15	17:30	6	2	8	16	2	1	3	6	**22**	8	156	16	180	2	87	8	97	**277**	**299**
17:30	17:45	13	6	5	24	6	1	5	12	**36**	8	150	7	165	4	82	6	92	**257**	**293**
17:45	18:00	7	2	2	11	5	2	7	14	**25**	9	143	11	163	3	94	12	109	**272**	**297**
Total:		294	104	201	599	153	104	252	509	**1108**	166	2641	228	3035	149	2751	183	3083	**1108**	**7,226**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		STRASBOURG ST			BRIAN COBURN BLVD			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	0	0	**0**	**0**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	1	0	**1**	**1**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	1	0	**1**	**1**
12:30	12:45	0	0	**0**	1	0	**1**	**1**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	1	**1**	**1**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	0	**0**	0	0	**0**	**0**
16:00	16:15	0	0	**0**	0	1	**1**	**1**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	1	0	**1**	**1**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	0	**0**	0	0	**0**	**0**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		0	0	**0**	4	2	**6**	**6**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

Time Period		STRASBOURG ST			BRIAN COBURN BLVD			
		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00	07:15	0	1	**1**	1	2	**3**	**4**
07:15	07:30	0	1	**1**	1	0	**1**	**2**
07:30	07:45	0	0	**0**	1	1	**2**	**2**
07:45	08:00	1	0	**1**	2	0	**2**	**3**
08:00	08:15	1	1	**2**	2	1	**3**	**5**
08:15	08:30	0	0	**0**	3	1	**4**	**4**
08:30	08:45	0	2	**2**	3	2	**5**	**7**
08:45	09:00	0	0	**0**	1	0	**1**	**1**
09:00	09:15	0	1	**1**	0	0	**0**	**1**
09:15	09:30	0	0	**0**	3	0	**3**	**3**
09:30	09:45	0	0	**0**	1	1	**2**	**2**
09:45	10:00	0	0	**0**	0	1	**1**	**1**
11:30	11:45	0	0	**0**	1	0	**1**	**1**
11:45	12:00	0	1	**1**	2	0	**2**	**3**
12:00	12:15	0	0	**0**	0	1	**1**	**1**
12:15	12:30	0	2	**2**	0	0	**0**	**2**
12:30	12:45	0	3	**3**	0	0	**0**	**3**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	1	**1**	**1**
13:15	13:30	0	2	**2**	0	0	**0**	**2**
15:00	15:15	0	7	**7**	0	2	**2**	**9**
15:15	15:30	0	8	**8**	0	2	**2**	**10**
15:30	15:45	0	1	**1**	0	2	**2**	**3**
15:45	16:00	0	1	**1**	0	5	**5**	**6**
16:00	16:15	0	0	**0**	2	2	**4**	**4**
16:15	16:30	0	5	**5**	1	3	**4**	**9**
16:30	16:45	0	1	**1**	0	7	**7**	**8**
16:45	17:00	1	0	**1**	0	7	**7**	**8**
17:00	17:15	1	1	**2**	0	14	**14**	**16**
17:15	17:30	0	0	**0**	2	4	**6**	**6**
17:30	17:45	0	1	**1**	2	21	**23**	**24**
17:45	18:00	3	2	**5**	3	10	**13**	**18**
Total	.....	7	41	**48**	31	90	**121**	**169**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		STRASBOURG ST									BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	3	0	**3**	**5**	**5**
07:15	07:30	1	0	2	**3**	1	0	0	**1**	**4**	0	2	0	**2**	0	5	1	**6**	**8**	**12**
07:30	07:45	1	0	0	**1**	0	0	0	**0**	**1**	0	4	1	**5**	1	4	1	**6**	**11**	**12**
07:45	08:00	0	1	0	**1**	0	0	0	**0**	**1**	0	2	1	**3**	2	4	1	**7**	**10**	**11**
08:00	08:15	0	1	1	**2**	0	0	0	**0**	**2**	0	1	2	**3**	1	3	0	**4**	**7**	**9**
08:15	08:30	0	1	1	**2**	1	2	0	**3**	**5**	0	0	0	**0**	0	3	1	**4**	**4**	**9**
08:30	08:45	1	2	1	**4**	0	2	0	**2**	**6**	0	5	1	**6**	0	4	0	**4**	**10**	**16**
08:45	09:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	1	**1**	0	1	0	**1**	**2**	**2**
09:00	09:15	0	0	0	**0**	0	0	0	**0**	**0**	0	4	1	**5**	1	4	0	**5**	**10**	**10**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	0	0	**0**	**2**	**2**
09:30	09:45	0	0	1	**1**	0	0	0	**0**	**1**	0	1	0	**1**	0	6	0	**6**	**7**	**8**
09:45	10:00	1	0	1	**2**	0	0	0	**0**	**2**	0	4	0	**4**	0	1	0	**1**	**5**	**7**
11:30	11:45	0	0	1	**1**	0	0	0	**0**	**1**	0	1	0	**1**	1	1	1	**3**	**4**	**5**
11:45	12:00	1	0	1	**2**	0	0	0	**0**	**2**	0	1	1	**2**	0	0	0	**0**	**2**	**4**
12:00	12:15	1	0	0	**1**	1	0	0	**1**	**2**	0	2	0	**2**	2	3	0	**5**	**7**	**9**
12:15	12:30	1	0	1	**2**	1	0	0	**1**	**3**	1	2	0	**3**	1	0	1	**2**	**5**	**8**
12:30	12:45	0	0	0	**0**	1	0	0	**1**	**1**	0	2	0	**2**	0	1	0	**1**	**3**	**4**
12:45	13:00	0	0	1	**1**	0	0	0	**0**	**1**	0	1	0	**1**	0	0	0	**0**	**1**	**2**
13:00	13:15	1	0	1	**2**	0	0	0	**0**	**2**	0	3	1	**4**	0	2	1	**3**	**7**	**9**
13:15	13:30	0	0	2	**2**	1	0	0	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
15:00	15:15	1	2	0	**3**	0	0	0	**0**	**3**	0	3	0	**3**	0	0	0	**0**	**3**	**6**
15:15	15:30	0	1	1	**2**	0	2	0	**2**	**4**	1	5	0	**6**	1	4	0	**5**	**11**	**15**
15:30	15:45	0	1	1	**2**	1	0	0	**1**	**3**	0	2	1	**3**	0	3	0	**3**	**6**	**9**
15:45	16:00	1	0	0	**1**	0	0	0	**0**	**1**	0	2	1	**3**	1	1	0	**2**	**5**	**6**
16:00	16:15	0	0	0	**0**	0	1	0	**1**	**1**	0	2	0	**2**	0	2	2	**4**	**6**	**7**
16:15	16:30	1	1	0	**2**	1	0	0	**1**	**3**	0	4	0	**4**	0	1	0	**1**	**5**	**8**
16:30	16:45	0	0	1	**1**	0	0	0	**0**	**1**	0	2	0	**2**	0	2	0	**2**	**4**	**5**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	1	0	**1**	**4**	**4**
17:00	17:15	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	2	0	**2**	**6**	**6**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	1	0	**1**	**3**	**3**
17:30	17:45	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	1	0	**1**	**4**	**4**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	0	0	**0**	**3**	**3**
Total:	None	11	10	17	**38**	8	7	0	**15**	**53**	2	74	11	**87**	11	63	9	**83**	**170**	**223**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ STRASBOURG ST

Survey Date: Thursday, April 20, 2017 **WO No:** 36948

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		STRASBOURG ST		BRIAN COBURN BLVD		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	0	0	0	**0**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	0	0	0	**0**
12:00	12:15	0	0	0	0	**0**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	0	0	0	**0**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	0	0	0	0	**0**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	0	1	0	0	**1**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	0	0	0	**0**
16:00	16:15	0	0	1	0	**1**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	0	0	0	**0**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		0	1	1	0	**2**

Transportation Services - Traffic Services

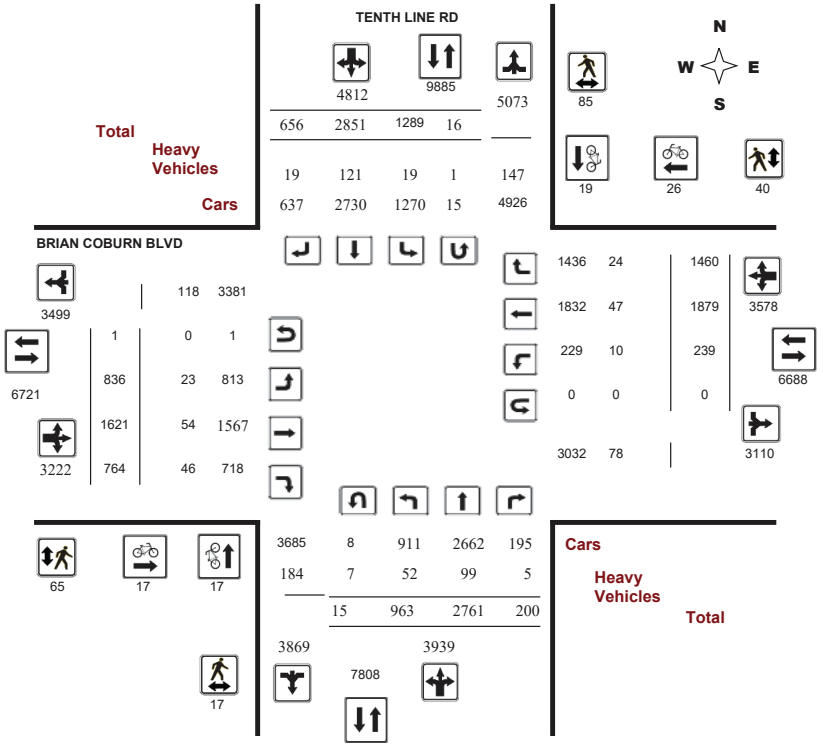
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

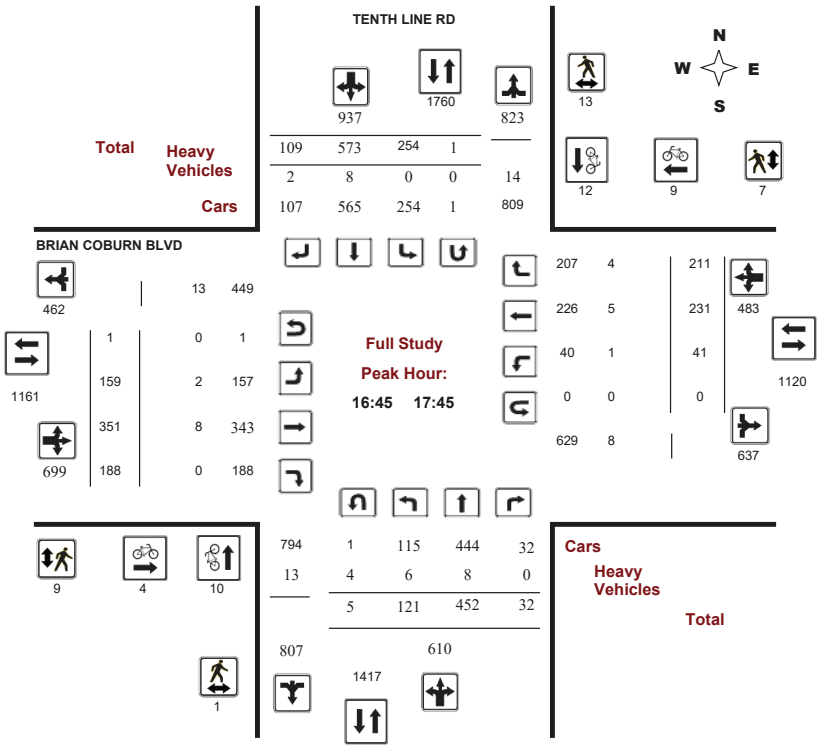
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



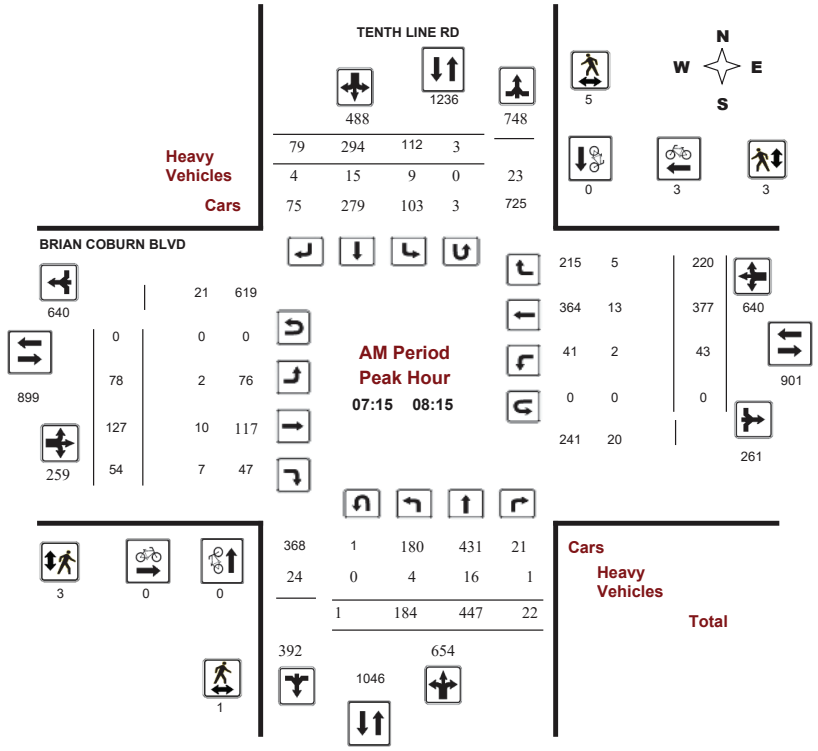
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision



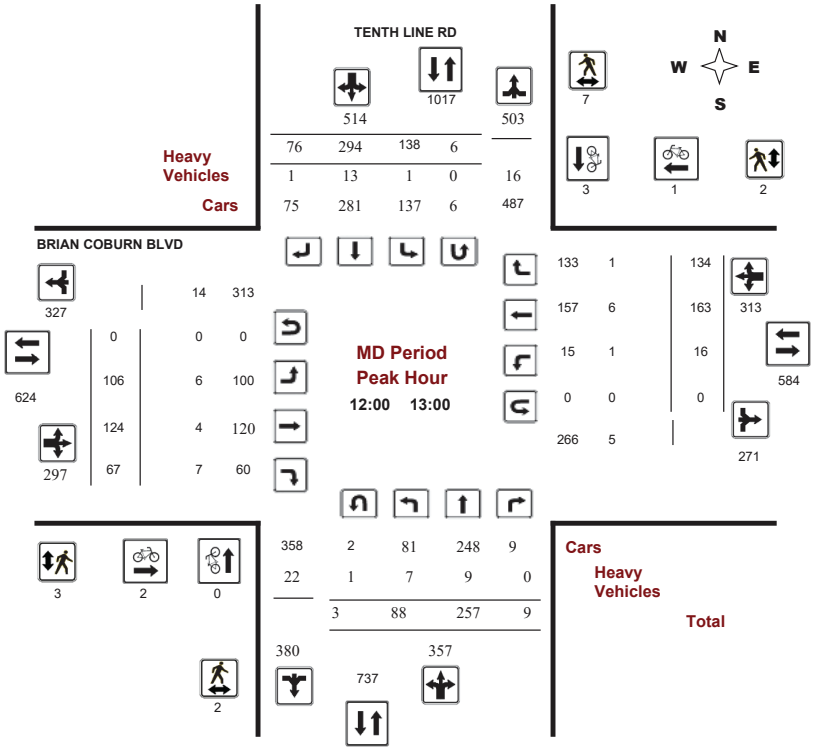
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision



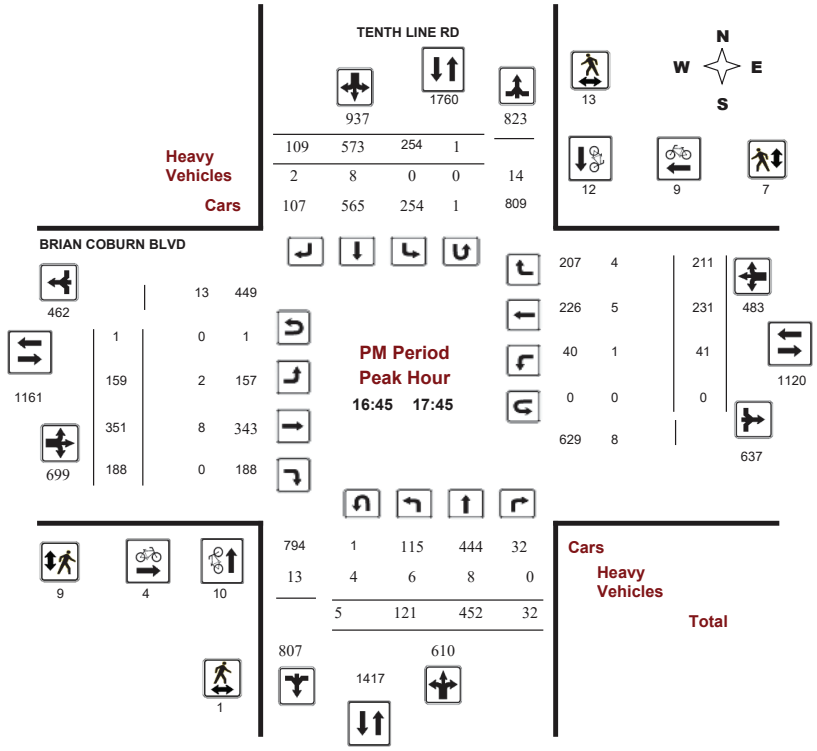
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, September 19, 2018

Total Observed U-Turns

Northbound: 15 Southbound: 16

Eastbound: 1 Westbound: 0

AADT Factor 1.00

	TENTH LINE RD								BRIAN COBURN BLVD									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	208	424	13	**645**	102	288	77	**467**	**1112**	67	129	56	**252**	41	370	233	**644**	**896**	**2008**
08:00 09:00	171	401	34	**606**	102	259	85	**446**	**1052**	94	119	44	**257**	35	330	206	**571**	**828**	**1880**
09:00 10:00	106	283	15	**404**	92	202	60	**354**	**758**	90	95	39	**224**	19	232	179	**430**	**654**	**1412**
11:30 12:30	77	269	9	**355**	120	283	66	**469**	**824**	101	128	67	**296**	11	156	122	**289**	**585**	**1409**
12:30 13:30	90	233	12	**335**	161	288	70	**519**	**854**	75	136	61	**272**	19	146	123	**288**	**560**	**1414**
15:00 16:00	98	322	47	**467**	210	409	100	**719**	**1186**	94	308	129	**531**	28	197	160	**385**	**916**	**2102**
16:00 17:00	90	388	28	**506**	257	581	86	**924**	**1430**	136	349	196	**681**	45	222	206	**473**	**1154**	**2584**
17:00 18:00	123	441	42	**606**	245	541	112	**898**	**1504**	179	357	172	**708**	41	226	231	**498**	**1206**	**2710**
Sub Total	963	2761	200	**3924**	1289	2851	656	**4796**	**8720**	836	1621	764	**3221**	239	1879	1460	**3578**	**6799**	**15519**
U Turns				**15**				**16**	**31**				**1**				**0**	**1**	**32**
Total	963	2761	200	**3939**	1289	2851	656	**4812**	**8751**	836	1621	764	**3222**	239	1879	1460	**3578**	**6800**	**15551**
EQ 12Hr	1339	3838	278	**5475**	1792	3963	912	**6689**	**12164**	1162	2253	1062	**4479**	332	2612	2029	**4973**	**9452**	**21616**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	1262	3617	262	**5160**	1689	3735	859	**6304**	**12164**	1095	2124	1001	**4221**	313	2461	1913	**4687**	**9452**	**21616**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1**					
AVG 24Hr	1653	4738	343	**6760**	2212	4893	1126	**8258**	**15018**	1435	2782	1311	**5529**	410	3225	2506	**6140**	**11669**	**26687**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		TENTH LINE RD									BRIAN COBURN BLVD										
		Northbound				Southbound					Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	75	95	2	172	18	70	18	106	13	11	23	17	51	11	93	52	156	13	485
07:15	07:30	52	94	1	147	23	85	19	129	8	12	28	16	56	14	95	63	172	8	504
07:30	07:45	38	106	8	153	27	74	19	121	14	21	34	10	65	5	101	56	162	14	501
07:45	08:00	43	129	2	174	34	59	21	114	14	23	44	13	80	11	81	62	154	14	522
08:00	08:15	51	118	11	180	28	76	20	124	13	22	21	15	58	13	100	39	152	13	514
08:15	08:30	42	98	11	151	27	61	18	106	15	28	32	10	70	6	90	61	157	15	484
08:30	08:45	45	103	7	155	26	74	23	123	18	21	34	6	61	10	80	65	155	18	494
08:45	09:00	33	82	5	120	21	48	24	94	14	23	32	13	68	6	60	41	107	14	389
09:00	09:15	34	74	4	112	23	48	12	83	8	27	27	4	58	8	77	47	132	8	385
09:15	09:30	32	80	8	121	17	59	14	90	12	18	21	9	48	6	68	49	123	12	382
09:30	09:45	23	67	1	92	21	54	18	95	13	25	28	10	63	2	53	34	89	13	339
09:45	10:00	17	62	2	82	31	41	16	88	13	20	19	16	55	3	34	49	86	13	311
11:30	11:45	22	53	1	76	35	72	14	121	8	19	36	16	71	2	37	24	63	8	331
11:45	12:00	11	79	4	94	27	66	15	108	12	21	32	14	67	2	32	32	66	12	335
12:00	12:15	25	79	2	106	36	75	17	128	7	36	30	21	87	3	45	35	83	7	404
12:15	12:30	19	58	2	81	22	70	20	114	9	25	30	16	71	4	42	31	77	9	343
12:30	12:45	23	55	3	82	41	81	19	143	10	24	31	16	71	3	44	31	78	10	374
12:45	13:00	21	65	2	88	39	68	20	129	6	21	33	14	68	6	32	37	75	6	360
13:00	13:15	21	57	3	81	41	70	19	130	6	10	34	15	59	7	34	28	69	6	339
13:15	13:30	25	56	4	85	40	69	12	122	8	20	38	16	74	3	36	27	66	8	347
15:00	15:15	23	70	13	106	43	85	29	157	13	19	58	29	106	11	43	39	93	13	462
15:15	15:30	16	82	19	117	54	98	30	182	11	25	72	27	124	3	48	36	87	11	510
15:30	15:45	33	71	4	109	51	107	12	170	11	23	93	36	152	8	47	49	104	11	535
15:45	16:00	26	99	11	136	62	119	29	210	8	27	85	37	149	6	59	36	101	8	596
16:00	16:15	16	77	3	97	49	147	25	222	9	28	83	48	159	13	59	54	126	9	604
16:15	16:30	22	113	11	146	69	142	12	224	6	31	102	39	172	10	50	57	117	6	659
16:30	16:45	23	89	8	121	69	148	27	244	8	42	79	55	176	15	53	43	111	8	652
16:45	17:00	29	109	6	146	70	144	22	236	8	35	85	54	174	7	60	52	119	8	675
17:00	17:15	21	134	11	169	67	136	28	231	6	52	86	38	176	12	53	61	126	6	702
17:15	17:30	35	111	7	153	63	161	27	252	9	34	95	42	172	7	49	50	106	9	683
17:30	17:45	36	98	8	142	54	132	32	218	5	38	85	54	177	15	69	48	132	5	669
17:45	18:00	31	98	16	145	61	112	25	198	8	55	91	38	184	7	55	72	134	8	661
Total:		963	2761	200	3939	1289	2851	656	4812	323	836	1621	764	3222	239	1879	1460	3578	323	15,551

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		TENTH LINE RD			BRIAN COBURN BLVD			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	1	1	1
07:15	07:30	0	0	0	0	3	3	3
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	0	0	0
08:15	08:30	0	0	0	1	0	1	1
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	1	0	1	1	0	1	2
09:00	09:15	0	0	0	1	0	1	1
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	1	0	1	0	2	2	3
09:45	10:00	1	1	2	0	0	0	2
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	1	1	0	0	0	1
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	2	2	1	0	1	3
12:45	13:00	0	0	0	1	1	2	2
13:00	13:15	0	0	0	0	1	1	1
13:15	13:30	1	0	1	0	0	0	1
15:00	15:15	0	1	1	3	2	5	6
15:15	15:30	0	0	0	1	0	1	1
15:30	15:45	0	0	0	1	1	2	2
15:45	16:00	0	0	0	1	0	1	1
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	1	1	1	1	2	3
16:30	16:45	0	1	1	1	4	5	6
16:45	17:00	0	1	1	0	2	2	3
17:00	17:15	6	2	8	1	1	2	10
17:15	17:30	0	5	5	1	3	4	9
17:30	17:45	4	4	8	2	3	5	13
17:45	18:00	3	0	3	0	1	1	4
Total		17	19	**36**	17	26	43	79

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	TENTH LINE RD			BRIAN COBURN BLVD			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	0	**1**	0	2	**2**	**3**
07:15 07:30	0	1	**1**	0	2	**2**	**3**
07:30 07:45	0	2	**2**	1	1	**2**	**4**
07:45 08:00	0	1	**1**	0	0	**0**	**1**
08:00 08:15	1	1	**2**	2	0	**2**	**4**
08:15 08:30	0	2	**2**	2	1	**3**	**5**
08:30 08:45	1	1	**2**	2	1	**3**	**5**
08:45 09:00	0	2	**2**	5	3	**8**	**10**
09:00 09:15	2	5	**7**	1	0	**1**	**8**
09:15 09:30	0	2	**2**	4	2	**6**	**8**
09:30 09:45	0	3	**3**	4	0	**4**	**7**
09:45 10:00	1	3	**4**	0	2	**2**	**6**
11:30 11:45	0	1	**1**	2	0	**2**	**3**
11:45 12:00	1	3	**4**	4	2	**6**	**10**
12:00 12:15	0	1	**1**	0	0	**0**	**1**
12:15 12:30	0	4	**4**	0	1	**1**	**5**
12:30 12:45	2	1	**3**	3	0	**3**	**6**
12:45 13:00	0	1	**1**	0	1	**1**	**2**
13:00 13:15	0	6	**6**	0	0	**0**	**6**
13:15 13:30	1	4	**5**	0	0	**0**	**5**
15:00 15:15	0	1	**1**	4	2	**6**	**7**
15:15 15:30	1	3	**4**	2	0	**2**	**6**
15:30 15:45	0	2	**2**	1	1	**2**	**4**
15:45 16:00	1	3	**4**	7	4	**11**	**15**
16:00 16:15	2	8	**10**	4	2	**6**	**16**
16:15 16:30	0	5	**5**	6	1	**7**	**12**
16:30 16:45	2	4	**6**	2	4	**6**	**12**
16:45 17:00	1	5	**6**	3	3	**6**	**12**
17:00 17:15	0	6	**6**	2	1	**3**	**9**
17:15 17:30	0	2	**2**	1	2	**3**	**5**
17:30 17:45	0	0	**0**	3	1	**4**	**4**
17:45 18:00	0	2	**2**	0	1	**1**	**3**
Total	17	85	**102**	65	40	**105**	**207**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		TENTH LINE RD									BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	3	6	0	**9**	1	3	0	**4**	**13**	1	1	4	**6**	0	3	0	**3**	**9**	**22**
07:15	07:30	0	1	0	**1**	4	2	1	**7**	**8**	0	0	1	**1**	1	2	1	**4**	**5**	**13**
07:30	07:45	1	3	0	**4**	2	6	2	**10**	**14**	0	3	1	**4**	0	7	0	**7**	**11**	**25**
07:45	08:00	3	7	1	**11**	2	1	0	**3**	**14**	1	5	1	**7**	0	2	1	**3**	**10**	**24**
08:00	08:15	0	5	0	**5**	1	6	1	**8**	**13**	1	2	4	**7**	1	2	3	**6**	**13**	**26**
08:15	08:30	0	4	0	**4**	4	6	1	**11**	**15**	2	1	1	**4**	1	2	0	**3**	**7**	**22**
08:30	08:45	3	8	0	**11**	0	7	0	**7**	**18**	0	2	0	**2**	0	3	0	**3**	**5**	**23**
08:45	09:00	5	2	0	**7**	1	4	2	**7**	**14**	2	2	5	**9**	1	0	1	**2**	**11**	**25**
09:00	09:15	3	2	0	**5**	0	3	0	**3**	**8**	1	2	0	**3**	0	3	3	**6**	**9**	**17**
09:15	09:30	2	4	0	**6**	0	6	0	**6**	**12**	0	3	0	**3**	0	0	3	**3**	**6**	**18**
09:30	09:45	3	5	0	**8**	0	5	0	**5**	**13**	2	2	1	**5**	0	1	0	**1**	**6**	**19**
09:45	10:00	1	4	0	**6**	0	6	1	**7**	**13**	1	0	4	**5**	0	0	0	**0**	**5**	**18**
11:30	11:45	2	2	0	**4**	0	2	2	**4**	**8**	0	1	1	**2**	0	2	0	**2**	**4**	**12**
11:45	12:00	1	5	1	**7**	0	5	0	**5**	**12**	1	1	2	**4**	0	0	0	**0**	**4**	**16**
12:00	12:15	2	2	0	**4**	0	3	0	**3**	**7**	3	1	3	**7**	0	1	1	**2**	**9**	**16**
12:15	12:30	2	2	0	**4**	1	4	0	**5**	**9**	1	1	1	**3**	1	2	0	**3**	**6**	**15**
12:30	12:45	2	2	0	**5**	0	4	1	**5**	**10**	2	2	2	**6**	0	2	0	**2**	**8**	**18**
12:45	13:00	1	3	0	**4**	0	2	0	**2**	**6**	0	0	1	**1**	0	1	0	**1**	**2**	**8**
13:00	13:15	1	2	0	**3**	1	1	1	**3**	**6**	1	1	2	**4**	0	1	0	**1**	**5**	**11**
13:15	13:30	2	1	0	**3**	0	3	1	**5**	**8**	0	0	3	**3**	1	0	0	**1**	**4**	**12**
15:00	15:15	2	5	0	**7**	0	6	0	**6**	**13**	0	1	4	**5**	1	1	1	**3**	**8**	**21**
15:15	15:30	1	2	0	**3**	0	6	2	**8**	**11**	0	1	0	**1**	0	0	0	**0**	**1**	**12**
15:30	15:45	4	4	0	**8**	0	3	0	**3**	**11**	0	0	2	**2**	0	2	0	**2**	**4**	**15**
15:45	16:00	1	2	0	**3**	0	5	0	**5**	**8**	0	0	0	**0**	0	3	0	**3**	**3**	**11**
16:00	16:15	0	2	0	**3**	0	5	1	**6**	**9**	0	2	3	**5**	1	1	0	**2**	**7**	**16**
16:15	16:30	0	0	2	**2**	1	3	0	**4**	**6**	1	6	0	**7**	0	0	2	**2**	**9**	**15**
16:30	16:45	1	3	1	**5**	0	3	0	**3**	**8**	1	2	0	**3**	1	1	1	**3**	**6**	**14**
16:45	17:00	3	1	0	**6**	0	1	1	**2**	**8**	0	3	0	**3**	1	1	1	**3**	**6**	**14**
17:00	17:15	0	2	0	**4**	0	1	1	**2**	**6**	1	0	0	**1**	0	2	1	**3**	**4**	**10**
17:15	17:30	2	3	0	**5**	0	4	0	**4**	**9**	1	2	0	**3**	0	0	1	**1**	**4**	**13**
17:30	17:45	1	2	0	**3**	0	2	0	**2**	**5**	0	3	0	**3**	0	2	1	**3**	**6**	**11**
17:45	18:00	0	3	0	**3**	1	3	1	**5**	**8**	0	4	0	**4**	0	0	3	**3**	**7**	**15**
Total:	None	52	99	5	**163**	19	121	19	**160**	**323**	23	54	46	**123**	10	47	24	**81**	**204**	**527**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ TENTH LINE RD

Survey Date: Wednesday, September 19, 2018 **WO No:** 38045

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		TENTH LINE RD Northbound U-Turn Total	TENTH LINE RD Southbound U-Turn Total	BRIAN COBURN BLVD Eastbound U-Turn Total	BRIAN COBURN BLVD Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	2	0	0	2
07:30	07:45	1	1	0	0	2
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	1	0	0	1
09:00	09:15	0	0	0	0	0
09:15	09:30	1	0	0	0	1
09:30	09:45	1	2	0	0	3
09:45	10:00	1	0	0	0	1
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	2	2	0	0	4
12:30	12:45	1	2	0	0	3
12:45	13:00	0	2	0	0	2
13:00	13:15	0	0	0	0	0
13:15	13:30	0	1	0	0	1
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	1	0	0	0	1
15:45	16:00	0	0	0	0	0
16:00	16:15	1	1	0	0	2
16:15	16:30	0	1	0	0	1
16:30	16:45	1	0	0	0	1
16:45	17:00	2	0	0	0	2
17:00	17:15	3	0	0	0	3
17:15	17:30	0	1	1	0	2
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		15	16	1	0	32

Transportation Services - Traffic Services

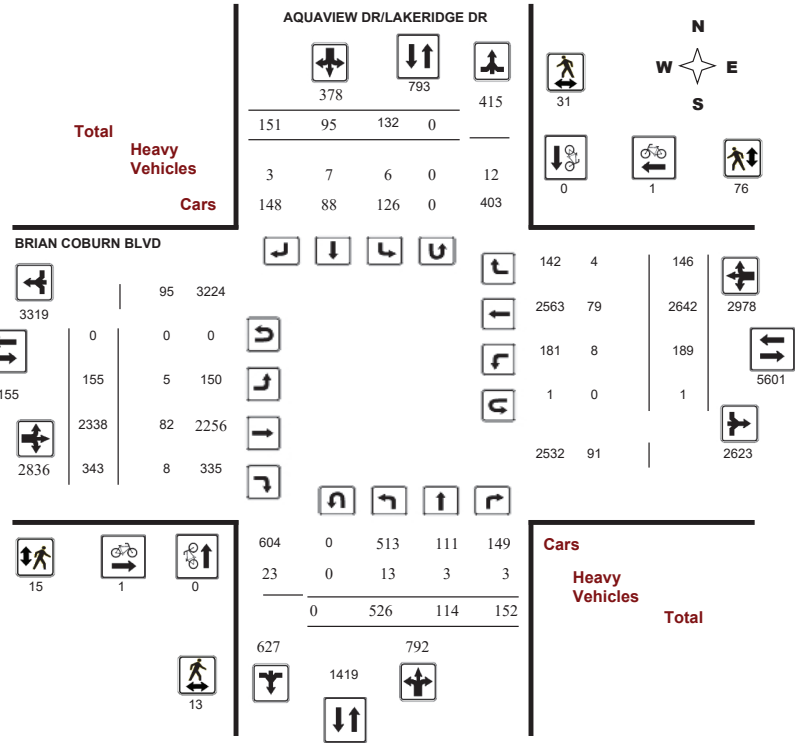
Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

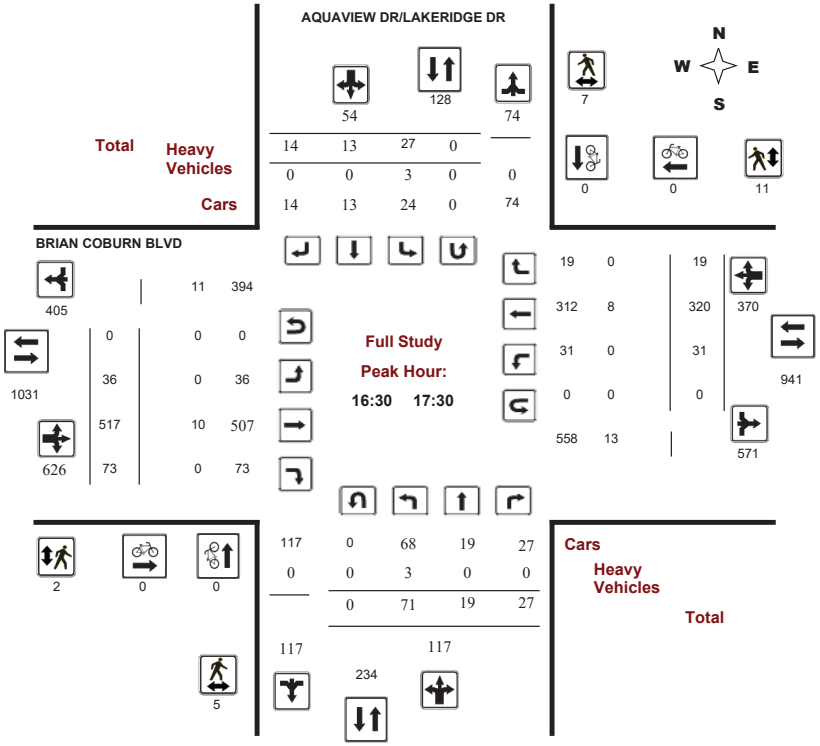
Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



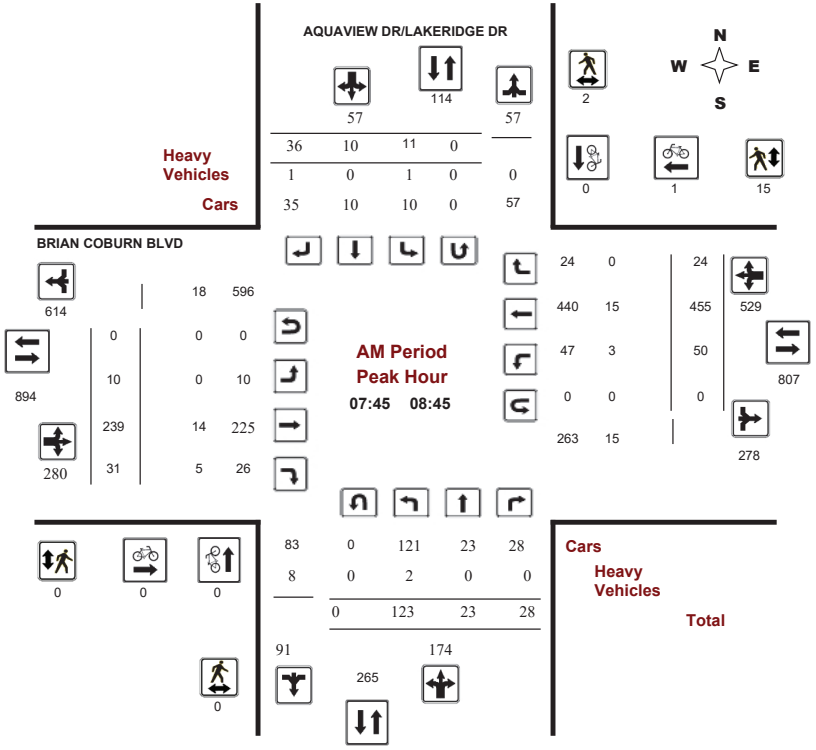
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision



Comments

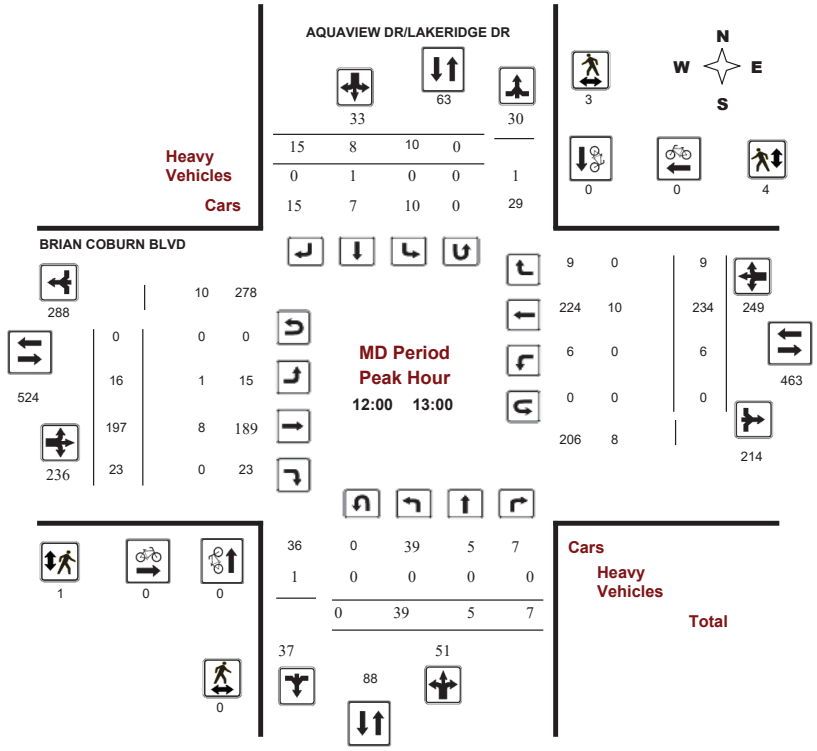
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision



Comments

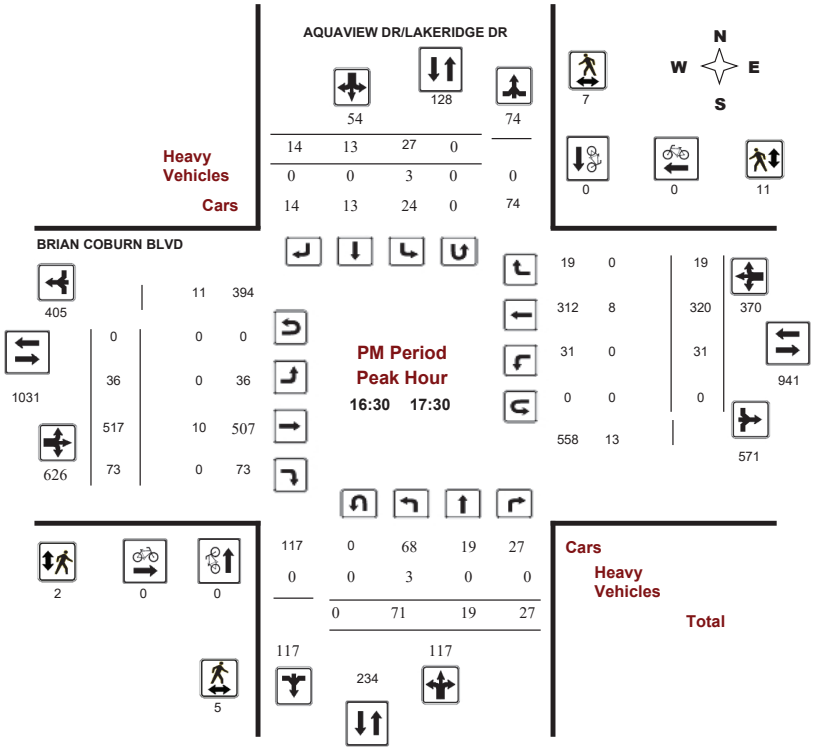
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, February 26, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 1

AADT Factor 1.00

	AQUAVIEW DR/LAKERIDGE DR								BRIAN COBURN BLVD									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	110	22	24	**156**	9	15	34	**58**	**214**	7	175	28	**210**	27	484	14	**525**	**735**	**949**
08:00 09:00	113	22	28	**163**	12	10	31	**53**	**216**	12	246	29	**287**	48	442	22	**512**	**799**	**1015**
09:00 10:00	57	5	11	**73**	14	6	18	**38**	**111**	5	159	23	**187**	8	315	30	**353**	**540**	**651**
11:30 12:30	34	10	5	**49**	11	7	13	**31**	**80**	9	191	26	**226**	6	249	8	**263**	**489**	**569**
12:30 13:30	27	5	3	**35**	10	7	13	**30**	**65**	14	195	31	**240**	4	208	13	**225**	**465**	**530**
15:00 16:00	56	19	28	**103**	24	24	9	**57**	**160**	30	388	57	**475**	33	315	19	**367**	**842**	**1002**
16:00 17:00	73	17	34	**124**	25	14	13	**52**	**176**	42	498	83	**623**	30	297	15	**342**	**965**	**1141**
17:00 18:00	56	14	19	**89**	27	12	20	**59**	**148**	36	486	66	**588**	33	332	25	**390**	**978**	**1126**
Sub Total	526	114	152	**792**	132	95	151	**378**	**1170**	155	2338	343	**2836**	189	2642	146	**2977**	**5813**	**6983**
U Turns	0			**0**	0			**0**	**0**	**0**			**0**	1			**1**	**1**	**1**
Total	526	114	152	**792**	132	95	151	**378**	**1170**	155	2338	343	**2836**	190	2642	146	**2978**	**5814**	**6984**
EQ 12Hr	731	158	211	**1100**	183	132	210	**525**	**1625**	215	3250	477	**3942**	264	3672	203	**4139**	**8081**	**9706**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	731	158	211	**1100**	183	132	210	**525**	**1625**	215	3250	477	**3942**	264	3672	203	**4139**	**8081**	**9706**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.00**					
AVG 24Hr	958	207	276	**1441**	240	173	275	**688**	**2129**	282	4258	625	**5165**	346	4810	266	**5422**	**10587**	**12716**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		AQUAVIEW DR/LAKERIDGE DR									BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	32	7	7	46	2	0	7	9	**55**	0	26	4	30	9	141	4	154	**184**	**239**
07:15	07:30	20	4	2	26	2	5	8	15	**41**	2	40	8	50	8	118	5	131	**181**	**222**
07:30	07:45	32	7	9	48	3	6	8	17	**65**	3	58	6	67	4	111	0	115	**182**	**247**
07:45	08:00	26	4	6	36	2	4	11	17	**53**	2	51	10	63	6	114	5	125	**188**	**241**
08:00	08:15	22	8	5	35	2	2	11	15	**50**	5	71	3	79	10	93	3	106	**185**	**235**
08:15	08:30	36	6	7	49	3	2	10	15	**64**	1	61	10	72	17	133	7	157	**229**	**293**
08:30	08:45	39	5	10	54	4	2	4	10	**64**	2	56	8	66	17	115	9	141	**207**	**271**
08:45	09:00	16	3	6	25	3	4	6	13	**38**	4	58	8	70	4	101	3	108	**178**	**216**
09:00	09:15	21	2	5	28	2	4	2	8	**36**	2	37	8	47	5	98	14	117	**164**	**200**
09:15	09:30	15	0	0	15	5	1	6	12	**27**	1	52	6	59	2	81	8	91	**150**	**177**
09:30	09:45	12	1	3	16	4	0	4	8	**24**	2	38	6	46	0	69	6	75	**121**	**145**
09:45	10:00	9	2	3	14	3	1	6	10	**24**	0	32	3	35	2	67	2	71	**106**	**130**
11:30	11:45	5	3	1	9	6	1	5	12	**21**	1	45	7	53	2	50	4	56	**109**	**130**
11:45	12:00	7	4	0	11	1	2	3	6	**17**	0	51	7	58	0	72	2	74	**132**	**149**
12:00	12:15	13	2	2	17	1	3	2	6	**23**	4	50	10	64	4	70	1	75	**139**	**162**
12:15	12:30	9	1	2	12	3	1	3	7	**19**	4	45	2	51	0	57	1	58	**109**	**128**
12:30	12:45	10	1	2	13	4	1	5	10	**23**	5	44	6	55	2	45	5	52	**107**	**130**
12:45	13:00	7	1	1	9	2	3	5	10	**19**	3	58	5	66	0	62	2	64	**130**	**149**
13:00	13:15	7	2	0	9	1	3	1	5	**14**	4	48	9	61	1	44	4	49	**110**	**124**
13:15	13:30	3	1	0	4	3	0	2	5	**9**	2	45	11	58	1	57	2	60	**118**	**127**
15:00	15:15	7	5	4	16	5	4	0	9	**25**	5	81	10	96	9	87	4	100	**196**	**221**
15:15	15:30	16	4	7	27	5	7	2	14	**41**	6	102	10	118	4	62	3	69	**187**	**228**
15:30	15:45	14	3	8	25	8	8	2	18	**43**	10	97	18	125	12	65	3	80	**205**	**248**
15:45	16:00	19	7	9	35	6	5	5	16	**51**	9	108	19	136	8	101	9	118	**254**	**305**
16:00	16:15	15	5	6	26	6	4	5	15	**41**	9	104	22	135	7	74	7	88	**223**	**264**
16:15	16:30	16	2	8	26	6	2	3	11	**37**	9	131	19	159	6	68	0	74	**233**	**270**
16:30	16:45	20	4	12	36	10	3	4	17	**53**	14	126	24	164	6	78	5	89	**253**	**306**
16:45	17:00	22	6	8	36	3	5	1	9	**45**	10	137	18	165	11	77	3	91	**256**	**301**
17:00	17:15	15	4	4	23	9	2	4	15	**38**	6	135	20	161	7	79	5	91	**252**	**290**
17:15	17:30	14	5	3	22	5	3	5	13	**35**	6	119	11	136	7	86	6	99	**235**	**270**
17:30	17:45	11	4	11	26	8	6	7	21	**47**	15	119	23	157	10	81	8	99	**256**	**303**
17:45	18:00	16	1	1	18	5	1	4	10	**28**	9	113	12	134	9	86	6	101	**235**	**263**
Total:		526	114	152	792	132	95	151	378	**1170**	155	2338	343	2836	190	2642	146	2978	**1170**	**6,984**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		AQUAVIEW DR/LAKERIDGE DR			BRIAN COBURN BLVD			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	1	0	**1**	**1**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	1	**1**	**1**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	0	**0**	**0**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	0	**0**	0	0	**0**	**0**
16:00	16:15	0	0	**0**	0	0	**0**	**0**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	0	**0**	0	0	**0**	**0**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		0	0	**0**	1	1	**2**	**2**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

Time Period		AQUAVIEW DR/LAKERIDGE DR			BRIAN COBURN BLVD			
		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00	07:15	0	1	**1**	0	8	**8**	**9**
07:15	07:30	0	2	**2**	0	8	**8**	**10**
07:30	07:45	0	3	**3**	0	7	**7**	**10**
07:45	08:00	0	0	**0**	0	6	**6**	**6**
08:00	08:15	0	0	**0**	0	4	**4**	**4**
08:15	08:30	0	1	**1**	0	4	**4**	**5**
08:30	08:45	0	1	**1**	0	1	**1**	**2**
08:45	09:00	0	1	**1**	0	2	**2**	**3**
09:00	09:15	0	0	**0**	0	2	**2**	**2**
09:15	09:30	0	2	**2**	0	0	**0**	**2**
09:30	09:45	0	1	**1**	0	0	**0**	**1**
09:45	10:00	0	2	**2**	0	0	**0**	**2**
11:30	11:45	0	0	**0**	2	0	**2**	**2**
11:45	12:00	0	0	**0**	2	1	**3**	**3**
12:00	12:15	0	0	**0**	1	0	**1**	**1**
12:15	12:30	0	2	**2**	0	1	**1**	**3**
12:30	12:45	0	1	**1**	0	1	**1**	**2**
12:45	13:00	0	0	**0**	0	2	**2**	**2**
13:00	13:15	0	2	**2**	0	0	**0**	**2**
13:15	13:30	0	0	**0**	0	1	**1**	**1**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	2	1	**3**	2	3	**5**	**8**
15:30	15:45	0	0	**0**	3	2	**5**	**5**
15:45	16:00	0	1	**1**	0	5	**5**	**6**
16:00	16:15	1	0	**1**	2	1	**3**	**4**
16:15	16:30	0	2	**2**	0	4	**4**	**6**
16:30	16:45	0	2	**2**	0	3	**3**	**5**
16:45	17:00	0	2	**2**	2	5	**7**	**9**
17:00	17:15	1	1	**2**	0	0	**0**	**2**
17:15	17:30	4	2	**6**	0	3	**3**	**9**
17:30	17:45	3	1	**4**	1	1	**2**	**6**
17:45	18:00	2	0	**2**	0	1	**1**	**3**
Total	.....	13	31	**44**	15	76	**91**	**135**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

AQUAVIEW DR/LAKERIDGE DR **BRIAN COBURN BLVD**

Time Period		Northbound				Southbound					Eastbound				Westbound						
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	1	4	0	**5**	**8**	**8**
07:15	07:30	1	1	0	**2**	0	0	0	**0**	**2**	0	3	0	**3**	0	2	1	**3**	**6**	**8**
07:30	07:45	1	1	1	**3**	0	1	1	**2**	**5**	1	4	1	**6**	1	5	0	**6**	**12**	**17**
07:45	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	4	2	**6**	1	4	0	**5**	**11**	**11**
08:00	08:15	2	0	0	**2**	1	0	0	**1**	**3**	0	4	1	**5**	1	5	0	**6**	**11**	**14**
08:15	08:30	0	0	0	**0**	0	0	1	**1**	**1**	0	2	2	**4**	1	3	0	**4**	**8**	**9**
08:30	08:45	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	3	0	**3**	**7**	**7**
08:45	09:00	0	0	0	**0**	0	2	0	**2**	**2**	0	4	1	**5**	0	2	1	**3**	**8**	**10**
09:00	09:15	1	0	1	**2**	0	0	0	**0**	**2**	1	3	0	**4**	0	2	0	**2**	**6**	**8**
09:15	09:30	0	0	0	**0**	0	0	1	**1**	**1**	0	1	0	**1**	0	3	0	**3**	**4**	**5**
09:30	09:45	0	0	0	**0**	1	0	0	**1**	**1**	1	2	0	**3**	0	1	0	**1**	**4**	**5**
09:45	10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
11:30	11:45	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	1	3	0	**4**	**6**	**6**
11:45	12:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	2	0	**2**	**2**	**2**
12:00	12:15	0	0	0	**0**	0	1	0	**1**	**1**	0	4	0	**4**	0	2	0	**2**	**6**	**7**
12:15	12:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
12:30	12:45	0	0	0	**0**	0	0	0	**0**	**0**	1	2	0	**3**	0	3	0	**3**	**6**	**6**
12:45	13:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	4	0	**4**	**5**	**5**
13:00	13:15	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	1	0	**1**	**4**	**4**
13:15	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	3	0	**3**	**7**	**7**
15:00	15:15	0	0	0	**0**	0	1	0	**1**	**1**	0	3	0	**3**	0	3	0	**3**	**6**	**7**
15:15	15:30	1	0	0	**1**	0	1	0	**1**	**2**	1	3	0	**4**	0	2	0	**2**	**6**	**8**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	5	1	**6**	**10**	**10**
15:45	16:00	0	0	1	**1**	1	0	0	**1**	**2**	0	2	0	**2**	2	3	1	**6**	**8**	**10**
16:00	16:15	0	1	0	**1**	0	1	0	**1**	**2**	0	4	0	**4**	0	2	0	**2**	**6**	**8**
16:15	16:30	2	0	0	**2**	0	0	0	**0**	**2**	0	1	0	**1**	0	0	0	**0**	**1**	**3**
16:30	16:45	1	0	0	**1**	2	0	0	**2**	**3**	0	3	0	**3**	0	2	0	**2**	**5**	**8**
16:45	17:00	1	0	0	**1**	0	0	0	**0**	**1**	0	3	0	**3**	0	1	0	**1**	**4**	**5**
17:00	17:15	0	0	0	**0**	1	0	0	**1**	**1**	0	0	0	**0**	0	4	0	**4**	**4**	**5**
17:15	17:30	1	0	0	**1**	0	0	0	**0**	**1**	0	4	0	**4**	0	1	0	**1**	**5**	**6**
17:30	17:45	2	0	0	**2**	0	0	0	**0**	**2**	0	2	0	**2**	0	1	0	**1**	**3**	**5**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	1	**2**	0	1	0	**1**	**3**	**3**
Total:	None	13	3	3	**19**	6	7	3	**16**	**35**	5	82	8	**95**	8	79	4	**91**	**186**	**221**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

AQUAVIEW DR/LAKERIDGE DR @ BRIAN COBURN BLVD

Survey Date: Tuesday, February 26, 2019 **WO No:** 38372

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

AQUAVIEW DR/LAKERIDGE DR **BRIAN COBURN BLVD**

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	0	0	1	**1**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	0	0	0	**0**
12:00	12:15	0	0	0	0	**0**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	0	0	0	**0**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	0	0	0	0	**0**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	0	0	0	0	**0**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	0	0	0	**0**
16:00	16:15	0	0	0	0	**0**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	0	0	0	**0**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		0	0	0	1	**1**

Transportation Services - Traffic Services

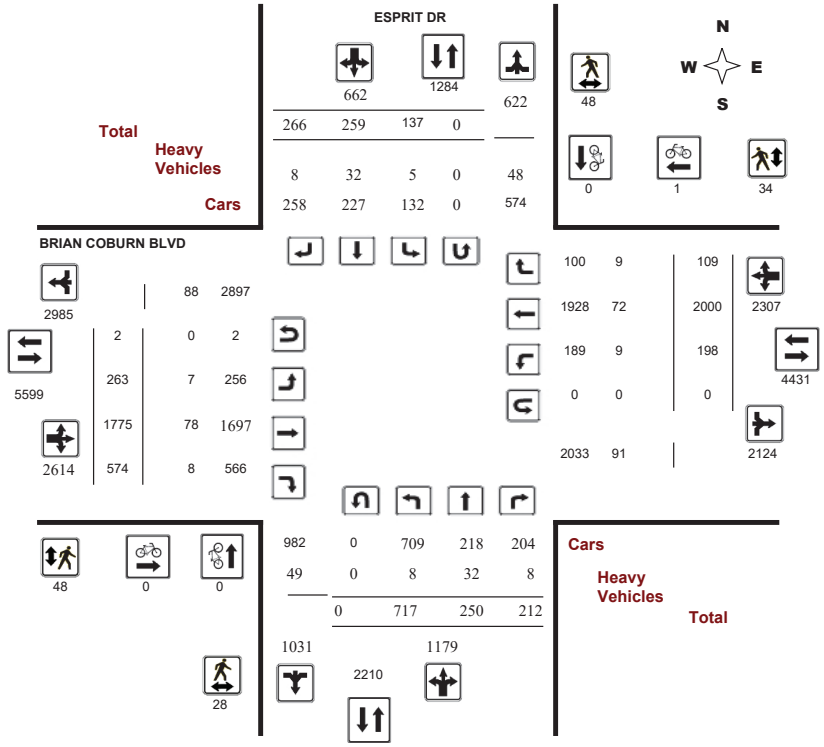
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

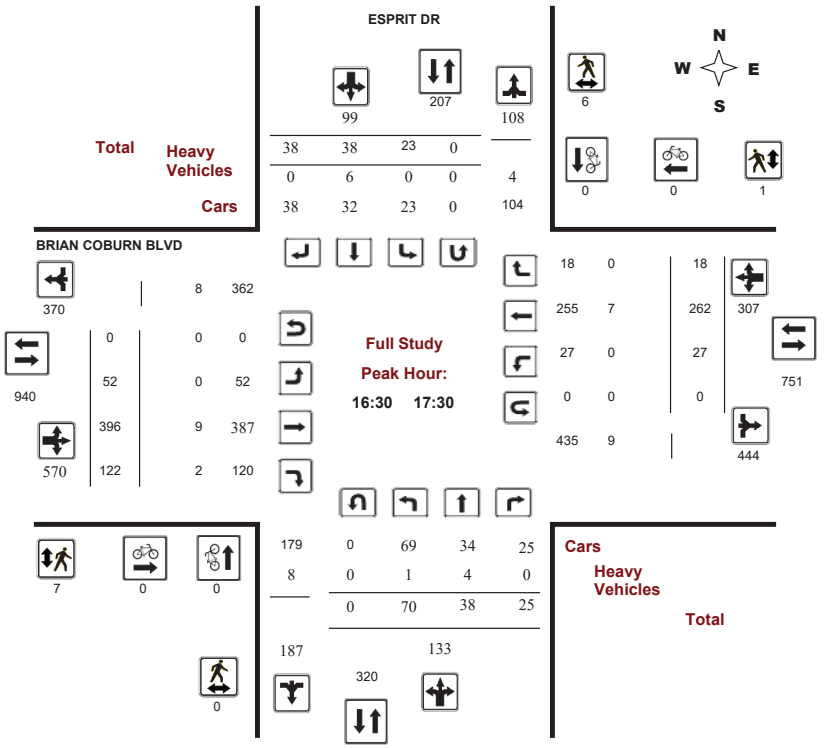
Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



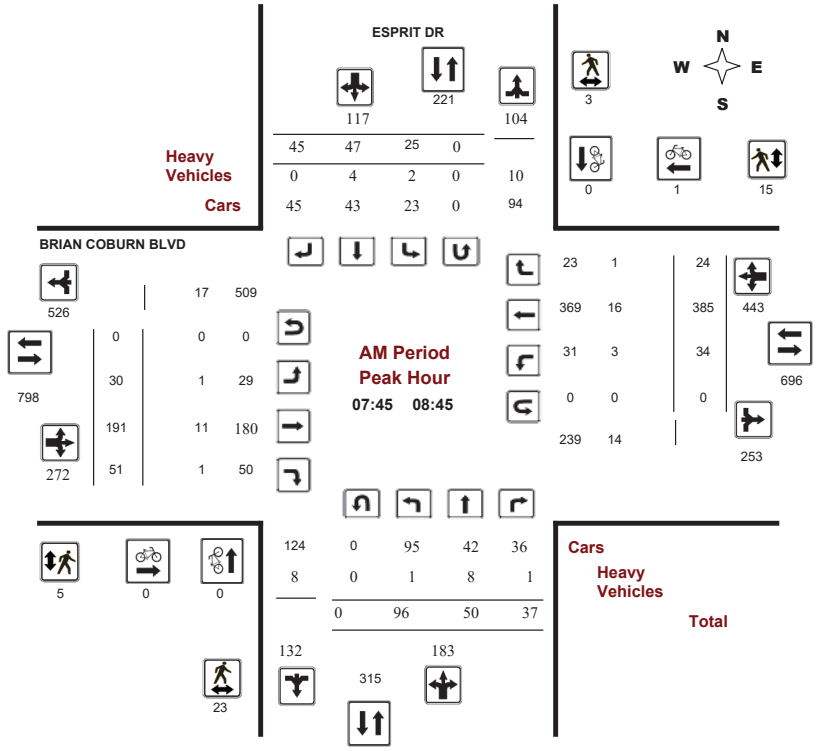
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision



Comments

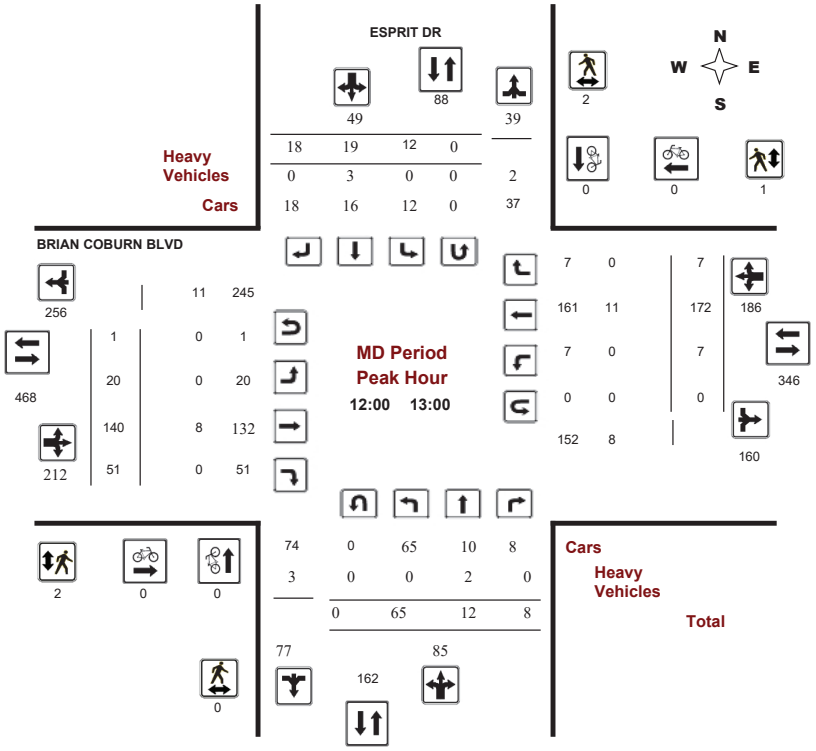
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision



Comments

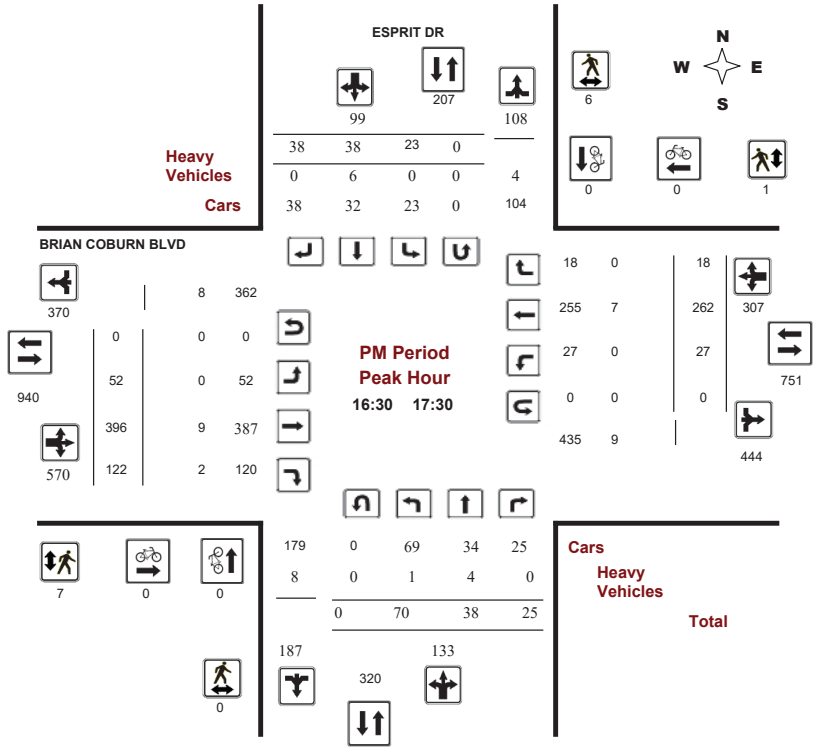
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, February 26, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 2 Westbound: 0

AADT Factor 1.00

	ESPRIT DR								BRIAN COBURN BLVD								
	Northbound				Southbound				Eastbound				Westbound				
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	119	62	38	**219**	18	33	55	**106**	**325**	24	165	23	**212**	24	355	28	**407**	**619**	**944**
08:00 09:00	104	38	32	**174**	25	40	33	**98**	**272**	30	198	52	**280**	34	373	13	**420**	**700**	**972**
09:00 10:00	129	25	23	**177**	12	31	29	**72**	**249**	14	127	46	**187**	21	195	6	**222**	**409**	**658**
11:30 12:30	65	12	11	**88**	7	14	25	**46**	**134**	22	139	45	**206**	7	174	8	**189**	**395**	**529**
12:30 13:30	58	13	7	**78**	12	19	15	**46**	**124**	19	141	50	**210**	13	157	8	**178**	**388**	**512**
15:00 16:00	90	35	43	**168**	11	42	33	**86**	**254**	50	266	107	**423**	50	244	18	**312**	**735**	**989**
16:00 17:00	73	35	36	**144**	34	37	40	**111**	**255**	53	384	128	**565**	26	227	15	**268**	**833**	**1088**
17:00 18:00	79	30	22	**131**	18	43	36	**97**	**228**	51	355	123	**529**	23	275	13	**311**	**840**	**1068**
Sub Total	717	250	212	**1179**	137	259	266	**662**	**1841**	263	1775	574	**2612**	198	2000	109	**2307**	**4919**	**6760**
U Turns				**0**				**0**	**0**				**2**				**0**	**2**	**2**
Total	717	250	212	**1179**	137	259	266	**662**	**1841**	263	1775	574	**2614**	198	2000	109	**2307**	**4921**	**6762**
EQ 12Hr	997	348	295	**1639**	190	360	370	**920**	**2559**	366	2467	798	**3633**	275	2780	152	**3207**	**6840**	**9399**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	939	328	278	**1544**	179	339	348	**867**	**2559**	345	2325	752	**3424**	259	2620	143	**3022**	**6840**	**9399**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1**					
AVG 24Hr	1230	429	364	**2023**	235	444	456	**1136**	**3159**	451	3046	985	**4486**	340	3432	187	**3959**	**8445**	**11604**

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. **1.31**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		ESPRIT DR									BRIAN COBURN BLVD										
		Northbound				Southbound					Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	41	14	5	60	1	4	17	22	3	2	25	7	34	2	96	6	104	3	220
07:15	07:30	28	15	9	52	7	6	15	28	5	4	32	3	39	6	91	4	101	5	220
07:30	07:45	31	16	13	60	6	6	7	19	6	9	64	5	78	8	80	5	93	6	250
07:45	08:00	19	17	11	47	4	17	16	37	5	9	44	8	61	8	88	13	109	5	254
08:00	08:15	28	12	7	47	8	13	7	28	4	7	47	15	69	8	71	2	81	4	225
08:15	08:30	25	9	10	44	8	10	12	30	3	6	52	15	73	8	119	4	131	3	278
08:30	08:45	24	12	9	45	5	7	10	22	4	8	48	13	69	10	107	5	122	4	258
08:45	09:00	27	5	6	38	4	10	4	18	3	9	51	9	69	8	76	2	86	3	211
09:00	09:15	51	15	8	74	3	13	6	22	3	2	36	7	45	12	62	0	74	3	215
09:15	09:30	39	4	7	50	3	8	9	20	5	2	42	10	55	5	40	0	45	5	170
09:30	09:45	23	2	5	30	3	4	9	16	2	5	25	17	47	1	43	4	48	2	141
09:45	10:00	16	4	3	23	3	6	5	14	2	5	24	12	41	3	50	2	55	2	133
11:30	11:45	8	4	4	16	1	2	3	6	2	5	36	10	51	4	46	2	52	2	125
11:45	12:00	20	3	2	25	1	4	10	15	3	5	35	9	49	0	43	2	45	3	134
12:00	12:15	22	2	3	27	2	5	8	15	1	5	37	12	54	1	45	3	49	1	145
12:15	12:30	15	3	2	20	3	3	4	10	1	7	31	14	52	2	40	1	43	1	125
12:30	12:45	12	3	3	18	4	3	3	10	1	5	33	11	50	2	38	1	41	1	119
12:45	13:00	16	4	0	20	3	8	3	14	2	3	39	14	56	2	49	2	53	2	143
13:00	13:15	11	3	3	17	2	4	6	12	2	7	31	14	52	6	34	3	43	2	124
13:15	13:30	19	3	1	23	3	4	3	10	2	4	38	11	53	3	36	2	41	2	127
15:00	15:15	19	7	9	35	3	9	9	21	1	13	48	24	85	21	75	1	97	1	238
15:15	15:30	13	6	12	31	2	8	6	16	3	14	69	30	113	15	48	3	66	3	226
15:30	15:45	19	5	9	33	2	14	10	26	5	11	68	22	101	9	51	3	63	5	223
15:45	16:00	39	17	13	69	4	11	8	23	2	12	81	31	124	5	70	11	86	2	302
16:00	16:15	20	10	10	40	10	10	9	29	7	9	86	28	123	6	57	4	67	7	259
16:15	16:30	19	7	12	38	12	9	9	30	2	18	89	37	144	5	46	2	53	2	265
16:30	16:45	17	9	8	34	4	9	14	27	4	14	103	32	149	8	58	5	71	4	281
16:45	17:00	17	9	6	32	8	9	8	25	1	12	106	31	149	7	66	4	77	1	283
17:00	17:15	21	7	6	34	8	6	9	23	5	12	102	30	144	4	62	3	69	5	270
17:15	17:30	15	13	5	33	3	14	7	24	1	14	85	29	128	8	76	6	90	1	275
17:30	17:45	17	4	8	29	2	13	11	26	3	13	94	33	140	10	70	1	81	3	276
17:45	18:00	26	6	3	35	5	10	9	24	0	12	74	31	117	1	67	3	71	0	247
Total:		717	250	212	1179	137	259	266	662	93	263	1775	574	2614	198	2000	109	2307	93	6,762

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		ESPRIT DR			BRIAN COBURN BLVD			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	1	1	1
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
Total		0	0	**0**	0	1	1	1

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

		ESPRIT DR			BRIAN COBURN BLVD			
Time Period		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00	07:15	0	0	**0**	0	1	**1**	**1**
07:15	07:30	0	1	**1**	0	2	**2**	**3**
07:30	07:45	0	0	**0**	0	4	**4**	**4**
07:45	08:00	1	0	**1**	1	5	**6**	**7**
08:00	08:15	0	1	**1**	0	8	**8**	**9**
08:15	08:30	0	1	**1**	0	1	**1**	**2**
08:30	08:45	22	1	**23**	4	1	**5**	**28**
08:45	09:00	0	4	**4**	5	4	**9**	**13**
09:00	09:15	0	1	**1**	0	0	**0**	**1**
09:15	09:30	0	2	**2**	0	2	**2**	**4**
09:30	09:45	1	2	**3**	1	0	**1**	**4**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	1	**1**	**1**
11:45	12:00	0	0	**0**	0	1	**1**	**1**
12:00	12:15	0	1	**1**	2	0	**2**	**3**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	1	**1**	0	1	**1**	**2**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	1	0	**1**	1	0	**1**	**2**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	2	**2**	0	1	**1**	**3**
15:30	15:45	0	11	**11**	1	0	**1**	**12**
15:45	16:00	0	4	**4**	7	0	**7**	**11**
16:00	16:15	0	0	**0**	8	0	**8**	**8**
16:15	16:30	0	4	**4**	4	0	**4**	**8**
16:30	16:45	0	1	**1**	1	0	**1**	**2**
16:45	17:00	0	2	**2**	1	1	**2**	**4**
17:00	17:15	0	3	**3**	2	0	**2**	**5**
17:15	17:30	0	0	**0**	3	0	**3**	**3**
17:30	17:45	2	3	**5**	4	1	**5**	**10**
17:45	18:00	1	3	**4**	3	0	**3**	**7**
Total	.....	28	48	**76**	48	34	**82**	**158**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		ESPRIT DR									BRIAN COBURN BLVD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	2	1	**3**	0	0	0	**0**	**3**	0	2	0	**2**	0	5	1	**6**	**8**	**11**
07:15	07:30	0	2	0	**2**	1	1	1	**3**	**5**	1	3	0	**4**	4	2	0	**6**	**10**	**15**
07:30	07:45	1	2	2	**5**	0	1	0	**1**	**6**	1	4	0	**5**	0	4	0	**4**	**9**	**15**
07:45	08:00	0	2	0	**2**	0	3	0	**3**	**5**	1	3	0	**4**	0	5	1	**6**	**10**	**15**
08:00	08:15	1	2	1	**4**	0	0	0	**0**	**4**	0	3	1	**4**	2	4	0	**6**	**10**	**14**
08:15	08:30	0	1	0	**1**	1	1	0	**2**	**3**	0	2	0	**2**	0	4	0	**4**	**6**	**9**
08:30	08:45	0	3	0	**3**	1	0	0	**1**	**4**	0	3	0	**3**	1	3	0	**4**	**7**	**11**
08:45	09:00	1	0	0	**1**	1	1	0	**2**	**3**	1	3	1	**5**	0	1	1	**2**	**7**	**10**
09:00	09:15	0	3	0	**3**	0	0	0	**0**	**3**	0	4	0	**4**	0	2	0	**2**	**6**	**9**
09:15	09:30	1	0	1	**2**	0	2	1	**3**	**5**	0	2	0	**2**	0	1	0	**1**	**3**	**8**
09:30	09:45	0	1	0	**1**	0	0	1	**1**	**2**	0	3	1	**4**	0	0	1	**1**	**5**	**7**
09:45	10:00	0	0	0	**0**	0	2	0	**2**	**2**	1	0	0	**1**	0	1	0	**1**	**2**	**4**
11:30	11:45	0	2	0	**2**	0	0	0	**0**	**2**	1	1	0	**2**	0	4	0	**4**	**6**	**8**
11:45	12:00	0	0	0	**0**	1	1	1	**3**	**3**	0	0	0	**0**	0	1	0	**1**	**1**	**4**
12:00	12:15	0	1	0	**1**	0	0	0	**0**	**1**	0	3	0	**3**	0	2	0	**2**	**5**	**6**
12:15	12:30	0	0	0	**0**	0	1	0	**1**	**1**	0	2	0	**2**	0	2	0	**2**	**4**	**5**
12:30	12:45	0	1	0	**1**	0	0	0	**0**	**1**	0	2	0	**2**	0	3	0	**3**	**5**	**6**
12:45	13:00	0	0	0	**0**	0	2	0	**2**	**2**	0	1	0	**1**	0	4	0	**4**	**5**	**7**
13:00	13:15	0	1	1	**2**	0	0	0	**0**	**2**	0	2	1	**3**	0	0	0	**0**	**3**	**5**
13:15	13:30	1	0	0	**1**	0	1	0	**1**	**2**	0	4	1	**5**	0	2	0	**2**	**7**	**9**
15:00	15:15	0	1	0	**1**	0	0	0	**0**	**1**	0	4	0	**4**	0	3	0	**3**	**7**	**8**
15:15	15:30	0	0	1	**1**	0	1	1	**2**	**3**	1	2	0	**3**	0	1	1	**2**	**5**	**8**
15:30	15:45	1	1	1	**3**	0	0	2	**2**	**5**	0	3	0	**3**	2	3	0	**5**	**8**	**13**
15:45	16:00	0	1	0	**1**	0	1	0	**1**	**2**	0	4	0	**4**	0	6	3	**9**	**13**	**15**
16:00	16:15	1	1	0	**2**	0	4	1	**5**	**7**	0	3	0	**3**	0	0	1	**1**	**4**	**11**
16:15	16:30	0	0	0	**0**	0	2	0	**2**	**2**	0	2	0	**2**	0	0	0	**0**	**2**	**4**
16:30	16:45	0	2	0	**2**	0	2	0	**2**	**4**	0	3	0	**3**	0	2	0	**2**	**5**	**9**
16:45	17:00	0	0	0	**0**	0	1	0	**1**	**1**	0	3	1	**4**	0	1	0	**1**	**5**	**6**
17:00	17:15	1	2	0	**3**	0	2	0	**2**	**5**	0	0	1	**1**	0	3	0	**3**	**4**	**9**
17:15	17:30	0	0	0	**0**	0	1	0	**1**	**1**	0	3	0	**3**	0	1	0	**1**	**4**	**5**
17:30	17:45	0	1	0	**1**	0	2	0	**2**	**3**	0	3	0	**3**	0	1	0	**1**	**4**	**7**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	1	**2**	0	1	0	**1**	**3**	**3**
Total:	None	8	32	8	**48**	5	32	8	**45**	**93**	7	78	8	**93**	9	72	9	**90**	**183**	**276**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRIAN COBURN BLVD @ ESPRIT DR

Survey Date: Tuesday, February 26, 2019 **WO No:** 38373

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		ESPRIT DR Northbound U-Turn Total	ESPRIT DR Southbound U-Turn Total	BRIAN COBURN BLVD Eastbound U-Turn Total	BRIAN COBURN BLVD Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	1	0	1
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	1	0	1
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	2	0	2

Transportation Services - Traffic Services

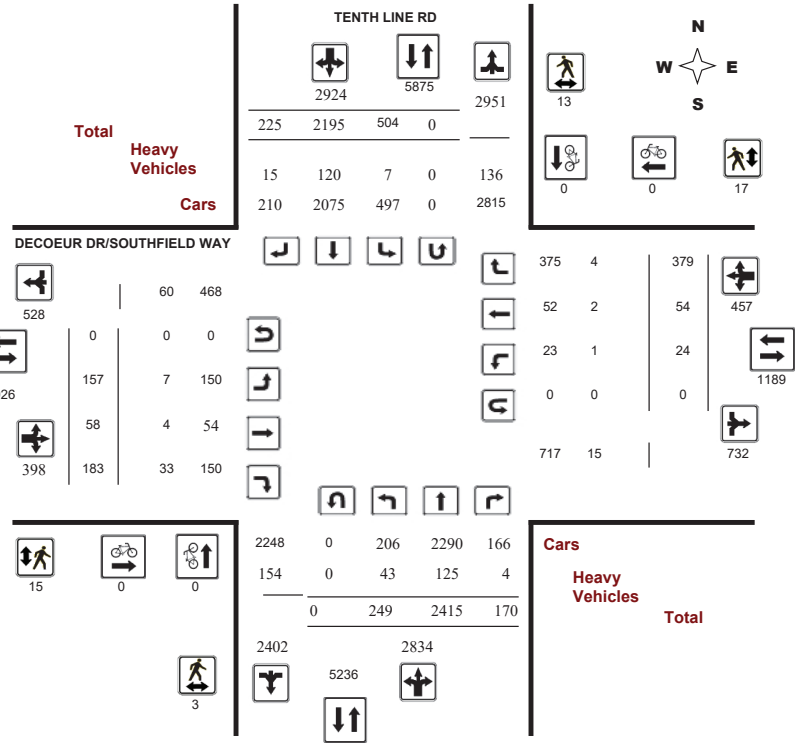
Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

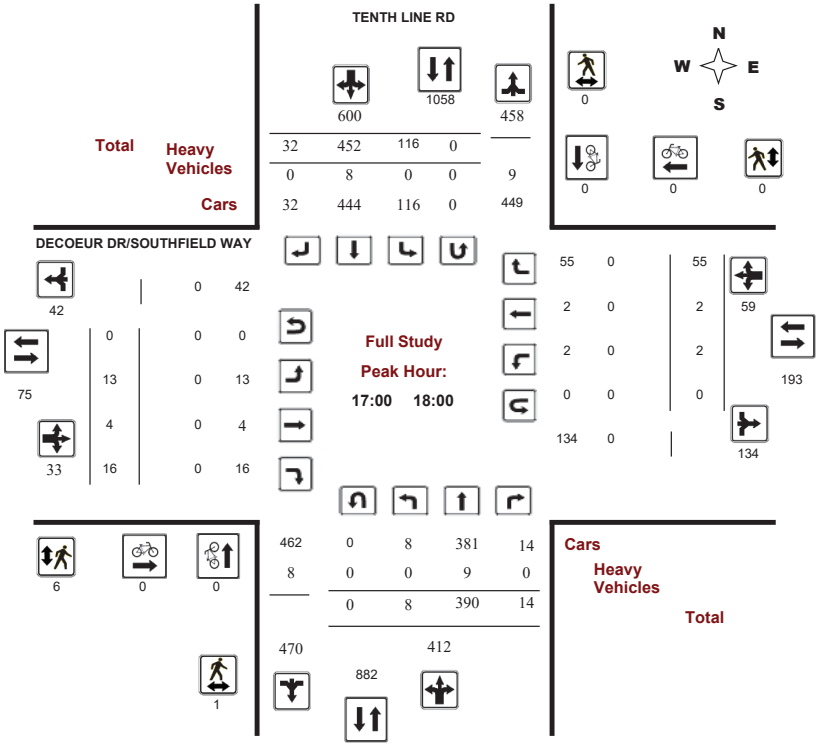
Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



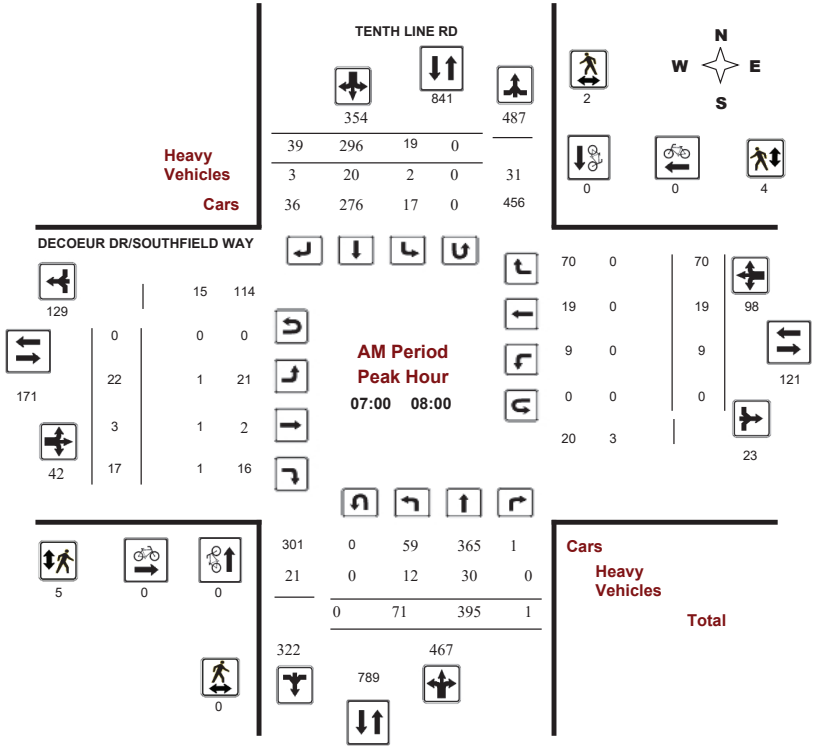
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision



Comments

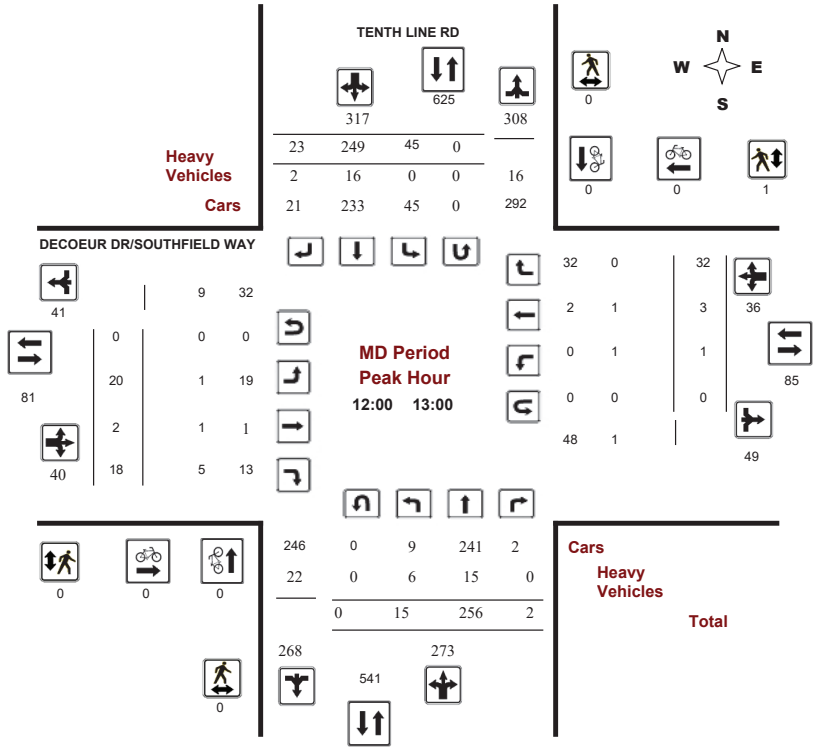
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision



Comments

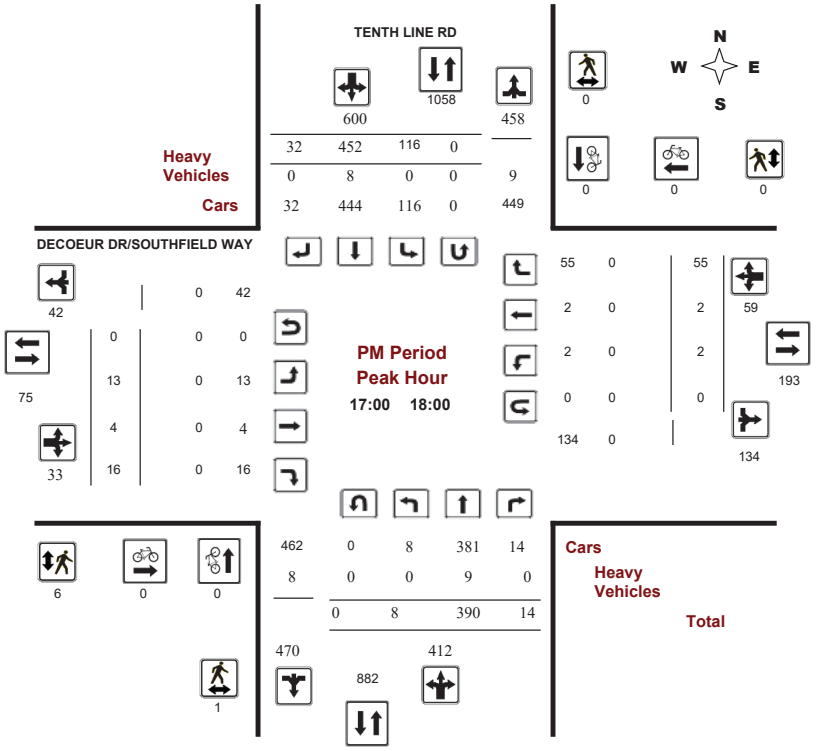
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, February 09, 2017

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

AADT Factor .90

	TENTH LINE RD								DECOEUR DR/SOUTHFIELD WAY								
	Northbound				Southbound				Eastbound				Westbound				
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	71	395	1	**467**	19	296	39	**354**	**821**	22	3	17	**42**	9	19	70	**98**	**140**	**961**
08:00 09:00	30	381	1	**412**	31	232	40	**303**	**715**	25	6	22	**53**	6	7	70	**83**	**136**	**851**
09:00 10:00	20	266	1	**287**	33	181	15	**229**	**516**	18	0	13	**31**	4	2	52	**58**	**89**	**605**
11:30 12:30	14	247	2	**263**	40	245	26	**311**	**574**	28	0	18	**46**	1	2	41	**44**	**90**	**664**
12:30 13:30	21	243	2	**266**	55	232	20	**307**	**573**	19	2	18	**39**	1	4	31	**36**	**75**	**648**
15:00 16:00	15	301	4	**320**	95	353	28	**476**	**796**	19	7	51	**77**	1	0	35	**36**	**113**	**909**
16:00 17:00	70	192	145	**407**	115	204	25	**344**	**751**	13	36	28	**77**	0	18	25	**43**	**120**	**871**
17:00 18:00	8	390	14	**412**	116	452	32	**600**	**1012**	13	4	16	**33**	2	2	55	**59**	**92**	**1104**
Sub Total	249	2415	170	**2834**	504	2195	225	**2924**	**5758**	157	58	183	**398**	24	54	379	**457**	**855**	**6613**
U Turns	0			**0**	0			**0**	**0**	**0**			**0**	0			**0**	**0**	**0**
Total	249	2415	170	**2834**	504	2195	225	**2924**	**5758**	157	58	183	**398**	24	54	379	**457**	**855**	**6613**
EQ 12Hr	346	3357	236	**3939**	701	3051	313	**4065**	**8004**	218	81	254	**553**	33	75	527	**635**	**1188**	**9192**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	311	3021	212	**3544**	631	2746	282	**3659**	**7203**	196	73	229	**498**	30	68	474	**572**	**1070**	**8273**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	407	3958	278	**4643**	827	3597	369	**4793**	**9436**	257	96	300	**653**	39	89	621	**749**	**1402**	**10838**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		TENTH LINE RD									DECOEUR DR/SOUTHFIELD WAY									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	11	97	0	108	7	72	14	93	**201**	6	0	3	9	4	6	27	37	**46**	**247**
07:15	07:30	21	94	0	115	3	90	9	102	**217**	2	0	4	6	0	3	13	16	**22**	**239**
07:30	07:45	24	106	0	130	4	72	10	86	**216**	3	1	6	10	3	6	13	22	**32**	**248**
07:45	08:00	15	98	1	114	5	62	6	73	**187**	11	2	4	17	2	4	17	23	**40**	**227**
08:00	08:15	8	93	0	101	5	77	12	94	**195**	4	1	5	10	3	3	19	25	**35**	**230**
08:15	08:30	4	111	0	115	14	55	13	82	**197**	6	2	5	13	1	2	23	26	**39**	**236**
08:30	08:45	12	91	1	104	5	57	12	74	**178**	12	2	5	19	1	2	19	22	**41**	**219**
08:45	09:00	6	86	0	92	7	43	3	53	**145**	3	1	7	11	1	0	9	10	**21**	**166**
09:00	09:15	3	75	0	78	7	48	3	58	**136**	7	0	2	9	0	0	19	19	**28**	**164**
09:15	09:30	6	59	0	65	8	49	2	59	**124**	3	0	3	6	1	2	14	17	**23**	**147**
09:30	09:45	5	76	1	82	7	41	5	53	**135**	4	0	5	9	3	0	7	10	**19**	**154**
09:45	10:00	6	56	0	62	11	43	5	59	**121**	4	0	3	7	0	0	12	12	**19**	**140**
11:30	11:45	7	59	0	66	15	51	5	71	**137**	5	0	3	8	0	0	12	12	**20**	**157**
11:45	12:00	3	60	1	64	7	58	9	74	**138**	11	0	8	19	0	1	8	9	**28**	**166**
12:00	12:15	3	60	0	63	9	66	6	81	**144**	7	0	5	12	1	1	7	9	**21**	**165**
12:15	12:30	1	68	1	70	9	70	6	85	**155**	5	0	2	7	0	0	14	14	**21**	**176**
12:30	12:45	3	66	1	70	18	53	6	77	**147**	2	1	4	7	0	0	3	3	**10**	**157**
12:45	13:00	8	62	0	70	9	60	5	74	**144**	6	1	7	14	0	2	8	10	**24**	**168**
13:00	13:15	5	50	1	56	11	62	6	79	**135**	5	0	4	9	1	1	11	13	**22**	**157**
13:15	13:30	5	65	0	70	17	57	3	77	**147**	6	0	3	9	0	1	9	10	**19**	**166**
15:00	15:15	7	68	0	75	16	65	8	89	**164**	5	2	7	14	0	0	8	8	**22**	**186**
15:15	15:30	3	91	1	95	25	86	7	118	**213**	11	3	13	27	1	0	8	9	**36**	**249**
15:30	15:45	2	69	1	72	27	94	6	127	**199**	1	1	9	11	0	0	9	9	**20**	**219**
15:45	16:00	3	73	2	78	27	108	7	142	**220**	2	1	22	25	0	0	10	10	**35**	**255**
16:00	16:15	11	76	11	98	14	77	7	98	**196**	10	5	8	23	0	3	8	11	**34**	**230**
16:15	16:30	14	48	40	102	31	30	8	69	**171**	3	12	10	25	0	2	7	9	**34**	**205**
16:30	16:45	30	0	65	95	44	21	5	70	**165**	0	12	8	20	0	10	0	10	**30**	**195**
16:45	17:00	15	68	29	112	26	76	5	107	**219**	0	7	2	9	0	3	10	13	**22**	**241**
17:00	17:15	1	111	2	114	35	122	6	163	**277**	2	1	6	9	0	2	14	16	**25**	**302**
17:15	17:30	2	103	4	109	21	111	11	143	**252**	3	2	4	9	1	0	15	16	**25**	**277**
17:30	17:45	3	87	5	95	26	104	7	137	**232**	3	1	1	5	0	0	15	15	**20**	**252**
17:45	18:00	2	89	3	94	34	115	8	157	**251**	5	0	5	10	1	0	11	12	**22**	**273**
Total:		249	2415	170	2834	504	2195	225	2924	**5758**	157	58	183	398	24	54	379	457	**5758**	**6,613**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		TENTH LINE RD			DECOEUR DR/SOUTHFIELD WAY			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	0	0	**0**	**0**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	0	**0**	**0**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	0	**0**	0	0	**0**	**0**
16:00	16:15	0	0	**0**	0	0	**0**	**0**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	0	**0**	0	0	**0**	**0**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		0	0	**0**	0	0	**0**	**0**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

Time Period		TENTH LINE RD			DECOEUR DR/SOUTHFIELD WAY			
		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00	07:15	0	1	**1**	3	1	**4**	**5**
07:15	07:30	0	0	**0**	1	2	**3**	**3**
07:30	07:45	0	0	**0**	1	0	**1**	**1**
07:45	08:00	0	1	**1**	0	1	**1**	**2**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	1	**1**	0	2	**2**	**3**
08:45	09:00	0	1	**1**	0	1	**1**	**2**
09:00	09:15	0	0	**0**	1	0	**1**	**1**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	1	**1**	0	0	**0**	**1**
11:30	11:45	0	1	**1**	0	1	**1**	**2**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	1	**1**	**1**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	2	**2**	0	0	**0**	**2**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	2	3	**5**	**5**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	0	**0**	0	3	**3**	**3**
16:00	16:15	2	1	**3**	0	0	**0**	**3**
16:15	16:30	0	0	**0**	1	0	**1**	**1**
16:30	16:45	0	1	**1**	0	1	**1**	**2**
16:45	17:00	0	3	**3**	0	1	**1**	**4**
17:00	17:15	1	0	**1**	2	0	**2**	**3**
17:15	17:30	0	0	**0**	2	0	**2**	**2**
17:30	17:45	0	0	**0**	1	0	**1**	**1**
17:45	18:00	0	0	**0**	1	0	**1**	**1**
Total	.....	3	13	**16**	15	17	**32**	**48**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		TENTH LINE RD									DECOEUR DR/SOUTHFIELD WAY									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	1	8	0	**9**	0	4	0	**4**	**13**	0	0	0	**0**	0	0	0	**0**	**0**	**13**
07:15	07:30	1	6	0	**7**	1	4	0	**5**	**12**	0	0	0	**0**	0	0	0	**0**	**0**	**12**
07:30	07:45	6	8	0	**14**	1	6	2	**9**	**23**	1	1	0	**2**	0	0	0	**0**	**2**	**25**
07:45	08:00	4	8	0	**12**	0	6	1	**7**	**19**	0	0	1	**1**	0	0	0	**0**	**1**	**20**
08:00	08:15	0	2	0	**2**	0	9	0	**9**	**11**	1	0	3	**4**	0	0	0	**0**	**4**	**15**
08:15	08:30	2	3	0	**5**	0	5	2	**7**	**12**	1	0	0	**1**	0	0	1	**1**	**2**	**14**
08:30	08:45	2	6	0	**8**	0	6	2	**8**	**16**	1	0	3	**4**	0	0	0	**0**	**4**	**20**
08:45	09:00	2	5	0	**7**	0	0	0	**0**	**7**	1	0	2	**3**	0	0	0	**0**	**3**	**10**
09:00	09:15	2	2	0	**4**	0	9	0	**9**	**13**	0	0	0	**0**	0	0	0	**0**	**0**	**13**
09:15	09:30	1	4	0	**5**	0	2	0	**2**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
09:30	09:45	1	7	0	**8**	0	5	1	**6**	**14**	0	0	0	**0**	0	0	0	**0**	**0**	**14**
09:45	10:00	0	4	0	**4**	0	2	1	**3**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
11:30	11:45	3	4	0	**7**	0	3	0	**3**	**10**	0	0	0	**0**	0	0	0	**0**	**0**	**10**
11:45	12:00	1	2	0	**3**	0	0	1	**1**	**4**	0	0	1	**1**	0	0	0	**0**	**1**	**5**
12:00	12:15	3	3	0	**6**	0	3	0	**3**	**9**	0	0	0	**0**	1	0	0	**1**	**1**	**10**
12:15	12:30	0	4	0	**4**	0	5	1	**6**	**10**	1	0	0	**1**	0	0	0	**0**	**1**	**11**
12:30	12:45	1	4	0	**5**	0	4	1	**5**	**10**	0	1	3	**4**	0	0	0	**0**	**4**	**14**
12:45	13:00	2	4	0	**6**	0	4	0	**4**	**10**	0	0	2	**2**	0	1	0	**1**	**3**	**13**
13:00	13:15	0	0	0	**0**	0	5	0	**5**	**5**	0	0	2	**2**	0	0	0	**0**	**2**	**7**
13:15	13:30	2	6	0	**8**	0	4	0	**4**	**12**	0	0	1	**1**	0	0	0	**0**	**1**	**13**
15:00	15:15	1	4	0	**5**	0	5	2	**7**	**12**	1	0	1	**2**	0	0	0	**0**	**2**	**14**
15:15	15:30	1	6	0	**7**	0	4	0	**4**	**11**	0	0	4	**4**	0	0	1	**1**	**5**	**16**
15:30	15:45	1	2	0	**3**	2	4	1	**7**	**10**	0	0	1	**1**	0	0	1	**1**	**2**	**12**
15:45	16:00	1	7	0	**8**	0	7	0	**7**	**15**	0	0	5	**5**	0	0	0	**0**	**5**	**20**
16:00	16:15	2	3	0	**5**	0	3	0	**3**	**8**	0	0	0	**0**	0	0	1	**1**	**1**	**9**
16:15	16:30	1	2	1	**4**	1	1	0	**2**	**6**	0	0	2	**2**	0	0	0	**0**	**2**	**8**
16:30	16:45	1	0	2	**3**	2	1	0	**3**	**6**	0	2	2	**4**	0	1	0	**1**	**5**	**11**
16:45	17:00	1	2	1	**4**	0	1	0	**1**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
17:00	17:15	0	1	0	**1**	0	2	0	**2**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
17:15	17:30	0	4	0	**4**	0	2	0	**2**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
17:30	17:45	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
17:45	18:00	0	3	0	**3**	0	3	0	**3**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
Total:	None	43	125	4	**172**	7	120	15	**142**	**314**	7	4	33	**44**	1	2	4	**7**	**51**	**365**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD

Survey Date: Thursday, February 09, 2017 **WO No:** 36678

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		TENTH LINE RD		DECOEUR DR/SOUTHFIELD WAY		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	0	0	0	**0**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	0	0	0	**0**
12:00	12:15	0	0	0	0	**0**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	0	0	0	**0**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	0	0	0	0	**0**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	0	0	0	0	**0**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	0	0	0	**0**
16:00	16:15	0	0	0	0	**0**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	0	0	0	**0**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		0	0	0	0	**0**

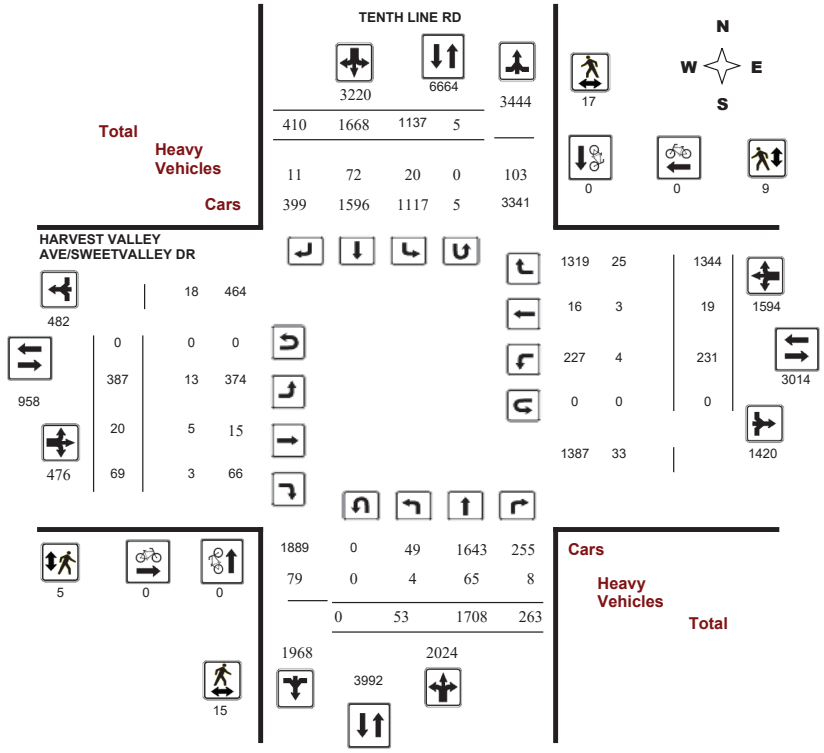
Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018
Start Time: 07:00
WO No: 37740
Device: Miovision

Full Study Diagram



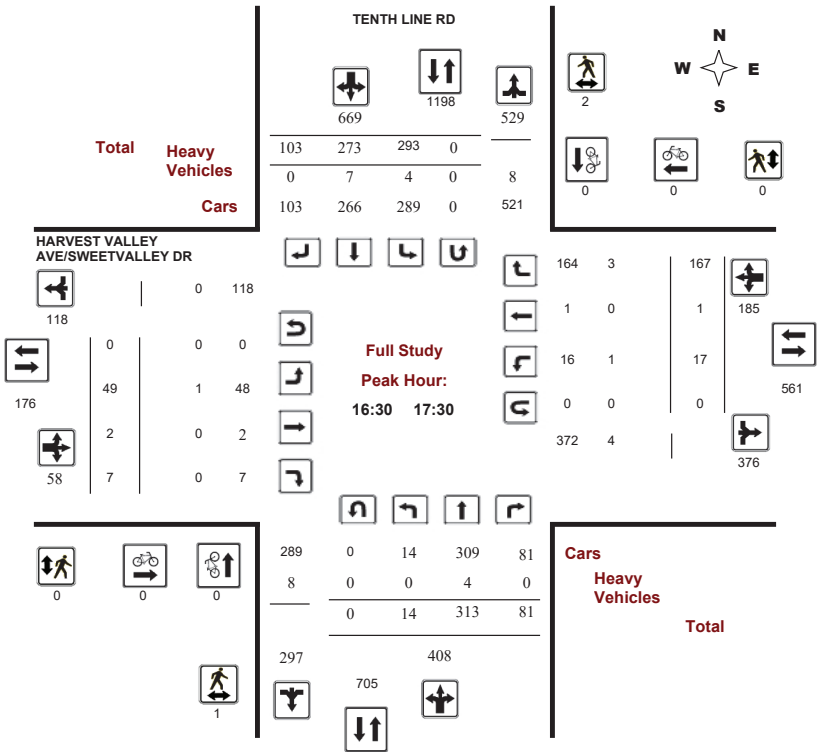
Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018
Start Time: 07:00
WO No: 37740
Device: Miovision

Full Study Peak Hour Diagram



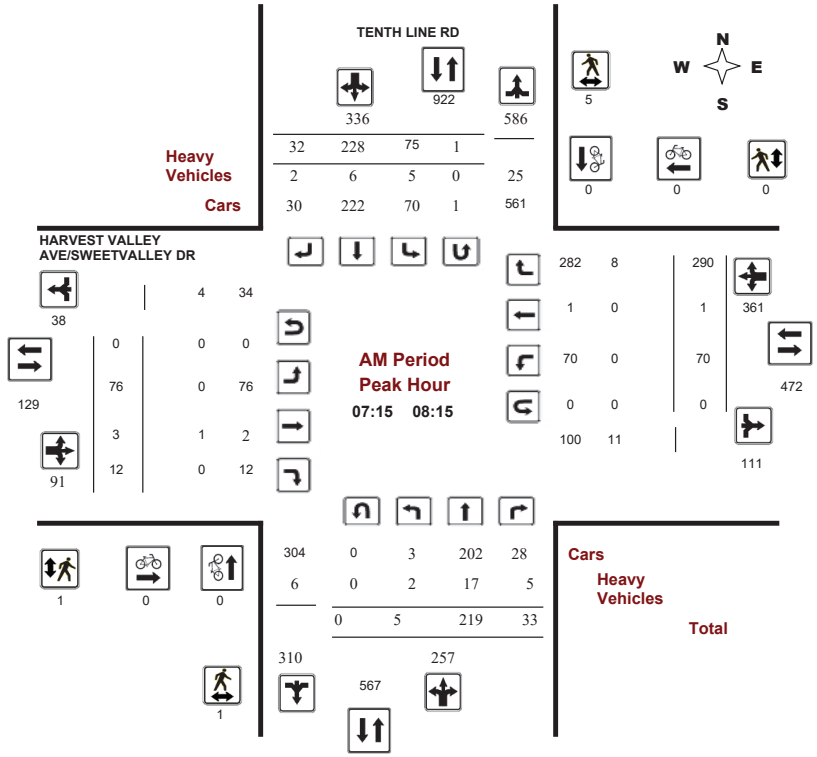
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision



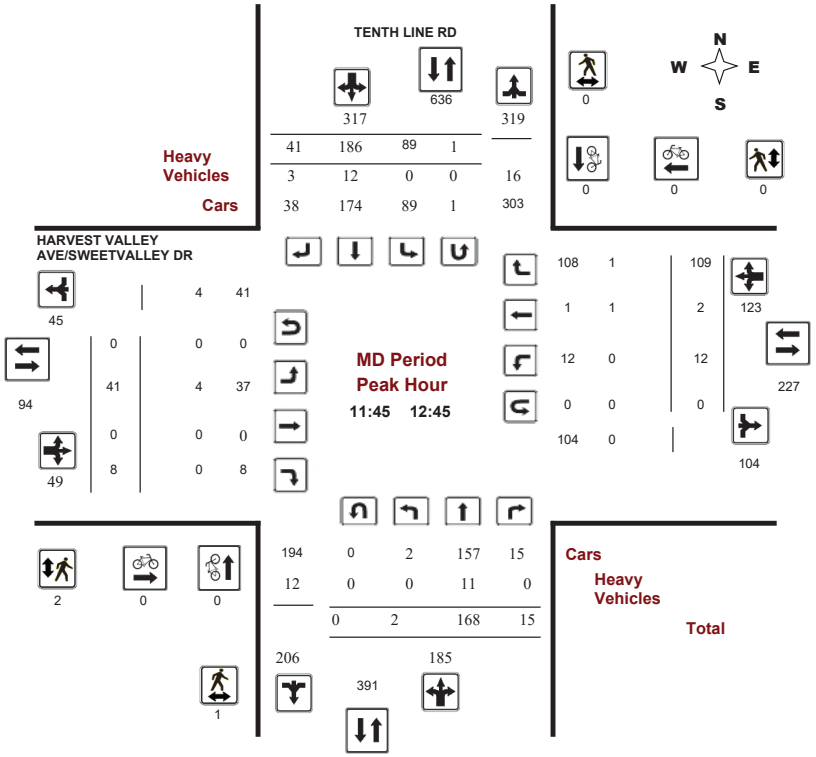
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision



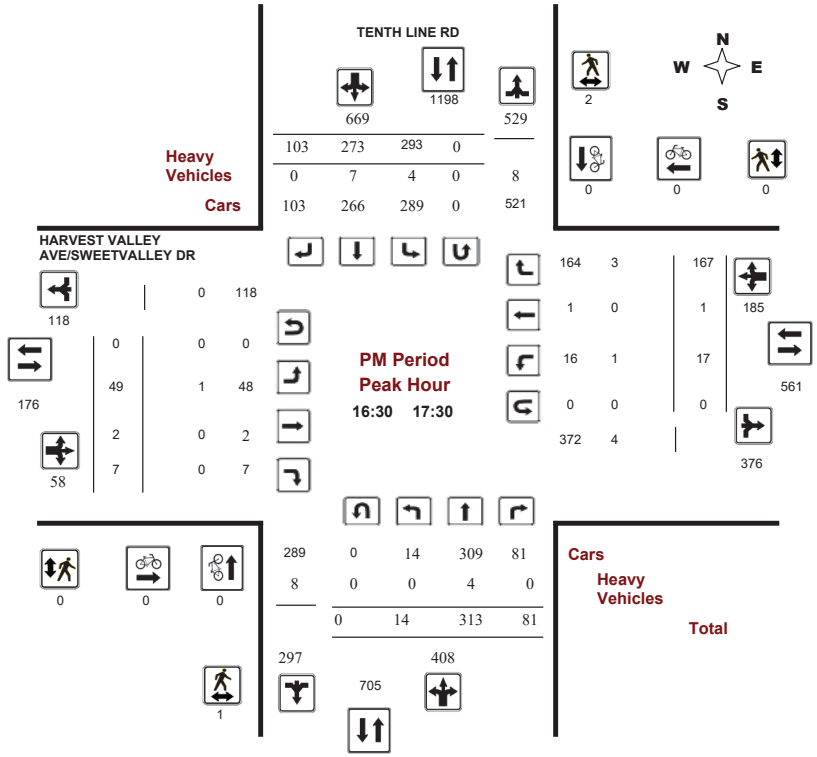
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, April 19, 2018

Total Observed U-Turns

Northbound: 0 Southbound: 5

Eastbound: 0 Westbound: 0

AADT Factor .90

	TENTH LINE RD								HARVEST VALLEY AVE/SWEETVALLEY DR								
	Northbound				Southbound				Eastbound				Westbound				
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	5	214	27	**246**	61	214	25	**300**	**546**	73	3	16	**92**	82	0	295	**377**	**469**	**1015**
08:00 09:00	8	197	25	**230**	82	150	33	**265**	**495**	75	4	14	**93**	67	2	213	**282**	**375**	**870**
09:00 10:00	2	166	13	**181**	62	123	33	**218**	**399**	47	3	7	**57**	15	2	161	**178**	**235**	**634**
11:30 12:30	4	173	17	**194**	84	183	40	**307**	**501**	39	0	8	**47**	10	3	104	**117**	**164**	**665**
12:30 13:30	3	162	9	**174**	89	189	34	**312**	**486**	30	1	4	**35**	9	0	104	**113**	**148**	**634**
15:00 16:00	10	242	31	**283**	199	274	72	**545**	**828**	35	4	7	**46**	15	6	144	**165**	**211**	**1039**
16:00 17:00	12	286	76	**374**	271	285	75	**631**	**1005**	47	4	9	**60**	15	6	157	**178**	**238**	**1243**
17:00 18:00	9	268	65	**342**	289	250	98	**637**	**979**	41	1	4	**46**	18	0	166	**184**	**230**	**1209**
Sub Total	53	1708	263	**2024**	1137	1668	410	**3215**	**5239**	387	20	69	**476**	231	19	1344	**1594**	**2070**	**7309**
U Turns	0			**0**	5			**5**	**5**	**0**			**0**	0			**0**	**0**	**5**
Total	53	1708	263	**2024**	1142	1668	410	**3220**	**5244**	387	20	69	**476**	231	19	1344	**1594**	**2070**	**7314**
EQ 12Hr	74	2374	366	**2814**	1587	2319	570	**4476**	**7290**	538	28	96	**662**	321	26	1868	**2215**	**2877**	**10167**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	67	2137	329	**2533**	1428	2087	513	**4028**	**6561**	484	25	86	**595**	289	23	1681	**1993**	**2588**	**9149**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	88	2799	431	**3318**	1871	2734	672	**5277**	**8595**	634	33	113	**780**	379	30	2202	**2611**	**3391**	**11986**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		TENTH LINE RD									HARVEST VALLEY AVE/SWEETVALLEY DR									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	2	53	3	58	10	47	3	60	**118**	15	1	6	22	27	0	69	96	**118**	**236**
07:15	07:30	2	44	11	57	14	61	5	80	**137**	14	2	6	22	22	0	83	105	**127**	**264**
07:30	07:45	1	65	8	74	22	58	6	86	**160**	20	0	3	23	17	0	77	94	**117**	**277**
07:45	08:00	0	52	5	57	16	48	11	75	**132**	24	0	1	25	16	0	66	82	**107**	**239**
08:00	08:15	2	58	9	69	24	61	10	95	**164**	18	1	2	21	15	1	64	80	**101**	**265**
08:15	08:30	1	52	6	59	27	34	9	70	**129**	19	0	4	23	21	1	57	79	**102**	**231**
08:30	08:45	2	40	5	47	17	28	8	53	**100**	18	2	6	26	23	0	51	74	**100**	**200**
08:45	09:00	3	47	5	55	14	27	6	47	**102**	20	1	2	23	8	0	41	49	**72**	**174**
09:00	09:15	0	43	2	45	12	35	7	54	**99**	14	0	2	16	3	0	42	45	**61**	**160**
09:15	09:30	2	37	4	43	15	31	11	57	**100**	11	2	2	15	4	0	43	47	**62**	**162**
09:30	09:45	0	50	4	54	18	39	7	64	**118**	11	1	0	12	1	1	38	40	**52**	**170**
09:45	10:00	0	36	3	39	18	18	8	44	**83**	11	0	3	14	7	1	38	46	**60**	**143**
11:30	11:45	2	52	4	58	13	37	10	60	**118**	10	0	2	12	2	1	26	29	**41**	**159**
11:45	12:00	1	43	3	47	26	48	13	87	**134**	14	0	1	15	2	2	21	25	**40**	**174**
12:00	12:15	0	46	6	52	26	44	8	78	**130**	8	0	4	12	2	0	25	27	**39**	**169**
12:15	12:30	1	32	4	37	20	54	9	83	**120**	7	0	1	8	4	0	32	36	**44**	**164**
12:30	12:45	0	47	2	49	18	40	11	69	**118**	12	0	2	14	4	0	31	35	**49**	**167**
12:45	13:00	0	34	2	36	22	50	9	81	**117**	2	0	1	3	1	0	29	30	**33**	**150**
13:00	13:15	3	48	3	54	22	60	7	89	**143**	9	0	0	9	1	0	24	25	**34**	**177**
13:15	13:30	0	33	2	35	29	39	7	75	**110**	7	1	1	9	3	0	20	23	**32**	**142**
15:00	15:15	2	51	3	56	39	58	22	119	**175**	15	0	0	15	5	0	34	39	**54**	**229**
15:15	15:30	1	58	7	66	51	77	16	144	**210**	6	3	4	13	3	2	40	45	**58**	**268**
15:30	15:45	4	71	10	85	54	78	19	151	**236**	7	1	2	10	2	1	34	37	**47**	**283**
15:45	16:00	3	62	11	76	55	61	15	131	**207**	7	0	1	8	5	3	36	44	**52**	**259**
16:00	16:15	5	47	12	64	61	73	12	146	**210**	8	1	3	12	4	3	31	38	**50**	**260**
16:15	16:30	1	78	20	99	62	82	17	161	**260**	12	2	2	16	3	2	32	37	**53**	**313**
16:30	16:45	4	79	21	104	82	64	19	165	**269**	14	1	1	16	6	1	42	49	**65**	**334**
16:45	17:00	2	82	23	107	66	66	27	159	**266**	13	0	3	16	2	0	52	54	**70**	**336**
17:00	17:15	3	74	19	96	70	73	27	170	**266**	8	0	2	10	3	0	36	39	**49**	**315**
17:15	17:30	5	78	18	101	75	70	30	175	**276**	14	1	1	16	6	0	37	43	**59**	**335**
17:30	17:45	0	67	17	84	68	62	24	154	**238**	7	0	1	8	8	0	49	57	**65**	**303**
17:45	18:00	1	49	11	61	76	45	17	138	**199**	12	0	0	12	1	0	44	45	**57**	**256**
Total:		53	1708	263	2024	1142	1668	410	3220	**5244**	387	20	69	476	231	19	1344	1594	**5244**	**7,314**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

		TENTH LINE RD			HARVEST VALLEY AVE/SWEETVALLEY DR			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	0	0	**0**	**0**
07:15	07:30	0	0	**0**	0	0	**0**	**0**
07:30	07:45	0	0	**0**	0	0	**0**	**0**
07:45	08:00	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	0	0	**0**	0	0	**0**	**0**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	0	0	**0**	**0**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	0	**0**	**0**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	0	0	**0**	0	0	**0**	**0**
11:45	12:00	0	0	**0**	0	0	**0**	**0**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	0	**0**	**0**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	0	**0**	**0**
15:30	15:45	0	0	**0**	0	0	**0**	**0**
15:45	16:00	0	0	**0**	0	0	**0**	**0**
16:00	16:15	0	0	**0**	0	0	**0**	**0**
16:15	16:30	0	0	**0**	0	0	**0**	**0**
16:30	16:45	0	0	**0**	0	0	**0**	**0**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	0	0	**0**	0	0	**0**	**0**
17:30	17:45	0	0	**0**	0	0	**0**	**0**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		0	0	**0**	0	0	**0**	**0**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

		TENTH LINE RD			HARVEST VALLEY AVE/SWEETVALLEY DR			
Time Period		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00	07:15	1	0	**1**	0	1	**1**	**2**
07:15	07:30	0	3	**3**	0	0	**0**	**3**
07:30	07:45	0	2	**2**	1	0	**1**	**3**
07:45	08:00	1	0	**1**	0	0	**0**	**1**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	0	1	**1**	1	0	**1**	**2**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	1	**1**	0	0	**0**	**1**
09:00	09:15	0	0	**0**	0	0	**0**	**0**
09:15	09:30	0	0	**0**	0	1	**1**	**1**
09:30	09:45	0	0	**0**	1	0	**1**	**1**
09:45	10:00	1	1	**2**	0	0	**0**	**2**
11:30	11:45	0	0	**0**	0	2	**2**	**2**
11:45	12:00	1	0	**1**	2	0	**2**	**3**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	2	1	**3**	0	1	**1**	**4**
13:00	13:15	0	0	**0**	0	0	**0**	**0**
13:15	13:30	1	0	**1**	0	0	**0**	**1**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	1	**1**	0	1	**1**	**2**
15:30	15:45	0	2	**2**	0	1	**1**	**3**
15:45	16:00	1	3	**4**	0	1	**1**	**5**
16:00	16:15	0	0	**0**	0	1	**1**	**1**
16:15	16:30	1	0	**1**	0	0	**0**	**1**
16:30	16:45	0	2	**2**	0	0	**0**	**2**
16:45	17:00	0	0	**0**	0	0	**0**	**0**
17:00	17:15	0	0	**0**	0	0	**0**	**0**
17:15	17:30	1	0	**1**	0	0	**0**	**1**
17:30	17:45	5	0	**5**	0	0	**0**	**5**
17:45	18:00	0	0	**0**	0	0	**0**	**0**
Total		15	17	**32**	5	9	**14**	**46**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		TENTH LINE RD									HARVEST VALLEY AVE/SWEETVALLEY DR									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	6	0	**6**	1	0	0	**1**	**7**	1	0	0	**1**	0	0	1	**1**	**2**	**9**
07:15	07:30	1	7	2	**10**	2	1	0	**3**	**13**	0	1	0	**1**	0	0	2	**2**	**3**	**16**
07:30	07:45	0	6	1	**7**	2	2	1	**5**	**12**	0	0	0	**0**	0	0	3	**3**	**3**	**15**
07:45	08:00	0	1	1	**2**	1	0	0	**1**	**3**	0	0	0	**0**	0	0	3	**3**	**3**	**6**
08:00	08:15	1	3	1	**5**	0	3	1	**4**	**9**	0	0	0	**0**	0	0	0	**0**	**0**	**9**
08:15	08:30	0	3	1	**4**	1	2	2	**5**	**9**	1	0	1	**2**	0	0	2	**2**	**4**	**13**
08:30	08:45	1	3	0	**4**	1	3	1	**5**	**9**	1	1	0	**2**	0	0	0	**0**	**2**	**11**
08:45	09:00	0	2	0	**2**	0	3	1	**4**	**6**	0	1	0	**1**	0	0	0	**0**	**1**	**7**
09:00	09:15	0	6	1	**7**	0	5	0	**5**	**12**	0	0	0	**0**	1	0	2	**3**	**3**	**15**
09:15	09:30	0	0	0	**0**	0	4	0	**4**	**4**	0	1	0	**1**	0	0	2	**2**	**3**	**7**
09:30	09:45	0	2	1	**3**	0	3	0	**3**	**6**	1	0	0	**1**	0	0	0	**0**	**1**	**7**
09:45	10:00	0	2	0	**2**	0	1	0	**1**	**3**	0	0	0	**0**	1	0	0	**1**	**1**	**4**
11:30	11:45	0	0	0	**0**	0	1	0	**1**	**1**	1	0	0	**1**	0	0	0	**0**	**1**	**2**
11:45	12:00	0	2	0	**2**	0	4	0	**4**	**6**	1	0	0	**1**	0	1	0	**1**	**2**	**8**
12:00	12:15	0	2	0	**2**	0	0	1	**1**	**3**	1	0	0	**1**	0	0	0	**0**	**1**	**4**
12:15	12:30	0	3	0	**3**	0	3	1	**4**	**7**	0	0	0	**0**	0	0	1	**1**	**1**	**8**
12:30	12:45	0	4	0	**4**	0	5	1	**6**	**10**	2	0	0	**2**	0	0	0	**0**	**2**	**12**
12:45	13:00	0	4	0	**4**	0	3	0	**3**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
13:00	13:15	0	0	0	**0**	1	4	0	**5**	**5**	1	0	0	**1**	0	0	0	**0**	**1**	**6**
13:15	13:30	0	2	0	**2**	0	1	0	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
15:00	15:15	0	1	0	**1**	0	5	0	**5**	**6**	1	0	0	**1**	0	0	1	**1**	**2**	**8**
15:15	15:30	0	1	0	**1**	0	4	1	**5**	**6**	0	1	1	**2**	0	1	1	**2**	**4**	**10**
15:30	15:45	0	0	0	**0**	0	3	0	**3**	**3**	0	0	0	**0**	0	0	1	**1**	**1**	**4**
15:45	16:00	0	0	0	**0**	2	2	0	**4**	**4**	0	0	0	**0**	1	0	1	**2**	**2**	**6**
16:00	16:15	1	0	0	**1**	1	2	1	**4**	**5**	1	0	1	**2**	0	1	0	**1**	**3**	**8**
16:15	16:30	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	1	**1**	**1**	**3**
16:30	16:45	0	2	0	**2**	1	5	0	**6**	**8**	1	0	0	**1**	0	0	1	**1**	**2**	**10**
16:45	17:00	0	2	0	**2**	1	0	0	**1**	**3**	0	0	0	**0**	0	0	1	**1**	**1**	**4**
17:00	17:15	0	0	0	**0**	1	2	0	**3**	**3**	0	0	0	**0**	0	0	1	**1**	**1**	**4**
17:15	17:30	0	0	0	**0**	1	0	0	**1**	**1**	0	0	0	**0**	1	0	0	**1**	**1**	**2**
17:30	17:45	0	0	0	**0**	3	0	0	**3**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
17:45	18:00	0	0	0	**0**	1	0	0	**1**	**1**	0	0	0	**0**	0	0	1	**1**	**1**	**2**
Total:	None	4	65	8	**77**	20	72	11	**103**	**180**	13	5	3	**21**	4	3	25	**32**	**53**	**233**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

Survey Date: Thursday, April 19, 2018 **WO No:** 37740

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		TENTH LINE RD		HARVEST VALLEY AVE/SWEETVALLEY DR		Total
		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	1	0	0	**1**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	1	0	0	**1**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	1	0	0	**1**
12:00	12:15	0	0	0	0	**0**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	0	0	0	**0**
12:45	13:00	0	1	0	0	**1**
13:00	13:15	0	1	0	0	**1**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	0	0	0	0	**0**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	0	0	0	**0**
16:00	16:15	0	0	0	0	**0**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	0	0	0	**0**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		0	5	0	0	**5**

Appendix C

Synchro Intersection Worksheets – Existing Conditions

CGH TRANSPORTATION

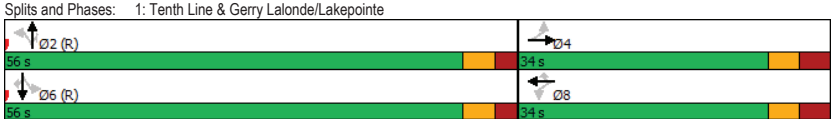
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	101	15	30	56	170	8	894	7	48	502	42
Future Volume (vph)	101	15	30	56	170	8	894	7	48	502	42
Lane Group Flow (vph)	112	41	33	62	189	9	993	8	53	558	47
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8			2			6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8	33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0	34.0	34.0	34.0	56.0	56.0	56.0	56.0	56.0	56.0
Total Split (%)	37.8%	37.8%	37.8%	37.8%	37.8%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%
Maximum Green (s)	27.2	27.2	27.2	27.2	27.2	49.8	49.8	49.8	49.8	49.8	49.8
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag											
Lead-Lag Optimize?											
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0	14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)	2	2	4	4	4	3	3	3	4	4	4
Act Effct Green (s)	15.7	15.7	15.7	15.7	15.7	61.3	61.3	61.3	61.3	61.3	61.3
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.55	0.14	0.15	0.20	0.56	0.02	0.44	0.01	0.17	0.26	0.05
Control Delay	42.3	16.4	29.9	30.7	21.7	4.2	4.8	0.0	9.0	6.8	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	16.4	29.9	30.7	21.7	4.2	4.8	0.0	9.0	6.8	2.7
LOS	D	B	C	C	C	A	A	A	A	A	A
Approach Delay		35.4		24.6			4.7			6.7	
Approach LOS		D		C			A			A	
Queue Length 50th (m)	18.3	2.5	5.0	9.5	14.0	0.2	16.8	0.0	2.7	15.7	0.0
Queue Length 95th (m)	29.0	9.2	10.9	16.9	28.5	m0.9	46.3	m0.0	11.2	35.3	4.4
Internal Link Dist (m)		372.5		134.8			154.1			468.1	
Turn Bay Length (m)	30.0		50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	355	475	380	527	511	473	2235	996	306	2172	968
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.09	0.09	0.12	0.37	0.02	0.44	0.01	0.17	0.26	0.05

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 10.3 — Intersection LOS: B
Intersection Capacity Utilization 63.8% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	13	70	851	493	61
Future Volume (vph)	54	13	70	851	493	61
Lane Group Flow (vph)	60	14	78	946	548	68
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	52.0	52.0	52.0	52.0
Total Split (%)	42.2%	42.2%	57.8%	57.8%	57.8%	57.8%
Maximum Green (s)	31.2	31.2	45.8	45.8	45.8	45.8
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0			9.0	9.0
Pedestrian Calls (#/hr)	0	0			4	4
Act Effct Green (s)	10.4	10.4	71.2	71.2	71.2	71.2
Actuated g/C Ratio	0.12	0.12	0.79	0.79	0.79	0.79
v/c Ratio	0.31	0.08	0.13	0.37	0.22	0.06
Control Delay	41.1	17.8	2.9	3.1	2.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	17.8	2.9	3.1	2.1	0.4
LOS	D	B	A	A	A	A
Approach Delay	36.7			3.1	1.9	
Approach LOS	D			A	A	
Queue Length 50th (m)	9.8	0.0	2.4	16.6	7.4	0.0
Queue Length 95th (m)	20.9	5.3	m4.4	21.2	9.6	0.1
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	574	523	613	2572	2500	1151
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.03	0.13	0.37	0.22	0.06

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay: 4.1 Intersection LOS: A
Intersection Capacity Utilization 47.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde AM Existing]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jerome Jodoin												
1	L2	92	2.0	0.195	9.2	LOS A	1.1	7.8	0.51	0.62	0.51	50.2
2	T1	23	2.0	0.195	4.0	LOS A	1.1	7.8	0.51	0.62	0.51	47.0
3	R2	87	2.0	0.195	4.4	LOS A	1.1	7.8	0.51	0.62	0.51	49.0
Approach		202	2.0	0.195	6.5	LOS A	1.1	7.8	0.51	0.62	0.51	49.3
East: Brian Coburn												
4	L2	49	2.0	0.712	10.4	LOS B	8.0	57.2	0.65	0.54	0.65	51.0
5	T1	871	2.0	0.712	5.1	LOS A	8.0	57.2	0.65	0.54	0.65	54.3
6	R2	14	2.0	0.712	5.2	LOS A	8.0	57.2	0.65	0.54	0.65	49.4
Approach		934	2.0	0.712	5.3	LOS A	8.0	57.2	0.65	0.54	0.65	54.1
North: Gerry Lalonde												
7	L2	8	2.0	0.414	17.9	LOS B	3.3	23.4	0.97	1.02	1.07	46.1
8	T1	9	2.0	0.414	12.7	LOS B	3.3	23.4	0.97	1.02	1.07	43.3
9	R2	182	2.0	0.414	13.1	LOS B	3.3	23.4	0.97	1.02	1.07	45.0
Approach		199	2.0	0.414	13.2	LOS B	3.3	23.4	0.97	1.02	1.07	45.0
West: Brian Coburn												
10	L2	32	2.0	0.272	9.2	LOS A	1.8	12.8	0.25	0.42	0.25	52.6
11	T1	297	2.0	0.272	3.9	LOS A	1.8	12.8	0.25	0.42	0.25	56.1
12	R2	53	2.0	0.272	4.0	LOS A	1.8	12.8	0.25	0.42	0.25	50.8
Approach		382	2.0	0.272	4.3	LOS A	1.8	12.8	0.25	0.42	0.25	55.0
All Vehicles		1718	2.0	0.712	6.2	LOS A	8.0	57.2	0.58	0.58	0.59	52.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg AM Existing]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: des Aubepines												
1	L2	121	2.0	0.197	9.4	LOS A	1.1	7.9	0.53	0.65	0.53	49.6
2	T1	17	2.0	0.197	4.2	LOS A	1.1	7.9	0.53	0.65	0.53	46.5
3	R2	61	2.0	0.197	4.6	LOS A	1.1	7.9	0.53	0.65	0.53	48.4
Approach		199	2.0	0.197	7.5	LOS A	1.1	7.9	0.53	0.65	0.53	49.0
East: Brian Coburn												
4	L2	36	2.0	0.595	10.1	LOS B	5.6	40.2	0.55	0.51	0.55	51.4
5	T1	722	2.0	0.595	4.7	LOS A	5.6	40.2	0.55	0.51	0.55	54.8
6	R2	13	2.0	0.595	4.8	LOS A	5.6	40.2	0.55	0.51	0.55	49.8
Approach		771	2.0	0.595	5.0	LOS A	5.6	40.2	0.55	0.51	0.55	54.5
North: Strasbourg												
7	L2	28	2.0	0.227	13.9	LOS B	1.5	10.9	0.85	0.84	0.85	48.1
8	T1	24	2.0	0.227	8.7	LOS A	1.5	10.9	0.85	0.84	0.85	45.1
9	R2	84	2.0	0.227	9.1	LOS A	1.5	10.9	0.85	0.84	0.85	47.0
Approach		137	2.0	0.227	10.0	LOS A	1.5	10.9	0.85	0.84	0.85	46.9
West: Brian Coburn												
10	L2	8	2.0	0.281	9.3	LOS A	1.9	13.2	0.30	0.42	0.30	52.6
11	T1	330	2.0	0.281	4.0	LOS A	1.9	13.2	0.30	0.42	0.30	56.1
12	R2	42	2.0	0.281	4.1	LOS A	1.9	13.2	0.30	0.42	0.30	50.8
Approach		380	2.0	0.281	4.1	LOS A	1.9	13.2	0.30	0.42	0.30	55.4
All Vehicles		1487	2.0	0.595	5.6	LOS A	5.6	40.2	0.51	0.54	0.51	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

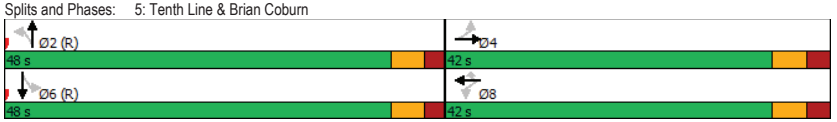
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	150	178	52	373	220	214	539	115	309
Future Volume (vph)	150	178	52	373	220	214	539	115	309
Lane Group Flow (vph)	167	265	58	414	244	238	641	128	462
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	31.4	31.4	31.4	31.4	31.4	29.0	29.0	29.0	29.0
Total Split (s)	42.0	42.0	42.0	42.0	42.0	48.0	48.0	48.0	48.0
Total Split (%)	46.7%	46.7%	46.7%	46.7%	46.7%	53.3%	53.3%	53.3%	53.3%
Maximum Green (s)	35.6	35.6	35.6	35.6	35.6	42.0	42.0	42.0	42.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.3	2.3	2.3	2.3
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)	6.4	6.4	6.4	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	18.0	18.0	18.0	18.0	18.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	1	1	5	5	5	3	3	3	3
Act Effct Green (s)	28.3	28.3	28.3	28.3	28.3	49.3	49.3	49.3	49.3
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.55	0.55	0.55	0.55
v/c Ratio	1.04	0.52	0.22	0.76	0.41	0.52	0.36	0.37	0.27
Control Delay	111.4	25.7	22.1	36.6	7.0	16.0	10.3	23.5	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.4	25.7	22.1	36.6	7.0	16.0	10.3	23.5	14.5
LOS	F	C	C	D	A	B	B	C	B
Approach Delay		58.9		25.3			11.8		16.4
Approach LOS		E		C			B		B
Queue Length 50th (m)	28.6	33.5	7.2	62.9	5.2	20.1	32.2	11.2	16.2
Queue Length 95th (m)	#61.5	49.9	14.7	85.3	19.3	21.1	23.5	40.8	47.7
Internal Link Dist (m)		392.1		351.9			301.3		222.1
Turn Bay Length (m)	45.0		50.0		45.0	105.0		110.0	
Base Capacity (vph)	203	631	338	683	696	460	1763	342	1716
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.42	0.17	0.61	0.35	0.52	0.36	0.37	0.27

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 43 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn



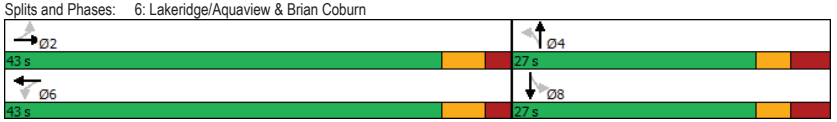
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	296	50	480	123	23	11	10
Future Volume (vph)	10	296	50	480	123	23	11	10
Lane Group Flow (vph)	11	363	56	560	137	57	12	51
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	26.0	24.4	24.4	24.4	24.4
Total Split (s)	43.0	43.0	43.0	43.0	27.0	27.0	27.0	27.0
Total Split (%)	61.4%	61.4%	61.4%	61.4%	38.6%	38.6%	38.6%	38.6%
Maximum Green (s)	37.0	37.0	37.0	37.0	20.6	20.6	20.6	20.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	8.0	8.0	8.0	8.0
Pedestrian Calls (#/hr)	0	0	2	2	15	15	0	0
Act Effct Green (s)	42.2	42.2	42.2	42.2	12.7	12.7	12.7	12.7
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.20	0.20	0.20	0.20
v/c Ratio	0.02	0.33	0.09	0.48	0.54	0.17	0.05	0.15
Control Delay	6.5	7.5	6.8	9.3	30.4	12.8	19.7	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	7.5	6.8	9.3	30.4	12.8	19.7	10.1
LOS	A	A	A	A	C	B	B	B
Approach Delay		7.4		9.1		25.3		11.9
Approach LOS		A		A		C		B
Queue Length 50th (m)	0.4	17.2	2.3	31.6	14.1	2.4	1.1	1.0
Queue Length 95th (m)	2.5	39.4	7.8	69.6	28.5	10.0	4.7	8.1
Internal Link Dist (m)		351.9		379.2		249.4		312.2
Turn Bay Length (m)	65.0		65.0		30.0		30.0	
Base Capacity (vph)	478	1112	618	1161	417	534	376	531
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.33	0.09	0.48	0.33	0.11	0.03	0.10

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 62.5
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



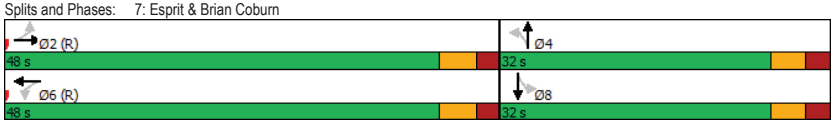
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	248	34	410	96	50	25	47
Future Volume (vph)	30	248	34	410	96	50	25	47
Lane Group Flow (vph)	33	333	38	483	107	97	28	102
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	26.0	23.8	23.8	23.8	23.8
Total Split (s)	48.0	48.0	48.0	48.0	32.0	32.0	32.0	32.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%	40.0%
Maximum Green (s)	42.0	42.0	42.0	42.0	26.2	26.2	26.2	26.2
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.3	2.3	2.3	2.3	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.8	5.8	5.8	5.8
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	23	23	3	3	15	15	5	5
Act Effct Green (s)	42.0	42.0	42.0	42.0	26.2	26.2	26.2	26.2
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33
v/c Ratio	0.09	0.39	0.09	0.54	0.27	0.19	0.08	0.19
Control Delay	10.4	12.2	10.2	15.3	22.3	13.2	19.4	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	12.2	10.2	15.3	22.3	13.2	19.4	12.0
LOS	B	B	B	B	C	B	B	B
Approach Delay		12.0		14.9		18.0		13.6
Approach LOS		B		B		B		B
Queue Length 50th (m)	2.4	26.3	2.7	44.9	11.8	5.9	2.9	5.4
Queue Length 95th (m)	6.7	43.8	7.2	71.0	24.1	16.1	8.4	15.8
Internal Link Dist (m)		379.2		585.6		222.2		382.8
Turn Bay Length (m)	65.0		65.0		30.0		30.0	
Base Capacity (vph)	358	864	437	892	391	510	363	537
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.39	0.09	0.54	0.27	0.19	0.08	0.19

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 14.4 — Intersection LOS: B
Intersection Capacity Utilization 54.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Esprit & Brian Coburn



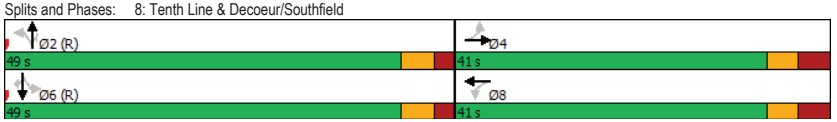
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	86	27	9	29	79	627	1	19	346	59
Future Volume (vph)	86	27	9	29	79	627	1	19	346	59
Lane Group Flow (vph)	96	79	10	110	88	697	1	21	384	66
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9	40.9	40.9	28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0	41.0	41.0	49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	45.6%	45.6%	45.6%	45.6%	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%
Maximum Green (s)	34.1	34.1	34.1	34.1	43.1	43.1	43.1	43.1	43.1	43.1
Yellow Time (s)	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6	3.6	3.6	2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag										
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	27.0	27.0	27.0	27.0	16.0	16.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	0	0	2	2	4	4	4	5	5	5
Act Effct Green (s)	16.5	16.5	16.5	16.5	65.3	65.3	65.3	65.3	65.3	65.3
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.73	0.73	0.73	0.73	0.73	0.73
v/c Ratio	0.45	0.27	0.04	0.32	0.15	0.31	0.00	0.05	0.17	0.07
Control Delay	37.0	14.6	24.7	12.3	8.9	7.7	0.0	6.3	5.5	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	14.6	24.7	12.3	8.9	7.7	0.0	6.3	5.5	2.2
LOS	D	B	C	B	A	A	A	A	A	A
Approach Delay		26.9		13.4		7.9			5.1	
Approach LOS		C		B		A			A	
Queue Length 50th (m)	15.8	4.6	1.5	4.9	4.1	19.5	0.0	1.4	14.2	0.0
Queue Length 95th (m)	22.2	12.0	4.3	13.6	18.2	55.1	0.0	m3.4	17.1	2.8
Internal Link Dist (m)		344.3		315.6		346.2			301.3	
Turn Bay Length (m)	45.0		20.0		90.0		60.0	60.0		70.0
Base Capacity (vph)	439	556	466	633	575	2270	1058	441	2292	1003
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.14	0.02	0.17	0.15	0.31	0.00	0.05	0.17	0.07

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield



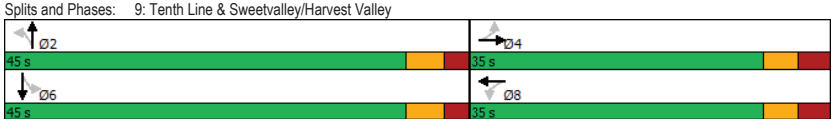
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	135	3	70	1	5	270	76	274
Future Volume (vph)	135	3	70	1	5	270	76	274
Lane Group Flow (vph)	150	16	78	323	6	337	84	368
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	34.5	34.5	34.5	34.5	29.2	29.2	29.2	29.2
Total Split (s)	35.0	35.0	35.0	35.0	45.0	45.0	45.0	45.0
Total Split (%)	43.8%	43.8%	43.8%	43.8%	56.3%	56.3%	56.3%	56.3%
Maximum Green (s)	28.5	28.5	28.5	28.5	38.8	38.8	38.8	38.8
Yellow Time (s)	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7
All-Red Time (s)	3.2	3.2	3.2	3.2	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.2	6.2	6.2	6.2
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	1	1	5	5	0	0	1	1
Act Effct Green (s)	17.9	17.9	17.9	17.9	39.1	39.1	39.1	39.1
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.56	0.56	0.56	0.56
v/c Ratio	0.82	0.04	0.23	0.53	0.01	0.20	0.16	0.21
Control Delay	56.2	10.6	21.3	6.0	9.6	8.6	10.6	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	10.6	21.3	6.0	9.6	8.6	10.6	8.2
LOS	E	B	C	A	A	A	B	A
Approach Delay		51.8		9.0		8.6		8.6
Approach LOS		D		A		A		A
Queue Length 50th (m)	18.2	0.3	8.0	0.1	0.3	9.4	4.7	9.7
Queue Length 95th (m)	#38.7	4.1	17.3	15.7	2.3	21.3	15.2	22.0
Internal Link Dist (m)		180.2		318.8		263.5		346.2
Turn Bay Length (m)	38.0		60.0		54.0		65.0	
Base Capacity (vph)	295	597	535	784	442	1724	511	1794
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.03	0.15	0.41	0.01	0.20	0.16	0.21

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 69.8
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82
Intersection Signal Delay: 14.0 — Intersection LOS: B
Intersection Capacity Utilization 77.1% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



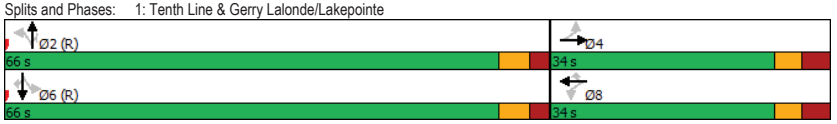
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	120	98	17	20	117	10	942	48	197	1125	128
Future Volume (vph)	120	98	17	20	117	10	942	48	197	1125	128
Lane Group Flow (vph)	133	162	19	22	130	11	1047	53	219	1250	142
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8			2			6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8	33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0	34.0	34.0	34.0	66.0	66.0	66.0	66.0	66.0	66.0
Total Split (%)	34.0%	34.0%	34.0%	34.0%	34.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%
Maximum Green (s)	27.2	27.2	27.2	27.2	27.2	59.8	59.8	59.8	59.8	59.8	59.8
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag											
Lead-Lag Optimize?											
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0	14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)	5	5	1	1	1	5	5	5	4	4	4
Act Effct Green (s)	16.7	16.7	16.7	16.7	16.7	70.3	70.3	70.3	70.3	70.3	70.3
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.70	0.70	0.70	0.70	0.70	0.70
v/c Ratio	0.62	0.55	0.11	0.08	0.39	0.05	0.45	0.05	0.73	0.54	0.14
Control Delay	49.6	38.0	33.1	32.1	13.2	3.8	4.4	0.7	28.9	9.1	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	38.0	33.1	32.1	13.2	3.8	4.4	0.7	28.9	9.1	1.7
LOS	D	D	C	C	B	A	A	A	C	A	A
Approach Delay		43.2		17.8			4.2			11.2	
Approach LOS		D		B			A			B	
Queue Length 50th (m)	24.5	25.0	3.2	3.7	4.2	0.4	18.5	0.2	21.3	50.4	0.0
Queue Length 95th (m)	38.0	39.1	8.4	9.0	17.5	m0.9	20.8	0.8	#81.1	96.1	7.1
Internal Link Dist (m)		372.5		134.8			154.1			468.1	
Turn Bay Length (m)	30.0		50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	352	466	282	474	474	231	2329	1024	302	2329	1033
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.35	0.07	0.05	0.27	0.05	0.45	0.05	0.73	0.54	0.14

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 72.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



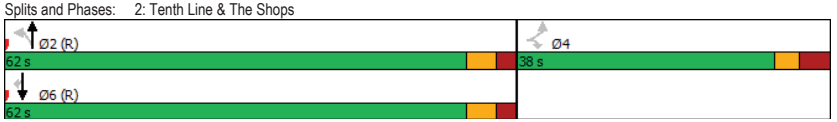
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	149	111	54	855	1029	160
Future Volume (vph)	149	111	54	855	1029	160
Lane Group Flow (vph)	166	123	60	950	1143	178
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	62.0	62.0	62.0	62.0
Total Split (%)	38.0%	38.0%	62.0%	62.0%	62.0%	62.0%
Maximum Green (s)	31.2	31.2	55.8	55.8	55.8	55.8
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0			9.0	9.0
Pedestrian Calls (#/hr)	3	3			5	5
Act Effct Green (s)	17.4	17.4	69.6	69.6	69.6	69.6
Actuated g/C Ratio	0.17	0.17	0.70	0.70	0.70	0.70
v/c Ratio	0.58	0.39	0.23	0.41	0.50	0.17
Control Delay	44.4	19.4	8.6	6.1	5.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	19.4	8.6	6.1	5.8	0.7
LOS	D	B	A	A	A	A
Approach Delay	33.7			6.3	5.1	
Approach LOS	C			A	A	
Queue Length 50th (m)	30.6	9.3	2.3	19.7	27.6	0.1
Queue Length 95th (m)	41.8	20.7	m13.4	66.4	34.9	2.7
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	515	504	261	2306	2306	1049
Starvation Cap Reductn	0	0	0	0	101	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.24	0.23	0.41	0.52	0.17

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 8.7 Intersection LOS: A
Intersection Capacity Utilization 63.6% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops



MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde PM Existing]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jerome Jodoin												
1	L2	41	2.0	0.240	18.0	LOS B	1.8	12.7	0.98	0.95	0.98	45.0
2	T1	11	2.0	0.240	12.8	LOS B	1.8	12.7	0.98	0.95	0.98	42.4
3	R2	40	2.0	0.240	13.2	LOS B	1.8	12.7	0.98	0.95	0.98	44.1
Approach		92	2.0	0.240	15.3	LOS B	1.8	12.7	0.98	0.95	0.98	44.3
East: Brian Coburn												
4	L2	69	2.0	0.495	10.7	LOS B	3.9	27.7	0.62	0.60	0.62	51.0
5	T1	468	2.0	0.495	5.4	LOS A	3.9	27.7	0.62	0.60	0.62	54.2
6	R2	13	2.0	0.495	5.5	LOS A	3.9	27.7	0.62	0.60	0.62	49.3
Approach		550	2.0	0.495	6.1	LOS A	3.9	27.7	0.62	0.60	0.62	53.7
North: Gerry Lalonde												
7	L2	4	2.0	0.138	10.6	LOS B	0.8	6.0	0.68	0.67	0.68	50.7
8	T1	20	2.0	0.138	5.4	LOS A	0.8	6.0	0.68	0.67	0.68	47.4
9	R2	87	2.0	0.138	5.8	LOS A	0.8	6.0	0.68	0.67	0.68	49.4
Approach		111	2.0	0.138	5.9	LOS A	0.8	6.0	0.68	0.67	0.68	49.1
West: Brian Coburn												
10	L2	208	2.0	0.827	10.3	LOS B	14.0	99.8	0.72	0.51	0.72	50.5
11	T1	900	2.0	0.827	4.9	LOS A	14.0	99.8	0.72	0.51	0.72	53.8
12	R2	72	2.0	0.827	5.0	LOS A	14.0	99.8	0.72	0.51	0.72	48.9
Approach		1180	2.0	0.827	5.9	LOS A	14.0	99.8	0.72	0.51	0.72	52.9
All Vehicles		1933	2.0	0.827	6.4	LOS A	14.0	99.8	0.70	0.56	0.70	52.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg PM Existing]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: des Aubepines												
1	L2	64	2.0	0.194	13.2	LOS B	1.3	9.1	0.82	0.83	0.82	47.5
2	T1	20	2.0	0.194	8.1	LOS A	1.3	9.1	0.82	0.83	0.82	44.7
3	R2	38	2.0	0.194	8.5	LOS A	1.3	9.1	0.82	0.83	0.82	46.5
Approach		122	2.0	0.194	10.9	LOS B	1.3	9.1	0.82	0.83	0.82	46.7
East: Brian Coburn												
4	L2	60	2.0	0.427	9.7	LOS A	3.3	23.6	0.42	0.48	0.42	51.8
5	T1	458	2.0	0.427	4.3	LOS A	3.3	23.6	0.42	0.48	0.42	55.2
6	R2	40	2.0	0.427	4.4	LOS A	3.3	23.6	0.42	0.48	0.42	50.1
Approach		558	2.0	0.427	4.9	LOS A	3.3	23.6	0.42	0.48	0.42	54.5
North: Strasbourg												
7	L2	26	2.0	0.078	10.5	LOS B	0.4	3.2	0.63	0.66	0.63	49.6
8	T1	14	2.0	0.078	5.3	LOS A	0.4	3.2	0.63	0.66	0.63	46.5
9	R2	26	2.0	0.078	5.7	LOS A	0.4	3.2	0.63	0.66	0.63	48.4
Approach		66	2.0	0.078	7.5	LOS A	0.4	3.2	0.63	0.66	0.63	48.4
West: Brian Coburn												
10	L2	37	2.0	0.664	9.8	LOS A	7.0	49.9	0.49	0.47	0.49	51.7
11	T1	778	2.0	0.664	4.5	LOS A	7.0	49.9	0.49	0.47	0.49	55.1
12	R2	118	2.0	0.664	4.6	LOS A	7.0	49.9	0.49	0.47	0.49	50.0
Approach		932	2.0	0.664	4.7	LOS A	7.0	49.9	0.49	0.47	0.49	54.3
All Vehicles		1678	2.0	0.664	5.3	LOS A	7.0	49.9	0.50	0.50	0.50	53.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: CGH TRANSPORTATION | Processed: October 5, 2021 2:09:11 PM
Project: C:\Users\AndrewHarte\CGH TRANSPORTATION\CGH Working - Documents\Projects\2021-052 Mattamy 2370 Tenth Line\DATA\Sidra \2021-052 Sidra 2021-10-05.sip8

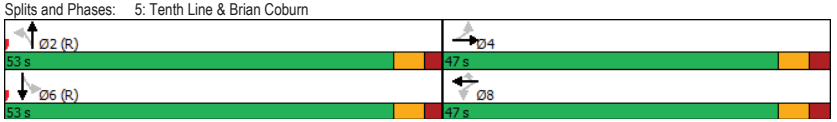
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	188	367	58	187	211	143	524	255	744
Future Volume (vph)	188	367	58	187	211	143	524	255	744
Lane Group Flow (vph)	209	646	64	208	234	159	633	283	1017
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	31.4	31.4	31.4	31.4	31.4	29.0	29.0	29.0	29.0
Total Split (s)	47.0	47.0	47.0	47.0	47.0	53.0	53.0	53.0	53.0
Total Split (%)	47.0%	47.0%	47.0%	47.0%	47.0%	53.0%	53.0%	53.0%	53.0%
Maximum Green (s)	40.6	40.6	40.6	40.6	40.6	47.0	47.0	47.0	47.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.3	2.3	2.3	2.3
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)	6.4	6.4	6.4	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	18.0	18.0	18.0	18.0	18.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	1	1	13	13	13	7	7	9	9
Act Effct Green (s)	39.7	39.7	39.7	39.7	39.7	47.9	47.9	47.9	47.9
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48
v/c Ratio	0.51	0.96	0.71	0.30	0.34	1.08	0.40	0.94	0.66
Control Delay	27.6	55.5	68.9	21.8	5.4	128.7	17.5	56.9	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	55.5	68.9	21.8	5.4	128.7	17.5	56.9	12.3
LOS	C	E	E	C	A	F	B	E	B
Approach Delay		48.7		20.2			39.8		22.0
Approach LOS		D		C			D		C
Queue Length 50th (m)	29.5	113.1	10.1	26.6	3.0	~35.4	33.4	29.6	74.5
Queue Length 95th (m)	51.4	#184.7	#33.6	43.3	17.4	#70.9	53.7	#96.3	43.8
Internal Link Dist (m)		392.1		351.9			301.3		222.1
Turn Bay Length (m)	45.0		50.0		45.0	105.0		110.0	
Base Capacity (vph)	423	686	92	708	706	147	1570	300	1549
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.94	0.70	0.29	0.33	1.08	0.40	0.94	0.66

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 32.4 — Intersection LOS: C
Intersection Capacity Utilization 99.2% — ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn



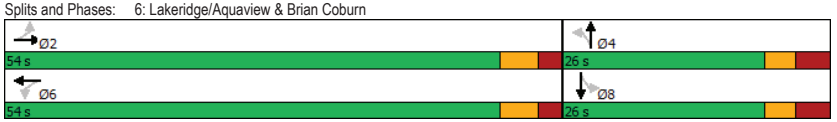
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	36	547	31	373	71	19	27	13
Future Volume (vph)	36	547	31	373	71	19	27	13
Lane Group Flow (vph)	40	689	34	435	79	51	30	30
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	26.0	24.4	24.4	24.4	24.4
Total Split (s)	54.0	54.0	54.0	54.0	26.0	26.0	26.0	26.0
Total Split (%)	67.5%	67.5%	67.5%	67.5%	32.5%	32.5%	32.5%	32.5%
Maximum Green (s)	48.0	48.0	48.0	48.0	19.6	19.6	19.6	19.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.4	6.4	6.4	6.4
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	8.0	8.0	8.0	8.0
Pedestrian Calls (#/hr)	5	5	7	7	11	11	2	2
Act Effct Green (s)	54.8	54.8	54.8	54.8	11.3	11.3	11.3	11.3
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.15	0.15	0.15	0.15
v/c Ratio	0.06	0.54	0.08	0.34	0.41	0.19	0.17	0.12
Control Delay	4.8	8.1	5.1	5.8	34.7	16.4	28.9	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	8.1	5.1	5.8	34.7	16.4	28.9	17.6
LOS	A	A	A	A	C	B	C	B
Approach Delay		7.9		5.8		27.5		23.2
Approach LOS		A		A		C		C
Queue Length 50th (m)	1.4	38.9	1.3	19.9	9.7	2.4	3.5	1.6
Queue Length 95th (m)	5.2	81.9	4.8	41.7	21.4	10.9	10.3	8.0
Internal Link Dist (m)		351.9		379.2		249.4		312.2
Turn Bay Length (m)	65.0		65.0		30.0		30.0	
Base Capacity (vph)	644	1272	448	1275	334	434	300	433
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.54	0.08	0.34	0.24	0.12	0.10	0.07

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 73.8
Natural Cycle: 60
Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 9.7	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



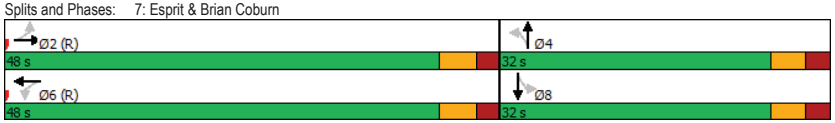
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	426	27	315	70	38	23	38
Future Volume (vph)	52	426	27	315	70	38	23	38
Lane Group Flow (vph)	58	609	30	370	78	70	26	84
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.0	26.0	26.0	26.0	23.8	23.8	23.8	23.8
Total Split (s)	48.0	48.0	48.0	48.0	32.0	32.0	32.0	32.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%	40.0%
Maximum Green (s)	42.0	42.0	42.0	42.0	26.2	26.2	26.2	26.2
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.3	2.3	2.3	2.3	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.8	5.8	5.8	5.8
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	6	6	1	1	7	7
Act Effct Green (s)	42.0	42.0	42.0	42.0	26.2	26.2	26.2	26.2
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33
v/c Ratio	0.13	0.68	0.11	0.41	0.20	0.13	0.06	0.16
Control Delay	10.7	18.1	11.0	13.1	21.1	13.6	19.2	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	18.1	11.0	13.1	21.1	13.6	19.2	12.0
LOS	B	B	B	B	C	B	B	B
Approach Delay		17.4		12.9		17.5		13.7
Approach LOS		B		B		B		B
Queue Length 50th (m)	4.2	61.0	2.2	31.4	8.4	4.4	2.7	4.4
Queue Length 95th (m)	10.2	97.2	6.5	50.6	18.3	12.9	8.0	13.8
Internal Link Dist (m)		379.2		585.6		222.2		382.8
Turn Bay Length (m)	65.0		65.0		30.0		30.0	
Base Capacity (vph)	447	899	270	901	395	524	405	514
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.68	0.11	0.41	0.20	0.13	0.06	0.16

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 15.8 — Intersection LOS: B
Intersection Capacity Utilization 69.7% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: Esprit & Brian Coburn



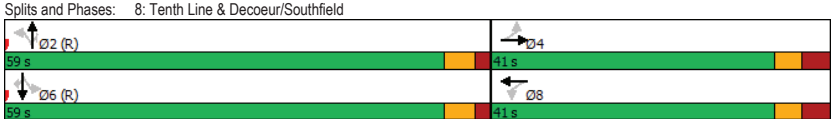
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	47	16	2	24	34	600	14	116	804	94
Future Volume (vph)	47	16	2	24	34	600	14	116	804	94
Lane Group Flow (vph)	52	51	2	88	38	667	16	129	893	104
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9	40.9	40.9	28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0	41.0	41.0	59.0	59.0	59.0	59.0	59.0	59.0
Total Split (%)	41.0%	41.0%	41.0%	41.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%
Maximum Green (s)	34.1	34.1	34.1	34.1	53.1	53.1	53.1	53.1	53.1	53.1
Yellow Time (s)	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6	3.6	3.6	2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag										
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	27.0	27.0	27.0	27.0	16.0	16.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	1	1	0	0	0	0	0	6	6	6
Act Effct Green (s)	15.1	15.1	15.1	15.1	76.7	76.7	76.7	76.7	76.7	76.7
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.77	0.77	0.77	0.77	0.77	0.77
v/c Ratio	0.28	0.19	0.01	0.31	0.09	0.26	0.01	0.24	0.35	0.09
Control Delay	38.3	17.1	29.0	15.8	7.8	6.2	0.5	4.8	3.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	17.1	29.0	15.8	7.8	6.2	0.5	4.8	3.8	0.4
LOS	D	B	C	B	A	A	A	A	A	A
Approach Delay		27.8		16.1		6.1			3.6	
Approach LOS		C		B		A			A	
Queue Length 50th (m)	9.6	3.2	0.4	4.9	1.5	15.6	0.0	3.5	14.0	0.0
Queue Length 95th (m)	15.5	10.1	1.8	13.8	9.2	50.2	0.6	m10.5	m32.0	m0.0
Internal Link Dist (m)		344.3		315.6		346.2			301.3	
Turn Bay Length (m)	45.0		20.0		90.0		60.0	60.0		70.0
Base Capacity (vph)	416	554	430	573	406	2542	1147	529	2542	1124
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.00	0.15	0.09	0.26	0.01	0.24	0.35	0.09

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.35
Intersection Signal Delay: 6.3 Intersection LOS: A
Intersection Capacity Utilization 57.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	2	17	1	14	373	293	374
Future Volume (vph)	95	2	17	1	14	373	293	374
Lane Group Flow (vph)	106	10	19	187	16	504	326	603
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)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	34.5	34.5	34.5	34.5	29.2	29.2	29.2	29.2
Total Split (s)	35.0	35.0	35.0	35.0	65.0	65.0	65.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Maximum Green (s)	28.5	28.5	28.5	28.5	58.8	58.8	58.8	58.8
Yellow Time (s)	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7
All-Red Time (s)	3.2	3.2	3.2	3.2	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.2	6.2	6.2	6.2
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	1	1	2	2	0	0	0	0
Act Effct Green (s)	15.7	15.7	15.7	15.7	60.8	60.8	60.8	60.8
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.68	0.68	0.68	0.68
v/c Ratio	0.62	0.04	0.09	0.46	0.03	0.23	0.59	0.28
Control Delay	49.3	17.4	29.2	8.4	6.9	5.9	14.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	17.4	29.2	8.4	6.9	5.9	14.9	5.4
LOS	D	B	C	A	A	A	B	A
Approach Delay		46.5		10.3		5.9		8.7
Approach LOS		D		B		A		A
Queue Length 50th (m)	16.5	0.3	2.7	0.1	0.7	12.2	23.6	12.7
Queue Length 95th (m)	32.0	4.1	8.1	15.5	3.9	29.0	75.6	31.2
Internal Link Dist (m)		180.2		318.8		263.5		346.2
Turn Bay Length (m)	38.0		60.0		54.0		65.0	
Base Capacity (vph)	311	493	404	595	504	2212	555	2178
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.02	0.05	0.31	0.03	0.23	0.59	0.28

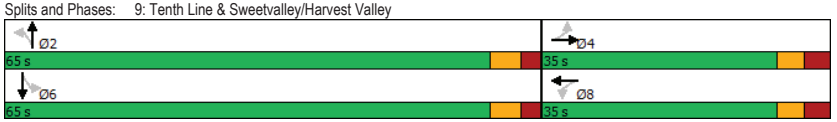
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 89.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 72.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



Appendix D

Existing Background Development Volumes

CGH TRANSPORTATION

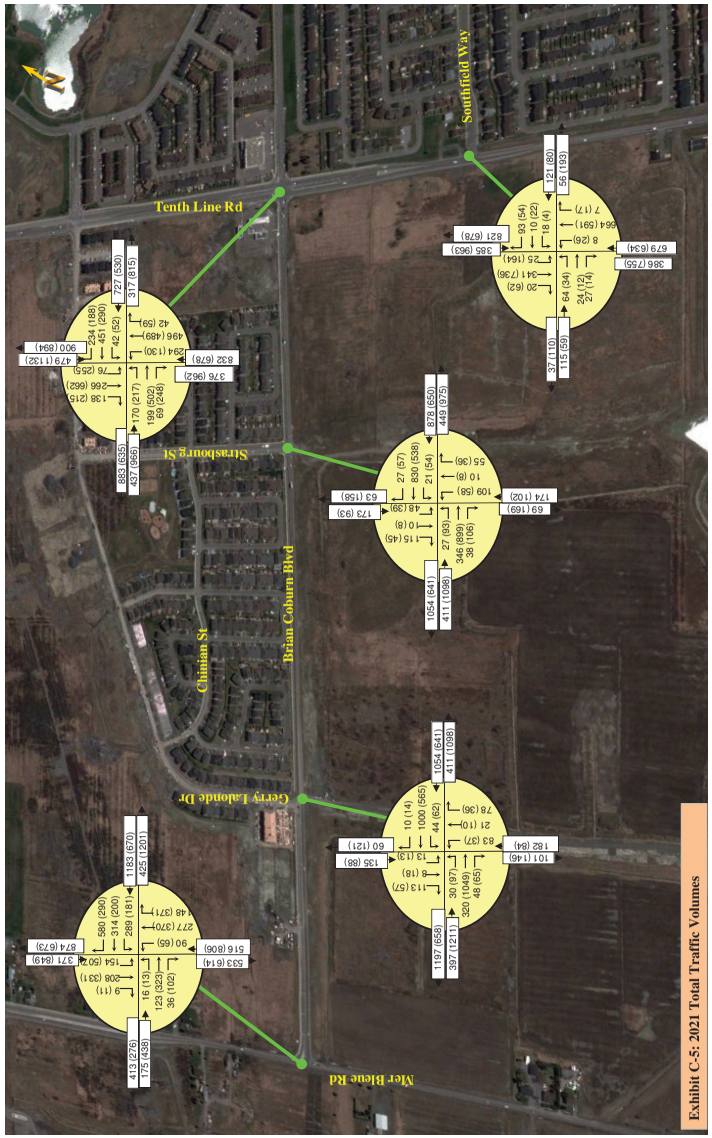
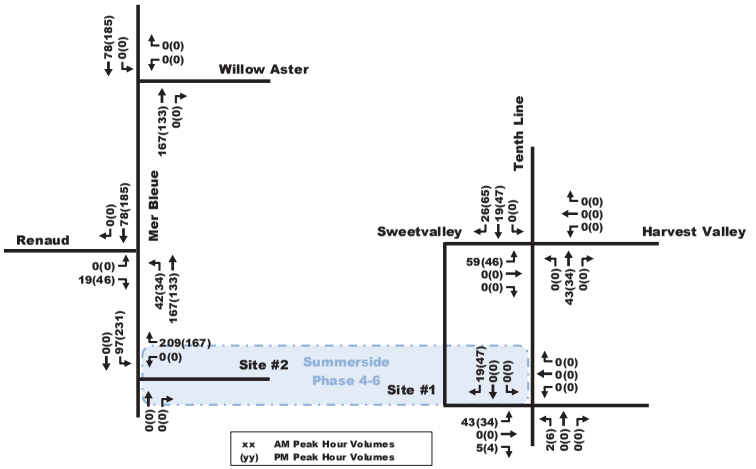


Figure 7: Total 'New' 2024 Site-Generated Traffic Volumes



Appendix E

Collision Data

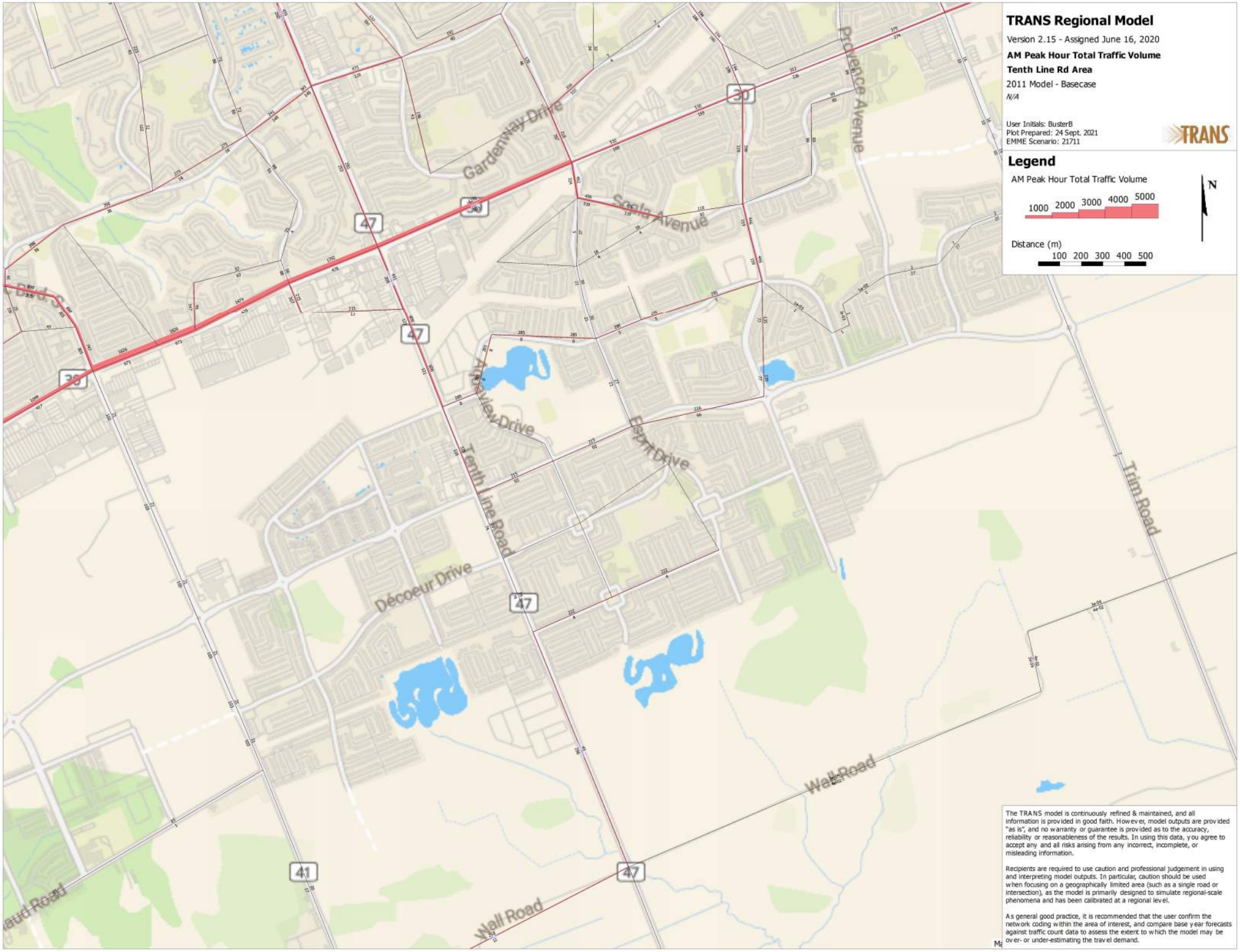
CGH TRANSPORTATION

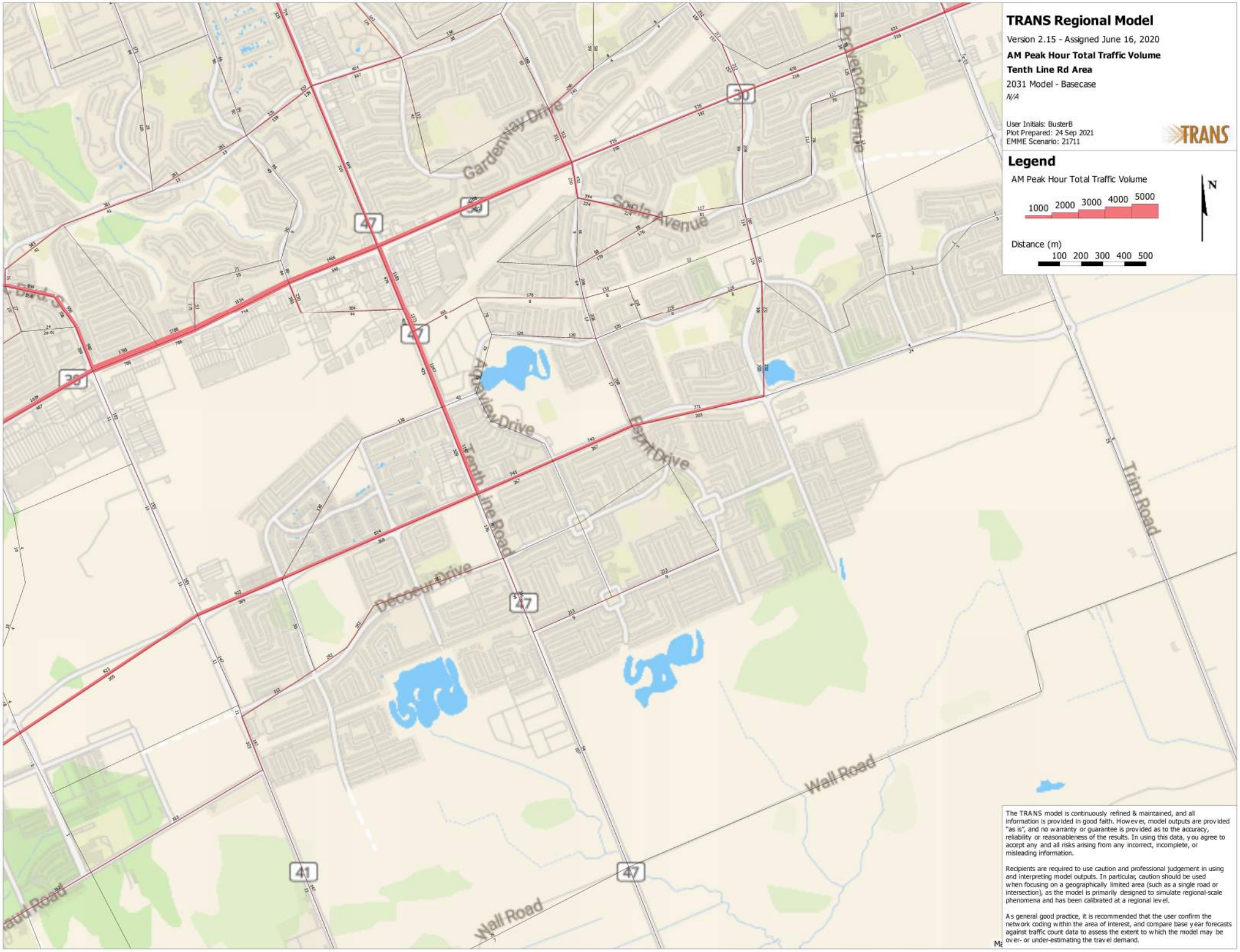
Accident Date	Accident Year	Accident Time	Location	Environment Condition	Light	Traffic Control	Traffic Control Condition	Classification Of Accident	Initial Impact Type	Road Surface Condition	# Vehicles	# Motorcycles	# Bicycles	# Pedestrians
12/1/2016	2016	18:36	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	05 - Turning movement	02 - Wet	2	0	0	0
12/1/2016	2016	19:34	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	02 - Wet	2	0	0	0
12/8/2016	2016	16:11	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	03 - Snow	05 - Dusk	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	03 - Loose snow	2	0	0	0
12/28/2016	2016	17:37	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	01 - Dry	2	0	0	0
5/1/2016	2016	15:44	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	01 - Daylight	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	03 - Rear end	02 - Wet	3	0	0	0
10/18/2017	2017	7:15	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	07 - SMV other	01 - Dry	1	0	0	1
12/28/2017	2017	8:30	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	07 - SMV other	06 - Ice	1	0	0	0
2/9/2017	2017	19:08	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
3/4/2017	2017	3:40	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	04 - Freezing Rain	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	07 - SMV other	02 - Wet	1	0	0	0
4/13/2017	2017	10:19	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
4/30/2017	2017	20:45	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	02 - Wet	2	0	0	0
4/29/2017	2017	14:30	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	01 - Dry	2	0	0	0
4/22/2017	2017	18:55	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	03 - Rear end	01 - Dry	2	0	0	0
6/25/2017	2017	23:28	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	07 - SMV other	02 - Wet	1	0	0	0
7/26/2017	2017	13:22	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
7/30/2017	2017	15:08	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
9/1/2017	2017	8:22	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	03 - Rear end	01 - Dry	2	0	0	0
10/15/2018	2018	15:40	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	02 - Angle	01 - Dry	2	0	0	0
10/19/2018	2018	10:05	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	01 - Dry	2	0	0	0
11/17/2018	2018	14:50	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	02 - Wet	2	0	0	0
1/31/2018	2018	17:20	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	03 - Snow	05 - Dusk	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	05 - Turning movement	03 - Loose snow	2	0	0	0
2/15/2018	2018	10:27	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	04 - Freezing Rain	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	06 - Ice	2	0	0	0
3/28/2018	2018	6:14	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	03 - Dawn	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	02 - Wet	2	0	0	0
4/17/2018	2018	11:57	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	04 - Sideswipe	06 - Ice	2	0	0	0
6/24/2018	2018	21:24	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	07 - SMV other	01 - Dry	1	0	0	0
7/25/2018	2018	11:42	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	01 - Daylight	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	07 - SMV other	02 - Wet	1	0	0	1
12/19/2019	2019	8:25	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
1/6/2019	2019	15:24	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	02 - Angle	01 - Dry	2	0	0	0
2/12/2019	2019	15:50	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	04 - Sideswipe	01 - Dry	2	0	0	0
1/9/2019	2019	17:15	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	03 - Snow	05 - Dusk	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	02 - Wet	2	0	0	0
4/1/2019	2019	16:50	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	3	0	0	0
4/5/2019	2019	16:29	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	99 - Other	01 - Dry	2	0	0	0
4/18/2019	2019	6:10	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	03 - Dawn	01 - Traffic signal	01 - Functioning	03 - P.D. only	04 - Sideswipe	02 - Wet	2	0	0	0
5/16/2019	2019	13:57	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
6/16/2019	2019	15:00	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
6/25/2019	2019	8:15	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	02 - Rain	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	02 - Wet	2	0	0	0
7/17/2019	2019	22:42	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	05 - Turning movement	01 - Dry	3	0	0	0
8/9/2019	2019	12:00	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	04 - Sideswipe	01 - Dry	2	0	0	0
2/10/2020	2020	16:31	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	03 - Loose snow	2	0	0	0
3/6/2020	2020	8:20	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	03 - Snow	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	03 - Loose snow	2	0	0	0
3/21/2020	2020	21:10	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	04 - Sideswipe	01 - Dry	2	0	0	0
1/17/2020	2020	10:25	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
11/25/2020	2020	18:10	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	03 - Snow	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	02 - Wet	2	0	0	0
1/18/2020	2020	10:45	BRIAN COBURN BLVD @ TENTH LINE RD (0013966)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
9/29/2016	2016	16:11	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	3	0	0	0
2/9/2017	2017	16:58	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	05 - Dusk	02 - Stop sign	01 - Functioning	03 - P.D. only	03 - Rear end	06 - Ice	2	0	0	0
2/24/2017	2017	14:22	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	02 - Non-fatal injury	02 - Angle	02 - Wet	2	0	0	0
4/3/2017	2017	7:23	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	03 - P.D. only	02 - Angle	01 - Dry	2	0	0	0
10/18/2019	2019	19:28	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	07 - Dark	02 - Stop sign	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
12/11/2019	2019	18:14	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	03 - Snow	07 - Dark	11 - Roundabout	01 - Functioning	03 - P.D. only	03 - Rear end	03 - Loose snow	2	0	0	0
1/12/2019	2019	18:25	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	07 - Dark	02 - Stop sign	01 - Functioning	03 - P.D. only	02 - Angle	01 - Dry	2	0	0	0
5/2/2020	2020	12:13	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	01 - Daylight	11 - Roundabout	01 - Functioning	02 - Non-fatal injury	03 - Rear end	01 - Dry	2	0	0	0
10/27/2020	2020	8:11	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	01 - Daylight	11 - Roundabout	01 - Functioning	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
10/23/2020	2020	12:25	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	01 - Daylight	11 - Roundabout	01 - Functioning	03 - P.D. only	04 - Sideswipe	01 - Dry	2	0	0	0
11/2/2020	2020	18:10	BRIAN COBURN BLVD @ STRASBOURG ST (0013501)	01 - Clear	07 - Dark	11 - Roundabout	01 - Functioning	03 - P.D. only	03 - Rear end	02 - Wet	2	0	0	0
6/4/2016	2016	16:08	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	03 - P.D. only	02 - Angle	01 - Dry	2	0	0	0
2/4/2017	2017	17:56	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	05 - Dusk	02 - Stop sign	01 - Functioning	03 - P.D. only	02 - Angle	01 - Dry	2	0	0	0
12/19/2017	2017	12:47	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	02 - Non-fatal injury	07 - SMV other	03 - Loose snow	1	0	0	0
2/9/2017	2017	18:45	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	07 - Dark	02 - Stop sign	00 - Unknown	03 - P.D. only	05 - Turning movement	01 - Dry	2	0	0	0
9/12/2017	2017	18:48	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	02 - Non-fatal injury	03 - Rear end	01 - Dry	2	0	0	0
12/12/2018	2018	9:10	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	01 - Daylight	02 - Stop sign	01 - Functioning	02 - Non-fatal injury	03 - Rear end	02 - Wet	2	0	0	0
10/18/2019	2019	21:00	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	01 - Dry	2	0	0	0
1/23/2019	2019	19:00	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	04 - Freezing Rain	07 - Dark	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	06 - Ice	2	0	0	0
7/25/2019	2019	13:32	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	05 - Turning movement	01 - Dry	2	0	0	0
3/6/2020	2020	8:13	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	03 - Snow	01 - Daylight	01 - Traffic signal	01 - Functioning	03 - P.D. only	03 - Rear end	03 - Loose snow	2	0	0	0
11/7/2020	2020	19:22	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	01 - Clear	07 - Dark	01 - Traffic signal	00 - Unknown	02 - Non-fatal injury	04 - Sideswipe	01 - Dry	2	1	0	0
11/26/2020	2020	9:19	DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515)	02 - Rain	01 - Daylight	01 - Traffic signal	01 - Functioning	02 - Non-fatal injury	07 - SMV other	02 - Wet	1	0	0	1
6/26/2017	2017	11:06	BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3)	01 - Clear	01 - Daylight	10 - No control	0	02 - Non-fatal injury	03 - Rear end	01 - Dry	2	0	0	0
1/2/2018	2018	14:30	BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3)	03 - Snow	01 - Daylight	10 - No control	0	03 - P.D. only	03 - Rear end	03 - Loose snow	2	0	0	0
5/23/2019	2019	8:23	BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
1/15/2019	2019	7:30	BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3)	01 - Clear	03 - Dawn	10 - No control	0	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
2/19/2020	2020	17:50	BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3)	01 - Clear	05 - Dusk	10 - No control	0	03 - P.D. only	02 - Angle	05 - Packed snow	2	0	0	0
12/4/2020	2020	19:22	BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3)	02 - Rain	07 - Dark	10 - No control	0	02 - Non-fatal injury	03 - Rear end	02 - Wet	2	0	0	0
2/25/2016	2016	17:57	TENTH LINE RD btwn BLACKBURN BYPS & SOUTHFIELD WAY (__7N415I)	03 - Snow	07 - Dark	10 - No control	0	03 - P.D. only	07 - SMV other	06 - Ice	1	0	0	0
2/9/2017	2017	16:16	TENTH LINE RD btwn BLACKBURN BYPS & SOUTHFIELD WAY (__7N415I)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	01 - Approaching	01 - Dry	2	0	0	0
4/24/2017	2017	13:42	TENTH LINE RD btwn BLACKBURN BYPS & SOUTHFIELD WAY (__7N415I)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	03 - Rear end	01 - Dry	2	0	0	0
7/13/2018	2018	11:55	DECOEUR, PROMENADE btwn AUBEPINES, PROMENADE DES & MAGNOLIA ST (e___2HVN)	01 - Clear	01 - Daylight	10 - No control	0	03 - P.D. only	07 - SMV other	01 - Dry	1	0	0	0

Appendix F

TRANS Model Plots

CGH TRANSPORTATION


TRANS Regional Model
Version 2.15 - Assigned June 16, 2020
AM Peak Hour Total Traffic Volume
Tenth Line Rd Area
2011 Model - Basecase
N/A
User Initials: BusterB
Plot Prepared: 24 Sept. 2021
EMME Scenario: 21711
TRANS
Legend
AM Peak Hour Total Traffic Volume
1000 2000 3000 4000 5000
Distance (m)
100 200 300 400 500
N
Gardenway Drive
Scala Avenue
Providence Avenue
Tenth Line Road
Meadowview Drive
Egret Drive
Trim Road
Décoeur Drive
Wall Road
30
47
41
The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.
Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.
As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

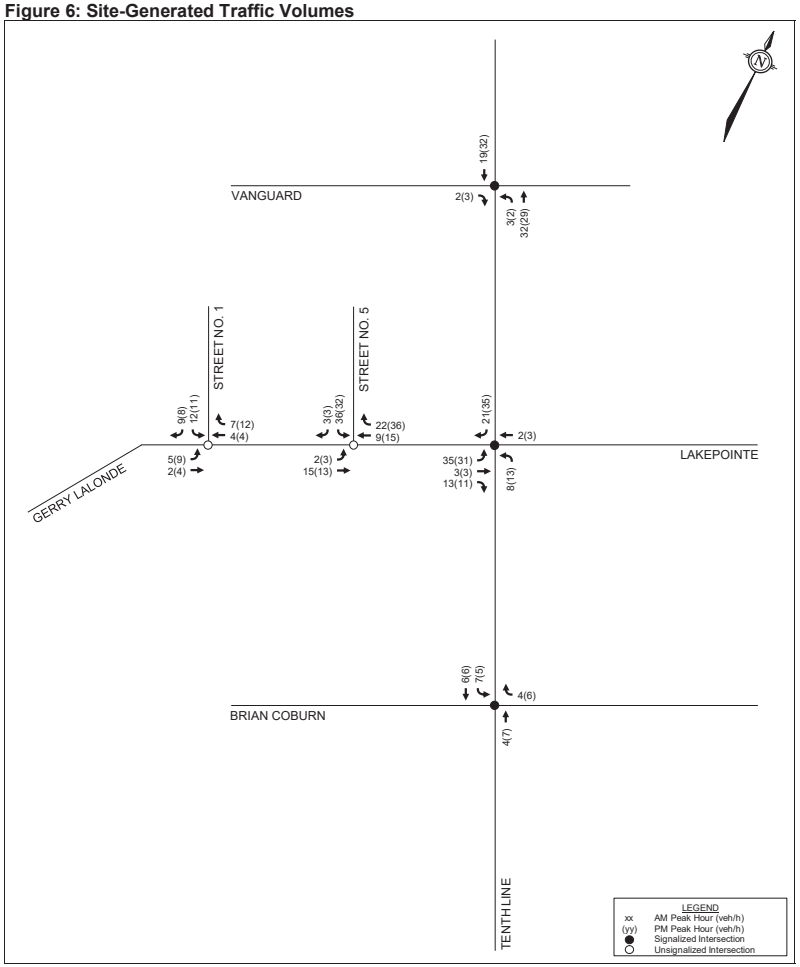

TRANS Regional Model
Version 2.15 - Assigned June 16, 2020
AM Peak Hour Total Traffic Volume
Tenth Line Rd Area
2031 Model - Basecase
N/A
User Initials: BusterB
Plot Prepared: 24 Sep 2021
EMME Scenario: 21711
TRANS
Legend
AM Peak Hour Total Traffic Volume
1000 2000 3000 4000 5000
N
Distance (m)
100 200 300 400 500
Gardenway Drive
Provence Avenue
Scala Avenue
Aquaview Drive
Egret Drive
Tenth Line Road
Décoeur Drive
Trim Road
Wall Road
Wall Road
30
47
41
The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.
Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.
As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

Appendix G

Future Background Development Volumes

CGH TRANSPORTATION

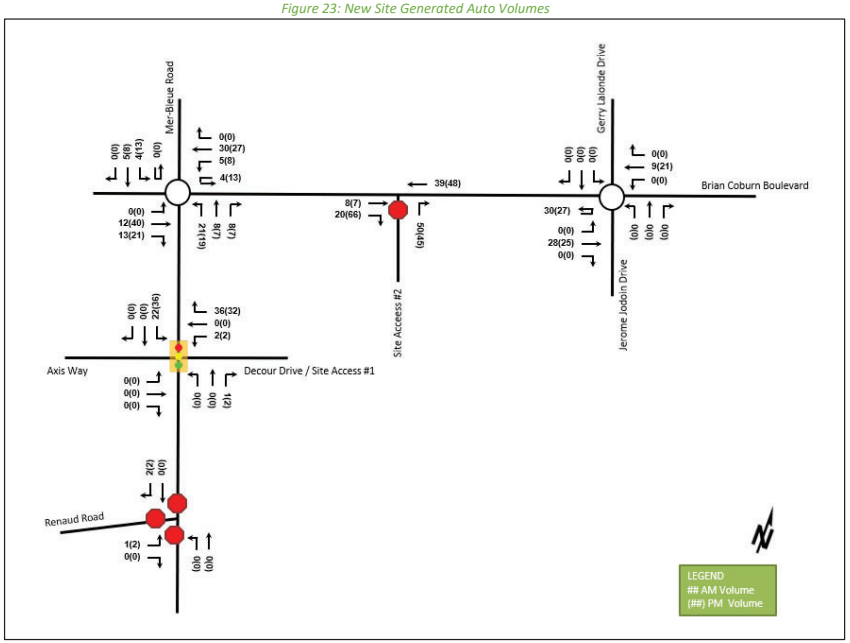
Figure 6: Site-Generated Traffic Volumes



5.3 Trip Assignment

Using the distribution outlined above, turning movement splits, and access to major transportation infrastructure, the trips generated by the site have been assigned to the Study Area road network. Figure 23 illustrates the new site generated volumes.

Figure 23: New Site Generated Auto Volumes



The following Figure 7 depicts 'new' site-generated trips assigned to the study area network, based on the above distribution.

Figure 7: 'New' Site-Generated Traffic Volumes

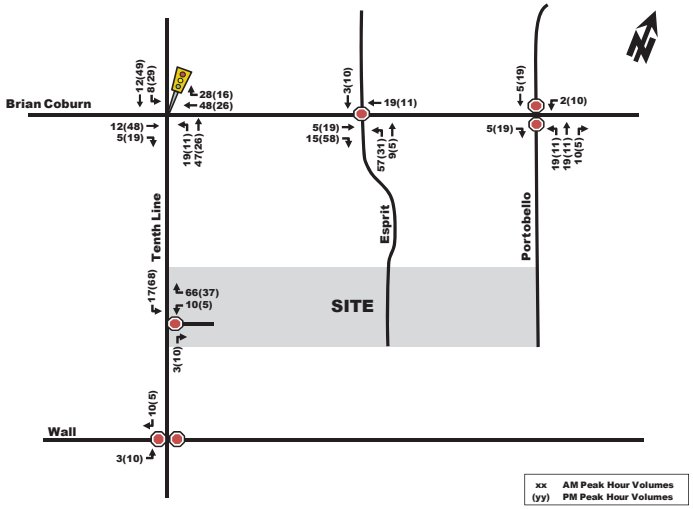


Table 3: Revised Modified Person Trip Generation (ITE)

Land Use	Units	AM Peak (persons/h)			PM Peak (persons/h)		
		In	Out	Total	In	Out	Total
Single Family Home	372 du	108	243	351	294	152	446
Townhouse/Stacked Townhouse	194 du	19	95	114	90	45	135
Total Person Trips		**127**	**338**	**465**	**384**	**197**	**581**

Table 4: Revised Site Trip Generation (ITE)

Travel Mode	Mode Share	AM Peak (persons/h)			PM Peak (persons/h)		
		In	Out	Total	In	Out	Total
Auto Driver	55%	70	186	256	212	109	321
Auto Passenger	15%	20	51	71	58	30	88
Transit	20%	25	68	93	76	39	115
Non-motorized	10%	12	33	45	38	19	57
Total Person Trips	100%	127	338	465	384	197	581
Total 'New' Auto Trips		**70**	**186**	**256**	**212**	**109**	**321**

The trip generation for the revised site plan forecasts an additional 67 two-way people trips during the AM peak and 84 two-way people trips during the PM peak. Of these trips, the updated modal splits will see an additional 20 inbound auto trips and a reduction of 4 outbound auto trips during the AM peak, and 18 additional inbound auto trips and 4 outbound auto trips during the PM peak.

Transit trips are noted to increase during the AM Peak for inbound service, and reduce for the AM outbound trips and both inbound and outbound trips during the PM peak.

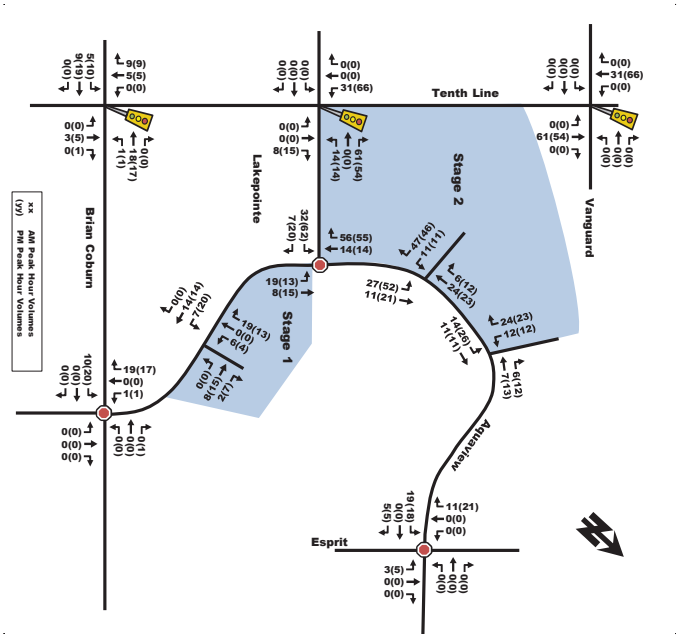


Figure 7: New Total Site-Generated Traffic Volumes

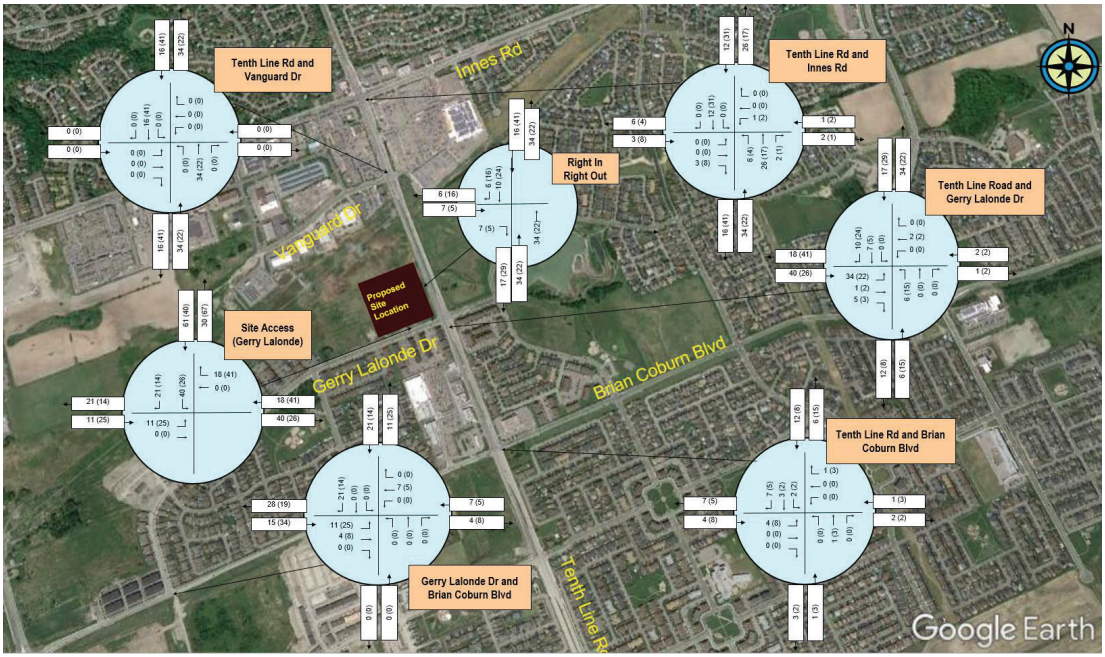


Exhibit 4-4: Net Site Auto Generated Travel Demand – Full Build Out [AM (PM)]

Appendix H

Synchro and Sidra Worksheets – 2026 Future Background Conditions

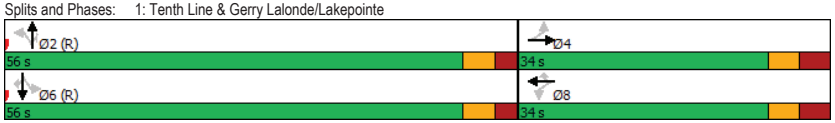
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	19	40	44	60	231	22	992	15	79	541	73
Future Volume (vph)	170	19	40	44	60	231	22	992	15	79	541	73
Satd. Flow (prot)	1566	1483	0	1642	1745	1483	1496	3283	1483	1626	3191	1441
Flt Permitted	0.718			0.719			0.450			0.256		
Satd. Flow (perm)	1179	1483	0	1240	1745	1460	706	3283	1442	438	3191	1400
Satd. Flow (RTOR)		40				100			46			73
Lane Group Flow (vph)	170	59	0	44	60	231	22	992	15	79	541	73
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	56.0	56.0	56.0	56.0	56.0	56.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%	37.8%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.4	18.4		18.4	18.4	18.4	58.6	58.6	58.6	58.6	58.6	58.6
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.65	0.65	0.65	0.65	0.65	0.65
v/c Ratio	0.71	0.18		0.17	0.17	0.61	0.05	0.46	0.02	0.28	0.26	0.08
Control Delay	48.1	13.4		28.3	27.8	24.0	4.6	5.3	0.1	12.0	7.9	2.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	13.4		28.3	27.8	24.0	4.6	5.3	0.1	12.0	7.9	2.5
LOS	D	B		C	C	C	A	A	A	B	A	A
Approach Delay		39.2			25.3			5.2			7.8	
Approach LOS		D			C			A			A	
Queue Length 50th (m)	27.5	2.7		6.3	8.6	20.1	0.7	16.3	0.0	5.1	18.3	0.0
Queue Length 95th (m)	43.2	10.9		13.4	16.5	37.9	m2.1	46.4	m0.1	17.1	34.2	5.5
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	356	476		374	527	511	459	2137	954	285	2077	937
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.12		0.12	0.11	0.45	0.05	0.46	0.02	0.28	0.26	0.08

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 71.8% — ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	13	70	970	563	61
Future Volume (vph)	54	13	70	970	563	61
Satd. Flow (prot)	1658	1483	1658	3252	3161	1483
Flt Permitted	0.950		0.441			
Satd. Flow (perm)	1656	1483	766	3252	3161	1437
Satd. Flow (RTOR)		13				61
Lane Group Flow (vph)	54	13	70	970	563	61
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	52.0	52.0	52.0	52.0
Total Split (%)	42.2%	42.2%	57.8%	57.8%	57.8%	57.8%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.3	10.3	71.3	71.3	71.3	71.3
Actuated g/C Ratio	0.11	0.11	0.79	0.79	0.79	0.79
v/c Ratio	0.29	0.07	0.12	0.38	0.22	0.05
Control Delay	40.6	18.5	2.8	2.8	2.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	18.5	2.8	2.8	2.3	0.5
LOS	D	B	A	A	A	A
Approach Delay	36.3			2.8	2.1	
Approach LOS	D			A	A	
Queue Length 50th (m)	8.7	0.0	1.9	16.7	8.6	0.0
Queue Length 95th (m)	19.3	5.2	m4.0	m21.3	11.7	0.1
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	574	522	607	2576	2504	1151
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.02	0.12	0.38	0.22	0.05

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 3.9	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops

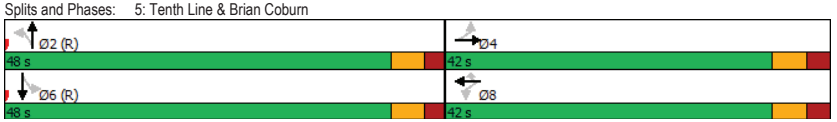
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	213	71	53	465	253	236	602	38	132	342	124
Future Volume (vph)	167	213	71	53	465	253	236	602	38	132	342	124
Satd. Flow (prot)	1642	1562	0	1610	1728	1483	1658	3216	0	1566	3071	0
Flt Permitted	0.268			0.497			0.476			0.374		
Satd. Flow (perm)	462	1562	0	842	1728	1455	828	3216	0	615	3071	0
Satd. Flow (RTOR)		22				198		10			77	
Lane Group Flow (vph)	167	284	0	53	465	253	236	640	0	132	466	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	31.4	31.4		31.4	31.4	31.4	29.0	29.0		29.0	29.0	
Total Split (s)	42.0	42.0		42.0	42.0	42.0	48.0	48.0		48.0	48.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%	46.7%	53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	30.9	30.9		30.9	30.9	30.9	46.7	46.7		46.7	46.7	
Actuated g/C Ratio	0.34	0.34		0.34	0.34	0.34	0.52	0.52		0.52	0.52	
v/c Ratio	1.06	0.52		0.18	0.79	0.40	0.55	0.38		0.41	0.29	
Control Delay	118.5	24.3		20.3	36.1	7.1	18.2	11.6		27.7	16.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	118.5	24.3		20.3	36.1	7.1	18.2	11.6		27.7	16.7	
LOS	F	C		C	D	A	B	B		C	B	
Approach Delay		59.1			25.5			13.4			19.1	
Approach LOS		E			C			B			B	
Queue Length 50th (m)	27.4	33.2		5.9	66.6	6.0	31.1	39.7		11.6	17.0	
Queue Length 95th (m)	#65.3	54.0		13.8	98.9	21.2	19.8	22.4		42.2	46.2	
Internal Link Dist (m)		392.1			351.9			301.3			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	182	631		333	683	695	430	1674		319	1632	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.92	0.45		0.16	0.68	0.36	0.55	0.38		0.41	0.29	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 43 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06
Intersection Signal Delay: 25.8 — Intersection LOS: C
Intersection Capacity Utilization 89.2% — ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn

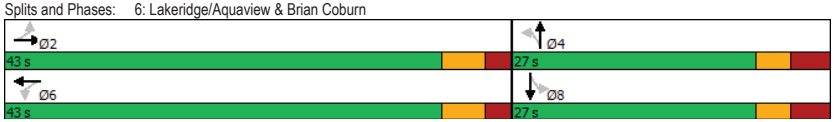


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	348	31	50	593	24	123	23	28	12	10	55
Future Volume (vph)	20	348	31	50	593	24	123	23	28	12	10	55
Satd. Flow (prot)	1658	1646	0	1595	1717	0	1658	1554	0	1551	1511	0
Flt Permitted	0.371			0.537			0.715			0.724		
Satd. Flow (perm)	647	1646	0	902	1717	0	1248	1554	0	1144	1511	0
Satd. Flow (RTOR)		10			4			28			55	
Lane Group Flow (vph)	20	379	0	50	617	0	123	51	0	12	65	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	43.0	43.0		43.0	43.0		27.0	27.0		27.0	27.0	
Total Split (%)	61.4%	61.4%		61.4%	61.4%		38.6%	38.6%		38.6%	38.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	42.4	42.4		42.4	42.4		12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.20	0.20		0.20	0.20	
v/c Ratio	0.05	0.34		0.08	0.53		0.50	0.16		0.05	0.19	
Control Delay	6.4	7.3		6.4	9.7		29.8	13.0		20.0	9.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.4	7.3		6.4	9.7		29.8	13.0		20.0	9.4	
LOS	A	A		A	A		C	B		B	A	
Approach Delay		7.3			9.5			24.9			11.0	
Approach LOS		A			A			C			B	
Queue Length 50th (m)	0.8	17.6		2.0	35.3		12.5	2.2		1.1	0.9	
Queue Length 95th (m)	3.7	40.2		7.0	78.0		26.0	9.4		4.7	9.0	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	440	1124		614	1170		414	534		379	538	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.34		0.08	0.53		0.30	0.10		0.03	0.12	

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 62.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.53

Intersection Signal Delay: 10.9 — Intersection LOS: B
Intersection Capacity Utilization 68.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	277	75	34	464	24	151	59	37	25	50	45
Future Volume (vph)	30	277	75	34	464	24	151	59	37	25	50	45
Satd. Flow (prot)	1642	1616	0	1551	1697	0	1658	1480	0	1566	1542	0
Flt Permitted	0.391			0.508			0.695			0.695		
Satd. Flow (perm)	674	1616	0	808	1697	0	1201	1480	0	1112	1542	0
Satd. Flow (RTOR)		26			5			37			45	
Lane Group Flow (vph)	30	352	0	34	488	0	151	96	0	25	95	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.08	0.41		0.08	0.55		0.38	0.19		0.07	0.18	
Control Delay	10.3	12.3		10.1	15.4		24.3	13.8		19.3	12.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.3	12.3		10.1	15.4		24.3	13.8		19.3	12.3	
LOS	B	B		B	B		C	B		B	B	
Approach Delay		12.2			15.1			20.2			13.7	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	2.1	27.8		2.4	45.7		17.5	6.2		2.6	5.2	
Queue Length 95th (m)	6.2	46.3		6.7	72.2		33.2	16.5		7.8	15.3	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	353	860		424	893		393	509		364	535	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.41		0.08	0.55		0.38	0.19		0.07	0.18	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Esprit & Brian Coburn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	27	44	9	29	70	79	715	1	19	400	59
Future Volume (vph)	86	27	44	9	29	70	79	715	1	19	400	59
Satd. Flow (prot)	1610	1389	0	1658	1545	0	1445	3131	1483	1523	3161	1401
Flt Permitted	0.693			0.711			0.516			0.373		
Satd. Flow (perm)	1173	1389	0	1241	1545	0	781	3131	1442	597	3161	1359
Satd. Flow (RTOR)		44			70				47			59
Lane Group Flow (vph)	86	71	0	9	99	0	79	715	1	19	400	59
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	54.4%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	16.1	16.1		16.1	16.1		65.7	65.7	65.7	65.7	65.7	65.7
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.73	0.73	0.73	0.73	0.73	0.73
v/c Ratio	0.41	0.25		0.04	0.30		0.14	0.31	0.00	0.04	0.17	0.06
Control Delay	36.0	14.9		25.1	12.6		8.7	7.6	0.0	6.1	5.1	1.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	14.9		25.1	12.6		8.7	7.6	0.0	6.1	5.1	1.9
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		26.4			13.7			7.7			4.8	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	14.1	4.2		1.4	4.5		3.5	19.4	0.0	0.7	12.1	0.1
Queue Length 95th (m)	20.2	11.3		3.9	12.9		16.5	56.7	0.0	m3.3	19.0	2.6
Internal Link Dist (m)		344.3			315.6			346.2			301.3	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	444	553		470	628		569	2284	1065	435	2306	1007
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.13		0.02	0.16		0.14	0.31	0.00	0.04	0.17	0.06

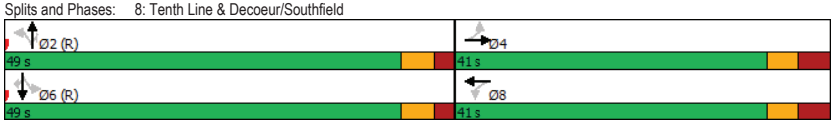
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

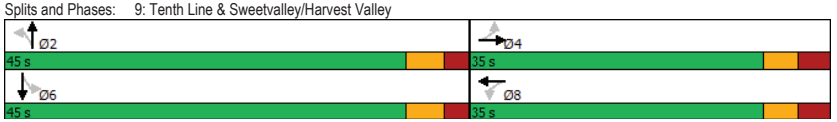


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	3	12	70	1	290	5	351	33	76	326	58
Future Volume (vph)	135	3	12	70	1	290	5	351	33	76	326	58
Satd. Flow (prot)	1658	1433	0	1658	1447	0	1409	3074	0	1580	3183	0
Flt Permitted	0.457			0.748			0.524			0.524		
Satd. Flow (perm)	795	1433	0	1304	1447	0	776	3074	0	872	3183	0
Satd. Flow (RTOR)		12			290			17			35	
Lane Group Flow (vph)	135	15	0	70	291	0	5	384	0	76	384	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		56.3%	56.3%		56.3%	56.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	16.3	16.3		16.3	16.3		39.1	39.1		39.1	39.1	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.57	0.57		0.57	0.57	
v/c Ratio	0.71	0.04		0.23	0.51		0.01	0.22		0.15	0.21	
Control Delay	44.1	11.2		21.6	6.2		9.0	8.2		9.8	7.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.1	11.2		21.6	6.2		9.0	8.2		9.8	7.8	
LOS	D	B		C	A		A	A		A	A	
Approach Delay		40.9			9.2			8.3			8.1	
Approach LOS		D			A			A			A	
Queue Length 50th (m)	15.6	0.3		7.1	0.1		0.3	10.1		3.8	9.4	
Queue Length 95th (m)	32.7	4.0		15.9	15.2		2.1	24.3		13.9	23.2	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	334	610		549	777		444	1769		500	1840	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.02		0.13	0.37		0.01	0.22		0.15	0.21	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 68.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71

Intersection Signal Delay: 12.1 — Intersection LOS: B
Intersection Capacity Utilization 77.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



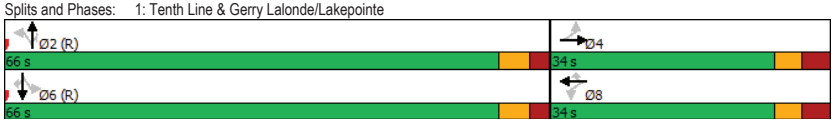
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	103	62	31	25	171	38	1013	63	263	1238	187
Future Volume (vph)	173	103	62	31	25	171	38	1013	63	263	1238	187
Satd. Flow (prot)	1658	1637	0	1658	1745	1483	1658	3316	1483	1658	3316	1455
Flt Permitted	0.741			0.604			0.187			0.253		
Satd. Flow (perm)	1292	1637	0	1049	1745	1464	326	3316	1436	441	3316	1411
Satd. Flow (RTOR)		30				113			63			187
Lane Group Flow (vph)	173	165	0	31	25	171	38	1013	63	263	1238	187
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	66.0	66.0	66.0	66.0	66.0	66.0
Total Split (%)	34.0%	34.0%		34.0%	34.0%	34.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.8	18.8		18.8	18.8	18.8	68.2	68.2	68.2	68.2	68.2	68.2
Actuated g/C Ratio	0.19	0.19		0.19	0.19	0.19	0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.71	0.50		0.16	0.08	0.47	0.17	0.45	0.06	0.88	0.55	0.18
Control Delay	53.6	33.5		33.0	30.8	16.7	5.2	4.9	0.6	46.9	10.1	1.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	33.5		33.0	30.8	16.7	5.2	4.9	0.6	46.9	10.1	1.7
LOS	D	C		C	C	B	A	A	A	D	B	A
Approach Delay		43.7			20.5			4.7			14.9	
Approach LOS		D			C			A			B	
Queue Length 50th (m)	31.8	23.4		5.1	4.0	9.6	1.2	41.5	0.2	35.4	56.4	0.0
Queue Length 95th (m)	49.0	38.8		11.8	9.9	25.5	2.6	18.2	0.7	#100.9	94.7	8.0
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	351	467		285	474	480	222	2262	999	300	2262	1022
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.35		0.11	0.05	0.36	0.17	0.45	0.06	0.88	0.55	0.18

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 86.8% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	149	111	54	966	1168	160
Future Volume (vph)	149	111	54	966	1168	160
Satd. Flow (prot)	1658	1483	1658	3316	3316	1483
Flt Permitted	0.950		0.210			
Satd. Flow (perm)	1653	1464	366	3316	3316	1431
Satd. Flow (RTOR)		65				160
Lane Group Flow (vph)	149	111	54	966	1168	160
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	62.0	62.0	62.0	62.0
Total Split (%)	38.0%	38.0%	62.0%	62.0%	62.0%	62.0%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	16.8	16.8	70.2	70.2	70.2	70.2
Actuated g/C Ratio	0.17	0.17	0.70	0.70	0.70	0.70
v/c Ratio	0.54	0.37	0.21	0.42	0.50	0.15
Control Delay	43.4	18.7	8.1	5.9	5.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	18.7	8.1	5.9	5.8	0.7
LOS	D	B	A	A	A	A
Approach Delay	32.9			6.0	5.2	
Approach LOS	C			A	A	
Queue Length 50th (m)	27.5	8.0	2.0	19.8	28.6	0.1
Queue Length 95th (m)	37.7	18.9	m11.6	66.3	37.2	2.5
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	515	501	256	2326	2326	1051
Starvation Cap Reductn	0	0	0	0	93	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.21	0.42	0.52	0.15

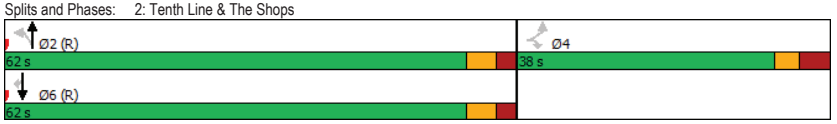
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.3	Intersection LOS: A
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	469	240	59	240	236	161	578	47	291	821	191
Future Volume (vph)	212	469	240	59	240	236	161	578	47	291	821	191
Satd. Flow (prot)	1658	1647	0	1658	1745	1483	1566	3269	0	1658	3193	0
Flt Permitted	0.568			0.099			0.185			0.363		
Satd. Flow (perm)	981	1647	0	173	1745	1436	304	3269	0	630	3193	0
Satd. Flow (RTOR)		31				210		11			38	
Lane Group Flow (vph)	212	709	0	59	240	236	161	625	0	291	1012	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	31.4	31.4		31.4	31.4	31.4	29.0	29.0		29.0	29.0	
Total Split (s)	47.0	47.0		47.0	47.0	47.0	53.0	53.0		53.0	53.0	
Total Split (%)	47.0%	47.0%		47.0%	47.0%	47.0%	53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	40.6	40.6		40.6	40.6	40.6	47.0	47.0		47.0	47.0	
Actuated g/C Ratio	0.41	0.41		0.41	0.41	0.41	0.47	0.47		0.47	0.47	
v/c Ratio	0.53	1.03		0.84	0.34	0.33	1.13	0.41		0.98	0.67	
Control Delay	28.6	72.4		104.0	22.2	5.3	145.6	18.0		65.4	11.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	28.6	72.4		104.0	22.2	5.3	145.6	18.0		65.4	11.9	
LOS	C	E		F	C	A	F	B		E	B	
Approach Delay		62.3			23.7			44.2			23.8	
Approach LOS		E			C			D			C	
Queue Length 50th (m)	30.5	~144.5		10.1	31.4	3.0	~36.6	32.6		55.0	46.1	
Queue Length 95th (m)	53.5	#213.2		#35.2	50.1	17.4	#71.0	53.3		#99.1	43.7	
Internal Link Dist (m)		392.1			351.9			301.3			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	398	687		70	708	707	142	1542		296	1520	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.53	1.03		0.84	0.34	0.33	1.13	0.41		0.98	0.67	

Intersection Summary

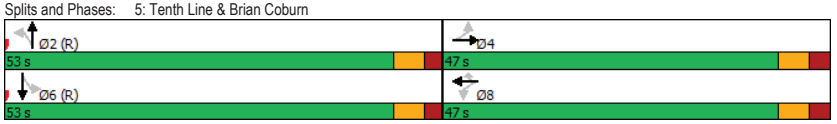
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13
Intersection Signal Delay: 38.3 — Intersection LOS: D
Intersection Capacity Utilization 110.5% — ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 5: Tenth Line & Brian Coburn

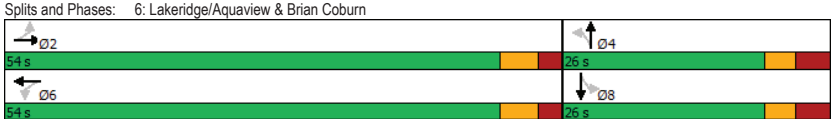


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	685	73	31	434	20	71	19	27	28	13	31
Future Volume (vph)	56	685	73	31	434	20	71	19	27	28	13	31
Satd. Flow (prot)	1658	1716	0	1658	1714	0	1626	1546	0	1523	1532	0
Flt Permitted	0.489			0.310			0.728			0.727		
Satd. Flow (perm)	848	1716	0	540	1714	0	1240	1546	0	1134	1532	0
Satd. Flow (RTOR)		12			5			27			31	
Lane Group Flow (vph)	56	758	0	31	454	0	71	46	0	28	44	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	54.0	54.0		54.0	54.0		26.0	26.0		26.0	26.0	
Total Split (%)	67.5%	67.5%		67.5%	67.5%		32.5%	32.5%		32.5%	32.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	55.0	55.0		55.0	55.0		11.2	11.2		11.2	11.2	
Actuated g/C Ratio	0.74	0.74		0.74	0.74		0.15	0.15		0.15	0.15	
v/c Ratio	0.09	0.59		0.08	0.36		0.38	0.18		0.16	0.17	
Control Delay	5.0	8.9		5.2	5.9		33.9	16.4		28.7	14.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.0	8.9		5.2	5.9		33.9	16.4		28.7	14.8	
LOS	A	A		A	A		C	B		C	B	
Approach Delay		8.6			5.8			27.0			20.2	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	2.1	46.1		1.1	21.1		8.6	2.2		3.3	1.5	
Queue Length 95th (m)	6.8	97.9		4.6	44.2		19.6	10.2		9.8	9.2	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	631	1280		402	1276		330	431		302	431	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.59		0.08	0.36		0.22	0.11		0.09	0.10	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 73.9
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.59

Intersection Signal Delay: 9.7 — Intersection LOS: A
Intersection Capacity Utilization 70.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	491	188	27	344	18	103	43	25	23	48	38
Future Volume (vph)	52	491	188	27	344	18	103	43	25	23	48	38
Satd. Flow (prot)	1658	1672	0	1658	1714	0	1658	1549	0	1658	1490	0
Flt Permitted	0.499			0.242			0.701			0.713		
Satd. Flow (perm)	865	1672	0	422	1714	0	1206	1549	0	1242	1490	0
Satd. Flow (RTOR)		36			5			25			38	
Lane Group Flow (vph)	52	679	0	27	362	0	103	68	0	23	86	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.11	0.76		0.12	0.40		0.26	0.13		0.06	0.17	
Control Delay	10.5	21.0		11.4	12.9		22.1	14.1		19.0	12.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.5	21.0		11.4	12.9		22.1	14.1		19.0	12.9	
LOS	B	C		B	B		C	B		B	B	
Approach Delay		20.3			12.8			18.9			14.2	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	3.7	72.4		1.9	30.5		11.4	4.5		2.4	5.0	
Queue Length 95th (m)	9.3	116.6		6.3	49.1		23.4	12.9		7.3	14.5	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	454	894		221	902		394	524		406	513	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.76		0.12	0.40		0.26	0.13		0.06	0.17	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Esprit & Brian Coburn

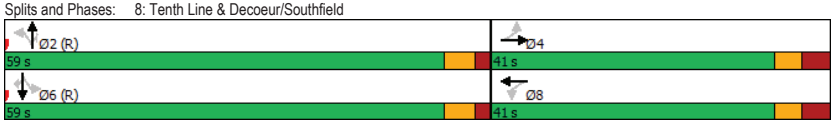
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	16	30	2	24	55	34	674	14	116	917	94
Future Volume (vph)	47	16	30	2	24	55	34	674	14	116	917	94
Satd. Flow (prot)	1658	1561	0	1658	1564	0	1658	3316	1483	1658	3316	1483
Flt Permitted	0.706			0.727			0.296			0.393		
Satd. Flow (perm)	1232	1561	0	1268	1564	0	515	3316	1483	686	3316	1435
Satd. Flow (RTOR)		30			55				43			94
Lane Group Flow (vph)	47	46	0	2	79	0	34	674	14	116	917	94
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		59.0	59.0	59.0	59.0	59.0	59.0
Total Split (%)	41.0%	41.0%		41.0%	41.0%		59.0%	59.0%	59.0%	59.0%	59.0%	59.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0		15.0	15.0		76.8	76.8	76.8	76.8	76.8	76.8
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.77	0.77	0.77	0.77	0.77	0.77
v/c Ratio	0.26	0.18		0.01	0.28		0.09	0.26	0.01	0.22	0.36	0.08
Control Delay	37.7	17.2		29.0	15.8		7.7	6.1	0.0	4.6	3.7	0.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	17.2		29.0	15.8		7.7	6.1	0.0	4.6	3.7	0.5
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		27.5			16.1			6.1			3.6	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	8.7	2.9		0.4	4.3		1.3	15.8	0.0	2.8	12.9	0.0
Queue Length 95th (m)	14.4	9.6		1.8	12.8		8.5	50.8	0.3	m9.3	m32.8	m0.0
Internal Link Dist (m)		344.3			315.6			346.2			301.3	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	420	552		432	569		395	2546	1148	526	2546	1123
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.08		0.00	0.14		0.09	0.26	0.01	0.22	0.36	0.08

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.36
Intersection Signal Delay: 6.1 — Intersection LOS: A
Intersection Capacity Utilization 60.7% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

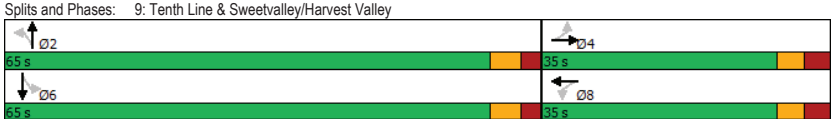


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	2	7	17	1	167	14	442	81	293	478	168
Future Volume (vph)	95	2	7	17	1	167	14	442	81	293	478	168
Satd. Flow (prot)	1658	1525	0	1595	1464	0	1658	3239	0	1658	3163	0
Flt Permitted	0.600			0.752			0.405			0.458		
Satd. Flow (perm)	1045	1525	0	1261	1464	0	707	3239	0	799	3163	0
Satd. Flow (RTOR)		7			167			36			85	
Lane Group Flow (vph)	95	9	0	17	168	0	14	523	0	293	646	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		65.0	65.0		65.0	65.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		65.0%	65.0%		65.0%	65.0%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	14.9	14.9		14.9	14.9		61.8	61.8		61.8	61.8	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.69	0.69		0.69	0.69	
v/c Ratio	0.55	0.03		0.08	0.44		0.03	0.23		0.53	0.29	
Control Delay	44.6	18.1		29.4	8.7		6.7	5.8		13.0	5.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.6	18.1		29.4	8.7		6.7	5.8		13.0	5.7	
LOS	D	B		C	A		A	A		B	A	
Approach Delay		42.3			10.6			5.8			8.0	
Approach LOS		D			B			A			A	
Queue Length 50th (m)	14.5	0.3		2.4	0.1		0.6	12.2		18.8	14.5	
Queue Length 95th (m)	28.5	4.0		7.5	14.7		3.6	30.7		63.7	36.6	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	335	493		404	582		488	2249		552	2211	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.02		0.04	0.29		0.03	0.23		0.53	0.29	

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 89.4
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.6 — Intersection LOS: A
Intersection Capacity Utilization 74.2% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde AM FB2026]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jerome Jodoin												
1	L2	83	2.0	0.186	9.6	LOS A	1.0	7.4	0.55	0.65	0.55	50.0
2	T1	21	2.0	0.186	4.4	LOS A	1.0	7.4	0.55	0.65	0.55	46.8
3	R2	78	2.0	0.186	4.8	LOS A	1.0	7.4	0.55	0.65	0.55	48.8
Approach		182	2.0	0.186	7.0	LOS A	1.0	7.4	0.55	0.65	0.55	49.1
East: Brian Coburn												
4	L2	44	2.0	0.780	11.6	LOS B	10.5	74.9	0.77	0.62	0.80	50.5
5	T1	939	2.0	0.780	6.2	LOS A	10.5	74.9	0.77	0.62	0.80	53.8
6	R2	13	2.0	0.780	6.3	LOS A	10.5	74.9	0.77	0.62	0.80	48.9
Approach		996	2.0	0.780	6.5	LOS A	10.5	74.9	0.77	0.62	0.80	53.6
North: Gerry Lalonde												
7	L2	7	2.0	0.499	23.2	LOS C	4.4	31.7	1.00	1.10	1.24	43.2
8	T1	8	2.0	0.499	18.1	LOS B	4.4	31.7	1.00	1.10	1.24	40.8
9	R2	185	2.0	0.499	18.5	LOS B	4.4	31.7	1.00	1.10	1.24	42.3
Approach		200	2.0	0.499	18.6	LOS B	4.4	31.7	1.00	1.10	1.24	42.2
West: Brian Coburn												
10u	U	32	2.0	0.314	11.3	LOS B	2.2	15.9	0.25	0.44	0.25	56.9
10	L2	40	2.0	0.314	9.2	LOS A	2.2	15.9	0.25	0.44	0.25	52.2
11	T1	330	2.0	0.314	3.8	LOS A	2.2	15.9	0.25	0.44	0.25	55.7
12	R2	48	2.0	0.314	3.9	LOS A	2.2	15.9	0.25	0.44	0.25	50.5
Approach		450	2.0	0.314	4.9	LOS A	2.2	15.9	0.25	0.44	0.25	54.8
All Vehicles		1828	2.0	0.780	7.5	LOS A	10.5	74.9	0.65	0.63	0.69	51.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde PM FB2026]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jerome Jodoin												
1	L2	37	2.0	0.295	21.5	LOS C	2.3	16.3	1.00	0.98	1.00	43.2
2	T1	10	2.0	0.295	16.3	LOS B	2.3	16.3	1.00	0.98	1.00	40.8
3	R2	36	2.0	0.295	16.7	LOS B	2.3	16.3	1.00	0.98	1.00	42.3
Approach		83	2.0	0.295	18.8	LOS B	2.3	16.3	1.00	0.98	1.00	42.5
East: Brian Coburn												
4	L2	62	2.0	0.547	11.0	LOS B	4.6	32.7	0.70	0.63	0.70	50.7
5	T1	512	2.0	0.547	5.7	LOS A	4.6	32.7	0.70	0.63	0.70	54.0
6	R2	12	2.0	0.547	5.8	LOS A	4.6	32.7	0.70	0.63	0.70	49.1
Approach		586	2.0	0.547	6.3	LOS A	4.6	32.7	0.70	0.63	0.70	53.5
North: Gerry Lalonde												
7	L2	4	2.0	0.152	11.1	LOS B	1.0	6.8	0.73	0.71	0.73	50.4
8	T1	18	2.0	0.152	5.9	LOS A	1.0	6.8	0.73	0.71	0.73	47.1
9	R2	92	2.0	0.152	6.3	LOS A	1.0	6.8	0.73	0.71	0.73	49.1
Approach		114	2.0	0.152	6.4	LOS A	1.0	6.8	0.73	0.71	0.73	48.8
West: Brian Coburn												
10u	U	27	2.0	0.888	12.7	LOS B	20.4	145.4	0.87	0.50	0.87	54.2
10	L2	212	2.0	0.888	10.5	LOS B	20.4	145.4	0.87	0.50	0.87	50.0
11	T1	986	2.0	0.888	5.2	LOS A	20.4	145.4	0.87	0.50	0.87	53.1
12	R2	65	2.0	0.888	5.3	LOS A	20.4	145.4	0.87	0.50	0.87	48.4
Approach		1290	2.0	0.888	6.2	LOS A	20.4	145.4	0.87	0.50	0.87	52.4
All Vehicles		2073	2.0	0.888	6.7	LOS A	20.4	145.4	0.82	0.57	0.82	52.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg AM FB2026]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: des Aubepines												
1	L2	109	2.0	0.181	9.5	LOS A	1.0	7.2	0.54	0.66	0.54	49.6
2	T1	15	2.0	0.181	4.3	LOS A	1.0	7.2	0.54	0.66	0.54	46.5
3	R2	55	2.0	0.181	4.7	LOS A	1.0	7.2	0.54	0.66	0.54	48.4
Approach		179	2.0	0.181	7.6	LOS A	1.0	7.2	0.54	0.66	0.54	48.9
East: Brian Coburn												
4	L2	32	2.0	0.633	10.0	LOS B	6.5	46.1	0.56	0.50	0.56	51.4
5	T1	795	2.0	0.633	4.7	LOS A	6.5	46.1	0.56	0.50	0.56	54.8
6	R2	12	2.0	0.633	4.8	LOS A	6.5	46.1	0.56	0.50	0.56	49.7
Approach		839	2.0	0.633	4.9	LOS A	6.5	46.1	0.56	0.50	0.56	54.6
North: Strasbourg												
7	L2	25	2.0	0.221	14.6	LOS B	1.5	10.8	0.87	0.86	0.87	47.6
8	T1	22	2.0	0.221	9.5	LOS A	1.5	10.8	0.87	0.86	0.87	44.7
9	R2	76	2.0	0.221	9.8	LOS A	1.5	10.8	0.87	0.86	0.87	46.5
Approach		123	2.0	0.221	10.7	LOS B	1.5	10.8	0.87	0.86	0.87	46.4
West: Brian Coburn												
10	L2	7	2.0	0.295	9.3	LOS A	2.0	14.2	0.29	0.41	0.29	52.6
11	T1	360	2.0	0.295	3.9	LOS A	2.0	14.2	0.29	0.41	0.29	56.1
12	R2	38	2.0	0.295	4.1	LOS A	2.0	14.2	0.29	0.41	0.29	50.9
Approach		405	2.0	0.295	4.1	LOS A	2.0	14.2	0.29	0.41	0.29	55.5
All Vehicles		1546	2.0	0.633	5.5	LOS A	6.5	46.1	0.51	0.52	0.51	53.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg PM FB2026]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: des Aubepines												
1	L2	58	2.0	0.195	14.4	LOS B	1.3	9.4	0.86	0.86	0.86	46.9
2	T1	18	2.0	0.195	9.2	LOS A	1.3	9.4	0.86	0.86	0.86	44.1
3	R2	34	2.0	0.195	9.6	LOS A	1.3	9.4	0.86	0.86	0.86	45.8
Approach		110	2.0	0.195	12.1	LOS B	1.3	9.4	0.86	0.86	0.86	46.1
East: Brian Coburn												
4	L2	54	2.0	0.445	9.6	LOS A	3.6	25.5	0.41	0.46	0.41	51.9
5	T1	503	2.0	0.445	4.2	LOS A	3.6	25.5	0.41	0.46	0.41	55.3
6	R2	36	2.0	0.445	4.3	LOS A	3.6	25.5	0.41	0.46	0.41	50.2
Approach		593	2.0	0.445	4.7	LOS A	3.6	25.5	0.41	0.46	0.41	54.7
North: Strasbourg												
7	L2	23	2.0	0.073	10.7	LOS B	0.4	2.9	0.65	0.66	0.65	49.5
8	T1	13	2.0	0.073	5.5	LOS A	0.4	2.9	0.65	0.66	0.65	46.4
9	R2	23	2.0	0.073	5.9	LOS A	0.4	2.9	0.65	0.66	0.65	48.3
Approach		59	2.0	0.073	7.7	LOS A	0.4	2.9	0.65	0.66	0.65	48.3
West: Brian Coburn												
10	L2	33	2.0	0.706	9.8	LOS A	8.2	58.6	0.51	0.46	0.51	51.7
11	T1	870	2.0	0.706	4.5	LOS A	8.2	58.6	0.51	0.46	0.51	55.1
12	R2	106	2.0	0.706	4.6	LOS A	8.2	58.6	0.51	0.46	0.51	50.0
Approach		1009	2.0	0.706	4.7	LOS A	8.2	58.6	0.51	0.46	0.51	54.4
All Vehicles		1771	2.0	0.706	5.2	LOS A	8.2	58.6	0.50	0.49	0.50	53.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix I

Synchro Worksheets – 2026 Future Background Conditions with Phase/Cycle Changes

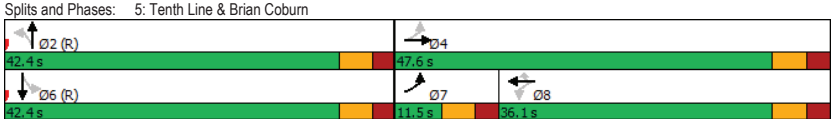
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	213	71	53	465	253	236	602	38	132	342	124
Future Volume (vph)	167	213	71	53	465	253	236	602	38	132	342	124
Satd. Flow (prot)	1642	1562	0	1610	1728	1483	1658	3216	0	1566	3071	0
Flt Permitted	0.176			0.586			0.458			0.347		
Satd. Flow (perm)	304	1562	0	993	1728	1455	797	3216	0	571	3071	0
Satd. Flow (RTOR)		25				158		9			69	
Lane Group Flow (vph)	167	284	0	53	465	253	236	640	0	132	466	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	29.0	29.0		29.0	29.0	
Total Split (s)	11.5	47.6		36.1	36.1	36.1	42.4	42.4		42.4	42.4	
Total Split (%)	12.8%	52.9%		40.1%	40.1%	40.1%	47.1%	47.1%		47.1%	47.1%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	38.9	38.9		27.4	27.4	27.4	38.7	38.7		38.7	38.7	
Actuated g/C Ratio	0.43	0.43		0.30	0.30	0.30	0.43	0.43		0.43	0.43	
v/c Ratio	0.81	0.41		0.18	0.89	0.46	0.69	0.46		0.54	0.34	
Control Delay	47.8	17.5		23.5	49.6	12.1	40.2	24.4		23.7	9.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	47.8	17.5		23.5	49.6	12.1	40.2	24.4		23.7	9.5	
LOS	D	B		C	D	B	D	C		C	A	
Approach Delay		28.8			35.5			28.7			12.6	
Approach LOS		C			D			C			B	
Queue Length 50th (m)	16.8	28.2		6.4	73.0	11.6	33.8	45.8		18.1	25.9	
Queue Length 95th (m)	#40.6	47.3		15.1	#121.7	31.0	#73.6	69.7		29.1	21.1	
Internal Link Dist (m)		392.1			351.9			301.3			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	206	728		327	570	586	342	1389		245	1360	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.81	0.39		0.16	0.82	0.43	0.69	0.46		0.54	0.34	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89
Intersection Signal Delay: 27.1 — Intersection LOS: C
Intersection Capacity Utilization 89.2% — ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn



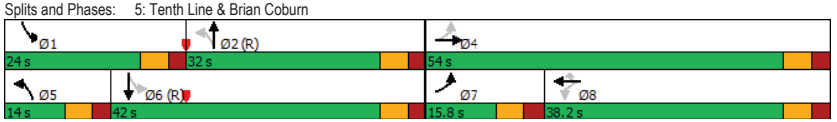
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	469	240	59	240	236	161	578	47	291	821	191
Future Volume (vph)	212	469	240	59	240	236	161	578	47	291	821	191
Satd. Flow (prot)	1658	1647	0	1658	1745	1483	1566	3266	0	1658	3190	0
Flt Permitted	0.415			0.161			0.144			0.188		
Satd. Flow (perm)	717	1647	0	281	1745	1431	236	3266	0	327	3190	0
Satd. Flow (RTOR)		30				236		7			27	
Lane Group Flow (vph)	212	709	0	59	240	236	161	625	0	291	1012	0
Turn Type	pm+pt	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	11.0	29.0		11.0	29.0	
Total Split (s)	15.8	54.0		38.2	38.2	38.2	14.0	32.0		24.0	42.0	
Total Split (%)	14.4%	49.1%		34.7%	34.7%	34.7%	12.7%	29.1%		21.8%	38.2%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	47.2	47.2		31.4	31.4	31.4	36.0	27.6		49.8	36.0	
Actuated g/C Ratio	0.43	0.43		0.29	0.29	0.29	0.33	0.25		0.45	0.33	
v/c Ratio	0.55	0.98		0.74	0.48	0.41	0.90	0.76		0.83	0.95	
Control Delay	26.7	59.5		74.4	26.9	4.9	80.3	42.8		53.7	45.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.7	59.5		74.4	26.9	4.9	80.3	42.8		53.7	45.5	
LOS	C	E		E	C	A	F	D		D	D	
Approach Delay		51.9			22.4			50.5			47.3	
Approach LOS		D			C			D			D	
Queue Length 50th (m)	28.9	141.3		7.2	29.3	0.0	24.2	66.4		37.2	99.3	
Queue Length 95th (m)	46.1	#220.7		#34.1	52.7	8.0	#64.3	54.8		#81.5	#146.9	
Internal Link Dist (m)		392.1			351.9			301.3			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	388	729		81	504	581	178	825		367	1062	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.55	0.97		0.73	0.48	0.41	0.90	0.76		0.79	0.95	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98
Intersection Signal Delay: 45.5 — Intersection LOS: D
Intersection Capacity Utilization 110.5% — ICU Level of Service H
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn



Appendix J

Synchro and Sidra Worksheets – 2031 Future Background Conditions

CGH TRANSPORTATION

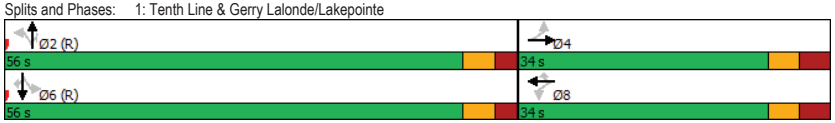
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	19	40	44	60	231	22	992	15	79	541	73
Future Volume (vph)	170	19	40	44	60	231	22	992	15	79	541	73
Satd. Flow (prot)	1566	1483	0	1642	1745	1483	1496	3283	1483	1626	3191	1441
Flt Permitted	0.718			0.719			0.450			0.256		
Satd. Flow (perm)	1179	1483	0	1240	1745	1460	706	3283	1442	438	3191	1400
Satd. Flow (RTOR)		40				100			46			73
Lane Group Flow (vph)	170	59	0	44	60	231	22	992	15	79	541	73
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	56.0	56.0	56.0	56.0	56.0	56.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%	37.8%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.4	18.4		18.4	18.4	18.4	58.6	58.6	58.6	58.6	58.6	58.6
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.65	0.65	0.65	0.65	0.65	0.65
v/c Ratio	0.71	0.18		0.17	0.17	0.61	0.05	0.46	0.02	0.28	0.26	0.08
Control Delay	48.1	13.4		28.3	27.8	24.0	8.9	12.7	1.2	12.0	7.9	2.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	13.4		28.3	27.8	24.0	8.9	12.7	1.2	12.0	7.9	2.5
LOS	D	B		C	C	C	A	B	A	B	A	A
Approach Delay		39.2			25.3			12.4			7.8	
Approach LOS		D			C			B			A	
Queue Length 50th (m)	27.5	2.7		6.3	8.6	20.1	1.6	37.2	0.0	5.1	18.3	0.0
Queue Length 95th (m)	43.2	10.9		13.4	16.5	37.9	m3.4	90.6	m0.4	17.1	34.2	5.5
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	356	476		374	527	511	459	2137	954	285	2077	937
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.12		0.12	0.11	0.45	0.05	0.46	0.02	0.28	0.26	0.08

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	13	70	970	563	61
Future Volume (vph)	54	13	70	970	563	61
Satd. Flow (prot)	1658	1483	1658	3252	3161	1483
Flt Permitted	0.950		0.441			
Satd. Flow (perm)	1656	1483	766	3252	3161	1437
Satd. Flow (RTOR)		13				61
Lane Group Flow (vph)	54	13	70	970	563	61
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	52.0	52.0	52.0	52.0
Total Split (%)	42.2%	42.2%	57.8%	57.8%	57.8%	57.8%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.3	10.3	71.3	71.3	71.3	71.3
Actuated g/C Ratio	0.11	0.11	0.79	0.79	0.79	0.79
v/c Ratio	0.29	0.07	0.12	0.38	0.22	0.05
Control Delay	40.6	18.5	6.0	5.6	2.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	18.5	6.0	5.6	2.3	0.5
LOS	D	B	A	A	A	A
Approach Delay	36.3			5.7	2.1	
Approach LOS	D			A	A	
Queue Length 50th (m)	8.7	0.0	3.0	23.0	8.6	0.0
Queue Length 95th (m)	19.3	5.2	m9.1	43.2	11.7	0.1
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	574	522	607	2576	2504	1151
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.02	0.12	0.38	0.22	0.05

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops

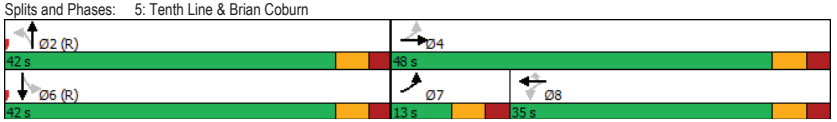
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	213	71	53	465	253	236	602	38	132	342	124
Future Volume (vph)	167	213	71	53	465	253	236	602	38	132	342	124
Satd. Flow (prot)	1642	1562	0	1610	1728	1483	1658	3216	0	1566	3071	0
Flt Permitted	0.169			0.586			0.455			0.343		
Satd. Flow (perm)	292	1562	0	993	1728	1455	792	3216	0	564	3071	0
Satd. Flow (RTOR)		25				161		8			68	
Lane Group Flow (vph)	167	284	0	53	465	253	236	640	0	132	466	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	29.0	29.0		29.0	29.0	
Total Split (s)	13.0	48.0		35.0	35.0	35.0	42.0	42.0		42.0	42.0	
Total Split (%)	14.4%	53.3%		38.9%	38.9%	38.9%	46.7%	46.7%		46.7%	46.7%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	39.9	39.9		26.9	26.9	26.9	37.7	37.7		37.7	37.7	
Actuated g/C Ratio	0.44	0.44		0.30	0.30	0.30	0.42	0.42		0.42	0.42	
v/c Ratio	0.73	0.40		0.18	0.90	0.46	0.71	0.47		0.56	0.35	
Control Delay	36.5	17.0		24.3	52.7	12.3	42.7	25.5		25.4	10.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	36.5	17.0		24.3	52.7	12.3	42.7	25.5		25.4	10.0	
LOS	D	B		C	D	B	D	C		C	A	
Approach Delay		24.2			37.5			30.1			13.4	
Approach LOS		C			D			C			B	
Queue Length 50th (m)	16.6	28.0		6.6	74.5	11.5	35.4	47.2		18.3	26.2	
Queue Length 95th (m)	#36.5	46.8		15.4	#125.5	31.2	#74.7	69.8		#30.2	22.1	
Internal Link Dist (m)		392.1			351.9			301.3			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	228	735		315	549	572	331	1353		236	1327	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.73	0.39		0.17	0.85	0.44	0.71	0.47		0.56	0.35	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90
Intersection Signal Delay: 27.5 — Intersection LOS: C
Intersection Capacity Utilization 89.2% — ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn

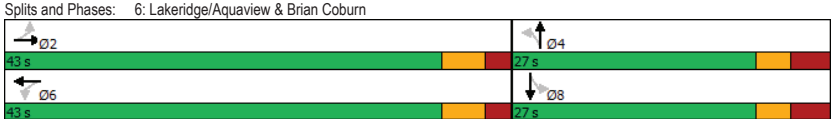


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	348	31	50	593	24	123	23	28	12	10	55
Future Volume (vph)	20	348	31	50	593	24	123	23	28	12	10	55
Satd. Flow (prot)	1658	1646	0	1595	1717	0	1658	1554	0	1551	1511	0
Flt Permitted	0.371			0.537			0.715			0.724		
Satd. Flow (perm)	647	1646	0	902	1717	0	1248	1554	0	1144	1511	0
Satd. Flow (RTOR)		10			4			28			55	
Lane Group Flow (vph)	20	379	0	50	617	0	123	51	0	12	65	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	43.0	43.0		43.0	43.0		27.0	27.0		27.0	27.0	
Total Split (%)	61.4%	61.4%		61.4%	61.4%		38.6%	38.6%		38.6%	38.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	42.4	42.4		42.4	42.4		12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.20	0.20		0.20	0.20	
v/c Ratio	0.05	0.34		0.08	0.53		0.50	0.16		0.05	0.19	
Control Delay	6.4	7.3		6.4	9.7		29.8	13.0		20.0	9.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.4	7.3		6.4	9.7		29.8	13.0		20.0	9.4	
LOS	A	A		A	A		C	B		B	A	
Approach Delay		7.3			9.5			24.9			11.0	
Approach LOS		A			A			C			B	
Queue Length 50th (m)	0.8	17.6		2.0	35.3		12.5	2.2		1.1	0.9	
Queue Length 95th (m)	3.7	40.2		7.0	78.0		26.0	9.4		4.7	9.0	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	440	1124		614	1170		414	534		379	538	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.34		0.08	0.53		0.30	0.10		0.03	0.12	

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 62.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.53

Intersection Signal Delay: 10.9 — Intersection LOS: B
Intersection Capacity Utilization 68.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	277	75	34	464	24	151	59	37	25	50	45
Future Volume (vph)	30	277	75	34	464	24	151	59	37	25	50	45
Satd. Flow (prot)	1642	1616	0	1551	1697	0	1658	1480	0	1566	1542	0
Flt Permitted	0.391			0.508			0.695			0.695		
Satd. Flow (perm)	674	1616	0	808	1697	0	1201	1480	0	1112	1542	0
Satd. Flow (RTOR)		26			5			37			45	
Lane Group Flow (vph)	30	352	0	34	488	0	151	96	0	25	95	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.08	0.41		0.08	0.55		0.38	0.19		0.07	0.18	
Control Delay	10.3	12.3		10.1	15.4		24.3	13.8		19.3	12.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.3	12.3		10.1	15.4		24.3	13.8		19.3	12.3	
LOS	B	B		B	B		C	B		B	B	
Approach Delay		12.2			15.1			20.2			13.7	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	2.1	27.8		2.4	45.7		17.5	6.2		2.6	5.2	
Queue Length 95th (m)	6.2	46.3		6.7	72.2		33.2	16.5		7.8	15.3	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	353	860		424	893		393	509		364	535	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.41		0.08	0.55		0.38	0.19		0.07	0.18	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Esprit & Brian Coburn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	27	44	9	29	70	79	715	1	19	400	59
Future Volume (vph)	86	27	44	9	29	70	79	715	1	19	400	59
Satd. Flow (prot)	1610	1389	0	1658	1545	0	1445	3131	1483	1523	3161	1401
Flt Permitted	0.693			0.711			0.516			0.373		
Satd. Flow (perm)	1173	1389	0	1241	1545	0	781	3131	1442	597	3161	1359
Satd. Flow (RTOR)		44			70				47			59
Lane Group Flow (vph)	86	71	0	9	99	0	79	715	1	19	400	59
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	54.4%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	16.1	16.1		16.1	16.1		65.7	65.7	65.7	65.7	65.7	65.7
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.73	0.73	0.73	0.73	0.73	0.73
v/c Ratio	0.41	0.25		0.04	0.30		0.14	0.31	0.00	0.04	0.17	0.06
Control Delay	36.0	14.9		25.1	12.6		8.7	7.6	0.0	6.8	5.0	2.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	14.9		25.1	12.6		8.7	7.6	0.0	6.8	5.0	2.3
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		26.4			13.7			7.7			4.8	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	14.1	4.2		1.4	4.5		3.5	19.4	0.0	0.3	3.4	0.0
Queue Length 95th (m)	20.2	11.3		3.9	12.9		16.5	56.7	0.0	m6.7	38.9	10.6
Internal Link Dist (m)		344.3			315.6			346.2			301.3	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	444	553		470	628		569	2284	1065	435	2306	1007
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.13		0.02	0.16		0.14	0.31	0.00	0.04	0.17	0.06

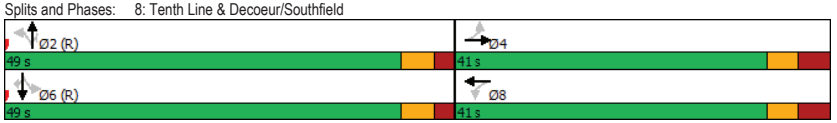
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

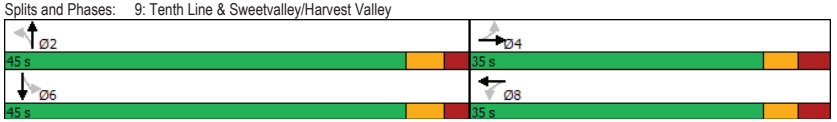


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	3	12	70	1	290	5	351	33	76	326	58
Future Volume (vph)	135	3	12	70	1	290	5	351	33	76	326	58
Satd. Flow (prot)	1658	1433	0	1658	1447	0	1409	3074	0	1580	3183	0
Flt Permitted	0.457			0.748			0.524			0.524		
Satd. Flow (perm)	795	1433	0	1304	1447	0	776	3074	0	872	3183	0
Satd. Flow (RTOR)		12			290			17			35	
Lane Group Flow (vph)	135	15	0	70	291	0	5	384	0	76	384	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		56.3%	56.3%		56.3%	56.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	16.3	16.3		16.3	16.3		39.1	39.1		39.1	39.1	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.57	0.57		0.57	0.57	
v/c Ratio	0.71	0.04		0.23	0.51		0.01	0.22		0.15	0.21	
Control Delay	44.1	11.2		21.6	6.2		9.0	8.2		9.8	7.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.1	11.2		21.6	6.2		9.0	8.2		9.8	7.8	
LOS	D	B		C	A		A	A		A	A	
Approach Delay		40.9			9.2			8.3			8.1	
Approach LOS		D			A			A			A	
Queue Length 50th (m)	15.6	0.3		7.1	0.1		0.3	10.1		3.8	9.4	
Queue Length 95th (m)	32.7	4.0		15.9	15.2		2.1	24.3		13.9	23.2	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	334	610		549	777		444	1769		500	1840	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.02		0.13	0.37		0.01	0.22		0.15	0.21	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 68.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71

Intersection Signal Delay: 12.1 — Intersection LOS: B
Intersection Capacity Utilization 77.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



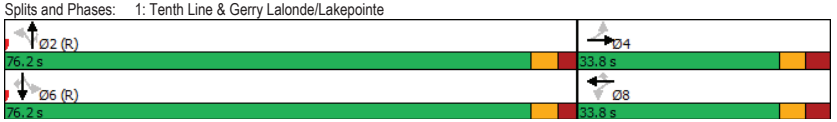
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	103	62	31	25	171	38	1013	63	263	1238	187
Future Volume (vph)	173	103	62	31	25	171	38	1013	63	263	1238	187
Satd. Flow (prot)	1658	1636	0	1658	1745	1483	1658	3316	1483	1658	3316	1455
Flt Permitted	0.741			0.577			0.190			0.255		
Satd. Flow (perm)	1292	1636	0	1002	1745	1464	331	3316	1435	444	3316	1410
Satd. Flow (RTOR)		26				131			63			187
Lane Group Flow (vph)	173	165	0	31	25	171	38	1013	63	263	1238	187
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	33.8	33.8		33.8	33.8	33.8	76.2	76.2	76.2	76.2	76.2	76.2
Total Split (%)	30.7%	30.7%		30.7%	30.7%	30.7%	69.3%	69.3%	69.3%	69.3%	69.3%	69.3%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	19.8	19.8		19.8	19.8	19.8	77.2	77.2	77.2	77.2	77.2	77.2
Actuated g/C Ratio	0.18	0.18		0.18	0.18	0.18	0.70	0.70	0.70	0.70	0.70	0.70
v/c Ratio	0.75	0.52		0.17	0.08	0.46	0.16	0.44	0.06	0.85	0.53	0.18
Control Delay	61.5	39.1		37.8	35.1	14.8	5.5	4.3	0.7	41.3	9.6	1.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	61.5	39.1		37.8	35.1	14.8	5.5	4.3	0.7	41.3	9.6	1.5
LOS	E	D		D	D	B	A	A	A	D	A	A
Approach Delay		50.5			20.2			4.2			13.6	
Approach LOS		D			C			A			B	
Queue Length 50th (m)	35.5	27.1		5.7	4.5	7.3	1.5	21.4	0.2	36.8	59.2	0.0
Queue Length 95th (m)	54.8	44.2		13.2	11.0	24.6	4.0	29.3	0.9	#104.2	92.9	7.5
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	317	421		245	428	458	232	2328	1026	311	2328	1045
Starvation Cap Reductn	0	0		0	0	0	0	225	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.39		0.13	0.06	0.37	0.16	0.48	0.06	0.85	0.53	0.18

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 92 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85
Intersection Signal Delay: 14.6 Intersection LOS: B
Intersection Capacity Utilization 86.8% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	149	111	54	966	1168	160
Future Volume (vph)	149	111	54	966	1168	160
Satd. Flow (prot)	1658	1483	1658	3316	3316	1483
Flt Permitted	0.950		0.213			
Satd. Flow (perm)	1653	1464	372	3316	3316	1429
Satd. Flow (RTOR)		69				160
Lane Group Flow (vph)	149	111	54	966	1168	160
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	41.0	41.0	69.0	69.0	69.0	69.0
Total Split (%)	37.3%	37.3%	62.7%	62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.4	17.4	79.6	79.6	79.6	79.6
Actuated g/C Ratio	0.16	0.16	0.72	0.72	0.72	0.72
v/c Ratio	0.57	0.38	0.20	0.40	0.49	0.15
Control Delay	49.9	19.9	8.0	6.6	4.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	19.9	8.0	6.6	4.3	0.4
LOS	D	B	A	A	A	A
Approach Delay	37.1			6.7	3.8	
Approach LOS	D			A	A	
Queue Length 50th (m)	30.7	8.1	2.6	29.3	22.8	0.2
Queue Length 95th (m)	42.8	20.2	m7.0	49.3	27.5	1.0
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	513	502	269	2400	2400	1078
Starvation Cap Reductn	0	0	0	0	118	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.20	0.40	0.51	0.15

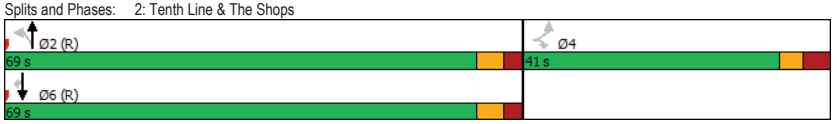
Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 98 (89%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 8.3	Intersection LOS: A
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops



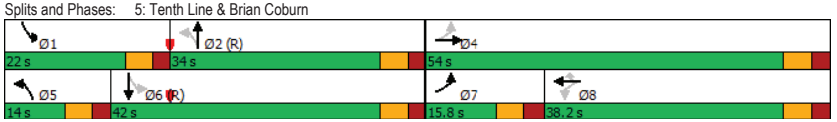
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	469	240	59	240	236	161	578	47	291	821	191
Future Volume (vph)	212	469	240	59	240	236	161	578	47	291	821	191
Satd. Flow (prot)	1658	1647	0	1658	1745	1483	1566	3267	0	1658	3190	0
Flt Permitted	0.415			0.161			0.138			0.199		
Satd. Flow (perm)	717	1647	0	281	1745	1431	227	3267	0	346	3190	0
Satd. Flow (RTOR)		30				236		7			27	
Lane Group Flow (vph)	212	709	0	59	240	236	161	625	0	291	1012	0
Turn Type	pm+pt	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	11.0	29.0		11.0	29.0	
Total Split (s)	15.8	54.0		38.2	38.2	38.2	14.0	34.0		22.0	42.0	
Total Split (%)	14.4%	49.1%		34.7%	34.7%	34.7%	12.7%	30.9%		20.0%	38.2%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	47.2	47.2		31.4	31.4	31.4	37.2	28.8		49.9	36.0	
Actuated g/C Ratio	0.43	0.43		0.29	0.29	0.29	0.34	0.26		0.45	0.33	
v/c Ratio	0.55	0.98		0.74	0.48	0.41	0.90	0.73		0.85	0.95	
Control Delay	26.7	59.5		73.9	26.2	4.3	80.7	40.3		54.4	45.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.7	59.5		73.9	26.2	4.3	80.7	40.3		54.4	45.3	
LOS	C	E		E	C	A	F	D		D	D	
Approach Delay		51.9			21.8			48.5			47.3	
Approach LOS		D			C			D			D	
Queue Length 50th (m)	28.9	141.3		7.1	28.8	0.0	23.8	64.3		37.4	110.5	
Queue Length 95th (m)	46.1	#220.7		#34.1	49.4	6.3	#63.4	53.1		#83.0	#146.9	
Internal Link Dist (m)		392.1			351.9			301.3			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	388	729		81	504	581	178	861		349	1062	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.55	0.97		0.73	0.48	0.41	0.90	0.73		0.83	0.95	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98
Intersection Signal Delay: 44.9 — Intersection LOS: D
Intersection Capacity Utilization 110.5% — ICU Level of Service H
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn



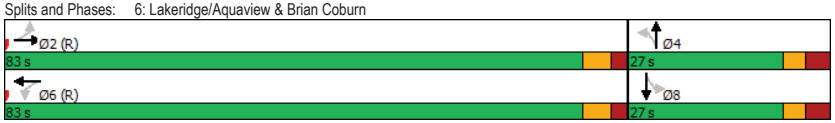
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	685	73	31	434	20	71	19	27	28	13	31
Future Volume (vph)	56	685	73	31	434	20	71	19	27	28	13	31
Satd. Flow (prot)	1658	1715	0	1658	1714	0	1626	1536	0	1523	1530	0
Flt Permitted	0.491			0.332			0.728			0.727		
Satd. Flow (perm)	849	1715	0	578	1714	0	1237	1536	0	1122	1530	0
Satd. Flow (RTOR)		12			5			27			31	
Lane Group Flow (vph)	56	758	0	31	454	0	71	46	0	28	44	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	83.0	83.0		83.0	83.0		27.0	27.0		27.0	27.0	
Total Split (%)	75.5%	75.5%		75.5%	75.5%		24.5%	24.5%		24.5%	24.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)	89.6	89.6		89.6	89.6		12.5	12.5		12.5	12.5	
Actuated g/C Ratio	0.81	0.81		0.81	0.81		0.11	0.11		0.11	0.11	
v/c Ratio	0.08	0.54		0.07	0.32		0.51	0.23		0.22	0.22	
Control Delay	3.1	3.7		4.9	5.6		57.9	25.7		47.3	22.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	3.1	3.7		4.9	5.6		57.9	25.7		47.3	22.7	
LOS	A	A		A	A		E	C		D	C	
Approach Delay		3.7			5.6			45.3			32.2	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	1.4	26.8		1.8	27.6		14.7	3.8		5.6	2.6	
Queue Length 95th (m)	m2.7	m48.0		4.9	38.3		27.8	13.9		13.7	12.3	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	691	1399		470	1397		231	309		210	311	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.54		0.07	0.32		0.31	0.15		0.13	0.14	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 47 (43%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54
Intersection Signal Delay: 8.9 Intersection LOS: A
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	491	188	27	344	18	103	43	25	23	48	38
Future Volume (vph)	52	491	188	27	344	18	103	43	25	23	48	38
Satd. Flow (prot)	1658	1672	0	1658	1714	0	1658	1549	0	1658	1487	0
Flt Permitted	0.525			0.324			0.701			0.713		
Satd. Flow (perm)	908	1672	0	565	1714	0	1200	1549	0	1241	1487	0
Satd. Flow (RTOR)		39			5			24			33	
Lane Group Flow (vph)	52	679	0	27	362	0	103	68	0	23	86	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	81.0	81.0		81.0	81.0		29.0	29.0		29.0	29.0	
Total Split (%)	73.6%	73.6%		73.6%	73.6%		26.4%	26.4%		26.4%	26.4%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	75.0	75.0		75.0	75.0		23.2	23.2		23.2	23.2	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.21	0.21		0.21	0.21	
v/c Ratio	0.08	0.59		0.07	0.31		0.41	0.20		0.09	0.25	
Control Delay	7.8	13.3		6.4	7.8		43.2	26.3		36.1	25.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.8	13.3		6.4	7.8		43.2	26.3		36.1	25.5	
LOS	A	B		A	A		D	C		D	C	
Approach Delay		12.9			7.7			36.5			27.8	
Approach LOS		B			A			D			C	
Queue Length 50th (m)	4.3	83.4		1.8	27.6		19.2	7.7		4.0	9.4	
Queue Length 95th (m)	m8.2	97.2		4.7	41.1		35.9	19.6		10.9	23.0	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	619	1152		385	1170		253	345		261	339	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.59		0.07	0.31		0.41	0.20		0.09	0.25	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 24 (22%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Esprit & Brian Coburn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	16	30	2	24	55	34	674	14	116	917	94
Future Volume (vph)	47	16	30	2	24	55	34	674	14	116	917	94
Satd. Flow (prot)	1658	1561	0	1658	1564	0	1658	3316	1483	1658	3316	1483
Flt Permitted	0.706			0.727			0.298			0.393		
Satd. Flow (perm)	1232	1561	0	1268	1564	0	519	3316	1483	686	3316	1433
Satd. Flow (RTOR)		30			55				39			94
Lane Group Flow (vph)	47	46	0	2	79	0	34	674	14	116	917	94
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	44.0	44.0		44.0	44.0		66.0	66.0	66.0	66.0	66.0	66.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	15.1	15.1		15.1	15.1		86.7	86.7	86.7	86.7	86.7	86.7
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.79	0.79	0.79	0.79	0.79	0.79
v/c Ratio	0.28	0.19		0.01	0.30		0.08	0.26	0.01	0.21	0.35	0.08
Control Delay	43.4	19.6		34.0	17.9		5.5	4.3	0.0	3.7	3.0	0.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	19.6		34.0	17.9		5.5	4.3	0.0	3.7	3.0	0.3
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		31.6			18.3			4.3			2.8	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	9.7	3.2		0.4	4.8		1.1	13.3	0.0	2.7	12.5	0.0
Queue Length 95th (m)	16.3	10.7		2.1	14.4		6.2	34.0	m0.0	m7.4	m30.8	m0.0
Internal Link Dist (m)		344.3			315.6			346.2			301.3	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	415	546		427	563		409	2613	1176	540	2613	1149
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.08		0.00	0.14		0.08	0.26	0.01	0.21	0.35	0.08

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.35
Intersection Signal Delay: 5.3 — Intersection LOS: A
Intersection Capacity Utilization 60.7% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	2	7	17	1	167	14	442	81	293	478	168
Future Volume (vph)	95	2	7	17	1	167	14	442	81	293	478	168
Satd. Flow (prot)	1658	1525	0	1595	1464	0	1658	3239	0	1658	3163	0
Flt Permitted	0.530			0.752			0.403			0.458		
Satd. Flow (perm)	923	1525	0	1261	1464	0	703	3239	0	799	3163	0
Satd. Flow (RTOR)		7			167			36			85	
Lane Group Flow (vph)	95	9	0	17	168	0	14	523	0	293	646	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		75.0	75.0		75.0	75.0	
Total Split (%)	31.8%	31.8%		31.8%	31.8%		68.2%	68.2%		68.2%	68.2%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	16.7	16.7		16.7	16.7		80.6	80.6		80.6	80.6	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.73	0.73		0.73	0.73	
v/c Ratio	0.68	0.04		0.09	0.46		0.03	0.22		0.50	0.28	
Control Delay	66.1	21.9		37.1	9.9		6.1	5.3		5.2	1.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	66.1	21.9		37.1	9.9		6.1	5.3		5.2	1.2	
LOS	E	C		D	A		A	A		A	A	
Approach Delay		62.3			12.4			5.3			2.5	
Approach LOS		E			B			A			A	
Queue Length 50th (m)	19.8	0.4		3.2	0.2		0.7	14.0		13.5	5.0	
Queue Length 95th (m)	33.0	4.3		8.4	16.1		3.5	30.2		5.5	0.0	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	239	400		326	503		514	2382		585	2339	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.02		0.05	0.33		0.03	0.22		0.50	0.28	

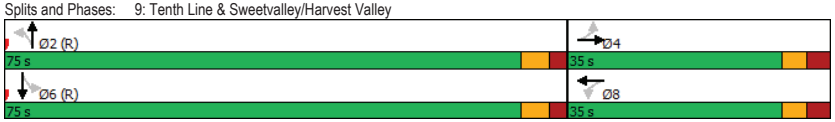
Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 14 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 7.9	Intersection LOS: A
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde AM FB2031]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jerome Jodoin												
1	L2	83	2.0	0.186	9.6	LOS A	1.0	7.4	0.55	0.65	0.55	50.0
2	T1	21	2.0	0.186	4.4	LOS A	1.0	7.4	0.55	0.65	0.55	46.8
3	R2	78	2.0	0.186	4.8	LOS A	1.0	7.4	0.55	0.65	0.55	48.8
Approach		182	2.0	0.186	6.9	LOS A	1.0	7.4	0.55	0.65	0.55	49.1
East: Brian Coburn												
4	L2	44	2.0	0.817	12.2	LOS B	12.6	89.6	0.83	0.65	0.88	50.3
5	T1	989	2.0	0.817	6.9	LOS A	12.6	89.6	0.83	0.65	0.88	53.5
6	R2	13	2.0	0.817	7.0	LOS A	12.6	89.6	0.83	0.65	0.88	48.7
Approach		1046	2.0	0.817	7.1	LOS A	12.6	89.6	0.83	0.65	0.88	53.3
North: Gerry Lalonde												
7	L2	7	2.0	0.559	28.2	LOS C	5.3	38.0	1.00	1.15	1.35	40.8
8	T1	8	2.0	0.559	23.0	LOS C	5.3	38.0	1.00	1.15	1.35	38.6
9	R2	185	2.0	0.559	23.4	LOS C	5.3	38.0	1.00	1.15	1.35	40.0
Approach		200	2.0	0.559	23.6	LOS C	5.3	38.0	1.00	1.15	1.35	39.9
West: Brian Coburn												
10u	U	30	2.0	0.314	11.3	LOS B	2.3	16.1	0.26	0.44	0.26	56.9
10	L2	40	2.0	0.314	9.2	LOS A	2.3	16.1	0.26	0.44	0.26	52.2
11	T1	330	2.0	0.314	3.8	LOS A	2.3	16.1	0.26	0.44	0.26	55.7
12	R2	48	2.0	0.314	3.9	LOS A	2.3	16.1	0.26	0.44	0.26	50.5
Approach		448	2.0	0.314	4.8	LOS A	2.3	16.1	0.26	0.44	0.26	54.8
All Vehicles		1876	2.0	0.817	8.3	LOS A	12.6	89.6	0.68	0.65	0.75	51.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde PM FB2031]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Jerome Jodoin												
1	L2	37	2.0	0.365	27.2	LOS C	3.0	21.1	1.00	1.02	1.04	40.5
2	T1	10	2.0	0.365	22.0	LOS C	3.0	21.1	1.00	1.02	1.04	38.4
3	R2	36	2.0	0.365	22.4	LOS C	3.0	21.1	1.00	1.02	1.04	39.7
Approach		83	2.0	0.365	24.5	LOS C	3.0	21.1	1.00	1.02	1.04	39.9
East: Brian Coburn												
4	L2	62	2.0	0.552	11.0	LOS B	4.7	33.7	0.71	0.63	0.71	50.7
5	T1	512	2.0	0.552	5.7	LOS A	4.7	33.7	0.71	0.63	0.71	53.9
6	R2	12	2.0	0.552	5.8	LOS A	4.7	33.7	0.71	0.63	0.71	49.0
Approach		586	2.0	0.552	6.3	LOS A	4.7	33.7	0.71	0.63	0.71	53.4
North: Gerry Lalonde												
7	L2	4	2.0	0.153	11.1	LOS B	1.0	6.8	0.73	0.71	0.73	50.4
8	T1	18	2.0	0.153	5.9	LOS A	1.0	6.8	0.73	0.71	0.73	47.1
9	R2	92	2.0	0.153	6.3	LOS A	1.0	6.8	0.73	0.71	0.73	49.1
Approach		114	2.0	0.153	6.4	LOS A	1.0	6.8	0.73	0.71	0.73	48.8
West: Brian Coburn												
10u	U	27	2.0	0.923	13.0	LOS B	25.4	180.7	1.00	0.51	1.00	53.7
10	L2	212	2.0	0.923	10.8	LOS B	25.4	180.7	1.00	0.51	1.00	49.5
11	T1	1037	2.0	0.923	5.5	LOS A	25.4	180.7	1.00	0.51	1.00	52.6
12	R2	65	2.0	0.923	5.6	LOS A	25.4	180.7	1.00	0.51	1.00	48.0
Approach		1341	2.0	0.923	6.5	LOS A	25.4	180.7	1.00	0.51	1.00	51.9
All Vehicles		2124	2.0	0.923	7.1	LOS A	25.4	180.7	0.91	0.57	0.91	51.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg AM FB2031]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: des Aubepines												
1	L2	109	2.0	0.181	9.5	LOS A	1.0	7.2	0.54	0.66	0.54	49.6
2	T1	15	2.0	0.181	4.3	LOS A	1.0	7.2	0.54	0.66	0.54	46.5
3	R2	55	2.0	0.181	4.7	LOS A	1.0	7.2	0.54	0.66	0.54	48.4
Approach		179	2.0	0.181	7.6	LOS A	1.0	7.2	0.54	0.66	0.54	48.9
East: Brian Coburn												
4	L2	32	2.0	0.661	10.1	LOS B	7.1	50.5	0.58	0.51	0.58	51.3
5	T1	834	2.0	0.661	4.8	LOS A	7.1	50.5	0.58	0.51	0.58	54.7
6	R2	12	2.0	0.661	4.9	LOS A	7.1	50.5	0.58	0.51	0.58	49.7
Approach		878	2.0	0.661	5.0	LOS A	7.1	50.5	0.58	0.51	0.58	54.5
North: Strasbourg												
7	L2	25	2.0	0.234	15.3	LOS B	1.6	11.7	0.90	0.88	0.90	47.2
8	T1	22	2.0	0.234	10.1	LOS B	1.6	11.7	0.90	0.88	0.90	44.4
9	R2	76	2.0	0.234	10.5	LOS B	1.6	11.7	0.90	0.88	0.90	46.1
Approach		123	2.0	0.234	11.4	LOS B	1.6	11.7	0.90	0.88	0.90	46.0
West: Brian Coburn												
10	L2	7	2.0	0.295	9.3	LOS A	2.0	14.3	0.29	0.41	0.29	52.6
11	T1	360	2.0	0.295	3.9	LOS A	2.0	14.3	0.29	0.41	0.29	56.1
12	R2	38	2.0	0.295	4.1	LOS A	2.0	14.3	0.29	0.41	0.29	50.9
Approach		405	2.0	0.295	4.1	LOS A	2.0	14.3	0.29	0.41	0.29	55.5
All Vehicles		1585	2.0	0.661	5.5	LOS A	7.1	50.5	0.53	0.53	0.53	53.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg PM FB2031]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: des Aubepines												
1	L2	58	2.0	0.209	15.1	LOS B	1.4	10.3	0.89	0.88	0.89	46.4
2	T1	18	2.0	0.209	9.9	LOS A	1.4	10.3	0.89	0.88	0.89	43.7
3	R2	34	2.0	0.209	10.3	LOS B	1.4	10.3	0.89	0.88	0.89	45.4
Approach		110	2.0	0.209	12.8	LOS B	1.4	10.3	0.89	0.88	0.89	45.7
East: Brian Coburn												
4	L2	54	2.0	0.446	9.6	LOS A	3.6	25.7	0.41	0.47	0.41	51.9
5	T1	503	2.0	0.446	4.2	LOS A	3.6	25.7	0.41	0.47	0.41	55.3
6	R2	36	2.0	0.446	4.3	LOS A	3.6	25.7	0.41	0.47	0.41	50.2
Approach		593	2.0	0.446	4.7	LOS A	3.6	25.7	0.41	0.47	0.41	54.7
North: Strasbourg												
7	L2	23	2.0	0.073	10.7	LOS B	0.4	2.9	0.65	0.66	0.65	49.5
8	T1	13	2.0	0.073	5.5	LOS A	0.4	2.9	0.65	0.66	0.65	46.4
9	R2	23	2.0	0.073	5.9	LOS A	0.4	2.9	0.65	0.66	0.65	48.3
Approach		59	2.0	0.073	7.7	LOS A	0.4	2.9	0.65	0.66	0.65	48.3
West: Brian Coburn												
10	L2	33	2.0	0.734	9.9	LOS A	9.1	65.0	0.54	0.46	0.54	51.6
11	T1	913	2.0	0.734	4.6	LOS A	9.1	65.0	0.54	0.46	0.54	54.9
12	R2	106	2.0	0.734	4.7	LOS A	9.1	65.0	0.54	0.46	0.54	49.9
Approach		1052	2.0	0.734	4.7	LOS A	9.1	65.0	0.54	0.46	0.54	54.3
All Vehicles		1814	2.0	0.734	5.3	LOS A	9.1	65.0	0.52	0.49	0.52	53.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix K

Turning Templates

CGH TRANSPORTATION

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

1.5m WALKWAY

1.5m BUFFER

AMENITY AREA
±734 m²

BLOCK C
COMM. 896.92m²
RES. 28 units

WASTE/FIRE ROUTE

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

FUTURE MIXED
USE ZONE

FUTURE MIXED
USE ZONE

BLOCK A
COMM. 896.92m²
RES. 28 units

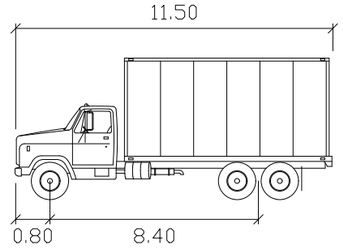
BLOCK B
COMM. 896.92m²
RES. 28 units

LOADING

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



HSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	6.0
Steering Angle	: 39.7

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
HSU Movements (1)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	BB	AL

PROJECT NO:	DRAWING NO:	REVISION:
2021-052	001	02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

BLOCK C
COMM. 896.92m²
RES. 28 units

AMENITY AREA
±734 m²

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

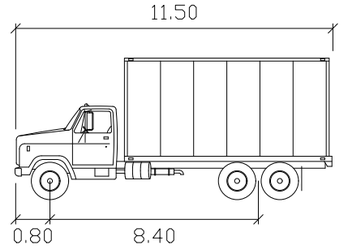
FUTURE MIXED
USE ZONE

FUTURE MIXED
USE ZONE

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



HSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	6.0
Steering Angle	: 39.7

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
HSU Movements (2)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	BB	AL

PROJECT NO:	DRAWING NO:	REVISION:
2021-052	002	02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

1.5m BUFFER

1.5m WALKWAY

WASTE/FIRE ROUTE

AMENITY AREA
±734 m²

BLOCK C
COMM. 896.92m²
RES. 28 units

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

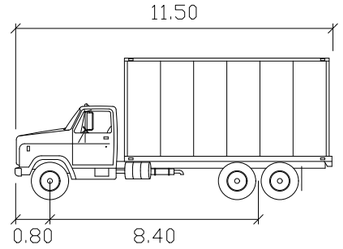
FUTURE MIXED
USE ZONE

FUTURE MIXED
USE ZONE

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



HSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	6.0
Steering Angle	: 39.7

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
HSU Movements (3)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	LW	AL
PROJECT NO:	DRAWING NO:		REVISION:
2021-052	003		02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

FUTURE MIXED
USE ZONE

FUTURE MIXED
USE ZONE

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

BLOCK C
COMM. 896.92m²
RES. 28 units

AMENITY AREA
±734 m²

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

1.5m WALKWAY

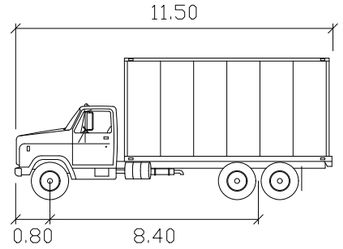
1.5m BUFFER

WASTE/FIRE ROUTE

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



HSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	6.0
Steering Angle	: 39.7

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
HSU Movements (4)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	LW	AL

PROJECT NO:	DRAWING NO:	REVISION:
2021-052	004	02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DE COEUR DR

BRIAN COBURN BLVD

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

BLOCK C
COMM. 896.92m²
RES. 28 units

AMENITY AREA
±734 m²

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

1.5m WALKWAY

1.5m BUFFER

WASTE/FIRE ROUTE

LOADING

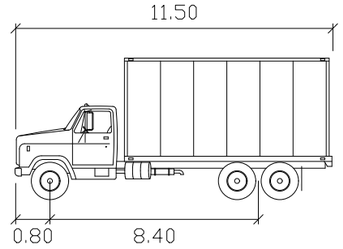
FUTURE MIXED USE ZONE

FUTURE MIXED USE ZONE

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



HSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	6.0
Steering Angle	: 39.7

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
HSU Movements (5)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	BB	AL
PROJECT NO:	DRAWING NO:		REVISION:
2021-052	005		02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

BLOCK C
COMM. 896.92m²
RES. 28 units

AMENITY AREA
±734 m²

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

1.5m WALKWAY

1.5m BUFFER

WASTE/FIRE ROUTE

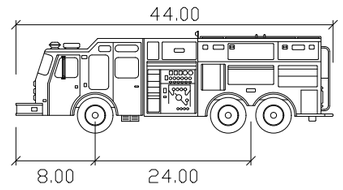
FUTURE MIXED USE ZONE

FUTURE MIXED USE ZONE

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



Pumper Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
Fire Truck Movements (1)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	BB	AL

PROJECT NO:	DRAWING NO:	REVISION:
2021-052	006	02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

BLOCK C
COMM. 896.92m²
RES. 28 units

AMENITY AREA
±734 m²

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

1.5m WALKWAY

1.5m BUFFER

WASTE/FIRE ROUTE

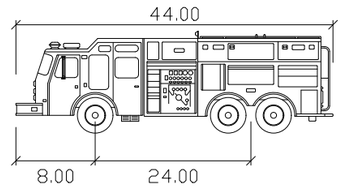
FUTURE MIXED
USE ZONE

FUTURE MIXED
USE ZONE

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



Pumper Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
Fire Truck Movements (2)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	BB	AL

PROJECT NO:	DRAWING NO:	REVISION:
2021-052	007	02

INSTITUTIONAL ZONE
EX. ELEMENTARY SCHOOL

YELLOWCRESS WAY

EX. RESIDENTIAL ZONE

BLOCK 32

PARKLAND
AREA
±0.46 ha

PROMENADE DÉCOEUR DR

BRIAN COBURN BLVD

FUTURE MIXED
USE ZONE

FUTURE MIXED
USE ZONE

BLOCK 5
12 units

BLOCK 6
12 units

BLOCK 7
12 units

BLOCK 8
12 units

BLOCK 9
12 units

BLOCK 10
12 units

BLOCK 11
12 units

BLOCK 12
12 units

BLOCK C
COMM. 896.92m²
RES. 28 units

AMENITY AREA
±734 m²

BLOCK 1
12 units

BLOCK 2
12 units

BLOCK 3
12 units

BLOCK 4
12 units

BLOCK A
COMM. 896.92m²
RES. 28 units

BLOCK B
COMM. 896.92m²
RES. 28 units

1.5m WALKWAY

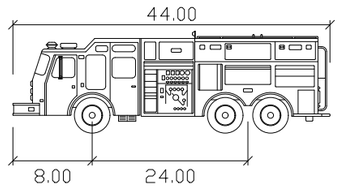
WASTE/FIRE ROUTE

1.5m BUFFER

TENTH LINE RD

EX. RESIDENTIAL ZONE

Notes:



Pumper Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8

REV:	DESCRIPTION:	BY:	DATE:
02	Updated Site Plan	BB	22/11/03
01	Issued for Review	LW	22/08/08

STATUS:

CGH Transportation
6 Plaza Court
Ottawa, ON
K2H 7W1
(343) 999-9117

CLIENT: Mattamy Homes Ltd.
50 Hines Road, Suite 100
Ottawa ON
K2K 2M5

ARCHITECT:

SITE: Mattamy 2370 Tenth Line Road

TITLE: Turning Movement Analysis
Fire Truck Movements (3)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:1000	2022/11/03	BB	AL

PROJECT NO:	DRAWING NO:	REVISION:
2021-052	008	02

Appendix L

MMLOS Analysis

CGH TRANSPORTATION

Multi-Modal Level of Service - Intersections Form

Consultant	**CGH Transportation Inc.**	**Project**	**2370 Tenth Line Road**
Scenario	**Existing/Future**	**Date**	**11/30/2021**
Comments			

	INTERSECTIONS	**Gerry Lalonde Drive / Lakepointe Drive at Tenth Line Road**				**The Shops of Tenth Line Access at Tenth Line Road**				**Brian Coburn Boulevard at Tenth Line Road**			
	Crossing Side	**NORTH**	**SOUTH**	**EAST**	**WEST**	**NORTH**	**SOUTH**	**EAST**	**WEST**	**NORTH**	**SOUTH**	**EAST**	**WEST**
Pedestrian	Lanes	8	8	7	7	7	7		5	8	8	5	6
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.		Permissive	Permissive	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control		Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed		RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
	Ped Signal Leading Interval?	No	No	No	No	No	No		No	No	No	No	No
	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel		No Channel	Smart Channel	No Channel	No Channel	No Channel
	Corner Radius	10-15m	10-15m	10-15m	10-15m	No Right Turn	5-10m		5-10m	10-15m	10-15m	10-15m	10-15m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings		Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
	PETSI Score	**-12**	**-12**	**4**	**4**	**19**	**13**		**38**	**-6**	**-12**	**37**	**20**
	Ped. Exposure to Traffic LoS	**F**	**F**	**F**	**F**	**F**	**F**	**-**	**E**	**F**	**F**	**E**	**F**
	Cycle Length	90	90	100	100	90	90		90	100	100	100	100
	Effective Walk Time	36	36	7	7	37	46		7	31	31	18	18
	Average Pedestrian Delay	**16**	**16**	**43**	**43**	**16**	**11**		**38**	**24**	**24**	**34**	**34**
	Pedestrian Delay LoS	**B**	**B**	**E**	**E**	**B**	**B**	**-**	**D**	**C**	**C**	**D**	**D**
	Level of Service	**F**	**F**	**F**	**F**	**F**	**F**	**-**	**E**	**F**	**F**	**E**	**F**
		F				**F**				**F**			
	Approach From	**NORTH**	**SOUTH**	**EAST**	**WEST**	**NORTH**	**SOUTH**	**EAST**	**WEST**	**NORTH**	**SOUTH**	**EAST**	**WEST**
Bicycle	Bicycle Lane Arrangement on Approach	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Pocket Bike Lane			Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic
	Right Turn Lane Configuration	> 50 m Introduced right turn lane	> 50 m Introduced right turn lane	≤ 50 m		> 50 m Introduced right turn lane						≤ 50 m	
	Right Turning Speed	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h		≤ 25 km/h						≤ 25 km/h	
	Cyclist relative to RT motorists	**D**	**D**	**D**	**-**	**D**	**-**	**-**	**-**	**-**	**-**	**D**	**-**
	Separated or Mixed Traffic	**Separated**	**Separated**	**Mixed Traffic**	**Mixed Traffic**	**Separated**	**-**	**-**	**Mixed Traffic**	**Separated**	**Separated**	**Mixed Traffic**	**Mixed Traffic**
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	No lane crossed		≥ 2 lanes crossed		No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed
	Operating Speed	≥ 60 km/h	≥ 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h		≥ 60 km/h		> 40 to ≤ 50 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h
	Left Turning Cyclist	**F**	**F**	**E**	**C**	**-**	**F**	**-**	**B**	**F**	**F**	**F**	**F**
	Level of Service	**F**	**F**	**E**	**C**	**D**	**F**	**-**	**B**	**F**	**F**	**F**	**F**
		F				**F**				**F**			
Transit	Average Signal Delay	≤ 10 sec			> 40 sec							> 40 sec	> 40 sec
	Level of Service	**B**	**-**	**-**	**F**	**-**	**-**	**-**	**-**	**-**	**-**	**F**	**F**
		F				**-**				**F**			
Truck	Effective Corner Radius									> 15 m	> 15 m	> 15 m	10 - 15 m
	Number of Receiving Lanes on Departure from Intersection									1	1	≥ 2	≥ 2
	Level of Service	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**C**	**A**	**B**
		-				**-**				**C**			
Auto	Volume to Capacity Ratio	0.81 - 0.90				0.0 - 0.60				> 1.00			
	Level of Service	**D**				**A**				**F**			

Brian Coburn Boulevard at Aquaview Drive / Lakeridge Drive			
NORTH	SOUTH	EAST	WEST
5	4	5	4
No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
Permissive	Permissive	Permissive	Permissive
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No	No	No
No Channel	No Channel	No Channel	No Channel
10-15m	10-15m	10-15m	10-15m
Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
37	**53**	**37**	**53**
E	**D**	**E**	**D**
80	80	70	70
12	12	24	24
29	**29**	**15**	**15**
C	**C**	**B**	**B**
E	**D**	**E**	**D**
E			
NORTH	SOUTH	EAST	WEST
Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
-	-	-	-
Mixed Traffic	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**
One lane crossed	One lane crossed	One lane crossed	One lane crossed
> 50 to < 60 km/h	> 50 to < 60 km/h	≥ 60 km/h	≥ 60 km/h
E	**E**	**F**	**F**
E	**E**	**F**	**F**
F			
		≤ 20 sec	≤ 10 sec
-	**-**	**C**	**B**
C			
-	**-**	**-**	**-**
-			
0.61 - 0.70			
B			

Brian Coburn Boulevard at Esprit Drive			
NORTH	SOUTH	EAST	WEST
5	5	5	5
No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
Permissive	Permissive	Permissive	Permissive
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No	No	No
No Channel	No Channel	No Channel	No Channel
10-15m	10-15m	10-15m	10-15m
Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
37	**37**	**37**	**37**
E	**E**	**E**	**E**
80	80	80	80
15	15	29	29
26	**26**	**16**	**16**
C	**C**	**B**	**B**
E	**E**	**E**	**E**
E			
NORTH	SOUTH	EAST	WEST
Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
-	-	-	-
Mixed Traffic	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**
One lane crossed	One lane crossed	One lane crossed	One lane crossed
> 50 to < 60 km/h	> 50 to < 60 km/h	≥ 60 km/h	≥ 60 km/h
E	**E**	**F**	**F**
E	**E**	**F**	**F**
F			
≤ 20 sec	≤ 20 sec		
C	**C**	**-**	**-**
C			
-	**-**	**-**	**-**
-			
0.0 - 0.60			
A			

Decoeur Drive / Southfield Way at Tenth Line Road			
NORTH	SOUTH	EAST	WEST
8	8	5	4
No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
Permissive	Permissive	Permissive	Permissive
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No	No	No
No Channel	No Channel	No Channel	No Channel
10-15m	10-15m	10-15m	10-15m
Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
-12	**-12**	**37**	**53**
F	**F**	**E**	**D**
90	90	100	100
27	27	7	7
22	**22**	**43**	**43**
C	**C**	**E**	**E**
F	**F**	**E**	**E**
F			
NORTH	SOUTH	EAST	WEST
Pocket Bike Lane > 50 m Introduced right turn lane ≤ 25 km/h	Pocket Bike Lane > 50 m Introduced right turn lane ≤ 25 km/h	Mixed Traffic	Mixed Traffic
D	**D**	**-**	**-**
Separated	**Separated**	**Mixed Traffic**	**Mixed Traffic**
≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed
≥ 60 km/h	≥ 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h
F	**F**	**E**	**E**
F	**F**	**E**	**E**
F			
	≤ 10 sec		≤ 40 sec
-	**B**	**-**	**E**
E			
-	**-**	**-**	**-**
-			
0.0 - 0.60			
A			

Sweetvalley Drive / Harvest Valley Avenue at Tenth Line Road			
NORTH	SOUTH	EAST	WEST
7	7	5	4
No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
Permissive	Permissive	Permissive	Permissive
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No	No	No
No Channel	No Channel	No Channel	No Channel
10-15m	10-15m	10-15m	10-15m
Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
4	**4**	**37**	**53**
F	**F**	**E**	**D**
80	80	100	100
23	23	8	8
20	**20**	**42**	**42**
C	**C**	**E**	**E**
F	**F**	**E**	**E**
F			
NORTH	SOUTH	EAST	WEST
Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic
-	-	-	-
Separated	**Separated**	**Mixed Traffic**	**Mixed Traffic**
≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed	One lane crossed
≥ 60 km/h	≥ 60 km/h	> 50 to < 60 km/h	> 40 to ≤ 50 km/h
F	**F**	**E**	**D**
F	**F**	**E**	**D**
F			
≤ 20 sec		≤ 10 sec	
C	**-**	**B**	**-**
C			
-	**-**	**-**	**-**
-			
0.0 - 0.60			
A			

Multi-Modal Level of Service - Segments Form

Consultant	**CGH Transportation Inc.**	**Project**	**2370 Tenth Line Road**
Scenario	**Existing/Future**	**Date**	**11/30/2021**
Comments			

SEGMENTS			Section Brian Coburn Blvd	Section Tenth Line Rd	Section Decoeur Dr
Pedestrian	Sidewalk Width Boulevard Width	-	no sidewalk n/a	≥ 2 m > 2 m	1.8 m 0.5 - 2 m
	Avg Daily Curb Lane Traffic Volume		> 3000	> 3000	≤ 3000
	Operating Speed On-Street Parking		> 60 km/h no	> 60 km/h no	> 50 to 60 km/h no
	Exposure to Traffic PLoS		**F**	**D**	**B**
	Effective Sidewalk Width				
	Pedestrian Volume				
	Crowding PLoS		-	-	-
	Level of Service		**-**	**-**	**-**
Bicycle	Type of Cycling Facility	**F**	Mixed Traffic	Curbside Bike Lane	Mixed Traffic
	Number of Travel Lanes		2-3 lanes total	2 ea. dir. (w median)	≤ 2 (no centreline)
	Operating Speed		≥ 60 km/h	>50 to 70 km/h	≥ 50 to 60 km/h
	# of Lanes & Operating Speed LoS		**F**	**C**	**D**
	Bike Lane (+ Parking Lane) Width			≥ 1.8 m	
	Bike Lane Width LoS		-	**A**	-
	Bike Lane Blockages			Rare	
	Blockage LoS		-	**A**	-
	Median Refuge Width (no median = < 1.8 m)		< 1.8 m refuge	< 1.8 m refuge	< 1.8 m refuge
	No. of Lanes at Unsignalized Crossing		≤ 3 lanes	≤ 3 lanes	≤ 3 lanes
	Sidestreet Operating Speed		≤ 40 km/h	≤ 40 km/h	≤ 40 km/h
	Unsignalized Crossing - Lowest LoS		**A**	**A**	**A**
	Level of Service		**F**	**C**	**D**
Transit	Facility Type	**D**	Mixed Traffic		Mixed Traffic
	Friction or Ratio Transit:Posted Speed		Vt/Vp ≥ 0.8		Vt/Vp ≥ 0.8
	Level of Service		**D**	**-**	**D**
Truck	Truck Lane Width	**B**	> 3.7 m	≤ 3.5 m	
	Travel Lanes per Direction		1	> 1	
	Level of Service		**B**	**A**	**-**

Appendix M

Synchro and Sidra Worksheets – 2026 Future Total Conditions

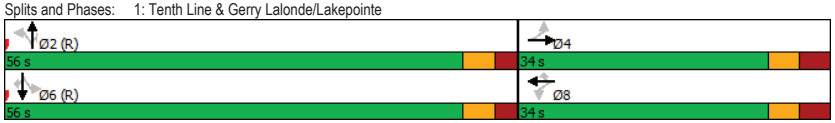
CGH TRANSPORTATION

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	19	40	44	60	231	22	1011	15	79	551	73
Future Volume (vph)	170	19	40	44	60	231	22	1011	15	79	551	73
Satd. Flow (prot)	1566	1483	0	1642	1745	1483	1496	3283	1483	1626	3191	1441
Flt Permitted	0.718			0.719			0.446			0.250		
Satd. Flow (perm)	1179	1483	0	1240	1745	1460	700	3283	1442	427	3191	1400
Satd. Flow (RTOR)		40				95			46			73
Lane Group Flow (vph)	170	59	0	44	60	231	22	1011	15	79	551	73
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	56.0	56.0	56.0	56.0	56.0	56.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%	37.8%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.4	18.4		18.4	18.4	18.4	58.6	58.6	58.6	58.6	58.6	58.6
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.65	0.65	0.65	0.65	0.65	0.65
v/c Ratio	0.71	0.18		0.17	0.17	0.62	0.05	0.47	0.02	0.28	0.27	0.08
Control Delay	48.1	13.4		28.3	27.8	25.1	8.9	13.1	1.1	12.3	7.9	2.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	13.4		28.3	27.8	25.1	8.9	13.1	1.1	12.3	7.9	2.5
LOS	D	B		C	C	C	A	B	A	B	A	A
Approach Delay		39.2			26.0			12.8			7.8	
Approach LOS		D			C			B			A	
Queue Length 50th (m)	27.5	2.7		6.3	8.6	21.0	1.6	38.4	0.0	5.2	18.7	0.0
Queue Length 95th (m)	43.2	10.9		13.4	16.5	38.8	m3.2	93.1	m0.4	17.3	34.8	5.5
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	356	476		374	527	507	455	2137	954	278	2077	937
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.12		0.12	0.11	0.46	0.05	0.47	0.02	0.28	0.27	0.08

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 72.3% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	13	70	989	573	61
Future Volume (vph)	54	13	70	989	573	61
Satd. Flow (prot)	1658	1483	1658	3252	3161	1483
Flt Permitted	0.950		0.436			
Satd. Flow (perm)	1656	1483	757	3252	3161	1437
Satd. Flow (RTOR)		13				61
Lane Group Flow (vph)	54	13	70	989	573	61
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	52.0	52.0	52.0	52.0
Total Split (%)	42.2%	42.2%	57.8%	57.8%	57.8%	57.8%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.3	10.3	71.3	71.3	71.3	71.3
Actuated g/C Ratio	0.11	0.11	0.79	0.79	0.79	0.79
v/c Ratio	0.29	0.07	0.12	0.38	0.23	0.05
Control Delay	40.6	18.5	6.4	6.1	2.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	18.5	6.4	6.1	2.3	0.5
LOS	D	B	A	A	A	A
Approach Delay	36.3			6.1	2.1	
Approach LOS	D			A	A	
Queue Length 50th (m)	8.7	0.0	3.9	30.6	8.7	0.0
Queue Length 95th (m)	19.3	5.2	m9.5	45.2	11.8	0.1
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	574	522	599	2576	2504	1151
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.02	0.12	0.38	0.23	0.05

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops

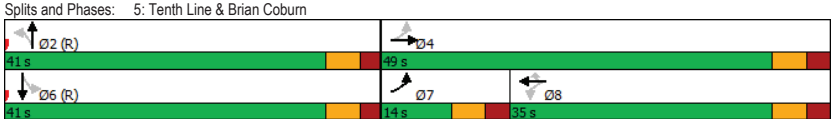
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	213	71	53	465	253	239	621	38	132	352	124
Future Volume (vph)	167	213	71	53	465	253	239	621	38	132	352	124
Satd. Flow (prot)	1642	1562	0	1610	1728	1483	1658	3216	0	1566	3075	0
Flt Permitted	0.169			0.586			0.445			0.328		
Satd. Flow (perm)	292	1562	0	993	1728	1455	774	3216	0	540	3075	0
Satd. Flow (RTOR)		25				154		8			64	
Lane Group Flow (vph)	167	284	0	53	465	253	239	659	0	132	476	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	29.0	29.0		29.0	29.0	
Total Split (s)	14.0	49.0		35.0	35.0	35.0	41.0	41.0		41.0	41.0	
Total Split (%)	15.6%	54.4%		38.9%	38.9%	38.9%	45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	40.9	40.9		26.9	26.9	26.9	36.7	36.7		36.7	36.7	
Actuated g/C Ratio	0.45	0.45		0.30	0.30	0.30	0.41	0.41		0.41	0.41	
v/c Ratio	0.68	0.39		0.18	0.90	0.47	0.76	0.50		0.60	0.37	
Control Delay	30.0	16.2		24.3	52.7	12.9	48.0	27.4		29.4	10.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	30.0	16.2		24.3	52.7	12.9	48.0	27.4		29.4	10.9	
LOS	C	B		C	D	B	D	C		C	B	
Approach Delay		21.4			37.7			32.9			14.9	
Approach LOS		C			D			C			B	
Queue Length 50th (m)	16.2	27.3		6.6	74.5	12.4	43.5	54.6		18.9	27.7	
Queue Length 95th (m)	#31.1	45.8		15.4	#125.5	32.4	#78.5	70.1		#35.4	25.9	
Internal Link Dist (m)		392.1			351.9			157.1			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	246	752		315	549	567	316	1317		220	1292	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.68	0.38		0.17	0.85	0.45	0.76	0.50		0.60	0.37	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90
Intersection Signal Delay: 28.3 — Intersection LOS: C
Intersection Capacity Utilization 89.4% — ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn

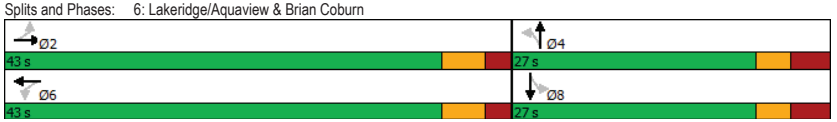


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	348	31	50	593	24	123	23	28	12	10	55
Future Volume (vph)	20	348	31	50	593	24	123	23	28	12	10	55
Satd. Flow (prot)	1658	1646	0	1595	1717	0	1658	1554	0	1551	1511	0
Flt Permitted	0.371			0.537			0.715			0.724		
Satd. Flow (perm)	647	1646	0	902	1717	0	1248	1554	0	1144	1511	0
Satd. Flow (RTOR)		10			4			28			55	
Lane Group Flow (vph)	20	379	0	50	617	0	123	51	0	12	65	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	43.0	43.0		43.0	43.0		27.0	27.0		27.0	27.0	
Total Split (%)	61.4%	61.4%		61.4%	61.4%		38.6%	38.6%		38.6%	38.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	42.4	42.4		42.4	42.4		12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.20	0.20		0.20	0.20	
v/c Ratio	0.05	0.34		0.08	0.53		0.50	0.16		0.05	0.19	
Control Delay	6.4	7.3		6.4	9.7		29.8	13.0		20.0	9.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.4	7.3		6.4	9.7		29.8	13.0		20.0	9.4	
LOS	A	A		A	A		C	B		B	A	
Approach Delay		7.3			9.5			24.9			11.0	
Approach LOS		A			A			C			B	
Queue Length 50th (m)	0.8	17.6		2.0	35.3		12.5	2.2		1.1	0.9	
Queue Length 95th (m)	3.7	40.2		7.0	78.0		26.0	9.4		4.7	9.0	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	440	1124		614	1170		414	534		379	538	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.34		0.08	0.53		0.30	0.10		0.03	0.12	

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 62.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.53

Intersection Signal Delay: 10.9 — Intersection LOS: B
Intersection Capacity Utilization 68.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn

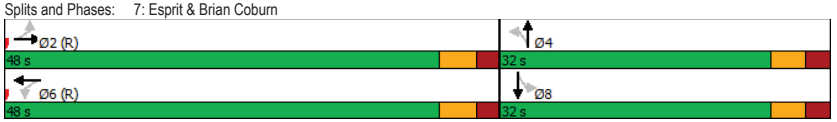


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	277	75	34	464	24	151	59	37	25	50	45
Future Volume (vph)	30	277	75	34	464	24	151	59	37	25	50	45
Satd. Flow (prot)	1642	1616	0	1551	1697	0	1658	1480	0	1566	1542	0
Flt Permitted	0.391			0.508			0.695			0.695		
Satd. Flow (perm)	674	1616	0	808	1697	0	1201	1480	0	1112	1542	0
Satd. Flow (RTOR)		26			5			37			45	
Lane Group Flow (vph)	30	352	0	34	488	0	151	96	0	25	95	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.08	0.41		0.08	0.55		0.38	0.19		0.07	0.18	
Control Delay	10.3	12.3		10.1	15.4		24.3	13.8		19.3	12.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.3	12.3		10.1	15.4		24.3	13.8		19.3	12.3	
LOS	B	B		B	B		C	B		B	B	
Approach Delay		12.2			15.1			20.2			13.7	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	2.1	27.8		2.4	45.7		17.5	6.2		2.6	5.2	
Queue Length 95th (m)	6.2	46.3		6.7	72.2		33.2	16.5		7.8	15.3	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	353	860		424	893		393	509		364	535	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.41		0.08	0.55		0.38	0.19		0.07	0.18	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55
Intersection Signal Delay: 15.1 — Intersection LOS: B
Intersection Capacity Utilization 55.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: Esprit & Brian Coburn

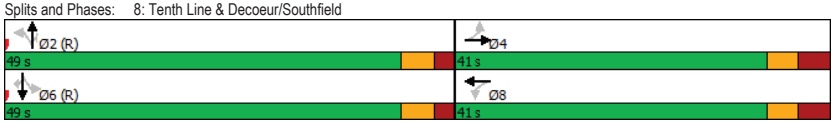


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	27	44	9	29	70	83	712	1	19	403	59
Future Volume (vph)	110	27	44	9	29	70	83	712	1	19	403	59
Satd. Flow (prot)	1610	1389	0	1658	1545	0	1445	3131	1483	1523	3161	1401
Flt Permitted	0.693			0.711			0.515			0.372		
Satd. Flow (perm)	1173	1389	0	1241	1545	0	779	3131	1442	595	3161	1359
Satd. Flow (RTOR)		44			70				47			59
Lane Group Flow (vph)	110	71	0	9	99	0	83	712	1	19	403	59
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	54.4%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.1	17.1		17.1	17.1		64.7	64.7	64.7	64.7	64.7	64.7
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.72	0.72	0.72	0.72	0.72	0.72
v/c Ratio	0.50	0.24		0.04	0.28		0.15	0.32	0.00	0.04	0.18	0.06
Control Delay	37.9	14.2		24.2	12.0		9.2	8.0	0.0	7.0	5.2	2.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	14.2		24.2	12.0		9.2	8.0	0.0	7.0	5.2	2.3
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		28.6			13.1			8.1			4.9	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	18.0	4.1		1.3	4.4		4.0	21.1	0.0	0.4	3.7	0.0
Queue Length 95th (m)	25.0	11.3		3.9	12.9		17.3	56.4	0.0	m6.8	39.7	10.7
Internal Link Dist (m)		95.2			315.6			346.2			120.2	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	444	553		470	628		559	2249	1049	427	2271	993
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.13		0.02	0.16		0.15	0.32	0.00	0.04	0.18	0.06

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50
Intersection Signal Delay: 9.8 — Intersection LOS: A
Intersection Capacity Utilization 57.8% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

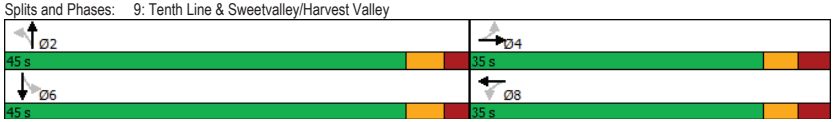


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	3	12	70	1	290	5	352	33	76	329	58
Future Volume (vph)	135	3	12	70	1	290	5	352	33	76	329	58
Satd. Flow (prot)	1658	1433	0	1658	1447	0	1409	3074	0	1580	3187	0
Flt Permitted	0.457			0.748			0.523			0.524		
Satd. Flow (perm)	795	1433	0	1304	1447	0	775	3074	0	872	3187	0
Satd. Flow (RTOR)		12			290			17			35	
Lane Group Flow (vph)	135	15	0	70	291	0	5	385	0	76	387	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		56.3%	56.3%		56.3%	56.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	16.3	16.3		16.3	16.3		39.1	39.1		39.1	39.1	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.57	0.57		0.57	0.57	
v/c Ratio	0.71	0.04		0.23	0.51		0.01	0.22		0.15	0.21	
Control Delay	44.1	11.2		21.6	6.2		9.0	8.3		9.8	7.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.1	11.2		21.6	6.2		9.0	8.3		9.8	7.8	
LOS	D	B		C	A		A	A		A	A	
Approach Delay		40.9			9.2			8.3			8.1	
Approach LOS		D			A			A			A	
Queue Length 50th (m)	15.6	0.3		7.1	0.1		0.3	10.1		3.8	9.5	
Queue Length 95th (m)	32.7	4.0		15.9	15.2		2.1	24.4		13.9	23.4	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	334	610		549	777		444	1769		500	1842	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.02		0.13	0.37		0.01	0.22		0.15	0.21	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 68.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71

Intersection Signal Delay: 12.1 — Intersection LOS: B
Intersection Capacity Utilization 77.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	897	473	12
Future Vol, veh/h	0	5	0	897	473	12
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	0	897	473	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	243	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	758	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	758	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	758	-	-
HCM Lane V/C Ratio	-	0.007	-	-
HCM Control Delay (s)	-	9.8	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	156	148	5	25	30
Future Vol, veh/h	18	156	148	5	25	30
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	156	148	5	25	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	153	0	-	0	343	151
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1428	-	-	-	653	895
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1428	-	-	-	644	895
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	841	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1428	-	-	-	760
HCM Lane V/C Ratio	0.013	-	-	-	0.072
HCM Control Delay (s)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

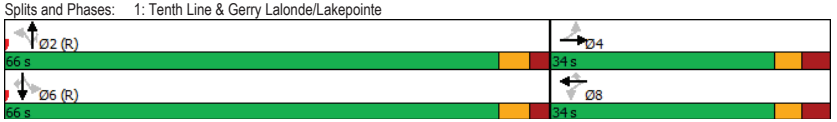
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	103	62	31	25	171	38	1032	63	263	1261	187
Future Volume (vph)	173	103	62	31	25	171	38	1032	63	263	1261	187
Satd. Flow (prot)	1658	1637	0	1658	1745	1483	1658	3316	1483	1658	3316	1455
Flt Permitted	0.741			0.604			0.181			0.247		
Satd. Flow (perm)	1292	1637	0	1049	1745	1464	316	3316	1436	430	3316	1411
Satd. Flow (RTOR)		30				109			63			187
Lane Group Flow (vph)	173	165	0	31	25	171	38	1032	63	263	1261	187
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	66.0	66.0	66.0	66.0	66.0	66.0
Total Split (%)	34.0%	34.0%		34.0%	34.0%	34.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.8	18.8		18.8	18.8	18.8	68.2	68.2	68.2	68.2	68.2	68.2
Actuated g/C Ratio	0.19	0.19		0.19	0.19	0.19	0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.71	0.50		0.16	0.08	0.47	0.18	0.46	0.06	0.90	0.56	0.18
Control Delay	53.6	33.5		33.0	30.8	17.5	5.6	5.6	0.6	51.2	10.2	1.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	33.5		33.0	30.8	17.5	5.6	5.6	0.6	51.2	10.2	1.7
LOS	D	C		C	C	B	A	A	A	D	B	A
Approach Delay		43.7			21.1			5.3			15.6	
Approach LOS		D			C			A			B	
Queue Length 50th (m)	31.8	23.4		5.1	4.0	10.3	1.2	55.7	0.2	36.8	58.2	0.0
Queue Length 95th (m)	49.0	38.8		11.8	9.9	26.3	2.8	19.7	0.7	#102.2	97.4	8.0
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	351	467		285	474	477	215	2262	999	293	2262	1022
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.35		0.11	0.05	0.36	0.18	0.46	0.06	0.90	0.56	0.18

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 87.3% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



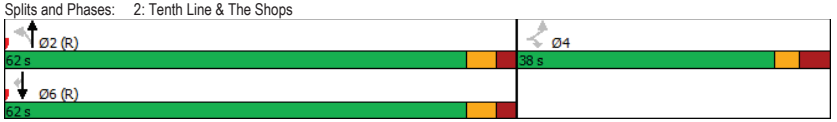
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	149	111	54	985	1191	160
Future Volume (vph)	149	111	54	985	1191	160
Satd. Flow (prot)	1658	1483	1658	3316	3316	1483
Flt Permitted	0.950		0.204			
Satd. Flow (perm)	1653	1464	356	3316	3316	1431
Satd. Flow (RTOR)		61				160
Lane Group Flow (vph)	149	111	54	985	1191	160
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	62.0	62.0	62.0	62.0
Total Split (%)	38.0%	38.0%	62.0%	62.0%	62.0%	62.0%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	16.8	16.8	70.2	70.2	70.2	70.2
Actuated g/C Ratio	0.17	0.17	0.70	0.70	0.70	0.70
v/c Ratio	0.54	0.37	0.22	0.42	0.51	0.15
Control Delay	43.4	19.9	10.5	8.2	5.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	19.9	10.5	8.2	5.8	0.7
LOS	D	B	B	A	A	A
Approach Delay	33.4			8.3	5.2	
Approach LOS	C			A	A	
Queue Length 50th (m)	27.5	8.7	2.9	33.3	29.2	0.1
Queue Length 95th (m)	37.7	19.5	13.5	76.0	37.7	2.5
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	515	498	249	2326	2326	1051
Starvation Cap Reductn	0	0	0	0	92	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.22	0.42	0.53	0.15

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Tenth Line & The Shops

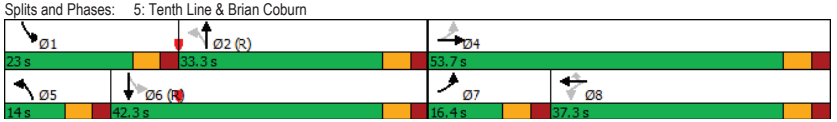


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	469	240	59	240	236	164	597	47	291	844	191
Future Volume (vph)	212	469	240	59	240	236	164	597	47	291	844	191
Satd. Flow (prot)	1658	1647	0	1658	1745	1483	1566	3267	0	1658	3191	0
Flt Permitted	0.411			0.164			0.142			0.180		
Satd. Flow (perm)	711	1647	0	286	1745	1430	233	3267	0	313	3191	0
Satd. Flow (RTOR)		29				236		7			26	
Lane Group Flow (vph)	212	709	0	59	240	236	164	644	0	291	1035	0
Turn Type	pm+pt	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	11.0	29.0		11.0	29.0	
Total Split (s)	16.4	53.7		37.3	37.3	37.3	14.0	33.3		23.0	42.3	
Total Split (%)	14.9%	48.8%		33.9%	33.9%	33.9%	12.7%	30.3%		20.9%	38.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	47.2	47.2		30.9	30.9	30.9	36.2	28.1		50.2	36.3	
Actuated g/C Ratio	0.43	0.43		0.28	0.28	0.28	0.33	0.26		0.46	0.33	
v/c Ratio	0.54	0.98		0.74	0.49	0.41	0.94	0.77		0.85	0.97	
Control Delay	26.6	59.9		86.3	37.1	6.4	82.5	44.9		45.4	56.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.6	59.9		86.3	37.1	6.4	82.5	44.9		45.4	56.6	
LOS	C	E		F	D	A	F	D		D	E	
Approach Delay		52.2			29.0			52.5			54.2	
Approach LOS		D			C			D			D	
Queue Length 50th (m)	29.1	142.3		11.5	43.0	0.0	22.0	67.5		40.0	112.1	
Queue Length 95th (m)	46.4	#221.9		#34.9	66.9	17.9	#63.9	88.6		#82.1	#156.0	
Internal Link Dist (m)		392.1			351.9			157.1			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	390	724		80	490	571	174	839		350	1070	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.54	0.98		0.74	0.49	0.41	0.94	0.77		0.83	0.97	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98
Intersection Signal Delay: 49.5 — Intersection LOS: D
Intersection Capacity Utilization 111.4% — ICU Level of Service H
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn

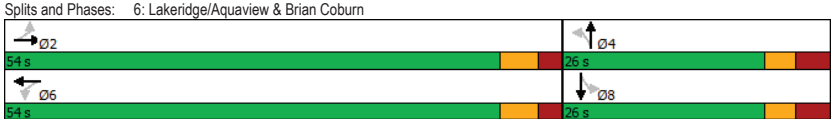


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	685	73	31	434	20	71	19	27	28	13	31
Future Volume (vph)	56	685	73	31	434	20	71	19	27	28	13	31
Satd. Flow (prot)	1658	1716	0	1658	1714	0	1626	1546	0	1523	1532	0
Flt Permitted	0.489			0.310			0.728			0.727		
Satd. Flow (perm)	848	1716	0	540	1714	0	1240	1546	0	1134	1532	0
Satd. Flow (RTOR)		12			5			27			31	
Lane Group Flow (vph)	56	758	0	31	454	0	71	46	0	28	44	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	54.0	54.0		54.0	54.0		26.0	26.0		26.0	26.0	
Total Split (%)	67.5%	67.5%		67.5%	67.5%		32.5%	32.5%		32.5%	32.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	55.0	55.0		55.0	55.0		11.2	11.2		11.2	11.2	
Actuated g/C Ratio	0.74	0.74		0.74	0.74		0.15	0.15		0.15	0.15	
v/c Ratio	0.09	0.59		0.08	0.36		0.38	0.18		0.16	0.17	
Control Delay	5.0	8.9		5.2	5.9		33.9	16.4		28.7	14.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.0	8.9		5.2	5.9		33.9	16.4		28.7	14.8	
LOS	A	A		A	A		C	B		C	B	
Approach Delay		8.6			5.8			27.0			20.2	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	2.1	46.1		1.1	21.1		8.6	2.2		3.3	1.5	
Queue Length 95th (m)	6.8	97.9		4.6	44.2		19.6	10.2		9.8	9.2	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	631	1280		402	1276		330	431		302	431	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.59		0.08	0.36		0.22	0.11		0.09	0.10	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 73.9
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.59

Intersection Signal Delay: 9.7 — Intersection LOS: A
Intersection Capacity Utilization 70.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	491	188	27	344	18	103	43	25	23	48	38
Future Volume (vph)	52	491	188	27	344	18	103	43	25	23	48	38
Satd. Flow (prot)	1658	1672	0	1658	1714	0	1658	1549	0	1658	1490	0
Flt Permitted	0.499			0.242			0.701			0.713		
Satd. Flow (perm)	865	1672	0	422	1714	0	1206	1549	0	1242	1490	0
Satd. Flow (RTOR)		36			5			25			38	
Lane Group Flow (vph)	52	679	0	27	362	0	103	68	0	23	86	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.11	0.76		0.12	0.40		0.26	0.13		0.06	0.17	
Control Delay	10.5	21.0		11.4	12.9		22.1	14.1		19.0	12.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.5	21.0		11.4	12.9		22.1	14.1		19.0	12.9	
LOS	B	C		B	B		C	B		B	B	
Approach Delay		20.3			12.8			18.9			14.2	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	3.7	72.4		1.9	30.5		11.4	4.5		2.4	5.0	
Queue Length 95th (m)	9.3	116.6		6.3	49.1		23.4	12.9		7.3	14.5	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	454	894		221	902		394	524		406	513	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.76		0.12	0.40		0.26	0.13		0.06	0.17	

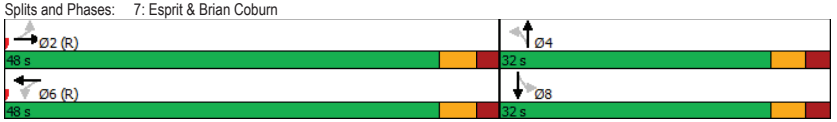
Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Esprit & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	16	30	2	24	55	45	666	14	116	920	94
Future Volume (vph)	76	16	30	2	24	55	45	666	14	116	920	94
Satd. Flow (prot)	1658	1561	0	1658	1564	0	1658	3316	1483	1658	3316	1483
Flt Permitted	0.706			0.727			0.294			0.396		
Satd. Flow (perm)	1232	1561	0	1268	1564	0	512	3316	1483	691	3316	1435
Satd. Flow (RTOR)		30			55				43			94
Lane Group Flow (vph)	76	46	0	2	79	0	45	666	14	116	920	94
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		59.0	59.0	59.0	59.0	59.0	59.0
Total Split (%)	41.0%	41.0%		41.0%	41.0%		59.0%	59.0%	59.0%	59.0%	59.0%	59.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	15.8	15.8		15.8	15.8		75.9	75.9	75.9	75.9	75.9	75.9
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.39	0.17		0.01	0.27		0.12	0.26	0.01	0.22	0.37	0.08
Control Delay	40.8	16.6		28.0	15.1		8.3	6.4	0.0	8.5	7.2	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	16.6		28.0	15.1		8.3	6.4	0.0	8.5	7.2	2.2
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		31.7			15.4			6.4			6.9	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	14.1	2.8		0.4	4.3		1.9	17.0	0.0	5.4	25.8	0.0
Queue Length 95th (m)	21.0	9.6		1.8	12.8		10.7	50.0	0.3	24.3	74.3	7.0
Internal Link Dist (m)		95.2			315.6			346.2			120.2	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	420	552		432	569		388	2517	1136	524	2517	1112
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.08		0.00	0.14		0.12	0.26	0.01	0.22	0.37	0.08

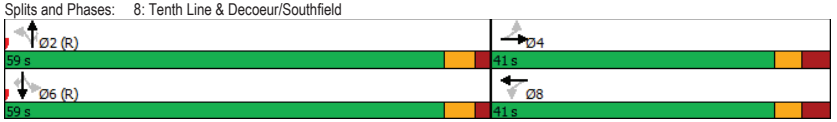
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 8.5	Intersection LOS: A
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

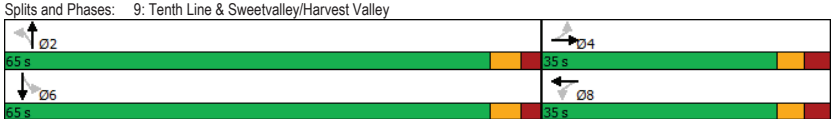


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	2	7	17	1	167	14	445	81	293	481	168
Future Volume (vph)	95	2	7	17	1	167	14	445	81	293	481	168
Satd. Flow (prot)	1658	1525	0	1595	1464	0	1658	3239	0	1658	3163	0
Flt Permitted	0.600			0.752			0.403			0.457		
Satd. Flow (perm)	1045	1525	0	1261	1464	0	703	3239	0	798	3163	0
Satd. Flow (RTOR)		7			167			36			84	
Lane Group Flow (vph)	95	9	0	17	168	0	14	526	0	293	649	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		65.0	65.0		65.0	65.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		65.0%	65.0%		65.0%	65.0%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	14.9	14.9		14.9	14.9		61.8	61.8		61.8	61.8	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.69	0.69		0.69	0.69	
v/c Ratio	0.55	0.03		0.08	0.44		0.03	0.23		0.53	0.29	
Control Delay	44.6	18.1		29.4	8.7		6.7	5.8		13.0	5.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.6	18.1		29.4	8.7		6.7	5.8		13.0	5.8	
LOS	D	B		C	A		A	A		B	A	
Approach Delay		42.3			10.6			5.9			8.0	
Approach LOS		D			B			A			A	
Queue Length 50th (m)	14.5	0.3		2.4	0.1		0.6	12.3		18.9	14.6	
Queue Length 95th (m)	28.5	4.0		7.5	14.7		3.6	31.0		63.7	37.0	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	335	493		404	582		485	2249		551	2211	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.02		0.04	0.29		0.03	0.23		0.53	0.29	

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 89.4
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.6 — Intersection LOS: A
Intersection Capacity Utilization 74.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	806	1111	37
Future Vol, veh/h	0	17	0	806	1111	37
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	0	806	1111	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	574	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	462	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	462	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	462	-	-
HCM Lane V/C Ratio	-	0.037	-	-
HCM Control Delay (s)	-	13.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	92	103	12	30	30
Future Vol, veh/h	41	92	103	12	30	30
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	92	103	12	30	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	115	0	-	0	283	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1474	-	-	-	707	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1474	-	-	-	686	945
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	795
HCM Lane V/C Ratio	0.028	-	-	-	0.075
HCM Control Delay (s)	7.5	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde AM FT2026 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Jerome Jodoin														
1	L2	83	2.0	83	2.0	0.188	9.7	LOS A	1.1	7.6	0.57	0.65	0.57	49.9
2	T1	21	2.0	21	2.0	0.188	4.5	LOS A	1.1	7.6	0.57	0.65	0.57	46.8
3	R2	78	2.0	78	2.0	0.188	4.9	LOS A	1.1	7.6	0.57	0.65	0.57	48.7
Approach		182	2.0	182	2.0	0.188	7.1	LOS A	1.1	7.6	0.57	0.65	0.57	49.0
East: Brian Coburn														
4	L2	44	2.0	44	2.0	0.804	12.0	LOS B	11.9	84.6	0.81	0.64	0.86	50.4
5	T1	971	2.0	971	2.0	0.804	6.7	LOS A	11.9	84.6	0.81	0.64	0.86	53.6
6	R2	13	2.0	13	2.0	0.804	6.8	LOS A	11.9	84.6	0.81	0.64	0.86	48.8
Approach		1028	2.0	1028	2.0	0.804	6.9	LOS A	11.9	84.6	0.81	0.64	0.86	53.4
North: Gerry Lalonde														
7	L2	7	2.0	7	2.0	0.537	26.3	LOS C	5.0	35.7	1.00	1.13	1.31	41.7
8	T1	8	2.0	8	2.0	0.537	21.1	LOS C	5.0	35.7	1.00	1.13	1.31	39.4
9	R2	185	2.0	185	2.0	0.537	21.5	LOS C	5.0	35.7	1.00	1.13	1.31	40.8
Approach		200	2.0	200	2.0	0.537	21.7	LOS C	5.0	35.7	1.00	1.13	1.31	40.8
West: Brian Coburn														
10u	U	30	2.0	32	2.0	0.326	11.4	LOS B	2.4	16.9	0.26	0.44	0.26	56.9
10	L2	40	2.0	40	2.0	0.326	9.2	LOS A	2.4	16.9	0.26	0.44	0.26	52.2
11	T1	347	2.0	347	2.0	0.326	3.8	LOS A	2.4	16.9	0.26	0.44	0.26	55.7
12	R2	48	2.0	48	2.0	0.326	3.9	LOS A	2.4	16.9	0.26	0.44	0.26	50.5
Approach		465	2.0	467	2.0	0.326	4.8	LOS A	2.4	16.9	0.26	0.44	0.26	54.9
All Vehicles		1875	2.0	1877	2.0	0.804	8.0	LOS A	11.9	84.6	0.67	0.65	0.73	51.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde PM FT2026 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Jerome Jodoin														
1	L2	37	2.0	37	2.0	0.350	25.3	LOS C	2.8	20.0	1.00	1.00	1.01	41.4
2	T1	10	2.0	10	2.0	0.350	20.1	LOS C	2.8	20.0	1.00	1.00	1.01	39.2
3	R2	36	2.0	36	2.0	0.350	20.5	LOS C	2.8	20.0	1.00	1.00	1.01	40.6
Approach		83	2.0	83	2.0	0.350	22.6	LOS C	2.8	20.0	1.00	1.00	1.01	40.8
East: Brian Coburn														
4	L2	62	2.0	62	2.0	0.579	11.3	LOS B	5.2	37.3	0.73	0.65	0.74	50.6
5	T1	544	2.0	544	2.0	0.579	5.9	LOS A	5.2	37.3	0.73	0.65	0.74	53.8
6	R2	12	2.0	12	2.0	0.579	6.0	LOS A	5.2	37.3	0.73	0.65	0.74	49.0
Approach		618	2.0	618	2.0	0.579	6.5	LOS A	5.2	37.3	0.73	0.65	0.74	53.4
North: Gerry Lalonde														
7	L2	4	2.0	4	2.0	0.159	11.4	LOS B	1.0	7.2	0.75	0.73	0.75	50.2
8	T1	18	2.0	18	2.0	0.159	6.2	LOS A	1.0	7.2	0.75	0.73	0.75	47.0
9	R2	92	2.0	92	2.0	0.159	6.6	LOS A	1.0	7.2	0.75	0.73	0.75	49.0
Approach		114	2.0	114	2.0	0.159	6.7	LOS A	1.0	7.2	0.75	0.73	0.75	48.7
West: Brian Coburn														
10u	U	27	2.0	27	2.0	0.915	12.9	LOS B	24.3	172.8	0.98	0.51	0.98	53.8
10	L2	212	2.0	212	2.0	0.915	10.8	LOS B	24.3	172.8	0.98	0.51	0.98	49.6
11	T1	1026	2.0	1026	2.0	0.915	5.4	LOS A	24.3	172.8	0.98	0.51	0.98	52.7
12	R2	65	2.0	65	2.0	0.915	5.5	LOS A	24.3	172.8	0.98	0.51	0.98	48.1
Approach		1330	2.0	1330	2.0	0.915	6.4	LOS A	24.3	172.8	0.98	0.51	0.98	52.0
All Vehicles		2145	2.0	2145	2.0	0.915	7.1	LOS A	24.3	172.8	0.90	0.58	0.90	51.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg AM FT2026 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: des Aubepines														
1	L2	138	2.0	138	2.0	0.210	9.6	LOS A	1.2	8.6	0.56	0.67	0.56	49.4
2	T1	15	2.0	15	2.0	0.210	4.4	LOS A	1.2	8.6	0.56	0.67	0.56	46.3
3	R2	55	2.0	55	2.0	0.210	4.8	LOS A	1.2	8.6	0.56	0.67	0.56	48.2
Approach		208	2.0	208	2.0	0.210	7.9	LOS A	1.2	8.6	0.56	0.67	0.56	48.8
East: Brian Coburn														
4	L2	32	2.0	32	2.0	0.659	10.4	LOS B	6.8	48.8	0.63	0.54	0.63	51.1
5	T1	798	2.0	798	2.0	0.659	5.0	LOS A	6.8	48.8	0.63	0.54	0.63	54.4
6	R2	12	2.0	12	2.0	0.659	5.1	LOS A	6.8	48.8	0.63	0.54	0.63	49.5
Approach		842	2.0	842	2.0	0.659	5.2	LOS A	6.8	48.8	0.63	0.54	0.63	54.2
North: Strasbourg														
7	L2	25	2.0	25	2.0	0.234	15.2	LOS B	1.6	11.7	0.90	0.88	0.90	47.3
8	T1	22	2.0	22	2.0	0.234	10.0	LOS A	1.6	11.7	0.90	0.88	0.90	44.4
9	R2	76	2.0	76	2.0	0.234	10.4	LOS B	1.6	11.7	0.90	0.88	0.90	46.2
Approach		123	2.0	123	2.0	0.234	11.3	LOS B	1.6	11.7	0.90	0.88	0.90	46.1
West: Brian Coburn														
10	L2	7	2.0	7	2.0	0.306	9.3	LOS A	2.1	15.0	0.29	0.41	0.29	52.6
11	T1	360	2.0	360	2.0	0.306	4.0	LOS A	2.1	15.0	0.29	0.41	0.29	56.1
12	R2	55	2.0	55	2.0	0.306	4.1	LOS A	2.1	15.0	0.29	0.41	0.29	50.8
Approach		422	2.0	422	2.0	0.306	4.1	LOS A	2.1	15.0	0.29	0.41	0.29	55.3
All Vehicles		1595	2.0	1595	2.0	0.659	5.7	LOS A	6.8	48.8	0.55	0.55	0.55	53.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg PM FT2026 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: des Aubepines														
1	L2	87	2.0	87	2.0	0.250	14.6	LOS B	1.7	12.4	0.88	0.89	0.88	46.5
2	T1	18	2.0	18	2.0	0.250	9.4	LOS A	1.7	12.4	0.88	0.89	0.88	43.8
3	R2	34	2.0	34	2.0	0.250	9.8	LOS A	1.7	12.4	0.88	0.89	0.88	45.4
Approach		139	2.0	139	2.0	0.250	12.7	LOS B	1.7	12.4	0.88	0.89	0.88	45.9
East: Brian Coburn														
4	L2	54	2.0	54	2.0	0.467	9.8	LOS A	3.8	27.4	0.47	0.50	0.47	51.7
5	T1	506	2.0	506	2.0	0.467	4.5	LOS A	3.8	27.4	0.47	0.50	0.47	55.0
6	R2	36	2.0	36	2.0	0.467	4.6	LOS A	3.8	27.4	0.47	0.50	0.47	50.0
Approach		596	2.0	596	2.0	0.467	5.0	LOS A	3.8	27.4	0.47	0.50	0.47	54.4
North: Strasbourg														
7	L2	23	2.0	23	2.0	0.075	11.0	LOS B	0.4	3.1	0.67	0.68	0.67	49.3
8	T1	13	2.0	13	2.0	0.075	5.8	LOS A	0.4	3.1	0.67	0.68	0.67	46.3
9	R2	23	2.0	23	2.0	0.075	6.2	LOS A	0.4	3.1	0.67	0.68	0.67	48.2
Approach		59	2.0	59	2.0	0.075	8.0	LOS A	0.4	3.1	0.67	0.68	0.67	48.2
West: Brian Coburn														
10	L2	33	2.0	33	2.0	0.732	9.9	LOS A	9.1	65.1	0.54	0.46	0.54	51.6
11	T1	870	2.0	870	2.0	0.732	4.6	LOS A	9.1	65.1	0.54	0.46	0.54	55.0
12	R2	146	2.0	146	2.0	0.732	4.7	LOS A	9.1	65.1	0.54	0.46	0.54	49.9
Approach		1049	2.0	1049	2.0	0.732	4.7	LOS A	9.1	65.1	0.54	0.46	0.54	54.1
All Vehicles		1843	2.0	1843	2.0	0.732	5.5	LOS A	9.1	65.1	0.55	0.51	0.55	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix N

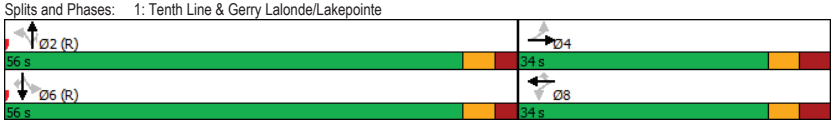
Synchro and Sidra Worksheets – 2031 Future Total Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	19	40	44	60	231	22	1029	15	79	562	73
Future Volume (vph)	170	19	40	44	60	231	22	1029	15	79	562	73
Satd. Flow (prot)	1566	1483	0	1642	1745	1483	1496	3283	1483	1626	3191	1441
Flt Permitted	0.718			0.719			0.441			0.244		
Satd. Flow (perm)	1179	1483	0	1240	1745	1460	692	3283	1442	417	3191	1400
Satd. Flow (RTOR)		40				91			46			73
Lane Group Flow (vph)	170	59	0	44	60	231	22	1029	15	79	562	73
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	56.0	56.0	56.0	56.0	56.0	56.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%	37.8%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.4	18.4		18.4	18.4	18.4	58.6	58.6	58.6	58.6	58.6	58.6
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.65	0.65	0.65	0.65	0.65	0.65
v/c Ratio	0.71	0.18		0.17	0.17	0.62	0.05	0.48	0.02	0.29	0.27	0.08
Control Delay	48.1	13.4		28.3	27.8	25.9	8.7	13.0	1.1	12.5	8.0	2.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	13.4		28.3	27.8	25.9	8.7	13.0	1.1	12.5	8.0	2.5
LOS	D	B		C	C	C	A	B	A	B	A	A
Approach Delay		39.2			26.5			12.7			7.9	
Approach LOS		D			C			B			A	
Queue Length 50th (m)	27.5	2.7		6.3	8.6	21.7	1.5	38.3	0.0	5.2	19.1	0.0
Queue Length 95th (m)	43.2	10.9		13.4	16.5	39.5	m3.1	96.0	m0.3	17.5	35.6	5.5
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	356	476		374	527	504	450	2137	954	271	2077	937
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.12		0.12	0.11	0.46	0.05	0.48	0.02	0.29	0.27	0.08

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 72.9% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	13	70	1006	584	61
Future Volume (vph)	54	13	70	1006	584	61
Satd. Flow (prot)	1658	1483	1658	3252	3161	1483
Flt Permitted	0.950		0.432			
Satd. Flow (perm)	1656	1483	750	3252	3161	1437
Satd. Flow (RTOR)		13				61
Lane Group Flow (vph)	54	13	70	1006	584	61
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	52.0	52.0	52.0	52.0
Total Split (%)	42.2%	42.2%	57.8%	57.8%	57.8%	57.8%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.3	10.3	71.3	71.3	71.3	71.3
Actuated g/C Ratio	0.11	0.11	0.79	0.79	0.79	0.79
v/c Ratio	0.29	0.07	0.12	0.39	0.23	0.05
Control Delay	40.6	18.5	6.5	6.3	2.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	18.5	6.5	6.3	2.3	0.5
LOS	D	B	A	A	A	A
Approach Delay	36.3			6.3	2.1	
Approach LOS	D			A	A	
Queue Length 50th (m)	8.7	0.0	4.0	31.6	8.8	0.0
Queue Length 95th (m)	19.3	5.2	m9.4	47.0	11.8	0.1
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	574	522	594	2576	2504	1151
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.02	0.12	0.39	0.23	0.05

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 5.9	Intersection LOS: A
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tenth Line & The Shops

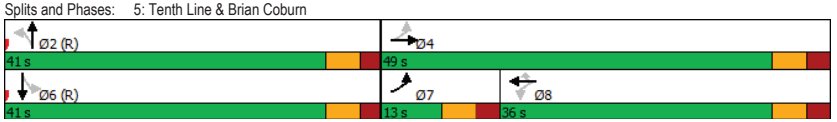
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	213	71	53	489	253	239	631	38	132	358	124
Future Volume (vph)	167	213	71	53	489	253	239	631	38	132	358	124
Satd. Flow (prot)	1642	1562	0	1610	1728	1483	1658	3216	0	1566	3075	0
Flt Permitted	0.159			0.586			0.441			0.322		
Satd. Flow (perm)	274	1562	0	993	1728	1455	767	3216	0	530	3075	0
Satd. Flow (RTOR)		25				142		8			62	
Lane Group Flow (vph)	167	284	0	53	489	253	239	669	0	132	482	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	29.0	29.0		29.0	29.0	
Total Split (s)	13.0	49.0		36.0	36.0	36.0	41.0	41.0		41.0	41.0	
Total Split (%)	14.4%	54.4%		40.0%	40.0%	40.0%	45.6%	45.6%		45.6%	45.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	41.0	41.0		28.0	28.0	28.0	36.6	36.6		36.6	36.6	
Actuated g/C Ratio	0.46	0.46		0.31	0.31	0.31	0.41	0.41		0.41	0.41	
v/c Ratio	0.74	0.39		0.17	0.91	0.46	0.77	0.51		0.61	0.37	
Control Delay	36.9	16.2		23.4	52.6	13.4	49.2	27.8		30.5	11.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	36.9	16.2		23.4	52.6	13.4	49.2	27.8		30.5	11.0	
LOS	D	B		C	D	B	D	C		C	B	
Approach Delay		23.9			38.2			33.4			15.2	
Approach LOS		C			D			C			B	
Queue Length 50th (m)	16.2	27.3		6.4	78.4	13.8	43.7	55.7		19.0	28.2	
Queue Length 95th (m)	#36.5	45.8		15.1	#131.8	33.8	#80.2	71.3		#36.0	26.3	
Internal Link Dist (m)		392.1			351.9			157.1			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	225	752		326	568	573	312	1312		215	1287	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.74	0.38		0.16	0.86	0.44	0.77	0.51		0.61	0.37	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91
Intersection Signal Delay: 29.2 — Intersection LOS: C
Intersection Capacity Utilization 90.7% — ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn

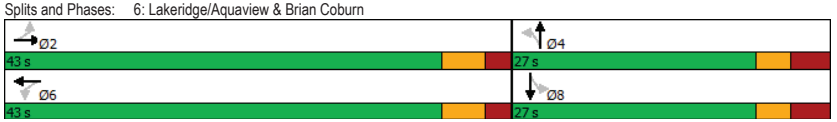


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	348	31	50	624	24	123	23	28	12	10	55
Future Volume (vph)	20	348	31	50	624	24	123	23	28	12	10	55
Satd. Flow (prot)	1658	1646	0	1595	1717	0	1658	1554	0	1551	1511	0
Flt Permitted	0.351			0.537			0.715			0.724		
Satd. Flow (perm)	612	1646	0	902	1717	0	1248	1554	0	1144	1511	0
Satd. Flow (RTOR)		10			4			28			55	
Lane Group Flow (vph)	20	379	0	50	648	0	123	51	0	12	65	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	43.0	43.0		43.0	43.0		27.0	27.0		27.0	27.0	
Total Split (%)	61.4%	61.4%		61.4%	61.4%		38.6%	38.6%		38.6%	38.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	42.4	42.4		42.4	42.4		12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.20	0.20		0.20	0.20	
v/c Ratio	0.05	0.34		0.08	0.55		0.50	0.16		0.05	0.19	
Control Delay	6.5	7.3		6.4	10.2		29.8	13.0		20.0	9.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.5	7.3		6.4	10.2		29.8	13.0		20.0	9.4	
LOS	A	A		A	B		C	B		B	A	
Approach Delay		7.3			9.9			24.9			11.0	
Approach LOS		A			A			C			B	
Queue Length 50th (m)	0.8	17.6		2.0	38.2		12.5	2.2		1.1	0.9	
Queue Length 95th (m)	3.7	40.2		7.0	84.6		26.0	9.4		4.7	9.0	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	416	1124		614	1170		414	534		379	538	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.34		0.08	0.55		0.30	0.10		0.03	0.12	

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 62.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.55

Intersection Signal Delay: 11.1 — Intersection LOS: B
Intersection Capacity Utilization 68.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn

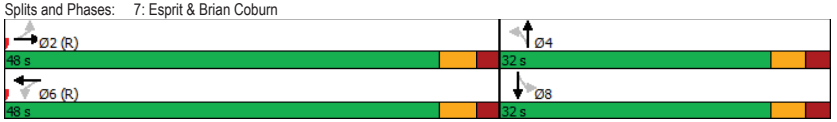


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	277	75	34	490	24	151	59	37	25	50	45
Future Volume (vph)	30	277	75	34	490	24	151	59	37	25	50	45
Satd. Flow (prot)	1642	1616	0	1551	1697	0	1658	1480	0	1566	1542	0
Flt Permitted	0.370			0.508			0.695			0.695		
Satd. Flow (perm)	638	1616	0	808	1697	0	1201	1480	0	1112	1542	0
Satd. Flow (RTOR)		26			5			37			45	
Lane Group Flow (vph)	30	352	0	34	514	0	151	96	0	25	95	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.09	0.41		0.08	0.58		0.38	0.19		0.07	0.18	
Control Delay	10.4	12.3		10.1	16.0		24.3	13.8		19.3	12.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.4	12.3		10.1	16.0		24.3	13.8		19.3	12.3	
LOS	B	B		B	B		C	B		B	B	
Approach Delay		12.2			15.7			20.2			13.7	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	2.1	27.8		2.4	49.3		17.5	6.2		2.6	5.2	
Queue Length 95th (m)	6.3	46.3		6.7	77.7		33.2	16.5		7.8	15.3	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	334	860		424	893		393	509		364	535	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.41		0.08	0.58		0.38	0.19		0.07	0.18	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58
Intersection Signal Delay: 15.3 — Intersection LOS: B
Intersection Capacity Utilization 55.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: Esprit & Brian Coburn

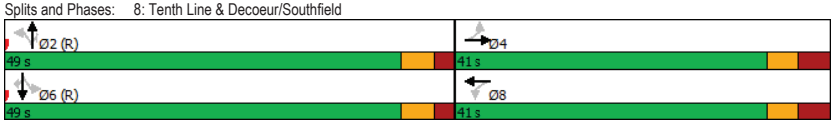


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	27	44	9	29	70	83	726	1	19	410	59
Future Volume (vph)	110	27	44	9	29	70	83	726	1	19	410	59
Satd. Flow (prot)	1610	1389	0	1658	1545	0	1445	3131	1483	1523	3161	1401
Flt Permitted	0.693			0.711			0.511			0.366		
Satd. Flow (perm)	1173	1389	0	1241	1545	0	773	3131	1442	585	3161	1359
Satd. Flow (RTOR)		44			70				47			59
Lane Group Flow (vph)	110	71	0	9	99	0	83	726	1	19	410	59
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	45.6%	45.6%		45.6%	45.6%		54.4%	54.4%	54.4%	54.4%	54.4%	54.4%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.1	17.1		17.1	17.1		64.7	64.7	64.7	64.7	64.7	64.7
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.72	0.72	0.72	0.72	0.72	0.72
v/c Ratio	0.50	0.24		0.04	0.28		0.15	0.32	0.00	0.05	0.18	0.06
Control Delay	37.9	14.2		24.2	12.0		9.2	8.1	0.0	6.7	4.9	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	14.2		24.2	12.0		9.2	8.1	0.0	6.7	4.9	2.2
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		28.6			13.1			8.2			4.6	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	18.0	4.1		1.3	4.4		4.0	21.6	0.0	0.4	3.7	0.0
Queue Length 95th (m)	25.0	11.3		3.9	12.9		17.4	57.7	0.0	m6.4	39.8	10.9
Internal Link Dist (m)		95.2			315.6			346.2			120.2	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	444	553		470	628		555	2249	1049	420	2271	993
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.13		0.02	0.16		0.15	0.32	0.00	0.05	0.18	0.06

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50
Intersection Signal Delay: 9.8 — Intersection LOS: A
Intersection Capacity Utilization 58.2% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

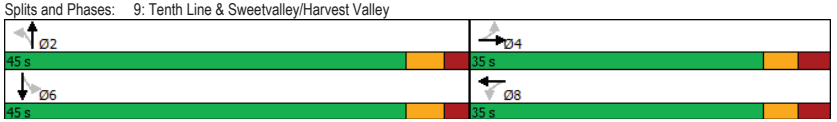


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	3	12	70	1	290	5	357	33	76	335	58
Future Volume (vph)	135	3	12	70	1	290	5	357	33	76	335	58
Satd. Flow (prot)	1658	1433	0	1658	1447	0	1409	3074	0	1580	3187	0
Flt Permitted	0.457			0.748			0.520			0.521		
Satd. Flow (perm)	795	1433	0	1304	1447	0	771	3074	0	867	3187	0
Satd. Flow (RTOR)		12			290			17			34	
Lane Group Flow (vph)	135	15	0	70	291	0	5	390	0	76	393	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		45.0	45.0		45.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		56.3%	56.3%		56.3%	56.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	16.3	16.3		16.3	16.3		39.1	39.1		39.1	39.1	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.57	0.57		0.57	0.57	
v/c Ratio	0.71	0.04		0.23	0.51		0.01	0.22		0.15	0.21	
Control Delay	44.1	11.2		21.6	6.2		9.0	8.3		9.8	7.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.1	11.2		21.6	6.2		9.0	8.3		9.8	7.8	
LOS	D	B		C	A		A	A		A	A	
Approach Delay		40.9			9.2			8.3			8.2	
Approach LOS		D			A			A			A	
Queue Length 50th (m)	15.6	0.3		7.1	0.1		0.3	10.3		3.8	9.7	
Queue Length 95th (m)	32.7	4.0		15.9	15.2		2.1	24.7		13.9	23.8	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	334	610		549	777		442	1769		497	1841	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.02		0.13	0.37		0.01	0.22		0.15	0.21	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 68.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71

Intersection Signal Delay: 12.0 — Intersection LOS: B
Intersection Capacity Utilization 77.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	907	480	12
Future Vol, veh/h	0	5	0	907	480	12
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	0	907	480	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	246	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	754	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	754	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	754	-	-
HCM Lane V/C Ratio	-	0.007	-	-
HCM Control Delay (s)	-	9.8	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	156	148	5	25	30
Future Vol, veh/h	18	156	148	5	25	30
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	156	148	5	25	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	153	0	-	0	343	151
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1428	-	-	-	653	895
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1428	-	-	-	644	895
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	841	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1428	-	-	-	760
HCM Lane V/C Ratio	0.013	-	-	-	0.072
HCM Control Delay (s)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

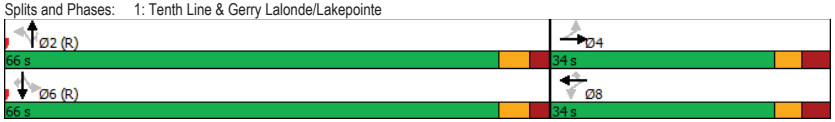
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	103	62	31	25	171	38	1053	63	263	1285	187
Future Volume (vph)	173	103	62	31	25	171	38	1053	63	263	1285	187
Satd. Flow (prot)	1658	1637	0	1658	1745	1483	1658	3316	1483	1658	3316	1455
Flt Permitted	0.741			0.604			0.175			0.240		
Satd. Flow (perm)	1292	1637	0	1049	1745	1464	305	3316	1436	418	3316	1411
Satd. Flow (RTOR)		30				103			63			187
Lane Group Flow (vph)	173	165	0	31	25	171	38	1053	63	263	1285	187
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	33.8	33.8		33.8	33.8	33.8	27.2	27.2	27.2	27.2	27.2	27.2
Total Split (s)	34.0	34.0		34.0	34.0	34.0	66.0	66.0	66.0	66.0	66.0	66.0
Total Split (%)	34.0%	34.0%		34.0%	34.0%	34.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%
Yellow Time (s)	3.3	3.3		3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.5	3.5		3.5	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.8	18.8		18.8	18.8	18.8	68.2	68.2	68.2	68.2	68.2	68.2
Actuated g/C Ratio	0.19	0.19		0.19	0.19	0.19	0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.71	0.50		0.16	0.08	0.48	0.18	0.47	0.06	0.92	0.57	0.18
Control Delay	53.6	33.5		33.0	30.8	18.7	5.6	5.6	0.5	57.0	10.4	1.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	33.5		33.0	30.8	18.7	5.6	5.6	0.5	57.0	10.4	1.7
LOS	D	C		C	C	B	A	A	A	E	B	A
Approach Delay		43.7			22.0			5.3			16.5	
Approach LOS		D			C			A			B	
Queue Length 50th (m)	31.8	23.4		5.1	4.0	11.3	1.2	57.0	0.2	38.6	60.0	0.0
Queue Length 95th (m)	49.0	38.8		11.8	9.9	27.4	m2.7	19.8	0.6	#103.7	100.3	8.0
Internal Link Dist (m)		372.5			134.8			154.1			468.1	
Turn Bay Length (m)	30.0			50.0		35.0	55.0		70.0	50.0		75.0
Base Capacity (vph)	351	467		285	474	473	208	2262	999	285	2262	1022
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.35		0.11	0.05	0.36	0.18	0.47	0.06	0.92	0.57	0.18

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Tenth Line & Gerry Lalonde/Lakepointe



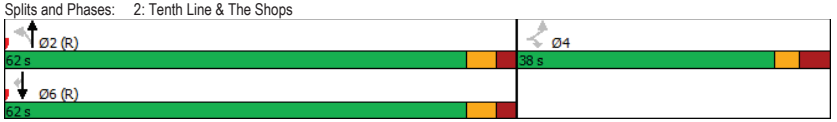
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	149	111	54	1004	1213	160
Future Volume (vph)	149	111	54	1004	1213	160
Satd. Flow (prot)	1658	1483	1658	3316	3316	1483
Flt Permitted	0.950		0.198			
Satd. Flow (perm)	1653	1464	346	3316	3316	1431
Satd. Flow (RTOR)		58				160
Lane Group Flow (vph)	149	111	54	1004	1213	160
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	37.8	37.8	24.2	24.2	24.2	24.2
Total Split (s)	38.0	38.0	62.0	62.0	62.0	62.0
Total Split (%)	38.0%	38.0%	62.0%	62.0%	62.0%	62.0%
Yellow Time (s)	3.0	3.0	3.7	3.7	3.7	3.7
All-Red Time (s)	3.8	3.8	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	16.8	16.8	70.2	70.2	70.2	70.2
Actuated g/C Ratio	0.17	0.17	0.70	0.70	0.70	0.70
v/c Ratio	0.54	0.38	0.22	0.43	0.52	0.15
Control Delay	43.4	20.8	10.8	8.3	5.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	20.8	10.8	8.3	5.8	0.7
LOS	D	C	B	A	A	A
Approach Delay	33.8			8.4	5.2	
Approach LOS	C			A	A	
Queue Length 50th (m)	27.5	9.3	2.9	34.3	29.8	0.1
Queue Length 95th (m)	37.7	20.0	13.7	77.8	38.3	2.5
Internal Link Dist (m)	33.9			222.1	154.1	
Turn Bay Length (m)			75.0			60.0
Base Capacity (vph)	515	496	242	2326	2326	1051
Starvation Cap Reductn	0	0	0	0	91	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.22	0.43	0.54	0.15

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 85 (85%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Tenth Line & The Shops



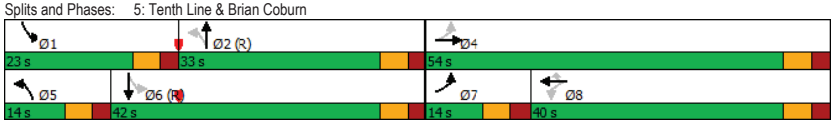
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	493	240	59	240	236	164	608	47	291	860	191
Future Volume (vph)	212	493	240	59	240	236	164	608	47	291	860	191
Satd. Flow (prot)	1658	1651	0	1658	1745	1483	1566	3267	0	1658	3194	0
Flt Permitted	0.430			0.128			0.145			0.169		
Satd. Flow (perm)	743	1651	0	223	1745	1431	238	3267	0	294	3194	0
Satd. Flow (RTOR)		28				236		7			26	
Lane Group Flow (vph)	212	733	0	59	240	236	164	655	0	291	1051	0
Turn Type	pm+pt	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.4	31.4		31.4	31.4	31.4	11.0	29.0		11.0	29.0	
Total Split (s)	14.0	54.0		40.0	40.0	40.0	14.0	33.0		23.0	42.0	
Total Split (%)	12.7%	49.1%		36.4%	36.4%	36.4%	12.7%	30.0%		20.9%	38.2%	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.7	2.7		2.7	2.7	2.7	2.3	2.3		2.3	2.3	
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)	6.4	6.4		6.4	6.4	6.4	6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	47.6	47.6		33.6	33.6	33.6	35.6	27.6		50.0	36.0	
Actuated g/C Ratio	0.43	0.43		0.31	0.31	0.31	0.32	0.25		0.45	0.33	
v/c Ratio	0.55	1.00		0.87	0.45	0.39	0.95	0.79		0.86	0.99	
Control Delay	27.2	65.3		117.5	34.1	5.8	83.7	46.6		48.1	61.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	27.2	65.3		117.5	34.1	5.8	83.7	46.6		48.1	61.7	
LOS	C	E		F	C	A	F	D		D	E	
Approach Delay		56.7			30.8			54.0			58.8	
Approach LOS		E			C			D			E	
Queue Length 50th (m)	28.9	~151.6		11.9	41.4	0.0	21.9	69.2		40.2	115.1	
Queue Length 95th (m)	46.1	#232.2		#37.6	64.4	17.2	#63.6	90.6		#85.2	#160.8	
Internal Link Dist (m)		392.1			351.9			157.1			222.1	
Turn Bay Length (m)	45.0			50.0		45.0	105.0			110.0		
Base Capacity (vph)	384	730		68	533	601	173	825		344	1062	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.55	1.00		0.87	0.45	0.39	0.95	0.79		0.85	0.99	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00
Intersection Signal Delay: 53.1 — Intersection LOS: D
Intersection Capacity Utilization 113.1% — ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Tenth Line & Brian Coburn

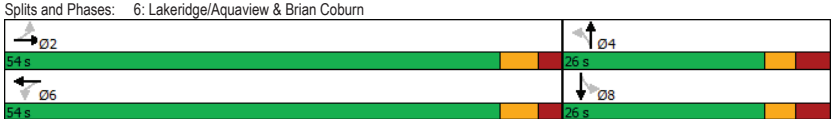


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	720	73	31	434	20	71	19	27	28	13	31
Future Volume (vph)	56	720	73	31	434	20	71	19	27	28	13	31
Satd. Flow (prot)	1658	1716	0	1658	1714	0	1626	1546	0	1523	1532	0
Flt Permitted	0.489			0.291			0.728			0.727		
Satd. Flow (perm)	848	1716	0	507	1714	0	1240	1546	0	1134	1532	0
Satd. Flow (RTOR)		11			5			27			31	
Lane Group Flow (vph)	56	793	0	31	454	0	71	46	0	28	44	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		24.4	24.4		24.4	24.4	
Total Split (s)	54.0	54.0		54.0	54.0		26.0	26.0		26.0	26.0	
Total Split (%)	67.5%	67.5%		67.5%	67.5%		32.5%	32.5%		32.5%	32.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3		2.3	2.3		3.4	3.4		3.4	3.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.4	6.4		6.4	6.4	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)	55.0	55.0		55.0	55.0		11.2	11.2		11.2	11.2	
Actuated g/C Ratio	0.74	0.74		0.74	0.74		0.15	0.15		0.15	0.15	
v/c Ratio	0.09	0.62		0.08	0.36		0.38	0.18		0.16	0.17	
Control Delay	5.0	9.5		5.3	5.9		33.9	16.4		28.7	14.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.0	9.5		5.3	5.9		33.9	16.4		28.7	14.8	
LOS	A	A		A	A		C	B		C	B	
Approach Delay		9.2			5.9			27.0			20.2	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	2.1	50.1		1.2	21.1		8.6	2.2		3.3	1.5	
Queue Length 95th (m)	6.8	107.6		4.6	44.2		19.6	10.2		9.8	9.2	
Internal Link Dist (m)		351.9			379.2			249.4			312.2	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	631	1280		377	1276		330	431		302	431	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.62		0.08	0.36		0.22	0.11		0.09	0.10	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 73.9
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.62

Intersection Signal Delay: 10.0 — Intersection LOS: B
Intersection Capacity Utilization 70.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Lakeridge/Aquaview & Brian Coburn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	518	188	27	344	18	103	43	25	23	48	38
Future Volume (vph)	52	518	188	27	344	18	103	43	25	23	48	38
Satd. Flow (prot)	1658	1675	0	1658	1714	0	1658	1549	0	1658	1490	0
Flt Permitted	0.499			0.222			0.701			0.713		
Satd. Flow (perm)	865	1675	0	387	1714	0	1206	1549	0	1242	1490	0
Satd. Flow (RTOR)		34			5			25			38	
Lane Group Flow (vph)	52	706	0	27	362	0	103	68	0	23	86	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		23.8	23.8		23.8	23.8	
Total Split (s)	48.0	48.0		48.0	48.0		32.0	32.0		32.0	32.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		5.8	5.8		5.8	5.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0		42.0	42.0		26.2	26.2		26.2	26.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.33	0.33		0.33	0.33	
v/c Ratio	0.11	0.79		0.13	0.40		0.26	0.13		0.06	0.17	
Control Delay	10.5	22.7		11.8	12.9		22.1	14.1		19.0	12.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.5	22.7		11.8	12.9		22.1	14.1		19.0	12.9	
LOS	B	C		B	B		C	B		B	B	
Approach Delay		21.9			12.9			18.9			14.2	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	3.7	77.8		2.0	30.5		11.4	4.5		2.4	5.0	
Queue Length 95th (m)	9.3	#126.8		6.4	49.1		23.4	12.9		7.3	14.5	
Internal Link Dist (m)		379.2			585.6			222.2			382.8	
Turn Bay Length (m)	65.0			65.0			30.0			30.0		
Base Capacity (vph)	454	895		203	902		394	524		406	513	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.79		0.13	0.40		0.26	0.13		0.06	0.17	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Esprit & Brian Coburn

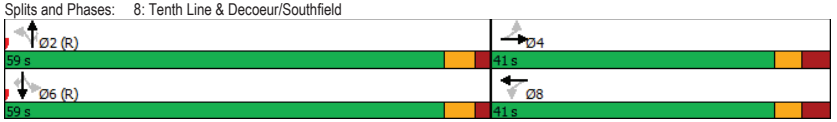
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	16	30	2	24	55	45	680	14	116	938	94
Future Volume (vph)	76	16	30	2	24	55	45	680	14	116	938	94
Satd. Flow (prot)	1658	1561	0	1658	1564	0	1658	3316	1483	1658	3316	1483
Flt Permitted	0.706			0.727			0.288			0.389		
Satd. Flow (perm)	1232	1561	0	1268	1564	0	501	3316	1483	679	3316	1435
Satd. Flow (RTOR)		30			55				43			94
Lane Group Flow (vph)	76	46	0	2	79	0	45	680	14	116	938	94
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	40.9	40.9		40.9	40.9		28.9	28.9	28.9	28.9	28.9	28.9
Total Split (s)	41.0	41.0		41.0	41.0		59.0	59.0	59.0	59.0	59.0	59.0
Total Split (%)	41.0%	41.0%		41.0%	41.0%		59.0%	59.0%	59.0%	59.0%	59.0%	59.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.6	3.6		3.6	3.6		2.2	2.2	2.2	2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		6.9	6.9		5.9	5.9	5.9	5.9	5.9	5.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	15.8	15.8		15.8	15.8		75.9	75.9	75.9	75.9	75.9	75.9
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.39	0.17		0.01	0.27		0.12	0.27	0.01	0.23	0.37	0.08
Control Delay	40.8	16.6		28.0	15.1		8.4	6.4	0.0	8.6	7.2	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	16.6		28.0	15.1		8.4	6.4	0.0	8.6	7.2	2.2
LOS	D	B		C	B		A	A	A	A	A	A
Approach Delay		31.7			15.4			6.4			7.0	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	14.1	2.8		0.4	4.3		1.9	17.4	0.0	5.4	26.6	0.0
Queue Length 95th (m)	21.0	9.6		1.8	12.8		10.8	51.2	0.3	24.4	76.3	7.0
Internal Link Dist (m)		95.2			315.6			346.2			120.2	
Turn Bay Length (m)	45.0			20.0			90.0		60.0	60.0		70.0
Base Capacity (vph)	420	552		432	569		380	2517	1136	515	2517	1112
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.08		0.00	0.14		0.12	0.27	0.01	0.23	0.37	0.08

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Tenth Line & Decoeur/Southfield

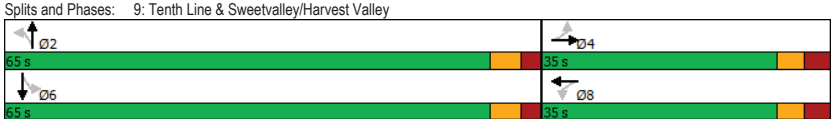


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	2	7	17	1	167	14	453	81	293	489	168
Future Volume (vph)	95	2	7	17	1	167	14	453	81	293	489	168
Satd. Flow (prot)	1658	1525	0	1595	1464	0	1658	3239	0	1658	3167	0
Flt Permitted	0.600			0.752			0.400			0.453		
Satd. Flow (perm)	1045	1525	0	1261	1464	0	698	3239	0	791	3167	0
Satd. Flow (RTOR)		7			167			35			82	
Lane Group Flow (vph)	95	9	0	17	168	0	14	534	0	293	657	0
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	34.5	34.5		34.5	34.5		29.2	29.2		29.2	29.2	
Total Split (s)	35.0	35.0		35.0	35.0		65.0	65.0		65.0	65.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		65.0%	65.0%		65.0%	65.0%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	3.2	3.2		3.2	3.2		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.2	6.2		6.2	6.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)	14.9	14.9		14.9	14.9		61.8	61.8		61.8	61.8	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.69	0.69		0.69	0.69	
v/c Ratio	0.55	0.03		0.08	0.44		0.03	0.24		0.54	0.30	
Control Delay	44.6	18.1		29.4	8.7		6.7	5.9		13.2	5.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.6	18.1		29.4	8.7		6.7	5.9		13.2	5.8	
LOS	D	B		C	A		A	A		B	A	
Approach Delay		42.3			10.6			5.9			8.1	
Approach LOS		D			B			A			A	
Queue Length 50th (m)	14.5	0.3		2.4	0.1		0.6	12.6		18.9	15.0	
Queue Length 95th (m)	28.5	4.0		7.5	14.7		3.6	31.5		64.3	37.6	
Internal Link Dist (m)		180.2			318.8			263.5			346.2	
Turn Bay Length (m)	38.0			60.0			54.0			65.0		
Base Capacity (vph)	335	493		404	582		482	2248		546	2213	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.02		0.04	0.29		0.03	0.24		0.54	0.30	

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 89.4
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.7 — Intersection LOS: A
Intersection Capacity Utilization 74.5% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Tenth Line & Sweetvalley/Harvest Valley



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	817	1129	37
Future Vol, veh/h	0	17	0	817	1129	37
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	0	817	1129	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	583	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	456	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	456	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	456	-	-
HCM Lane V/C Ratio	-	0.037	-	-
HCM Control Delay (s)	-	13.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	92	103	12	30	30
Future Vol, veh/h	41	92	103	12	30	30
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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	92	103	12	30	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	115	0	-	0	283	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1474	-	-	-	707	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1474	-	-	-	686	945
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	795
HCM Lane V/C Ratio	0.028	-	-	-	0.075
HCM Control Delay (s)	7.5	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde AM FT2031 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Jerome Jodoin														
1	L2	83	2.0	83	2.0	0.188	9.7	LOS A	1.1	7.6	0.57	0.65	0.57	49.9
2	T1	21	2.0	21	2.0	0.188	4.5	LOS A	1.1	7.6	0.57	0.65	0.57	46.8
3	R2	78	2.0	78	2.0	0.188	4.9	LOS A	1.1	7.6	0.57	0.65	0.57	48.7
Approach		182	2.0	182	2.0	0.188	7.1	LOS A	1.1	7.6	0.57	0.65	0.57	49.0
East: Brian Coburn														
4	L2	44	2.0	44	2.0	0.840	12.8	LOS B	14.3	101.9	0.87	0.68	0.95	50.1
5	T1	1021	2.0	1021	2.0	0.840	7.5	LOS A	14.3	101.9	0.87	0.68	0.95	53.3
6	R2	13	2.0	13	2.0	0.840	7.6	LOS A	14.3	101.9	0.87	0.68	0.95	48.5
Approach		1078	2.0	1078	2.0	0.840	7.7	LOS A	14.3	101.9	0.87	0.68	0.95	53.1
North: Gerry Lalonde														
7	L2	7	2.0	7	2.0	0.608	33.1	LOS C	6.1	43.5	1.00	1.19	1.44	38.7
8	T1	8	2.0	8	2.0	0.608	27.9	LOS C	6.1	43.5	1.00	1.19	1.44	36.7
9	R2	185	2.0	185	2.0	0.608	28.3	LOS C	6.1	43.5	1.00	1.19	1.44	37.9
Approach		200	2.0	200	2.0	0.608	28.5	LOS C	6.1	43.5	1.00	1.19	1.44	37.9
West: Brian Coburn														
10u	U	30	2.0	30	2.0	0.325	11.4	LOS B	2.4	17.0	0.26	0.44	0.26	56.9
10	L2	40	2.0	40	2.0	0.325	9.2	LOS A	2.4	17.0	0.26	0.44	0.26	52.2
11	T1	347	2.0	347	2.0	0.325	3.8	LOS A	2.4	17.0	0.26	0.44	0.26	55.7
12	R2	48	2.0	48	2.0	0.325	3.9	LOS A	2.4	17.0	0.26	0.44	0.26	50.5
Approach		465	2.0	465	2.0	0.325	4.8	LOS A	2.4	17.0	0.26	0.44	0.26	54.9
All Vehicles		1925	2.0	1925	2.0	0.840	9.1	LOS A	14.3	101.9	0.71	0.67	0.80	51.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Gerry Lalonde PM FT2031 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Jerome Jodoin														
1	L2	37	2.0	37	2.0	0.400	31.9	LOS C	3.3	23.7	1.00	1.04	1.09	38.5
2	T1	10	2.0	10	2.0	0.400	26.7	LOS C	3.3	23.7	1.00	1.04	1.09	36.6
3	R2	36	2.0	36	2.0	0.400	27.1	LOS C	3.3	23.7	1.00	1.04	1.09	37.8
Approach		83	2.0	83	2.0	0.400	29.2	LOS C	3.3	23.7	1.00	1.04	1.09	38.0
East: Brian Coburn														
4	L2	62	2.0	62	2.0	0.581	11.3	LOS B	5.3	37.6	0.73	0.66	0.75	50.6
5	T1	544	2.0	544	2.0	0.581	5.9	LOS A	5.3	37.6	0.73	0.66	0.75	53.8
6	R2	12	2.0	12	2.0	0.581	6.0	LOS A	5.3	37.6	0.73	0.66	0.75	49.0
Approach		618	2.0	618	2.0	0.581	6.5	LOS A	5.3	37.6	0.73	0.66	0.75	53.4
North: Gerry Lalonde														
7	L2	4	2.0	4	2.0	0.159	11.4	LOS B	1.0	7.2	0.75	0.73	0.75	50.2
8	T1	18	2.0	18	2.0	0.159	6.2	LOS A	1.0	7.2	0.75	0.73	0.75	47.0
9	R2	92	2.0	92	2.0	0.159	6.6	LOS A	1.0	7.2	0.75	0.73	0.75	49.0
Approach		114	2.0	114	2.0	0.159	6.7	LOS A	1.0	7.2	0.75	0.73	0.75	48.7
West: Brian Coburn														
10u	U	27	2.0	27	2.0	0.949	13.3	LOS B	30.9	220.1	1.00	0.51	1.00	53.7
10	L2	212	2.0	212	2.0	0.949	11.2	LOS B	30.9	220.1	1.00	0.51	1.00	49.6
11	T1	1077	2.0	1077	2.0	0.949	5.8	LOS A	30.9	220.1	1.00	0.51	1.00	52.6
12	R2	65	2.0	65	2.0	0.949	5.9	LOS A	30.9	220.1	1.00	0.51	1.00	48.0
Approach		1381	2.0	1381	2.0	0.949	6.8	LOS A	30.9	220.1	1.00	0.51	1.00	51.9
All Vehicles		2196	2.0	2196	2.0	0.949	7.6	LOS A	30.9	220.1	0.91	0.58	0.92	51.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg AM FT2031 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: des Aubepines														
1	L2	138	2.0	138	2.0	0.210	9.6	LOS A	1.2	8.6	0.56	0.67	0.56	49.4
2	T1	15	2.0	15	2.0	0.210	4.4	LOS A	1.2	8.6	0.56	0.67	0.56	46.3
3	R2	55	2.0	55	2.0	0.210	4.8	LOS A	1.2	8.6	0.56	0.67	0.56	48.2
Approach		208	2.0	208	2.0	0.210	7.9	LOS A	1.2	8.6	0.56	0.67	0.56	48.8
East: Brian Coburn														
4	L2	32	2.0	32	2.0	0.689	10.4	LOS B	7.5	53.4	0.66	0.55	0.66	51.0
5	T1	837	2.0	837	2.0	0.689	5.1	LOS A	7.5	53.4	0.66	0.55	0.66	54.3
6	R2	12	2.0	12	2.0	0.689	5.2	LOS A	7.5	53.4	0.66	0.55	0.66	49.4
Approach		881	2.0	881	2.0	0.689	5.3	LOS A	7.5	53.4	0.66	0.55	0.66	54.1
North: Strasbourg														
7	L2	25	2.0	25	2.0	0.250	15.9	LOS B	1.8	12.7	0.92	0.91	0.92	46.9
8	T1	22	2.0	22	2.0	0.250	10.7	LOS B	1.8	12.7	0.92	0.91	0.92	44.0
9	R2	76	2.0	76	2.0	0.250	11.1	LOS B	1.8	12.7	0.92	0.91	0.92	45.8
Approach		123	2.0	123	2.0	0.250	12.0	LOS B	1.8	12.7	0.92	0.91	0.92	45.7
West: Brian Coburn														
10	L2	7	2.0	7	2.0	0.307	9.3	LOS A	2.1	15.1	0.29	0.41	0.29	52.6
11	T1	360	2.0	360	2.0	0.307	4.0	LOS A	2.1	15.1	0.29	0.41	0.29	56.1
12	R2	55	2.0	55	2.0	0.307	4.1	LOS A	2.1	15.1	0.29	0.41	0.29	50.8
Approach		422	2.0	422	2.0	0.307	4.1	LOS A	2.1	15.1	0.29	0.41	0.29	55.3
All Vehicles		1634	2.0	1634	2.0	0.689	5.8	LOS A	7.5	53.4	0.57	0.56	0.57	52.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Brian Coburn Strasbourg PM FT2031 (Site Folder: General)]

Mattamy 2370 Tenth Line
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: des Aubepines														
1	L2	87	2.0	87	2.0	0.268	15.3	LOS B	1.9	13.6	0.91	0.91	0.91	46.1
2	T1	18	2.0	18	2.0	0.268	10.1	LOS B	1.9	13.6	0.91	0.91	0.91	43.4
3	R2	34	2.0	34	2.0	0.268	10.5	LOS B	1.9	13.6	0.91	0.91	0.91	45.1
Approach		139	2.0	139	2.0	0.268	13.5	LOS B	1.9	13.6	0.91	0.91	0.91	45.5
East: Brian Coburn														
4	L2	54	2.0	54	2.0	0.468	9.8	LOS A	3.9	27.5	0.48	0.50	0.48	51.6
5	T1	506	2.0	506	2.0	0.468	4.5	LOS A	3.9	27.5	0.48	0.50	0.48	55.0
6	R2	36	2.0	36	2.0	0.468	4.6	LOS A	3.9	27.5	0.48	0.50	0.48	50.0
Approach		596	2.0	596	2.0	0.468	5.0	LOS A	3.9	27.5	0.48	0.50	0.48	54.4
North: Strasbourg														
7	L2	23	2.0	23	2.0	0.075	11.0	LOS B	0.4	3.1	0.68	0.68	0.68	49.3
8	T1	13	2.0	13	2.0	0.075	5.8	LOS A	0.4	3.1	0.68	0.68	0.68	46.3
9	R2	23	2.0	23	2.0	0.075	6.2	LOS A	0.4	3.1	0.68	0.68	0.68	48.2
Approach		59	2.0	59	2.0	0.075	8.0	LOS A	0.4	3.1	0.68	0.68	0.68	48.2
West: Brian Coburn														
10	L2	33	2.0	33	2.0	0.761	10.0	LOS A	10.2	72.5	0.58	0.47	0.58	51.4
11	T1	913	2.0	913	2.0	0.761	4.6	LOS A	10.2	72.5	0.58	0.47	0.58	54.8
12	R2	146	2.0	146	2.0	0.761	4.7	LOS A	10.2	72.5	0.58	0.47	0.58	49.7
Approach		1092	2.0	1092	2.0	0.761	4.8	LOS A	10.2	72.5	0.58	0.47	0.58	54.0
All Vehicles		1886	2.0	1886	2.0	0.761	5.6	LOS A	10.2	72.5	0.57	0.52	0.57	53.1

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Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix O

TDM Checklist

CGH TRANSPORTATION

TDM Measures Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
	1.	**TDM PROGRAM MANAGEMENT**	
	1.1	**Program coordinator**	
BASIC ★	1.1.1	Designate an internal coordinator, or contract with an external coordinator	☐
	1.2	**Travel surveys**	
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
	2.	**WALKING AND CYCLING**	
	2.1	**Information on walking/cycling routes & destinations**	
BASIC	2.1.1	Display local area maps with walking/cycling access routes and key destinations at major entrances	☐
	2.2	**Bicycle skills training**	
		Commuter travel	
BETTER ★	2.2.1	Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
	2.3	**Valet bike parking**	
		Visitor travel	
BETTER	2.3.1	Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
	3.	**TRANSIT**	
	3.1	**Transit information**	
BASIC	3.1.1	Display relevant transit schedules and route maps at entrances	☑
BASIC	3.1.2	Provide online links to OC Transpo and STO information	☑
BETTER	3.1.3	Provide real-time arrival information display at entrances	☐
	3.2	**Transit fare incentives**	
		Commuter travel	
BETTER	3.2.1	Offer preloaded PRESTO cards to encourage commuters to use transit	☐
BETTER ★	3.2.2	Subsidize or reimburse monthly transit pass purchases by employees	☐
		Visitor travel	
BETTER	3.2.3	Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐
	3.3	**Enhanced public transit service**	
		Commuter travel	
BETTER	3.3.1	Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐
		Visitor travel	
BETTER	3.3.2	Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐
	3.4	**Private transit service**	
		Commuter travel	
BETTER	3.4.1	Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐
		Visitor travel	
BETTER	3.4.2	Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐

			TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		4.	**RIDESHARING**	
		4.1	**Ridematching service**	
			Commuter travel	
BASIC	★	4.1.1	Provide a dedicated ridematching portal at OttawaRideMatch.com	☐
		4.2	**Carpool parking price incentives**	
			Commuter travel	
BETTER		4.2.1	Provide discounts on parking costs for registered carpools	☐
		4.3	**Vanpool service**	
			Commuter travel	
BETTER		4.3.1	Provide a vanpooling service for long-distance commuters	☐
		5.	**CARSHARING & BIKESHARING**	
		5.1	**Bikeshare stations & memberships**	
BETTER		5.1.1	Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐
			Commuter travel	
BETTER		5.1.2	Provide employees with bikeshare memberships for local business travel	☐
		5.2	**Carshare vehicles & memberships**	
			Commuter travel	
BETTER		5.2.1	Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐
BETTER		5.2.2	Provide employees with carshare memberships for local business travel	☐
		6.	**PARKING**	
		6.1	**Priced parking**	
			Commuter travel	
BASIC	★	6.1.1	Charge for long-term parking (daily, weekly, monthly)	☑
BASIC		6.1.2	Unbundle parking cost from lease rates at multi-tenant sites	☐
			Visitor travel	
BETTER		6.1.3	Charge for short-term parking (hourly)	☐

			TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		7.	**TDM MARKETING & COMMUNICATIONS**	
		7.1	**Multimodal travel information**	
			Commuter travel	
BASIC	★	7.1.1	Provide a multimodal travel option information package to new/relocating employees and students	☑
			Visitor travel	
BETTER	★	7.1.2	Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	☐
		7.2	**Personalized trip planning**	
			Commuter travel	
BETTER	★	7.2.1	Offer personalized trip planning to new/relocating employees	☐
		7.3	**Promotions**	
			Commuter travel	
BETTER		7.3.1	Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	☐
		8.	**OTHER INCENTIVES & AMENITIES**	
		8.1	**Emergency ride home**	
			Commuter travel	
BETTER	★	8.1.1	Provide emergency ride home service to non-driving commuters	☐
		8.2	**Alternative work arrangements**	
			Commuter travel	
BASIC	★	8.2.1	Encourage flexible work hours	☐
BETTER		8.2.2	Encourage compressed workweeks	☐
BETTER	★	8.2.3	Encourage telework	☐
		8.3	**Local business travel options**	
			Commuter travel	
BASIC	★	8.3.1	Provide local business travel options that minimize the need for employees to bring a personal car to work	☐
		8.4	**Commuter incentives**	
			Commuter travel	
BETTER		8.4.1	Offer employees a taxable, mode-neutral commuting allowance	☐
		8.5	**On-site amenities**	
			Commuter travel	
BETTER		8.5.1	Provide on-site amenities/services to minimize mid-day or mid-commute errands	☐

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

	TDM measures: *Residential developments*		Check if proposed & add descriptions
	1.	**TDM PROGRAM MANAGEMENT**	
	1.1	**Program coordinator**	
BASIC ★	1.1.1	Designate an internal coordinator, or contract with an external coordinator	☐
	1.2	**Travel surveys**	
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
	2.	**WALKING AND CYCLING**	
	2.1	**Information on walking/cycling routes & destinations**	
BASIC	2.1.1	Display local area maps with walking/cycling access routes and key destinations at major entrances *(multi-family, condominium)*	☐
	2.2	**Bicycle skills training**	
BETTER	2.2.1	Offer on-site cycling courses for residents, or subsidize off-site courses	☐

TDM Measures Checklist **City of Ottawa**
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	TDM measures: *Residential developments*		Check if proposed & add descriptions
	3.	**TRANSIT**	
	3.1	**Transit information**	
BASIC	3.1.1	Display relevant transit schedules and route maps at entrances *(multi-family, condominium)*	☐
BETTER	3.1.2	Provide real-time arrival information display at entrances *(multi-family, condominium)*	☐
	3.2	**Transit fare incentives**	
BASIC ★	3.2.1	Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	☐
BETTER	3.2.2	Offer at least one year of free monthly transit passes on residence purchase/move-in	☑
	3.3	**Enhanced public transit service**	
BETTER ★	3.3.1	Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels *(subdivision)*	☐
	3.4	**Private transit service**	
BETTER	3.4.1	Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	☐
	4.	**CARSHARING & BIKESHARING**	
	4.1	**Bikeshare stations & memberships**	
BETTER	4.1.1	Contract with provider to install on-site bikeshare station *(multi-family)*	☐
BETTER	4.1.2	Provide residents with bikeshare memberships, either free or subsidized *(multi-family)*	☐
	4.2	**Carshare vehicles & memberships**	
BETTER	4.2.1	Contract with provider to install on-site carshare vehicles and promote their use by residents	☐
BETTER	4.2.2	Provide residents with carshare memberships, either free or subsidized	☐
	5.	**PARKING**	
	5.1	**Priced parking**	
BASIC ★	5.1.1	Unbundle parking cost from purchase price *(condominium)*	☑
BASIC ★	5.1.2	Unbundle parking cost from monthly rent *(multi-family)*	☑

			TDM measures: *Residential developments*	Check if proposed & add descriptions
		6.	**TDM MARKETING & COMMUNICATIONS**	
		6.1	**Multimodal travel information**	
BASIC	★	6.1.1	Provide a multimodal travel option information package to new residents	☑
		6.2	**Personalized trip planning**	
BETTER	★	6.2.1	Offer personalized trip planning to new residents	☐

TDM-Supportive Development Design and Infrastructure Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☑
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	☑

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	☑
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☐
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☑
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☑
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	☐
BETTER	2.1.5	Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	☐
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☐
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	☐
	2.3	**Shower & change facilities**	
BASIC	2.3.1	Provide shower and change facilities for the use of active commuters	☐
BETTER	2.3.2	In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☐
	2.4	**Bicycle repair station**	
BETTER	2.4.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
	4.2	**Carpool parking**	
BASIC	4.2.1	Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	☐
BETTER	4.2.2	At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces *(see Zoning By-law Section 94)*	☐
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐

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		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☑
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	☐
	7.	**OTHER**	
	7.1	**On-site amenities to minimize off-site trips**	
BETTER	7.1.1	Provide on-site amenities to minimize mid-day or mid-commute errands	☐

TDM-Supportive Development Design and Infrastructure Checklist:
Residential Developments (multi-family or condominium)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☑
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	☑

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	☑
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☐
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☑
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☑
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	☐
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☐
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☐
	2.3	**Bicycle repair station**	
BETTER	2.3.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

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		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses *(see Zoning By-law Section 94)*	☐
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☑
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐