# 2370 Tenth Line Road

# Transportation Impact Assessment

Step 1 Screening Report

Step 2 Scoping Report

Step 3 Forecasting Report

Step 4 Strategy Report

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December 2021

PN: 2021-052

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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

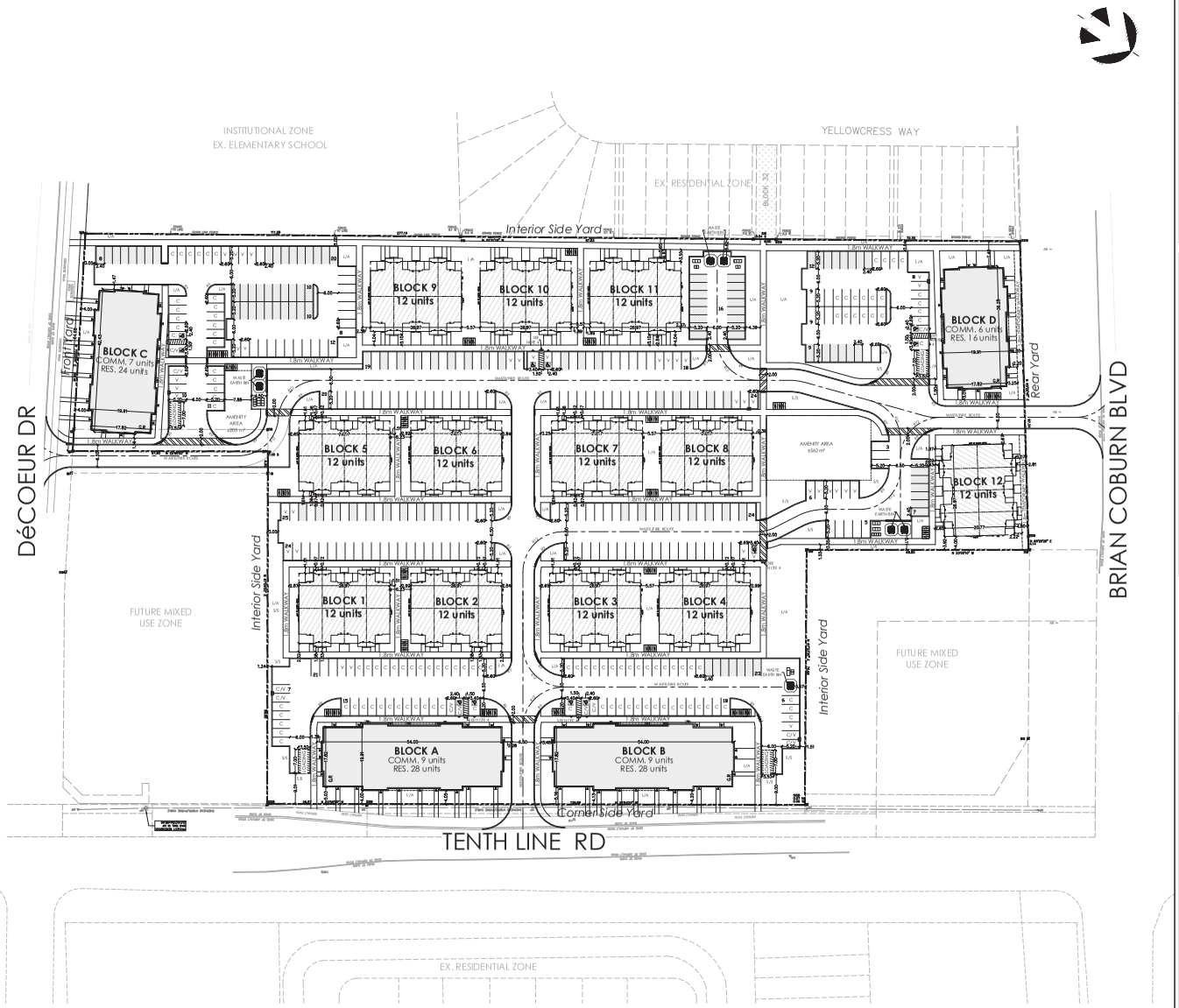
## 2.1 Proposed Development

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 96 dwelling units and approximately 3,170 $m^2$ of ground floor commercial space. A full-movements access is proposed onto each Brian Coburn Boulevard and 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 439 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*


Source: http://maps.ottawa.ca/geoOttawa/ Accessed: September 27, 2021




## SITE STATISTICS AND DEVELOPMENT DATA

| | |
|---|---|
| SITE AREA | 36,388 m² (3.64 ha) |
| PAVED AREA | 17,237 m² (47.4%) |
| LANDSCAPED AREA | 8,883 m² (24.4%) |
| TOTAL BUILDING COVERAGE | 10,266 m² (28.2%) |
| TOTAL APPROXIMATE GROSS FLOOR AREA | 24,190 m² |
| TOTAL UNITS | 271 |
| DENSITY (UPH) | 74 UPH |
| ZONE CATEGORY | GM[950] |

| DWELLING BLOCK | DWELLING TYPE | GROSS FLOOR AREA (m2) | | UNITS |
|---|---|---|---|---|
| BLOCK A | RESIDENTIAL | 1,569.03 | | 28 |
| | COMMERCIAL | | 915.11 | 9 |
| BLOCK B | RESIDENTIAL | 1,569.03 | | 28 |
| | COMMERCIAL | | 915.11 | 9 |
| BLOCK C | RESIDENTIAL | 1,254.69 | | 24 |
| | COMMERCIAL | | 704.68 | 7 |
| BLOCK D | RESIDENTIAL | 1,051.36 | | 16 |
| | COMMERCIAL | | 634.70 | 6 |
| BLOCK 1-12 | STACKED TOWNS | 15, 576.48 (1,298.04 per Block) | | 144 |
| | | TOTAL 21,020.59 | 3,169.60 | 271 |

| SECTION | ZONE PROVISION - PLANNED UNIT DEVELOPMENT | REQUIRED | PROPOSED |
|---|---|---|---|
| 187 (Table 1(a) | MIN. LOT AREA (m²) | No minimum | 36,387.61m² |
| 187 (Table 1(b) | MIN. LOT WIDTH (m) | No minimum | 64.68m |
| 950(Bylaw 2008 -386/2009-18) | MIN. YARD SETBACK FROM ALL LOT LINES | 4.0m | 4.0m |
| 187 (Table 1(f) | MAX. BUILDING HEIGHT (m) | 18m | 11m Mixed-Use 12m Stacked Towns |
| 187(Table 1(g) | MAX. FLOOR SPACE INDEX | 2 | 0.5 |
| 187 (Table 1(h) | MIN. WIDTH OF LANDSCAPED AREA: | | |
| | ABUTTING A STREET | 3.0m | 3.0m |
| | ABUTTING A RESIDENTIAL OR INSTITUTIONAL ZONE | 3.0m | 3.0m |
| | OTHER CASES | No minimum | 1.24m |
| R1S | RESIDENT PARKING - MIXED-USE (96 units@1.1/unit) | 105.6 | 106* |
| | - STACKED TOWNS (144 units@1.2/unit) | 172.8 | 173* |
| R1O | VISITOR PARKING - MIXED-USE (96 units@0.2/unit) | 19.2 | 19, 11 shared** |
| | - STACKED TOWNS (144 units@0.2/unit) | 28.8 | 29 |
| N14 | RESTAURANT PARKING 10 spaces/100m² (777m²) | 76.9 | 77 |
| N19 | RETAIL STORE PARKING 3.4 spaces/100m² (2,331m²) | 45.6 | 46 |
| 104(Table)(c.ii.5) | PARKING PERMITTED TO BE SHARED | 11 | 11 |
| 111 A (Table) (b) | BICYCLE PARKING (0.5/unit) | 120 | 120 |
| 111 A (Table) (b) | COMMERCIAL BICYCLE PARKING (1 space/250m² GFA) | 12.6 | 14 |
| 131 (Table) (1) | MIN. WIDTH OF PRIVATE WAY (m) | 6.0m | 6.0m |
| 131 (Table) (2) | MIN. SETBACK OF ANY WALL OF A RESIDENTIAL BUILDING TO PRIVATE WAY (m) | 1.8m | 1.16m |
| 131 (Table) (4) | MIN. SEPARATION DISTANCE BETWEEN BUILDINGS WITHIN PLANNED UNIT DEVELOPMENT (m) | 1.2m | 5.57m |
| 137 (Table) | MIN. MIXED-USE BUILDING TOTAL AMENITY AREA (6m²/unit) | 762m² | 973.73m²*** |
| 137 (Table) | MIN. MIXED-USE BUILDING COMMUNAL AMENITY AREA (min. 50% area) | 381m² | 494m² |
| 137 (Table) | MIN. STACKED TOTAL AMENITY AREA (6m²/unit) | 864m² | 1,224m²*** |
| 137 (Table) | MIN. STACKED COMMUNAL AMENITY AREA (min. 50% area) | 432m² | 494m² |

*Section 106 (3) a - Up to 40% of the required parking spaces may be reduced in size to 2.4m x 4.6m for small cars only. Proposed 107 spaces at 2.4m wide for small car parking. Length maintained at 5.2m.
**11 visitor parking spaces shared with commercial requirements per Section 104

**Section 104 Parking Calculation**

| Eligible Spaces | Land Use | Weekday Morning | Weekday Noon | Weekday Afternoon | Weekday Evening | Saturday Morning | Saturday Noon | Saturday Afternoon | Saturday Evening |
|---|---|---|---|---|---|---|---|---|---|
| 100 C. Retail | | 75% | 80% | 85% | 75% | 60% | 90% | 100% | 70% |
| | | 75 | 80 | 85 | 75 | 60 | 90 | 100 | 70 |
| 22 D. Restaurant | | 30% | 90% | 60% | 100% | 30% | 80% | 50% | 100% |
| | | 7 | 20 | 13 | 22 | 7 | 18 | 11 | 22 |
| 48 F. Res. Visitor | | 50% | 50% | 100% | 100% | 100% | 100% | 100% | 100% |
| | | 24 | 24 | 48 | 48 | 48 | 48 | 48 | 48 |
| 170 Sum | | 106 | 124 | 147 | 145 | 115 | 156 | 159 | 120 |
| Total Shareable | 11 | | | | | | | | |

**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 | 2.81m |
| | FRONT YARD OR CORNER SIDE YARD (m) | >0.6m to lot line | 4.0m |
| 65(Table)(6) | COVERED OR UNCOVERED BALCONY, PORCH, DECK: | | |
| | INTERIOR SIDE YARD OR REAR YARD (m) | No limit | 3.07m |
| | 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 |
| 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 | 6.5m |
| | MIN. WIDTH OF AISLE ACCESSING LOADING SPACE BY ANGLE (Be tween 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% | 15.5% |
| 110(Table) | LANDSCAPED AREA SURROUNDING PARKING LOT: | | |
| | ABUTTING A STREET (m) | 3.0m | 3.0m |
| | NOT ABUTTING A STREET (m) | 3.0m | 1.24m |
| 110(3)(b) | MIN. WASTE COLLECTION SETBACK TO LOT LINE (m) | 3.0m | 3.57m |
| 110(3)(c) | OPAQUE SCREEN MIN. HEIGHT (m) | 2.0m**** | 2.0m**** |
| 950(Bylaw 2008 -386/2009-18) | MAX. GROSS LEASABLE FLOOR AREA FOR A LOT LESS THAN 4 HECTRES IN AREA | 9,999m² | 3,108.0 m² |

****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)


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)
SNOW STORAGE AREA
LANDSCAPED AREA
BLOCK BOUNDARY
BARRIER FREE PARKING
BARRIER FREE PARKING SIGNAGE
TACTILE WALKING SURFACE INDICATOR
REDUCED SIZE PARKING SPACES
NO PARKING
CONCRETE/ASPHALT PAD
BIKE RACKS
ENTRANCE
VISITOR PARKING
COMMERCIAL PARKING
EV CHARGING STATION

| DATE (mm/d) | REVISION | BY |
|---|---|---|
| 11/29/21 | Draft site plan | 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, ONTAR. K2M 2J9

PROJECT TEAM

| SITE PLAN DESIGN: | LANDSCAPE ARCHITECTURE: | PLANNING: |
|---|---|---|
| ARCHITECTURE | TRANSPORTATION | CIVIL ENGINEER |

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 29, 2021 | DRAWN BY: SP | CHECKED BY: GR | DRAWING NO: A

FILE NO.: #####

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

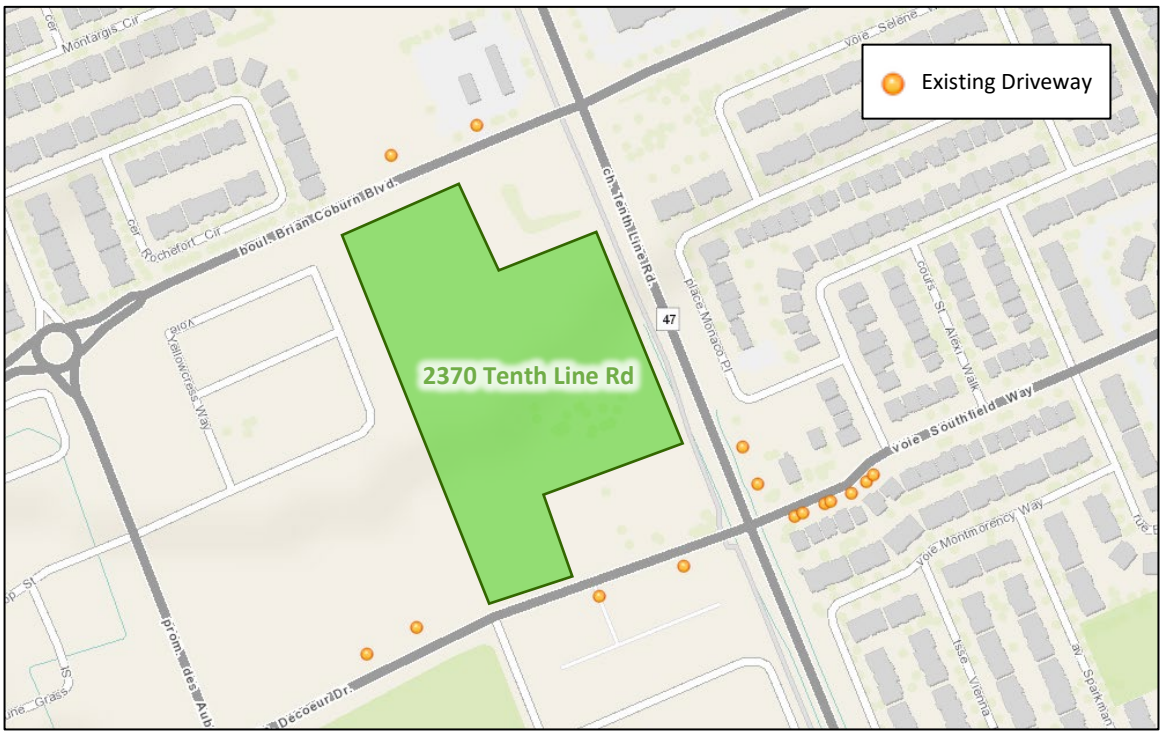
Within 200 metres of the proposed site access on Brian Coburn Boulevard, a driveway to The Shops of Tenth Line and a driveway to a gas station with drive-through coffee and drive-through carwash facilities are present on the north side of Brian Coburn Boulevard. Queueing from these drive-through facilities does not pose potential for conflict with the driveway onto Brian Coburn Boulevard.

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: October 1, 2021

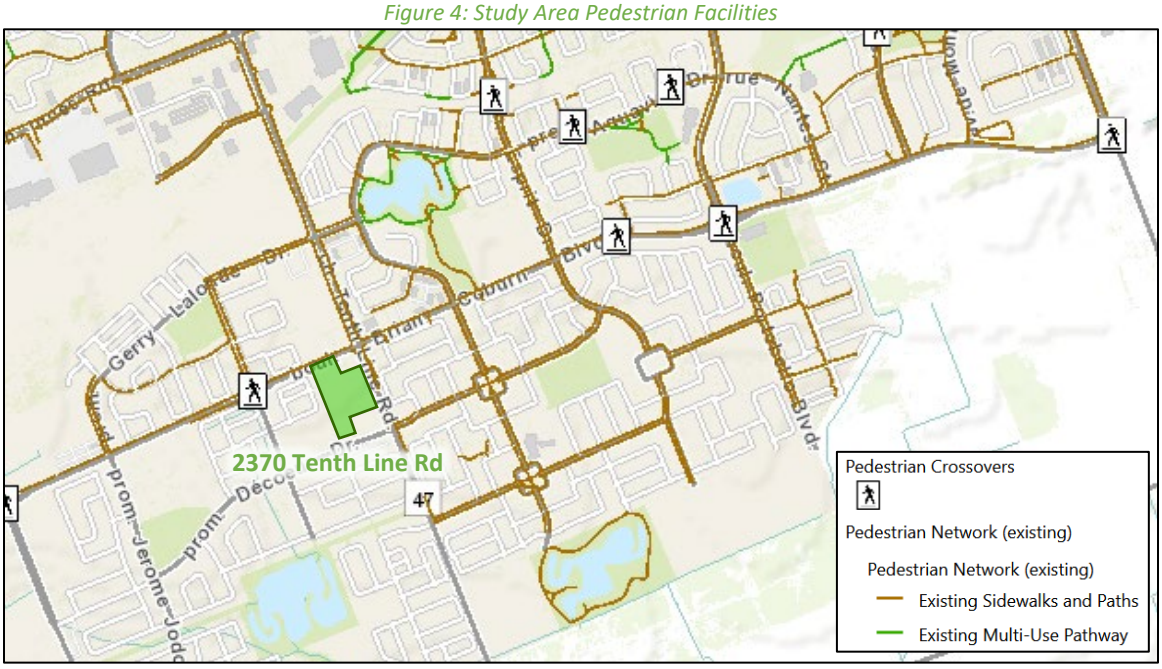
### 2.2.4 Cycling and Pedestrian Facilities

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.

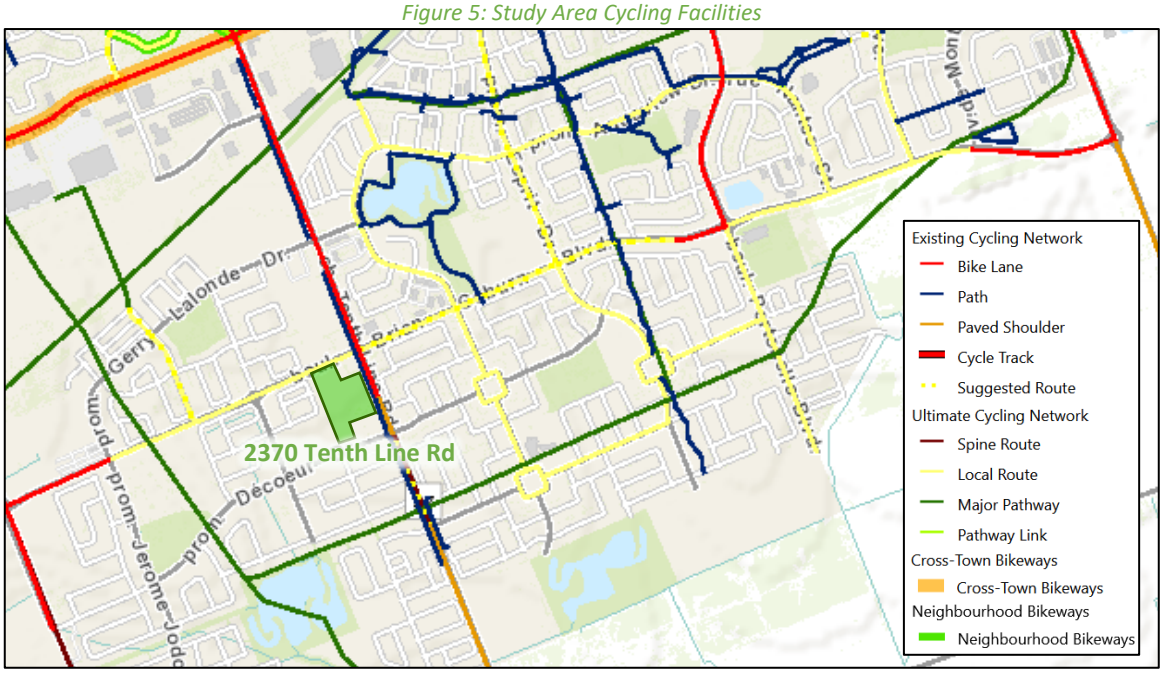
Cycling facilities include the MUP along the west side of Tenth Line Road, bike lanes on Tenth Line Road transitioning to paved shoulders 135 metres south of Harvest Valley Avenue. Tenth Line Road is a spine route, Brian Coburn Boulevard, Cabris Crescent/Azure Street/Trigoria Crescent, Aquaview Drive,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

*Figure 4: Study Area Pedestrian Facilities*




Source: *http://maps.ottawa.ca/geoOttawa/* Accessed: September 27, 2021

*Figure 5: Study Area Cycling Facilities*




Source: *http://maps.ottawa.ca/geoOttawa/* Accessed: September 27, 2021

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*

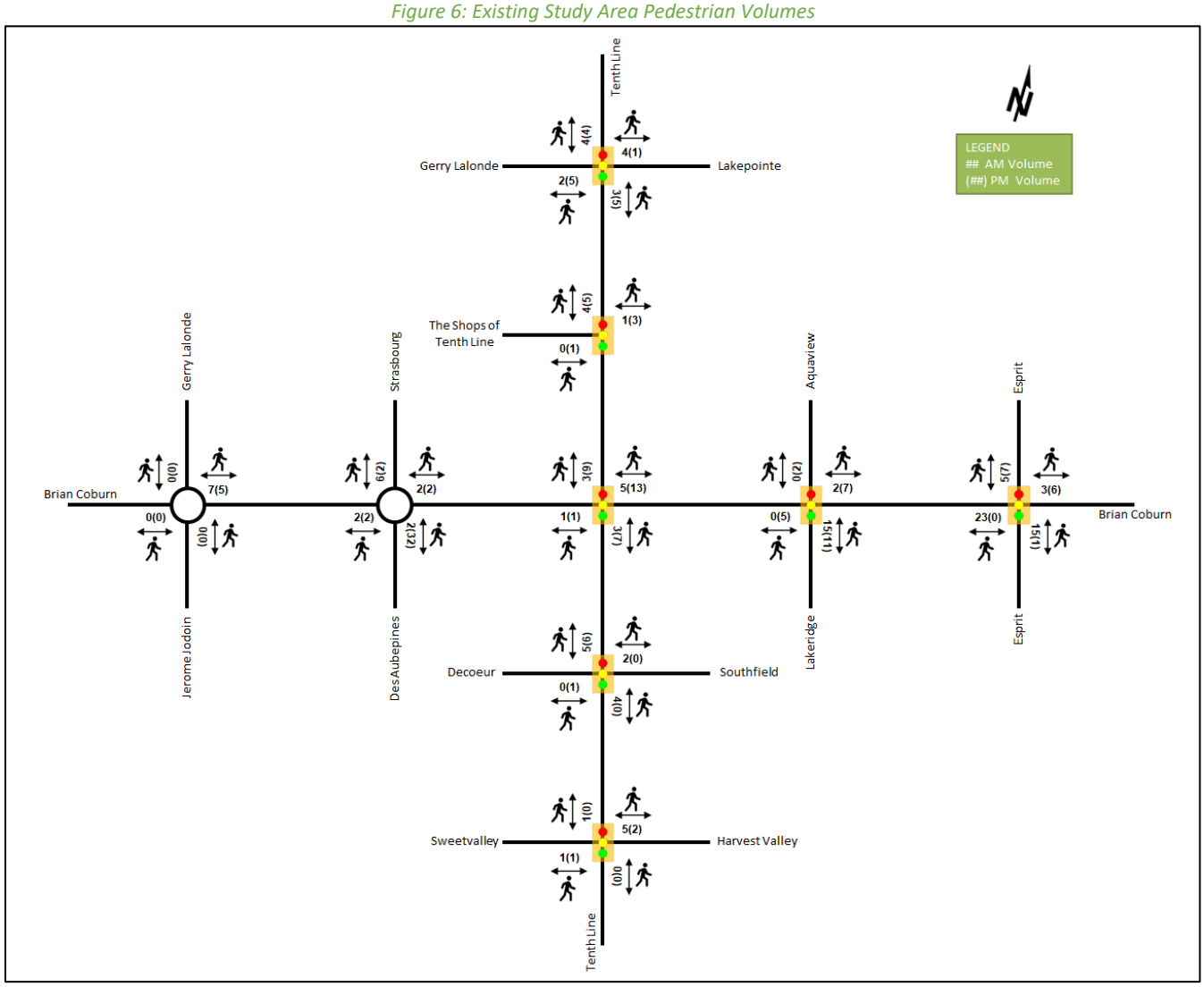
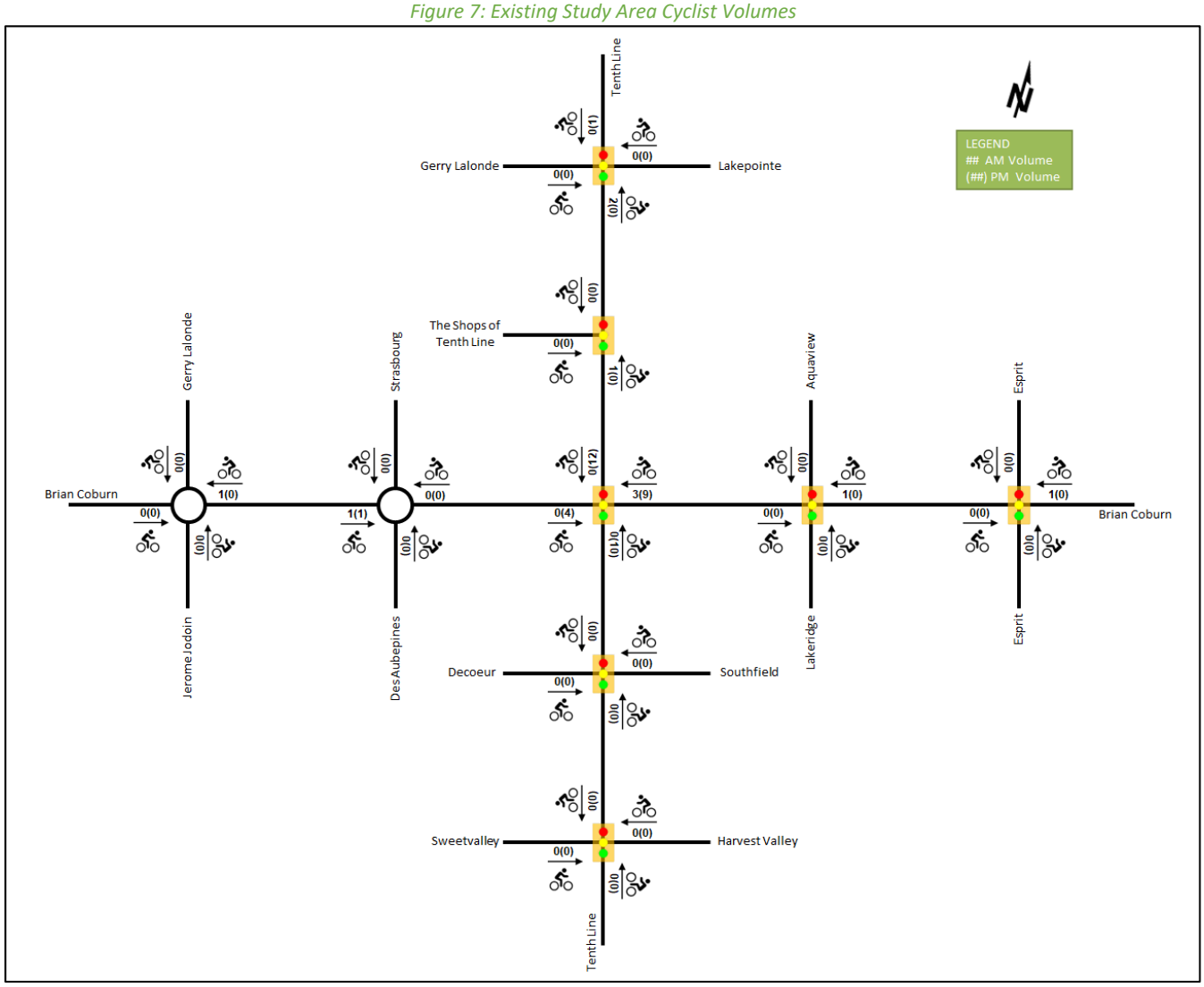


*Figure 7: Existing Study Area Cyclist Volumes*



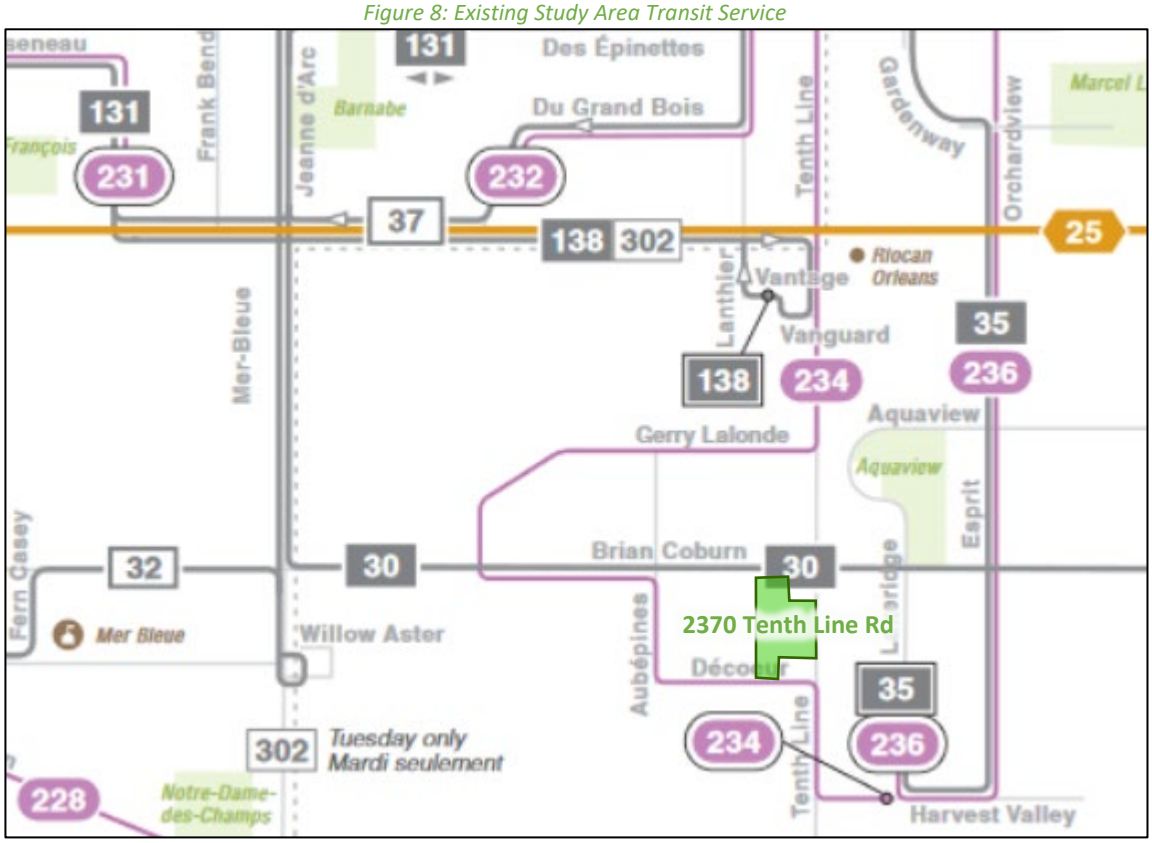

### 2.2.5 Existing Transit

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. The frequency of these routes within proximity of the proposed site currently 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

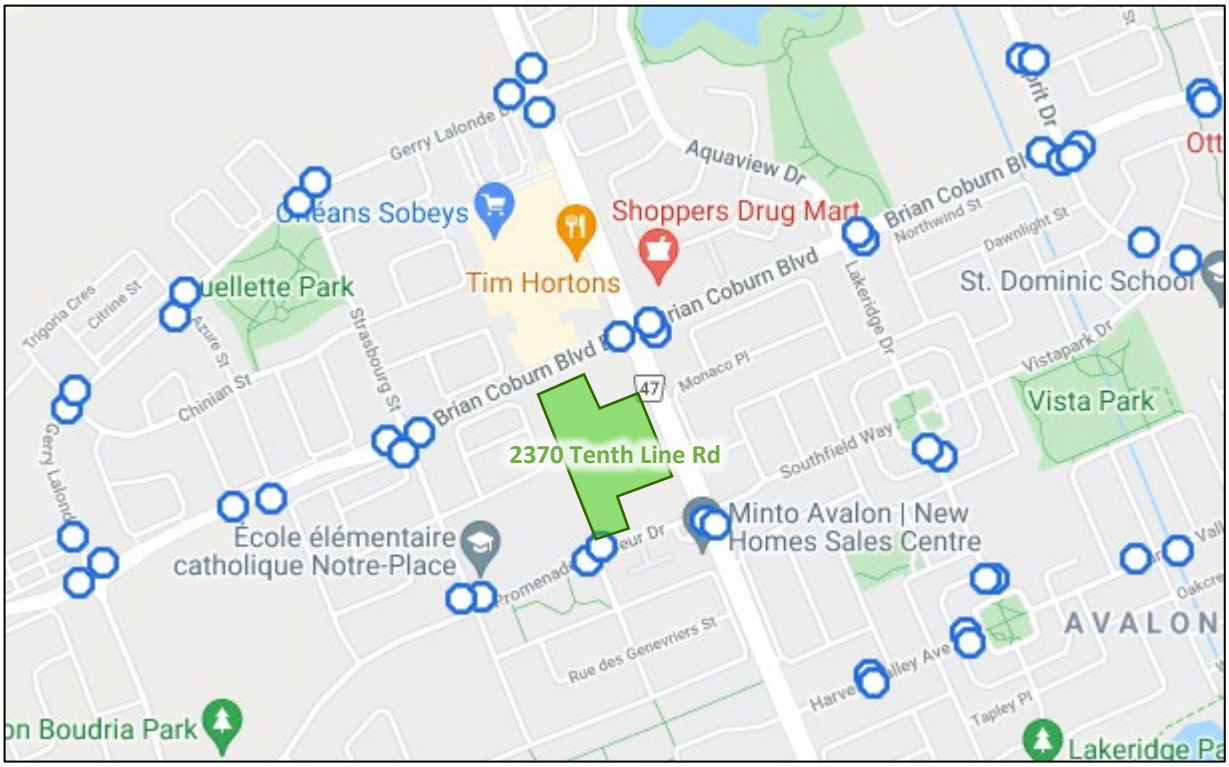
Figure 8 illustrates the transit system map in the study area and Figure 9 illustrates nearby transit stops.

*Figure 8: Existing Study Area Transit Service*




Source: *http://www.octranspo.com/* Accessed: September 28, 2021

*Figure 9: Existing Study Area Transit Stops*




Source: *http://www.octranspo.com/* Accessed: September 28, 2021

### 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 intersection. 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 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*

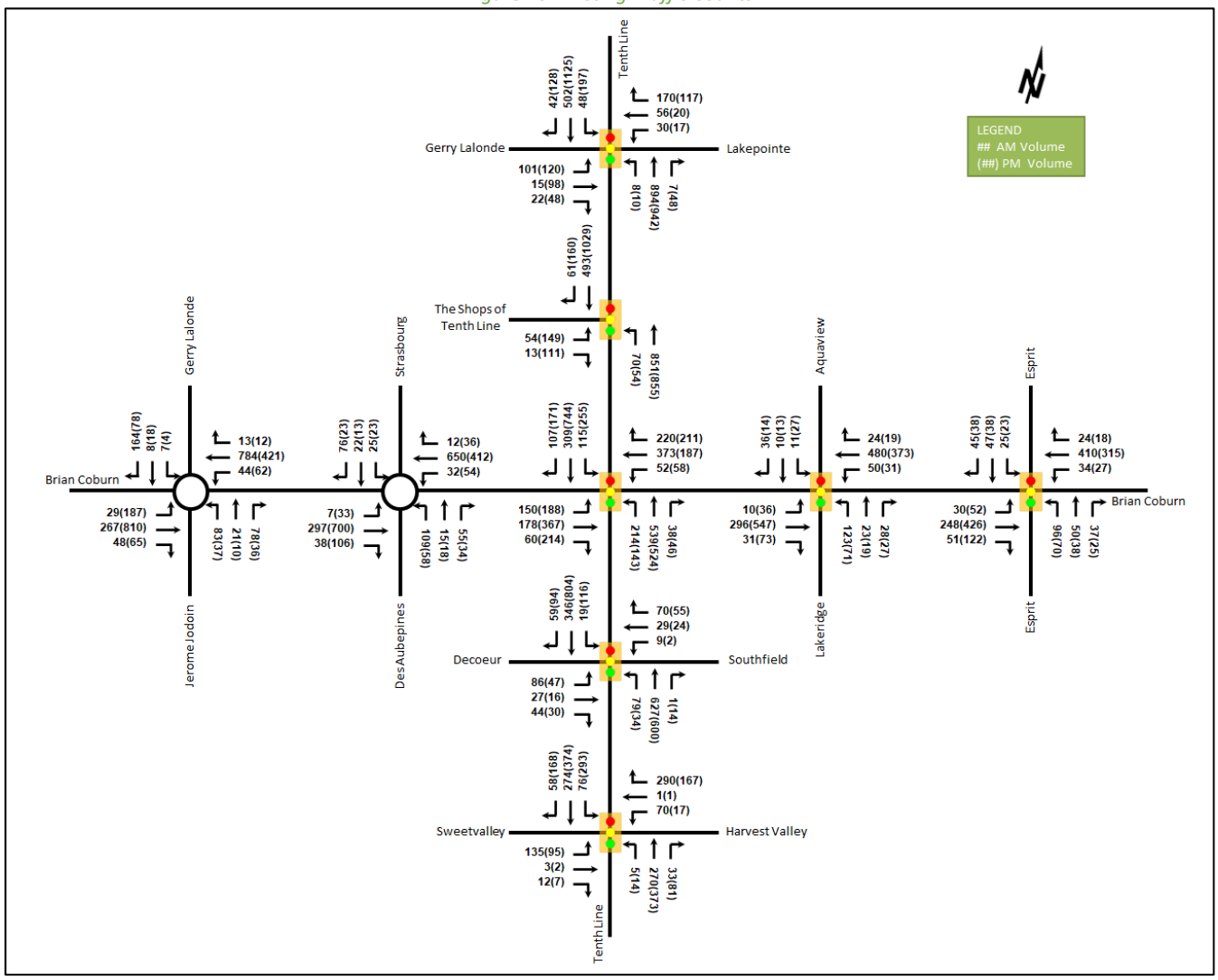



*Table 2: Existing Intersection Operations*

| 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
PHF = 0.90
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, 2015-2019*

| | | Number | % |
|---|---|---|---|
| **Total Collisions** | | **63** | **100%** |
| **Classification** | **Fatality** | 0 | 0% |
| | **Non-Fatal Injury** | 13 | 21% |
| | **Property Damage Only** | 50 | 79% |
| **Initial Impact Type** | **Approaching** | 1 | 2% |
| | **Angle** | 5 | 8% |
| | **Rear end** | 30 | 48% |
| | **Sideswipe** | 5 | 8% |
| | **Turning Movement** | 13 | 21% |
| | **SMV Other** | 8 | 13% |
| | **Other** | 1 | 2% |
| **Road Surface Condition** | **Dry** | 37 | 59% |
| | **Wet** | 15 | 24% |
| | **Loose Snow** | 5 | 8% |
| | **Ice** | 6 | 10% |
| **Pedestrian Involved** | | 2 | 3% |
| **Cyclists Involved** | | 0 | 0% |

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

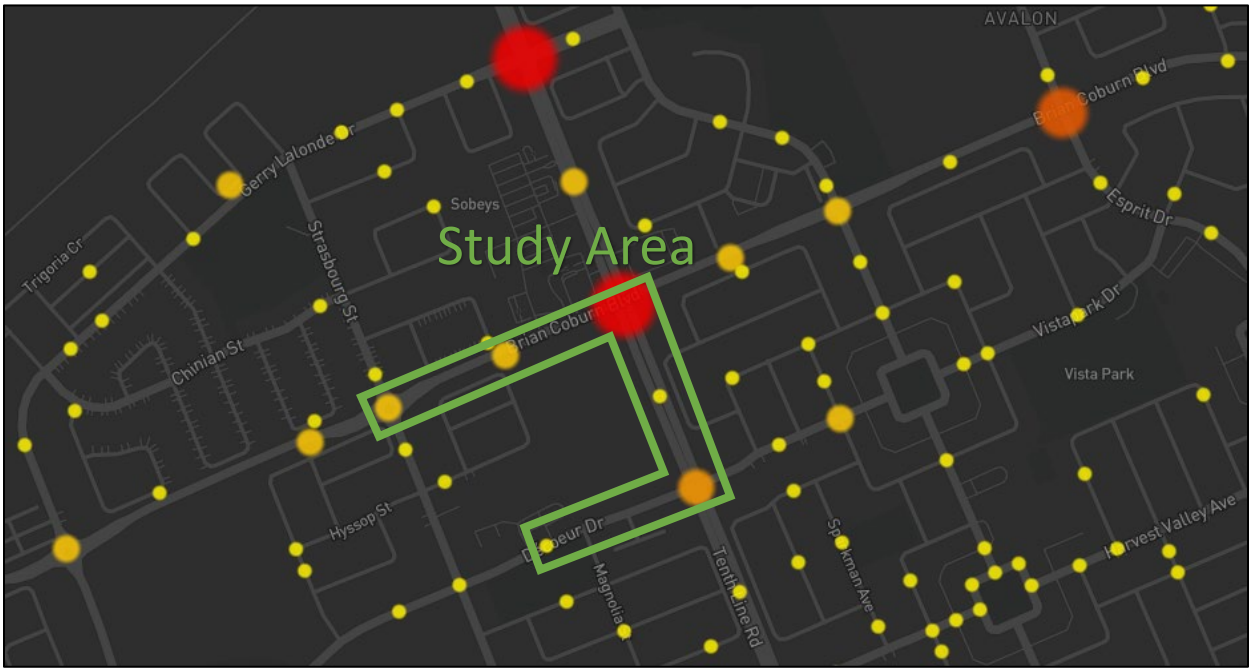



*Table 4: Summary of Collision Locations, 2014-2018*

| | Number | % |
|---|---|---|
| **Intersections / Segments** | **63** | **100%** |
| **Brian Coburn Blvd @ Strasbourg St** | 8 | 13% |
| **Brian Coburn Blvd @ Tenth Line Rd** | 44 | 70% |
| **Decoeur Dr/Southfield Way @ Tenth Line Rd** | 3 | 5% |
| **Brian Coburn Blvd btwn Strasbourg St & Tenth Line Rd** | 4 | 6% |
| **Tenth Line Rd btwn Brian Coburn Blvd & Southfield Way** | 3 | 5% |
| **Decoeur Dr btwn des Aubepines Dr & Magnolia St** | 1 | 2% |

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** | 11 | 25% |
| | **Property Damage Only** | 33 | 75% |
| **Initial Impact Type** | **Angle** | 2 | 5% |
| | **Rear end** | 20 | 45% |
| | **Sideswipe** | 5 | 11% |
| | **Turning Movement** | 10 | 23% |
| | **SMV Other** | 6 | 14% |
| | **Other** | 1 | 2% |
| **Road Surface Condition** | **Dry** | 25 | 57% |
| | **Wet** | 14 | 32% |
| | **Loose Snow** | 2 | 5% |
| | **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 2015-2019 time period, with 33 involving property damage only and the remaining 11 having non-fatal injuries. The collision types are most represented by rear end with 20 collisions, followed by turning movement with ten, 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 | Required |
| | 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 | Required |
| | 4.2.2 Spillover Parking | Only required for site plans where parking supply is 15% below unconstrained demand | Exempt |
| **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)** | 240 | 97 | 227 | 324 | 212 | 167 | 379 |
| **Land Use** | **Units / GFA** | **AM Peak Hour** | | | **PM Peak Hour** | | |
| | | **In** | **Out** | **Total** | **In** | **Out** | **Total** |
| **Shopping Centre** | 34,117 | 25 | 16 | 41 | 80 | 86 | 166 |

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%** | 22 | 51 | 73 | **51%** | 48 | 37 | 85 |
| | Auto Passenger | **15%** | 7 | 16 | 24 | **19%** | 18 | 14 | 32 |
| | Transit | **29%** | 15 | 36 | 52 | **24%** | 24 | 19 | 43 |
| | Cycling | **1%** | 1 | 1 | 2 | **1%** | 1 | 1 | 2 |
| | Walking | **9%** | 5 | 12 | 17 | **6%** | 7 | 5 | 12 |
| | **Total** | **100%** | **49** | **114** | **162** | **100%** | **93** | **73** | **167** |
| **Shopping Centre** | Auto Driver | **77%** | 10 | 7 | 18 | **71%** | 33 | 29 | 62 |
| | Auto Passenger | **14%** | 2 | 1 | 3 | **20%** | 9 | 8 | 18 |
| | Transit | **3%** | 0 | 0 | 1 | **2%** | 1 | 1 | 2 |
| | Cycling | **0%** | 0 | 0 | 0 | **1%** | 0 | 0 | 1 |
| | Walking | **6%** | 1 | 1 | 1 | **5%** | 2 | 2 | 4 |
| | *Internal Capture* | *varies* | *-9* | *-6* | *-14* | *varies* | *-28* | *-30* | *-58* |
| | *Pass-by* | *35%* | *-3* | *-1* | *-4* | *35%* | *-5* | *-15* | *-20* |
| | **Total** | **100%** | **13** | **9** | **23** | **100%** | **47** | **41** | **88** |
| **Total** | Auto Driver | - | 32 | 58 | 91 | - | 81 | 66 | 147 |
| | Auto Passenger | - | 9 | 17 | 27 | - | 27 | 22 | 50 |
| | Transit | - | 15 | 36 | 53 | - | 25 | 20 | 45 |
| | Cycling | - | 1 | 1 | 2 | - | 1 | 1 | 3 |
| | Walking | - | 6 | 13 | 18 | - | 9 | 7 | 16 |
| | **Total** | - | **62** | **123** | **185** | - | **140** | **114** | **255** |

As shown above, a total of 91 AM new and 147 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*

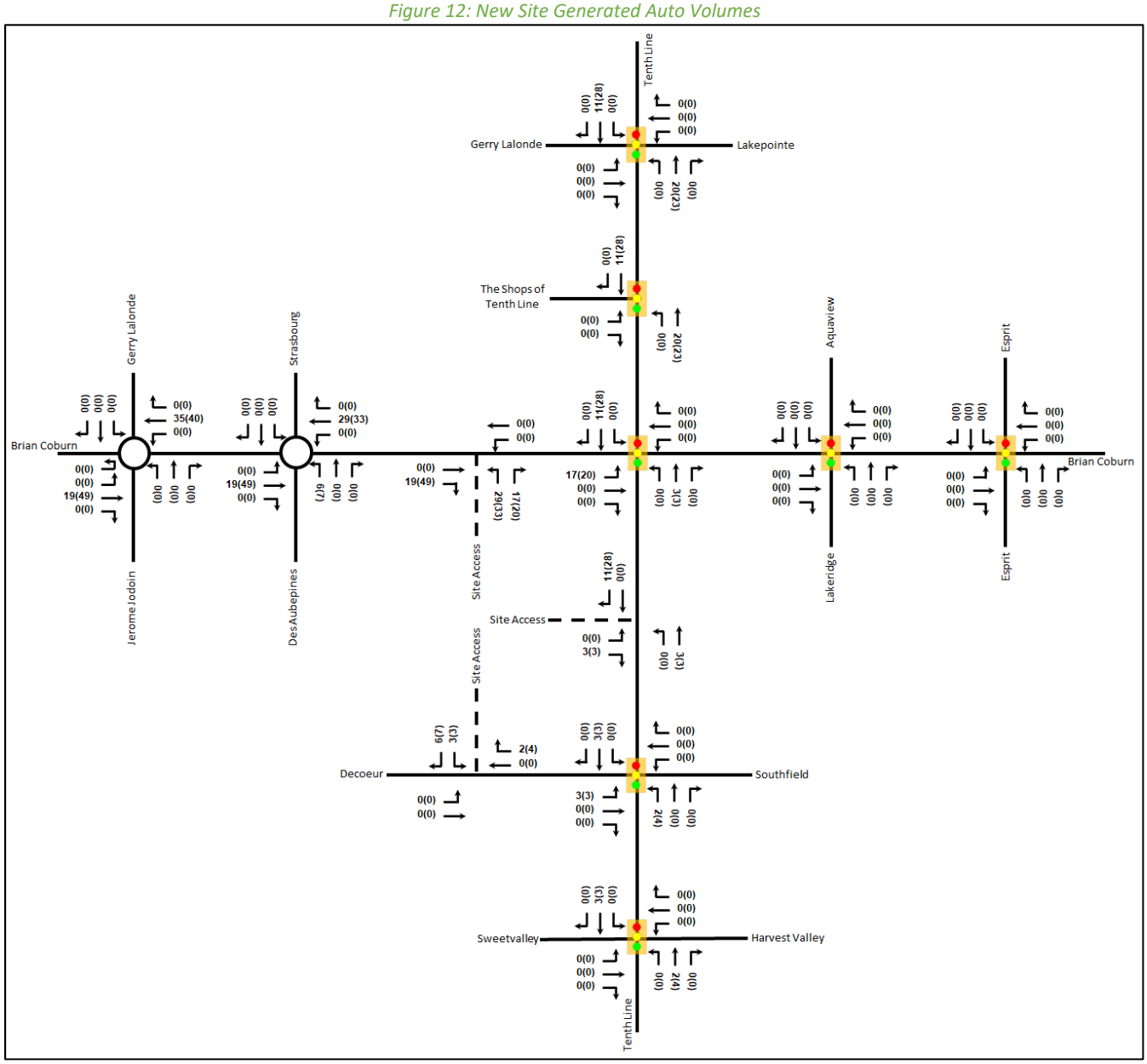
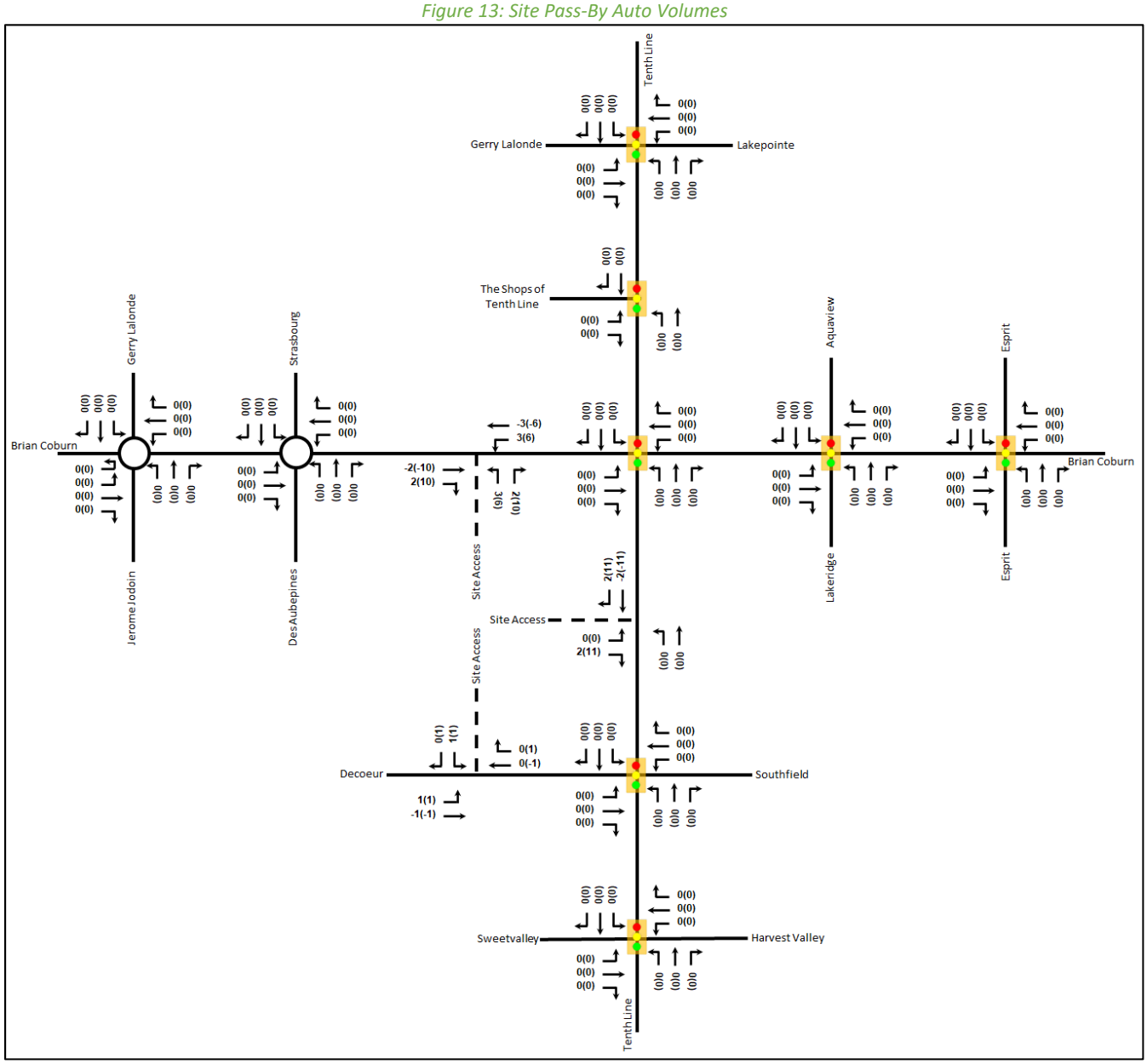


*Figure 13: Site Pass-By Auto Volumes*




# 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*

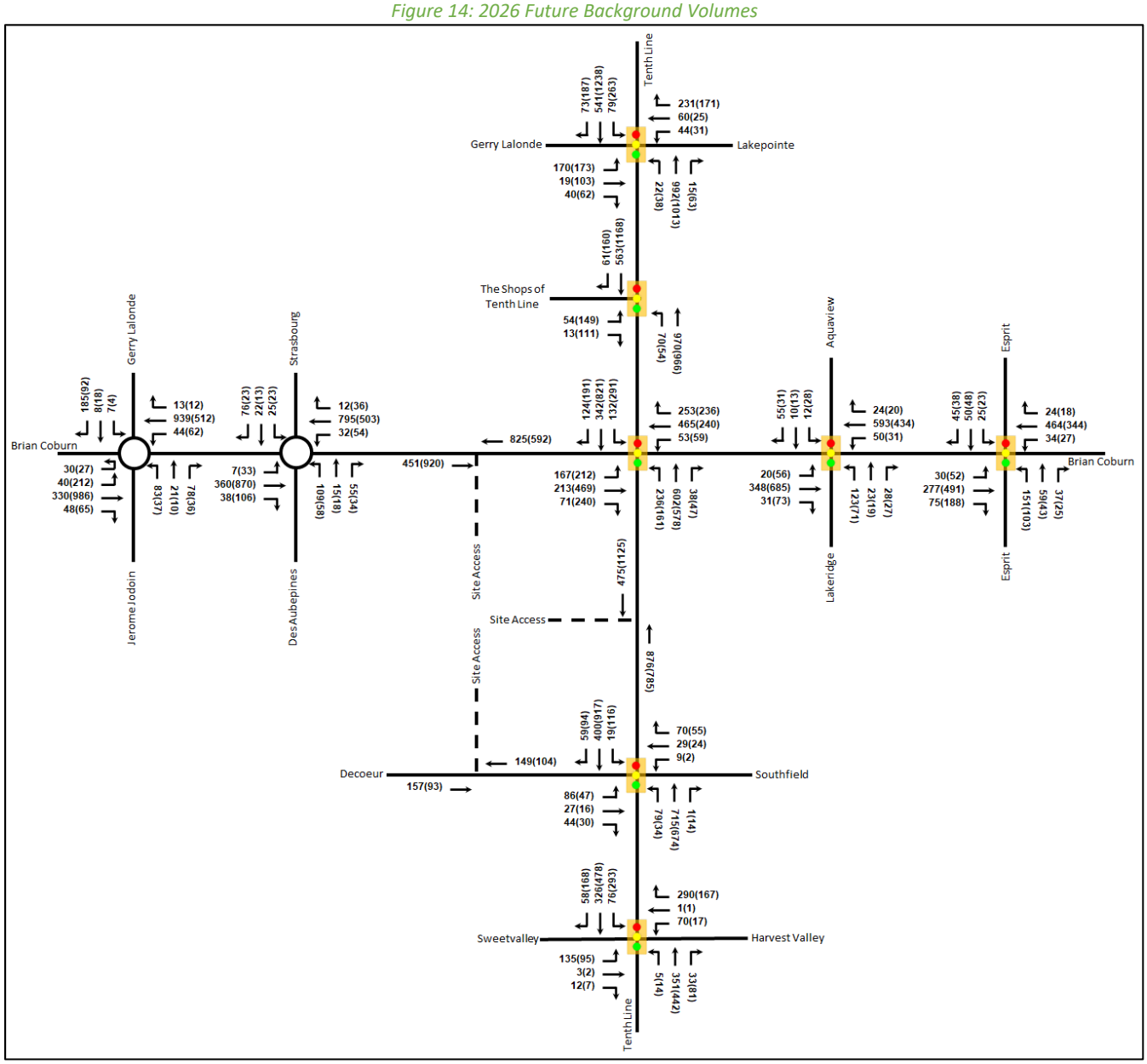


*Table 14: 2026 Future Background Intersection Operations*

| 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
PHF = 1.00
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
PHF = 1.00
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*

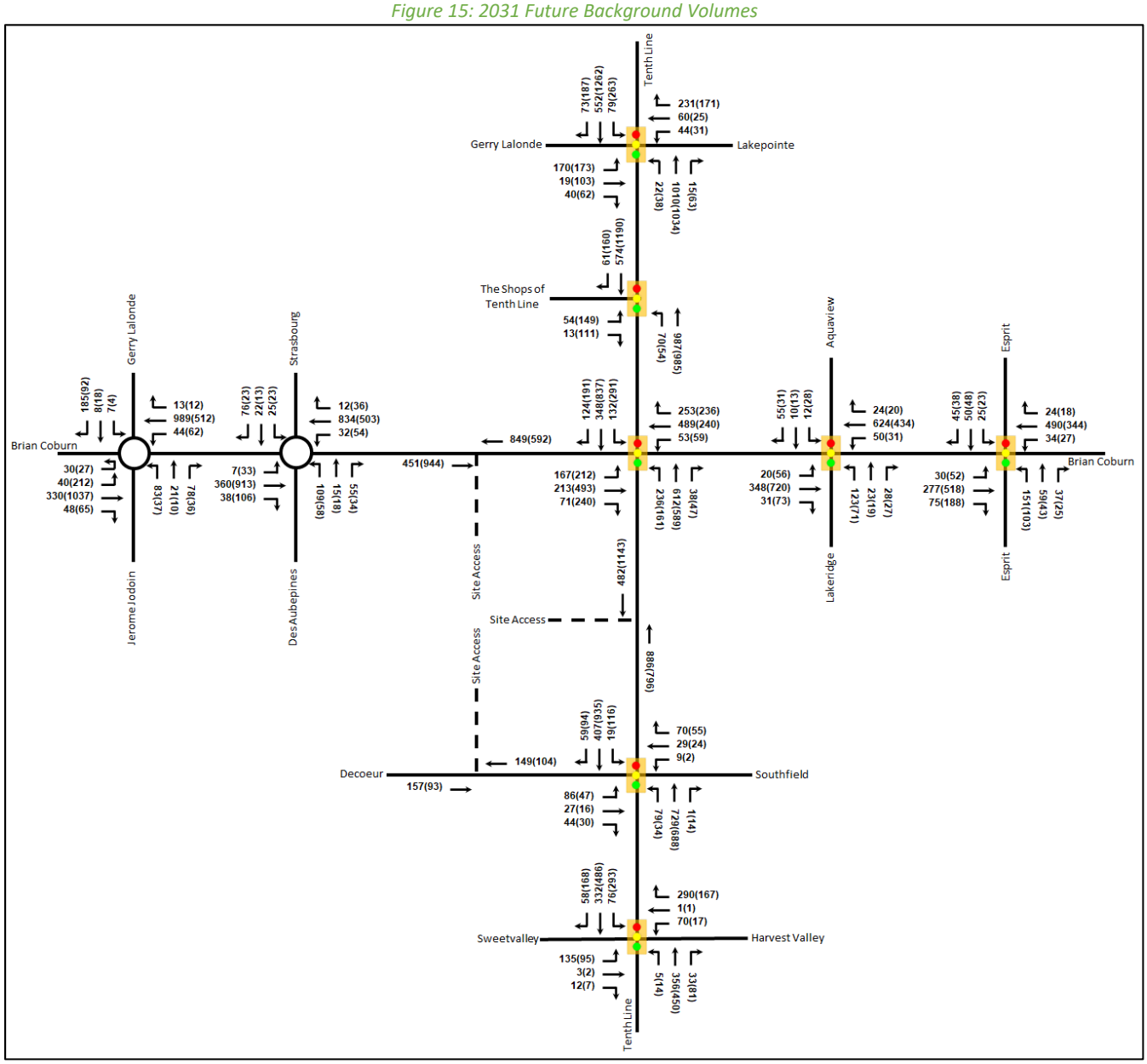


*Table 16: 2031 Future Background Intersection Operations*

| 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
PHF = 1.00
m = metered queue
# = queue exceeds storage or mid-block length

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 three accesses onto different study area roadways and thus impacts will be distributed, 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.

## 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.

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.

### 8.2 Circulation and Access

Access for vehicles and bicycles is provided via the three site driveways which connect to 6.5-metre drive aisles accessing the surface parking lots.

Emergency services may access each of the site buildings via the internal drive aisles and residential and commercial garbage collection is anticipated to take place on-site.

## 9 Parking

### 9.1 Parking Supply

The site proposes 134 bicycle parking spaces, and a total of 439 vehicle parking spaces. Vehicle parking spaces are allocated as 279 spaces for residents, 48 spaces for visitors, and 123 spaces for commercial, with 11 spaces shared between the visitor and commercial parking uses.

As presented in Figure 2, the zoning by-law prescribes a minimum bicycle parking provision of 133 spaces and a minimum vehicle parking provision of 439 spaces for the site.

The minimum parking provision from the zoning by-law is being met by the proposed parking on-site.

## 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 land use designation of “Developing Community” for Brian Coburn Boulevard and Tenth Line Road and on the policy area of “Within 300m of a School” for Decoeur Drive. The MMLOS worksheets has been provided in Appendix K.

*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 | C | F | B | D | D | B | D |
| **Tenth Line Rd** | D | C | C | C | - | - | A | D |

| Segment | Pedestrian LOS | | Bicycle LOS | | Transit LOS | | Truck LOS | |
|---|---|---|---|---|---|---|---|---|
| | PLOS | Target | BLOS | Target | TLOS | Target | TrLOS | Target |
| **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 the adjacent arterial road network via a full-movement access on Brian Coburn Boulevard and a right-in/right-out access on Tenth Line Road. The site will also connect to the adjacent collector road Decoeur Drive via an access that will be shared with the adjacent parcel of 885 Decoeur Drive via a joint use and maintenance agreement.

The throat length for the accesses on Brian Coburn Boulevard in the existing condition and Decoeur Drive meet the suggested minimums of 40 metres and 25 metres, respectively, from Table 8.9.3 of the TAC Geometric Design Guidelines. The throat length of the right-in/right-out access on Tenth Line Road is proposed to be approximately 22.0 metres, does not meet the suggested minimum 40 metres. Additionally, the site access on Brian Coburn Boulevard will not meet the suggested minimum 40 metres once the roadway is widened.

As the site has three accesses, and as there is additional nine metres for queuing between the intersecting roadway and the ends of the driveway curb return radii, the future throat length condition with a widened Brian Coburn Boulevard is considered to be adequate. Further to the foregoing rationale for the site access on Brian Coburn Boulevard, as the Tenth Line access is right-in/right-out and the site is proposed as a mixed-use development, the throat length of approximately 22.0 metres is considered sufficient to ensure proper access operations and to prevent any queuing-related concerns.

## 11.2 Intersection Control

All three site accesses are proposed as being minor stop-controlled with Brian Coburn Boulevard, 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 v HCM 2010 average delay for unsignalized intersections. The synchro worksheets have been provided in Appendix L.

*Figure 16: 2026 Future Total Volumes*

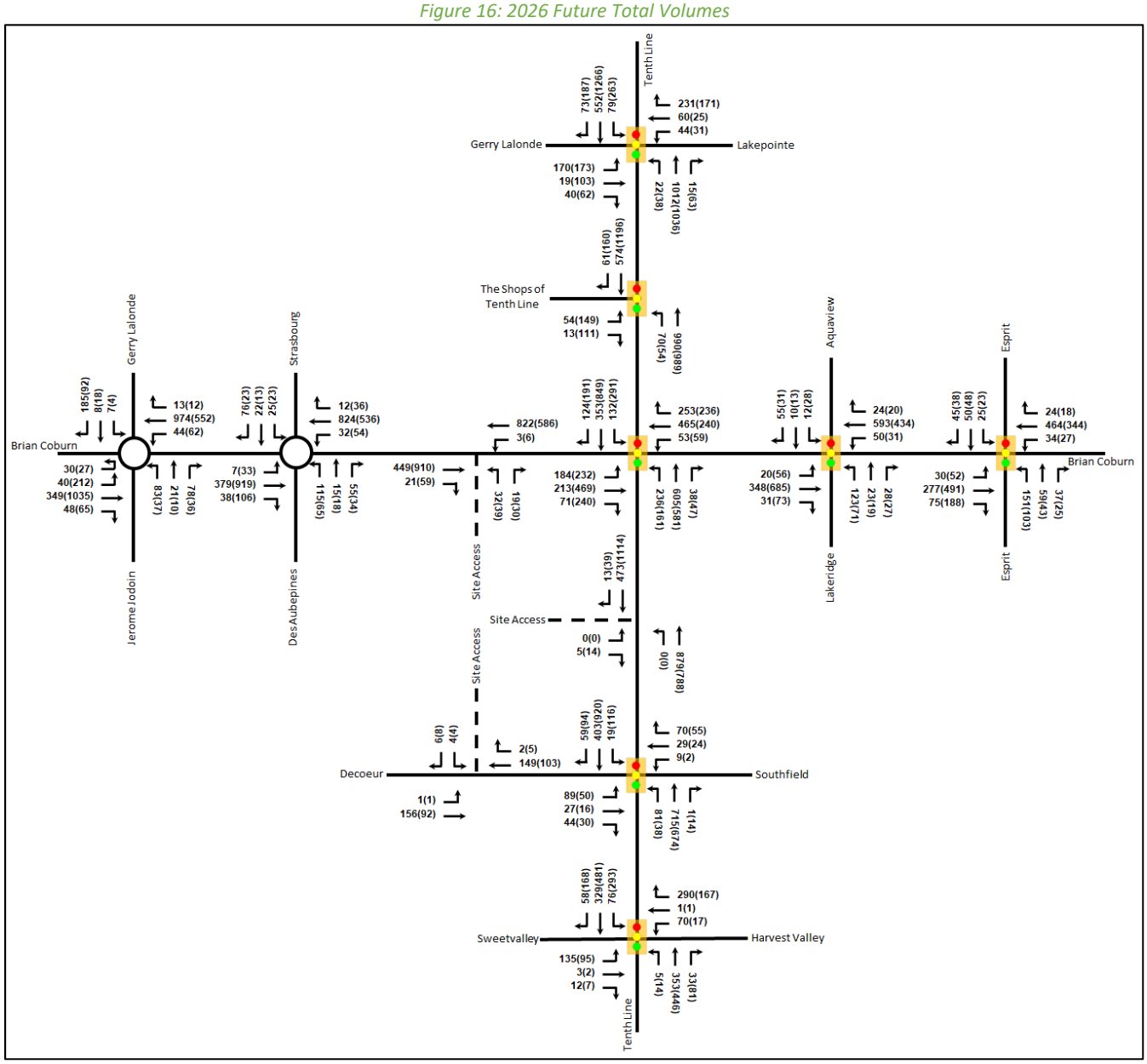



*Table 18: 2026 Future Total Access Intersection Operations*

| Intersection | Lane | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | LOS | V/C | Delay | Q (95th) | LOS | V/C | Delay | Q (95th) |
| **Brian Coburn Boulevard at Site Access** ***Unsignalized*** | EBT/R | - | - | - | - | - | - | - | - |
| | WBT/L | A | 0.00 | 8.3 | 0.0 | B | 0.01 | 10.1 | 0.0 |
| | NBL/R | C | 0.21 | 23.6 | 6.0 | E | 0.41 | 39.9 | 13.5 |
| | **Overall** | **A** | **-** | **0.9** | **-** | **A** | **-** | **1.7** | **-** |
| **Site Access at Tenth Line Road** ***Unsignalized*** | EBL/R | A | 0.01 | 9.8 | 0.0 | B | 0.03 | 13.1 | 0.8 |
| | NBT | - | - | - | - | - | - | - | - |
| | SBT/R | - | - | - | - | - | - | - | - |
| | **Overall** | **A** | **-** | **0.0** | **-** | **A** | **-** | **0.1** | **-** |

| Intersection | Lane | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | LOS | V/C | Delay | Q (95th) | LOS | V/C | Delay | Q (95th) |
| **Decoeur Drive at Site Access *Unsignalized*** | EBL/T | A | 0.00 | 7.5 | 0.0 | A | 0.00 | 7.4 | 0.0 |
| | WBT/R | - | - | - | - | - | - | - | - |
| | SBL/R | A | 0.01 | 9.6 | 0.0 | A | 0.01 | 9.1 | 0.0 |
| | **Overall** | **A** | **-** | **0.3** | **-** | **A** | **-** | **0.6** | **-** |

Notes: Saturation flow rate of 1800 veh/h/lane
PHF = 1.00
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 M.

*Figure 17: 2031 Future Total Volumes*

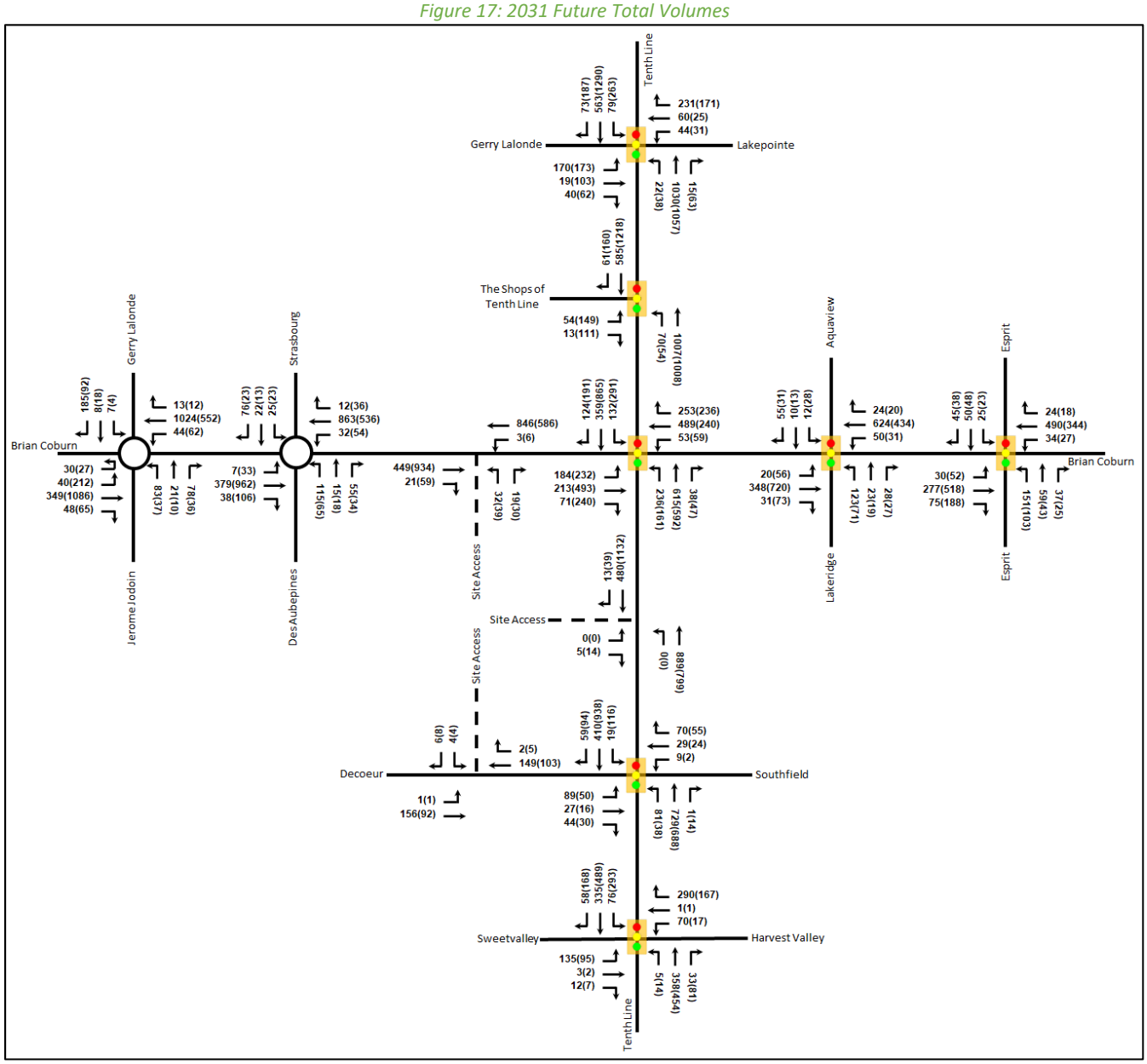



*Table 19: 2031 Future Total Access Intersection Operations*

| Intersection | Lane | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | LOS | V/C | Delay | Q (95th) | LOS | V/C | Delay | Q (95th) |
| **Brian Coburn Boulevard at Site Access** ***Unsignalized*** | EBT/R | - | - | - | - | - | - | - | - |
| | WBT/L | A | 0.00 | 8.3 | 0.0 | B | 0.01 | 10.2 | 0.0 |
| | NBL/R | C | 0.22 | 24.3 | 6.0 | E | 0.42 | 41.7 | 14.3 |
| | **Overall** | **A** | **-** | **0.9** | **-** | **A** | **-** | **1.8** | **-** |
| **Site Access at Tenth Line Road** ***Unsignalized*** | EBL/R | A | 0.01 | 9.8 | 0.0 | B | 0.03 | 13.2 | 0.8 |
| | NBT | - | - | - | - | - | - | - | - |
| | SBT/R | - | - | - | - | - | - | - | - |
| | **Overall** | **A** | **-** | **0.0** | **-** | **A** | **-** | **0.1** | **-** |

| Intersection | Lane | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | LOS | V/C | Delay | Q (95th) | LOS | V/C | Delay | Q (95th) |
| **Decoeur Drive at Site Access *Unsignalized*** | EBL/T | A | 0.00 | 7.5 | 0.0 | A | 0.00 | 7.4 | 0.0 |
| | WBT/R | - | - | - | - | - | - | - | - |
| | SBL/R | A | 0.01 | 9.6 | 0.0 | A | 0.01 | 9.1 | 0.0 |
| | **Overall** | **A** | **-** | **0.3** | **-** | **A** | **-** | **0.6** | **-** |

Notes: Saturation flow rate of 1800 veh/h/lane
PHF = 1.00
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 count 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 N. 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 Brian Coburn Boulevard and Tenth Line Road, and 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.

The forecasted volumes along Decoeur Drive between the site access and Tenth Line Road are in the range of 204 -311 two-way vehicles per peak hour. The forecasted volumes along Des Aubepines Drive south of Brian Coburn Boulevard are in the range of 277-290 two-way vehicles per peak hour.

These volumes on Decoeur Drive exceed the TIA Guidelines threshold of 300 vehicles during the peak hour, equivalent to five total vehicles per minute in both directions. In general, the TIA thresholds are typically too low, and may be more appropriately interpreted as one-way volumes. Volumes on Decoeur Drive are approximately four percent higher than these thresholds however, and the subject development is only anticipated to contribute five AM and seven PM vehicles between the site access and Tenth Line. The collector road classifications are considered to be appropriate and site volumes are not considered to impact this classification.

# 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 | 15 | 36 | 53 | 25 | 20 | 45 |

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.

Site-generated outbound AM trips break down to 11 trips to the north, two trips to each the south and east, and 22 trips to the west. Site-generated inbound PM trips break down to eight trips from the north, one trip from each the south and east, and 15 trips from the west.

Transit impacts from the site are anticipated as constituting on the order of 10 riders per bus per peak hour on route #234 and on the order of five additional riders per bus on the route #30. To service increased demand the substitution of a single higher-capacity bus (i.e., an articulated bus in place of a standard bus) per peak hour for the routes #30 and #234 may be required.

## 14.2 Transit Priority

No impacts to transit operations are anticipated within the study area as a result of the subject development. The maximum increase in delay in any movement on the isolated measures transit priority corridor is 1.1 seconds at the network intersections. At the access intersection, no measurable average delays are anticipated for westbound through vehicles as a result of site traffic.

# 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 network intersection operations, including the phasing proposed as mitigations for the background conditions, are summarized below in Table 21. 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 L.

*Table 21: 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 | 17.7 | 26.5 |
| | NBL | A | 0.05 | 8.8 | m3.2 | A | 0.18 | 5.6 | 2.8 |
| | NBT | A | 0.47 | 12.8 | 92.4 | A | 0.46 | 5.6 | 19.7 |
| | NBR | A | 0.02 | 1.1 | m0.4 | A | 0.06 | 0.6 | 0.7 |
| | SBL | A | 0.29 | 12.3 | 17.3 | D | 0.90 | 52.1 | **#102.5** |
| | SBT | A | 0.27 | 7.9 | 34.8 | A | 0.56 | 10.3 | 98.0 |
| | SBR | A | 0.08 | 2.5 | 5.5 | A | 0.18 | 1.7 | 8.0 |
| | **Overall** | **A** | **0.53** | **15.7** | **-** | **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 | 19.9 | 19.5 |
| | NBL | A | 0.12 | 6.1 | m8.9 | A | 0.22 | 10.6 | 13.5 |
| | NBT | A | 0.38 | 5.7 | 43.3 | A | 0.43 | 8.2 | 76.1 |
| | SBT | A | 0.23 | 2.3 | 11.7 | A | 0.51 | 5.8 | 37.9 |
| | 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 | 0.33 | 4.8 | 17.0 | A | 0.92 | 6.5 | 180.2 |
| | WB | A | 0.81 | 7.0 | 85.6 | A | 0.59 | 6.5 | 38.7 |
| | NB | A | 0.19 | 7.1 | 7.6 | C | 0.36 | 24.3 | 21.0 |
| | SB | C | 0.54 | 22.0 | 36.1 | A | 0.16 | 6.8 | 7.3 |
| | **Overall** | **A** | **0.81** | **8.0** | **-** | **A** | **0.92** | **7.2** | **-** |
| **Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive** ***Roundabout*** | EB | A | 0.31 | 4.1 | 15.1 | A | 0.74 | 4.7 | 66.2 |
| | WB | A | 0.66 | 5.0 | 50.0 | A | 0.47 | 4.8 | 28.3 |
| | NB | A | 0.19 | 7.8 | 7.6 | B | 0.22 | 13.1 | 11.2 |
| | SB | B | 0.23 | 11.3 | 11.6 | A | 0.08 | 8.0 | 3.1 |
| | **Overall** | **A** | **0.66** | **5.6** | **-** | **A** | **0.74** | **5.4** | **-** |

| 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 | C | 0.75 | 35.7 | **#39.4** | A | 0.59 | 28.4 | 50.9 |
| | 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 | 37.2 | 66.9 |
| | WBR | A | 0.47 | 13.0 | 32.5 | A | 0.41 | 6.4 | 17.9 |
| | NBL | C | 0.75 | 47.1 | **#77.5** | E | 0.93 | 78.6 | **#61.6** |
| | NBT/R | A | 0.49 | 26.9 | 70.1 | C | 0.75 | 44.0 | 86.2 |
| | SBL | A | 0.58 | 28.0 | **#34.0** | D | 0.84 | 43.1 | **#79.7** |
| | SBT/R | A | 0.37 | 10.9 | 25.6 | E | 0.97 | 57.6 | **#157.2** |
| | **Overall** | **D** | **0.81** | **28.4** | - | **F** | **1.07** | **49.3** | - |
| **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 | 0.42 | 36.3 | 20.7 | A | 0.27 | 38.0 | 15.0 |
| | EBT/R | A | 0.25 | 14.8 | 11.3 | A | 0.18 | 17.1 | 9.6 |
| | WBL | A | 0.04 | 25.0 | 3.9 | A | 0.01 | 29.0 | 1.8 |
| | WBT/R | A | 0.30 | 12.6 | 12.9 | A | 0.28 | 15.7 | 12.8 |
| | NBL | A | 0.14 | 8.8 | 17.1 | A | 0.10 | 7.8 | 9.3 |
| | NBT | A | 0.31 | 7.7 | 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 | 6.9 | m6.7 | A | 0.22 | 8.2 | 24.3 |
| | SBT | A | 0.17 | 5.0 | 39.8 | A | 0.36 | 6.9 | 74.3 |
| | SBR | A | 0.06 | 2.3 | 10.7 | A | 0.08 | 2.2 | 7.0 |
| | **Overall** | **A** | **0.35** | **9.2** | - | **A** | **0.36** | **7.8** | - |

| 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 | 31.1 |
| | SBL | A | 0.15 | 9.8 | 13.9 | A | 0.53 | 13.1 | 63.9 |
| | SBT/R | A | 0.21 | 7.8 | 23.4 | A | 0.29 | 5.8 | 37.0 |
| | **Overall** | **A** | **0.36** | **12.0** | **-** | **A** | **0.53** | **9.6** | **-** |

Notes: Saturation flow rate of 1800 veh/h/lane
PHF = 1.00
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 with the splits optimized for the total traffic conditions. During the PM peak hour, delays are anticipated to be increased on the westbound left movement and reduced on the northbound left movement with split optimization for the total traffic conditions.

### 15.2.2 2031 Future Total Network Intersection Operations

The 2031 future total 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 2031 future total horizon have been provided in Appendix M.

*Table 22: 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 | 5.7 | m2.6 |
| | NBT | A | 0.48 | 12.8 | 95.1 | 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 | 12.6 | 17.6 | E | 0.93 | 57.9 | **#103.9** |
| | SBT | A | 0.27 | 8.0 | 35.7 | A | 0.57 | 10.4 | 101.0 |
| | SBR | A | 0.08 | 2.5 | 5.5 | A | 0.18 | 1.7 | 8.0 |
| | **Overall** | **A** | **0.54** | **15.8** | **-** | **D** | **0.88** | **15.9** | **-** |

| 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 | 21.1 | 20.2 |
| | NBL | A | 0.12 | 6.1 | m9.0 | A | 0.22 | 10.8 | 13.7 |
| | NBT | A | 0.39 | 5.8 | 44.4 | A | 0.43 | 8.3 | 78.2 |
| | SBT | A | 0.23 | 2.3 | 11.8 | A | 0.52 | 5.9 | 38.4 |
| | SBR | A | 0.05 | 0.5 | 0.1 | A | 0.15 | 0.7 | 2.5 |
| | **Overall** | **A** | **0.40** | **5.6** | - | **A** | **0.53** | **9.3** | - |
| **Brian Coburn Boulevard at Gerry Lalonde Drive / Jerome Jodoin Drive *Roundabout*** | EB | A | 0.33 | 4.8 | 17.1 | A | 0.92 | 6.5 | 180.2 |
| | WB | A | 0.84 | 7.7 | 103.2 | A | 0.59 | 6.5 | 38.7 |
| | NB | A | 0.19 | 7.1 | 7.6 | C | 0.36 | 24.3 | 21.0 |
| | SB | C | 0.61 | 29.0 | 44.1 | A | 0.16 | 6.8 | 7.3 |
| | **Overall** | **A** | **0.84** | **9.2** | - | **A** | **0.92** | **7.2** | - |
| **Brian Coburn Boulevard at Strasbourg Street / Des Aubepines Drive *Roundabout*** | EB | A | 0.31 | 4.1 | 15.2 | A | 0.77 | 4.8 | 73.8 |
| | WB | A | 0.69 | 5.1 | 54.8 | A | 0.48 | 4.8 | 28.5 |
| | NB | A | 0.19 | 7.8 | 7.6 | B | 0.24 | 13.9 | 12.3 |
| | SB | B | 0.25 | 12.1 | 12.6 | A | 0.08 | 8.0 | 3.1 |
| | **Overall** | **A** | **0.69** | **5.6** | - | **A** | **0.77** | **5.5** | - |
| **Brian Coburn Boulevard at Tenth Line Road *Signalized*** | EBL | D | 0.82 | 45.5 | **#43.9** | A | 0.60 | 29.1 | 50.6 |
| | 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 | 13.3 | 33.7 | A | 0.39 | 5.8 | 17.2 |
| | NBL | C | 0.76 | 48.4 | **#78.1** | E | 0.93 | 79.5 | **#61.5** |
| | NBT/R | A | 0.50 | 27.3 | 71.2 | C | 0.77 | 45.4 | 88.1 |
| | SBL | A | 0.60 | 29.0 | **#34.6** | D | 0.85 | 45.6 | **#82.5** |
| | SBT/R | A | 0.38 | 11.0 | 26.3 | E | 0.99 | 62.9 | **#162.4** |
| | **Overall** | **D** | **0.83** | **29.5** | - | **F** | **1.10** | **52.8** | - |
| **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** | - |
| **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** | - |

| 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 | 0.42 | 36.3 | 20.7 | A | 0.27 | 38.0 | 15.0 |
| | EBT/R | A | 0.25 | 14.8 | 11.3 | A | 0.18 | 17.1 | 9.6 |
| | WBL | A | 0.04 | 25.0 | 3.9 | A | 0.01 | 29.0 | 1.8 |
| | WBT/R | A | 0.30 | 12.6 | 12.9 | A | 0.28 | 15.7 | 12.8 |
| | NBL | A | 0.14 | 8.8 | 17.1 | A | 0.10 | 7.9 | 9.3 |
| | NBT | A | 0.32 | 7.7 | 58.1 | 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 | 6.6 | m6.4 | A | 0.22 | 8.3 | 24.5 |
| | SBT | A | 0.18 | 4.8 | 39.8 | A | 0.37 | 6.9 | 76.3 |
| | SBR | A | 0.06 | 2.2 | 11.0 | A | 0.08 | 2.2 | 7.0 |
| | **Overall** | **A** | **0.36** | **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 | 8.3 | 24.8 | A | 0.24 | 5.9 | 31.7 |
| | 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
PHF = 1.00
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.

### 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 "Developing Community" 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 K.

*Table 23: 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 |

| Intersection | Pedestrian LOS | | Bicycle LOS | | Transit LOS | | Truck LOS | | Auto LOS | |
|---|---|---|---|---|---|---|---|---|---|---|
| | PLOS | Target | BLOS | Target | TLOS | Target | TrLOS | Target | ALOS | Target |
| **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.

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.

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.

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 240 townhome units and 3,170 $m^2$ of retail space
- Accesses will be provided along the Brian Coburn Boulevard and Decoeur Drive via full-movements accesses 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 site plan application

**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 203 two-way people trips during the AM peak hour and 333 two-way people trips during the PM peak hour
- Of the forecasted people trips, 91 two-way trips will be vehicle trips during the AM peak hour and 147 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 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 134 bicycle parking spaces and 439 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 onto each Brian Coburn Boulevard and Decoeur Drive, and a right-in/right -out access onto Tenth Line Road
- The throat length of the access on Tenth Line Road is approximately 22.0 metres and in the future conditions with a widened Brian Coburn Boulevard, this site access throat will be below the 40.0-metre suggested minimum length, both which are considered adequate given the access configuration and the site land use
- 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 east of the site access are forecasted to exceed collector road classification threshold by 11 vehicles and the classification is not impacted by the addition of site traffic

**Transit**

- The site is forecasted to generate 53 new AM and 45 new PM peak hour two-way transit trips
- To meet forecasted transit use, the substitution of a single higher capacity bus per route per peak hour or equivalent capacity, would be required
- No impact to transit operations is anticipated as a result of the development and a maximum increase in delay of 1.1 seconds is forecasted for transit movements on the isolated transit priority measures corridor

**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

- 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

13 Markham Avenue
Ottawa ON K2G 3Z1

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.
Ottawa, ON K1P 1J1
Tel. : 613-580-2424
Fax: 613-560-6006

Ville d'Ottawa
Services d 'infrastructure et Viabilité des collectivités
Urbanisme et Gestion de la croissance
110, avenue Laurier Ouest
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)** |
|---|
| Address: 13 Markham Avenue |
| City / Postal Code: Ottawa / K2G 3Z1 |
| Telephone / Extension: (613) 697-3797 |
| E-Mail Address: Andrew.Harte@CGHTransportation.com |

# Appendix B

Turning Movement Counts

## Transportation Services - Traffic Services

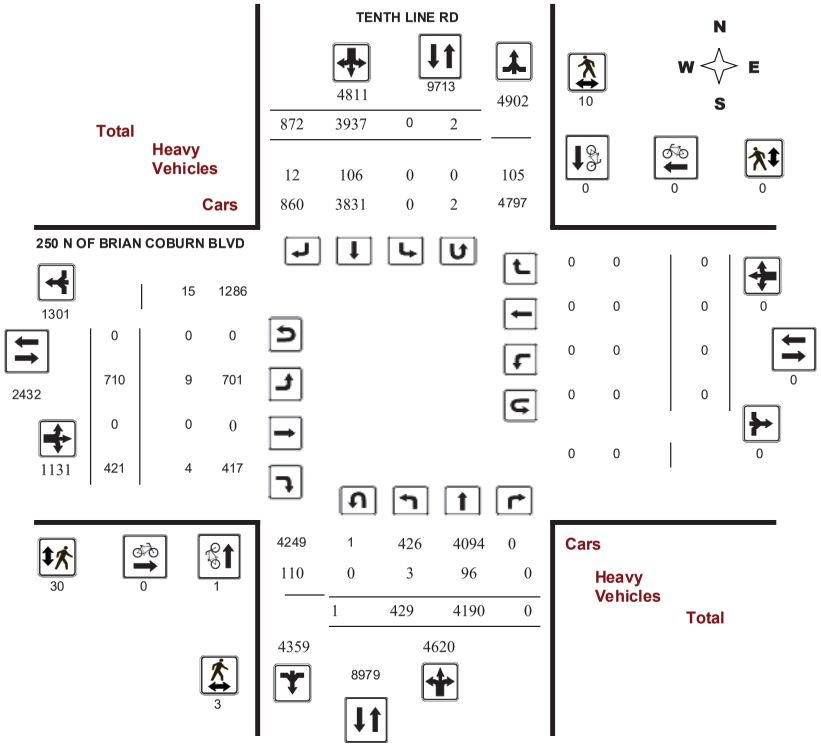
### Turning Movement Count - Study Results

### 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

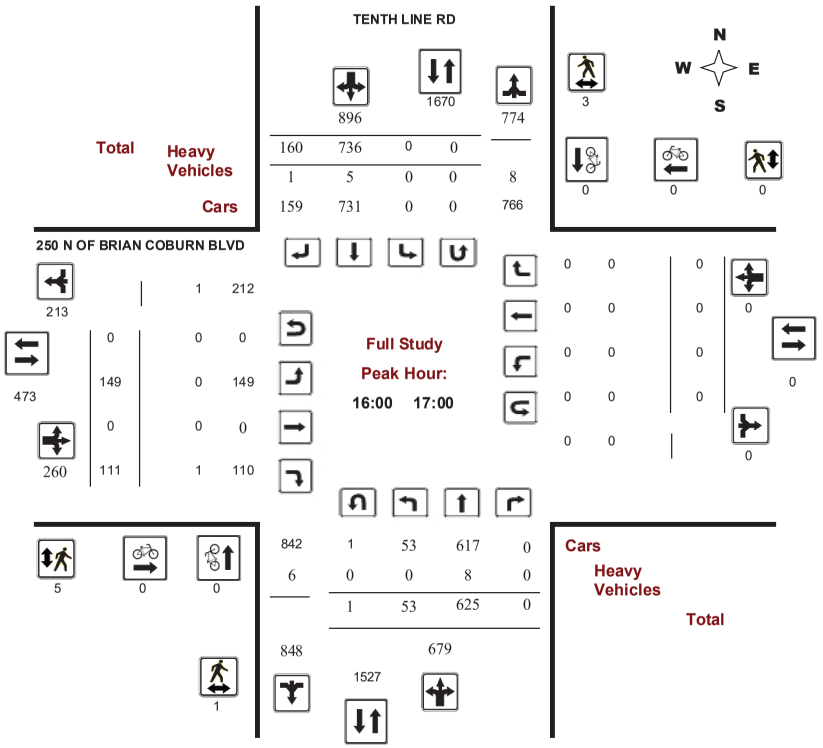
### Turning Movement Count - Study Results

### 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



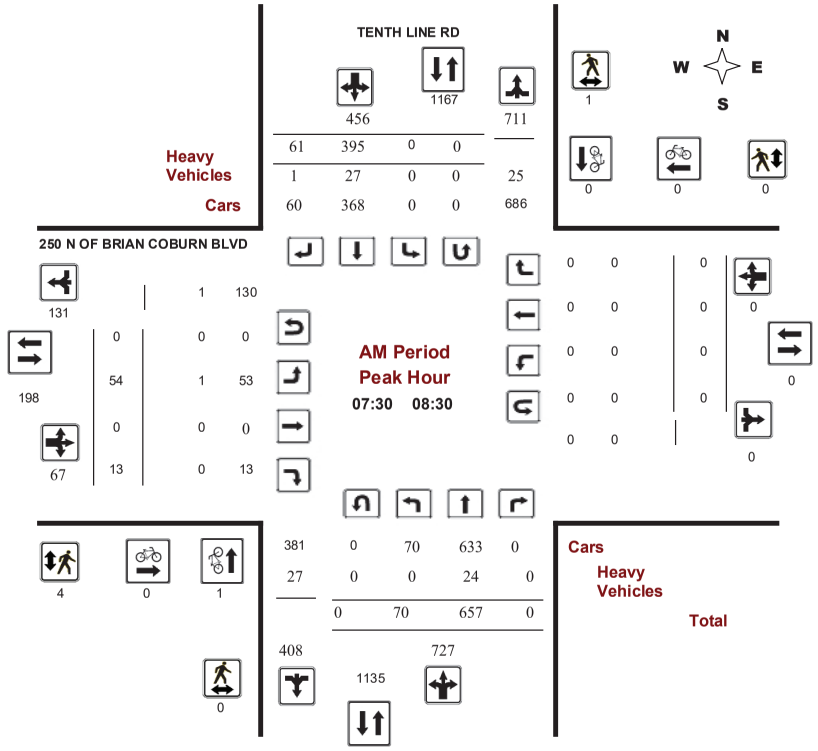
## Transportation Services - Traffic Services

### 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





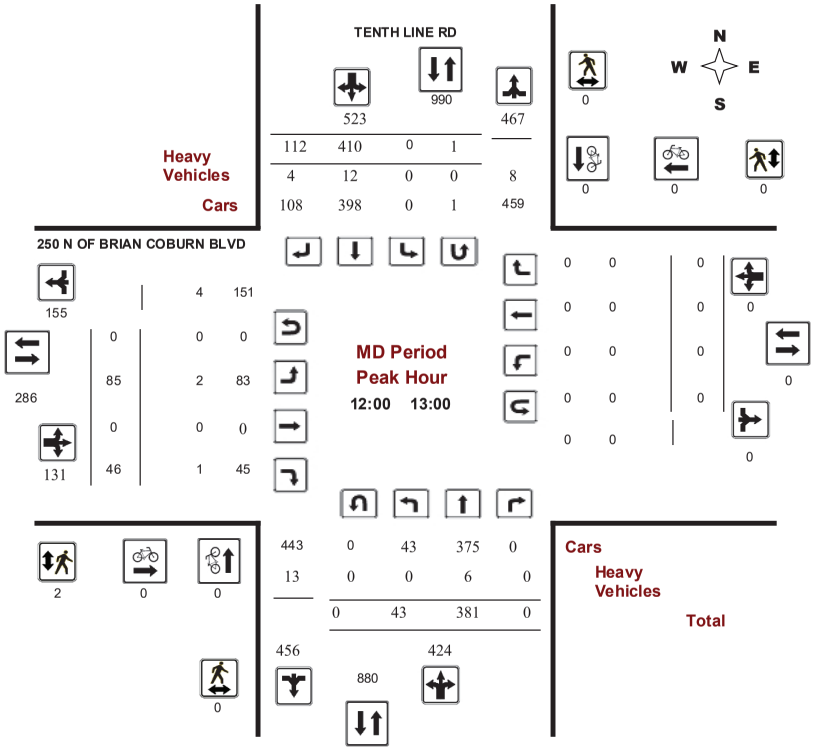

## Transportation Services - Traffic Services

### 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



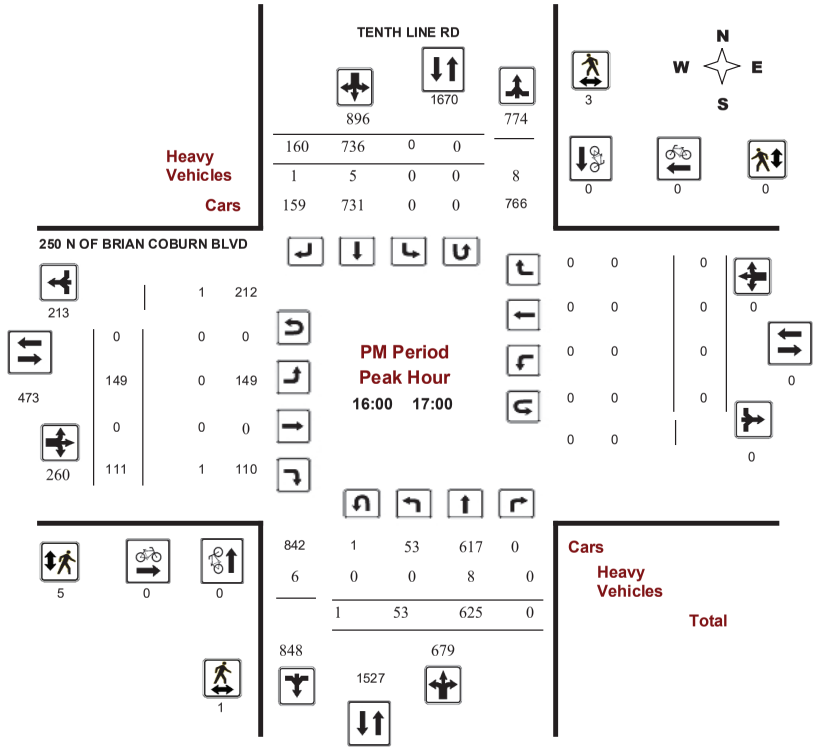
## Transportation Services - Traffic Services

### 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

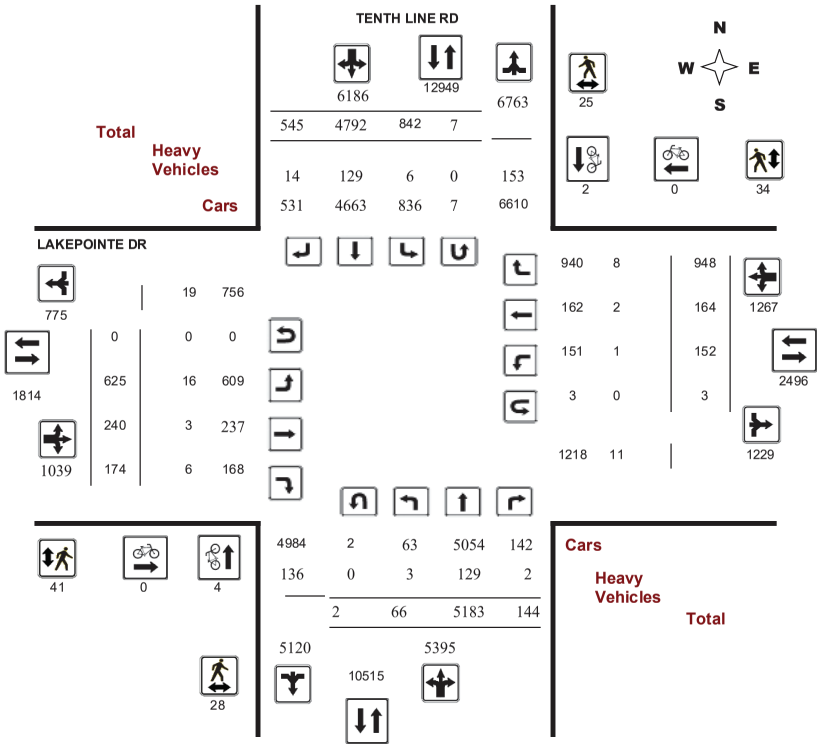
### Turning Movement Count - Study Results

### 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

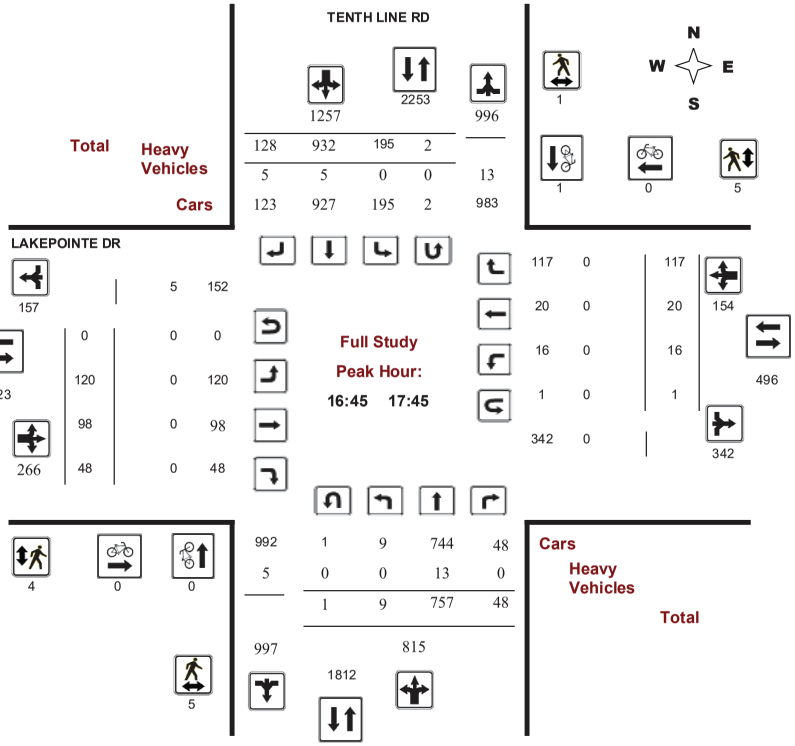
### Turning Movement Count - Study Results

### 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





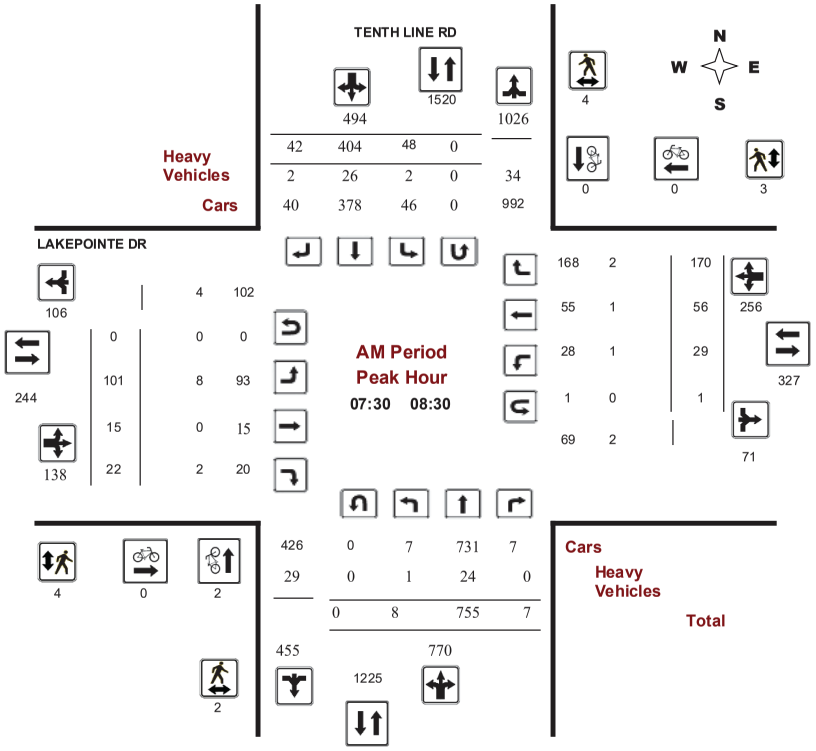

## Transportation Services - Traffic Services

### 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**

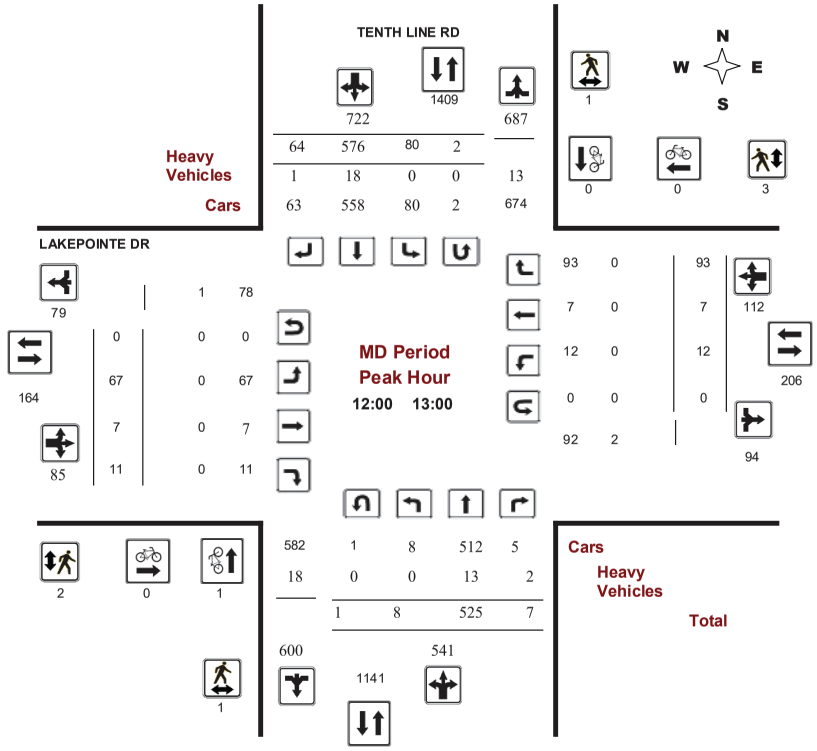
## Transportation Services - Traffic Services

### 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





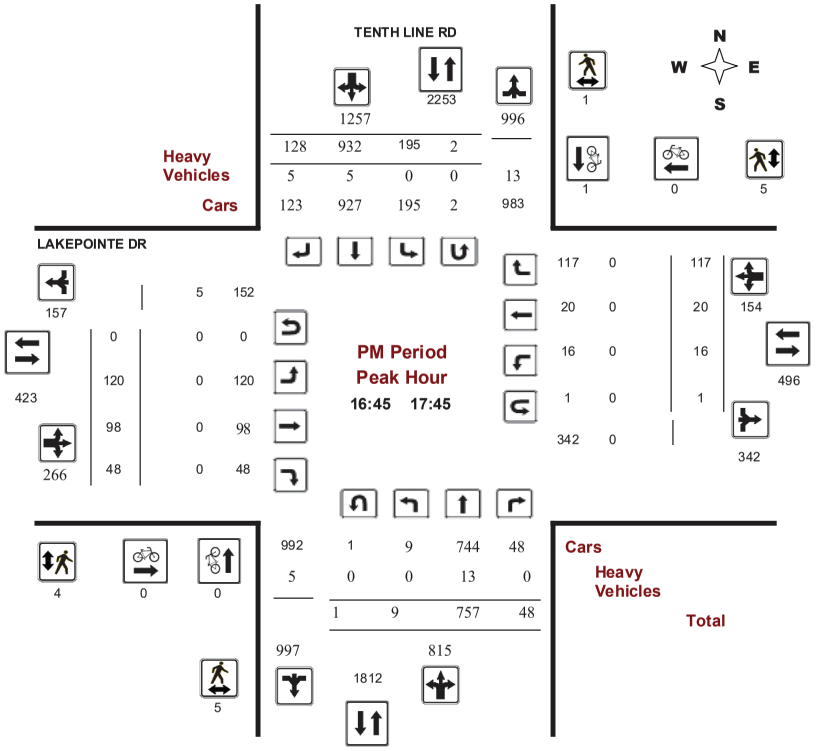

## Transportation Services - Traffic Services

### 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 | | | LAKEPOINTE DR | | | |
|---|---|---|---|---|---|---|---|---|
| | | 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 | 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 | | | LAKEPOINTE DR | | | |
|---|---|---|---|---|---|---|---|---|
| | | 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 | 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

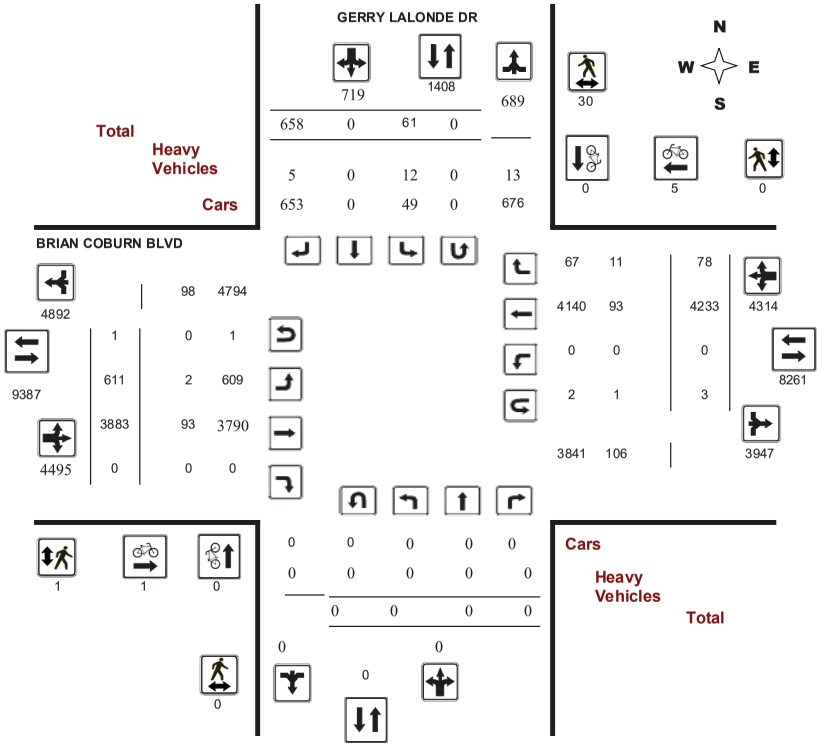
### Turning Movement Count - Study Results

### 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

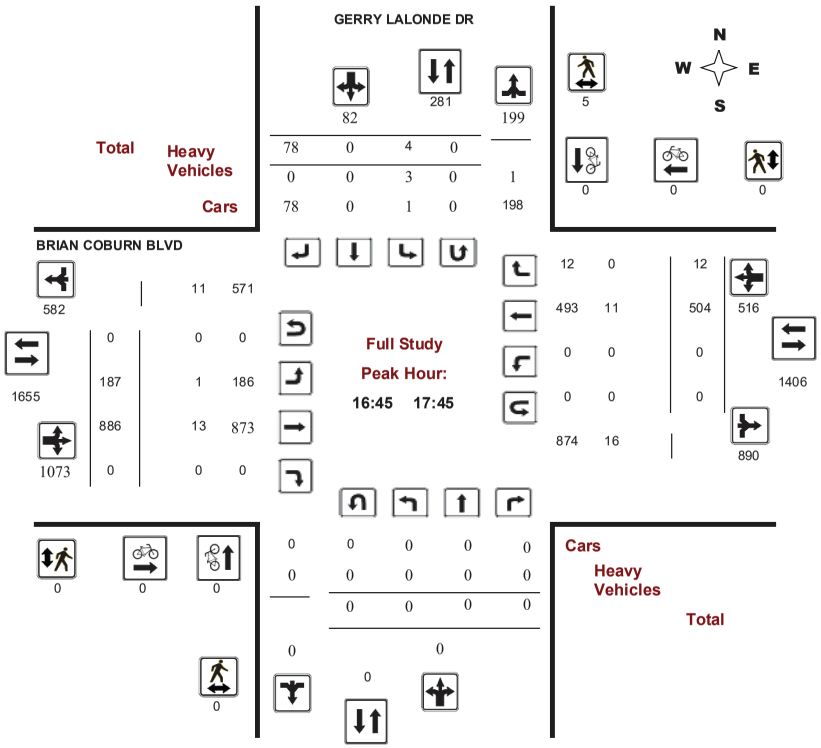
### Turning Movement Count - Study Results

### 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



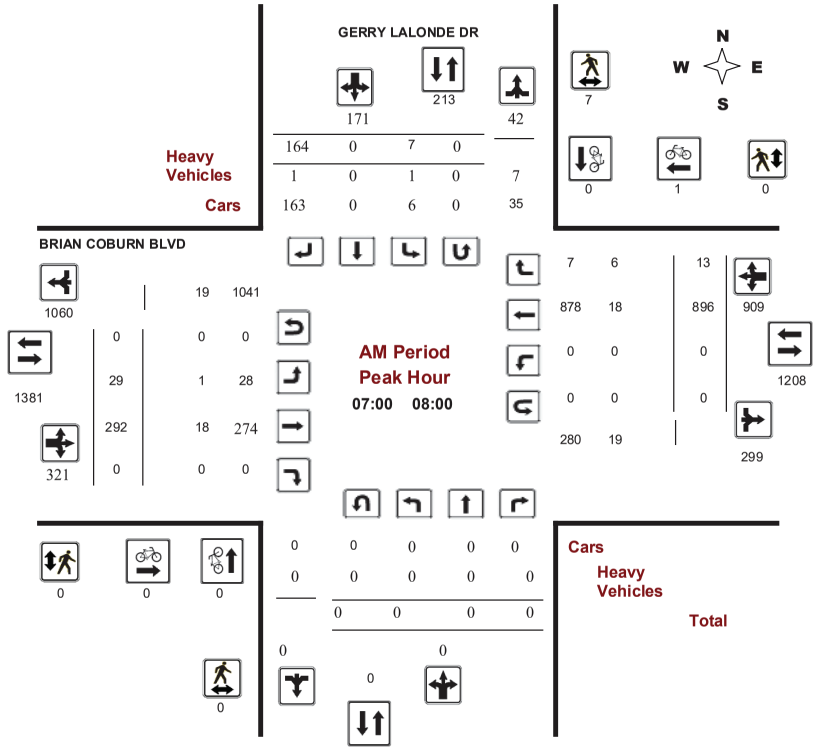
## Transportation Services - Traffic Services

### 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





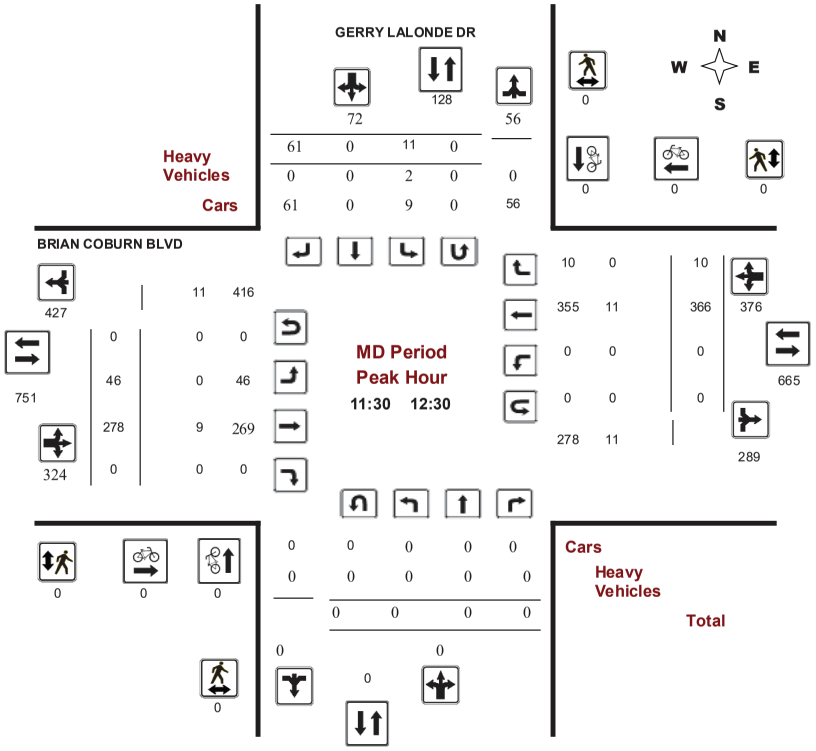

## Transportation Services - Traffic Services

### 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



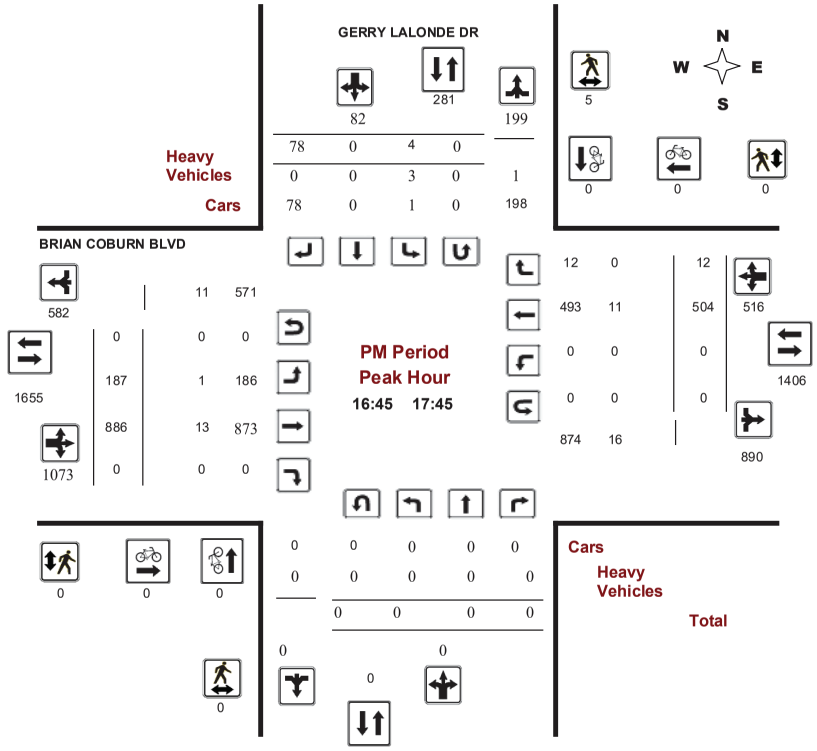
## Transportation Services - Traffic Services

### 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

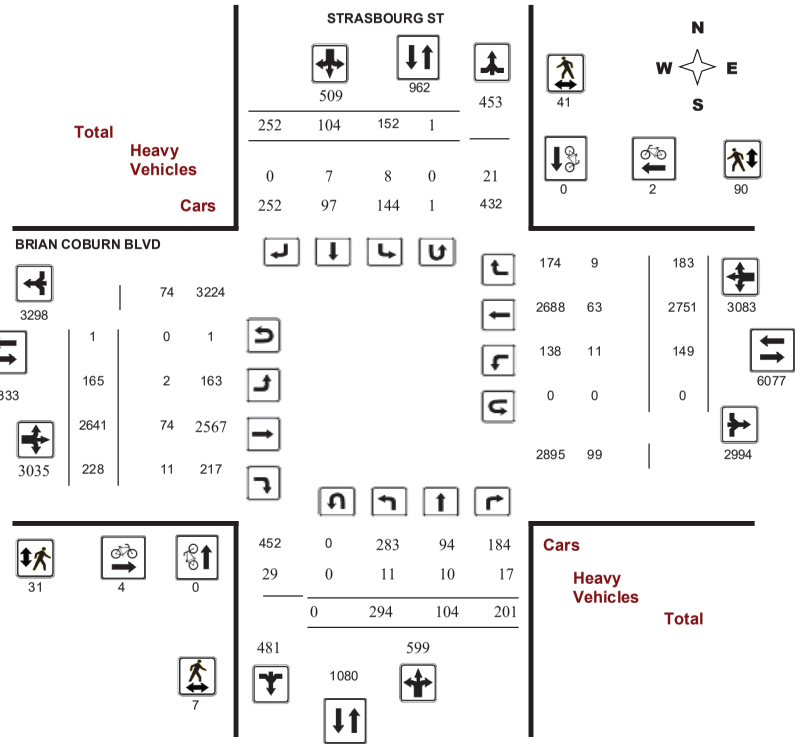
### Turning Movement Count - Study Results

### 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

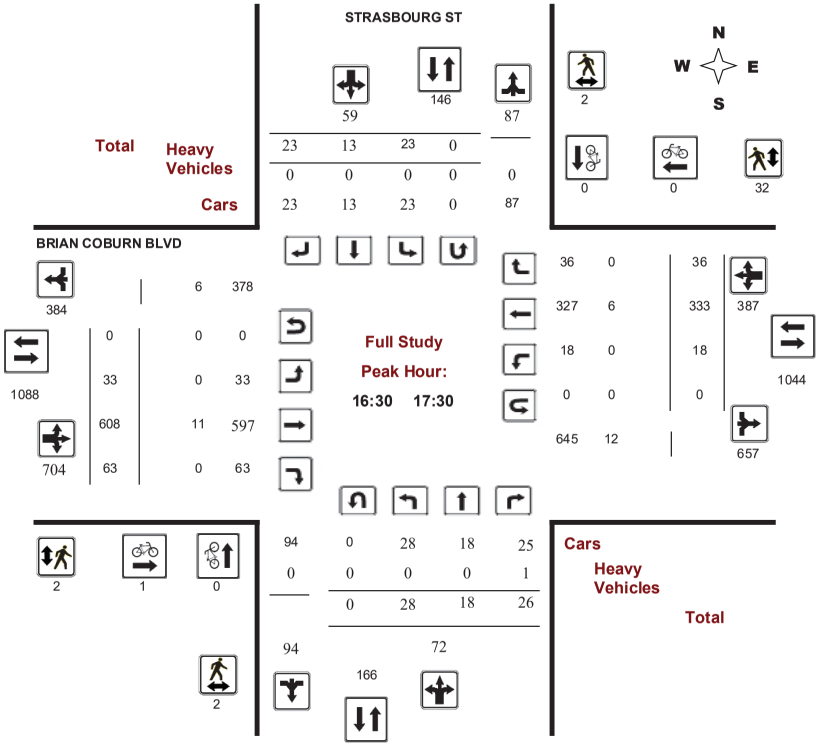
### Turning Movement Count - Study Results

### 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





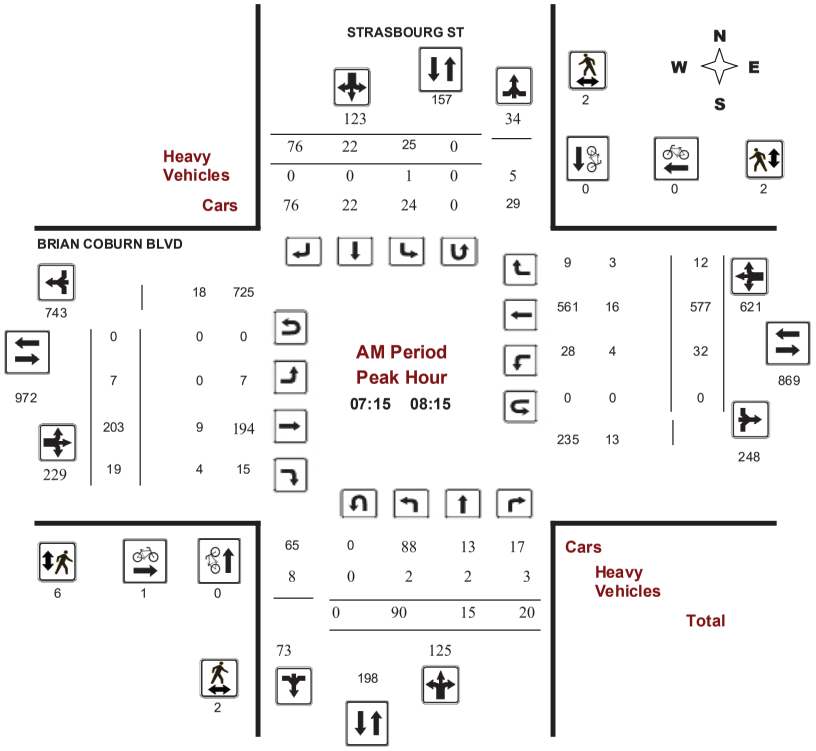

## Transportation Services - Traffic Services

### 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**

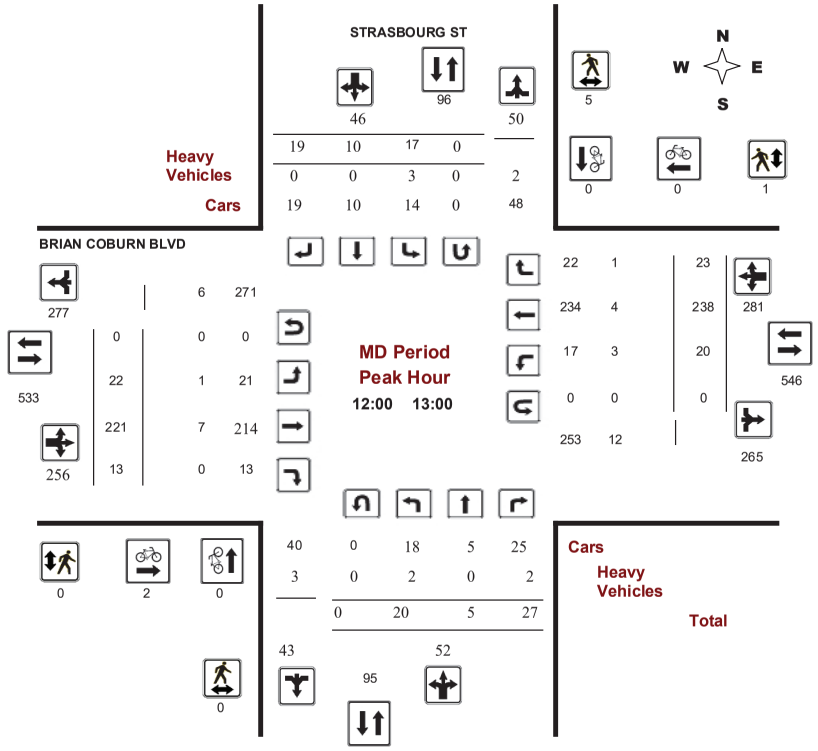
## Transportation Services - Traffic Services

### 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**



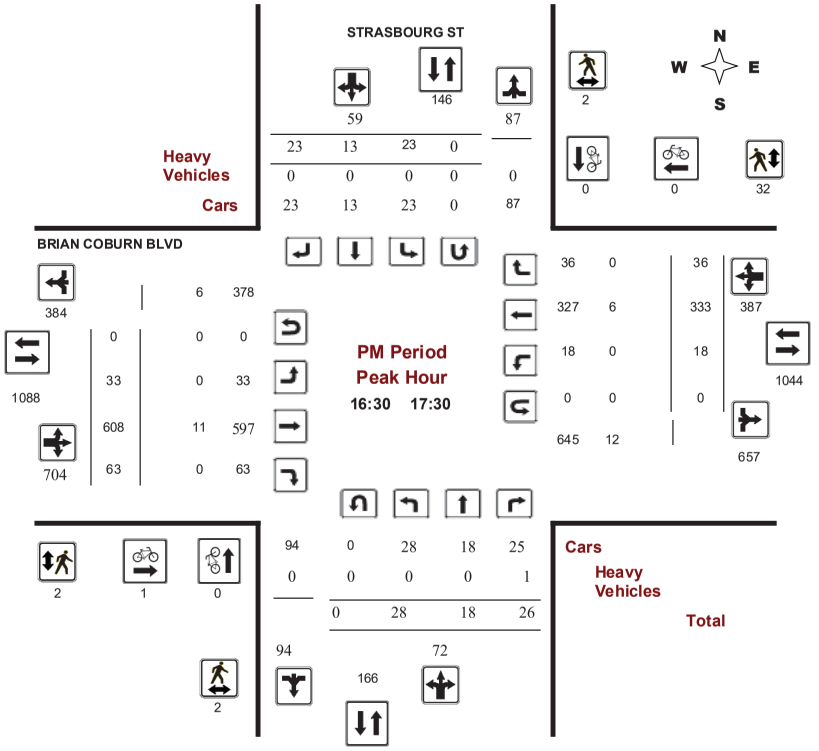
## Transportation Services - Traffic Services

### 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

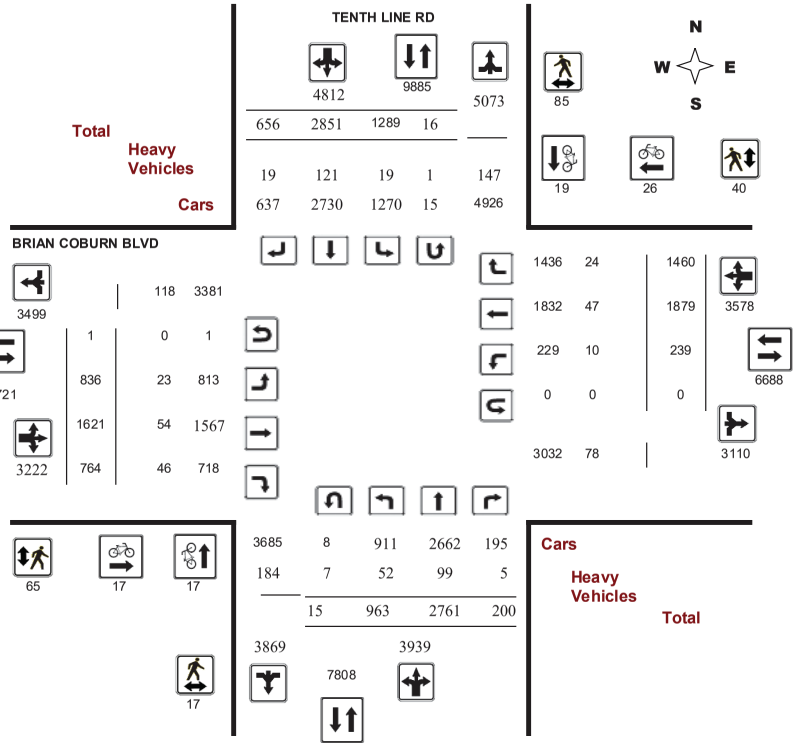
### Turning Movement Count - Study Results

### 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

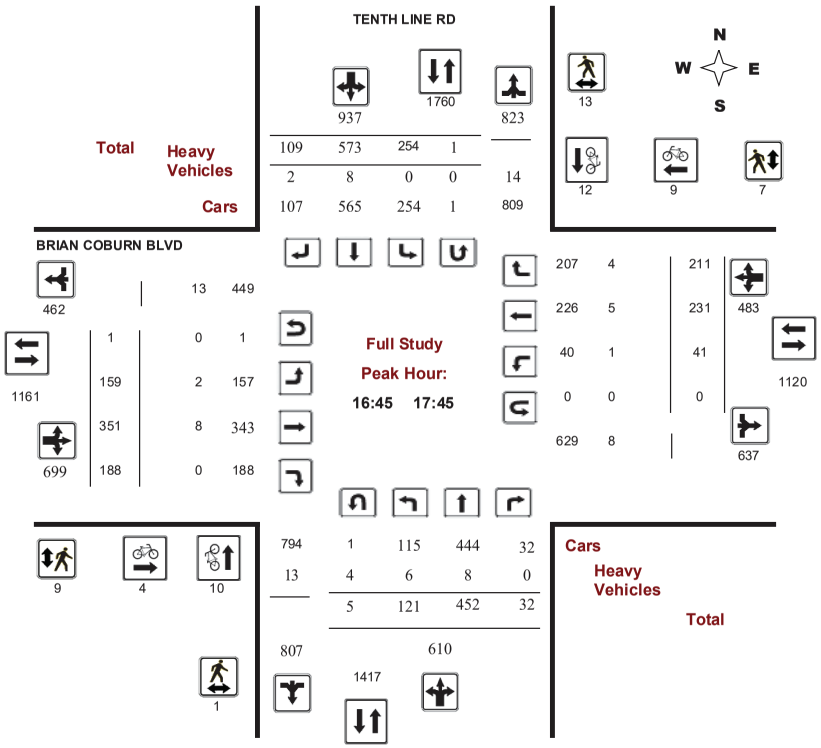
### Turning Movement Count - Study Results

### 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



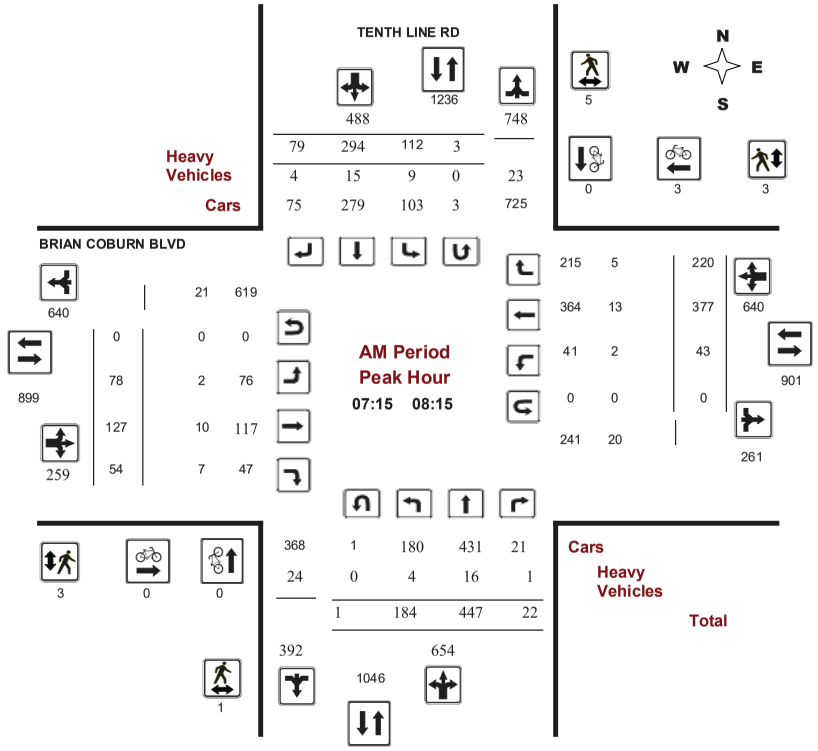
## Transportation Services - Traffic Services

### 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





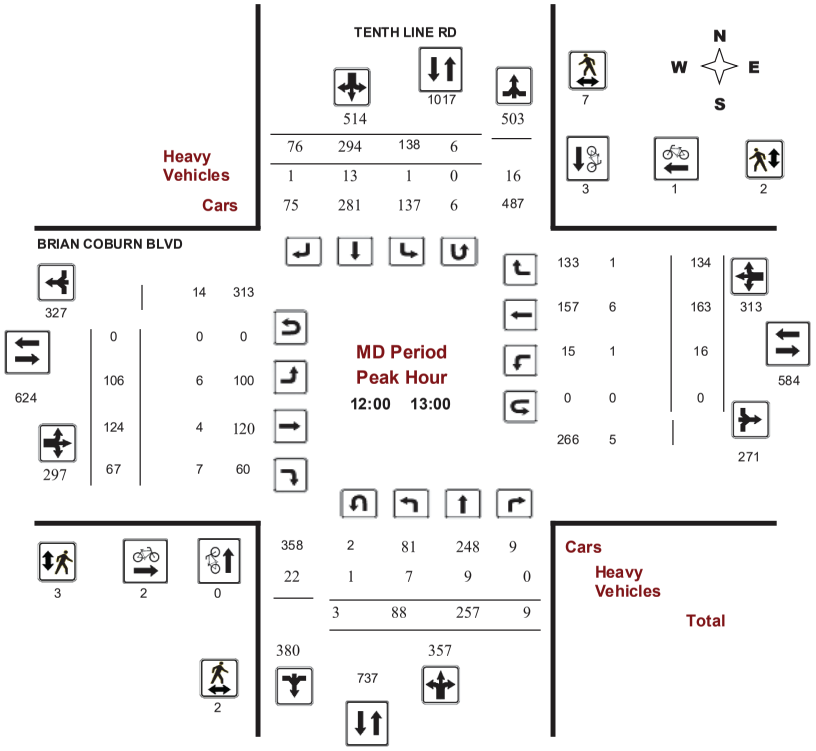

## Transportation Services - Traffic Services

### 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



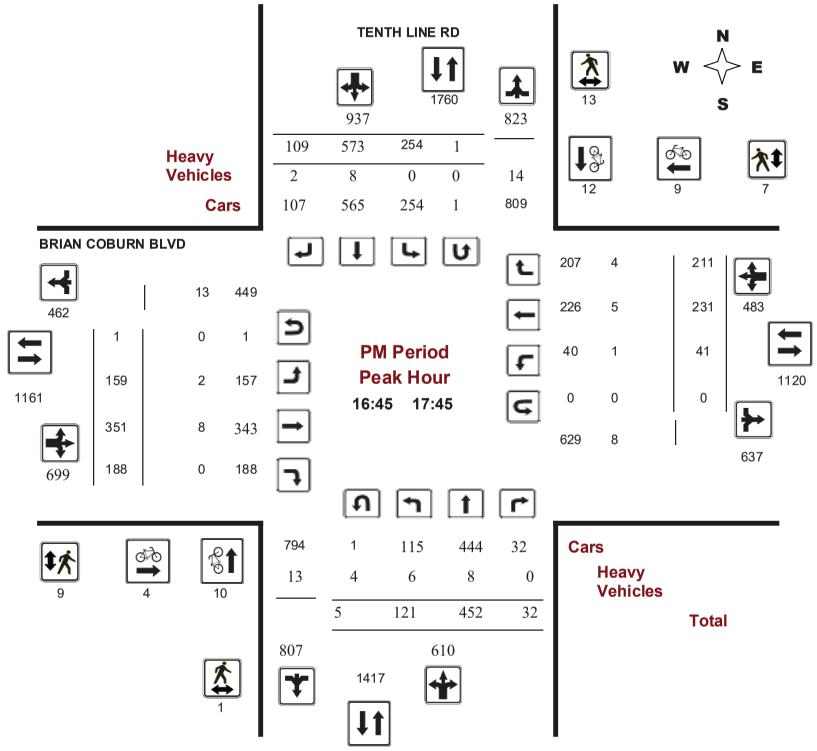
## Transportation Services - Traffic Services

### 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

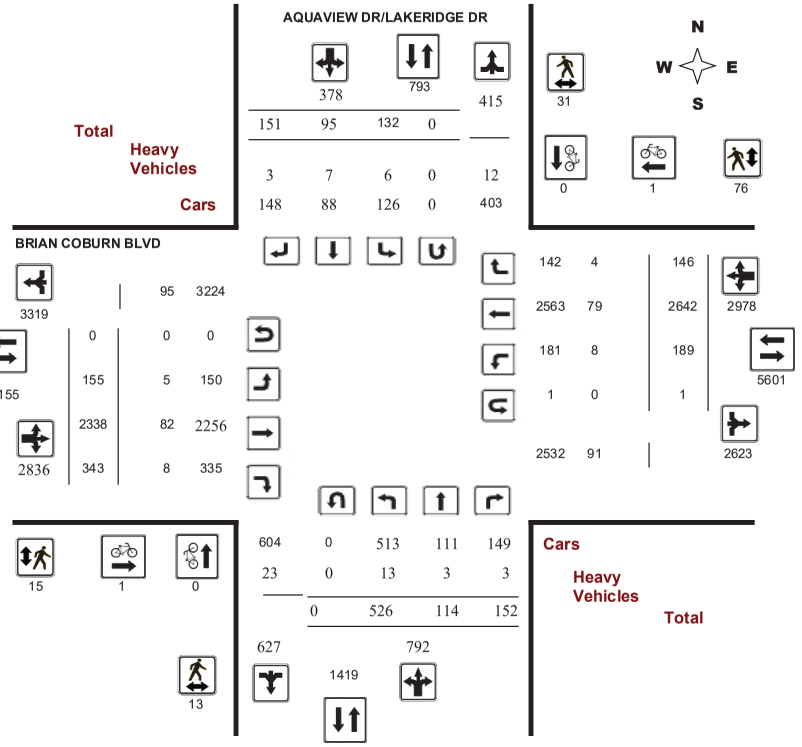
### Turning Movement Count - Study Results

### 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

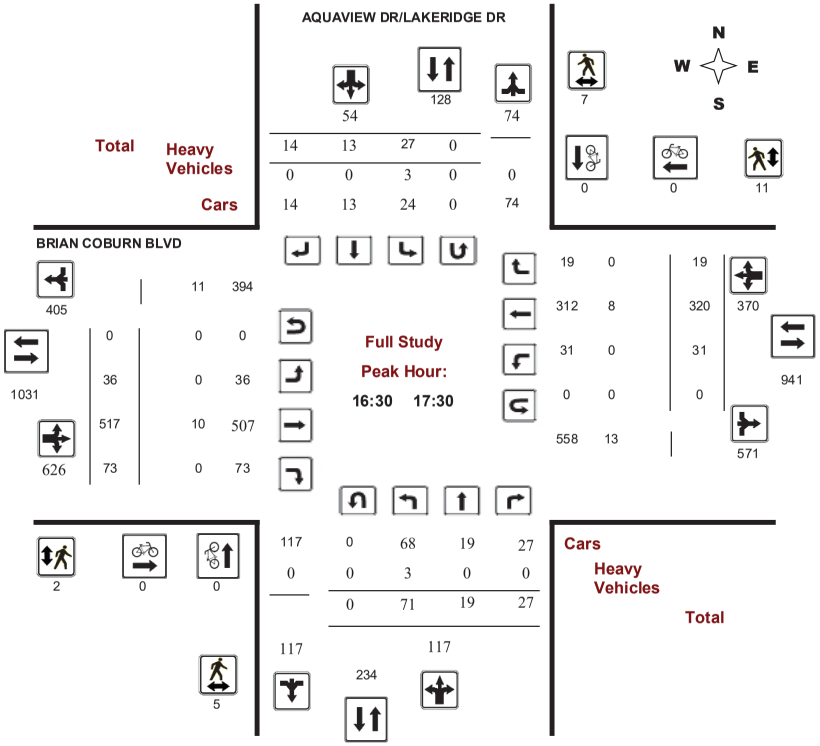
### Turning Movement Count - Study Results

### 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





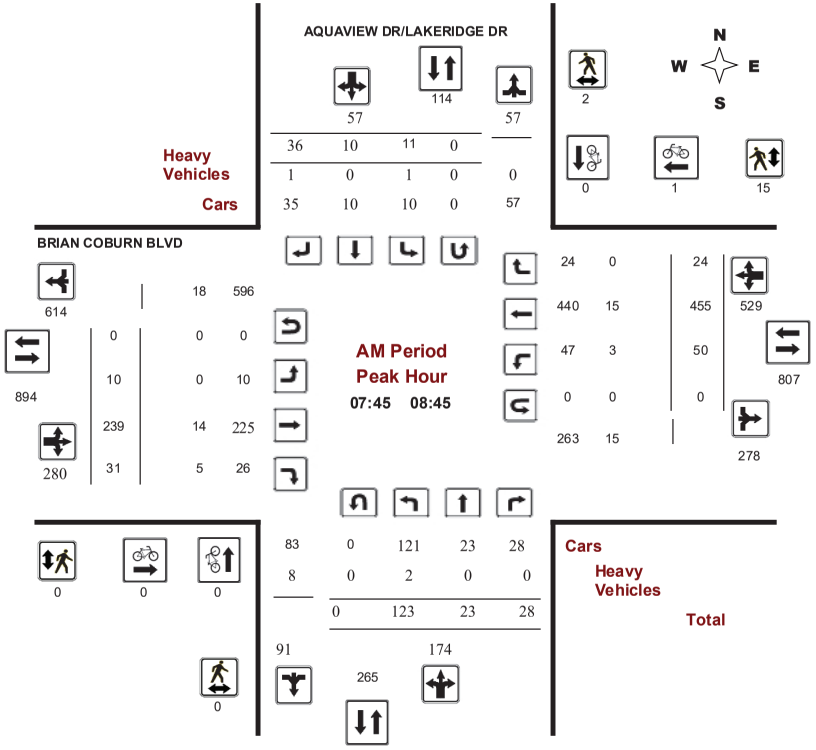

## Transportation Services - Traffic Services

### 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**

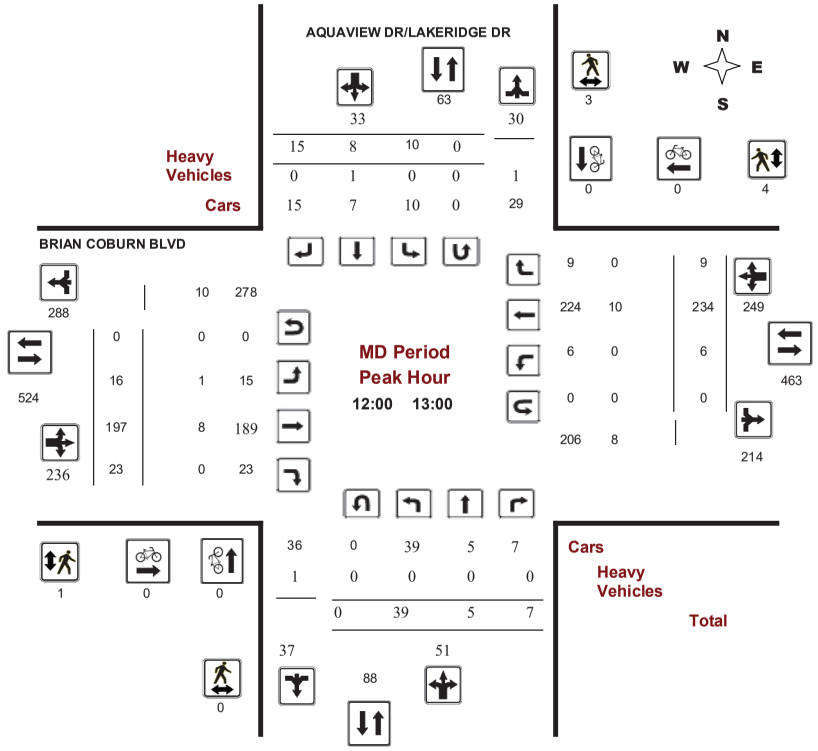
## Transportation Services - Traffic Services

### 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**



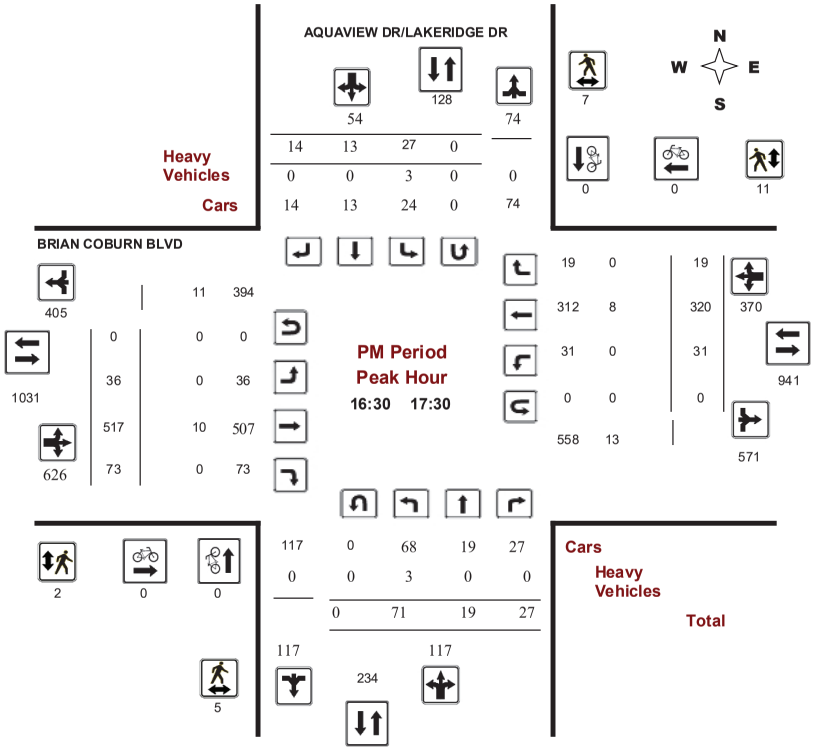
## Transportation Services - Traffic Services

### 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 | | | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | |
| 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

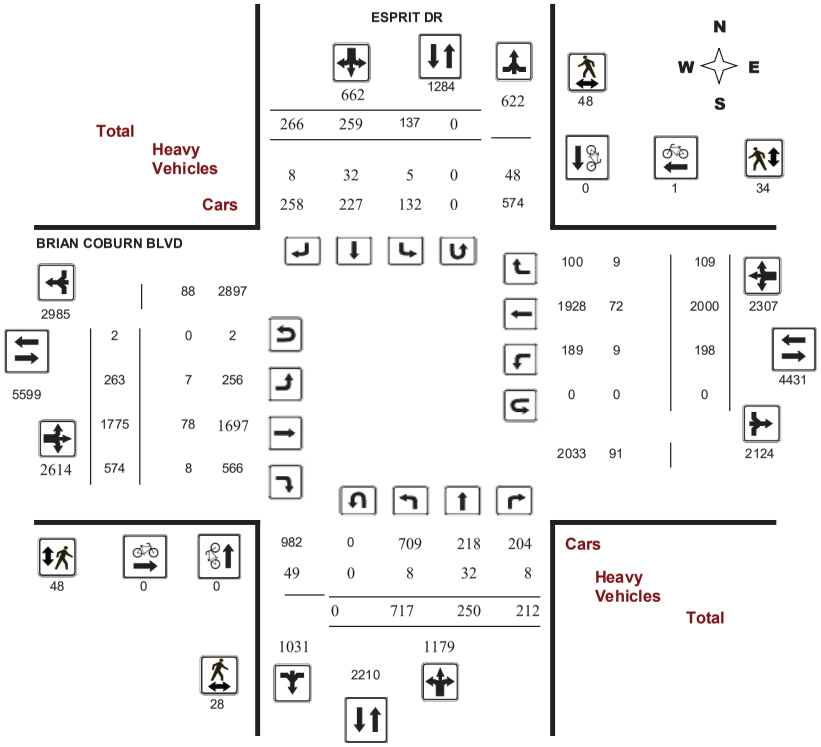
### Turning Movement Count - Study Results

### 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

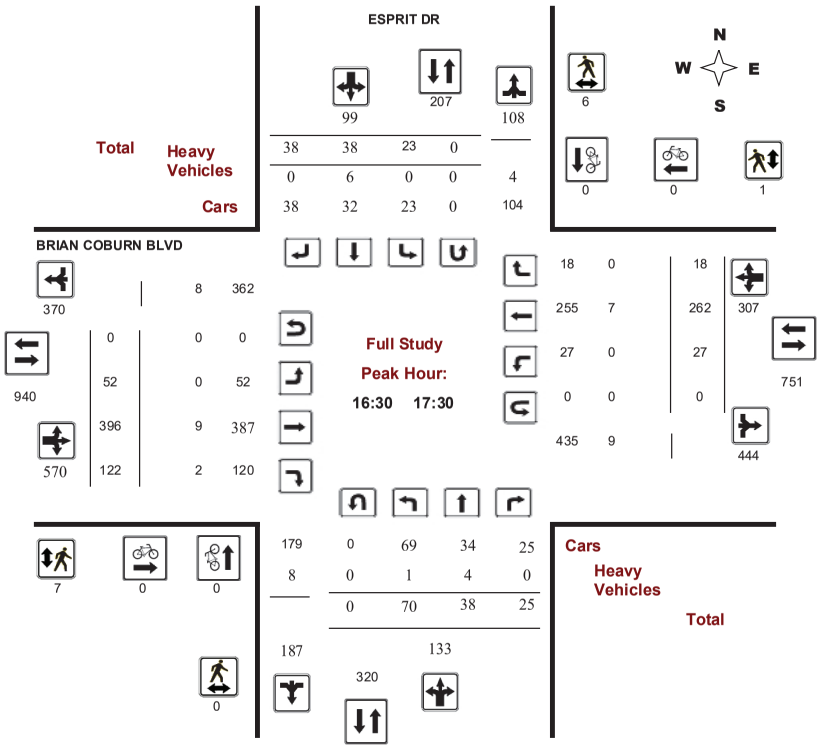
### Turning Movement Count - Study Results

### 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



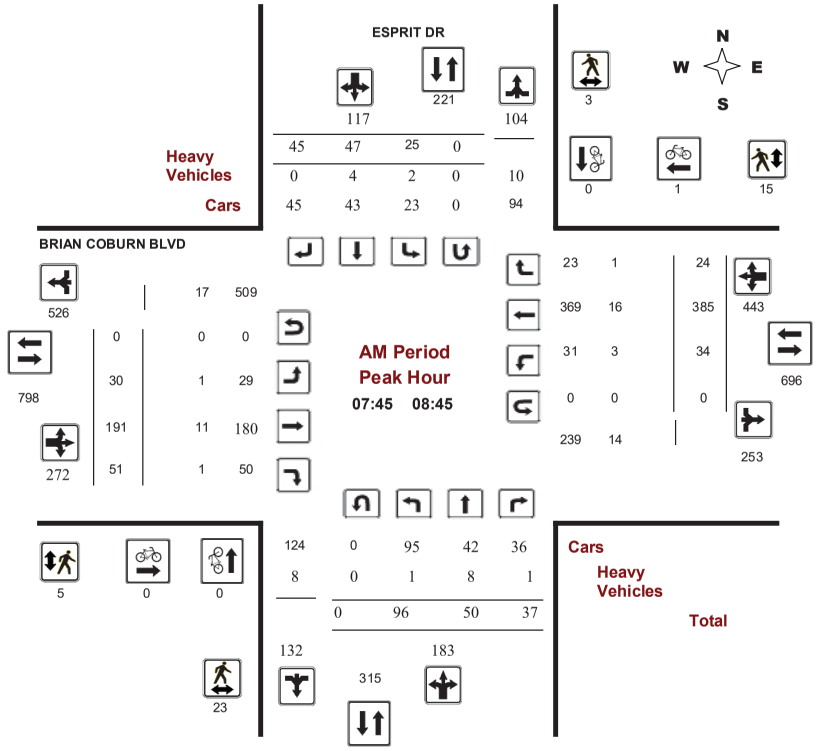
## Transportation Services - Traffic Services

### 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**



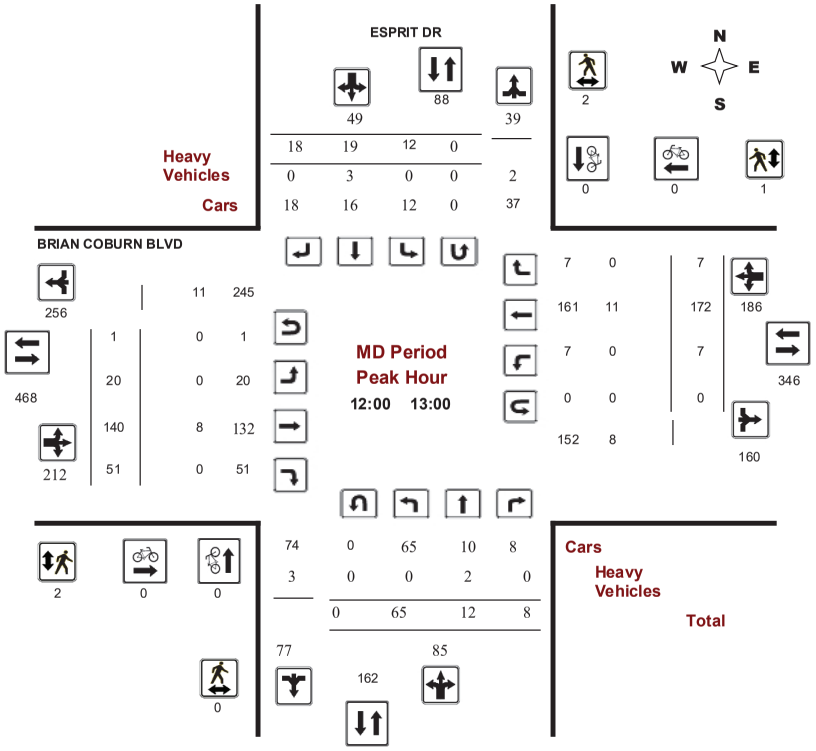
## Transportation Services - Traffic Services

### 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**

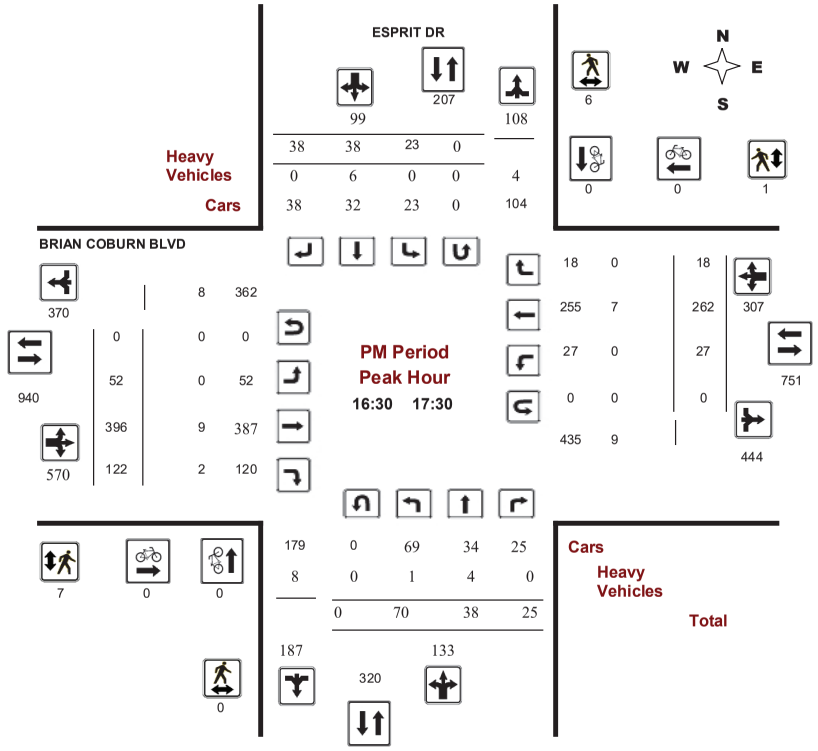
## Transportation Services - Traffic Services

### 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

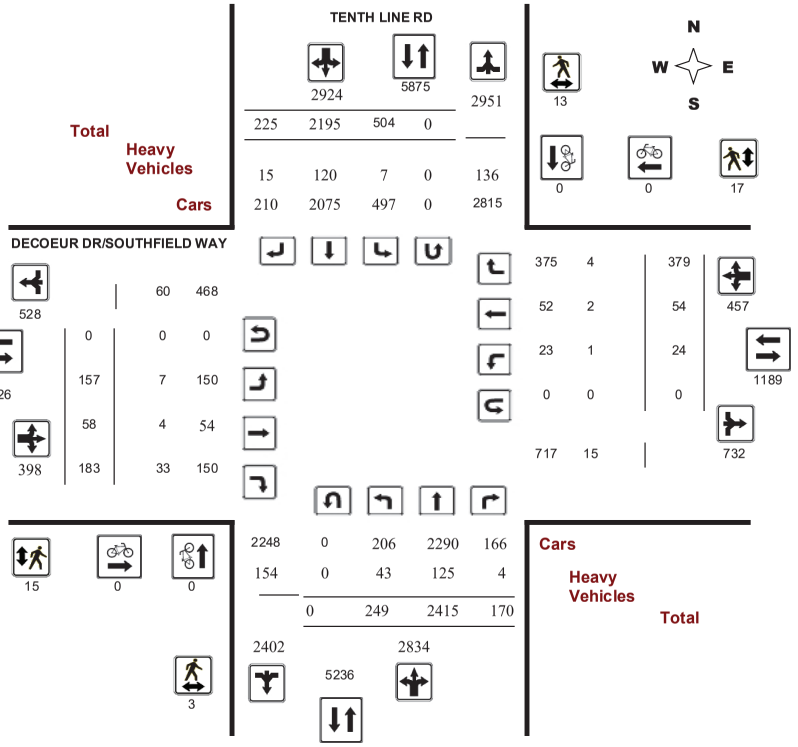
### Turning Movement Count - Study Results

### 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

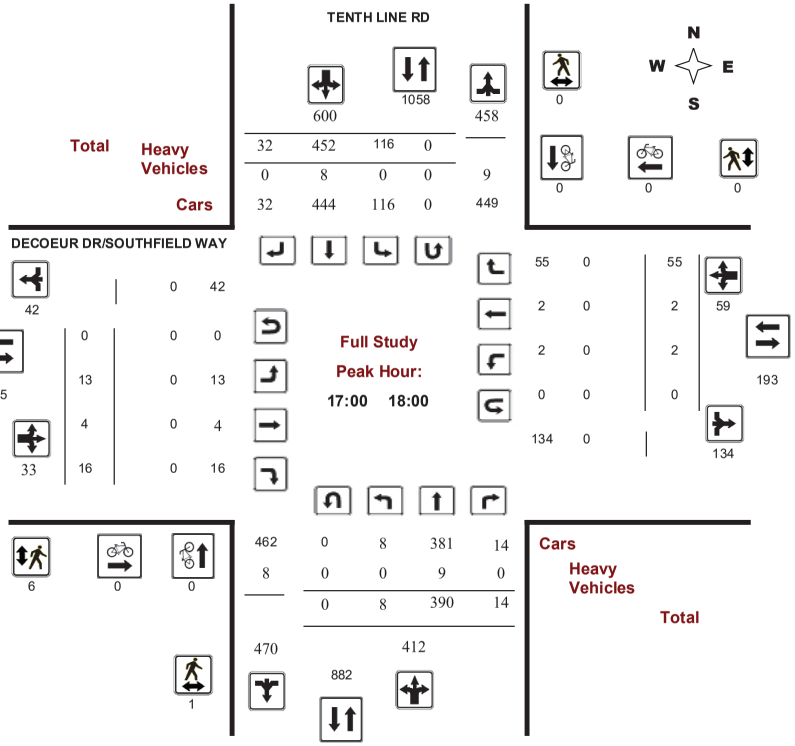
### Turning Movement Count - Study Results

### 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





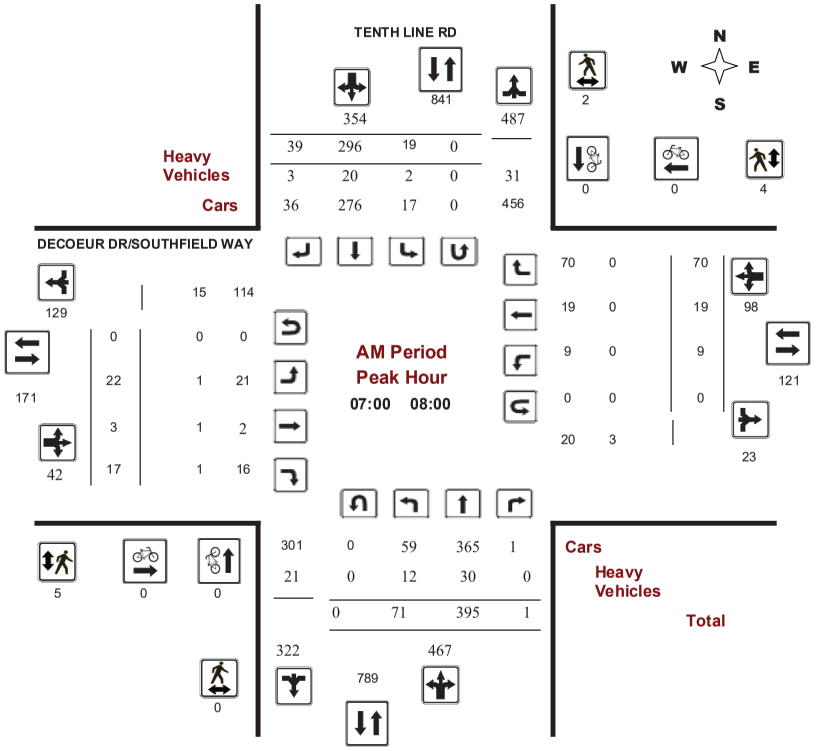

## Transportation Services - Traffic Services

### 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**

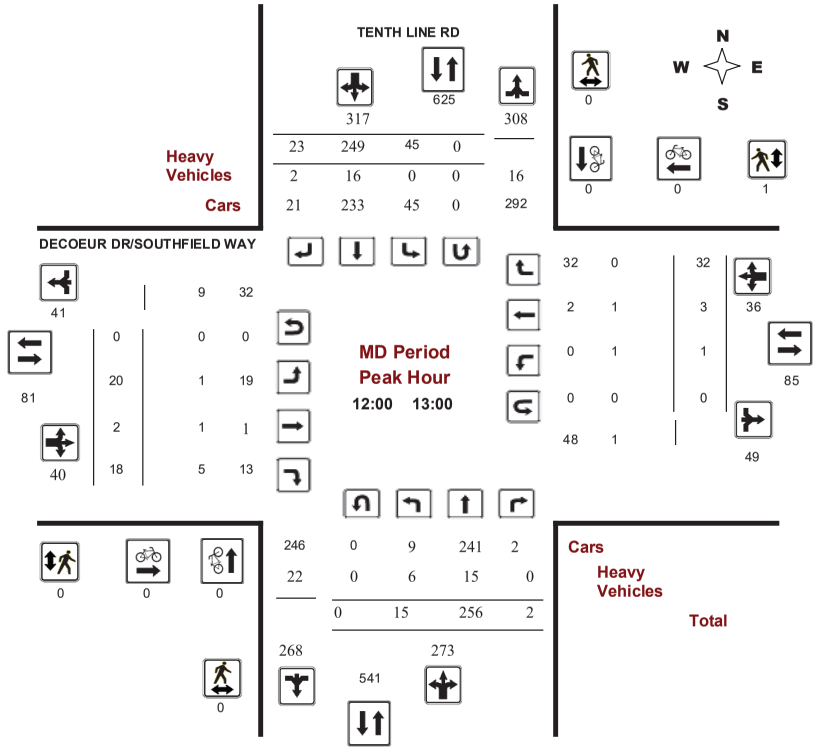
## Transportation Services - Traffic Services

### 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





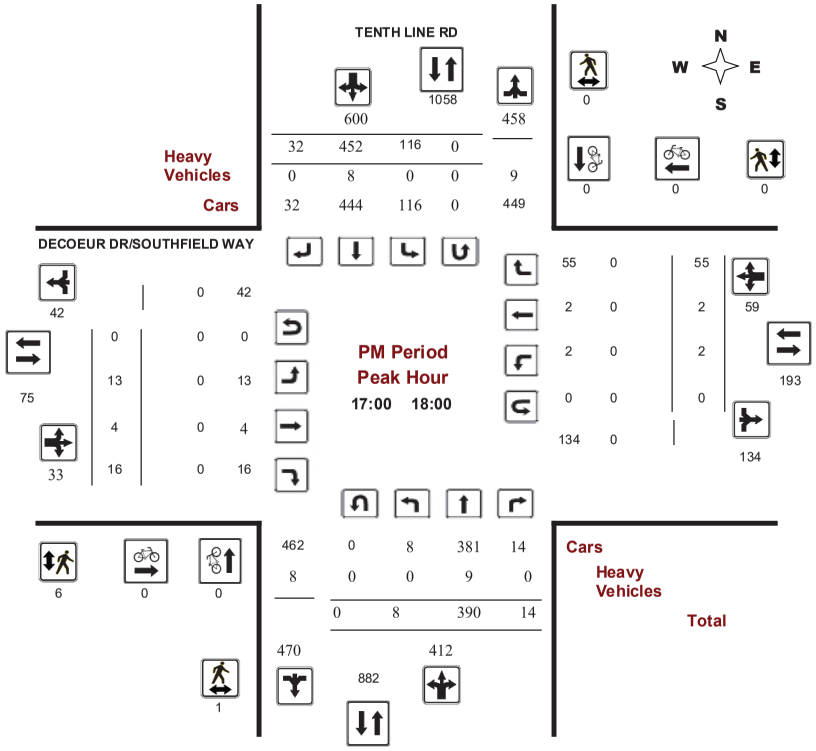

## Transportation Services - Traffic Services

### 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



## 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

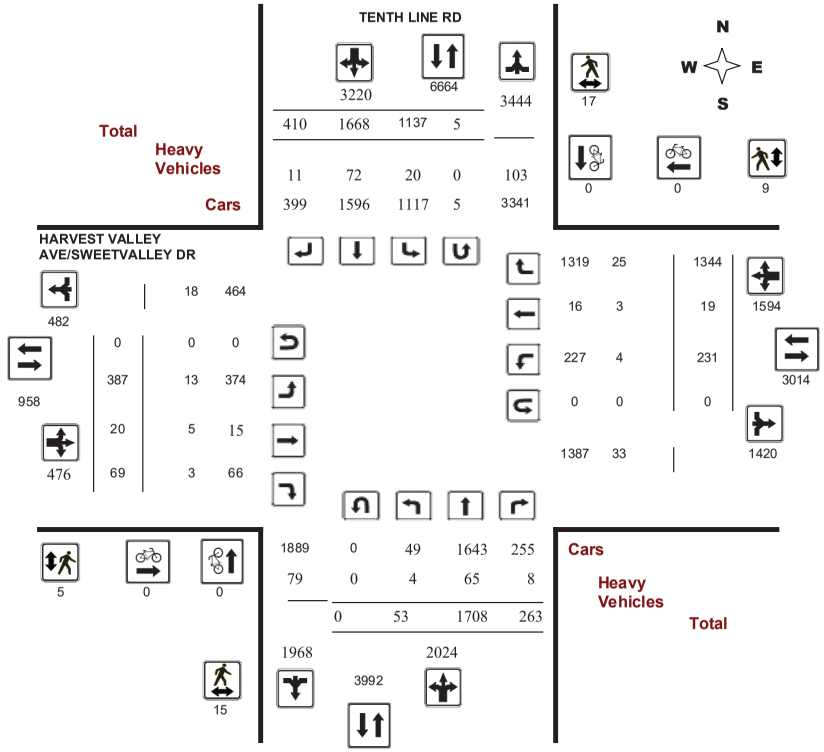
### Turning Movement Count - Study Results

### HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

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

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

### Full Study Diagram






## Transportation Services - Traffic Services

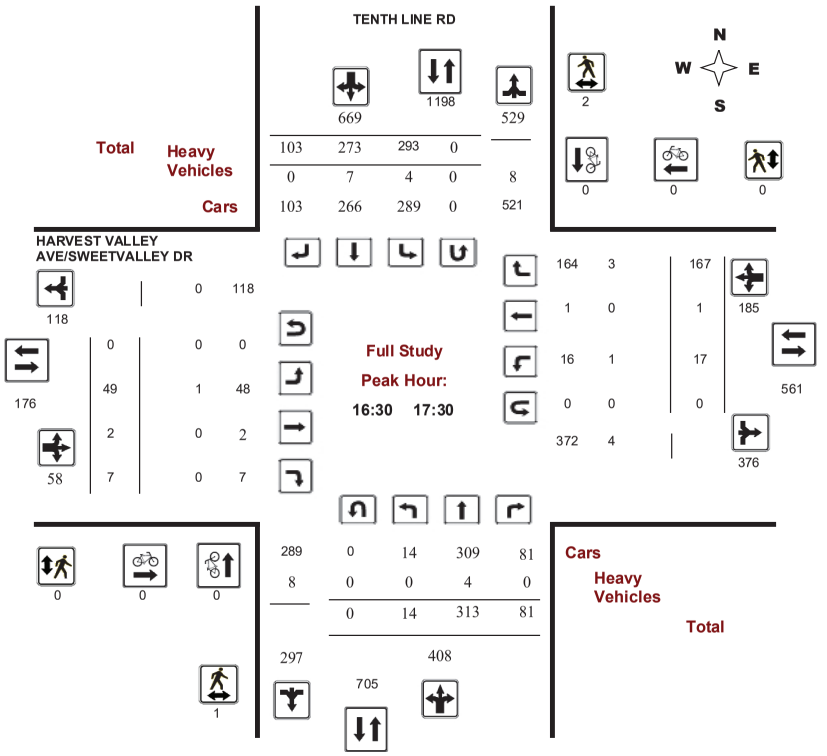
### Turning Movement Count - Study Results

### HARVEST VALLEY AVE/SWEETVALLEY DR @ TENTH LINE RD

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

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

### Full Study Peak Hour Diagram



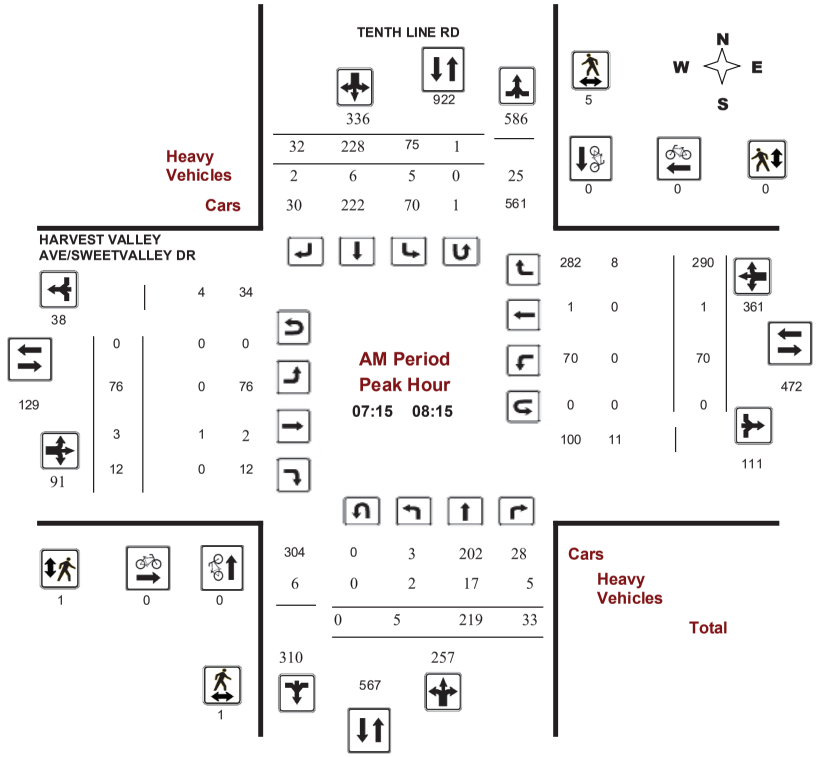
## Transportation Services - Traffic Services

### 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




**Comments**



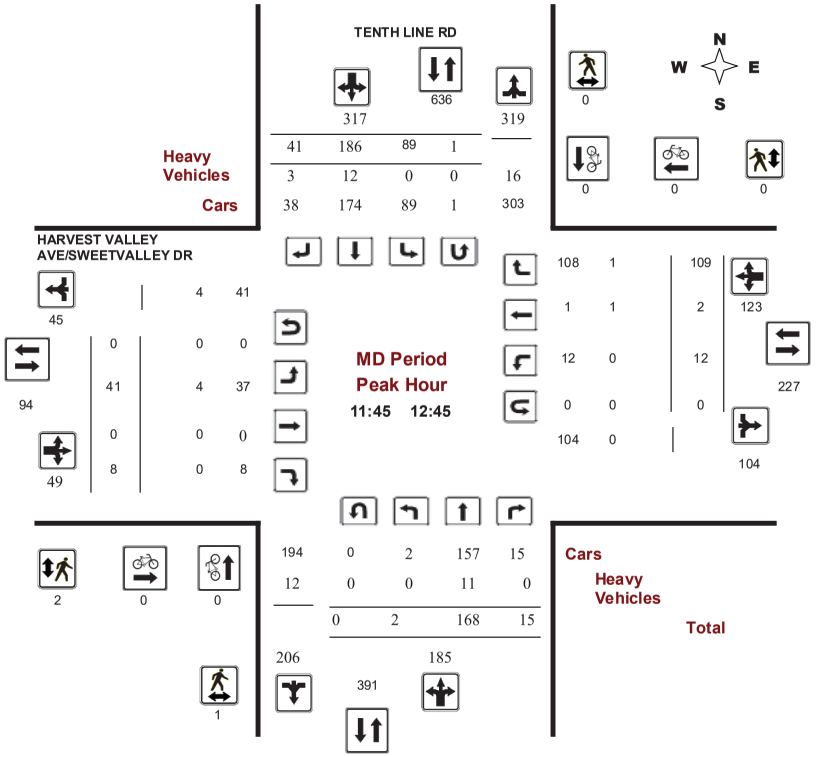
## Transportation Services - Traffic Services

### 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**

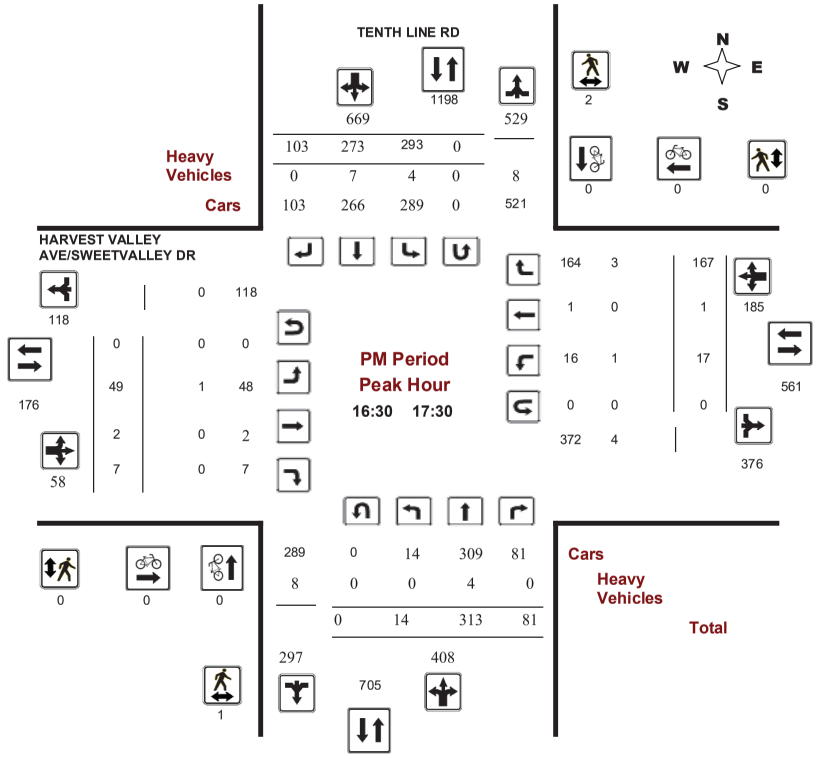
## Transportation Services - Traffic Services

### Turning Movement Count - 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

| 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

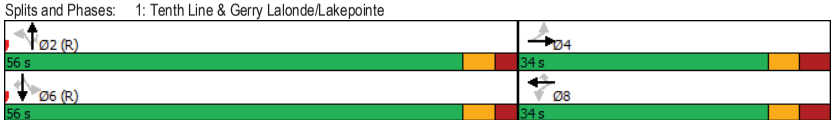
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65





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

| 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

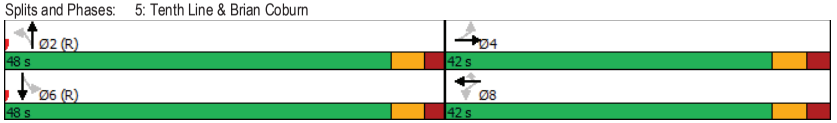
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 43 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65





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 |

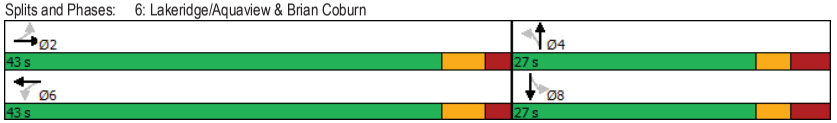




Maximum v/c Ratio: 0.54

| | |
|---|---|
| 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

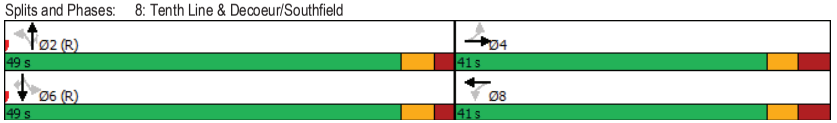
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70





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

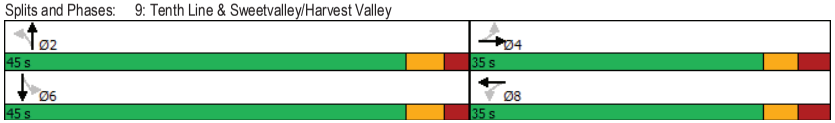
Cycle Length: 80
Actuated Cycle Length: 69.8
Natural Cycle: 65
Control Type: Actuated-Uncoordinated





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

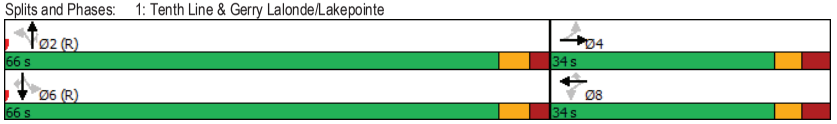
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90





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

| 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

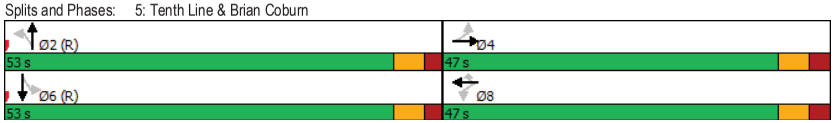
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75





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 |

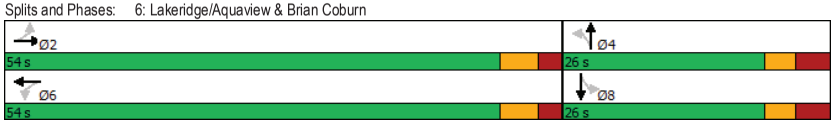




Maximum v/c Ratio: 0.54

| | |
|---|---|
| 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

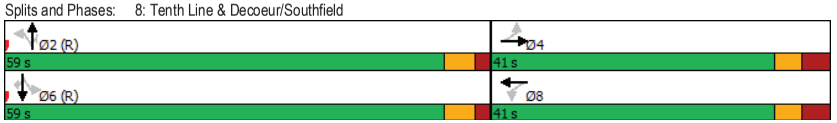
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70





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

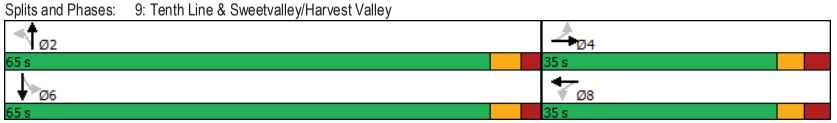




Maximum v/c Ratio: 0.62

| | |
|---|---|
| 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



# 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.

# 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.

**SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com**
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

# Appendix D

Existing Background Development Volumes

CGH TRANSPORTATION

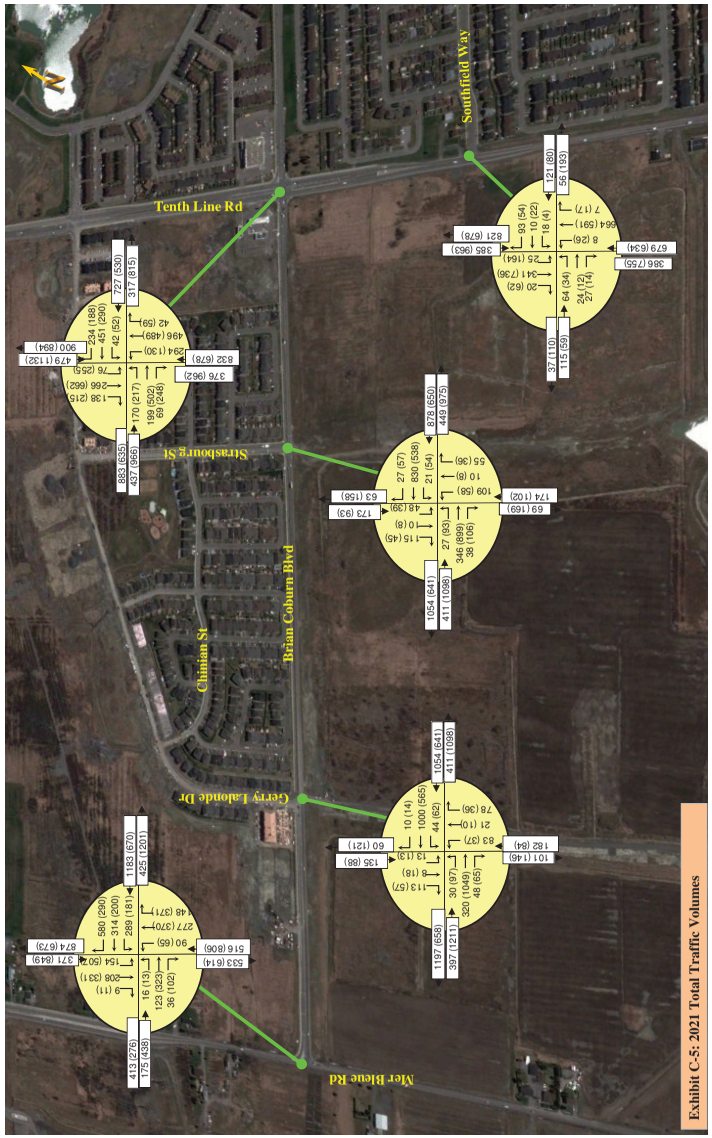
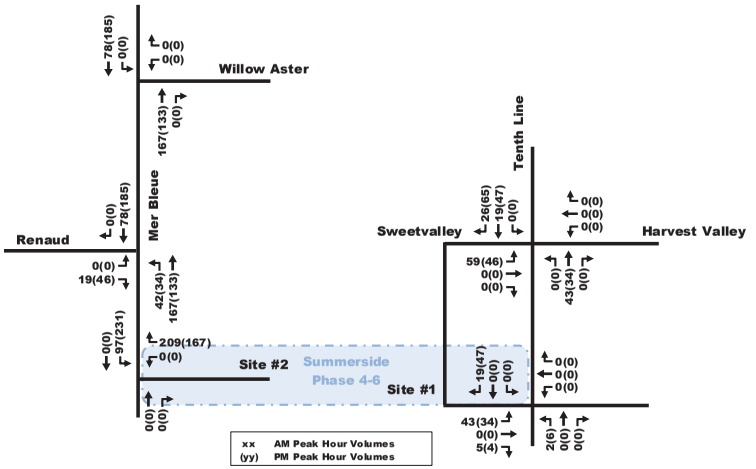





Figure 7: Total 'New' 2024 Site-Generated Traffic Volumes



# Appendix E

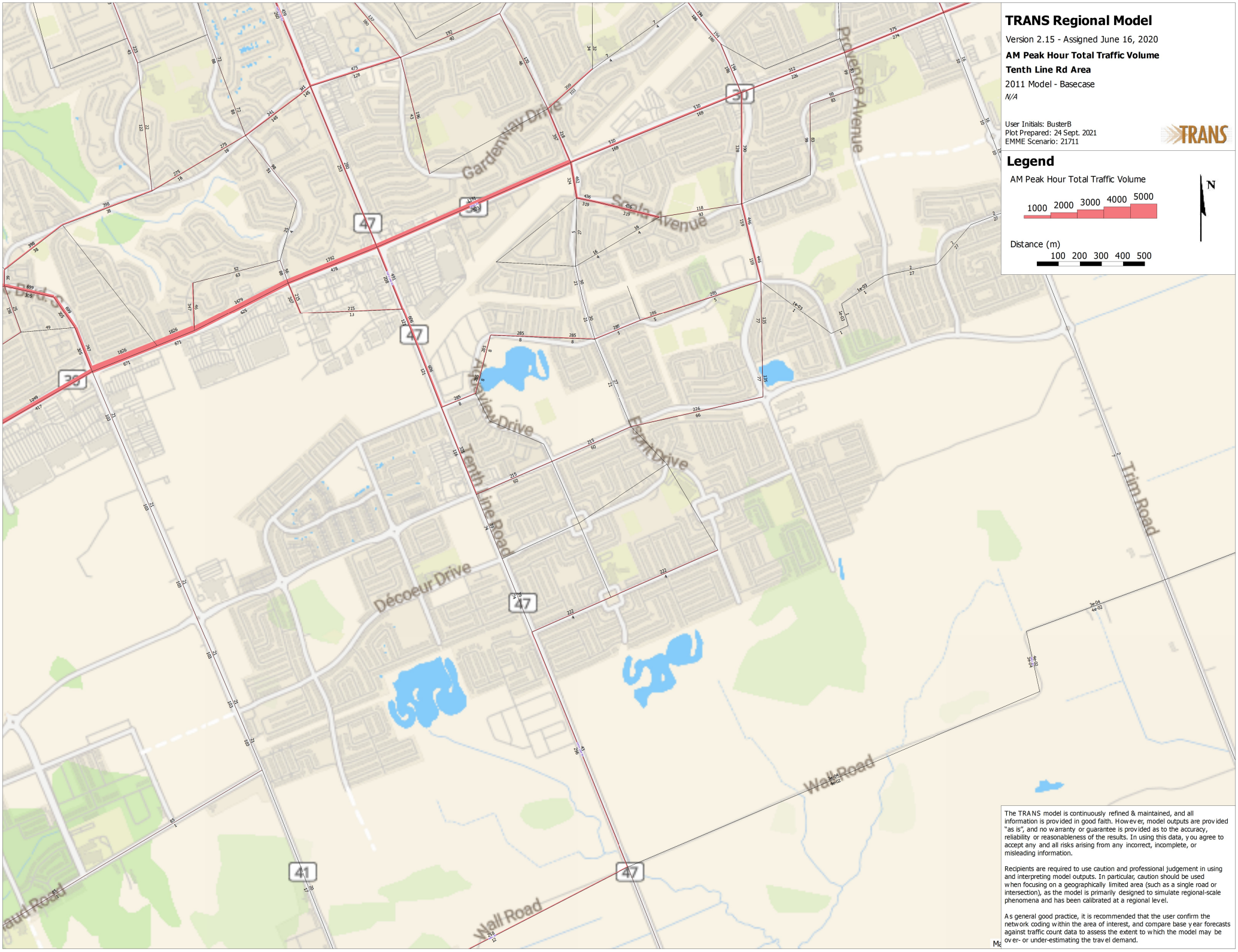
Collision Data

| Accident Date | Accident Year | Accident Time | Location | Environment Condition | Light | Traffic Control | Traffic Control Condition | Classification Of Accident | Initial Impact Type | Road Surface Condition |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015-02-02 | 2015 | 14:19 | BRIAN COBURN BLVD @ STRASBOURG ST | 01 - Clear | 01 - Daylight | 02 - Stop sign | | 03 - P.D. only | 03 - Rear end | 03 - Loose snow |
| 2016-09-29 | 2016 | 16:11 | BRIAN COBURN BLVD @ STRASBOURG ST | 01 - Clear | 01 - Daylight | 02 - Stop sign | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2017-02-09 | 2017 | 16:58 | BRIAN COBURN BLVD @ STRASBOURG ST | 01 - Clear | 05 - Dusk | 02 - Stop sign | | 03 - P.D. only | 03 - Rear end | 06 - Ice |
| 2017-02-24 | 2017 | 14:22 | BRIAN COBURN BLVD @ STRASBOURG ST | 01 - Clear | 01 - Daylight | 02 - Stop sign | | 02 - Non-fatal injury | 02 - Angle | 02 - Wet |
| 2017-04-03 | 2017 | 7:23 | BRIAN COBURN BLVD @ STRASBOURG ST | 01 - Clear | 01 - Daylight | 02 - Stop sign | | 03 - P.D. only | 02 - Angle | 01 - Dry |
| 2019-01-12 | 2019 | 18:25 | BRIAN COBURN BLVD @ STRASBOURG ST (0013501) | 01 - Clear | 07 - Dark | 02 - Stop sign | | 03 - P.D. only | 02 - Angle | 01 - Dry |
| 2019-10-18 | 2019 | 19:28 | BRIAN COBURN BLVD @ STRASBOURG ST (0013501) | 01 - Clear | 07 - Dark | 02 - Stop sign | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2019-12-11 | 2019 | 18:14 | BRIAN COBURN BLVD @ STRASBOURG ST (0013501) | 03 - Snow | 07 - Dark | 11 - Roundabout | | 03 - P.D. only | 03 - Rear end | 03 - Loose snow |
| 2015-02-28 | 2015 | 9:50 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2015-08-07 | 2015 | 7:36 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry |
| 2015-08-25 | 2015 | 12:19 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2015-09-20 | 2015 | 14:25 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry |
| 2015-10-09 | 2015 | 7:10 | BRIAN COBURN BLVD @ TENTH LINE RD | 02 - Rain | 03 - Dawn | 01 - Traffic signal | | 02 - Non-fatal injury | 05 - Turning movement | 02 - Wet |
| 2015-11-27 | 2015 | 19:20 | BRIAN COBURN BLVD @ TENTH LINE RD | 02 - Rain | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 04 - Sideswipe | 02 - Wet |
| 2016-05-01 | 2016 | 15:44 | BRIAN COBURN BLVD @ TENTH LINE RD | 02 - Rain | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 03 - Rear end | 02 - Wet |
| 2016-12-01 | 2016 | 18:36 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 02 - Non-fatal injury | 05 - Turning movement | 02 - Wet |
| 2016-12-01 | 2016 | 19:34 | BRIAN COBURN BLVD @ TENTH LINE RD | 02 - Rain | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 02 - Wet |
| 2016-12-08 | 2016 | 16:11 | BRIAN COBURN BLVD @ TENTH LINE RD | 03 - Snow | 05 - Dusk | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 03 - Loose snow |
| 2016-12-28 | 2016 | 17:37 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 01 - Dry |
| 2017-02-09 | 2017 | 19:08 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2017-03-04 | 2017 | 3:40 | BRIAN COBURN BLVD @ TENTH LINE RD | 04 - Freezing Rain | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 07 - SMV other | 02 - Wet |
| 2017-04-13 | 2017 | 10:19 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2017-04-22 | 2017 | 18:55 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry |
| 2017-04-29 | 2017 | 14:30 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 01 - Dry |
| 2017-04-30 | 2017 | 20:45 | BRIAN COBURN BLVD @ TENTH LINE RD | 02 - Rain | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 02 - Wet |
| 2017-06-25 | 2017 | 23:28 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 07 - SMV other | 02 - Wet |
| 2017-07-26 | 2017 | 13:22 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2017-07-30 | 2017 | 15:08 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2017-09-01 | 2017 | 8:22 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry |
| 2017-10-18 | 2017 | 7:15 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 07 - SMV other | 01 - Dry |
| 2017-12-28 | 2017 | 8:30 | BRIAN COBURN BLVD @ TENTH LINE RD | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 07 - SMV other | 06 - Ice |
| 2018-01-31 | 2018 | 17:20 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 03 - Snow | 05 - Dusk | 01 - Traffic signal | | 02 - Non-fatal injury | 05 - Turning movement | 03 - Loose snow |
| 2018-02-15 | 2018 | 10:27 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 04 - Freezing Rain | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 06 - Ice |
| 2018-03-28 | 2018 | 6:14 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 02 - Rain | 03 - Dawn | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 02 - Wet |
| 2018-04-17 | 2018 | 11:57 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 02 - Rain | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 04 - Sideswipe | 06 - Ice |
| 2018-06-24 | 2018 | 21:24 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 07 - SMV other | 01 - Dry |
| 2018-07-25 | 2018 | 11:42 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 02 - Rain | 01 - Daylight | 01 - Traffic signal | | 02 - Non-fatal injury | 07 - SMV other | 02 - Wet |
| 2018-10-15 | 2018 | 15:40 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 02 - Angle | 01 - Dry |
| 2018-10-19 | 2018 | 10:05 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 01 - Dry |
| 2018-11-17 | 2018 | 14:50 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 02 - Wet |
| 2019-01-06 | 2019 | 15:24 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 02 - Angle | 01 - Dry |
| 2019-01-09 | 2019 | 17:15 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 03 - Snow | 05 - Dusk | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 02 - Wet |
| 2019-02-12 | 2019 | 15:50 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 04 - Sideswipe | 01 - Dry |
| 2019-04-01 | 2019 | 16:50 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2019-04-05 | 2019 | 16:29 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 99 - Other | 01 - Dry |
| 2019-04-18 | 2019 | 6:10 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 02 - Rain | 03 - Dawn | 01 - Traffic signal | | 03 - P.D. only | 04 - Sideswipe | 02 - Wet |
| 2019-05-16 | 2019 | 13:57 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2019-06-16 | 2019 | 15:00 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2019-06-25 | 2019 | 8:15 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 02 - Rain | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 02 - Wet |
| 2019-07-17 | 2019 | 22:42 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 02 - Non-fatal injury | 05 - Turning movement | 01 - Dry |
| 2019-08-09 | 2019 | 12:00 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 04 - Sideswipe | 01 - Dry |
| 2019-12-19 | 2019 | 8:25 | BRIAN COBURN BLVD @ TENTH LINE RD (0013966) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2017-06-26 | 2017 | 11:06 | BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD | 01 - Clear | 01 - Daylight | 10 - No control | | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry |
| 2018-01-02 | 2018 | 14:30 | BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3) | 03 - Snow | 01 - Daylight | 10 - No control | | 03 - P.D. only | 03 - Rear end | 03 - Loose snow |
| 2019-01-15 | 2019 | 7:30 | BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3) | 01 - Clear | 03 - Dawn | 10 - No control | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2019-05-23 | 2019 | 8:23 | BRIAN COBURN BLVD btwn STRASBOURG ST & TENTH LINE RD (__6ZT4O3) | 01 - Clear | 01 - Daylight | 10 - No control | | 03 - P.D. only | 03 - Rear end | 01 - Dry |
| 2019-01-23 | 2019 | 19:00 | DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515) | 04 - Freezing Rain | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 06 - Ice |
| 2019-07-25 | 2019 | 13:32 | DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 01 - Dry |
| 2019-10-18 | 2019 | 21:00 | DECOEUR DR/SOUTHFIELD WAY @ TENTH LINE RD (0013515) | 01 - Clear | 07 - Dark | 01 - Traffic signal | | 03 - P.D. only | 05 - Turning movement | 01 - Dry |
| 2018-07-13 | 2018 | 11:55 | DECOEUR, PROMENADE btwn AUBEPINES, PROMENADE DES & MAGNOLIA ST (e___2HVN) | 01 - Clear | 01 - Daylight | 10 - No control | | 03 - P.D. only | 07 - SMV other | 01 - Dry |
| 2016-02-25 | 2016 | 17:57 | TENTH LINE RD btwn BLACKBURN BYPS & SOUTHFIELD WAY | 03 - Snow | 07 - Dark | 10 - No control | | 03 - P.D. only | 07 - SMV other | 06 - Ice |
| 2017-02-09 | 2017 | 16:16 | TENTH LINE RD btwn BLACKBURN BYPS & SOUTHFIELD WAY | 01 - Clear | 01 - Daylight | 10 - No control | | 03 - P.D. only | 01 - Approaching | 01 - Dry |
| 2017-04-24 | 2017 | 13:42 | TENTH LINE RD btwn BLACKBURN BYPS & SOUTHFIELD WAY | 01 - Clear | 01 - Daylight | 10 - No control | | 03 - P.D. only | 03 - Rear end | 01 - Dry |

# 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

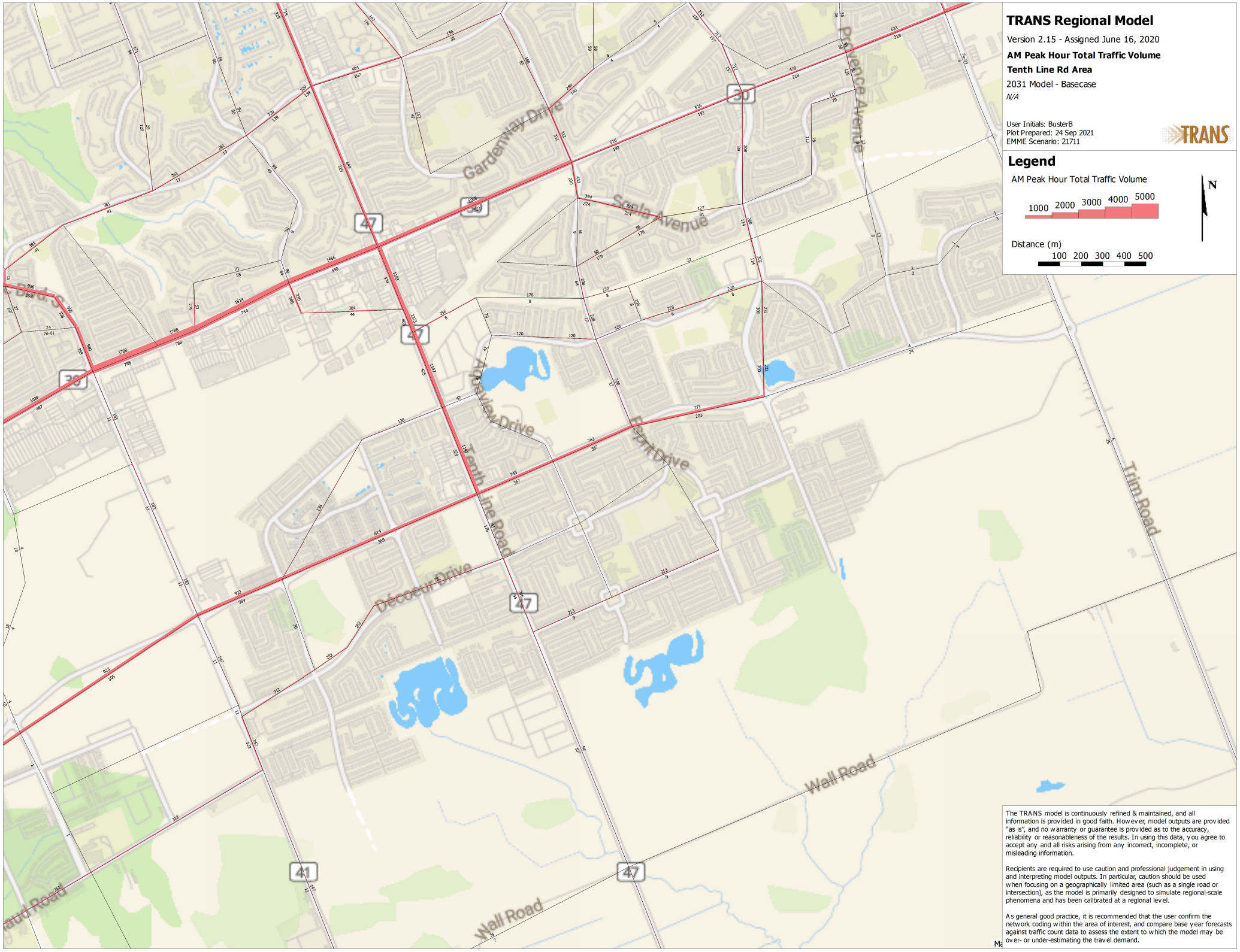
AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

100 200 300 400 500




# 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

Distance (m)

100 200 300 400 500

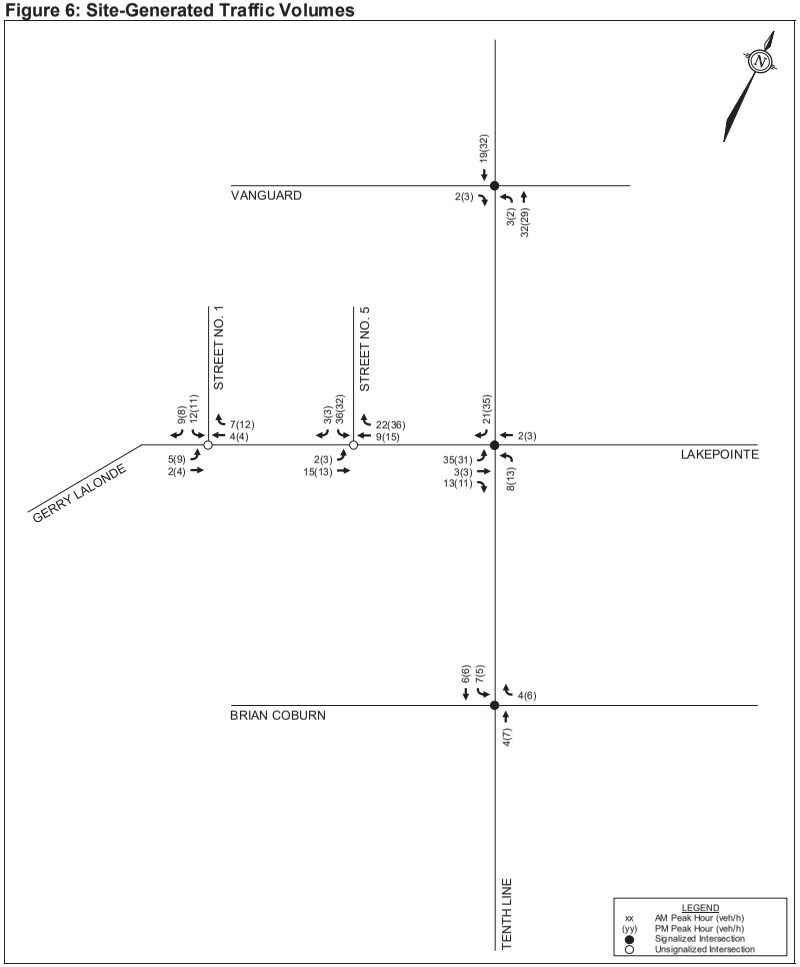
N

# Appendix G

Future Background Development Volumes

CGH TRANSPORTATION

**Figure 6: Site-Generated Traffic Volumes**



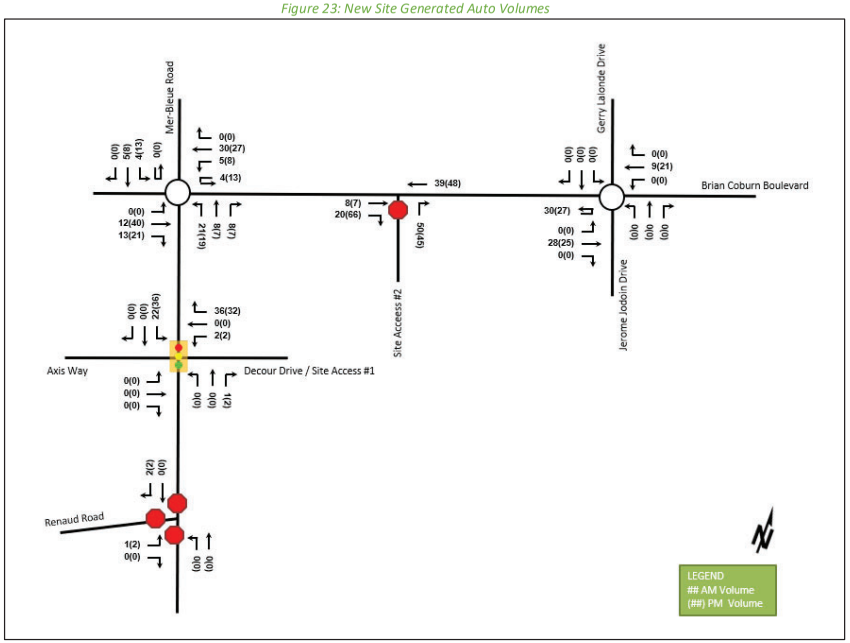





## 5.3 Trip Assignment

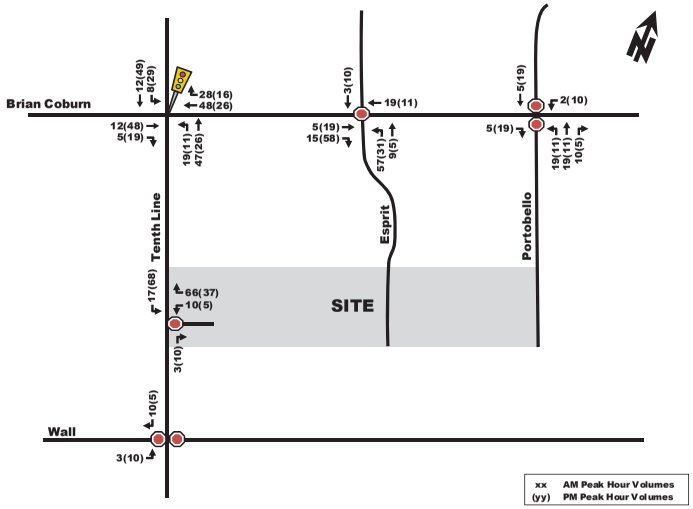
Using the distribution outlined above, turning movement splits, and access to major transportation infrastructure, the trips generated by the site have been assigned to the Study Area road network. Figure 23 illustrates the new site generated volumes.

*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**






PARSONS

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.

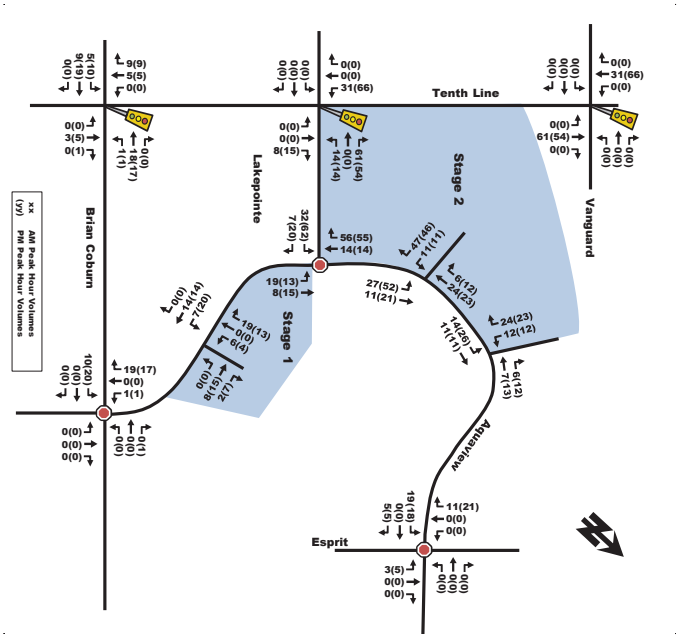



Figure 7: New Total Site-Generated Traffic Volumes



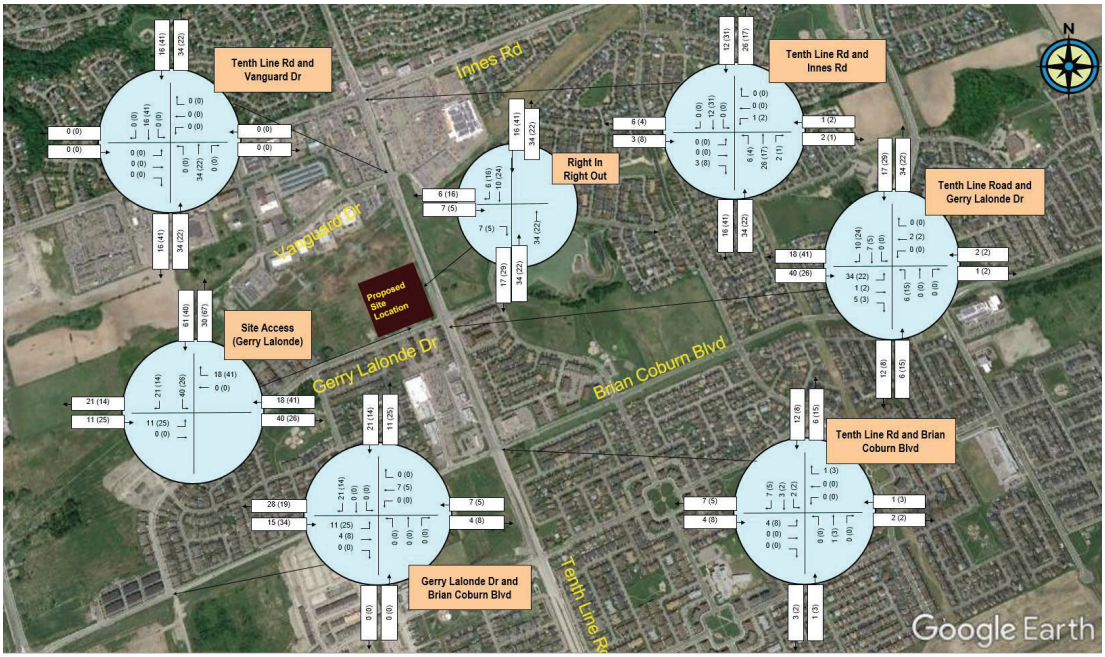



**Exhibit 4-4: Net Site Auto Generated Travel Demand – Full Build Out [AM (PM)]**

# 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 |

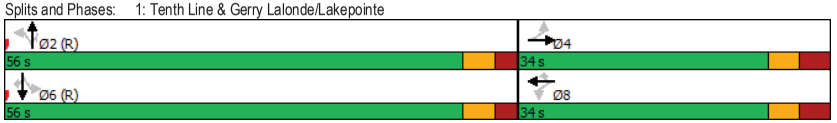
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated





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

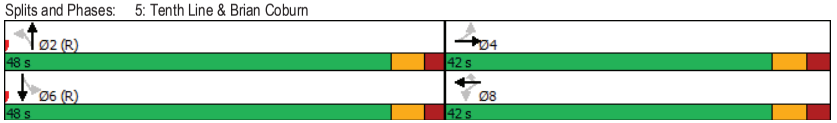
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 43 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated





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 | |

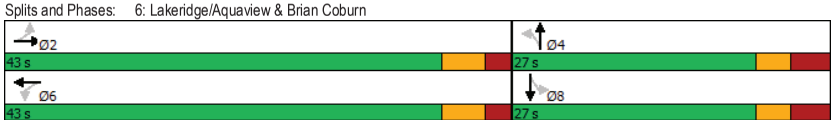
| Intersection Summary |
|---|
| Cycle Length: 70 |
| Actuated Cycle Length: 62.2 |
| Natural Cycle: 60 |
| Control Type: Semi Act-Uncoord |
| Maximum v/c Ratio: 0.53 |





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



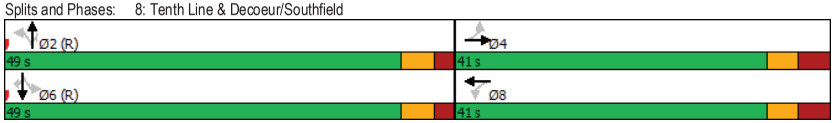


Maximum v/c Ratio: 0.41

| | |
|---|---|
| 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 | |

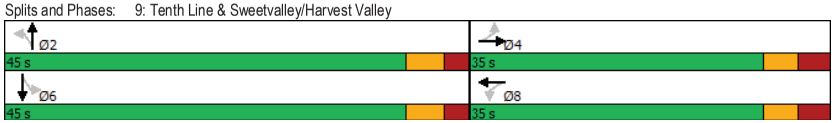
| Intersection Summary |
|---|
| Cycle Length: 80 |
| Actuated Cycle Length: 68.2 |
| Natural Cycle: 65 |
| Control Type: Actuated-Uncoordinated |
| Maximum v/c Ratio: 0.71 |





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

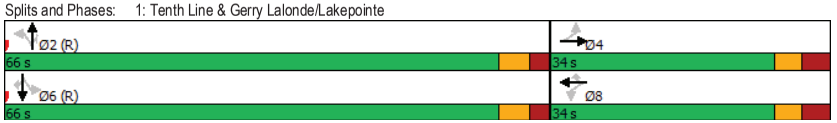
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated





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 |



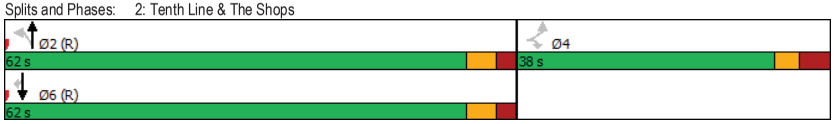


Maximum v/c Ratio: 0.54

| | |
|---|---|
| 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



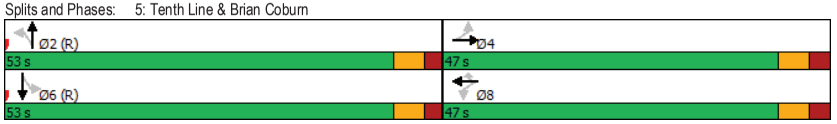


Maximum v/c Ratio: 1.13

| | |
|---|---|
| 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 | |

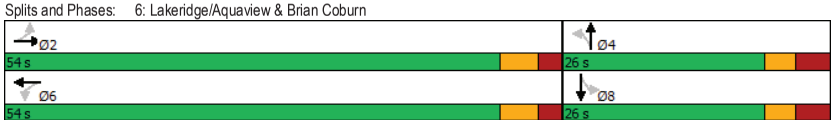
| Intersection Summary |
|---|
| Cycle Length: 80 |
| Actuated Cycle Length: 73.9 |
| Natural Cycle: 60 |
| Control Type: Semi Act-Uncoord |
| Maximum v/c Ratio: 0.59 |





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



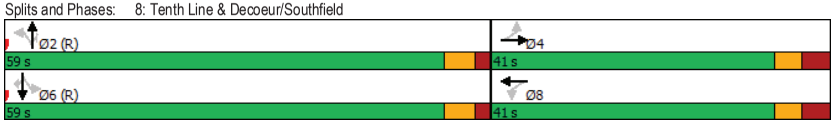


Maximum v/c Ratio: 0.36

| | |
|---|---|
| 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 | |

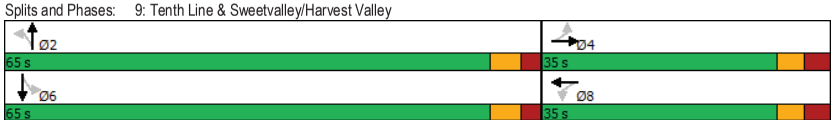
| Intersection Summary |
|---|
| Cycle Length: 100 |
| Actuated Cycle Length: 89.4 |
| Natural Cycle: 75 |
| Control Type: Actuated-Uncoordinated |
| Maximum v/c Ratio: 0.55 |





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

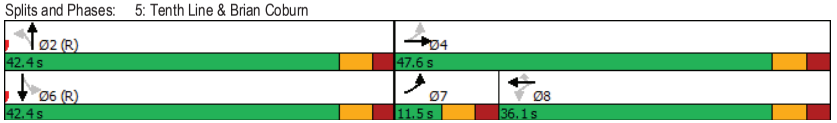
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated





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

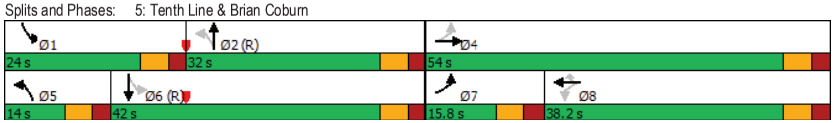
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated





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

| 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 |

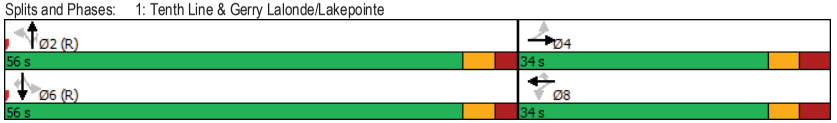
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated





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





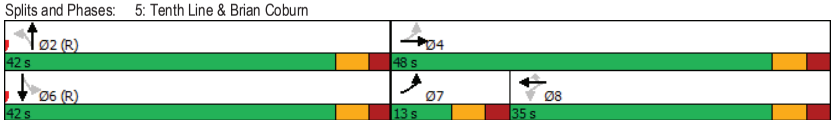
Maximum v/c Ratio: 0.90

| | |
|---|---|
| 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 | |

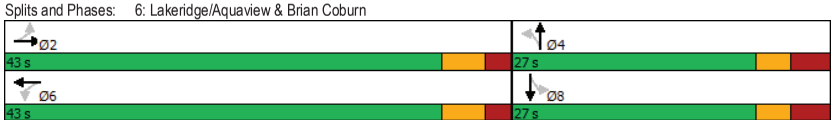
| Intersection Summary |
|---|
| Cycle Length: 70 |
| Actuated Cycle Length: 62.2 |
| Natural Cycle: 60 |
| Control Type: Semi Act-Uncoord |
| Maximum v/c Ratio: 0.53 |





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



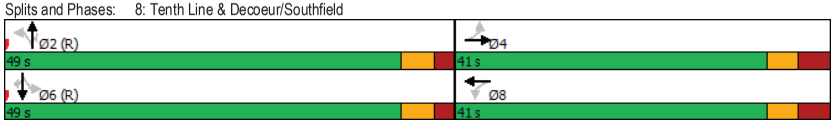


Maximum v/c Ratio: 0.41

| | |
|---|---|
| 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 | |

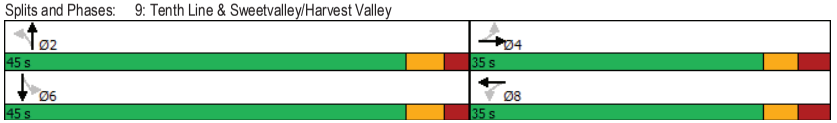
| Intersection Summary |
|---|
| Cycle Length: 80 |
| Actuated Cycle Length: 68.2 |
| Natural Cycle: 65 |
| Control Type: Actuated-Uncoordinated |
| Maximum v/c Ratio: 0.71 |





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

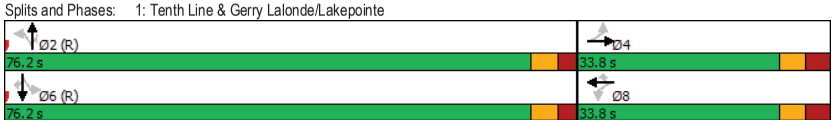
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 92 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated





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



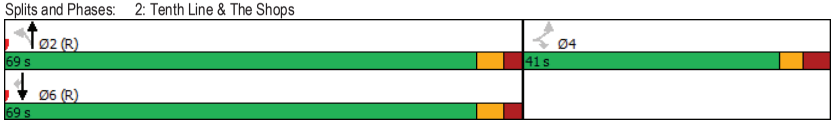


Maximum v/c Ratio: 0.57

| | |
|---|---|
| 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

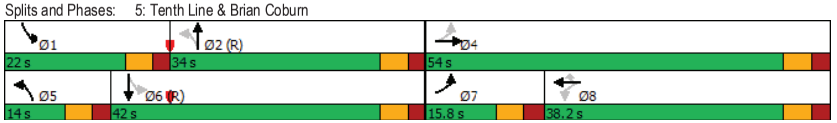
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated





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



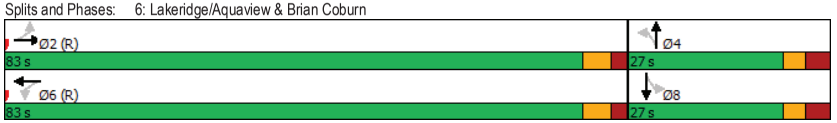


Maximum v/c Ratio: 0.54

| | |
|---|---|
| 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

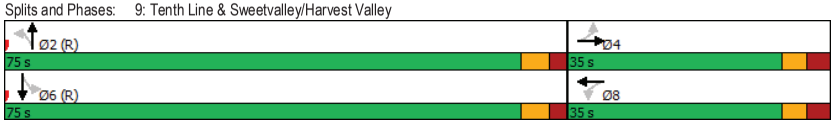




Maximum v/c Ratio: 0.68

| | |
|---|---|
| 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.

**SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com**
Organisation: CGH TRANSPORTATION | Processed: November 15, 2021 5:00:23 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

# Appendix K

MMLOS Analysis

CGH TRANSPORTATION

# Multi-Modal Level of Service - Segments Form

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

| **SEGMENTS** | | | Section<br>Brian Coburn Blvd | Section<br>Tenth Line Rd | Section<br>Decoeur Dr |
|---|---|---|---|---|---|
| **Pedestrian** | Sidewalk Width<br>Boulevard Width | - | no sidewalk<br>n/a | ≥ 2 m<br>> 2 m | 1.8 m<br>0.5 - 2 m |
| | Avg Daily Curb Lane Traffic Volume | | > 3000 | > 3000 | ≤ 3000 |
| | Operating Speed<br>On-Street Parking | | > 60 km/h<br>no | > 60 km/h<br>no | > 50 to 60 km/h<br>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** | **-** |

## Multi-Modal Level of Service - Intersections Form

| | | | |
|---|---|---|---|
| **Consultant** | **CGH Transportation Inc.** | **Project** | **2370 Tenth Line Road** |
| **Scenario** | **Existing/Future** | **Date** | **2021-11-30** |
| **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<br>> 50 m Introduced right turn lane<br>≤ 25 km/h | Pocket Bike Lane<br>> 50 m Introduced right turn lane<br>≤ 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** | | | |

# Appendix L

Synchro and Sidra Worksheets – 2026 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 | 1012 | 15 | 79 | 552 | 73 |
| Future Volume (vph) | 170 | 19 | 40 | 44 | 60 | 231 | 22 | 1012 | 15 | 79 | 552 | 73 |
| Satd. Flow (prot) | 1566 | 1483 | 0 | 1642 | 1745 | 1483 | 1496 | 3283 | 1483 | 1626 | 3191 | 1441 |
| Flt Permitted | 0.718 | | | 0.719 | | | 0.446 | | | 0.249 | | |
| Satd. Flow (perm) | 1179 | 1483 | 0 | 1240 | 1745 | 1460 | 700 | 3283 | 1442 | 426 | 3191 | 1400 |
| Satd. Flow (RTOR) | | 40 | | | | 95 | | | 46 | | | 73 |
| Lane Group Flow (vph) | 170 | 59 | 0 | 44 | 60 | 231 | 22 | 1012 | 15 | 79 | 552 | 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 | 0.29 | 0.27 | 0.08 |
| Control Delay | 48.1 | 13.4 | | 28.3 | 27.8 | 25.1 | 8.8 | 12.8 | 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 | 8.8 | 12.8 | 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 | | | 12.6 | | | 7.9 | |
| Approach LOS | | D | | | C | | | B | | | A | |
| Queue Length 50th (m) | 27.5 | 2.7 | | 6.3 | 8.6 | 21.0 | 1.6 | 38.1 | 0.0 | 5.2 | 18.7 | 0.0 |
| Queue Length 95th (m) | 43.2 | 10.9 | | 13.4 | 16.5 | 38.8 | m3.2 | 92.4 | 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 | 277 | 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 | 0.29 | 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



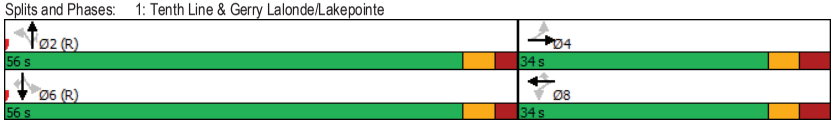


Maximum v/c Ratio: 0.71

| | |
|---|---|
| Intersection Signal Delay: 15.7 | Intersection LOS: B |
| Intersection Capacity Utilization 72.4% | 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 | 990 | 574 | 61 |
| Future Volume (vph) | 54 | 13 | 70 | 990 | 574 | 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 | 990 | 574 | 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 | 6.1 | 5.7 | 2.3 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.6 | 18.5 | 6.1 | 5.7 | 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 | 3.3 | 29.1 | 8.7 | 0.0 |
| Queue Length 95th (m) | 19.3 | 5.2 | m8.9 | 43.3 | 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 | 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: 5.6 | 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) | 184 | 213 | 71 | 53 | 465 | 253 | 236 | 605 | 38 | 132 | 353 | 124 |
| Future Volume (vph) | 184 | 213 | 71 | 53 | 465 | 253 | 236 | 605 | 38 | 132 | 353 | 124 |
| Satd. Flow (prot) | 1642 | 1562 | 0 | 1610 | 1728 | 1483 | 1658 | 3216 | 0 | 1566 | 3075 | 0 |
| Flt Permitted | 0.169 | | | 0.586 | | | 0.445 | | | 0.337 | | |
| Satd. Flow (perm) | 292 | 1562 | 0 | 993 | 1728 | 1455 | 774 | 3216 | 0 | 554 | 3075 | 0 |
| Satd. Flow (RTOR) | | 25 | | | | 153 | | 8 | | | 64 | |
| Lane Group Flow (vph) | 184 | 284 | 0 | 53 | 465 | 253 | 236 | 643 | 0 | 132 | 477 | 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 | 0.75 | 0.39 | | 0.18 | 0.90 | 0.47 | 0.75 | 0.49 | | 0.58 | 0.37 | |
| Control Delay | 35.7 | 16.2 | | 24.3 | 52.7 | 13.0 | 47.1 | 26.9 | | 28.0 | 10.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 35.7 | 16.2 | | 24.3 | 52.7 | 13.0 | 47.1 | 26.9 | | 28.0 | 10.9 | |
| LOS | D | B | | C | D | B | D | C | | C | B | |
| Approach Delay | | 23.9 | | | 37.7 | | | 32.3 | | | 14.6 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (m) | 18.1 | 27.3 | | 6.6 | 74.5 | 12.6 | 40.4 | 51.2 | | 18.8 | 27.7 | |
| Queue Length 95th (m) | #39.4 | 45.8 | | 15.4 | #125.5 | 32.5 | #77.5 | 70.1 | | #34.0 | 25.6 | |
| Internal Link Dist (m) | | 117.2 | | | 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 | 566 | 316 | 1317 | | 226 | 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 | 0.75 | 0.38 | | 0.17 | 0.85 | 0.45 | 0.75 | 0.49 | | 0.58 | 0.37 | |

Intersection Summary

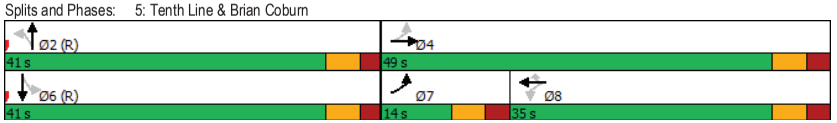
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated





Maximum v/c Ratio: 0.90
Intersection Signal Delay: 28.4 — Intersection LOS: C
Intersection Capacity Utilization 90.2% — 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 | |

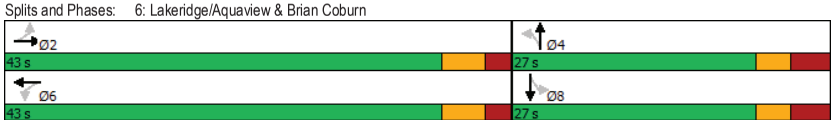
| Intersection Summary |
|---|
| Cycle Length: 70 |
| Actuated Cycle Length: 62.2 |
| Natural Cycle: 60 |
| Control Type: Semi Act-Uncoord |
| Maximum v/c Ratio: 0.53 |





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) | 89 | 27 | 44 | 9 | 29 | 70 | 81 | 715 | 1 | 19 | 403 | 59 |
| Future Volume (vph) | 89 | 27 | 44 | 9 | 29 | 70 | 81 | 715 | 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) | 89 | 71 | 0 | 9 | 99 | 0 | 81 | 715 | 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) | 16.2 | 16.2 | | 16.2 | 16.2 | | 65.6 | 65.6 | 65.6 | 65.6 | 65.6 | 65.6 |
| 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 | 0.42 | 0.25 | | 0.04 | 0.30 | | 0.14 | 0.31 | 0.00 | 0.04 | 0.17 | 0.06 |
| Control Delay | 36.3 | 14.8 | | 25.0 | 12.6 | | 8.8 | 7.7 | 0.0 | 6.9 | 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 | 36.3 | 14.8 | | 25.0 | 12.6 | | 8.8 | 7.7 | 0.0 | 6.9 | 5.0 | 2.3 |
| LOS | D | B | | C | B | | A | A | A | A | A | A |
| Approach Delay | | 26.8 | | | 13.6 | | | 7.8 | | | 4.8 | |
| Approach LOS | | C | | | B | | | A | | | A | |
| Queue Length 50th (m) | 14.6 | 4.2 | | 1.4 | 4.5 | | 3.7 | 19.5 | 0.0 | 0.3 | 3.4 | 0.0 |
| Queue Length 95th (m) | 20.7 | 11.3 | | 3.9 | 12.9 | | 17.1 | 56.7 | 0.0 | m6.7 | 39.8 | 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 | | 567 | 2282 | 1063 | 433 | 2304 | 1006 |
| 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 | 0.20 | 0.13 | | 0.02 | 0.16 | | 0.14 | 0.31 | 0.00 | 0.04 | 0.17 | 0.06 |

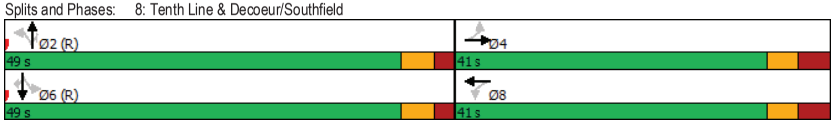
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated





Maximum v/c Ratio: 0.42
Intersection Signal Delay: 9.2 — Intersection LOS: A
Intersection Capacity Utilization 56.7% — 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) | 135 | 3 | 12 | 70 | 1 | 290 | 5 | 353 | 33 | 76 | 329 | 58 |
| Future Volume (vph) | 135 | 3 | 12 | 70 | 1 | 290 | 5 | 353 | 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 | | | 0.523 | | |
| Satd. Flow (perm) | 795 | 1433 | 0 | 1304 | 1447 | 0 | 775 | 3074 | 0 | 870 | 3187 | 0 |
| Satd. Flow (RTOR) | | 12 | | | 290 | | | 17 | | | 35 | |
| Lane Group Flow (vph) | 135 | 15 | 0 | 70 | 291 | 0 | 5 | 386 | 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 | 10.2 | | 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 | | 498 | 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 | |

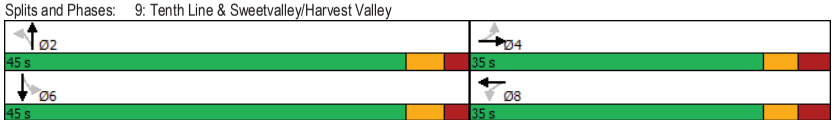
| Intersection Summary |
|---|
| Cycle Length: 80 |
| Actuated Cycle Length: 68.2 |
| Natural Cycle: 65 |
| Control Type: Actuated-Uncoordinated |
| Maximum v/c Ratio: 0.71 |





Intersection Signal Delay: 12.0 — 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 | 879 | 473 | 13 |
| Future Vol, veh/h | 0 | 5 | 0 | 879 | 473 | 13 |
| 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 | 879 | 473 | 13 |

| 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 | 0.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 156 | 149 | 2 | 4 | 6 |
| Future Vol, veh/h | 1 | 156 | 149 | 2 | 4 | 6 |
| 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 | 1 | 156 | 149 | 2 | 4 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 151 | 0 | - | 0 | 308 | 150 |
| Stage 1 | - | - | - | - | 150 | - |
| Stage 2 | - | - | - | - | 158 | - |
| 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 | 1430 | - | - | - | 684 | 896 |
| Stage 1 | - | - | - | - | 878 | - |
| Stage 2 | - | - | - | - | 871 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1430 | - | - | - | 683 | 896 |
| Mov Cap-2 Maneuver | - | - | - | - | 683 | - |
| Stage 1 | - | - | - | - | 877 | - |
| Stage 2 | - | - | - | - | 871 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1430 | - | - | - | 797 |
| HCM Lane V/C Ratio | 0.001 | - | - | - | 0.013 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 449 | 21 | 3 | 822 | 32 | 19 |
| Future Vol, veh/h | 449 | 21 | 3 | 822 | 32 | 19 |
| 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 | 449 | 21 | 3 | 822 | 32 | 19 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 470 | 0 | 1288 | 460 |
| Stage 1 | - | - | - | - | 460 | - |
| Stage 2 | - | - | - | - | 828 | - |
| 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 | - | - | 1092 | - | 181 | 601 |
| Stage 1 | - | - | - | - | 636 | - |
| Stage 2 | - | - | - | - | 429 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1092 | - | 180 | 601 |
| Mov Cap-2 Maneuver | - | - | - | - | 180 | - |
| Stage 1 | - | - | - | - | 636 | - |
| Stage 2 | - | - | - | - | 427 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 23.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 244 | - | - | 1092 | - |
| HCM Lane V/C Ratio | 0.209 | - | - | 0.003 | - |
| HCM Control Delay (s) | 23.6 | - | - | 8.3 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.8 | - | - | 0 | - |





| 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 | 1036 | 63 | 263 | 1266 | 187 |
| Future Volume (vph) | 173 | 103 | 62 | 31 | 25 | 171 | 38 | 1036 | 63 | 263 | 1266 | 187 |
| Satd. Flow (prot) | 1658 | 1637 | 0 | 1658 | 1745 | 1483 | 1658 | 3316 | 1483 | 1658 | 3316 | 1455 |
| Flt Permitted | 0.741 | | | 0.604 | | | 0.179 | | | 0.246 | | |
| Satd. Flow (perm) | 1292 | 1637 | 0 | 1049 | 1745 | 1464 | 312 | 3316 | 1436 | 428 | 3316 | 1411 |
| Satd. Flow (RTOR) | | 30 | | | | 108 | | | 63 | | | 187 |
| Lane Group Flow (vph) | 173 | 165 | 0 | 31 | 25 | 171 | 38 | 1036 | 63 | 263 | 1266 | 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 | 17.7 | 5.6 | 5.6 | 0.6 | 52.1 | 10.3 | 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 | 17.7 | 5.6 | 5.6 | 0.6 | 52.1 | 10.3 | 1.7 |
| LOS | D | C | | C | C | B | A | A | A | D | B | A |
| Approach Delay | | 43.7 | | | 21.2 | | | 5.3 | | | 15.8 | |
| Approach LOS | | D | | | C | | | A | | | B | |
| Queue Length 50th (m) | 31.8 | 23.4 | | 5.1 | 4.0 | 10.5 | 1.2 | 56.1 | 0.2 | 37.1 | 58.4 | 0.0 |
| Queue Length 95th (m) | 49.0 | 38.8 | | 11.8 | 9.9 | 26.5 | 2.8 | 19.7 | 0.7 | #102.5 | 98.0 | 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 | 476 | 213 | 2262 | 999 | 292 | 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 |

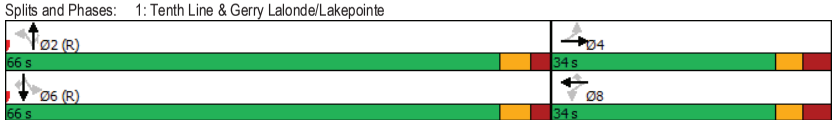
| Intersection Summary |
|---|
| Cycle Length: 100 |
| Actuated Cycle Length: 100 |
| Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green |
| Natural Cycle: 110 |
| Control Type: Actuated-Coordinated |

Maximum v/c Ratio: 0.90

| | |
|---|---|
| Intersection Signal Delay: 15.4 | Intersection LOS: B |
| Intersection Capacity Utilization 87.5% | 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 | 989 | 1196 | 160 |
| Future Volume (vph) | 149 | 111 | 54 | 989 | 1196 | 160 |
| Satd. Flow (prot) | 1658 | 1483 | 1658 | 3316 | 3316 | 1483 |
| Flt Permitted | 0.950 | | 0.203 | | | |
| Satd. Flow (perm) | 1653 | 1464 | 354 | 3316 | 3316 | 1431 |
| Satd. Flow (RTOR) | | 61 | | | | 160 |
| Lane Group Flow (vph) | 149 | 111 | 54 | 989 | 1196 | 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 | 0.43 | 0.51 | 0.15 |
| Control Delay | 43.4 | 19.9 | 10.6 | 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 | 10.6 | 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 | 33.5 | 29.4 | 0.1 |
| Queue Length 95th (m) | 37.7 | 19.5 | 13.5 | 76.1 | 37.9 | 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 | 248 | 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) | 232 | 469 | 240 | 59 | 240 | 236 | 161 | 581 | 47 | 291 | 849 | 191 |
| Future Volume (vph) | 232 | 469 | 240 | 59 | 240 | 236 | 161 | 581 | 47 | 291 | 849 | 191 |
| Satd. Flow (prot) | 1658 | 1647 | 0 | 1658 | 1745 | 1483 | 1566 | 3267 | 0 | 1658 | 3191 | 0 |
| Flt Permitted | 0.410 | | | 0.164 | | | 0.142 | | | 0.190 | | |
| Satd. Flow (perm) | 709 | 1647 | 0 | 286 | 1745 | 1430 | 233 | 3267 | 0 | 330 | 3191 | 0 |
| Satd. Flow (RTOR) | | 29 | | | | 236 | | 7 | | | 26 | |
| Lane Group Flow (vph) | 232 | 709 | 0 | 59 | 240 | 236 | 161 | 628 | 0 | 291 | 1040 | 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 | | 30.8 | 30.8 | 30.8 | 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 | 0.59 | 0.98 | | 0.74 | 0.49 | 0.41 | 0.93 | 0.75 | | 0.84 | 0.97 | |
| Control Delay | 28.4 | 59.9 | | 86.3 | 37.2 | 6.4 | 78.6 | 44.0 | | 43.1 | 57.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 28.4 | 59.9 | | 86.3 | 37.2 | 6.4 | 78.6 | 44.0 | | 43.1 | 57.6 | |
| LOS | C | E | | F | D | A | E | D | | D | E | |
| Approach Delay | | 52.1 | | | 29.0 | | | 51.0 | | | 54.4 | |
| Approach LOS | | D | | | C | | | D | | | D | |
| Queue Length 50th (m) | 32.3 | 142.3 | | 11.5 | 43.0 | 0.0 | 21.3 | 65.4 | | 40.0 | 112.8 | |
| Queue Length 95th (m) | 50.9 | #221.9 | | #34.9 | 66.9 | 17.9 | #61.6 | 86.2 | | #79.7 | #157.2 | |
| Internal Link Dist (m) | | 117.2 | | | 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 | 840 | | 356 | 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 | 0.59 | 0.98 | | 0.74 | 0.49 | 0.41 | 0.93 | 0.75 | | 0.82 | 0.97 | |

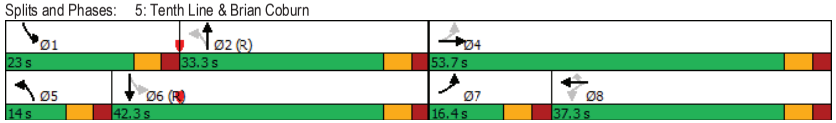
| Intersection Summary |
|---|
| Cycle Length: 110 |
| Actuated Cycle Length: 110 |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green |
| Natural Cycle: 95 |
| Control Type: Actuated-Coordinated |

Maximum v/c Ratio: 0.98

| | |
|---|---|
| Intersection Signal Delay: 49.3 | Intersection LOS: D |
| Intersection Capacity Utilization 111.3% | 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





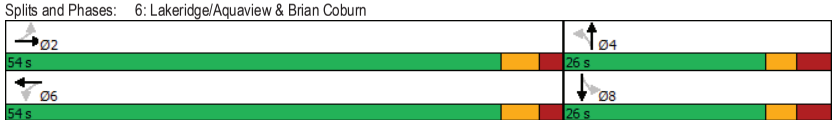



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 56 | 685 | 73 | 31 | 434 | 20 | 71 | 19 | 27 | 28 | 13 | 31 |
| Future Volume (vph) | 56 | 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) | 50 | 16 | 30 | 2 | 24 | 55 | 38 | 674 | 14 | 116 | 920 | 94 |
| Future Volume (vph) | 50 | 16 | 30 | 2 | 24 | 55 | 38 | 674 | 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 | | | 0.295 | | | 0.393 | | |
| Satd. Flow (perm) | 1232 | 1561 | 0 | 1268 | 1564 | 0 | 513 | 3316 | 1483 | 686 | 3316 | 1435 |
| Satd. Flow (RTOR) | | 30 | | | 55 | | | | 43 | | | 94 |
| Lane Group Flow (vph) | 50 | 46 | 0 | 2 | 79 | 0 | 38 | 674 | 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) | 15.0 | 15.0 | | 15.0 | 15.0 | | 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 | 0.27 | 0.18 | | 0.01 | 0.28 | | 0.10 | 0.26 | 0.01 | 0.22 | 0.36 | 0.08 |
| Control Delay | 38.0 | 17.1 | | 29.0 | 15.7 | | 7.8 | 6.1 | 0.0 | 8.2 | 6.9 | 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 | 38.0 | 17.1 | | 29.0 | 15.7 | | 7.8 | 6.1 | 0.0 | 8.2 | 6.9 | 2.2 |
| LOS | D | B | | C | B | | A | A | A | A | A | A |
| Approach Delay | | 28.0 | | | 16.1 | | | 6.1 | | | 6.6 | |
| Approach LOS | | C | | | B | | | A | | | A | |
| Queue Length 50th (m) | 9.2 | 2.9 | | 0.4 | 4.3 | | 1.5 | 15.8 | 0.0 | 5.0 | 23.7 | 0.0 |
| Queue Length 95th (m) | 15.0 | 9.6 | | 1.8 | 12.8 | | 9.3 | 50.8 | 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 | | 393 | 2544 | 1147 | 526 | 2544 | 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 | 0.12 | 0.08 | | 0.00 | 0.14 | | 0.10 | 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: 7.8 | Intersection LOS: A |
| Intersection Capacity Utilization 61.0% | ICU Level of Service B |
| Analysis Period (min) 15 | |

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



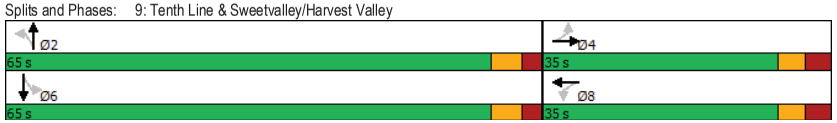



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 95 | 2 | 7 | 17 | 1 | 167 | 14 | 446 | 81 | 293 | 481 | 168 |
| Future Volume (vph) | 95 | 2 | 7 | 17 | 1 | 167 | 14 | 446 | 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 | | | 0.456 | | |
| Satd. Flow (perm) | 1045 | 1525 | 0 | 1261 | 1464 | 0 | 703 | 3239 | 0 | 796 | 3163 | 0 |
| Satd. Flow (RTOR) | | 7 | | | 167 | | | 36 | | | 84 | |
| Lane Group Flow (vph) | 95 | 9 | 0 | 17 | 168 | 0 | 14 | 527 | 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 | | 13.1 | 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 | | 13.1 | 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 | 31.1 | | 63.9 | 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 | | 550 | 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 | 14 | 0 | 788 | 1114 | 39 |
| Future Vol, veh/h | 0 | 14 | 0 | 788 | 1114 | 39 |
| 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 | 14 | 0 | 788 | 1114 | 39 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 577 | - | 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 | 460 | 0 | - | - | - |
| Stage 1 | 0 | - | 0 | - | - | - |
| Stage 2 | 0 | - | 0 | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 460 | - | - | - | - |
| 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) | - | 460 | - | - |
| HCM Lane V/C Ratio | - | 0.03 | - | - |
| HCM Control Delay (s) | - | 13.1 | - | - |
| HCM Lane LOS | - | B | - | - |
| HCM 95th %tile Q(veh) | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 92 | 103 | 5 | 4 | 8 |
| Future Vol, veh/h | 1 | 92 | 103 | 5 | 4 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 92 | 103 | 5 | 4 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 108 | 0 | - | 0 | 200 | 106 |
| Stage 1 | - | - | - | - | 106 | - |
| Stage 2 | - | - | - | - | 94 | - |
| 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 | 1483 | - | - | - | 789 | 948 |
| Stage 1 | - | - | - | - | 918 | - |
| Stage 2 | - | - | - | - | 930 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1483 | - | - | - | 788 | 948 |
| Mov Cap-2 Maneuver | - | - | - | - | 788 | - |
| Stage 1 | - | - | - | - | 917 | - |
| Stage 2 | - | - | - | - | 930 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 9.1 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1483 | - | - | - | 888 |
| HCM Lane V/C Ratio | 0.001 | - | - | - | 0.014 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.1 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |





| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 910 | 59 | 6 | 586 | 39 | 30 |
| Future Vol, veh/h | 910 | 59 | 6 | 586 | 39 | 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 | 910 | 59 | 6 | 586 | 39 | 30 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 969 | 0 | 1538 | 940 |
| Stage 1 | - | - | - | - | 940 | - |
| Stage 2 | - | - | - | - | 598 | - |
| 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 | - | - | 711 | - | 127 | 320 |
| Stage 1 | - | - | - | - | 380 | - |
| Stage 2 | - | - | - | - | 549 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 711 | - | 125 | 320 |
| Mov Cap-2 Maneuver | - | - | - | - | 125 | - |
| Stage 1 | - | - | - | - | 380 | - |
| Stage 2 | - | - | - | - | 542 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.1 | 39.9 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 170 | - | - | 711 | - |
| HCM Lane V/C Ratio | 0.406 | - | - | 0.008 | - |
| HCM Control Delay (s) | 39.9 | - | - | 10.1 | 0 |
| HCM Lane LOS | E | - | - | B | A |
| HCM 95th %tile Q(veh) | 1.8 | - | - | 0 | - |

# MOVEMENT SUMMARY

## Site: 101 [Brian Coburn Gerry Lalonde AM FT2026]

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 | 0.189 | 9.7 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 49.9 |
| 2 | T1 | 21 | 2.0 | 0.189 | 4.6 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 46.8 |
| 3 | R2 | 78 | 2.0 | 0.189 | 4.9 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 48.7 |
| Approach | | 182 | 2.0 | 0.189 | 7.1 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 49.0 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 44 | 2.0 | 0.807 | 12.1 | LOS B | 12.0 | 85.6 | 0.81 | 0.65 | 0.86 | 50.4 |
| 5 | T1 | 974 | 2.0 | 0.807 | 6.7 | LOS A | 12.0 | 85.6 | 0.81 | 0.65 | 0.86 | 53.6 |
| 6 | R2 | 13 | 2.0 | 0.807 | 6.8 | LOS A | 12.0 | 85.6 | 0.81 | 0.65 | 0.86 | 48.8 |
| Approach | | 1031 | 2.0 | 0.807 | 7.0 | LOS A | 12.0 | 85.6 | 0.81 | 0.65 | 0.86 | 53.4 |
| North: Gerry Lalonde | | | | | | | | | | | | |
| 7 | L2 | 7 | 2.0 | 0.541 | 26.6 | LOS C | 5.1 | 36.1 | 1.00 | 1.14 | 1.32 | 41.5 |
| 8 | T1 | 8 | 2.0 | 0.541 | 21.5 | LOS C | 5.1 | 36.1 | 1.00 | 1.14 | 1.32 | 39.3 |
| 9 | R2 | 185 | 2.0 | 0.541 | 21.8 | LOS C | 5.1 | 36.1 | 1.00 | 1.14 | 1.32 | 40.7 |
| Approach | | 200 | 2.0 | 0.541 | 22.0 | LOS C | 5.1 | 36.1 | 1.00 | 1.14 | 1.32 | 40.6 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10u | U | 32 | 2.0 | 0.327 | 11.4 | LOS B | 2.4 | 17.0 | 0.26 | 0.44 | 0.26 | 56.9 |
| 10 | L2 | 40 | 2.0 | 0.327 | 9.2 | LOS A | 2.4 | 17.0 | 0.26 | 0.44 | 0.26 | 52.2 |
| 11 | T1 | 349 | 2.0 | 0.327 | 3.8 | LOS A | 2.4 | 17.0 | 0.26 | 0.44 | 0.26 | 55.7 |
| 12 | R2 | 48 | 2.0 | 0.327 | 3.9 | LOS A | 2.4 | 17.0 | 0.26 | 0.44 | 0.26 | 50.5 |
| Approach | | 469 | 2.0 | 0.327 | 4.8 | LOS A | 2.4 | 17.0 | 0.26 | 0.44 | 0.26 | 54.9 |
| All Vehicles | | 1882 | 2.0 | 0.807 | 8.0 | LOS A | 12.0 | 85.6 | 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.
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 FT2026]

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 | 0.364 | 27.0 | LOS C | 3.0 | 21.0 | 1.00 | 1.01 | 1.03 | 40.6 |
| 2 | T1 | 10 | 2.0 | 0.364 | 21.8 | LOS C | 3.0 | 21.0 | 1.00 | 1.01 | 1.03 | 38.5 |
| 3 | R2 | 36 | 2.0 | 0.364 | 22.2 | LOS C | 3.0 | 21.0 | 1.00 | 1.01 | 1.03 | 39.8 |
| Approach | | 83 | 2.0 | 0.364 | 24.3 | LOS C | 3.0 | 21.0 | 1.00 | 1.01 | 1.03 | 40.0 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 62 | 2.0 | 0.587 | 11.4 | LOS B | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 50.6 |
| 5 | T1 | 552 | 2.0 | 0.587 | 6.0 | LOS A | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 53.8 |
| 6 | R2 | 12 | 2.0 | 0.587 | 6.1 | LOS A | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 48.9 |
| Approach | | 626 | 2.0 | 0.587 | 6.5 | LOS A | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 53.3 |
| North: Gerry Lalonde | | | | | | | | | | | | |
| 7 | L2 | 4 | 2.0 | 0.160 | 11.5 | LOS B | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 50.1 |
| 8 | T1 | 18 | 2.0 | 0.160 | 6.3 | LOS A | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 46.9 |
| 9 | R2 | 92 | 2.0 | 0.160 | 6.7 | LOS A | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 48.9 |
| Approach | | 114 | 2.0 | 0.160 | 6.8 | LOS A | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 48.6 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10u | U | 27 | 2.0 | 0.921 | 13.0 | LOS B | 25.3 | 180.2 | 1.00 | 0.51 | 1.00 | 53.7 |
| 10 | L2 | 212 | 2.0 | 0.921 | 10.8 | LOS B | 25.3 | 180.2 | 1.00 | 0.51 | 1.00 | 49.5 |
| 11 | T1 | 1035 | 2.0 | 0.921 | 5.5 | LOS A | 25.3 | 180.2 | 1.00 | 0.51 | 1.00 | 52.6 |
| 12 | R2 | 65 | 2.0 | 0.921 | 5.6 | LOS A | 25.3 | 180.2 | 1.00 | 0.51 | 1.00 | 48.0 |
| Approach | | 1339 | 2.0 | 0.921 | 6.5 | LOS A | 25.3 | 180.2 | 1.00 | 0.51 | 1.00 | 51.9 |
| All Vehicles | | 2162 | 2.0 | 0.921 | 7.2 | LOS A | 25.3 | 180.2 | 0.91 | 0.59 | 0.92 | 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 FT2026]

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 | 115 | 2.0 | 0.190 | 9.6 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 49.4 |
| 2 | T1 | 15 | 2.0 | 0.190 | 4.4 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 46.4 |
| 3 | R2 | 55 | 2.0 | 0.190 | 4.8 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 48.3 |
| Approach | | 185 | 2.0 | 0.190 | 7.8 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 48.8 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 32 | 2.0 | 0.659 | 10.1 | LOS B | 7.0 | 50.0 | 0.59 | 0.52 | 0.59 | 51.3 |
| 5 | T1 | 824 | 2.0 | 0.659 | 4.8 | LOS A | 7.0 | 50.0 | 0.59 | 0.52 | 0.59 | 54.6 |
| 6 | R2 | 12 | 2.0 | 0.659 | 4.9 | LOS A | 7.0 | 50.0 | 0.59 | 0.52 | 0.59 | 49.6 |
| Approach | | 868 | 2.0 | 0.659 | 5.0 | LOS A | 7.0 | 50.0 | 0.59 | 0.52 | 0.59 | 54.4 |
| North: Strasbourg | | | | | | | | | | | | |
| 7 | L2 | 25 | 2.0 | 0.234 | 15.2 | LOS B | 1.6 | 11.6 | 0.90 | 0.88 | 0.90 | 47.3 |
| 8 | T1 | 22 | 2.0 | 0.234 | 10.0 | LOS B | 1.6 | 11.6 | 0.90 | 0.88 | 0.90 | 44.4 |
| 9 | R2 | 76 | 2.0 | 0.234 | 10.4 | LOS B | 1.6 | 11.6 | 0.90 | 0.88 | 0.90 | 46.2 |
| Approach | | 123 | 2.0 | 0.234 | 11.3 | LOS B | 1.6 | 11.6 | 0.90 | 0.88 | 0.90 | 46.1 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10 | L2 | 7 | 2.0 | 0.308 | 9.3 | LOS A | 2.1 | 15.1 | 0.29 | 0.41 | 0.29 | 52.6 |
| 11 | T1 | 379 | 2.0 | 0.308 | 4.0 | LOS A | 2.1 | 15.1 | 0.29 | 0.41 | 0.29 | 56.1 |
| 12 | R2 | 38 | 2.0 | 0.308 | 4.1 | LOS A | 2.1 | 15.1 | 0.29 | 0.41 | 0.29 | 50.8 |
| Approach | | 424 | 2.0 | 0.308 | 4.1 | LOS A | 2.1 | 15.1 | 0.29 | 0.41 | 0.29 | 55.5 |
| All Vehicles | | 1600 | 2.0 | 0.659 | 5.6 | LOS A | 7.0 | 50.0 | 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 FT2026]

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 | 65 | 2.0 | 0.224 | 15.2 | LOS B | 1.6 | 11.2 | 0.90 | 0.89 | 0.90 | 46.3 |
| 2 | T1 | 18 | 2.0 | 0.224 | 10.1 | LOS B | 1.6 | 11.2 | 0.90 | 0.89 | 0.90 | 43.6 |
| 3 | R2 | 34 | 2.0 | 0.224 | 10.5 | LOS B | 1.6 | 11.2 | 0.90 | 0.89 | 0.90 | 45.3 |
| Approach | | 117 | 2.0 | 0.224 | 13.1 | LOS B | 1.6 | 11.2 | 0.90 | 0.89 | 0.90 | 45.5 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 54 | 2.0 | 0.474 | 9.7 | LOS A | 4.0 | 28.3 | 0.44 | 0.47 | 0.44 | 51.8 |
| 5 | T1 | 536 | 2.0 | 0.474 | 4.3 | LOS A | 4.0 | 28.3 | 0.44 | 0.47 | 0.44 | 55.2 |
| 6 | R2 | 36 | 2.0 | 0.474 | 4.4 | LOS A | 4.0 | 28.3 | 0.44 | 0.47 | 0.44 | 50.1 |
| Approach | | 626 | 2.0 | 0.474 | 4.8 | LOS A | 4.0 | 28.3 | 0.44 | 0.47 | 0.44 | 54.6 |
| North: Strasbourg | | | | | | | | | | | | |
| 7 | L2 | 23 | 2.0 | 0.076 | 11.0 | LOS B | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 49.3 |
| 8 | T1 | 13 | 2.0 | 0.076 | 5.8 | LOS A | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 46.2 |
| 9 | R2 | 23 | 2.0 | 0.076 | 6.2 | LOS A | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 48.1 |
| Approach | | 59 | 2.0 | 0.076 | 8.0 | LOS A | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 48.1 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10 | L2 | 33 | 2.0 | 0.738 | 9.9 | LOS A | 9.3 | 66.2 | 0.54 | 0.46 | 0.54 | 51.5 |
| 11 | T1 | 919 | 2.0 | 0.738 | 4.6 | LOS A | 9.3 | 66.2 | 0.54 | 0.46 | 0.54 | 54.9 |
| 12 | R2 | 106 | 2.0 | 0.738 | 4.7 | LOS A | 9.3 | 66.2 | 0.54 | 0.46 | 0.54 | 49.8 |
| Approach | | 1058 | 2.0 | 0.738 | 4.7 | LOS A | 9.3 | 66.2 | 0.54 | 0.46 | 0.54 | 54.2 |
| All Vehicles | | 1860 | 2.0 | 0.738 | 5.4 | LOS A | 9.3 | 66.2 | 0.53 | 0.50 | 0.53 | 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.

# Appendix M

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 | 1030 | 15 | 79 | 563 | 73 |
| Future Volume (vph) | 170 | 19 | 40 | 44 | 60 | 231 | 22 | 1030 | 15 | 79 | 563 | 73 |
| Satd. Flow (prot) | 1566 | 1483 | 0 | 1642 | 1745 | 1483 | 1496 | 3283 | 1483 | 1626 | 3191 | 1441 |
| Flt Permitted | 0.718 | | | 0.719 | | | 0.441 | | | 0.243 | | |
| Satd. Flow (perm) | 1179 | 1483 | 0 | 1240 | 1745 | 1460 | 692 | 3283 | 1442 | 415 | 3191 | 1400 |
| Satd. Flow (RTOR) | | 40 | | | | 91 | | | 46 | | | 73 |
| Lane Group Flow (vph) | 170 | 59 | 0 | 44 | 60 | 231 | 22 | 1030 | 15 | 79 | 563 | 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 | 12.8 | 1.1 | 12.6 | 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 | 12.8 | 1.1 | 12.6 | 8.0 | 2.5 |
| LOS | D | B | | C | C | C | A | B | A | B | A | A |
| Approach Delay | | 39.2 | | | 26.5 | | | 12.6 | | | 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 | 19.2 | 0.0 |
| Queue Length 95th (m) | 43.2 | 10.9 | | 13.4 | 16.5 | 39.5 | m3.1 | 95.1 | m0.3 | 17.6 | 35.7 | 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 | 270 | 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 |

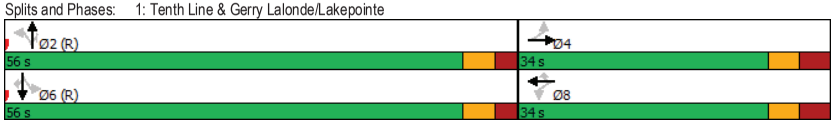
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated





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 | 1007 | 585 | 61 |
| Future Volume (vph) | 54 | 13 | 70 | 1007 | 585 | 61 |
| Satd. Flow (prot) | 1658 | 1483 | 1658 | 3252 | 3161 | 1483 |
| Flt Permitted | 0.950 | | 0.431 | | | |
| Satd. Flow (perm) | 1656 | 1483 | 749 | 3252 | 3161 | 1437 |
| Satd. Flow (RTOR) | | 13 | | | | 61 |
| Lane Group Flow (vph) | 54 | 13 | 70 | 1007 | 585 | 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 | 6.1 | 5.8 | 2.3 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.6 | 18.5 | 6.1 | 5.8 | 2.3 | 0.5 |
| LOS | D | B | A | A | A | A |
| Approach Delay | 36.3 | | | 5.8 | 2.1 | |
| Approach LOS | D | | | A | A | |
| Queue Length 50th (m) | 8.7 | 0.0 | 3.4 | 30.1 | 8.7 | 0.0 |
| Queue Length 95th (m) | 19.3 | 5.2 | m9.0 | 44.4 | 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 | 593 | 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: 5.6 | 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) | 184 | 213 | 71 | 53 | 489 | 253 | 236 | 615 | 38 | 132 | 359 | 124 |
| Future Volume (vph) | 184 | 213 | 71 | 53 | 489 | 253 | 236 | 615 | 38 | 132 | 359 | 124 |
| Satd. Flow (prot) | 1642 | 1562 | 0 | 1610 | 1728 | 1483 | 1658 | 3216 | 0 | 1566 | 3075 | 0 |
| Flt Permitted | 0.159 | | | 0.586 | | | 0.440 | | | 0.331 | | |
| Satd. Flow (perm) | 274 | 1562 | 0 | 993 | 1728 | 1455 | 766 | 3216 | 0 | 544 | 3075 | 0 |
| Satd. Flow (RTOR) | | 25 | | | | 143 | | 8 | | | 62 | |
| Lane Group Flow (vph) | 184 | 284 | 0 | 53 | 489 | 253 | 236 | 653 | 0 | 132 | 483 | 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 | 0.82 | 0.39 | | 0.17 | 0.91 | 0.46 | 0.76 | 0.50 | | 0.60 | 0.38 | |
| Control Delay | 45.5 | 16.2 | | 23.4 | 52.6 | 13.3 | 48.4 | 27.3 | | 29.0 | 11.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 45.5 | 16.2 | | 23.4 | 52.6 | 13.3 | 48.4 | 27.3 | | 29.0 | 11.0 | |
| LOS | D | B | | C | D | B | D | C | | C | B | |
| Approach Delay | | 27.7 | | | 38.2 | | | 32.9 | | | 14.9 | |
| Approach LOS | | C | | | D | | | C | | | B | |
| Queue Length 50th (m) | 18.1 | 27.3 | | 6.4 | 78.4 | 13.7 | 40.8 | 52.4 | | 18.9 | 28.3 | |
| Queue Length 95th (m) | #43.9 | 45.8 | | 15.1 | #131.8 | 33.7 | #78.1 | 71.2 | | #34.6 | 26.3 | |
| Internal Link Dist (m) | | 117.2 | | | 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 | 574 | 311 | 1312 | | 221 | 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 | 0.82 | 0.38 | | 0.16 | 0.86 | 0.44 | 0.76 | 0.50 | | 0.60 | 0.38 | |

Intersection Summary

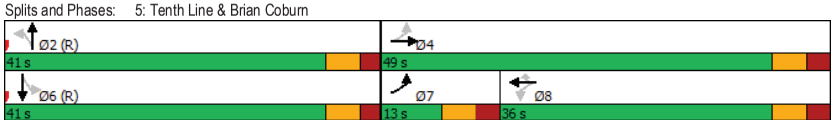
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated





Maximum v/c Ratio: 0.91
Intersection Signal Delay: 29.5 — Intersection LOS: C
Intersection Capacity Utilization 91.6% — ICU Level of Service F
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 | |

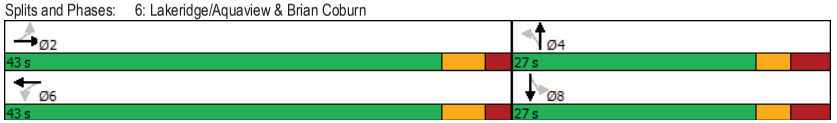
| Intersection Summary |
|---|
| Cycle Length: 70 |
| Actuated Cycle Length: 62.2 |
| Natural Cycle: 60 |
| Control Type: Semi Act-Uncoord |
| Maximum v/c Ratio: 0.55 |





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) | 89 | 27 | 44 | 9 | 29 | 70 | 81 | 729 | 1 | 19 | 410 | 59 |
| Future Volume (vph) | 89 | 27 | 44 | 9 | 29 | 70 | 81 | 729 | 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) | 89 | 71 | 0 | 9 | 99 | 0 | 81 | 729 | 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) | 16.2 | 16.2 | | 16.2 | 16.2 | | 65.6 | 65.6 | 65.6 | 65.6 | 65.6 | 65.6 |
| 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 | 0.42 | 0.25 | | 0.04 | 0.30 | | 0.14 | 0.32 | 0.00 | 0.04 | 0.18 | 0.06 |
| Control Delay | 36.3 | 14.8 | | 25.0 | 12.6 | | 8.8 | 7.7 | 0.0 | 6.6 | 4.8 | 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 | 36.3 | 14.8 | | 25.0 | 12.6 | | 8.8 | 7.7 | 0.0 | 6.6 | 4.8 | 2.2 |
| LOS | D | B | | C | B | | A | A | A | A | A | A |
| Approach Delay | | 26.8 | | | 13.6 | | | 7.8 | | | 4.5 | |
| Approach LOS | | C | | | B | | | A | | | A | |
| Queue Length 50th (m) | 14.6 | 4.2 | | 1.4 | 4.5 | | 3.7 | 20.0 | 0.0 | 0.3 | 3.4 | 0.0 |
| Queue Length 95th (m) | 20.7 | 11.3 | | 3.9 | 12.9 | | 17.1 | 58.1 | 0.0 | m6.4 | 39.8 | 11.0 |
| 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) | 444 | 553 | | 470 | 628 | | 563 | 2282 | 1063 | 426 | 2304 | 1006 |
| 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 | 0.20 | 0.13 | | 0.02 | 0.16 | | 0.14 | 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



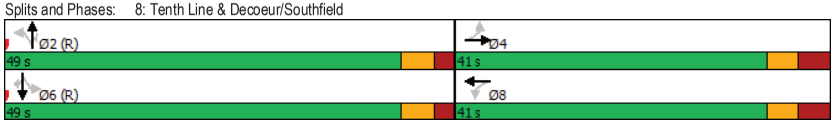


Maximum v/c Ratio: 0.42

| | |
|---|---|
| Intersection Signal Delay: 9.1 | Intersection LOS: A |
| Intersection Capacity Utilization 57.1% | 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 | 358 | 33 | 76 | 335 | 58 |
| Future Volume (vph) | 135 | 3 | 12 | 70 | 1 | 290 | 5 | 358 | 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 | 391 | 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 | 24.8 | | 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 | |

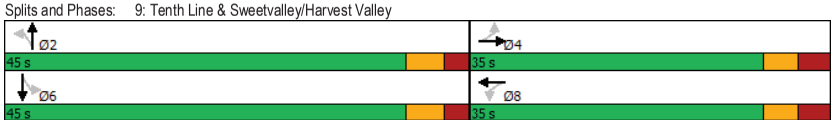
| Intersection Summary |
|---|
| Cycle Length: 80 |
| Actuated Cycle Length: 68.2 |
| Natural Cycle: 65 |
| Control Type: Actuated-Uncoordinated |
| Maximum v/c Ratio: 0.71 |





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 | 889 | 480 | 13 |
| Future Vol, veh/h | 0 | 5 | 0 | 889 | 480 | 13 |
| 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 | 889 | 480 | 13 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 247 | - | 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 | 753 | 0 | - | - | - |
| Stage 1 | 0 | - | 0 | - | - | - |
| Stage 2 | 0 | - | 0 | - | - | - |
| Platoon blocked, % | | | | | - | - |
| Mov Cap-1 Maneuver | - | 753 | - | - | - | - |
| 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) | - | 753 | - | - |
| 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 | 0.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 156 | 149 | 2 | 4 | 6 |
| Future Vol, veh/h | 1 | 156 | 149 | 2 | 4 | 6 |
| 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 | 1 | 156 | 149 | 2 | 4 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 151 | 0 | - | 0 | 308 | 150 |
| Stage 1 | - | - | - | - | 150 | - |
| Stage 2 | - | - | - | - | 158 | - |
| 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 | 1430 | - | - | - | 684 | 896 |
| Stage 1 | - | - | - | - | 878 | - |
| Stage 2 | - | - | - | - | 871 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1430 | - | - | - | 683 | 896 |
| Mov Cap-2 Maneuver | - | - | - | - | 683 | - |
| Stage 1 | - | - | - | - | 877 | - |
| Stage 2 | - | - | - | - | 871 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1430 | - | - | - | 797 |
| HCM Lane V/C Ratio | 0.001 | - | - | - | 0.013 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 449 | 21 | 3 | 846 | 32 | 19 |
| Future Vol, veh/h | 449 | 21 | 3 | 846 | 32 | 19 |
| 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 | 449 | 21 | 3 | 846 | 32 | 19 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 470 | 0 | 1312 | 460 |
| Stage 1 | - | - | - | - | 460 | - |
| Stage 2 | - | - | - | - | 852 | - |
| 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 | - | - | 1092 | - | 175 | 601 |
| Stage 1 | - | - | - | - | 636 | - |
| Stage 2 | - | - | - | - | 418 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1092 | - | 174 | 601 |
| Mov Cap-2 Maneuver | - | - | - | - | 174 | - |
| Stage 1 | - | - | - | - | 636 | - |
| Stage 2 | - | - | - | - | 416 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 24.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 237 | - | - | 1092 | - |
| HCM Lane V/C Ratio | 0.215 | - | - | 0.003 | - |
| HCM Control Delay (s) | 24.3 | - | - | 8.3 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.8 | - | - | 0 | - |





| 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 | 1057 | 63 | 263 | 1290 | 187 |
| Future Volume (vph) | 173 | 103 | 62 | 31 | 25 | 171 | 38 | 1057 | 63 | 263 | 1290 | 187 |
| Satd. Flow (prot) | 1658 | 1637 | 0 | 1658 | 1745 | 1483 | 1658 | 3316 | 1483 | 1658 | 3316 | 1455 |
| Flt Permitted | 0.741 | | | 0.604 | | | 0.173 | | | 0.239 | | |
| Satd. Flow (perm) | 1292 | 1637 | 0 | 1049 | 1745 | 1464 | 302 | 3316 | 1436 | 416 | 3316 | 1411 |
| Satd. Flow (RTOR) | | 30 | | | | 103 | | | 63 | | | 187 |
| Lane Group Flow (vph) | 173 | 165 | 0 | 31 | 25 | 171 | 38 | 1057 | 63 | 263 | 1290 | 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 | 0.93 | 0.57 | 0.18 |
| Control Delay | 53.6 | 33.5 | | 33.0 | 30.8 | 18.7 | 5.7 | 5.6 | 0.5 | 57.9 | 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 | 5.7 | 5.6 | 0.5 | 57.9 | 10.4 | 1.7 |
| LOS | D | C | | C | C | B | A | A | A | E | B | A |
| Approach Delay | | 43.7 | | | 22.0 | | | 5.3 | | | 16.7 | |
| Approach LOS | | D | | | C | | | A | | | B | |
| Queue Length 50th (m) | 31.8 | 23.4 | | 5.1 | 4.0 | 11.3 | 1.2 | 57.3 | 0.2 | 38.9 | 60.4 | 0.0 |
| Queue Length 95th (m) | 49.0 | 38.8 | | 11.8 | 9.9 | 27.4 | m2.6 | 19.8 | 0.6 | #103.9 | 101.0 | 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 | 206 | 2262 | 999 | 283 | 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 | 0.93 | 0.57 | 0.18 |

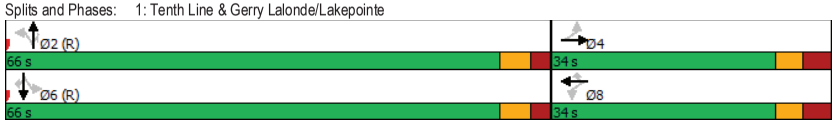
| Intersection Summary |
|---|
| Cycle Length: 100 |
| Actuated Cycle Length: 100 |
| Offset: 90 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green |
| Natural Cycle: 110 |
| Control Type: Actuated-Coordinated |

Maximum v/c Ratio: 0.93

| | |
|---|---|
| Intersection Signal Delay: 15.9 | Intersection LOS: B |
| Intersection Capacity Utilization 88.1% | 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 | 1008 | 1218 | 160 |
| Future Volume (vph) | 149 | 111 | 54 | 1008 | 1218 | 160 |
| Satd. Flow (prot) | 1658 | 1483 | 1658 | 3316 | 3316 | 1483 |
| Flt Permitted | 0.950 | | 0.197 | | | |
| Satd. Flow (perm) | 1653 | 1464 | 344 | 3316 | 3316 | 1431 |
| Satd. Flow (RTOR) | | 57 | | | | 160 |
| Lane Group Flow (vph) | 149 | 111 | 54 | 1008 | 1218 | 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 | 21.1 | 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 | 21.1 | 10.8 | 8.3 | 5.9 | 0.7 |
| LOS | D | C | B | A | A | A |
| Approach Delay | 33.9 | | | 8.4 | 5.3 | |
| Approach LOS | C | | | A | A | |
| Queue Length 50th (m) | 27.5 | 9.4 | 2.9 | 34.4 | 30.0 | 0.1 |
| Queue Length 95th (m) | 37.7 | 20.2 | 13.7 | 78.2 | 38.4 | 2.5 |
| Internal Link Dist (m) | 33.9 | | | 222.1 | 154.1 | |
| Turn Bay Length (m) | | | 75.0 | | | 60.0 |
| Base Capacity (vph) | 515 | 495 | 241 | 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: 9.3 | 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) | 232 | 493 | 240 | 59 | 240 | 236 | 161 | 592 | 47 | 291 | 865 | 191 |
| Future Volume (vph) | 232 | 493 | 240 | 59 | 240 | 236 | 161 | 592 | 47 | 291 | 865 | 191 |
| Satd. Flow (prot) | 1658 | 1651 | 0 | 1658 | 1745 | 1483 | 1566 | 3267 | 0 | 1658 | 3194 | 0 |
| Flt Permitted | 0.430 | | | 0.128 | | | 0.144 | | | 0.180 | | |
| Satd. Flow (perm) | 743 | 1651 | 0 | 223 | 1745 | 1431 | 237 | 3267 | 0 | 313 | 3194 | 0 |
| Satd. Flow (RTOR) | | 28 | | | | 236 | | 7 | | | 25 | |
| Lane Group Flow (vph) | 232 | 733 | 0 | 59 | 240 | 236 | 161 | 639 | 0 | 291 | 1056 | 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 | 35.7 | 27.7 | | 49.9 | 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 | 0.60 | 1.00 | | 0.87 | 0.45 | 0.39 | 0.93 | 0.77 | | 0.85 | 0.99 | |
| Control Delay | 29.1 | 65.3 | | 117.5 | 34.1 | 5.8 | 79.5 | 45.4 | | 45.6 | 62.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 29.1 | 65.3 | | 117.5 | 34.1 | 5.8 | 79.5 | 45.4 | | 45.6 | 62.9 | |
| LOS | C | E | | F | C | A | E | D | | D | E | |
| Approach Delay | | 56.6 | | | 30.8 | | | 52.3 | | | 59.2 | |
| Approach LOS | | E | | | C | | | D | | | E | |
| Queue Length 50th (m) | 32.2 | ~151.6 | | 11.9 | 41.4 | 0.0 | 21.3 | 67.2 | | 40.2 | 116.1 | |
| Queue Length 95th (m) | 50.6 | #232.2 | | #37.6 | 64.4 | 17.2 | #61.5 | 88.1 | | #82.5 | #162.4 | |
| Internal Link Dist (m) | | 117.2 | | | 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 | 826 | | 350 | 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 | 0.60 | 1.00 | | 0.87 | 0.45 | 0.39 | 0.93 | 0.77 | | 0.83 | 0.99 | |

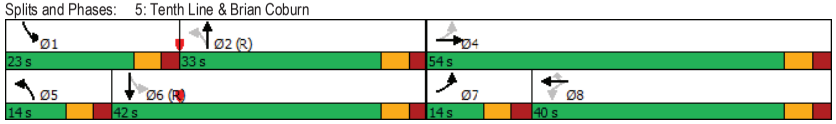
| Intersection Summary |
|---|
| Cycle Length: 110 |
| Actuated Cycle Length: 110 |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green |
| Natural Cycle: 105 |
| Control Type: Actuated-Coordinated |

Maximum v/c Ratio: 1.00

| | |
|---|---|
| Intersection Signal Delay: 52.8 | 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





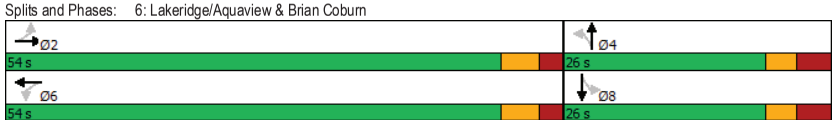



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 56 | 720 | 73 | 31 | 434 | 20 | 71 | 19 | 27 | 28 | 13 | 31 |
| Future Volume (vph) | 56 | 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 | |

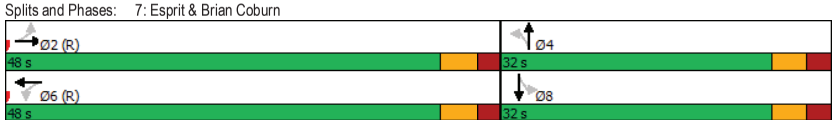
Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

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) | 50 | 16 | 30 | 2 | 24 | 55 | 38 | 688 | 14 | 116 | 938 | 94 |
| Future Volume (vph) | 50 | 16 | 30 | 2 | 24 | 55 | 38 | 688 | 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 | | | 0.289 | | | 0.387 | | |
| Satd. Flow (perm) | 1232 | 1561 | 0 | 1268 | 1564 | 0 | 503 | 3316 | 1483 | 675 | 3316 | 1435 |
| Satd. Flow (RTOR) | | 30 | | | 55 | | | | 43 | | | 94 |
| Lane Group Flow (vph) | 50 | 46 | 0 | 2 | 79 | 0 | 38 | 688 | 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) | 15.0 | 15.0 | | 15.0 | 15.0 | | 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 | 0.27 | 0.18 | | 0.01 | 0.28 | | 0.10 | 0.27 | 0.01 | 0.22 | 0.37 | 0.08 |
| Control Delay | 38.0 | 17.1 | | 29.0 | 15.7 | | 7.9 | 6.2 | 0.0 | 8.3 | 6.9 | 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 | 38.0 | 17.1 | | 29.0 | 15.7 | | 7.9 | 6.2 | 0.0 | 8.3 | 6.9 | 2.2 |
| LOS | D | B | | C | B | | A | A | A | A | A | A |
| Approach Delay | | 28.0 | | | 16.1 | | | 6.2 | | | 6.7 | |
| Approach LOS | | C | | | B | | | A | | | A | |
| Queue Length 50th (m) | 9.2 | 2.9 | | 0.4 | 4.3 | | 1.5 | 16.2 | 0.0 | 5.0 | 24.4 | 0.0 |
| Queue Length 95th (m) | 15.0 | 9.6 | | 1.8 | 12.8 | | 9.3 | 52.0 | 0.3 | 24.5 | 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 | | 386 | 2544 | 1147 | 518 | 2544 | 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 | 0.12 | 0.08 | | 0.00 | 0.14 | | 0.10 | 0.27 | 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: 0.37

| | |
|---|---|
| Intersection Signal Delay: 7.8 | Intersection LOS: A |
| Intersection Capacity Utilization 61.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

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



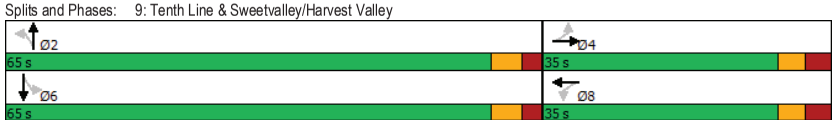



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 95 | 2 | 7 | 17 | 1 | 167 | 14 | 454 | 81 | 293 | 489 | 168 |
| Future Volume (vph) | 95 | 2 | 7 | 17 | 1 | 167 | 14 | 454 | 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 | 535 | 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 | 31.7 | | 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 74.6% | 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 | 14 | 0 | 799 | 1132 | 39 |
| Future Vol, veh/h | 0 | 14 | 0 | 799 | 1132 | 39 |
| 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 | 14 | 0 | 799 | 1132 | 39 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 586 | - | 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 | 454 | 0 | - | - | - |
| Stage 1 | 0 | - | 0 | - | - | - |
| Stage 2 | 0 | - | 0 | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | - | 454 | - | - | - | - |
| 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) | - | 454 | - | - |
| HCM Lane V/C Ratio | - | 0.031 | - | - |
| HCM Control Delay (s) | - | 13.2 | - | - |
| HCM Lane LOS | - | B | - | - |
| HCM 95th %tile Q(veh) | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 92 | 103 | 5 | 4 | 8 |
| Future Vol, veh/h | 1 | 92 | 103 | 5 | 4 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 92 | 103 | 5 | 4 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 108 | 0 | - | 0 | 200 | 106 |
| Stage 1 | - | - | - | - | 106 | - |
| Stage 2 | - | - | - | - | 94 | - |
| 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 | 1483 | - | - | - | 789 | 948 |
| Stage 1 | - | - | - | - | 918 | - |
| Stage 2 | - | - | - | - | 930 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1483 | - | - | - | 788 | 948 |
| Mov Cap-2 Maneuver | - | - | - | - | 788 | - |
| Stage 1 | - | - | - | - | 917 | - |
| Stage 2 | - | - | - | - | 930 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 9.1 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1483 | - | - | - | 888 |
| HCM Lane V/C Ratio | 0.001 | - | - | - | 0.014 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.1 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |





| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 934 | 59 | 6 | 586 | 39 | 30 |
| Future Vol, veh/h | 934 | 59 | 6 | 586 | 39 | 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 | 934 | 59 | 6 | 586 | 39 | 30 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 993 | 0 | 1562 | 964 |
| Stage 1 | - | - | - | - | 964 | - |
| Stage 2 | - | - | - | - | 598 | - |
| 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 | - | - | 696 | - | 123 | 310 |
| Stage 1 | - | - | - | - | 370 | - |
| Stage 2 | - | - | - | - | 549 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 696 | - | 121 | 310 |
| Mov Cap-2 Maneuver | - | - | - | - | 121 | - |
| Stage 1 | - | - | - | - | 370 | - |
| Stage 2 | - | - | - | - | 542 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.1 | 41.7 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 165 | - | - | 696 | - |
| HCM Lane V/C Ratio | 0.418 | - | - | 0.009 | - |
| HCM Control Delay (s) | 41.7 | - | - | 10.2 | 0 |
| HCM Lane LOS | E | - | - | B | A |
| HCM 95th %tile Q(veh) | 1.9 | - | - | 0 | - |

# MOVEMENT SUMMARY

## Site: 101 [Brian Coburn Gerry Lalonde AM FT2031]

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 | 0.189 | 9.7 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 49.9 |
| 2 | T1 | 21 | 2.0 | 0.189 | 4.5 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 46.8 |
| 3 | R2 | 78 | 2.0 | 0.189 | 4.9 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 48.7 |
| Approach | | 182 | 2.0 | 0.189 | 7.1 | LOS A | 1.1 | 7.6 | 0.57 | 0.66 | 0.57 | 49.0 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 44 | 2.0 | 0.843 | 12.9 | LOS B | 14.5 | 103.2 | 0.88 | 0.68 | 0.96 | 50.1 |
| 5 | T1 | 1024 | 2.0 | 0.843 | 7.5 | LOS A | 14.5 | 103.2 | 0.88 | 0.68 | 0.96 | 53.3 |
| 6 | R2 | 13 | 2.0 | 0.843 | 7.6 | LOS A | 14.5 | 103.2 | 0.88 | 0.68 | 0.96 | 48.5 |
| Approach | | 1081 | 2.0 | 0.843 | 7.7 | LOS A | 14.5 | 103.2 | 0.88 | 0.68 | 0.96 | 53.1 |
| North: Gerry Lalonde | | | | | | | | | | | | |
| 7 | L2 | 7 | 2.0 | 0.613 | 33.7 | LOS C | 6.2 | 44.1 | 1.00 | 1.19 | 1.45 | 38.4 |
| 8 | T1 | 8 | 2.0 | 0.613 | 28.5 | LOS C | 6.2 | 44.1 | 1.00 | 1.19 | 1.45 | 36.5 |
| 9 | R2 | 185 | 2.0 | 0.613 | 28.9 | LOS C | 6.2 | 44.1 | 1.00 | 1.19 | 1.45 | 37.7 |
| Approach | | 200 | 2.0 | 0.613 | 29.0 | LOS C | 6.2 | 44.1 | 1.00 | 1.19 | 1.45 | 37.7 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10u | U | 30 | 2.0 | 0.326 | 11.4 | LOS B | 2.4 | 17.1 | 0.26 | 0.44 | 0.26 | 56.9 |
| 10 | L2 | 40 | 2.0 | 0.326 | 9.2 | LOS A | 2.4 | 17.1 | 0.26 | 0.44 | 0.26 | 52.2 |
| 11 | T1 | 349 | 2.0 | 0.326 | 3.8 | LOS A | 2.4 | 17.1 | 0.26 | 0.44 | 0.26 | 55.7 |
| 12 | R2 | 48 | 2.0 | 0.326 | 3.9 | LOS A | 2.4 | 17.1 | 0.26 | 0.44 | 0.26 | 50.5 |
| Approach | | 467 | 2.0 | 0.326 | 4.8 | LOS A | 2.4 | 17.1 | 0.26 | 0.44 | 0.26 | 54.9 |
| All Vehicles | | 1930 | 2.0 | 0.843 | 9.2 | LOS A | 14.5 | 103.2 | 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.
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 FT2031]

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 | 0.408 | 33.2 | LOS C | 3.4 | 24.4 | 1.00 | 1.05 | 1.11 | 38.0 |
| 2 | T1 | 10 | 2.0 | 0.408 | 28.0 | LOS C | 3.4 | 24.4 | 1.00 | 1.05 | 1.11 | 36.2 |
| 3 | R2 | 36 | 2.0 | 0.408 | 28.4 | LOS C | 3.4 | 24.4 | 1.00 | 1.05 | 1.11 | 37.3 |
| Approach | | 83 | 2.0 | 0.408 | 30.5 | LOS C | 3.4 | 24.4 | 1.00 | 1.05 | 1.11 | 37.5 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 62 | 2.0 | 0.588 | 11.4 | LOS B | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 50.6 |
| 5 | T1 | 552 | 2.0 | 0.588 | 6.0 | LOS A | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 53.8 |
| 6 | R2 | 12 | 2.0 | 0.588 | 6.1 | LOS A | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 48.9 |
| Approach | | 626 | 2.0 | 0.588 | 6.5 | LOS A | 5.4 | 38.7 | 0.74 | 0.66 | 0.76 | 53.3 |
| North: Gerry Lalonde | | | | | | | | | | | | |
| 7 | L2 | 4 | 2.0 | 0.161 | 11.5 | LOS B | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 50.1 |
| 8 | T1 | 18 | 2.0 | 0.161 | 6.3 | LOS A | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 46.9 |
| 9 | R2 | 92 | 2.0 | 0.161 | 6.7 | LOS A | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 48.9 |
| Approach | | 114 | 2.0 | 0.161 | 6.8 | LOS A | 1.0 | 7.3 | 0.76 | 0.73 | 0.76 | 48.6 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10u | U | 27 | 2.0 | 0.955 | 13.6 | LOS B | 32.9 | 234.4 | 1.00 | 0.52 | 1.00 | 53.7 |
| 10 | L2 | 212 | 2.0 | 0.955 | 11.5 | LOS B | 32.9 | 234.4 | 1.00 | 0.52 | 1.00 | 49.5 |
| 11 | T1 | 1086 | 2.0 | 0.955 | 6.1 | LOS A | 32.9 | 234.4 | 1.00 | 0.52 | 1.00 | 52.6 |
| 12 | R2 | 65 | 2.0 | 0.955 | 6.2 | LOS A | 32.9 | 234.4 | 1.00 | 0.52 | 1.00 | 48.0 |
| Approach | | 1390 | 2.0 | 0.955 | 7.1 | LOS A | 32.9 | 234.4 | 1.00 | 0.52 | 1.00 | 51.9 |
| All Vehicles | | 2213 | 2.0 | 0.955 | 7.8 | LOS A | 32.9 | 234.4 | 0.91 | 0.59 | 0.93 | 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 Strasbourg AM FT2031]

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 | 115 | 2.0 | 0.190 | 9.6 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 49.4 |
| 2 | T1 | 15 | 2.0 | 0.190 | 4.4 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 46.4 |
| 3 | R2 | 55 | 2.0 | 0.190 | 4.8 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 48.3 |
| Approach | | 185 | 2.0 | 0.190 | 7.8 | LOS A | 1.1 | 7.6 | 0.56 | 0.67 | 0.56 | 48.8 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 32 | 2.0 | 0.687 | 10.2 | LOS B | 7.7 | 54.8 | 0.62 | 0.52 | 0.62 | 51.2 |
| 5 | T1 | 863 | 2.0 | 0.687 | 4.9 | LOS A | 7.7 | 54.8 | 0.62 | 0.52 | 0.62 | 54.5 |
| 6 | R2 | 12 | 2.0 | 0.687 | 5.0 | LOS A | 7.7 | 54.8 | 0.62 | 0.52 | 0.62 | 49.5 |
| Approach | | 907 | 2.0 | 0.687 | 5.1 | LOS A | 7.7 | 54.8 | 0.62 | 0.52 | 0.62 | 54.3 |
| North: Strasbourg | | | | | | | | | | | | |
| 7 | L2 | 25 | 2.0 | 0.249 | 15.9 | LOS B | 1.8 | 12.6 | 0.92 | 0.90 | 0.92 | 46.8 |
| 8 | T1 | 22 | 2.0 | 0.249 | 10.8 | LOS B | 1.8 | 12.6 | 0.92 | 0.90 | 0.92 | 44.0 |
| 9 | R2 | 76 | 2.0 | 0.249 | 11.2 | LOS B | 1.8 | 12.6 | 0.92 | 0.90 | 0.92 | 45.8 |
| Approach | | 123 | 2.0 | 0.249 | 12.1 | LOS B | 1.8 | 12.6 | 0.92 | 0.90 | 0.92 | 45.6 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10 | L2 | 7 | 2.0 | 0.308 | 9.3 | LOS A | 2.1 | 15.2 | 0.29 | 0.41 | 0.29 | 52.6 |
| 11 | T1 | 379 | 2.0 | 0.308 | 4.0 | LOS A | 2.1 | 15.2 | 0.29 | 0.41 | 0.29 | 56.1 |
| 12 | R2 | 38 | 2.0 | 0.308 | 4.1 | LOS A | 2.1 | 15.2 | 0.29 | 0.41 | 0.29 | 50.8 |
| Approach | | 424 | 2.0 | 0.308 | 4.1 | LOS A | 2.1 | 15.2 | 0.29 | 0.41 | 0.29 | 55.5 |
| All Vehicles | | 1639 | 2.0 | 0.687 | 5.6 | LOS A | 7.7 | 54.8 | 0.55 | 0.54 | 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.
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 FT2031]

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 | 65 | 2.0 | 0.242 | 16.1 | LOS B | 1.7 | 12.3 | 0.93 | 0.91 | 0.93 | 45.8 |
| 2 | T1 | 18 | 2.0 | 0.242 | 10.9 | LOS B | 1.7 | 12.3 | 0.93 | 0.91 | 0.93 | 43.2 |
| 3 | R2 | 34 | 2.0 | 0.242 | 11.3 | LOS B | 1.7 | 12.3 | 0.93 | 0.91 | 0.93 | 44.8 |
| Approach | | 117 | 2.0 | 0.242 | 13.9 | LOS B | 1.7 | 12.3 | 0.93 | 0.91 | 0.93 | 45.1 |
| East: Brian Coburn | | | | | | | | | | | | |
| 4 | L2 | 54 | 2.0 | 0.475 | 9.7 | LOS A | 4.0 | 28.5 | 0.44 | 0.47 | 0.44 | 51.8 |
| 5 | T1 | 536 | 2.0 | 0.475 | 4.3 | LOS A | 4.0 | 28.5 | 0.44 | 0.47 | 0.44 | 55.2 |
| 6 | R2 | 36 | 2.0 | 0.475 | 4.4 | LOS A | 4.0 | 28.5 | 0.44 | 0.47 | 0.44 | 50.1 |
| Approach | | 626 | 2.0 | 0.475 | 4.8 | LOS A | 4.0 | 28.5 | 0.44 | 0.47 | 0.44 | 54.6 |
| North: Strasbourg | | | | | | | | | | | | |
| 7 | L2 | 23 | 2.0 | 0.076 | 11.0 | LOS B | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 49.3 |
| 8 | T1 | 13 | 2.0 | 0.076 | 5.8 | LOS A | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 46.2 |
| 9 | R2 | 23 | 2.0 | 0.076 | 6.2 | LOS A | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 48.1 |
| Approach | | 59 | 2.0 | 0.076 | 8.0 | LOS A | 0.4 | 3.1 | 0.68 | 0.68 | 0.68 | 48.1 |
| West: Brian Coburn | | | | | | | | | | | | |
| 10 | L2 | 33 | 2.0 | 0.767 | 10.0 | LOS B | 10.4 | 73.8 | 0.58 | 0.47 | 0.58 | 51.4 |
| 11 | T1 | 962 | 2.0 | 0.767 | 4.7 | LOS A | 10.4 | 73.8 | 0.58 | 0.47 | 0.58 | 54.7 |
| 12 | R2 | 106 | 2.0 | 0.767 | 4.8 | LOS A | 10.4 | 73.8 | 0.58 | 0.47 | 0.58 | 49.7 |
| Approach | | 1101 | 2.0 | 0.767 | 4.8 | LOS A | 10.4 | 73.8 | 0.58 | 0.47 | 0.58 | 54.1 |
| All Vehicles | | 1903 | 2.0 | 0.767 | 5.5 | LOS A | 10.4 | 73.8 | 0.56 | 0.50 | 0.56 | 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.

# Appendix N

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) | ☐ |



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| | | | 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 | ☐ |

| | 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) | ☐ |



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| | | 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 | ☐ |

| | | 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) | ☐ |