February 12th, 2026

**Mr. Benoit Serrurier**
Project Manager
**Lascelles Engineering and Associates Ltd.**
1010 Spence Avenue, Suite 14
Hawkesbury, Ontario
K6A 3H9
[Office: (613) 632-0241 ext:118 / Cell: (613) 223-6408 / Email: bserrurier@lascelleseng.com

**Re: Proposed Development: Caron Street Subdivision, City of Clarence-Rockland**
**Addendum #1 to Traffic Impact Study (July 9, 2025)**
**(Castleglenn Project 7361)**

This addendum document is intended to supplement the Traffic Impact Assessment (TIA) Final Report (dated July 9, 2025).

- The City of Clarence-Rockland (CCR) provided several comments/questions/concerns that contained a "redlined" version of the TIA document.
- Castleglenn has reviewed the correspondence and prepared a response to each issue raised in an issue-by-issue format within an MS Excel format. (See Annex "A".)
- Meetings were held CCR staff that provided further review and comment.

The purpose of this addendum document is to provide a formal response to the comments, questions and concerns received that included consideration of the potential development on the west side of Caron Street being developed by the 20-year (2043) time horizon.

Should you have any questions or comments on this addendum letter, please contact the undersigned

Yours Truly,

LICENSED PROFESSIONAL ENGINEER
Feb. 12th, 2026
A.E. GORDON
16625501.
PROVINCE OF ONTARIO

Mr. Arthur Gordon B.A. P.Eng
Principal Engineer
**Castleglenn Consultants Inc.**

Mr. Cameron Caudle
Transportation Planner
**Castleglenn Consultants Inc.**

## Table of Contents

## 1) Introduction

This addendum document is intended to supplement the Traffic Impact Assessment (TIA) Final Report (dated July 9, 2025). The addendum is intended to address several comm ents/questions/concerns raised by the City of Clarence-Rockland (CCR) in its review of the TIA document provided on August 29, 2025. Castleglenn's review of the material provided is attached as Annex "A" to this document. In addition, a meeting was held with City staff on December 11, 2025, which has raised the need for additional refinements which are addressed within this document.

## 2) West Side of Caron Street

The potential future development(s) located on the west side of Caron Street were excluded from the previous TIA submission as they were felt to be outside of the ultimate time horizon (2043) of the lands on the east side. The lands on the west side of Caron are conceptually illustrated within the red boundary of Exhibit 1. (See Annex "B".)

The following sections within this Addendum document serve to provide an assessment of forecast traffic conditions that would include the traffic impacts associated with the development of the lands west of Caron Street that are within the City's urban boundary.

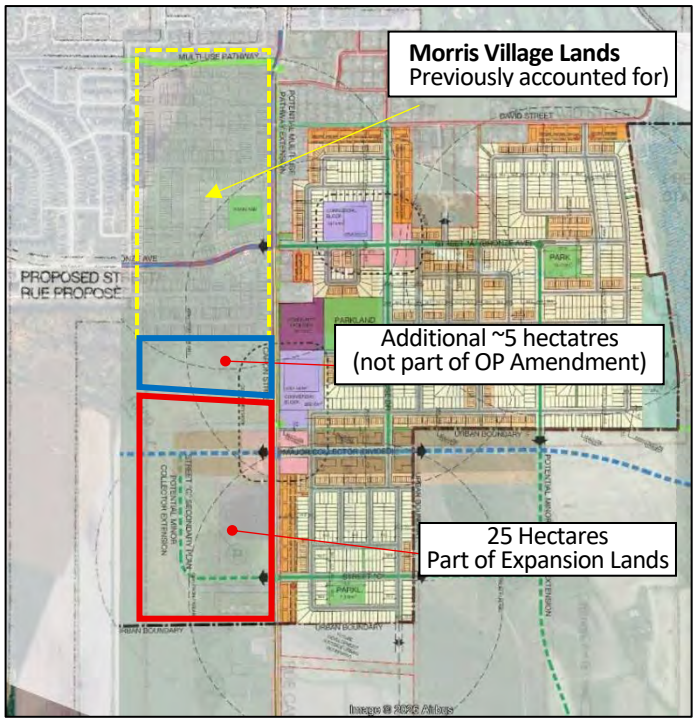



**Exhibit 1: Extents of Caron West Build-Out**

### a) West Side of Caron Trip Generation

The land use assumptions adopted for the west side of the Caron Street corridor (illustrated by the red boundary within Exhibit 1) were referenced from the Expansion Lands Secondary Plan (2019). A review of the Secondary Plan indicated that the lands on the West side of Caron Street would provide approximately 25 hectares of developable lands.

Exhibit 1 illustrates a blue polygon which represents an approximate 5-hectare parcel of land (directly north of the red polygon.) For the purpose of this addendum document, this land located between the Morris Village Stage 5/6 development and the OP Expansion Lands were also included in the analyses.

- Table 1 indicates the adopted land use assumptions used to determine the future traffic generation associated with the lands located on the west side of the Caron Street corridor.

**Table 1: Land Use**

| Land Use | Size, hectares | Density, units/ha | Resulting Size | |
|---|---|---|---|---|
| Low Density Residential | 24.3 | 28 | **681** | **Dwellings** |
| Medium Density Residential | 2.7 | 80 | **216** | **Dwellings** |
| | | **Total** | **897** | **Dwellings** |
| Community Facility | 2.5 | Elementary School | **600** | **Students** |

- Table 2 provides the morning and afternoon peak hour person-trip generation rates and directional (inbound/outbound) splits (as referenced from ITE's Trip Generation Manual, 12th Edition) for each of land uses applicable to the development potential on the west side of Caron Street within the municipal urban boundary.

**Table 2: Generation Rates and Inbound/Outbound Assumptions**

| Trip Generation Rate | Independent Variable | Morning Peak Hour | | | Afternoon Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | Person Trips / Unit | Pct Inbound | Pct Outbound | Person Trips / Unit | Pct Inbound | Pct Outbound |
| Land Use 210- Single-Family Detached Housing | Dwelling Units | 0.7 | 27% | 73% | 0.93 | 62% | 38% |
| Land Use 220 - Multifamily Housing (Low-Rise) | | 0.41 | 24% | 76% | 0.52 | 62% | 38% |
| Land Use 520 - Elementary School | Students | 0.73 | 54% | 46% | 0.16 | 46% | 54% |

- Table 3 provides the number of trips generated by the development west of Caron Street. The trips are broken down into the morning and afternoon peak hours, inbound/outbound directions and accounts for school-related "diverted" trips.

**Table 3: Site-Generated Trips (Vehicle Trips)**

| Trip Generation Rate | Size | Independent Variable | Morning Peak Hour | | Afternoon Peak Hour | |
|---|---|---|---|---|---|---|
| | | | Inbound | Outbound | Inbound | Outbound |
| Land Use 210- Single-Family Detached Housing | 541 | Dwelling Units | 129 | 348 | 393 | 241 |
| Land Use 215 - Single-Family Attached Housing | 106 | | 21 | 67 | 70 | 43 |
| Land Use 520 - Elementary School | 600 | Students | 237 | 201 | 44 | 52 |
| | | **Total Generated Trips** | 387 | 616 | 507 | 336 |
| Elementary School Internal Drop-off Trips Reduction (Trips between New Dwellings and the School) | 25% | Of trips attributed to elementary school | -59 | -59 | -11 | -11 |
| Elementary School Diverted* trips originating from the Caron (east side) community (Exhibit 3 illustrated the diverted traffic volume assumptions.) | 55% | Of trips attributed to elementary school | -130 | -130 | -24 | -24 |
| | | **Net New Trips** | **198** | **427** | **472** | **301** |

* A "diverted" trip takes place when a motorist "switches" from their route to another route that would access a service (gas station, school drop-off etc.) and then returns to their regular route. This adds traffic to secondary streets, but without increasing the total trips to the network.

### *b) Resulting Additional Trips and New Total Trips*

Exhibit 2 illustrates the additional traffic associated with the future development west of Caron Street.

Exhibit 3 illustrates the extent of diverted trips associated with the elementary school land use that was assumed to be located on the lands west of Caron Street.

Exhibit 4 illustrates the total traffic forecast (2043) including (a) the Saca Homes Caron Street East subdivision, (b) the Clément Homes subdivision north of David Street and (c) the approximate 30-hectares of lands on the west side of Caron Street.

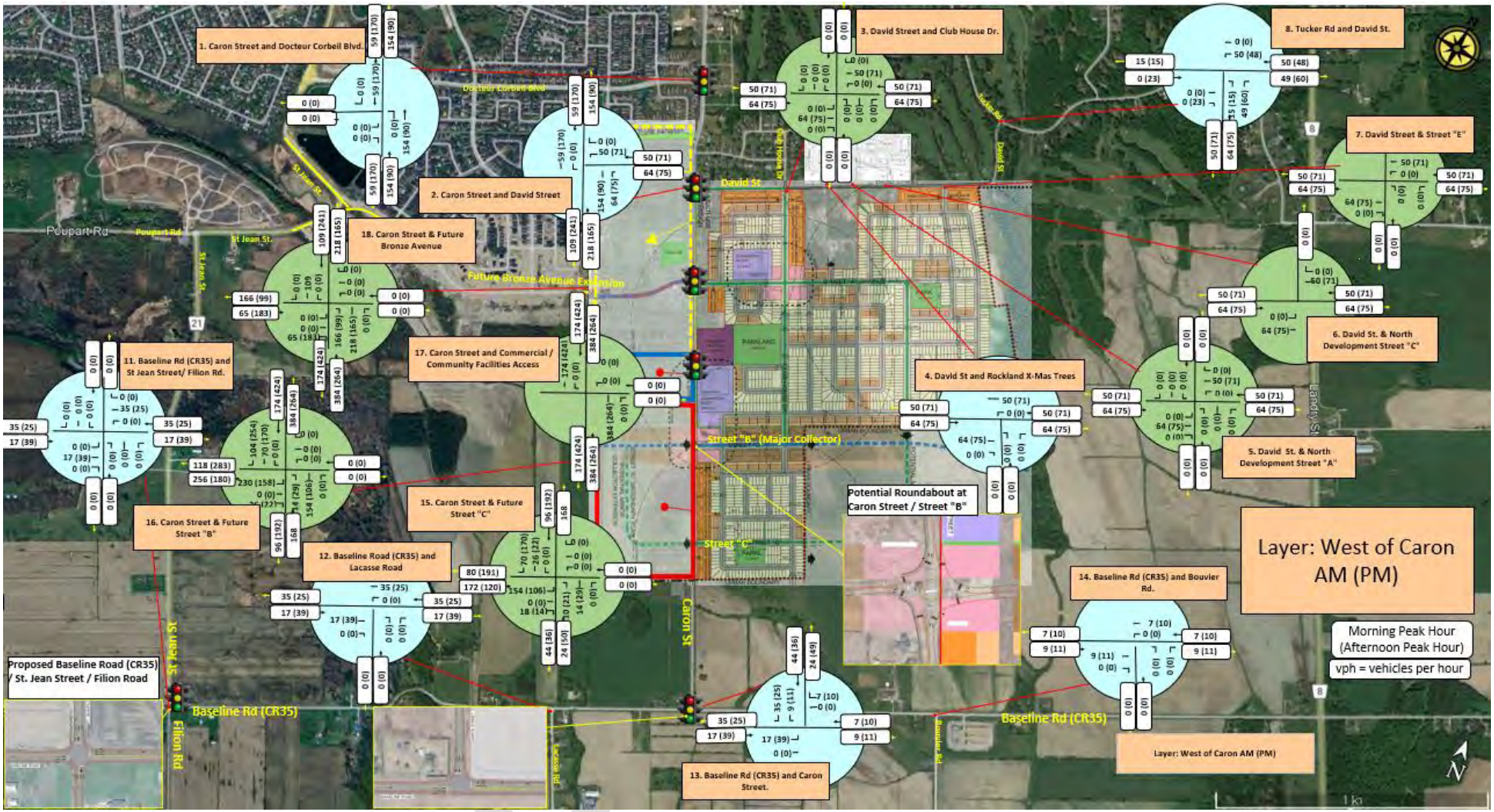



**Exhibit 2: Net New Trips Attributed to "West of Caron" Development**

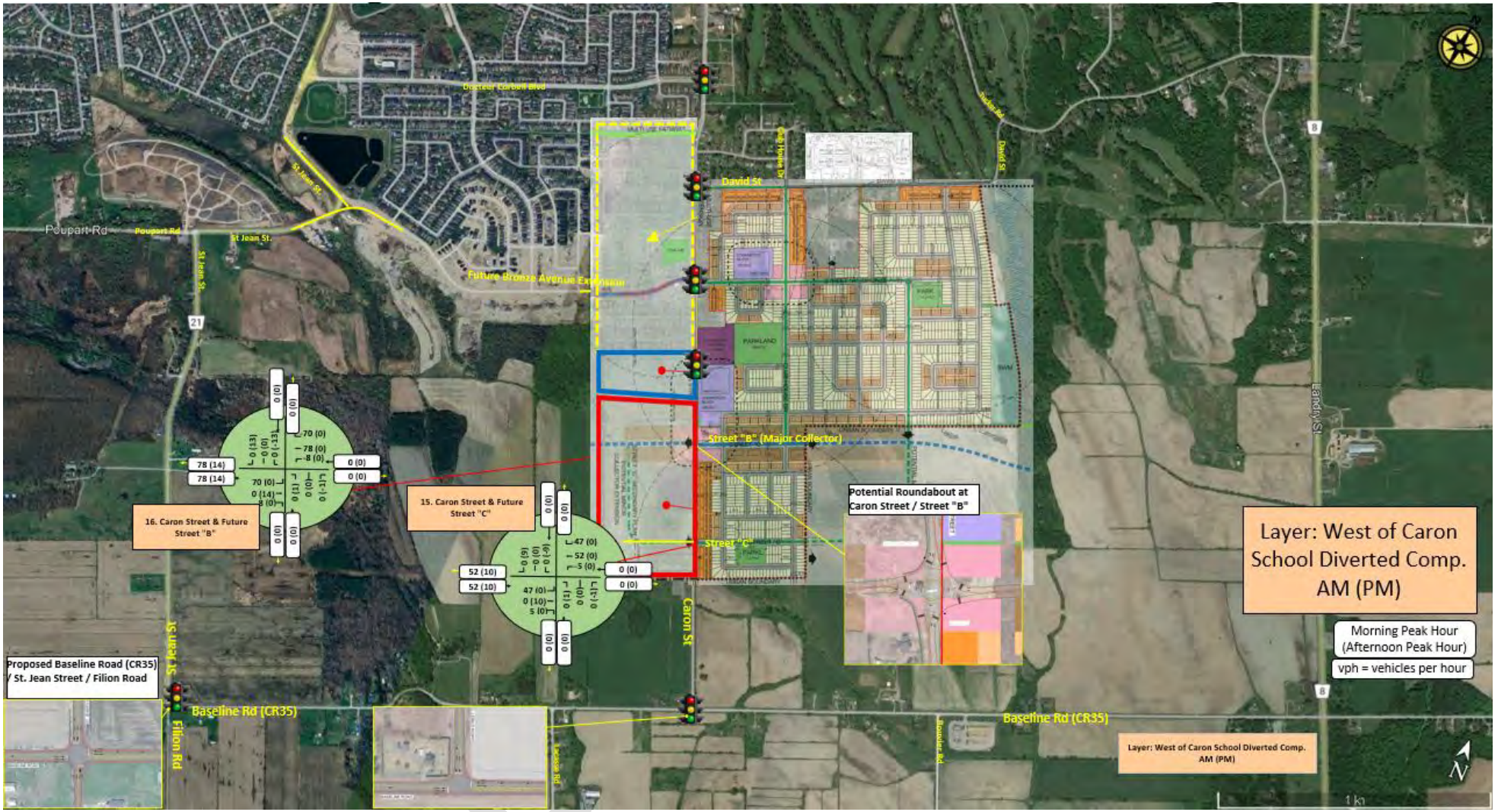
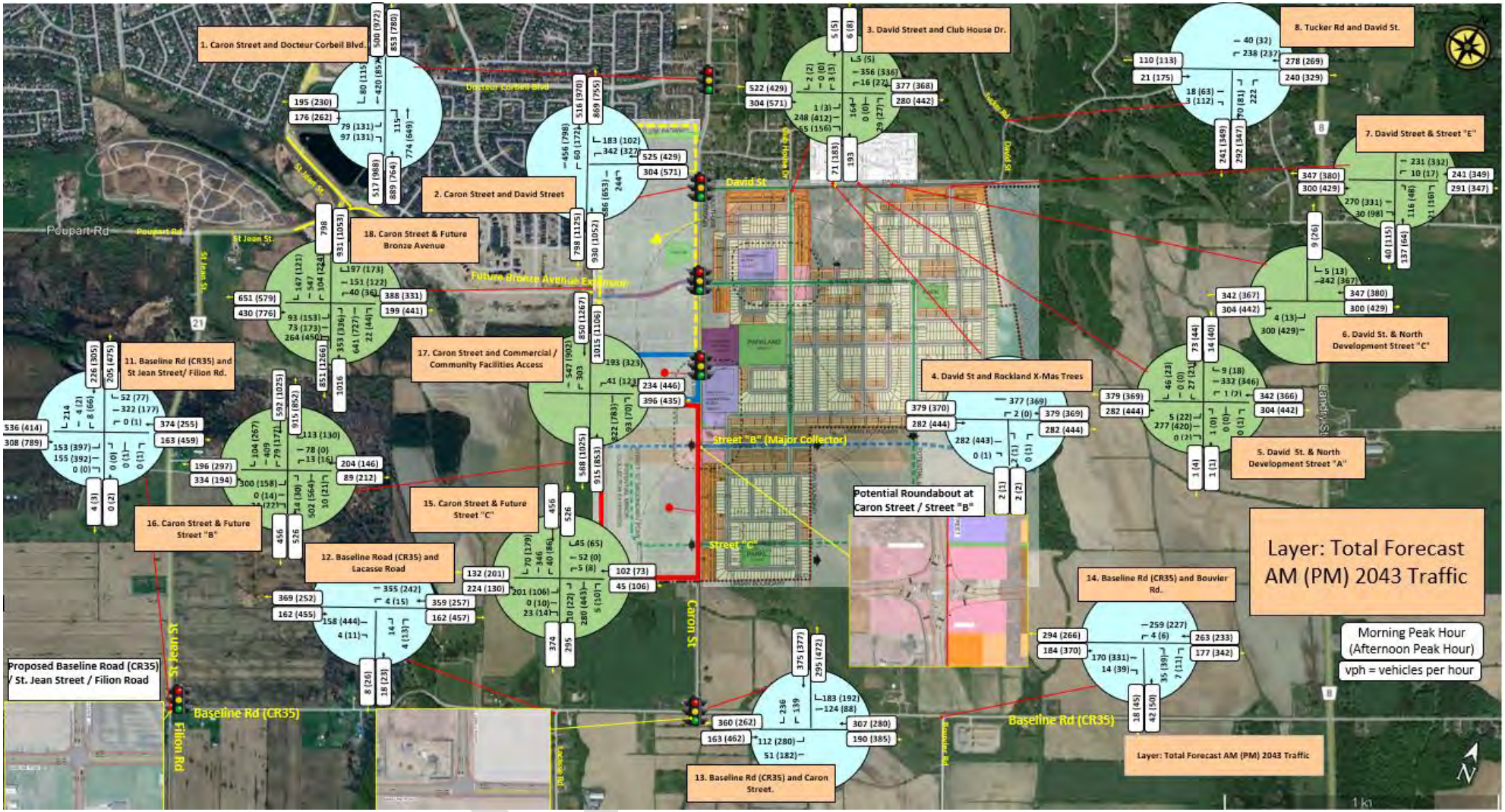



**Exhibit 3: Assumptions Adopted for the Diverted Traffic Related to Elementary School**




The trips generated by the proposed Caron subdivision were updated to reflect the latest (ITE 12th Edition Trip Generation Manual) update to traffic generation rates.

**Exhibit 4: Total Traffic Forecast (2043): <u>With Caron West Development</u>**

### *c) Intersection Capacity: 20-Year (2043) Horizon: TIA Intersection Configurations*

Table 4 provides the results of intersection capacity analyses of intersections within the study area. The table assumes:

- the full build-out all lands illustrated within **Exhibit 4** assuming a 2043 horizon year, and
- the 2043 intersection configurations as recommended within the original (July 2025) TIA document that did **not** include the development of the lands to the west of Carron Street.

#### *i. #1: Caron Street / Docteur Corbeil Boulevard Intersection*

- Table 4 assumes the existing intersection configuration for this intersection with traffic signals operating with permissive phasing for the NB-LT movement. The forecast afternoon peak hour volumes were found to result in the following operational constraints.
- *NB-LT: Congested (115 vph):* During the forecast afternoon peak hour of travel demand, the NB-LT (115 vph) was forecast to be congested. [LOS "D", average per-vehicle delay 45.0 seconds and a v/c ratio of 0.82.] This was attributed to the NB-LT permissive traffic signal phasing resulting in the 45.0 second-per-vehicle delay. The heavy shared SB-Th/RT (972 vph) volume conflict with the NB-LT resulting in an average of gap of only 3.7 seconds between SB vehicle traffic.
- *SB-Th/RT Volume* (972 vph)*: Using a Single Lane Configuration*: The SB-Th/RT movement, while operating at an acceptable LOS "C", was found to exhibit significant queuing (256 metres or 34 passenger vehicle lengths) due to the afternoon peak hour volume (972 vph) and the single-SB approach lane configuration. This creates conditions where existing residential accesses on the west side of Caron Street (north of Docteur Corbeil Blvd.) would be blocked by the southbound traffic stream.
- *Conclusion*: NB-LT Permissive Phasing results in congestion and must be mitigated.

#### *ii. #2: Caron Street / David Street Intersection*

- Table 4 assumes the forecast configurations consistent with the TIA that recommended 2043 intersection upgrades for this intersection that would see additional NB-RT and WB-LT auxiliary lanes and traffic signal controlled with protected-permissive phasing for the SB-LT movement onto David Street. The forecast afternoon peak hour conditions were found to result in the following operational constraints.
- *WB-LT: Congested (342 vph AM / 327 vph PM)*: The WB-LT movement was forecast to be congested during both AM and PM peak hours. [LOS "D", average per-vehicle delay in the range of 40-to-45 seconds, a queue length of 80 metres (11 passenger vehicles), and v/c ratios in the range of 0.8.] This congestion occurred because of the traffic signal phasing prioritizing the dominant NB and SB (PM 1,052 and 970 vph respectively) traffic streams.
- *SB-LT: Congested (172 vph PM)*: The SB-LT movement was forecast to be congested. [LOS "D", average per-vehicle delay 48.0 seconds, and a v/c of 0.89.] The protected phase for the SB-LT movement is brief due to the volume of the NB traffic (1,052 vph), which results in a minimal number of vehicles completing the SB-LT movement during the permissive phase.
- *NB-Th and SB-Th: High v/c:* The through traffic conditions at the intersection are near capacity. [NB-Th: LOS "D" and 0.90 v/c, SB-Th: LOS "C" and 0.88 v/c.] This results in minimal flexibility to the phasing of the traffic signal without compromising the dominant through traffic volume.

**Table 4: Intersection Capacity Results, 2043 Horizon Year,**
**[See Annex "C" for Synchro Runs]**
**[Assumes Full Build-Out of the Caron Street Subdivision and the Lands "West of Caron"]**

*Assumes 2-Lane Caron St. Corridor (1 Lane NB, 1 Lane SB with TIA Recommended Auxiliary lanes)*

| | *Intersection* | Control Type | Scenario (b) WITH Development in Place | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Critical Approach/ Movement | Volumes (vph) | Weekday Morning Peak Hour (Afternoon Peak Hour) | | | |
| | | | | | Avg. Delay per Vehicle (seconds) | Level of Service (LOS) | 95th Percentile Queue (m) | Volume-to-Capacity Ratio (v/c) |
| **Caron Street:** [Listed from North-to-South] | | | | | | | | |
| 1 | Caron St. & Dr. Corbeil Blvd. **Int 1, 2, 17 & 18 are multi-Signal Coordinated** | Traffic-Signal Controlled (Required by 10-year 2037 Horizon) | EB-LT/RT shared lane | 176 (262) | 17.8 (51.2) | B (D) | 22 (76) | 0.57 (0.84) |
| | | | NB-LT | 115 (115) | 7.2 (45.0) | A (D) | 15 (14) | 0.26 (0.82) |
| | | | NB-Th | 774 (649) | 15.4 (7.4) | B (A) | 144 (37) | 0.76 (0.60) |
| | | | SB-Th/RT | 500 (972) | 7.5 (21.3) | A (C) | 54 (241) | 0.47 (0.87) |
| 2 | Caron St. & David St. **Int 1, 2, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control with Widening to accommodate WB LT & RT Auxiliary Lanes + permissive-protected SB LT phasing (Required by 20-year 2043 Horizon) | WB-LT | 342 (327) | 40.3 (45.6) | D (D) | 83 (82) | 0.79 (0.81) |
| | | | WB-RT | 183 (102) | 7.7 (5.6) | A (A) | 17 (11) | 0.39 (0.20) |
| | | | NB-Th | 686 (653) | 19.2 (41.3) | B (D) | 153 (180) | 0.73 **(0.90)** |
| | | | NB-RT | 244 (399) | 3.7 (7.2) | A (A) | 15 (34) | 0.36 (0.50) |
| | | | SB-Th | 456 (798) | 12.6 (31.0) | B (C) | 79 (188) | 0.47 **(0.88)** |
| | | | SB-LT | 60 (172) | 13.7 (48.0) | B (D) | 15 (32) | 0.26 **(0.89)** |
| 18 | Caron St. & Future Bronze Ave. **Int 1, 2, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control (Required by 10-year 2037 Horizon) Permissive-protected NB and SB left turn phasing (Required by 20-year 2043 Horizon) | EB-LT | 93 (153) | 24.0 **(65.3)** | C **(E)** | 18 (63) | 0.43 (0.78) |
| | | | EB-Th | 73 (173) | 18.6 (45.4) | B (D) | 14 (55) | 0.22 (0.57) |
| | | | EB-RT | 264 (450) | 12.8 **(52.0)** | B (D) | 22 **(107)** | 0.62 **(0.97)** |
| | | | WB-LT | 40 (36) | 18.2 (39.4) | B (D) | 9 (16) | 0.17 (0.24) |
| | | | WB-Th | 151 (122) | 22.7 (40.7) | C (D) | 25 (40) | 0.45 (0.41) |
| | | | WB-RT | 197 (173) | 11.2 (8.8) | B (A) | 18 (18) | 0.50 (0.43) |
| | | | NB-LT | 353 (336) | 49.2 **(61.9)** | D **(E)** | 89 (82) | 0.94 **(0.98)** |
| | | | NB-Th/RT | 663 (771) | 13.0 (21.5) | B (C) | 111 (100) | 0.65 (0.82) |
| | | | SB-LT | 104 (224) | 11.9 (30.9) | B (C) | 19 (49) | 0.36 (0.77) |
| | | | SB-Th | 547 (780) | 10.1 (44.3) | B (D) | 70 **(231)** | 0.54 **(0.94)** |
| | | | SB-RT | 147 (121) | 2.0 (5.4) | A (A) | 7 (13) | 0.16 (0.16) |
| 17 | Caron Street & Future Commercial / Community Facilities Access **Int 1, 2, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control with permissive-protected SB left turn phasing (Required by 20-year 2043 Horizon) | WB-LT | 41 (123) | 36.6 (51.1) | D (D) | 16 (41) | 0.25 (0.59) |
| | | | WB-RT | 193 (323) | 13.2 (11.8) | B (B) | 18 (24) | 0.61 (0.69) |
| | | | NB-Th | 822 (783) | 26.8 (49.2) | C (D) | 204 (154) | 0.86 **(0.96)** |
| | | | NB-RT | 93 (70) | 4.4 (7.2) | A (A) | 10 (11) | 0.11 (0.10) |
| | | | SB-LT | 303 (365) | **62.7** (32.4) | **E** (C) | 87 (78) | **0.97 (0.84)** |
| | | | SB-Th | 547 (902) | 5.0 (11.5) | A (B) | 50 (132) | 0.42 (0.69) |
| 16 | Caron St. & Street "B" (north) | NEW Minor Leg STOP-Control | EB | 334 (194) | **2,844.5 (2,571.9)** | **F (F)** | **316 (189)** | **6.98 (6.20)** |
| | | | WB-LT | 13 (16) | **37.7 (200.5)** | **E (F)** | 3 (14) | 0.11 (0.53) |
| | | | WB-Th/RT | 191 (130) | **63.2** (15.4) | **F (C)** | 49 (9) | 0.83 (0.29) |
| 15 | Caron St. & Street "C" (south) | NEW Minor Leg STOP Control | WB | 102 (73) | 18.5 (15.6) | C (C) | 9 (5) | 0.29 (0.19) |
| | | | EB | 224 (130) | **146.6 (167.0)** | **F (F)** | **86 (60)** | **1.13 (1.08)** |
| 13 | Baseline Road (CR35) & Caron St. | Traffic Signal Control (semi-actuated) (Required by 20-year 2043 Horizon) | EB-LT | 112 (280) | 26.7 (31.5) | C (C) | 20 (54) | 0.61 (0.80) |
| | | | EB-Th | 51 (182) | 11.5 (12.3) | B (B) | 8 (23) | 0.12 (0.33) |
| | | | WB-Th/RT | 307 (280) | 11.1 (5.7) | B (A) | 25 (17) | 0.59 (0.41) |
| | | | SB-LT | 139 (203) | 9.7 (12.9) | A (B) | 19 (27) | 0.19 (0.33) |
| | | | SB-RT | 236 (174) | 3.0 (3.4) | A (A) | 11 (9) | 0.31 (0.26) |
| **David Street:** [Listed from West-to-East] | | | | | | | | |
| 3 | NEW David St. & Club House Dr. | ML STOP-control – 4 leg Intersection Config. | SB | 5 (5) | 15.1 (19.1) | C (C) | 0 (1) | 0.02 (0.02) |
| | | | NB | 193 (118) | 27.6 (31.4) | D (D) | 26 (19) | 0.58 (0.49) |
| | | | EB | 304 (571) | Free Flow | A (A) | Free Flow | Free Flow |
| | | | WB | 377 (368) | Free Flow | A (A) | Free Flow | Free Flow |
| 4 | David St. & Rockland X-Mas Trees | ML STOP-control | NB | 2 (2) | 14.2 (14.4) | B (B) | 0 (0) | 0.01 (0.01) |
| 5 | David S. & North Dvlpmnt St. "A" | ML STOP-control | SB | 73 (44) | 12.6 (14.6) | B (B) | 4 (3) | 0.14 (0.11) |
| 6 | David S. & North Dvlpmnt St. "C" | Inbound-only | EB-LT | 4 (13) | 8.1 (8.2) | A (A) | 0 (0) | 0.00 (0.01) |
| 7 | David S. & Street "E" | ML STOP-control | NB | 137 (64) | 15.3 (16.3) | C (C) | 9 (5) | 0.30 (0.18) |
| | | | EB | 300 (429) | Free Flow | A (A) | Free Flow | Free Flow |
| | | | WB | 241 (349) | Free Flow | A (A) | Free Flow | Free Flow |
| 8 | David St. & Tucker Rd/ Montee Outaouais | ML STOP-control | NB | 292 (347) | 13.3 (17.6) | B (C) | 16 (28) | 0.42 (0.57) |
| **Baseline Road:** [Listed from West -to- East] | | | | | | | | |
| 11 | Baseline Rd. (CR35) & St Jean St.-Filion Rd. | Traffic-Signal Control (assumed semi-actuated phasing) (Required by 10-year 2037 Horizon) | EB-LT | 153 (397) | 31.9 (28.5) | C (C) | 33 (79) | 0.70 (0.83) |
| | | | EB-Th/RT | 155 (392) | 13.4 (14.1) | B (B) | 21 (49) | 0.33 (0.56) |
| | | | WB | 374 (255) | 20.3 (8.8) | C (A) | 49 (26) | 0.71 (0.35) |
| | | | SB-LT | 8 (66) | 9.6 (16.1) | A (B) | 3 (14) | 0.02 (0.15) |
| | | | SB-Th/RT | 218 (239) | 3.3 (4.5) | A (A) | 10 (14) | 0.30 (0.37) |
| 12 | Baseline Rd. (CR35) & Lacasse Rd. | ML STOP-control | NB | 18 (23) | 12.2 (13.8) | B (B) | 1 (2) | 0.04 (0.06) |
| 14 | Baseline Rad (CR35) & Bouvier St. | ML STOP-control | NB | 42 (50) | 11.9 (13.7) | B (B) | 2 (3) | 0.08 (0.12) |

Indicates constrained traffic operations

*Conclusion:* With the advent of the development of the community on the west side of Caron, the upgraded Caron Street/David Street Intersection would operate at-or-near capacity, resulting in congestion.

### *iii. #18: Caron Street / Future Bronze Avenue Intersection*

- The TIA study concluded that the Caron Street corridor in the vicinity of Bronze Avenue could remain a 2-lane corridor with auxiliary lanes during the 20-year (2043) time horizon without the developments on the west side of Caron Street.

  However, Exhibit 4 indicates that development of the Caron West lands would result in an additional [385-to-400 vph NB in the AM and 400-to-425 vph SB in the PM].

  Table 4 indicates that the development of the lands to the west of Caron Street would see the NB approach volumes on the south leg of Caron Street / Bronze Avenue increase from 870 vph to 1,107 vph and the SB Egress volumes on the same link increase from 865 vph -to- 1,266 vph.

  Table 4 indicates several movements (SB, EB, and NB) are congested and operate with v/c's exceeding 0.9 and a SB PM queue length exceeding 231 meters (30 passenger vehicle lengths). This clearly results in the need for additional mitigation measures to accommodate the Caron West lands.

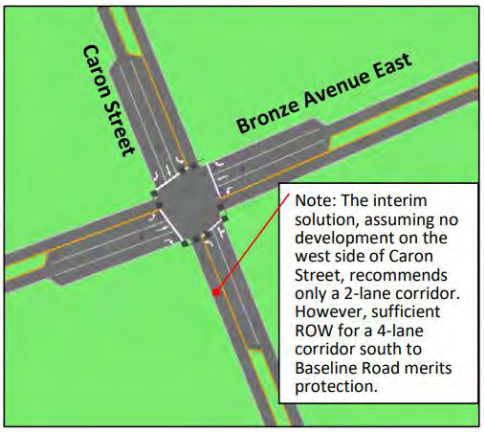



**Exhibit 6: Caron-Bronze Intersection Configuration without Caron West Lands**

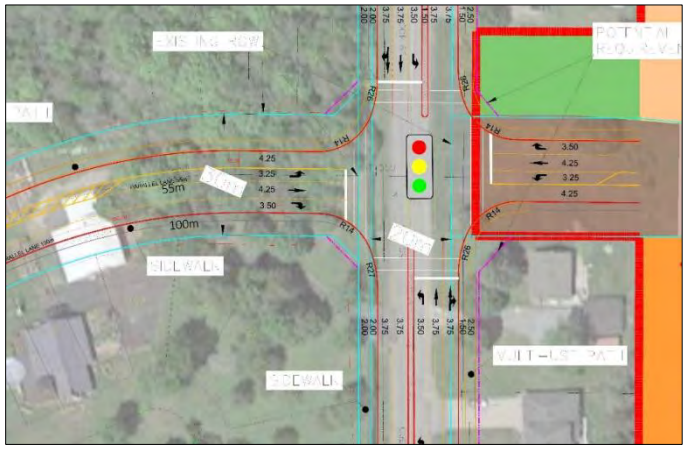


**Exhibit 5: 2043 Bronze-Caron Configuration**

- Exhibit 6 illustrates the 4-lane conceptual configuration for Caron Street at the Bronze Avenue intersection likely necessary to secure sufficient right-of-way to accommodate future demands made necessary by the developments on the west side of Caron Street.

### *iv. #17: Caron Street / Future Commercial / Community Facilities Access Intersection*

- Exhibit 7 illustrates the "T" intersection configuration determined to be satisfactory to access the development lands to the east (Saca Homes) noted within the TIA document in the absence of the development of the lands west of Caron.
- However**,** Table 4 indicates the NB and SB movements exhibit constrained operations [v/c's greater than 0.9, queues exceeding 27 passenger vehicles, and SB-LT average vehicle delays of over a minute] when development of the lands west of Caron Street are considered along with a 2-lane Caron Street configuration as illustrated in Exhibit 7.

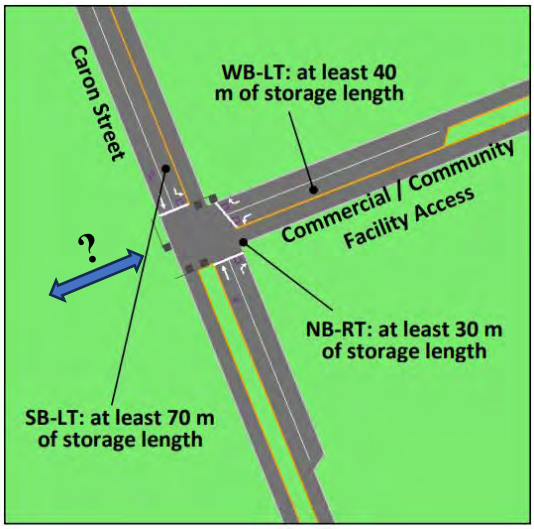



**Exhibit 7: Caron Street / Commercial-Community Facility Access Intersection**

- The lands on the west side of this intersection fall within the urban area and are polygon illustrated within the blue polygon of Exhibit 1 located opposite the commercial and community facility on the east side of Caron Street. It remains prudent to consider mitigation measures inclusive of widening of Caron Street and the potential for an ultimate 4-leg configuration that would provide access to the lands on the west side of Caron.

### *v. #16: Caron Street / Street "B" Intersection*

- The original TIA document had assumed that this intersection would be a "T" intersection serving only the lands on the east side of Caron. However, within this addendum document, the lands to the west of Caron were to be included. The concept illustrated within **Exhibit 1** indicates a westerly extension of Street "B" to access the lands on the west side of Caron Street. Exhibit 8 illustrates the conceptual configuration assumed for analyses purposes within this Addendum document where Street "B" is extended westward to permit access to the west development.

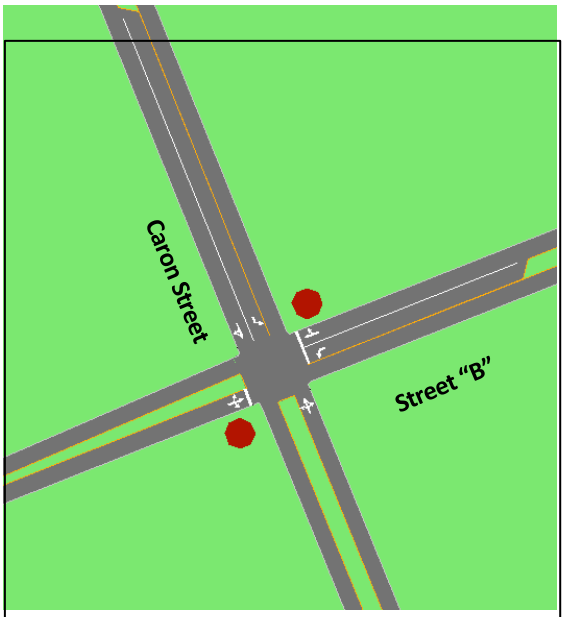



**Exhibit 8: Caron Street / Street "B" Intersection**

- **Table 4** indicates that the minor leg STOP-controlled 4-leg intersection would operate with significant[1] constraints to the EB-WB turning movements. These constraints are attributed to the NB & SB forecast traffic along Caron Street (900-to-1,200 vph) in front of the intersection which would be STOP-controlled. This intersection represents the most convenient access to/from the lands on the west side of Caron and is forecast to have a 2-way peak hour demand of 500-to-550 vph. The STOP Controlled configuration is not workable to meet 2043 demands.

- Exhibit 9 illustrates a conceptual ultimate (beyond 2043) extension of Street "B" through to St. Jean which is intended to mitigate forecast congestion along the Bronze Street corridor. The TIA considered it prudent to suggest consideration of a roundabout at this location. (See inset within Exhibit 9.)


**Exhibit 9: Potential Extension of Street "B"**

[1] **West Leg of Intersection:** v/c's of 6.00-7.00, LOS F, queue lengths of 180-320 metres (or 24-43 passenger car lengths), and average per-vehicle delay of 2,570-2,850 seconds (approximately 45 minutes). **East Leg:** v/c of 0.83 for WB-Th/RT PM, average vehicle delays of 30-200 seconds, and LOS "E" and "F" for most movements.

Street "B" is also aligned with the proposed north loop road concept (See CCR's official plan).

- A single-family residential dwelling is presently located on the west side of Caron Street opposite the Street "B" corridor. The ultimate location/alignment of Street "B" and the future of the existing residential building remain to be resolved.

### *vi. #15: Caron Street / Street "C" Intersection*

- The original TIA considered this to be configured as a "T" intersection and determined that without development of the lands to the west of Caron, STOP control would be sufficient to accommodate 2043 traffic demands.
- With the advent of the development of the lands to the west of Caron Street and to remain consistent with the current OP document (See **Exhibit 1**) the westerly extension of Street "C" was assumed to require a 4-leg intersection providing access onto the south leg of the ring road serving the new west community.
- Exhibit 10 illustrates this new intersection assuming the minor legs are STOP controlled and the major legs are free flow.
- Table 4 indicates that when the west leg is added, the EB movement's operations are unacceptable [LOS "F", greater than 2.4 minutes of average delay to vehicles, v/c's 1.08.] due to the increased forecast north-south 2-way peak hour vehicle traffic (630-to-800 vph) along Caron Street. The STOP controlled configuration is not sufficient to meet 2043 operational demands.

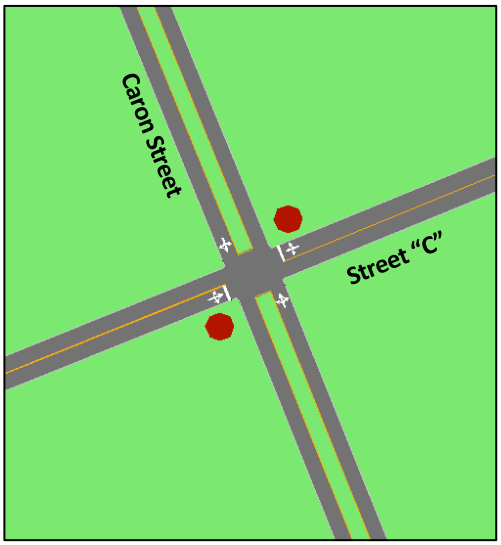



**Exhibit 10: Caron Street / Street "C" Intersection**

### *vii. #3: David Street / Club House Drive Intersection*

- The TIA Study had envisioned the southerly extension of Club House through the Saca Homes subdivision that would see the existing "T" intersection converted to a 4-leg intersection with minor leg STOP control.
- Exhibit 11 depicts the 2043 proposed intersection configuration found to be satisfactory without the development of the lands to the west side of Caron. The traffic impact associated with the development of the lands west of Caron was determined by this addendum document to result in an addition 50-to-70 vph in both directions added to the David Street corridor.
- The impact of this additional traffic was found to result in a deterioration of the operations in northbound (south leg) approach to the intersection. [LOS "C" and average per-vehicle delay of 24.4 seconds decreased to LOS "D" and 31.4 seconds when development of the lands west of Caron were considered.]

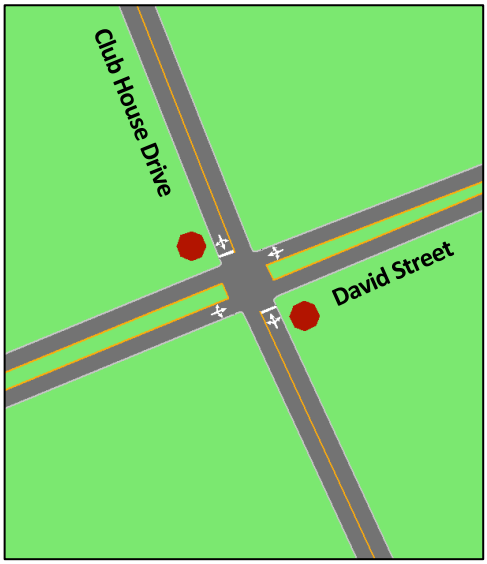



**Exhibit 11: David Street / Club House Drive Intersection**

- LOS “D” conditions are considered approaching unstable operations but still is considered the “minimum” acceptable standard for peak hour conditions where speed declines, maneuverability is restricted. Recognizing the presence of commercial/retail development along the south leg of this intersection, it is considered prudent to consider the advent of traffic signals as the long-term solution given the development of the lands to the west of Caron. The intersection should be monitored, and traffic signal control be considered to address operational and safety concerns.

***Conclusion:*** ***The above sections indicate that the effect of adding the proposed development on the west side of Caron Street*** [that would consist of an additional 900 dwellings and a community facility (assumed for the purposes of this addendum to be an elementary school)] ***would result in the 2043 intersection configurations recommended within the original (July 2025) TIA being overwhelmed and result in significant congestion, queues and delay along the Caron Corridor.***

## *3) Mitigation Strategies: 20-Year (2043) Horizon: Alternative Configurations*

Table 5 presents two potential alternative configurations for the Caron Street corridor that were considered.

- *Option 1* examined the impacts associated with a 3-lane configuration with 2 lanes southbound, 1 lane northbound and a 2-way centre turn lane, similar to the Caron Street configuration north of David Street. [Since the forecast peak hour traffic flow along Caron Street is not dominant in either the northbound or southbound directions, the application of a contra-flow reversable lane controlled by overhead signals, similar to the Island Park Drive Bridge, was considered to not be a practical solution.] (The intersection capacity analyses results for this alternative are presented in Table 6**.)**
- *Option 2* examined the impacts associated with a 4-lane configuration with auxiliary turning lanes at each intersection from north of Bronze Avenue through to Street "C". (The intersection capacity analyses results for this alternative are presented in Table 7.)

**Table 5: Summary of Mitigation Strategies**

| Intersection | | Failing Critical Movements | Table 6<br>Possible Mitigation Strategies<br>(3-Lane Caron Configuration with Centre Turn Lane) | Table 7<br>Further Mitigation Strategies<br>(4-Lane Caron Strategy with Auxiliary Turing Lanes) |
|---|---|---|---|---|
| 1. | Caron St. / Docteur Corbeil Boulevard | NB-LT | • Protected NB-LT Phase when warranted | |
| 2. | Caron St. / David Street | WB-LT | • WB-LT and WB-RT lanes | • WB-LT and WB-LT/RT shared lane |
| 18. | Caron Street / Future Bronze Avenue | EB-LT, EB-RT, NB-LT | • Traffic Signal added prior to 2043 Horizon Year<br>• add perm-protected phasing to NB-LT movement | |
| | | | • **AM PEAK PERIOD:**<br>NB-LT: 20 second protected phase per 80 second cycle<br>• **PM PEAK PERIOD:**<br>NB-LT: 23 second protected phase per 90 second cycle<br>SB-LT (new protected-permissive): 15 second protected phase per 90 second cycle | • **AM PEAK PERIOD:**<br>NB-LT: 15 second protected phase per 75 second cycle<br>• **PM PEAK PERIOD:**<br>NB-LT: 19 second protected phase per 80 second cycle<br>SB-LT (new protected-permissive): 16 second protected phase per 80 second cycle |
| | | | • Due to the above NB-LT phase requirements, the SB-TH capacity is compromised, and an additional SB-TH lane would be required to provide adequate LOS. | • 2 SB-Th and 2 NB-Th lanes along Caron Street through this intersection |
| 17. | Caron Street / Future Commercial and Community Facilities Access | NB-Th, SB-LT | • Double SB-LT lanes added | • 2 SB-Th and 2 NB-Th lanes<br>• Single SB-LT |
| | | | • SB-LT phase reduction in the PM | |
| 16. | Caron Street / Street "B" | EB, WB-LT, WB-Th/RT | • Traffic Signals added | |
| | | | • auxiliary EB-LT lane<br>• auxiliary SB-LT and NB-LT lanes<br>• auxiliary SB-RT lane | • 2 SB-Th and 2 NB-Th lanes |
| 15. | Caron Street / Street "C" | EB | • Traffic Signals added | |
| | | | • auxiliary SB-LT and NB-LT lanes<br>• auxiliary SB-RT lane | • 2 SB-Th and 2 NB-Th lanes |
| **Traffic Signal Coordination** | | | • Both 3-lane and 4-lane scenarios assume all traffic signals between Docteur Corbeil Boulevard and Street "C" would be coordinated with one another to optimize N-S vehicle progression along the Caron Street corridor. | |

## Table 6: 3-Lane Caron Street: Intersection Capacity Results, 2043 Horizon Year
**[See Annex "D" for Synchro Runs]**
**[Assuming Full Build-Out of Caron Street Subdivision and "West of Caron" Lands]**

**Caron Street Cross Section: (1 Lane NB, 1 Lanes SB and Centre Turning Lane from David Street-to-Caron Street/Community Facilities Access**

| *Intersection* | | Control Type | Scenario (b) WITH Development in Place | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Critical Approach/ Movement | Volumes (vph) | Weekday Morning Peak Hour (Afternoon Peak Hour) | | | |
| | | | | | Avg. Delay per Vehicle (seconds) | Level of Service (LOS) | 95th Percentile Queue (m) | Volume-to-Capacity Ratio (v/c) |
| 2 | Caron St. & David St. **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control with Widening to accommodate WB LT & LT/RT Auxiliary Lanes + permissive-protected SB LT and phasing (Required by 20-year 2043 Horizon) | WB-LT | 342 (327) | 32.5 (45.2) | C (D) | 65 (82) | 0.78 (0.85) |
| | | | WB- RT | 183 (102) | 8.0 (6.2) | A (A) | 17 (11) | 0.40 (0.24) |
| | | | NB-Th | 686 (653) | 16.7 (38.4) | B (D) | 136 **(171)** | 0.73 **(0.89)** |
| | | | NB-RT | 244 (399) | 2.7 (6.1) | A (A) | 10 (29) | 0.35 (0.29) |
| | | | SB-Th | 456 (798) | 10.2 (20.9) | B (C) | 61 **(191)** | 0.47 (0.80) |
| | | | SB-LT | 60 (172) | 10.8 (24.3) | B (C) | 12 (24.3) | 0.24 (0.63) |
| 18 | Caron St. & Future Bronze Ave. **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control (Required by 10-year 2037 Horizon) Widening to accommodate a second SB-Th lane Permissive-protected NB and SB left turn phasing (Required by 20-year 2043 Horizon) | EB-LT | 93 (153) | 42.4 (54.4) | D (D) | 27 (52) | 0.56 (0.73) |
| | | | EB-Th | 73 (173) | 30.5 (40.0) | C (D) | 21 (49) | 0.27 (0.56) |
| | | | EB-RT | 264 (450) | 8.9 (36.9) | A (D) | 18 (87) | 0.58 **(0.91)** |
| | | | WB-LT | 40 (36) | 30.1 (33.7) | C (C) | 13 (15) | 0.21 (0.22) |
| | | | WB-Th | 151 (122) | 37.9 (35.6) | D (D) | 38 (36) | 0.56 (0.40) |
| | | | WB-RT | 197 (173) | 8.5 (8.2) | A (A) | 16 (17) | 0.50 (0.43) |
| | | | NB-LT | 353 **(336)** | 20.7 (26.3) | C (C) | 66 (60) | 0.70 **(0.81)** |
| | | | NB-Th/RT | 663 **(771)** | 14.0 (31.5) | B (C) | 117 (203) | 0.55 **(0.87)** |
| | | | SB-LT | 104 (224) | 19.8 (43.0) | B (D) | 27 (66) | 0.33 (0.82) |
| | | | SB-Th lane + SB-TH/RT shared lane | Th: 547 (780) RT: 147 (121) | 16.1 (20.4) | B (C) | 60 (90) | 0.46 (0.60) |
| 17 | Caron Street & Future Commercial / Community Facilities Access **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control with protected WB-LT and Dual protected SB-LT phasing (Required by 20-year 2043 Horizon) | WB-LT | 41 (123) | 41.1 (44.0) | D (D) | 17 (37) | 0.28 (0.55) |
| | | | WB-RT | 193 (323) | 14.2 (16.4) | B (B) | 19 (32) | 0.62 (0.73) |
| | | | NB-Th | 822 **(783)** | 29.2 (35.5) | C (D) | 223 (214) | 0.86 **(0.90)** |
| | | | NB-RT | 93 (70) | 4.9 (6.0) | A (A) | 10 (9) | 0.11 (0.09) |
| | | | Dual SB-LT | 303 (365) | 40.1 (4.0) | D (D) | 41 (57) | 0.60 (0.72) |
| | | | SB-Th | 547 (902) | 4.6 (13.9) | A (B) | 51 (131) | 0.41 (0.71) |
| 16 | Caron St. & Street "B" **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | NEW Traffic Signal Control with Widening to accommodate EB-LT, NB-LT, and SB-RT auxiliary lanes Permissive EB-LT and NB-LT phasing (Required by 20-year 2043 Horizon) | EB-LT | 300 (158) | 39.5 (39.3) | D (D) | 67 (37) | 0.84 (0.68) |
| | | | EB-Th/RT | 34 (36) | 0.1 (12.7) | A (B) | 0 (8) | 0.05 (0.11) |
| | | | WB-LT | 13 (16) | 12.5 (20.9) | B (C) | 4 (6) | 0.03 (0.06) |
| | | | WB-Th/RT | 191 (130) | 7.6 (1.2) | A (A) | 18 (0) | 0.32 (0.26) |
| | | | NB-LT | 14 (30) | 10.4 (7.0) | B (A) | 4 (5) | 0.04 (0.08) |
| | | | NB-Th/RT | 512 (585) | 16.7 (10.3) | B (B) | 77 (77) | 0.63 (0.54) |
| | | | SB-LT | 79 (177) | 14.8 (13.0) | B (B) | 16 (32) | 0.30 (0.47) |
| | | | SB-Th | 409 (581) | 14.3 (10.3) | B (B) | 58 (76) | 0.50 (0.54) |
| | | | SB-RT | 104 (267) | 3.1 (1.6) | A (A) | 7 (9) | 0.14 (0.26) |
| 15 | Caron St. & Street "C" **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | NEW Traffic Signal Control with Widening to accommodate NB-LT, SB-LT, and SB-RT auxiliary lanes Permissive NB-LT, SB LT, and SB-RT phasing (Required by 20-year 2043 Horizon) | EB | 224 (130) | 21.4 (27.9) | C (C) | 28 (25) | 0.68 (0.55) |
| | | | WB | 102 (73) | 9.3 (8.1) | A (A) | 11 (8) | 0.24 (0.22) |
| | | | NB-LT | 10 (22) | 8.6 (6.3) | A (A) | 3 (4) | 0.02 (0.04) |
| | | | NB-Th/RT | 285 (453) | 9.7 (7.8) | A (A) | 34 (52) | 0.32 (0.39) |
| | | | SB-LT | 40 (86) | 8.8 (7.3) | A (A) | 7 (12) | 0.08 (0.16) |
| | | | SB-Th | 346 (353) | 10.4 (7.1) | B (A) | 43 (39) | 0.39 (0.30) |
| | | | SB-RT | 70 (179) | 3.2 (1.7) | A (A) | 6 (7) | 0.09 (0.17) |

## Table 7: 4-Lane Caron Street: Intersection Capacity Results, 2043 Horizon Year
**[See Annex "E" for Synchro Runs]**
**[Assuming Full Build-Out of Caron Street Subdivision and "West of Caron" Lands]**

| Caron Street Cross Section: (2 Lane NB, 2 Lane SB with auxiliary lanes) – from David St. to Street "C" | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Intersection 4-Lane Caron St. Corridor* | | Control Type | Scenario (b) WITH Development in Place | | | | | |
| | | | Critical Approach/ Movement | Volumes (vph) | Weekday Morning Peak Hour (Afternoon Peak Hour) | | | |
| | | | | | Avg. Delay per Vehicle (seconds) | Level of Service (LOS) | 95th Percentile Queue (m) | Volume-to-Capacity Ratio (v/c) |
| 2 | Caron St. & David St. **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control with widening to accommodate WB LT & LT/RT Auxiliary Lanes Permissive-protected SB LT and phasing | WB-LT lane + WB-LT/RT shared lane | LT: 342 (327) RT: 183 (102) | 23.6 (32.4) | C (C) | 38 (41) | 0.70 (0.75) |
| | | | NB-Th | 686 (653) | 15.7 (41.1) | B (D) | 140 (162) | 0.71 **(0.89)** |
| | | | NB-RT | 244 (399) | 2.6 (8.8) | A (A) | 10 (33) | 0.35 (0.47) |
| | | | SB-Th | 456 (798) | 9.9 (20.9) | A (C) | 63 (191) | 0.45 (0.63) |
| | | | SB-LT | 60 (172) | 10.4 (24.3) | B (C) | 12 (49) | 0.23 (0.80) |
| 18 | Caron St. & Future Bronze Ave. **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control (Required by 10-year 2037 Horizon) Widening to accommodate a second SB-Th and NB-Th lane. Permissive-protected NB and SB left turn phasing | EB-LT | 93 (153) | 37.5 (37.1) | D (D) | 25 (37) | 0.52 (0.61) |
| | | | EB-Th | 73 (173) | 28.1 (29.8) | C (C) | 19 (38) | 0.28 (0.47) |
| | | | EB-RT | 264 (450) | 8.5 (19.7) | A (B) | 17 (50) | 0.58 (0.81) |
| | | | WB-LT | 40 (36) | 27.7 (24.3) | C (C) | 13 (11) | 0.20 (0.16) |
| | | | WB-Th | 151 (122) | 34.7 (27.0) | C (C) | 36 (28) | 0.54 (0.33) |
| | | | WB-RT | 197 (173) | 11.5 (6.0) | B (A) | 20 (13) | 0.52 (0.38) |
| | | | NB-LT | 353 (336) | 25.9 (41.4) | C (D) | 81 (97) | 0.61 (0.82) |
| | | | NB-Th lane + NB-Th/RT shared lane | Th: 641 (727) RT: 22 (44) | 10.3 (24.4) | B (C) | 63 (81) | 0.30 (0.54) |
| | | | SB-LT | 104 (224) | 28.3 (15.0) | C (B) | 29 (31) | 0.47 (0.57) |
| | | | SB-Th lane + SB-TH/RT shared lane | Th: 547 (780) RT: 147 (121) | 22.7 (27.6) | C (C) | 64 (109) | 0.63 (0.75) |
| 17 | Caron Street & Future Commercial / Community Facilities Access **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | Traffic Signal Control with widening to accommodate for two NB-Th lanes and Dual SB-Th lanes Protected WB-LT and permissive-protected SB-LT phasing | WB-LT | 41 (123) | 32.7 (38.9) | C (D) | 14 (34) | 0.24 (0.53) |
| | | | WB-RT | 193 (323) | 12.1 (10.4) | B (B) | 17 (21) | 0.59 (0.67) |
| | | | NB-Th lane + NB-Th/RT shared lane | Th: 822 (783) RT: 93 (70) | 19.8 (24.6) | B (C) | 98 (109) | 0.63 (0.65) |
| | | | SB-LT | 303 (365) | 18.8 (19.7) | B (B) | 64 (75) | 0.61 (0.71) |
| | | | Dual SB-Th | 547 (902) | 7.7 (13.1) | A (B) | 44 (91) | 0.23 (0.39) |
| 16 | Caron St. & Street "B" **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | NEW Traffic Signal Control with widening to accommodate EB-LT, NB-LT, and SB-RT auxiliary lanes; and for two through lanes for NB and SB Permissive EB-LT and NB-LT phasing | EB-LT | 300 (158) | 28.0 (29.0) | C (C) | 45 (29) | 0.77 (0.61) |
| | | | EB-Th/RT | 34 (36) | 0.1 (9.7) | A (A) | 0 (6) | 0.05 (0.10) |
| | | | WB-LT | 13 (16) | 9.2 (15.8) | A (B) | 3 (5) | 0.03 (0.06) |
| | | | WB-Th/RT | 191 (130) | 6.0 (6.0) | A (A) | 14 (10.3) | 0.30 (0.31) |
| | | | NB-LT | 14 (30) | 15.3 (9.5) | B (A) | 4 (6) | 0.04 (0.10) |
| | | | NB-Th lane + NB-Th/RT shared lane | Th: 502 (564) RT: 10 (21) | 13.7 (7.3) | B (A) | 43 (35) | 0.37 (0.28) |
| | | | SB-LT | 79 (177) | 15.1 (12.1) | B (B) | 16 (32) | 0.24 (0.39) |
| | | | SB-Th lane + SB-Th/RT shared lane | Th: 409 (581) RT: 104 (267) | 11.7 (7.3) | B (A) | 32 (44) | 0.37 (0.41) |
| 15 | Caron St. & Street "C" **Int 1, 2, 15, 16, 17 & 18 are multi-Signal Coordinated** | NEW Traffic Signal Control with widening to accommodate NB-LT, SB-LT, and SB-RT auxiliary lanes and for two lanes for NB and SB through movement Permissive NB-LT, SB LT, and SB-RT phasing | EB | 224 (130) | 22.4 (24.3) | C (C) | 29 (25) | 0.68 (0.53) |
| | | | WB | 102 (73) | 9.7 (7.5) | A (A) | 12 (9) | 0.23 (0.23) |
| | | | NB-LT | 10 (22) | 9.2 (6.7) | A (A) | 3 (4) | 0.02 (0.05) |
| | | | NB-Th + NB-TH/RT shared lane | Th: 280 (443) RT: 5 (10) | 8.3 (6.1) | A (A) | 17 (21) | 0.16 (0.21) |
| | | | SB-LT | 40 (86) | 20.7 (7.5) | C (A) | 13 (12) | 0.08 (0.16) |
| | | | SB-Th + SB-TH/RT shared lane | Th: 346 (353) RT: 70 (179) | 16.4 (4.6) | B (A) | 37 (19) | 0.24 (0.25) |

In general, the tables indicates that:

- Table 6: *Option 1: 3-Lane Caron Street Corridor*: This table indicates operational constraints along the 700m distance between the Caron Street/David Street intersection and the Caron Street/Future Commercial-Community Facilities Access in the northbound direction during the forecast PM peak hour.
- Table 7: *Option 2: 4-Lane Caron Street Corridor*: This table indicates fewer operational constraint along the entire Caron Street Corridor with the sole exception being the Caron Street/ David Street intersection during the forecast PM peak hour. The 3-leg cross section along Caron Street in the vicinity of David Street intersection cannot be widened further to support a 4-lane cross-section while still providing for an MUP and sidewalk provisions due to the existing ROW constraints.

***a) Caron Street / David Street Intersection***

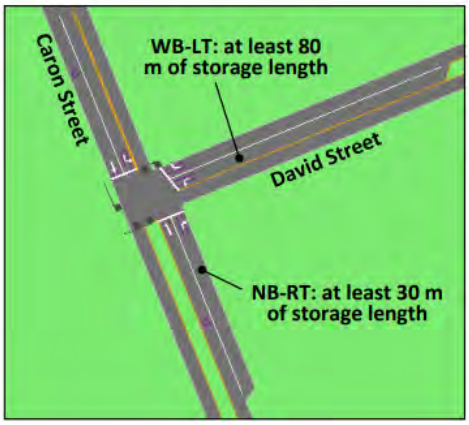
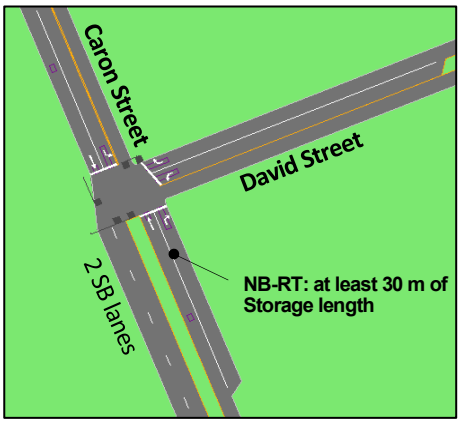
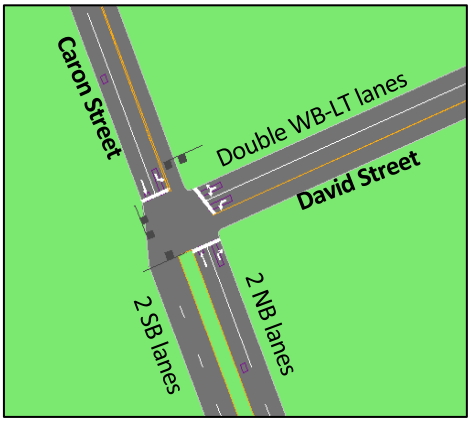
Caron Street, north of David Street has recently been widened to provide a 3-lane cross-section characterized by a centre left turning lanes. Plans are in currently in place to protect for a 4-lane cross-section south of David Street. The lack of available ROW to the north of David Street presents a considerable constraint to considering additional widening of Caron Street to the north beyond David Street.

Table 8 compares the two mitigation strategies (3-lane and 4-lane options) to the original TIA.

- Although the original TIA recommended configuration provided for the development of the lands on the east side of Caron Street, the additional N-S traffic caused by the developments on the west side was found to result in congestion, poor LOS, and delays along Caron Street particularly during the PM peak hour of travel demand.
- The proposed 3-lane configuration was also found to exhibit congested LOS in the NB direction.
- The proposed 4-lane configuration was determined to provide satisfactory LOS with the sole constraint being the NB-Th movement which transitions to a single lane configuration north of David Street.

The NB-Th movement is anticipated to remain congested as further widening of Caron Street to a 4-lane cross section to the north of David Street is constrained by the available right-of-way. It is unlikely that further widening is possible due to existing property and utility constraints.

**Table 8 Caron Street / David Street Intersection Mitigations**
**Includes Development on West Side of Caron Street**

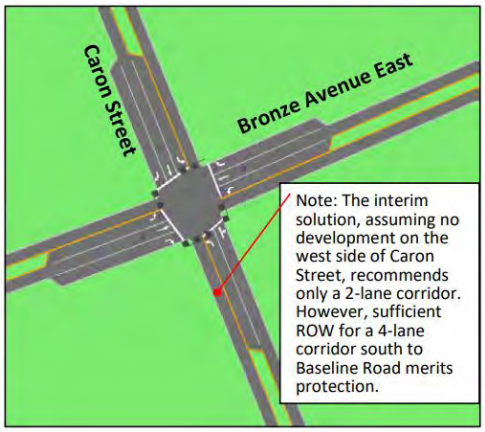
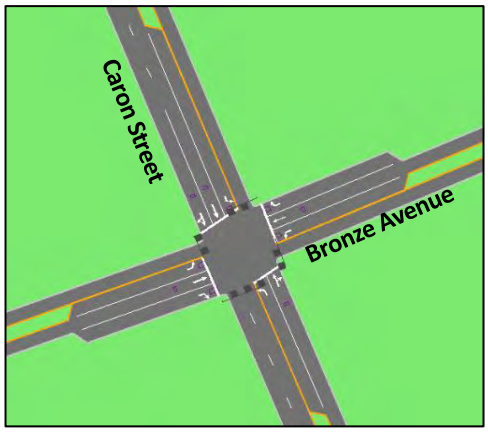
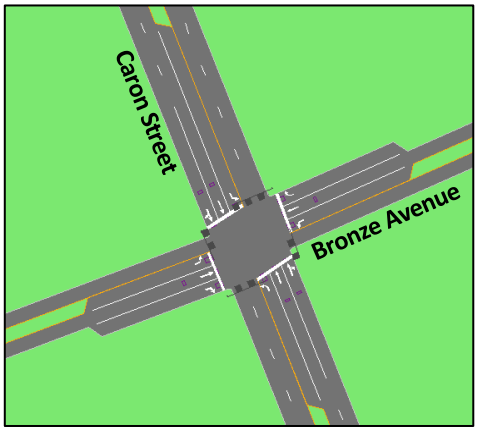
| *Original TIA Recommendation* | *Option 1: 3-Lane Configuration* | *Option 2: 4-Lane Configuration* |
|---|---|---|
|  |  |  |
| Configuration Improvement Over Existing:<br>WB-LT and NB-RT lanes | Configuration Improvement Over Original Recommendation:<br>2 SB-Th lanes south of intersection | Configuration Improvement Over Original Recommendation:<br>2 SB-Th lanes south of intersection and a shared WB-LT/RT lane |
| NB-Th Movement: 686 (653) | | |
| Table 4 indicates that the NB-Th movement during the PM peak hour is congested wand operates at LOS "D" with a v/c of 0.90 with a queue length of 180m (24 passenger vehicles) and average delays of over 40 seconds. | Table 6 indicates a LOS "D", an average delay of 38.4 seconds, a queue length of 171m (23 passenger vehicles), and a v/c 0.89 for the NB-Th movement in the afternoon peak hour. | Table 7 indicates that the NB-Th movement operates under congested conditions as the v/c's are in the range of 0.70-0.90, the queue lengths are 140-165m (19-22 passenger vehicles) and the delays of 40 seconds. |
| SB-Th Movement: 456 (798) and WB-LT Movement: 342 (327) | | |
| Table 4 indicates that the SB-LT has delays of ~50 seconds with a v/c of 0.89 during the PM peak hour. SB-Th movement operates near capacity (v/c 0.88) with a queue length of 188m (25 passenger vehicles) during the PM peak. The WB-LT movement is congested as it operates with v/c of approximately 0.80 and average delay of 40-45 seconds during the AM and PM peak hours. | Table 6 indicates that the SB-Th movement operates at an acceptable LOS "C", but the queue length in the PM is 191 m (25 passenger cars) and the v/c is 0.80. The WB-LT operates under some congestion as the v/c's are between 0.75 and 0.85. | Table 7 indicates that the SB-LT operates at an acceptable LOS "C" but works under some congestion as the v/c is 0.80. The WB-LT movement operates at LOS "C" with v/c's of 0.70-0.75 during the PM and AM peak hours. |
| **Not Recommended** | **Not Recommended** | **Preferred Option** |

### *b) Caron Street / Future Bronze Avenue Intersection*

Table 9 provides a comparison of the original TIA recommendation to the two mitigation strategies at the Caron Street / Bronze Avenue Intersection.

- With the advent of the lands to the west side of Caron Street being considered the recommended configuration in the TIA study was determined to be insufficient resulting in LOS "D" and v/c's at or approaching 0.90.
- The 3-lane configuration presented in Table 6 is forecast to be congested in the NB and EB directions characterized by v/c ratios greater than 0.8 and the NB-Th/RT queue of 203m.
- The widening of Caron Street to a 4-lanes plus auxiliary lanes cross section was determined to offer the greatest improvement to operations to the NB-Th and SB-Th movements

**Table 9: Caron Street / Future Bronze Avenue Intersection Mitigations**
**Includes Development on West Side of Caron Street**

| *Original TIA Recommendation* | *Option 1: 3-Lane Configuration* | *Option 2: 4-Lane Configuration* |
|---|---|---|
|  |  |  |
| Configuration Improvement Over Existing:<br>NB-LT, SB LT & RT lanes, and East-West Legs | Configuration Improvement Over Original Recommendation:<br>1 SB-Th Lane & 1 shared SB-Th/RT Lane | Configuration Improvement Over Original Recommendation:<br>1 NB-Th & 1 shared NB-Th/RT Lane and<br>1 SB-Th Lane & 1 shared SB-Th/RT lane |
| NB-Th Movement: 641 AM (727 PM) | | |
| Table 4 indicates that the NB-LT movement is congested and operates with v/c's of 0.94 in the AM and 0.98 in the PM with a LOS "E" and over a minute of delay in the PM. | Table 6 indicates that the NB-Th movement is congested and operates with a v/c of 0.87 and is characterized by a 203m long queue (27 passenger vehicles) in the PM. As well, the EB-RT (450 vph) has a v/c of 0.91 which indicates congestion. | Table 7 indicates that the NB-Th movement operates at an acceptable LOS "C" with a v/c of 0.54 during the PM. The NB-LT has a v/c of 0.82 and a LOS "D" |
| SB-Th Movement: 547 AM (780 PM) | | |
| Table 4 indicates that the SB-Th movement is congested and operates with a v/s of 0.94 during the PM and is characterized by a 231m queue (30 passenger vehicle lengths). | Table 6 indicates tolerable operations for the SB-Th movement with a LOS "D" and v/c ratio of 0.82 and is characterized by a 90m queue | Table 7 indicates that the SB movements operate in the LOS "B-C" range with delays of less than 30 seconds and a v/c of 0.75 during the peak hour. |
| **Not Recommended** | **Not Recommended** | **Preferred Option** |

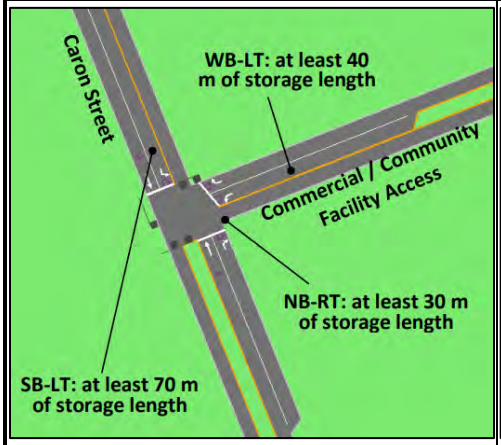
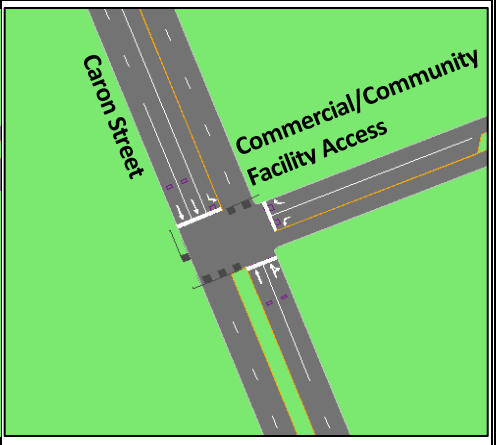
Assuming the 4-lane configuration, the operations of the NB-LT movement can be further improved through the advent of double NB-LT lanes. However, Bronze Avenue west provides a single WB egress lane, and all NB-LT traffic would have to transition to a single lane and sufficient right-of-way would have to be secured.

### *c) Caron Street / Future Commercial / Community Facilities Access*

Table 10 compares the results of the two mitigation strategies to the original TIA recommendation.

- With the advent of the lands to the west side of Caron Street being considered the recommended configuration in the TIA study was determined to be insufficient resulting in LOS "D" and v/c's approaching and exceeding 0.90.
- The 3-lane configuration presented in Table 6 is forecast to be congested in the NB directions characterized by v/c ratios of 0.9 and the NB-Th queue of 214m.
- The Caron Street / Commercial and Community Facilities Access, was found to improves overall with the 4-lane Caron Street cross section. The major legs of the intersection (NB and SB) are improved the most by the 4-lane Caron Street corridor. The minor leg (WB) improved marginally in queue lengths, volume-to-capacity, and average delays.

**Table 10: Caron Street / Future Commercial/Community Facilities Access Mitigations**
**Includes Development on West Side of Caron Street**

| *Original TIA Recommendation* | *Option 1: 3-Lane Configuration* | *Option 2: 4-Lane Configuration* |
|---|---|---|
|  |  |  |
| Configuration Improvement Over Existing:<br>SB LT & NB-RT lanes, and East Leg | Configuration Improvement Over Original Recommendation:<br>Double SB-LT lanes | Configuration Improvement Over Original Recommendation:<br>Double SB-Th lanes, and1 NB-Th & 1shared NB-Th/RT |
| NB-Th Movement: 822 (783) | | |
| Table 4 indicates that the NB-Th movement is congested and operates with v/c's of 0.86 in the AM and 0.96 in the PM with a LOS "D" and a queue length in the range of 150-200 metres (21-27 passenger vehicles). | Table 6 indicates that the NB-Th movement is congested and operates with v/c's of 0.86 in the AM and 0.90 in the PM with a LOS "D". | Table 7 indicates that the NB-Th movement operates in the LOS "B-C" range and has v/c ratio of 0.60-0.65 with a peak queue length of 109m (15 passenger vehicles) and delays of less than 30 seconds. |
| SB-Th Movement: 547 (902) and SB-LT Movement: 303 (365) | | |
| Table 4 indicates that the SB-LT movement is congested and operates with v/c's of 0.97 during the AM and 0.84 during the PM. The operations in the AM are LOS "E" and the average delay of over a minute. | Table 6 indicates that the SB-LT movement operates at an allowable LOS "D" during the peak hours. | Table 7 indicates that the SB-LT movement operates with a LOS "B", under 75m of queue length (10 passenger cars), and delays of under 20 seconds. The v/c is in the range of 0.6-0.75. SB-Th movement has average delays of less than 15 seconds and v/c's of 0.23 in the AM and 0.39 in the PM. |
| **Not Recommended** | **Not Recommended** | **Preferred Option** |

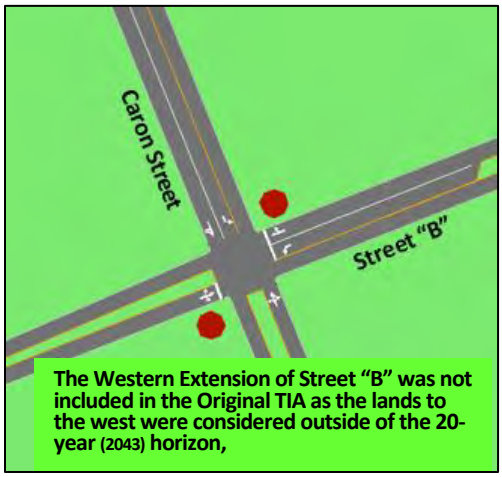
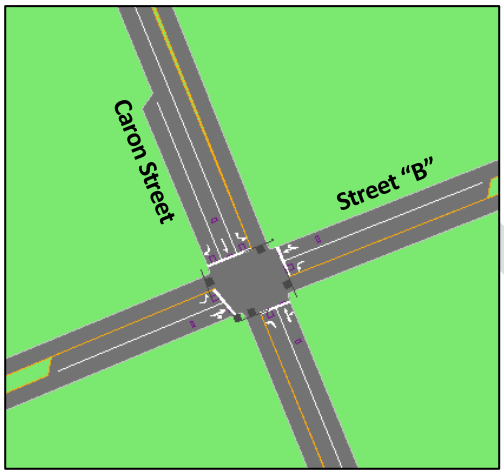
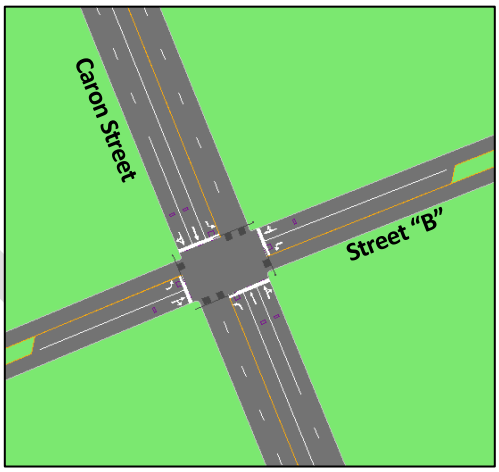
### *d) Caron Street / Street "B" Intersection*

Table 11 compares the two mitigation strategies to the original STOP controlled intersection recommended in the original TIA.

- The TIA had assumed that the lands to the west of Caron Street would not be developed within the 20-year (2043) time horizon. The intersection was assessed a "T" STOP controlled configuration. Table 4 indicates that a 4-leg, minor leg STOP-controlled configuration results in LOS "E" to "F" with unacceptable queues and delays.
- Table 6 (3-lane Concept) indicates acceptable operational performance as 3-lane cross-section [with v/c's in the range of 0.50-to-0.70 and LOS ranging from "B" to "D" depending on the movement.]. Section 2c) (page 9) indicates, and Exhibit 9 illustrates, the potential extension of Street "B" to St. Jean. The original TIA and this addendum recognize the ultimate potential of this link and the desire to assure that a corridor is protected once defined and incorporated within the city's official plan and transportation master plans. This being the case, the Caron corridor south of Street "B" as a 3-lane cross-section would likely be insufficient.
- Table 7 (4-lane Concept) indicates satisfactory operational performance as a 4-lane cross-section [v/c's in the range of 0.40-0.60 and LOS ranging from "B" to "C"] depending on the movement. A

roundabout configuration rather than conventional traffic signal has been evaluated for viability at this intersection. Annex "F" presents the results of a roundabout operational analysis at the Caron Street / Street "B" intersection. The 4-lane widening of Caron Street is the preferred configuration.

**Table 11: Caron Street / Street "B" Intersection Mitigations**
**Includes Development on West Side of Caron Street**

| *Original TIA Recommendation* | *Option 1: 3-Lane Configuration* | *Option 2: 4-Lane Configuration* |
|---|---|---|
|  |  |  |
| Configuration Improvement Over Existing:<br>SB-LT lane and East-West legs | Configuration Improvement Over Original Recommended:<br>Traffic Signals, SB RT, EB-LT, & NB-LT lanes | Configuration Improvement Over Original Recommended:<br>Traffic Signals, SB RT, EB-LT, & NB-LT lanes, 1 NB-Th & 1 shared NB-Th/RT Lane and 1 SB-Th Lane & 1 shared SB-Th/RT Lane |
| NB-Th Movement: 502 (564) | | |
| Table 4 indicates that the EB movement operates at failing LOS "F" and experiences very long average per-vehicle delays of ~45 minutes and queue lengths up to 315m (42 passenger vehicles). This movement is completely congested as the v/c's are 6.98 in the AM and 6.20 in the PM. The NB movement operates under free flow conditions. | Table 6 indicates that the EB-LT operates at a tolerable LOS "D" in the AM and PM, with average delays of approximately 40 seconds and v/c's in the range of 0.65-0.85. The NB movement is no longer free flow, but rather traffic signal controlled, however, the operations are still smooth with a LOS in the "A-B" range and delays of less than 20 seconds. | Table 7 indicates that the EB-LT movement operates at an acceptable LOS "C" with v/c's of 0.77 in the AM and 0.61 in the PM, queues of less than 50 m (7 passenger vehicles) and delays of under 30 seconds. The NB movements operate in the acceptable LOS "A-B" range. |
| SB-Th Movement: 409 (581) | | |
| Table 4 indicates that the WB-Th/RT movement is failing during the morning. The LOS for the AM is "F", the delay is over a minute and functions with a v/c of 0.83. The WB-LT movement experiences long average delays of 37.7 seconds in the AM and 200.5 seconds (3.3 minutes) in the PM. The SB movement is free flow and runs smoothly. | Table 6 indicates that the WB-Th/RT movement operates a desirable LOS "A". The WB-LT movement operates in the acceptable range of LOS "B-C" and experiences no congestion and 20 second delays. The SB-Th movements are traffic signal controlled and operate at an acceptable LOS "B" with v/c's of 0.50-0.60. | Table 7 indicates that the WB movements operate at superb LOS "A" and v/c's of 0.30 and under. The SB movements operate at acceptable LOS "B" with delays under 15 seconds. |
| **Not Recommended** | **Not Recommended** | **Preferred Option** |

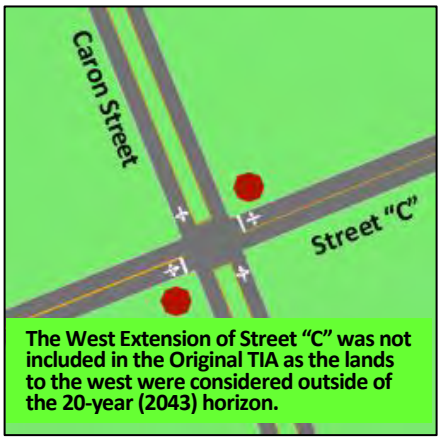
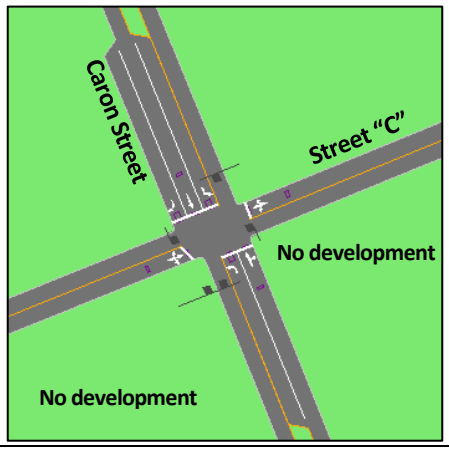
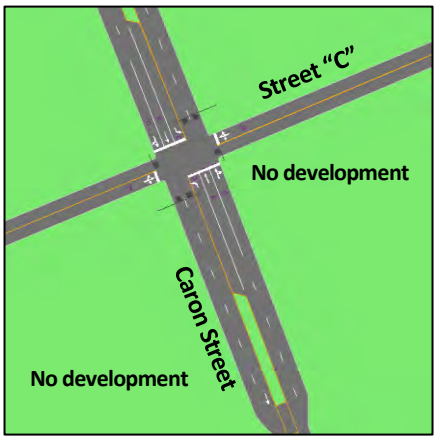
### *e) Caron Street / Street "C" Intersection*

Table 12 provides a comparison of the original TIA recommendation to the two mitigation strategies at the Caron Street / Street "C" intersection.

- All the land use scenarios of the 3 configuration options considered assumed that there would be no development south of Street "C" within the 20-year (2043) horizon. This implies that the 4-lane cross-section at this (2043) time horizon would taper down to a 2-lane cross-

section between Street "C" and Baseline Road. Beyond 2043 it is most likely that provisions should be made for protection of sufficient ROW to accommodate the ultimate widening of the Caron Street corridor further south.

**Table 12: Caron Street / Street "C" Intersection Mitigations**
**Includes Development on West Side of Caron Street**

| *Original TIA Recommendation* | *Option 1: 3-Lane Configuration* | *Option 2: 4-Lane Configuration* |
|---|---|---|
|  |  |  |
| Configuration Improvement Over Existing: East-West Legs | Configuration Improvement Over Original Recommendation: Traffic Signals, NB-LT and SB-LT & RT lanes | Configuration Improvement Over Original Recommendation: Traffic Signals, NB-LT and SB-LT lanes, 1 NB-Th Lane & 1 shared NB-Th/RT lane, and 1 SB-Th Lane & 1 shared SB-Th/RT Lane |
| NB-Th Movement: 280 (443) | | |
| Table 4 indicates that the EB approach is congested since the v/c's are over 1.00 for AM and PM. The functionality of the EB movement is compromised as the LOS is "F" and the delays are 2-3 minutes long. The NB approach is free flow and operates acceptably. | Table 6 indicates that the EB approach operates at an acceptable LOS "C" with delays less than 30 seconds and v/c's in the 0.55-0.70 range. The NB movements operate at LOS "A" with no congestion. | Table 7 indicates that the EB movement operates at an acceptable LOS "C" with delays below 25 seconds and v/c's in the 0.50-0.70 range. Also, queue lengths are less than 30 m (4 passenger vehicles). The NB movement operates at LOS "A" and v/c's less than 0.25. |
| SB-Th Movement: 346 (353) | | |
| Table 4 indicates that the WB approach operates at an acceptable LOS "C", less than 20 second delays and less than 2 passenger car lengths of queues. The SB movements are free flow and are not congested or constrained. | Table 6 indicates that most of the WB and SB movements operate at LOS "A" with v/c's less than 0.40 and average delays of 10 seconds or less. | Table 7 indicates that the WB and SB movements mostly operate at LOS "A". |
| **Not Recommended** | **Not Recommended** | **Preferred Option** |

### *f) David Street Infrastructure Considerations*

#### *i. Intersection 3: David Street / Club House Drive*

- With the addition of the development of the lands to the west, traffic volumes along David Street are not anticipated to exceed the requirement for a 2-lane (1 lane in each direction) collector roadway. It remains prudent however to recognize the need for a future vision along the David Street corridor that would provide for sidewalks, a MUP, strategically placed on-street parking, and auxiliary turning lanes where warranted. Pedestrian crossings of David Street should be provided for in recognition of the commercial development being proposed within the Caron subdivision.

- The development of the Caron subdivision to the south in the absence of auxiliary turning lanes was found to result in LOS "D" for the NB movement. In the absence of auxiliary turning lanes, the NB-RT vehicles would be required to queue behind the NB-LT vehicles leaving the new subdivision. Similarly, the addition of an EB-RT and WB-LT auxiliary lanes would serve to reduce delays and queuing along David Street.
- The addition of auxiliary turning lanes would increase the pedestrian crossing distance in the N-S direction; however, the impact of the increased width would be negligible should pedestrian crossings be implemented at this intersection.

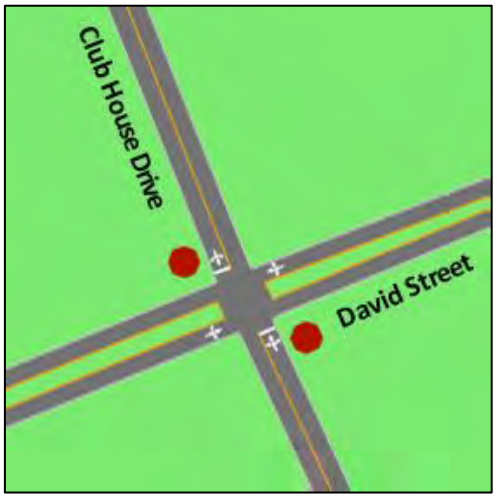



**Exhibit 12: David Street / Club House Drive Intersection**

***ii. Intersection 7: David Street / Street "E"***

- This "T" intersection represents the eastern gateway to the proposed Caron subdivision. Consideration should be given to the provision of dedicated NB-LT and NB-RT lanes at this intersection. To avoid vehicles queuing behind left turn vehicles and facilitate EB-RT into the community recognizing the proximity of the Clement subdivision to the north it remains prudent to consider the appropriateness of implementing a pedestrian crossing of David Street closer to the Clement subdivision that would serve to link the two communities.

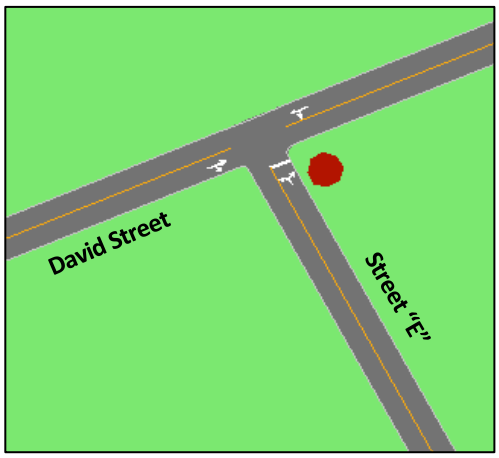



**Exhibit 13: David Street / Street "E" Intersection**

## *4) Impact of 4-Lane Corridor on the Neighbourhood*

The following constraints are associated with the implementation of 4-lane configurations as described above along Caron Street between David St. and Street "C".

- **Capacity of Caron Street corridor as a whole:** The segment considered for ROW protection is effectively nested between a 3-lane segment (north of David Street), and a 2-lane segment (south towards Baseline Road). This isolated 4-lane segment does not provide for true additional capacity but would facilitate additional N-S through movement in concert with auxiliary turning lanes. The capacity of the corridor will always be guided by the upstream intersection of Caron Street / David Street, which was found to operate at a constrained LOS "D" with a v/c of 0.89 (NB-Th) of the 20-year (2043) time horizon.
- **Inconsistency of the Caron Corridor:** Motorists expect consistent roadway design. A cross-section that transitions from 3-to-4-to-2 lanes as one proceeds from the north-to-the south over the ~1.5 km length is inconsistent and may cause confusion for those unfamiliar with the corridor.
  - The 2-lane southern portion of the corridor (between Street "C" and Baseline Road) is contingent upon there being no further development south beyond the existing urban boundary. This is thought to be unlikely in the ultimate timeframe. Further urbanization to the south of the urban boundary is likely to ultimately require continuation of the 4-lane configuration.

- The existing 3-lane cross-section north of David Street will ultimately will increasingly become a constraint resulting in additional induced demand on Bronze Avenue west. The 2-lane Bronze Avenue corridor is insufficient to accommodate ultimate traffic demands. In the ultimate timeframe this is likely to trigger the need and justification for a southern E-W corridor that would connect St Jean Street to Caron Street.

- **Pedestrian Crossing Distance:** A 4-lane cross-section with an auxiliary left turn lane results in a pedestrian crossing distance of approximately 17-25 metres. Assuming a walking speed of 1.0 m/s, an elderly pedestrian would need ~25 seconds to cross this distance excluding the initial perception and reaction time prior to commencing the crossing. This can have a negative impact on the traffic-signal timing efficiency and can result in decreased capacity compared to a 2-3 lane cross-section solution.
- **Sidewalks/MUP Accommodation:** The required ROW width along Caron Street must accommodate sidewalks, boulevards, cycling provisions, and an MUP in addition to motor vehicle lanes. A functional plan is necessary to clearly establish the required ROW provisions along the corridor.

Ultimately, it is recommended to investigate the most appropriate solution for the corridor by way of the production of a functional plan.

## *5) Impact of Other Known Developments*

City of Clarence-Rockland staff indicated that the Edwards Waterfront development, and Rockland West Business Park developments should be considered within the travel demand volumes. Given the distance between these future proposed developments and the proposed Caron subdivision is over 3 kilometres (to either of these developments), only a small fraction of traffic from these two developments will be impacting the study area. Traffic attributable to other known developments was considered within the TIA and this Addendum by way of applying a 2% annual background growth factor.

## *6) Impact of Proposed Caron Subdivision Development on Montée Outaouais*

Exhibit 4 indicates that the impact of the proposed Caron Subdivision development on the Montée Outaouais corridor was forecast to be under 100 vehicles-per-hour per direction. However, it is noted that as the Caron Street corridor approaches capacity, additional motorists may choose to use the less busy Montée Outaouais/ Laurier corridor to access the CR-17 corridor to head east, which would in turn result in an increase in traffic volumes.

## *7) Access to Future lands from Saca Subdivision*

Exhibit 14 illustrates the potential for a new community bounded by the proposed Caron East development on three sides and David Street on the north side. The City has indicated that all access to this future development is to take place within the Caron (Saca) development lands as access onto David Street would be prohibited from these (unshaded) lands. The black inset arrows are indicative of two access points within the proposed Caron East development where this future community would be provided with access.

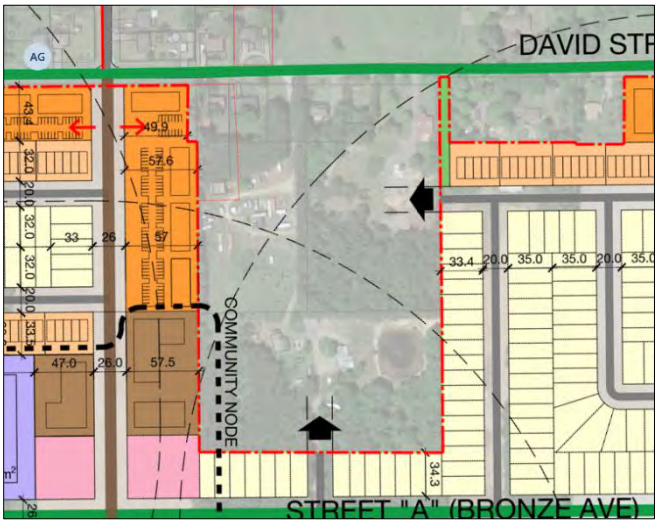



**Exhibit 14: Access Strategy to Non-Saca Lands**

## 8) *Short-Term Street Parking on David Street*

It remains prudent to consider the appropriateness to consider the need and justification to accommodate short-term (15 mins) parking fronting the various planned for medium-density developments and single-family homes on both sides of David Street to accommodate delivery vehicle traffic (uber, pizza, amazon, etc.). On-street parking facilities (lay-by areas) merit consideration in the functional planning of the David Street corridor.

## 9) *Response to Municipal Comments/Concerns (August 29, 2025)*

### a) *Concerns with Single Access to 588 Units in Phase 1*

The original TIS assumed, for intersection capacity analysis purposes, that only a single access to David Street would be required to accommodate Phase 1 and 2 of the proposed Saca development which would see 588 dwellings and 25,830 SF of residential/commercial/retail space.

However, the National Building Code (NBC) supports the National Fire Protection Association (NFPA) manual Code 1141[1] standard that includes guidelines for land development in wildland, rural and suburban areas. The guidelines indicate that residential developments over 100 units (between 101-to-600 units) should be accessed by means of at least two accesses to the surrounding roadway network.

According to these NBC and NFPA requirements, a secondary emergency services connection would be required after Phase 1and 22 units (out of Phase 2's planned 160 units) are occupied. This requirement would be satisfied by assuring access along the Bronze Avenue corridor is established after the first 100 units are occupied. Alternatively, a temporary interim secondary emergency access other than Street "E" could be provided to David Street.

### b) *David Street/Street "E" & Caron Street/Bronze Avenue Intersections (10-Year Horizon)*

- The intersection of David Street / Street "E" was assumed to vph operate under a minor leg STOP-control condition in the 10-year (2037) horizon.
- The intersection of Caron Street / Bronze Avenue was determined to require a traffic signal control at the 10-year (2037) horizon (NB-LT and SB-LT could operate under permissive phasing).

### c) *Upgrades to the Caron Street / Bronze Avenue Traffic Signals (20-Year Horizon)*

Additional upgrades to the Caron Street / Bronze Avenue intersection signal phasing plan will be warranted in the ultimate 20-year (2043) time horizon. These upgrades include, but are not limited to, the addition of protected NB-LT and SB-LT phases, along with signal coordination along the Caron Street corridor.

### d) *Morris Village Assumptions*

Any references to "Morris Village Stage 5" should be interpreted as "Morris Village Stage 5 and 6". The original study referred to the Morris Village development on the west side of Caron Street corridor as "Morris Village Stage 5". The original TIA and this addendum document include travel demands for the development of both Morris Village's Stages 5 and 6.

1. NFPA Standard, Manual 1141: Chapter 5 (Section 5.1.4.1) - Means of Access, Table 5.1.4.1(a), a minimum of two access routes are required to serve a residential development with greater than 100 household units (between 101 and 600 residential units) - https://link.nfpa.org/free-access/publications/1141/2017

## *10) Conceptual Cross-Sections, Road Classifications and Required ROW*

### *a) Club House Drive*

The Club House Drive corridor between David Street to the North and the urban boundary to the South was proposed to be classified as minor collector within the original study. However, upon closer examination, it was concluded that the collector classification would be redundant for this corridor as it runs in parallel (~330 metre separation) to the Caron Street corridor.

Rather, the Club House Drive corridor within the proposed subdivision is envisioned as a local roadway with a "special" cross-section that would provide for a general 26 metre right-of-way (and wider at intersections where auxiliary turning lanes are required) that would be designed to accommodate pedestrians and cyclists on dedicated paths, along with providing on-street parking near public parks and commercial facilities. A potential cross-section concept is illustrated within Exhibit 15 with the on-street parking provision being located on either the east or west side of the roadway where it is most suitable.

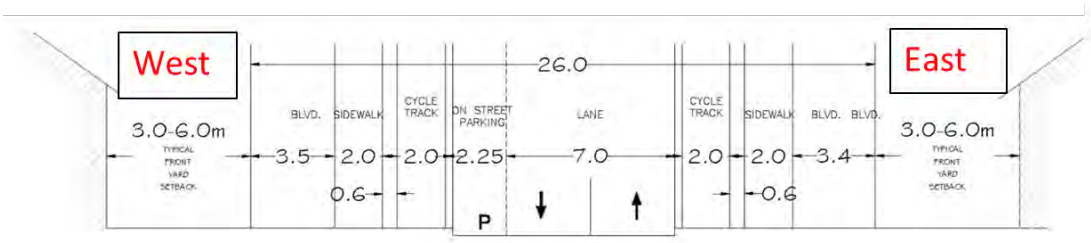



**Exhibit 15. Club House Drive Conceptual Cross-Section**

### *b) David Street*

The David Street corridor was proposed to be classified as a minor collector between Caron Street and Club House Drive within the original study. However, upon further review by the City of Clarence-Rockland's 2025 MMTMP, and in light of the additional travel demands associated with the build-out of the Caron West development, the revised recommendation is to re-classify the entirety of David Street to a minor collector. Exhibit 16 provides a conceptual cross-section for David Street.

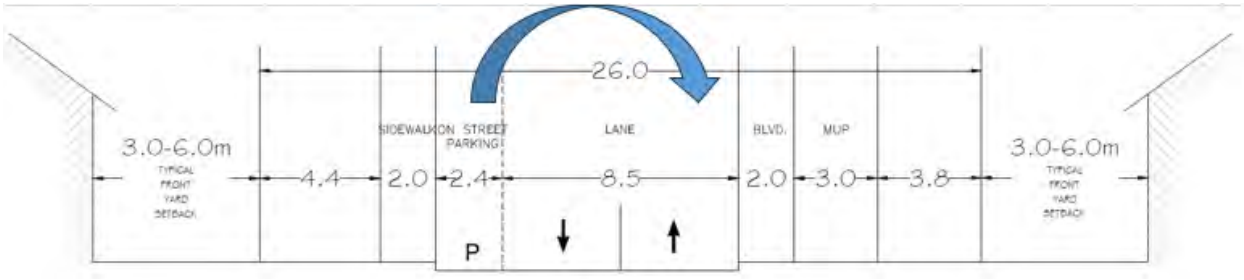



**Exhibit 16. David Street Conceptual Cross-Section**

### *c) Bronze Avenue East and Street "E"*

Exhibit 17 illustrates 3 distinct cross-sections planned along the Bronze Avenue east corridor which takes into consideration the transition from higher density commercial/residential development through to lower density single-family homes within park settings.


**Exhibit 17: Bronze Avenue East Cross-Sections**

The Street "E" corridor was originally proposed as a local roadway within the TIA study but upon review, it was concluded that a Bronze Aven-Street "E" link in its entirety be classified as a "minor collector" to align with the previous (Expansion Lands) plans and provide continuous connectivity between Bronze Avenue East and David Street.

*Between Caron Street and Club House Drive (d-5):* The cross-section along this section of Bronze Avenue is illustrated in Exhibit 18. This section of the corridor is adjacent to the planned commercial development and higher density residential development requiring access through the advent of auxiliary lanes nearest the intersections and perhaps RIRO mid-block access. Exhibit 18 illustrates wider vehicle lanes, a sidewalk along the north side, boulevards, and an MUP along the south side of the corridor within a 26m cross-section.

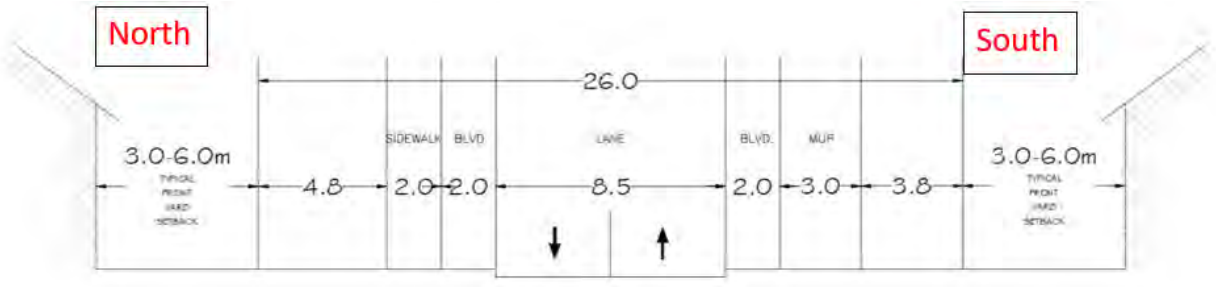



**Exhibit 18: Bronze Avenue (at Commercial Block) Conceptual Cross-Section**

*Between Club House Drive and Lower Density Residential Development (e-8):* Exhibit 19 depicts a narrower roadway cross-section through the residential area east of Club House Drive intended to assure a reduced traffic speed along this section of Bronze Avenue.


**Exhibit 19: Bronze Avenue (East of Club House Drive) Conceptual Cross-Section**

*Bronze Avenue East (Lower Density Residential) and Street "E" to David Street (8b):*
Exhibit 20 illustrates the conceptual cross section attributed to the low-density residential area within the eastern portion of the proposed Saca development that would provide for a reduced 20m ROW. Adoption of a narrower right-of-way is intended to promote traffic calming through the low-density residential area and adjacent parks while encouraging on-street parking.

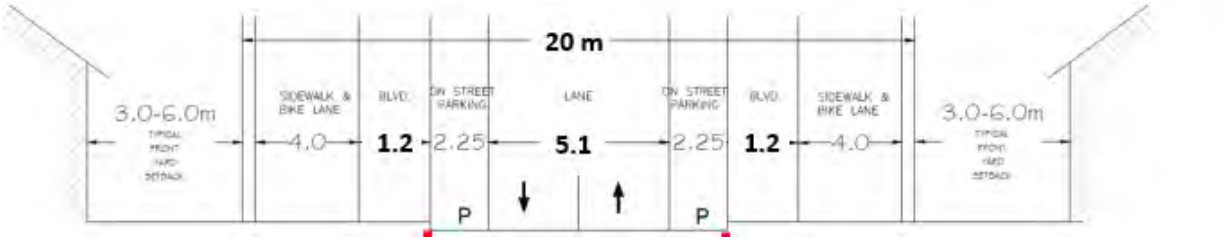



**Exhibit 20. Street "E" Conceptual Cross-Section**

## *11) Revisions to Tables and Exhibits in TIA*

***a. Revised Table 2-1*** [Replaces Table 2-1 (Pg 2-3) in Original TIA Study]

Table 2-1 of the original TIA report was flagged for several inconsistencies regarding the existing study area. Table 13 below provides the revised Table 2-1, indicating the following corrections highlighted in yellow. The new table...

- includes MUP/cycling lanes on the east side of the Caron Street corridor,
- reflects current on-street parking provisions along David Street, and
- indicates no posted speed limit along Club House Drive (inferring 50 km/h).

***b. Revised Table 2-3*** [Replaces Table 2-3 (Pg 2-16) in Original TIA Study]

Table 14 provides revisions to Table 2-3 in the original TIA report. The following corrections are highlighted in yellow:

- The control type for the existing Caron Street / Docteur Corbeil Boulevard intersection was corrected to "Minor Leg STOP-control".
- The reference to the Rockland X-Mas Trees / David Street access (int. No. 4) intersection was removed from the table as this access was determined to provide satisfactory operations and was considered not to be one of the major intersections along the David Street corridor.

## Table 13: (Revised Table 2-1) Configuration of Area Roadway Segments

| Roadway | Caron Street | | David Street | Baseline Road (CR35) | | | Club House Drive |
|---|---|---|---|---|---|---|---|
| **From:** | Docteur Corbeil Blvd | David Street | Caron Street | Bouvier Road | Caron Street | Lacasse Road | David Street |
| **To:** | David Street | Baseline Road | Tucker Road | Caron Street | Lacasse Road | St Jean Street | Eagle Street |
| **Length:** | 400 m | 1,900 m | 1,200 m | 800 m | 500 m | 1,400 m | 200 m |
| **Classification[1]:** | Major Collector | Major Collector | Local | Rural Arterial (County Road) | | | Local |
| **Orientation:** | North-south | North-south | North-South<br>East-west | East-west | East-west | East-west | North-south |
| **No. of Lanes:** (Excludes auxiliary lanes at intersections) | 1 NB Lane<br>2 SB Lanes | 1 lane-per-direction | 1 lane-per-direction | 1 lane-per-direction | 1 lane-per-direction | 1 lane-per-direction | 1 lane=per- direction |
| **Sidewalks & MUP's** | Sidewalk on west side only. MUP / bi-directional bike lanes on the east side | N/A | N/A | N/A | N/A | N/A | N/A |
| **On-Street Parking** | N/A | N/A | There are no parking restrictions along David St. Vehicles are seen parking on the unpaved shoulder, particularly on the north side of the corridor | N/A | N/A | N/A | N/A |
| **Speed Limit** | 50 km/hr | 50 km/hr | 50 km/hr | 80 km/hr | 60 km/hr | 60 km/hr<br>40 km/hr at curve | No posted speed limit |
| **Connects to:** | • Fairway Dr. | • Baseline Road<br>• Docteur Corbeil Blvd<br>• CR17 | • Club House Dr.<br>• Rockland X-mas Trees<br>• Tucker Road | • N/A | • N/A | • Filion Rd. | • Fairway Dr. |

Indicates changes from Table 2-1 within Original TIA Document (August 29, 2025)

1. Adopted from City of Clarence Rockland Official Plan, Schedule B1

## Table 14: (Revised Table 2-3): Existing 2024 Intersection Capacity Analysis

| *Intersection* | | Control Type | Critical Approach/ Movement | Volumes (vph) | Weekday Morning Peak Hour (Afternoon Peak Hour) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Average Delay per Vehicle (seconds) | Level of Service | 95th Percentile Queue (m) | Volume-to-Capacity Ratio (v/c) |
| 1 | Caron Street and Docteur Corbeil Boulevard | Minor Leg STOP-control | Eastbound | 127 (190) | 10.8 (12.5) | B (B) | 5 (10) | 0.18 (0.3) |
| 2 | Caron Street and David Street | All Way STOP-control | Northbound | 129 (192) | 8.3 (8.2) | A (A) | 5 (7) | 0.17 (0.23) |
| | | | Southbound | 24 (27) | 7.3 (8.5) | A (A) | 1 (1) | 0.03 (0.04) |
| | | | Southbound-LT | 13 (29) | 8.1 (8.2) | A (A) | 1 (1) | 0.02 (0.05) |
| | | | Southbound-TH | 115 (137) | 8.4 (8.8) | A (A) | 5 (5) | 0.17 (0.2) |
| 3 | David Street and Club House Drive | Minor Leg STOP-control | Southbound | 5 (5) | 8.8 (8.9) | A (A) | 0 (0) | 0.01 (0.01) |
| 8 | David Street and Tucker Road / Otaouais Sideroad | Minor Leg STOP-control | Northbound | 17 (34) | 8.6 (8.8) | A (A) | 1 (1) | 0.02 (0.04) |
| 10 | Poupart Road and St. Jean Street | All Way STOP-control | Westbound | 149 (343) | 8.6 (14.2) | A (B) | 6 (24) | 0.2 (0.54) |
| | | | Eastbound | 57 (287) | 7.7 (12) | A (B) | 2 (17) | 0.08 (0.44) |
| | | | Southbound | 279 (190) | 10.2 (11.2) | B (B) | 14 (11) | 0.38 (0.32) |
| 11 | Baseline Road (CR35) and St Jean Street - Filion Road | All Way STOP-control | Northbound | 3 (2) | 8 (8.6) | A (A) | 0 (0) | 0.01 (0.01) |
| | | | Eastbound | 171 (451) | 9.3 (16.6) | A (C) | 8 (37) | 0.25 (0.66) |
| | | | Westbound | 158 (105) | 8.8 (8.8) | A (A) | 6 (4) | 0.22 (0.16) |
| | | | Southbound | 165 (222) | 8.4 (10.5) | A (B) | 6 (11) | 0.21 (0.33) |
| 12 | Baseline Road (CR35) and Lacasse Road | Minor Leg STOP-control | Northbound | 18 (23) | 9.7 (10.4) | A (B) | 1 (1) | 0.03 (0.04) |
| 13 | Baseline Road (CR35) and Caron Street | Minor Leg STOP-control | Southbound | 120 (145) | 10.6 (12.9) | B (B) | 5 (8) | 0.17 (0.26) |
| 14 | Baseline Road (CR35) and Bouvier Street | Minor Leg STOP-control | Northbound | 42 (50) | 10.2 (11) | B (B) | 2 (2) | 0.06 (0.08) |

Indicates changes from Table 2-3 within Original TIA Document (August 29, 2025)

Values outside of brackets represent morning peak hour results.
Values in brackets represent afternoon peak hour results.

c. ***Revised Exhibit 2-11*** [Replaces Exhibit 2-11 (Pg 2-9) in Original TIA Study]

Exhibit 21 provides the correct labels for David Street and Montée Outaouais.

d. ***Revised Exhibit 3-2*** [Replaces Exhibit 3-2 (Pg 3-2) in Original TIA Study]

Exhibit 23 on the following page provides a revision to Exhibit 3-2 in the original TIA document and illustrates the additional proposed developments within the City of Clarence-Rockland (e.g. Edwards Waterfront Development). The proposed developments were deemed sufficiently far removed from the proposed Caron subdivision (>2 km), such that traffic generated by those developments would be accounted for by way of the 2% annual growth rate.

e. ***Revised Exhibit 4-3*** [Replaces Exhibit 4-3 (Pg 4-7) in Original TIA Study]

Exhibit 22 provides an updated Exhibit 4-3 which illustrates:

- The excluded lands that now terminate at the Clarence Creek corridor on the east side,
- The new lands to the west of Caron Street addressed within this addendum document.


**Exhibit 21. (Revised Exhibit 2-11): Tucker Rd/ David St Intersection**

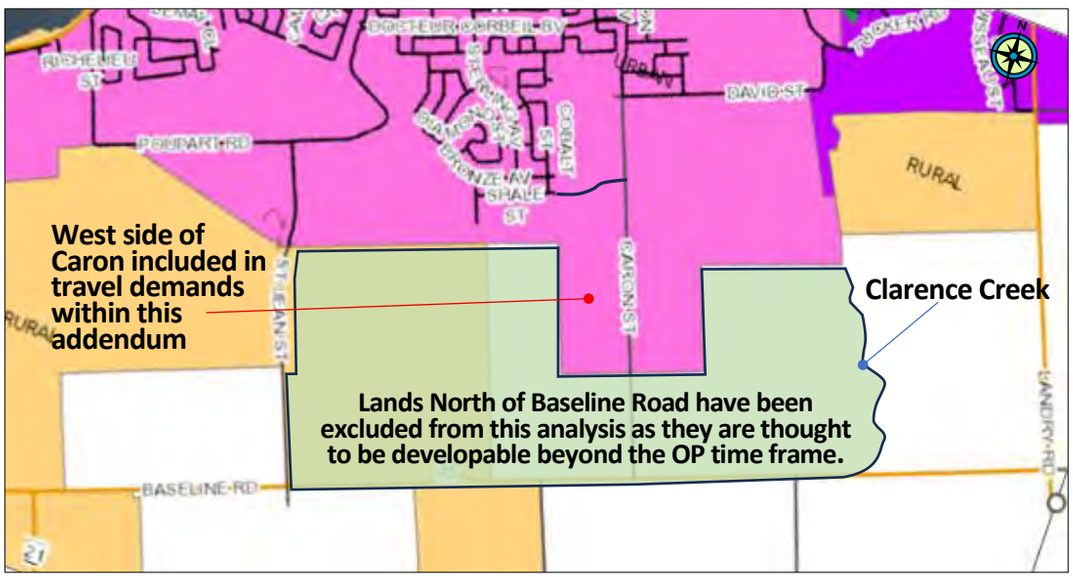



**Exhibit 22. (Revised Exhibit4-3): Lands Not Considered for Development within this TIA**

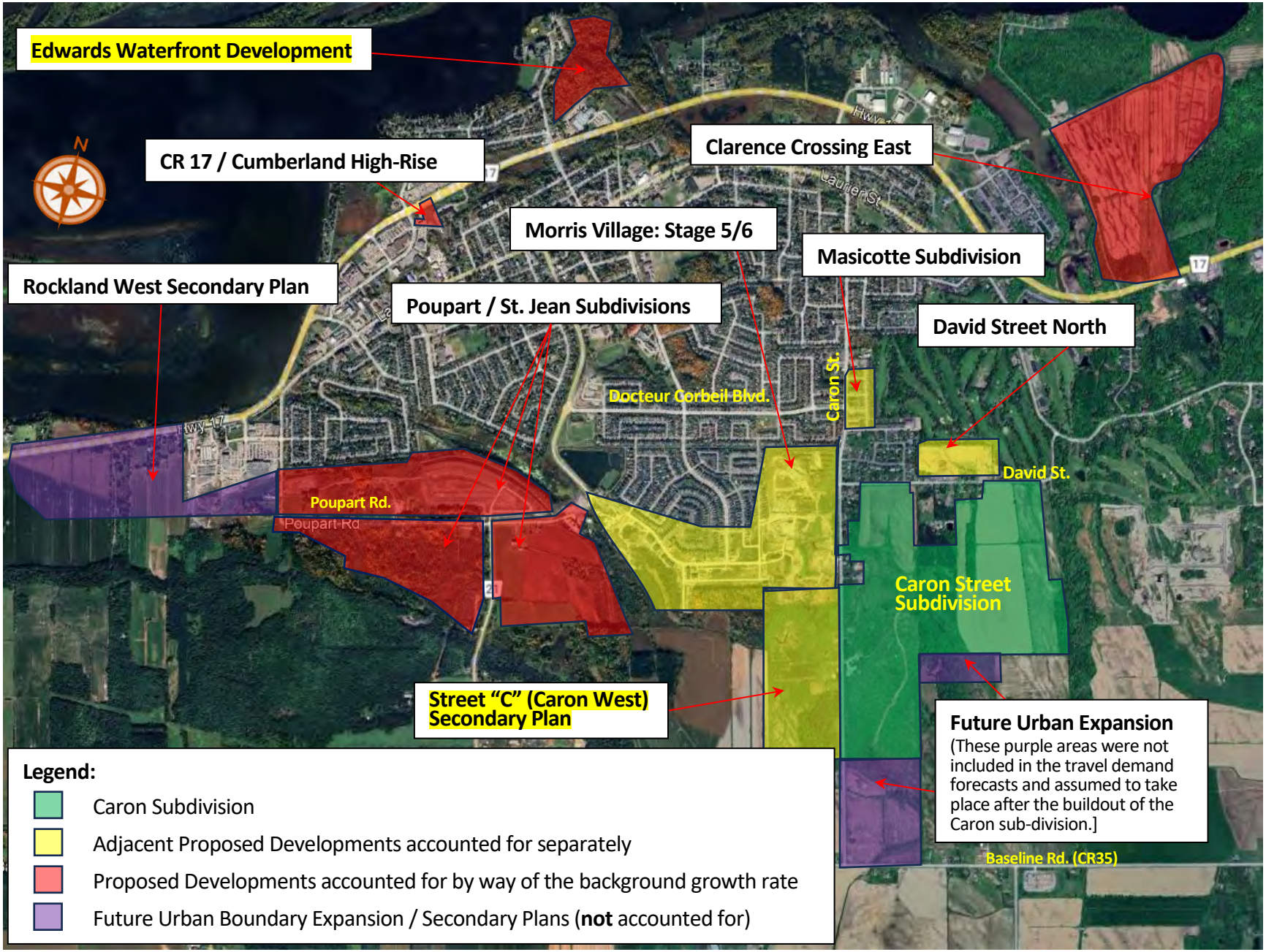



**Exhibit 23. (Revised Exhibit 3-2) Proposed Developments in the City of Clarence-Rockland**

## 12) Conclusions

### a) Additional Signalized Intersections

Upon analysis of the development on the west side of Caron Street, it was determined that the Street "B" and Street "C" intersections with Caron Street (Int. No. 15 and 16) would require traffic-signals (A roundabout at Street "B" is thought to be preferred in the ultimate timeframe).

Due to the increase in traffic volume from the West development, the STOP control operation at the intersection recommended within the original TIA was determined to fail at both Street "B" and Street "C" intersections.

### b) David Street Intersections (Club House Drive and Street "E"): Auxiliary Lanes

The E-W traffic operations along David Street's two proposed new STOP-controlled intersections would be improved with the advent of auxiliary EB-RT and WB-LT auxiliary lanes at David Street / Club House Drive (Int. No. 3) and David Street / Street "E" (Int. No. 7). The addition of the auxiliary lanes would result in a smoother flow of the eastbound through traffic. The required ROW along the length of the David Street corridor is to be substantiated by way of a functional plan.

### c) Caron St. Corridor ROW Protection for 4-Lane Corridor

The ROW along the entirety of the Caron Street corridor between David Street in the north and approximately 1.3 km south of David Street (future Street "C" South) is required to be defined to accommodate a 4-lane cross-section through the production of a functional plan. The plan would delineate all intersections and accesses onto the corridor and determine the lane and signalization requirements. The 4-lane Caron Street corridor will provide a greater localized vehicular level of service.

### d) Classification of David Street, Club House Drive, Street "E" and Bronze Ave East

The following roadway classifications are proposed:

- **David Street:** Minor Collector
- **Club House Drive:** Local (Special Cross-Section)
- **Street "E":** Minor Collector
- **Bronze Ave East Extension:** Minor Collector

### e) Protection of Potential East-West Corridor (Street "B" West Extension)

Given the capacity constraints noted for Caron Street (North of David Street) and Bronze Avenue West, it is considered prudent to protect for an additional east-west corridor connecting Caron Street in the east to St. Jean Street and the future 4-lane Poupart Road corridor west of the site. This additional corridor would relieve both Caron Street and Bronze Avenue from congestion.

# Annex “A”:

# Comments from Municipality and Consultant Responses

| Comment # | Comments provided by Jonathan Samson (August 29, 2025) | TIA Page Number | Castleglenn Responses | Addendum Document Requirements |
|---|---|---|---|---|
| **1** | **There is concerns with the Phase 1 which would accommodate 588 units being supported by only a single access.** | ES-1 (Section D) | (1) A secondary public access (which at the very least wouild be a gravel road connection) to Bronze Avenue is to be established after 100 units within Phase 1 are constructed. **(2) Public access to the Bronze Street east extenion is conditional upon project phasing and should be finalized in terms of conditions at the time of Sub-division Registration.** The roadway phasing plan can be amended at the detailed design stage after the Official Plan Amendment (OPA) is approved. | Clarify this in Section H in the addendum document. |
| 2 | During the ten-year (2037) time horizon is the traffic control of the David/Street "E" and Caron/Bronze intersection to be STOP Controlled or Signalized? | ES-2 (Section D) | At the 10-year time horizon it is expected that:<br>- The David Street / Street "E" (future collector) will be minor leg STOP-controlled.<br>- The Caron Street / Bronze Avenue would be signalized | |
| 3 | It states here that the Caron St/Bronze Avenue traffic signals are to be "upgraded" but does not specify what "Upgrades to traffic signals" are required by the 20-year (2043) horizon. | ES-3 (Section G) | The forecast upgrades to the traffic signals at the 20-year horizon (2043) include perimissive-protected LT phases. This will require modifications to the traffic signal hardware (signal heads and controller). | Clarify this in Section H in the addendum document. |
| 4 | The limits of the proposed Caron Street re-classification from "rural arterial" to "major collector" should - be specified. Does it also include the section of Caron from David to Bronze | ES-4 (Section H) | According to the 2025 C-R MMTMP, the segment of Caron Street between David and futrure Bronze Avenue **is already classified as a major collector** despite having an existing rural cross-section. | Clarify this in Section H in the addendum document. |
| 5 | The limits of David Street's re-classification from "local" to "minor collector" should be specified. | ES-4 (Section H) | **The entire David Street corridor between Caron Street and Montee Outaouais is to be classified as a "minor collector."** | Clarify this in Section H in the addendum document. |
| 6 | The TIA recommends that a "functional planning" study be conducted to define the requirements a future the Caron Street "major collector" corridor. Should the TIA suggest what ROW to protect so that it can be incorporated into the Offical Plan? | ES-4 (Section I) | The proposed Caron Street "functional planning" study should address the requirements for the Caron Street corridor between David Street through to Bronze Avenue and furhter south along the length of the entire sub-division. It's recognized that the ROW around each intersection, especially if roundabouts are to be considered will exceed the requirements of a typical cross section. **A TIA should not be used as the basis of determining ROW requirements. Rather it would be best if a functional planning study is used to define ROW along the corridor and at intersections.** | Clarify this in Section I in the addendum document. General Cross Sections can be provided that would allude to ROW width to be confirmed before Draft Plan Approval. |
| 7 | The reviewer circled the Caron Street corridor south of Street "B" being considered for 4-laning | ES-4 (Section K) | The requirements for 4-laning should be determined from a proposed "functional planning" study. This TIA did not consider development of the west side of Caron within its traffic forecast as it remains to be determined; Yet a portion of these lands fall within the existing urban boundary. The need for a 4-lane Caron Street cross section remains to be substantiated. **It's best if the west side of Caron be accounted for by way of an Addendum document. In this way the CIty could see the effects, with and without the west lands being accounted for.** | West Side of Caron Development to be assessed in Addendum Document to indicate likely ROW with/without West Side being developed. |
| 8 | Does the TIA study consider Montee Outaouais (up to Laurier?) | Page 2-1 (Section 2.1) | No. The study area went as far at the intersection of David St / Tucker Road / Montee Outaouais. The Montee Outaouais/ Laurier Avenue intersection is located 1.2km north of the proposed sub-division and was considered to be outside of the study area of a TIA. | Report on impact of Saca Development on Montee Outaouais/ Laurier volumes |
| 9 | Table 2-1: reviewer circled Caron Street lanes and active transportation | | Caron Street between Docteur Corbeil Blvd and David Street has 1 NB lane and 2 SB lanes (SB-TH and SB-LT).<br>**The table will be updated to include mention of MUP on the east side of Caron** | Addendum to include Revised Table 2-1 |
| 10 | Table 2-1: reviewer circled David Street on-street parking | Page 2-3 | Clarification is needed. Currently David Street has a narrow sholder with ditches on each side. There are no roadside signs prohibiting parking. * **A note will be placed on the Table 2-1 that indicates for footnoted sections if there are no on-street parking prohibitions in place."** | Addendum to include Short Term (15 minute) n-Street Parking on David fronting the Higher Density SACA development townhomes. (Amazon) |
| 11 | Table 2-1: reviewer circled speed limit along Club House Drive | | There is currently no posted speed limit along Club House Drive. Table 2-1 incorrectly noted a 40 km/hr speed limit on Club House Drive. **Table 2-1 will be changed to indicate that the "default speed" along the existing Club House Drive is 50 km/hr.** | Addendum to include Revised Table 2-1 |
| 12 | Exhibit 2-11: check label for David Street | Page 2-9 | **Label in Exhibit 2-11 will be changed form "Caron St" to "David St"** | Addendum to include Revised Exhibit 2-11 |
| 13 | Table 2-3: Caron / Dr Corbeil - Control type indicates traffic signal control | Page 2-16 (Section 2.5.3) | **Table 2-3 will be corrected to indicate existing signal type at Caron / Docteur Corbeil intersection as "minor leg STOP-controlled"** | Addendum to include Revised Table 2-3 |
| 14 | What is the relevance of Christmas Trees access analysis? | | This analysis indicates the performance of existing driveways fronting the David Street corridor to understand the impacts of the proposed subdivison upon existing access performance. | |
| 15 | "Morris Village 5" should be corrected to 5 & 6 | Page 3-1 (Section 3.1) | **The text will be corrected to indicate "Morris Village Stage 5 and 6" as the proposed development west of the site** | Addendum to include comment that all References to Morris Village Stage 5 should have been Stage 5 & 6. |
| 16 | Exhibit 3-2: Add Edwards Water Front development | | The Edwards Water Front Development is over 3km distance away from the Caron development. Traffic attributable to this future development that ends up in the study area will be accounted for by way of the background growth rate. **A footnote will be placed at the bottom of Exhibit 3-2 which indicates that development far removed from the proposed Caron Street subdivision (eg. Edwards Water Front Development and Rockland West Business Park) were addressed through the assumption of a 1.5% annual background growth factor."** | Addendum will note 1.5% growth includes the imact of this development. |


Exhibit 2-11: Tucker Rd/ David St Intersection

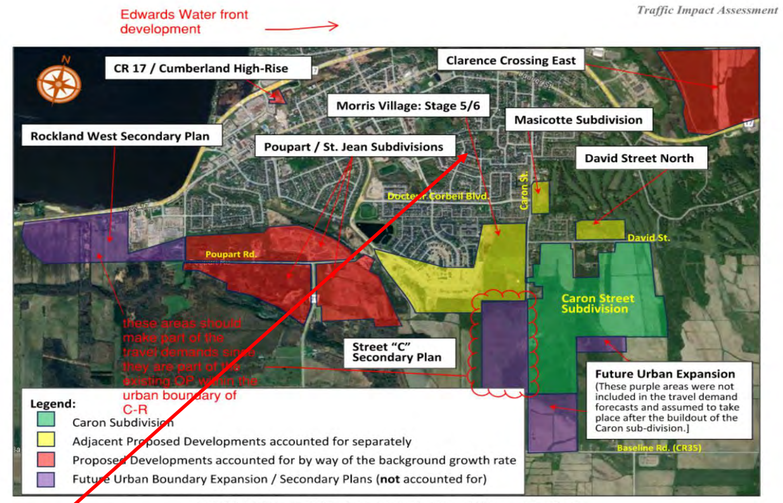
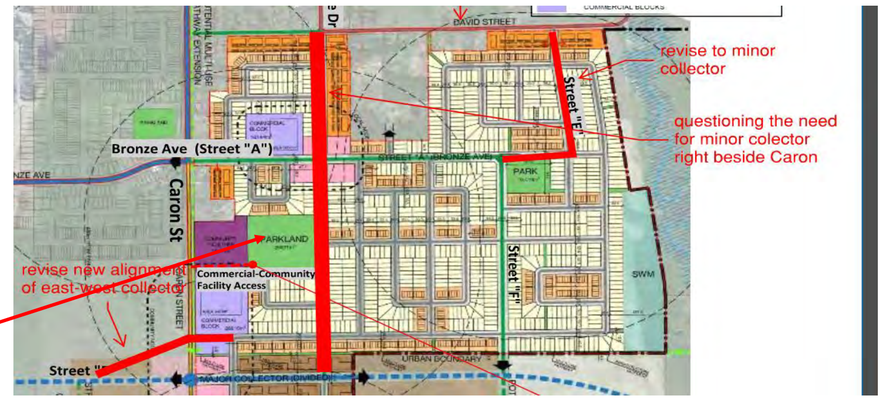



Exhibit 3-2 Proposed Developments in the City of Clarence-Rockland

| | | | | |
|---|---|---|---|---|
| 17 | **Exhibit 3-2: Lands to the west of Caron:"these areas should make part of the travel demands since they are part of the existing OP within the urban boundary of C-R".** | Page 3-2 (Exhibit 3-2) | The TIA assumed that this area on the west side of Caron will likely not be developed until the Caron subdivision has been completed. Exhbit 4-2 indicates that Phases 6, 7 and 8 of the development run the length of the Caron Corridor. The TIA study assumes that it's highly unlikely that the area west of Caron would be initiated until the lands on the east are built out. As noted in point 7 above, **it's best if the west side of Caron be accounted for by way of an Addendum document. In this way the CIty could see the effects, with and without the west lands being accounted for.** | Addendum to account for West Side of Development. |
| 18 | Exhibit 3-2: Rockland West business park:"these areas should make part of the travel demands since they are part of the existing OP within the urban boundary of C-R" | | See Response to Q. 16 | Addendum will note 1.5% growth includes the imact of this development. |
| 19 | Exhibit 4-1: the entirety of David & Montee Outaouais should be designated as a minor collector but with a different cross section. perhaps not 4 lanes require but SWK & MUP would be required | | **This exhibit will be replaced with a new exhibit**. We concur that David & Montee Outaouais should be designated as a minor collector but with a different cross sections along its length. Different conceptual options for possible cross-sections will be provided for discussion, but this really should be addressed within a separate David Street corridor study and not this TIA. **The TIA will be updated to provide sample cross sections as examples.** | |
| 20 | Questioning the need for "minor collector" designation for Club House Drive right beside Caron Street. | | We concur. The previously proposed minor collector will be changed to a local roadway with a special cross-section to accommodate pedestrians and cyclists within the neighbourhood. Cross-section options will be provided for discussion but this is really best addressed at the time of detailed design. **The TIA will be updated to provide sample cross sections along Club House Drive south of David as examples.** | Addendum to illustrate "local" status and cross sections along length of Club House Drive. |
| 21 | **Revise "Street E" to minor collector, creating a continuous Bronze Ave between Caron and David** | Page 4-2 (Exhibit 4-1) | We concur regarding the minor collector designation for this segment of "Street E"". This will be reflected in the newest replacement plans. However, a special 20 metre cross-section is proposed to ensure traffic calming through the residential area. The future design will need to ensure that any cut-through traffic through the community is minimized. **The TIA will be updated to provide sample cross sections along Street "S" as an example.** | Addendum to illustrate "local" statusof Street "E" along its entire length with cross section examples. |
| 22 | Revise new alignment of east-west corridor | | The east-west corridor will be excluded from this OPA at this stage. However, the study's findings still recommend protecting for a future E-W corridor. **The TIA will not provide, nor reference a future conceptual alignment of the EW corridor.** | AEG - 2-page document empahasizing th eneed to protect a corridor by way of a future FP study and an OP ammendment.. |
| 23 | **Draft plan condition for SACA to provide a functional design plan for CARON & David (entirity) showing lane configuration + land acquisition** | | This was communicated to SACA. Its agreed that functional plans would be useful. But this should not be made conditional upon OPA approval. | |
| 24 | The reviewer circled the "proposed roadway classifications **do not correspond** to the recent (May 2025) updates to the City's transportation master plan." | Page 4-3 | This exhbit will be replaced by an updated plan that references potential cross-sections for consideration. Difference still exist from the 2025 TMP as follows:<br>- David Street collector in its entirety;<br>- Bronze Ave East & Street "E" is a minor collector between Caron and David.<br>- Club House Drive is a local Roadway and not a major collector. | |
| 25 | Phase 2 provides access to Caron & 1 access for 588 units is way too much for EMS | | See Q No. 1: We concur. The footnote under Table 4-3 specifically indicates that the TIA study assumes *"a worst-case scenario of only the David Street access being open for the first two phases of the development, after which the Bronze Avenue access would be open to the public to supplement the David Street access."* However, the applicant has been advised to provide for a second emergency access along the Bronze Avenue corridor after 100 units are built and occupied to meet the needs of EMS. **The refrence to the the 100 unit threshold came from the NBC and NFPA. These souces will be included/ referenced within the revised TIA.** | |
| 26 | It is surprising that 588 units with acess to David does not trigger a road classification to Minor collector up to Tucker/Montee Outaouais | Page 4-5 (Table 4-3) | We concur. The entire David Street cordidor between Caron and Montee Outaouais should be classified as a "minor collector." **The updated plan will show this.** | |
| 27 | Reviewer highlighted: " *It is understood that Bronze Ave access may be open before Phase 2 is fully complete. This study assumes worst-case of only David St. access being open for the first two phases of the development, after which the Bronze Ave. access would be open to public to supplement the David Street Access.* " and added the note " **It is understood that Bronze Ave access may be open before Phase 2 is fully complete."** | | The applicant has been advised to provide for a second emergency access after 100 units are built. **Public access to the Bronze Street east extenion is conditional upon project phasing and should be finalized at the detailed design stage.** | |
| 28 | Need an emergency access road for 588 units of phase 1 | Page 4-6 | The applicant will be advised to provide for a second emergency access after 100 units are built likely along the Bronze Street east extension corridor.<br>Access and phasing should be finalized at the time of detailed design stage.<br>*(See Comment No. 1 and 25)* | See Addendum Requirement to address this. |
| 29 | Reviewer highlighted "*This level of traffic and short time gap between vehicles on the roadway is insufficient to permit vehicles parked on driveways facing Bronze Avenue to safely enter the traffic stream.* " and indicated in a note that "This level of traffic and short time gap between vehicles on the roadway (Bronze Avenue West of Caron) is insufficient to permit vehicles parked on driveways facing Bronze Avenue to safely enter the traffic stream." | Page 4-7 (Section 4.5) | We wholehartedly agree with this statement as it serves to highlight the forecast need for an alternate E-W major collector linking St. Jean and Caron Streets. | See Comment 22 and include in Addendum Write-up and AEG action. |



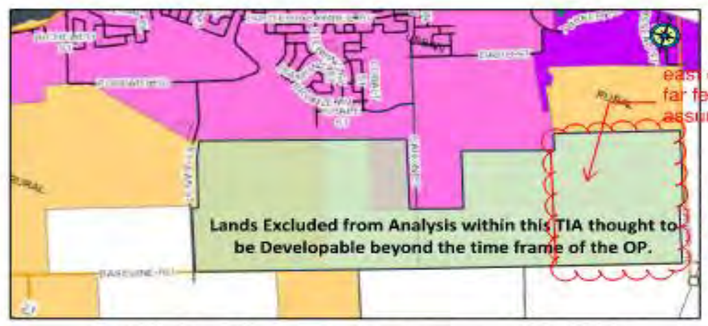



Exhibit 4-3: Lands Not Considered for Development within this TIA

| | | | | |
|---|---|---|---|---|
| 30 | A note was placed on Exhibit 4-3 indicating that that development of the lands east of the creek is a "far-fetched" assumption. | | **Understood. These lands were not included in the analysis in any case. The exhibit will be modified to exclude the circled area.** | Addendum to include Revised Exhibit 4-3 |
| 31 | Exhibit 4-4: It would be preferred to move Street "C" not to have a roundabout superimposed on an existing home. | Page 4-8 (Section 4.5) | The future alignment of the major E-W major collector corridor will be confirmed at a later stage. The OPA application was scaled down to exclude the lands associated with the future major E-W collector at this time. |  |
| 32 | The Reviewer highlighted; "*Additionally, a 40% pass-by trip reduction was applied to the trips attributed to the proposed community facility.* " | Page 5-2 (Section 5.3.2) | For the purposes of this TIA, a High school was assumed to occupy the "community facility parcel" as a worst-case traffic generation scenario. The AM peak hour indicates that 68% of all AM trips would enter the development, and 32% exit. (A lot of drop offs.) These drop off trips are not "separate trips" - they are, with limited exceptions, trips attributed to dropping off students at the school indicating a potential ~50% rate of drop-off, compared to the other 50% being the trips destined to the school itself (staff, teachers etc.) that remain there. We argue that a portion of the drop-offs would be the trips originating within the community (i.e. a parent going to work (which was already accounted for from trip generation and dropping off their child at the school). This assumption avoids double-counting these trips. | |
| 33 | Reviewer highlighted;<br>"• 60% of all trips (residential + commercial) were assigned to the Bronze Avenue/Caron Street, and<br>• 40% of all site generated traffic were assigned to the David Street (Street "E") access." | Page 5-8 (Section 5.6.2) | This highlights the traffic split by access in the 10-year (2037) horizon | |
| 34 | Exhibit 5-2: The reviewer circled the traffic signals in this exhibit which were located at the Caron/David and Caron / Docteur Corbeil intersections in the ten-year (2037) horizon | Page 5-10 (Section 5.7) | Traffic signals are warranted in the 10-year (2037) horizon at:<br>- Caron St / Docteur Corbeil St;<br>- Caron St / David St;<br>- Caron St / Bronze St;<br>- Baseline Road (CR35) / St. Jean St / Filion | Addendum Document should clearly state the intersections that require traffic signals by the 10 year time horizon. |
| 35 | The Reivewer highlighted: "City should consider re-designation of David Street to a "collector" status" | Page 6-8 (Section 6..3.1 (A)) | **Done!** The entire David Street cordidor between Caron and Montee Outaouais will be classified within the TIA as a "minor collector".<br>*(See Comment No. 4, 5, 19 and 24)* | |
| 36 | Reviewer highlighted: "*This can well exceed the capacity of a 2-lane major collector roadway. It is therefore considered prudent to protect sufficient right-of-way for a 4 lane cross section, with auxiliary lanes at intersections along Caron Street between Bronze Avenue south to Street "B" (Major Collector) to meet 20 year travel demand* ." The Reviewer crossed out "[850 vph] this can well exceed the capacity of a 2-lane major collector roadway" | Page 6-20 (Section 6.3.3 (C)) | This capacity constraint highlights the need for the E-W major collector at the approximate time of the completion of the full build-out (20-year) horizon. **The TIA will be modified to remove the reference to 850 vph exceeding the capacity of a 2-lane major collector roadway.** | |
| 37 | Reviewer highlighted 5 fields in Table 6-4 (network modification) | Page 6-21 (Table 6-4) | **Noted.** | |
| 38 | Reviewer highlighted: "*However, the Baseline Road /St. Jean Street-Filion Road intersection currently operates at congested traffic levels that are anticipated to worsen over the next 5-years, indicative that ongoing monitoring is required* ." | Page 7-1 (Section 7.1.1) | **Noted.** | |
| 39 | Reviewer highlighted: "*Int 1. Caron Street / Docteur Corbeil Blvd.*<br>*• Traffic signals required by 10-year (2037) time horizon along with specialized cycling signals to connect the MUP along the east side of Caron Street to the dedicated bike lanes along Docteur Corbeil* " | Page 7-1 (Section 7.1.2) | Highlighted fields represent future infrastructure requirements | |
| 40 | Reviewer highlighted: "*Int. 2. Caron Street / David Street • Traffic signals required by 10-year (2037) time horizon* " | | Highlighted fields represent future infrastructure requirements | |
| 41 | Reviewer highlighted: "*Int, 18. Caron Street / Bronze Avenue • Traffic signals required by 10-year (2037) time horizon* " | | Highlighted fields represent future infrastructure requirements | |
| 42 | Reviewer highlighted: "*However, sufficient ROW for a 4-lane corridor south to Baseline Road merits protection.* " | Page 7-3 (Exhibit 7-3) | | |
| 43 | Reviewer highlighted: "*While the widening was not found to be required by a 20-year (2043) time horizon, it remains prudent to protect the Caron Street corridor ROW between Bronze Avenue and Street "B" for a potential future 4-lane facility.* " | Page 7-5 (Section 7.1.4) | | |
| 44 | Reviewer highlighted: "*8.2.2 Caron Street Functional Plan Caron Street should be protected to accommodate a widened 4-lane cross-section between Bronze Avenue and Street "B" (Future Divided Major Collector). The 4-lane cross-section (if found to be warranted by future development adjacent to the Caron subdivision) should be protected as far south as Baseline Road. It is recommended that the City of Clarence-Rockland develop a functional plan covering the 1.6km length of the Caron Street corridor between Bronze Avenue to Baseline Road. This plan would form the basis of assuring that sufficient right-of-way would be protected to accommodate the envisioned motor-vehicle, cycling and pedestrian infrastructure."* | Page 8-4 (Section 8.2.2) | **A functional plan of Caron Street between David and Baseline is required (~2 km).** | |

**Table 6-4: Summary of Network Modifications and Time Horizons when Required**

| | *Intersection* | Control Type | Phase 1-2 (2031) | Phase 1-5 (2037) | Phase 1-8 (2043) |
|---|---|---|---|---|---|
| 1 | Caron St. and Docteur Corbeil Blvd.<br>~~**Int 1, 2, 17 & 18 are multi-Signal Coordinated**~~ | **NEW:** Traffic Signal Control | N/A | **Signalization** | Beyond 2043: Consider widening of the west leg (EB approach) to 2 lanes (EB-RT and EB-LT). |
| 2 | Caron St. and David St.<br>**Int 1, 2, 17 & 18 are multi-Signal Coordinated** | **NEW:** Traffic Signal Control | N/A | **Signalization** | **East leg widening to accommodate 2 lanes WB-LT (80 m storage) and WB-RT, NB-RT Lane** and add Permissive-protected phasing for SB-LT – Loops and detectors required. |
| | | **NEW:** Additional Upgrades | N/A | | |
| 3 | David St. and Club House Dr. | Minor Leg STOP-control | | | Conversion of "T" intersection to "4-Leg" configuration |
| 4 | David St. and Rockland X-Mas Trees | Minor Leg STOP-control | | | |
| 5 | David St. and North Development St. "A" | Minor Leg STOP-control | ✓ | | |
| 6 | David St. and North Development St. "C" | Minor Leg STOP-control | ✓ | | |
| 7 | **New** David St. and St. "E" | Minor Leg STOP-control | Minor Leg STOP-control | | |
| 8 | David St. and Tucker Rd. / Outaouais | Minor Leg STOP-control | | | |
| 11 | Baseline Rd. (CR35) and St Jean St. - Filion Rd. | **NEW:** Traffic Signal Control (Semi-Actuated) | | **Signalization** and widening of west and north legs to provide for **auxiliary SB-LT and EB-LT lanes** | |
| 12 | Baseline Rd. (CR35) and Lacasse Rd. | Minor Leg STOP-control | | | |
| 13 | Baseline Rd. (CR35) and Caron St. | **NEW:** Traffic Signal Control (semi-actuated) | | | Signalization and widening of west and north legs to provide for **auxiliary SB-LT and EB-LT lanes.** |
| 14 | Baseline Rd. (CR35) and Bouvier St. | Minor Leg STOP-control | | | |
| 15 | **New** Caron St. and Future St. "C". | Minor Leg STOP-control "T" Intersection | | | Minor leg STOP-control |
| 16 | **New** Caron St. and Future St. "B" | Minor Leg STOP-control "T" Intersection* | | | Minor leg STOP-control;<br>**Auxiliary SB-LT and WB-LT lanes** |
| 17 | **New** Caron St. and Future Commercial / Community Facilities Access<br>**Int 1, 2, 17 & 18 are multi-Signal Coordinated** | **NEW:** Traffic Signal Control with perm-prot SB left turn phasing | | | **Signalization**<br>Permissive-protected phasing for SB-LT<br>**Auxiliary SB-LT, NB-RT and WB-LT lanes** |
| 18 | **New** Caron St. and Future Bronze Avenue<br>**Int 1, 2, 17 & 18 are multi-Signal Coordinated** | **NEW:** East Extension with Traffic Signal Control | "T" intersection on the west leg, minor leg STOP-controlled | **Signalization, auxiliary left and right turn lanes in each direction, shared NB-TH-RT** | |
| | | Permissive-protected NB and SB left turn phasing | | | Permissive-protected phasing for SB-LT and NB-LT – Loops and Dedectors Required |

*Future roundabout or signal control may be warranted upon the advent of development west of Caron Street

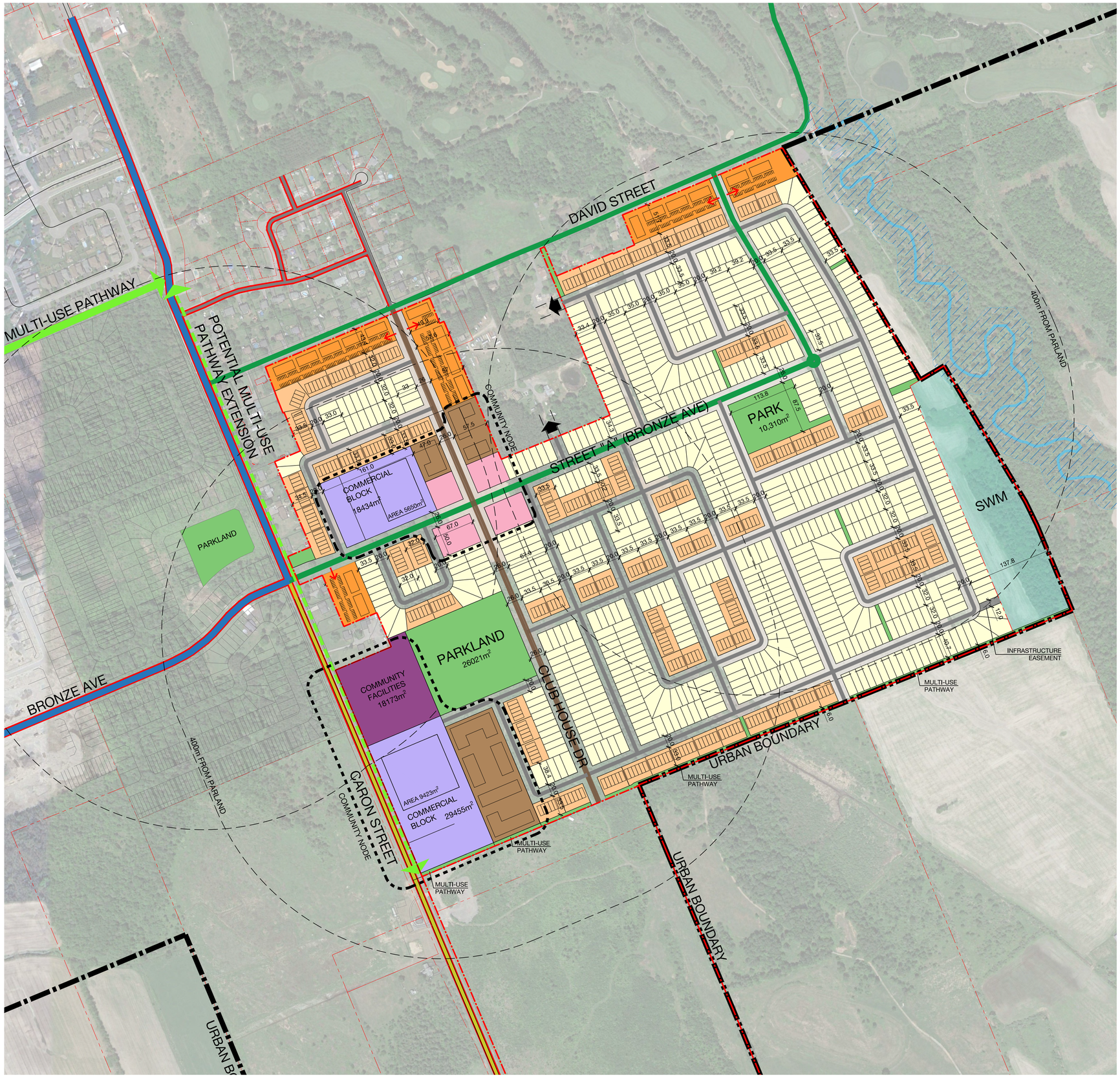
Add Footnote (Int 1,2,17 & 18 are multi-signal coordinated.

| | | | |
|---|---|---|---|
| 45 | Reviewer highlighted: "*The production of a functional plan of the Caron Street corridor covering the 1.6km length between Bronze Avenue and Baseline Road (CR-35), which would account the proposed Caron subdivision and any future development to the west and south of the site. The functional plan should identify the required right-of-way to protect for an ultimate 4-lane cross-section.*" | Page 8-6 | |
| 46 | Reviewer highlighted: "*A long-range planning study that would quantify the impacts of all planned development (inclusive of the Caron Subdivision) upon future regional travel demands intended to formulate a long-term strategy aimed at addressing the constrained capacity of the County Road 17 corridor* ." - The reviewer added "**Present to Pierre & Julian and Jean-Luc J."** | Page 8-6 | Given the scale of development in Clarence-Rockland we feel it is prudent to ensure the municiaplity is well connected to both the region (County) and the City of Ottawa. The 2-lane CR-17 corridor is at capacity today, and the "*Rockland West Secondary Plan Phase 2 Report* " concluded that "***With the infill of background developments, Carman Bergeron/CR-17 is projected to operated over capacity.*** " This assumes a 4-lane CR-17 cross-section. This drives the need for a strategy to accomodate all of the proposed development. We can present these findings to the County if needed. |

# Annex “B”:

# Updated (V13) Concept Plan

**(Revision Date: February 3, 2026)**




## SITE INFORMATION

| | |
|---|---|
| TOTAL SITE AREA: | 1,126,026m² (112,6ha) |
| TOTAL SITE AREA TO BE DEVELOP: | 868,483m² (86,8ha) |
| GROSS LAND AREA*: | 649,229m² (64,9ha) |
| NET DEVELOPABLE AREA**: | 565,011m² (56.5ha) |

## DEVELOPMENT STATISTICS

| | |
|---|---|
| SINGLE / SEMI-DETACHED | ~895 units |
| TRADITIONAL TOWNHOUSES | ~445 units |
| STACKED TOWNHOUSES | ~385 units |
| 4-STOREY APARTMENTS RESIDENTIAL | ~325 units |
| 4-STOREY APARTMENTS MIXED-USE | ~180 units |
| TOTAL | ~2,230 units |

## PARKLAND DEDICATION

| | |
|---|---|
| Required if density < 35u/Ha: | 32,461m²(5%) |
| Required if density > 35u/Ha: | 64,922m²(1Ha/300units*) |
| Maximum Provincial Bill 23: | 37,167m²(1Ha/600units) |
| Provided: | ~37,177m²(5.73%) |

*limited to 10% of the gross land area.*

## DENSITY PROVIDED

| | Gross: |
|---|---|
| Average: | 34.3 u/ha* |
| Low Density: | 62.3% |
| Medium Density: | 21.5% |
| High Density: | 16.2% |

*Total number of units divided by the gross land area.*

## STREET NETWORK LENGTH*

| | |
|---|---|
| Local Streets: | 9,102m |
| Minor Collectors: | 1,295m |
| Major Collector: | 0m |
| **Total:** | **10,397m** |

*Measured from street centerline.*

## STREET LENGTH x FRONTAGE RATIO

| | |
|---|---|
| Total Frontage Length at Setback: | 16,324m |
| Frontage to Road Length Ratio*: | 1.27 |

*(Street length) / (frontage length at setback / 2)*

## NOTES

1. The base plan (lot lines, existing roads and surrounding areas) is based on the City's Open Data and aerial images. The site area is approximate and all dimensions need to be confirmed by a legal survey.

2. For the purpose of this concept, an average of 90m² (970sf) unit size is used to calculate approximate total number of units for apartment buildings.

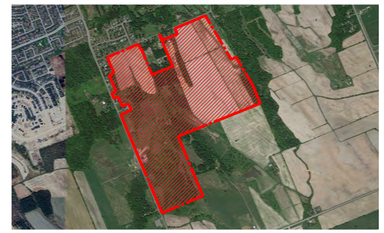
3. This concept makes assumptions based on preliminary environmental studies. Further environmental studies are required to validate and identify the qualities of the wetland and wooded areas shown and their potential development.

4. Location of the stormwater management facilities is conceptual and should be confirmed by servicing studies.

*As per the By-law 2022-115, GROSS LAND AREA means the land area of the entire development site, including the parcel of land which is to be dedicated for park purposes, including any easements, driveways, parking areas, and stormwater management facilities etc., but excluding public and private roads, road rights-of-way, hazard lands, and areas that have been dedicated to the local municipality or other public agency for conservation or environmental protection.

**The NET DEVELOPABLE AREA assumes the total area of the site, excluding the space occupied by streets, parklands, environmentally sensitive areas, storm water ponds, pedestrian connections and community facilities.

# Caron St
# Clarence- Rockland
## Lot Subdivision
## Concept Plan



LEGEND

- LOW DENSITY RESIDENTIAL - 28 unit/ha
- MEDIUM DENSITY RESIDENTIAL - 39 unit/ha
- HIGH DENSITY RESIDENTIAL - 100 unit/ha STACKED TOWNHOUSES
- HIGH DENSITY - RESIDENTIAL - 125 unit/ha 4-STOREY APARTMENT BUILDINGS
- HIGH DENSITY - MIXED-USE - 95 unit/ha COMMERCIAL & SERVICES + 4-STOREY APARTMENT BUILDING
- COMMUNITY FACILITIES SCHOOL, ARENA, OTHERS
- COMMERCIAL BLOCKS
- 30m BUFFER FROM CREEK
- WATER COURSE / CREEK
- STORMWATER MANAGEMENT POND APPROXIMATE LOCATION
- PARKLAND DEDICATION
- PROPERTY LINE
- URBAN BOUNDARY
- EXISTING MAJOR COLLECTOR
- PROPOSED MAJOR COLLECTOR
- POTENTIAL MAJOR COLLECTOR EXTENSION
- EXISTING MINOR COLLECTOR
- PROPOSED MINOR COLLECTOR
- POTENTIAL MINOR COLLECTOR EXTENSION
- EXISTING RURAL ARTERIAL
- EXISTING LOCAL STREET
- PROPOSED LOCAL STREET
- PROPOSED STREET (SEE CROSS-ROAD SECTION)

0 50m 100m 200m 350m

| No. | REVISION | DATE | BY |
|---|---|---|---|
| 13 | REVISIONS | 2026.02.03 | DM |
| 12 | REVISIONS | 2025.11.28 | DM |
| 01 | CONCEPT PLAN | 2024.05.13 | RG |

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613.730.5709 www.fotenn.com


| | |
|---|---|
| DESIGNED | RG |
| REVIEWED | TS |
| DATE | 2024.11.05 |

P1

# Annex “C”

# Synchro Analysis – 4-Lane Caron 2043 Ultimate Conditions – Non-Mitigated

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 79 | 97 | 115 | 774 | 420 | 80 |
| Future Volume (vph) | 79 | 97 | 115 | 774 | 420 | 80 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | 0.0 | 20.0 | | | 0.0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (m) | 2.5 | | 2.5 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.926 | | | | 0.978 | |
| Flt Protected | 0.978 | | 0.950 | | | |
| Satd. Flow (prot) | 1635 | 0 | 1674 | 1700 | 1761 | 0 |
| Flt Permitted | 0.978 | | 0.424 | | | |
| Satd. Flow (perm) | 1635 | 0 | 747 | 1700 | 1761 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 105 | | | | 23 | |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 172.7 | | | 277.3 | 120.1 | |
| Travel Time (s) | 12.4 | | | 20.0 | 8.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 10% | 9% | 13% | 7% | 5% |
| Adj. Flow (vph) | 86 | 105 | 125 | 841 | 457 | 87 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 191 | 0 | 125 | 841 | 544 | 0 |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | | 36.0 | 36.0 | 36.0 | |
| Total Split (%) | 40.0% | | 60.0% | 60.0% | 60.0% | |
| Maximum Green (s) | 18.0 | | 30.0 | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 9.1 | | 38.9 | 38.9 | 38.9 | |
| Actuated g/C Ratio | 0.15 | | 0.65 | 0.65 | 0.65 | |
| v/c Ratio | 0.57 | | 0.26 | 0.76 | 0.47 | |
| Control Delay | 17.8 | | 7.2 | 15.4 | 7.5 | |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 17.8 | | 7.2 | 15.4 | 7.5 | |
| LOS | B | | A | B | A | |
| Approach Delay | 17.8 | | | 14.3 | 7.5 | |
| Approach LOS | B | | | B | A | |
| Queue Length 50th (m) | 8.7 | | 4.7 | 51.8 | 22.9 | |
| Queue Length 95th (m) | 22.2 | | 14.9 | #143.6 | 53.6 | |
| Internal Link Dist (m) | 148.7 | | | 253.3 | 96.1 | |
| Turn Bay Length (m) | | | 20.0 | | | |
| Base Capacity (vph) | 564 | | 484 | 1102 | 1149 | |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.34 | | 0.26 | 0.76 | 0.47 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 60 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 65 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.76 | | | |
| Intersection Signal Delay: 12.5 | | Intersection LOS: B | |
| Intersection Capacity Utilization 61.1% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 342 | 183 | 686 | 244 | 60 | 456 |
| Future Volume (vph) | 342 | 183 | 686 | 244 | 60 | 456 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | 0.0 | | 50.0 | 45.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1445 | 1731 | 1089 | 1659 | 1795 |
| Flt Permitted | 0.950 | | | | 0.241 | |
| Satd. Flow (perm) | 1789 | 1445 | 1731 | 1089 | 421 | 1795 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 174 | | 231 | | |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 331.3 | | 361.0 | | | 126.2 |
| Travel Time (s) | 23.9 | | 26.0 | | | 9.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 13% | 11% | 50% | 10% | 7% |
| Adj. Flow (vph) | 372 | 199 | 746 | 265 | 65 | 496 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 372 | 199 | 746 | 265 | 65 | 496 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 36.0 | 36.0 | 54.0 | 54.0 | 54.0 | 54.0 |
| Total Split (%) | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Maximum Green (s) | 30.0 | 30.0 | 48.0 | 48.0 | 48.0 | 48.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 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 |
| Recall Mode | None | None | Max | Max | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 21.7 | 21.7 | 48.2 | 48.2 | 48.2 | 48.2 |
| Actuated g/C Ratio | 0.26 | 0.26 | 0.59 | 0.59 | 0.59 | 0.59 |
| v/c Ratio | 0.79 | 0.39 | 0.73 | 0.36 | 0.26 | 0.47 |
| Control Delay | 40.3 | 7.7 | 19.2 | 3.7 | 13.7 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Total Delay | 40.3 | 7.7 | 19.2 | 3.7 | 13.7 | 12.6 |
| LOS | D | A | B | A | B | B |
| Approach Delay | 28.9 | | 15.2 | | | 12.7 |
| Approach LOS | C | | B | | | B |
| Queue Length 50th (m) | 53.5 | 2.9 | 77.3 | 2.1 | 4.5 | 40.4 |
| Queue Length 95th (m) | 82.8 | 17.3 | #153.2 | 14.5 | 15.0 | 78.5 |
| Internal Link Dist (m) | 307.3 | | 337.0 | | | 102.2 |
| Turn Bay Length (m) | 75.0 | | | 50.0 | 45.0 | |
| Base Capacity (vph) | 657 | 641 | 1018 | 735 | 247 | 1055 |
| 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 | 0.57 | 0.31 | 0.73 | 0.36 | 0.26 | 0.47 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 82 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.79 | | | |
| Intersection Signal Delay: 18.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 74.2% | | 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: 2: Caron Street & David Street

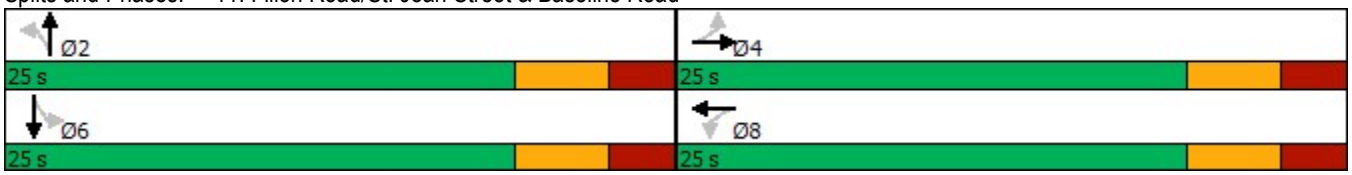
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 153 | 155 | 0 | 0 | 322 | 52 | 1 | 1 | 1 | 8 | 4 | 214 |
| Future Volume (vph) | 153 | 155 | 0 | 0 | 322 | 52 | 1 | 1 | 1 | 8 | 4 | 214 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.981 | | | 0.955 | | | 0.853 | |
| Flt Protected | 0.950 | | | | | | | 0.984 | | 0.950 | | |
| Satd. Flow (prot) | 1690 | 1575 | 0 | 0 | 1750 | 0 | 0 | 1719 | 0 | 1789 | 1564 | 0 |
| Flt Permitted | 0.414 | | | | | | | 0.925 | | 0.756 | | |
| Satd. Flow (perm) | 736 | 1575 | 0 | 0 | 1750 | 0 | 0 | 1616 | 0 | 1424 | 1564 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 19 | | | 1 | | | 233 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 280.0 | | | 1373.9 | | | 82.7 | | | 605.0 | |
| Travel Time (s) | | 16.8 | | | 82.4 | | | 5.0 | | | 36.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 8% | 22% | 2% | 2% | 8% | 6% | 5% | 5% | 5% | 2% | 50% | 4% |
| Adj. Flow (vph) | 166 | 168 | 0 | 0 | 350 | 57 | 1 | 1 | 1 | 9 | 4 | 233 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 166 | 168 | 0 | 0 | 407 | 0 | 0 | 3 | 0 | 9 | 237 | 0 |
| Turn Type | Perm | NA | | | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 19.0 | 19.0 | | 19.0 | 19.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | | 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 | |
| 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) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 14.8 | 14.8 | | | 14.8 | | | 19.1 | | 19.1 | 19.1 | |
| Actuated g/C Ratio | 0.32 | 0.32 | | | 0.32 | | | 0.42 | | 0.42 | 0.42 | |
| v/c Ratio | 0.70 | 0.33 | | | 0.71 | | | 0.00 | | 0.02 | 0.30 | |
| Control Delay | 31.9 | 13.4 | | | 20.3 | | | 8.7 | | 9.6 | 3.3 | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | 0.0 | |

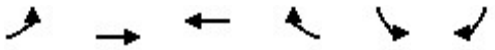
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 31.9 | 13.4 | | | 20.3 | | | 8.7 | | 9.6 | 3.3 | |
| LOS | C | B | | | C | | | A | | A | A | |
| Approach Delay | | 22.6 | | | 20.3 | | | 8.7 | | | 3.5 | |
| Approach LOS | | C | | | C | | | A | | | A | |
| Queue Length 50th (m) | 11.4 | 10.0 | | | 26.4 | | | 0.1 | | 0.4 | 0.2 | |
| Queue Length 95th (m) | #33.3 | 20.7 | | | 48.8 | | | 1.2 | | 2.5 | 10.4 | |
| Internal Link Dist (m) | | 256.0 | | | 1349.9 | | | 58.7 | | | 581.0 | |
| Turn Bay Length (m) | 75.0 | | | | | | | | | 75.0 | | |
| Base Capacity (vph) | 306 | 655 | | | 739 | | | 673 | | 592 | 786 | |
| 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 | 0.54 | 0.26 | | | 0.55 | | | 0.00 | | 0.02 | 0.30 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 46 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.71 | | | |
| Intersection Signal Delay: 16.9 | | Intersection LOS: B | |
| Intersection Capacity Utilization 57.0% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

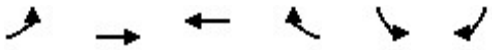
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road





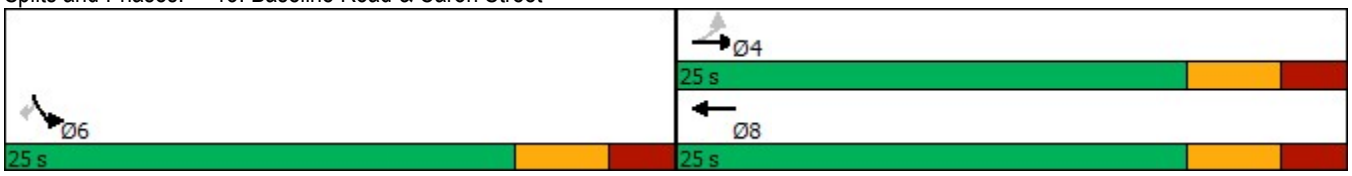
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 112 | 51 | 124 | 183 | 139 | 236 |
| Future Volume (vph) | 112 | 51 | 124 | 183 | 139 | 236 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | | 0.0 | 75.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.920 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1448 | 1715 | 1649 | 0 | 1706 | 1512 |
| Flt Permitted | 0.498 | | | | 0.950 | |
| Satd. Flow (perm) | 759 | 1715 | 1649 | 0 | 1706 | 1512 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 171 | | | 257 |
| Link Speed (k/h) | | 80 | 80 | | 48 | |
| Link Distance (m) | | 500.9 | 877.6 | | 681.1 | |
| Travel Time (s) | | 22.5 | 39.5 | | 51.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 26% | 12% | 9% | 6% | 7% | 8% |
| Adj. Flow (vph) | 122 | 55 | 135 | 199 | 151 | 257 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 122 | 55 | 334 | 0 | 151 | 257 |
| Turn Type | Perm | NA | NA | | Prot | Perm |
| Protected Phases | | 4 | 8 | | 6 | |
| Permitted Phases | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 8 | | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 |
| Total Split (s) | 25.0 | 25.0 | 25.0 | | 25.0 | 25.0 |
| Total Split (%) | 50.0% | 50.0% | 50.0% | | 50.0% | 50.0% |
| Maximum Green (s) | 19.0 | 19.0 | 19.0 | | 19.0 | 19.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 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 |
| Recall Mode | None | None | None | | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 11.6 | 11.6 | 11.6 | | 19.9 | 19.9 |
| Actuated g/C Ratio | 0.27 | 0.27 | 0.27 | | 0.46 | 0.46 |
| v/c Ratio | 0.61 | 0.12 | 0.59 | | 0.19 | 0.31 |
| Control Delay | 26.7 | 11.5 | 11.1 | | 9.7 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 26.7 | 11.5 | 11.1 | | 9.7 | 3.0 |
| LOS | C | B | B | | A | A |
| Approach Delay | | 22.0 | 11.1 | | 5.5 | |
| Approach LOS | | C | B | | A | |
| Queue Length 50th (m) | 7.7 | 3.0 | 9.6 | | 6.1 | 0.0 |
| Queue Length 95th (m) | 19.5 | 8.3 | 24.8 | | 18.5 | 10.5 |
| Internal Link Dist (m) | | 476.9 | 853.6 | | 657.1 | |
| Turn Bay Length (m) | 75.0 | | | | 75.0 | |
| Base Capacity (vph) | 333 | 753 | 820 | | 780 | 831 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.07 | 0.41 | | 0.19 | 0.31 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 43.6 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.61 | | | |
| Intersection Signal Delay: 10.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 46.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 13: Baseline Road & Caron Street



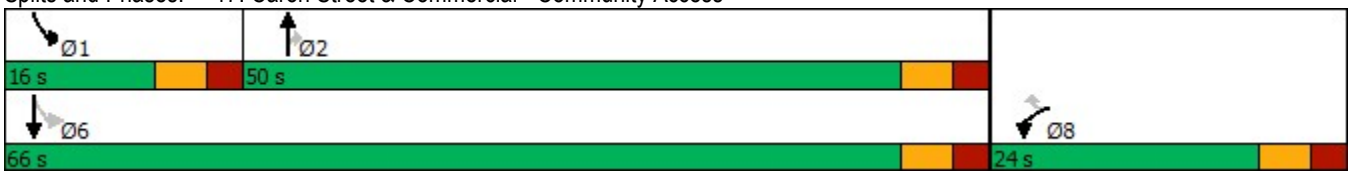
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 41 | 193 | 822 | 93 | 303 | 547 |
| Future Volume (vph) | 41 | 193 | 822 | 93 | 303 | 547 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 50.0 | 0.0 | | 50.0 | 75.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1601 | 1883 | 1601 | 1789 | 1883 |
| Flt Permitted | 0.950 | | | | 0.098 | |
| Satd. Flow (perm) | 1789 | 1601 | 1883 | 1601 | 185 | 1883 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 210 | | 67 | | |
| Link Speed (k/h) | 50 | | 60 | | | 60 |
| Link Distance (m) | 338.5 | | 319.0 | | | 293.1 |
| Travel Time (s) | 24.4 | | 19.1 | | | 17.6 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 45 | 210 | 893 | 101 | 329 | 595 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 45 | 210 | 893 | 101 | 329 | 595 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 50.0 | 50.0 | 16.0 | 66.0 |
| Total Split (%) | 26.7% | 26.7% | 55.6% | 55.6% | 17.8% | 73.3% |
| Maximum Green (s) | 18.0 | 18.0 | 44.0 | 44.0 | 10.0 | 60.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | Max | Max | None | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | | 0 |
| Act Effct Green (s) | 7.9 | 7.9 | 44.0 | 44.0 | 60.1 | 60.1 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.55 | 0.55 | 0.75 | 0.75 |
| v/c Ratio | 0.25 | 0.61 | 0.86 | 0.11 | 0.97 | 0.42 |
| Control Delay | 36.6 | 13.2 | 26.8 | 4.4 | 62.7 | 5.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.6 | 13.2 | 26.8 | 4.4 | 62.7 | 5.0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| LOS | D | B | C | A | E | A |
| Approach Delay | 17.3 | | 24.5 | | | 25.6 |
| Approach LOS | B | | C | | | C |
| Queue Length 50th (m) | 6.4 | 0.0 | 105.7 | 2.2 | 30.1 | 24.7 |
| Queue Length 95th (m) | 15.5 | 17.9 | #204.1 | 9.5 | #87.2 | 50.6 |
| Internal Link Dist (m) | 314.5 | | 295.0 | | | 269.1 |
| Turn Bay Length (m) | 50.0 | | | 50.0 | 75.0 | |
| Base Capacity (vph) | 402 | 523 | 1036 | 911 | 339 | 1413 |
| 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 | 0.11 | 0.40 | 0.86 | 0.11 | 0.97 | 0.42 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 80 | | | |
| Natural Cycle: 90 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.97 | | | |
| Intersection Signal Delay: 24.1 | | Intersection LOS: C | |
| Intersection Capacity Utilization 79.2% | | 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: 17: Caron Street & Commercial - Community Access



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 93 | 73 | 264 | 40 | 151 | 197 | 353 | 641 | 22 | 104 | 547 | 147 |
| Future Volume (vph) | 93 | 73 | 264 | 40 | 151 | 197 | 353 | 641 | 22 | 104 | 547 | 147 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 0.0 | 35.0 | | 35.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | 0.995 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1883 | 1601 | 1789 | 1883 | 1601 | 1789 | 1874 | 0 | 1789 | 1883 | 1601 |
| Flt Permitted | 0.653 | | | 0.706 | | | 0.370 | | | 0.281 | | |
| Satd. Flow (perm) | 1230 | 1883 | 1601 | 1330 | 1883 | 1601 | 697 | 1874 | 0 | 529 | 1883 | 1601 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 196 | | | 145 | | 4 | | | | 160 |
| Link Speed (k/h) | | 48 | | | 48 | | | 48 | | | 48 | |
| Link Distance (m) | | 413.5 | | | 239.5 | | | 293.1 | | | 361.0 | |
| Travel Time (s) | | 31.0 | | | 18.0 | | | 22.0 | | | 27.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 101 | 79 | 287 | 43 | 164 | 214 | 384 | 697 | 24 | 113 | 595 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 101 | 79 | 287 | 43 | 164 | 214 | 384 | 721 | 0 | 113 | 595 | 160 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 31.0 | 31.0 | | 31.0 | 31.0 | 31.0 |
| Total Split (%) | 43.6% | 43.6% | 43.6% | 43.6% | 43.6% | 43.6% | 56.4% | 56.4% | | 56.4% | 56.4% | 56.4% |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 25.0 | 25.0 | | 25.0 | 25.0 | 25.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 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) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 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 | 3.0 | 3.0 |
| Recall Mode | None | None | None | None | None | None | 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) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 32.4 | 32.4 | | 32.4 | 32.4 | 32.4 |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.59 | 0.59 | | 0.59 | 0.59 | 0.59 |
| v/c Ratio | 0.43 | 0.22 | 0.62 | 0.17 | 0.45 | 0.50 | 0.94 | 0.65 | | 0.36 | 0.54 | 0.16 |
| Control Delay | 24.0 | 18.6 | 12.8 | 18.2 | 22.7 | 11.2 | 49.2 | 13.0 | | 11.9 | 10.1 | 2.0 |
| 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 | 24.0 | 18.6 | 12.8 | 18.2 | 22.7 | 11.2 | 49.2 | 13.0 | | 11.9 | 10.1 | 2.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | C | B | B | B | C | B | D | B | | B | B | A |
| Approach Delay | | 16.2 | | | 16.4 | | | 25.6 | | | 8.9 | |
| Approach LOS | | B | | | B | | | C | | | A | |
| Queue Length 50th (m) | 9.1 | 6.8 | 7.9 | 3.7 | 14.7 | 5.9 | 29.2 | 39.6 | | 4.9 | 29.6 | 0.0 |
| Queue Length 95th (m) | 17.7 | 13.5 | 22.2 | 8.9 | 24.8 | 17.9 | #88.8 | #111.1 | | 19.1 | 69.7 | 7.0 |
| Internal Link Dist (m) | | 389.5 | | | 215.5 | | | 269.1 | | | 337.0 | |
| Turn Bay Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | | 35.0 | | 35.0 |
| Base Capacity (vph) | 402 | 616 | 655 | 435 | 616 | 621 | 410 | 1106 | | 311 | 1110 | 1009 |
| 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 | 0.25 | 0.13 | 0.44 | 0.10 | 0.27 | 0.34 | 0.94 | 0.65 | | 0.36 | 0.54 | 0.16 |

**Intersection Summary**

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
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: 0.94
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 81.4% 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: 18: Caron Street & Bronze Avenue

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 1 | 248 | 55 | 16 | 356 | 5 | 164 | 0 | 29 | 3 | 0 | 2 |
| Future Vol, veh/h | 1 | 248 | 55 | 16 | 356 | 5 | 164 | 0 | 29 | 3 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 7 | 2 | 2 | 29 | 40 | 2 | 2 | 2 | 33 | 2 | 2 |
| Mvmt Flow | 1 | 270 | 60 | 17 | 387 | 5 | 178 | 0 | 32 | 3 | 0 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 392 | 0 | 0 | 330 | 0 | 0 | 727 | 728 | 300 | 742 | 756 | 390 |
| Stage 1 | - | - | - | - | - | - | 302 | 302 | - | 424 | 424 | - |
| Stage 2 | - | - | - | - | - | - | 425 | 426 | - | 318 | 332 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.43 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.43 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.43 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.797 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1167 | - | - | 1229 | - | - | 339 | 350 | 740 | 296 | 337 | 658 |
| Stage 1 | - | - | - | - | - | - | 707 | 664 | - | 551 | 587 | - |
| Stage 2 | - | - | - | - | - | - | 607 | 586 | - | 632 | 644 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1167 | - | - | 1229 | - | - | 333 | 343 | 740 | 279 | 331 | 658 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 333 | 343 | - | 279 | 331 | - |
| Stage 1 | - | - | - | - | - | - | 706 | 663 | - | 550 | 576 | - |
| Stage 2 | - | - | - | - | - | - | 594 | 575 | - | 604 | 643 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0.3 | 27.6 | 15.1 |
| HCM LOS | | | D | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 363 | 1167 | - | - | 1229 | - | - | 363 |
| HCM Lane V/C Ratio | 0.578 | 0.001 | - | - | 0.014 | - | - | 0.015 |
| HCM Control Delay (s) | 27.6 | 8.1 | 0 | - | 8 | 0 | - | 15.1 |
| HCM Lane LOS | D | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 3.5 | 0 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 282 | 0 | 2 | 377 | 2 | 0 |
| Future Vol, veh/h | 282 | 0 | 2 | 377 | 2 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 7 | 2 | 2 | 20 | 2 | 2 |
| Mvmt Flow | 307 | 0 | 2 | 410 | 2 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 307 | 0 | 721 | 307 |
| Stage 1 | - | - | - | - | 307 | - |
| Stage 2 | - | - | - | - | 414 | - |
| 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 | - | - | 1254 | - | 394 | 733 |
| Stage 1 | - | - | - | - | 746 | - |
| Stage 2 | - | - | - | - | 667 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1254 | - | 393 | 733 |
| Mov Cap-2 Maneuver | - | - | - | - | 393 | - |
| Stage 1 | - | - | - | - | 746 | - |
| Stage 2 | - | - | - | - | 666 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 14.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 393 | - | - | 1254 | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.002 | - |
| HCM Control Delay (s) | 14.2 | - | - | 7.9 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 277 | 332 | 9 | 27 | 46 |
| Future Vol, veh/h | 5 | 277 | 332 | 9 | 27 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 301 | 361 | 10 | 29 | 50 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 371 | 0 | - | 0 | 677 | 366 |
| Stage 1 | - | - | - | - | 366 | - |
| Stage 2 | - | - | - | - | 311 | - |
| 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 | 1188 | - | - | - | 418 | 679 |
| Stage 1 | - | - | - | - | 702 | - |
| Stage 2 | - | - | - | - | 743 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1188 | - | - | - | 416 | 679 |
| Mov Cap-2 Maneuver | - | - | - | - | 416 | - |
| Stage 1 | - | - | - | - | 698 | - |
| Stage 2 | - | - | - | - | 743 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 12.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1188 | - | - | - | 550 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.144 |
| HCM Control Delay (s) | 8 | 0 | - | - | 12.6 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 300 | 342 | 5 | 0 | 0 |
| Future Vol, veh/h | 4 | 300 | 342 | 5 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 326 | 372 | 5 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 377 | 0 | - | 0 | 709 | 375 |
| Stage 1 | - | - | - | - | 375 | - |
| Stage 2 | - | - | - | - | 334 | - |
| 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 | 1181 | - | - | - | 401 | 671 |
| Stage 1 | - | - | - | - | 695 | - |
| Stage 2 | - | - | - | - | 725 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1181 | - | - | - | 399 | 671 |
| Mov Cap-2 Maneuver | - | - | - | - | 399 | - |
| Stage 1 | - | - | - | - | 692 | - |
| Stage 2 | - | - | - | - | 725 | - |

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

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1181 | - | - | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | - | - |
| HCM Control Delay (s) | 8.1 | 0 | - | - | 0 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 270 | 30 | 10 | 231 | 116 | 21 |
| Future Vol, veh/h | 270 | 30 | 10 | 231 | 116 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 293 | 33 | 11 | 251 | 126 | 23 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 326 | 0 | 583 | 310 |
| Stage 1 | - | - | - | - | 310 | - |
| Stage 2 | - | - | - | - | 273 | - |
| 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 | - | - | 1234 | - | 475 | 730 |
| Stage 1 | - | - | - | - | 744 | - |
| Stage 2 | - | - | - | - | 773 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1234 | - | 470 | 730 |
| Mov Cap-2 Maneuver | - | - | - | - | 470 | - |
| Stage 1 | - | - | - | - | 744 | - |
| Stage 2 | - | - | - | - | 765 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.3 | 15.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 497 | - | - | 1234 | - |
| HCM Lane V/C Ratio | 0.3 | - | - | 0.009 | - |
| HCM Control Delay (s) | 15.3 | - | - | 7.9 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 1.2 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 9.8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 3 | 238 | 40 | 70 | 222 |
| Future Vol, veh/h | 18 | 3 | 238 | 40 | 70 | 222 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 20 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 3 | 259 | 43 | 76 | 241 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 23 | 0 | 583 | 22 |
| Stage 1 | - | - | - | - | 22 | - |
| Stage 2 | - | - | - | - | 561 | - |
| Critical Hdwy | - | - | 4.3 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.38 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1483 | - | 475 | 1055 |
| Stage 1 | - | - | - | - | 1001 | - |
| Stage 2 | - | - | - | - | 571 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1483 | - | 390 | 1055 |
| Mov Cap-2 Maneuver | - | - | - | - | 390 | - |
| Stage 1 | - | - | - | - | 1001 | - |
| Stage 2 | - | - | - | - | 469 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 6.8 | 13.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 749 | - | - | 1483 | - |
| HCM Lane V/C Ratio | 0.424 | - | - | 0.174 | - |
| HCM Control Delay (s) | 13.3 | - | - | 7.9 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 2.1 | - | - | 0.6 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 158 | 4 | 4 | 355 | 14 | 4 |
| Future Vol, veh/h | 158 | 4 | 4 | 355 | 14 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 19 | 50 | 50 | 6 | 11 | 2 |
| Mvmt Flow | 172 | 4 | 4 | 386 | 15 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 176 | 0 | 568 | 174 |
| Stage 1 | - | - | - | - | 174 | - |
| Stage 2 | - | - | - | - | 394 | - |
| Critical Hdwy | - | - | 4.6 | - | 6.51 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.51 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.51 | - |
| Follow-up Hdwy | - | - | 2.65 | - | 3.599 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1157 | - | 469 | 869 |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 662 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1157 | - | 467 | 869 |
| Mov Cap-2 Maneuver | - | - | - | - | 467 | - |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 659 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.1 | 12.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 521 | - | - | 1157 | - |
| HCM Lane V/C Ratio | 0.038 | - | - | 0.004 | - |
| HCM Control Delay (s) | 12.2 | - | - | 8.1 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 170 | 14 | 4 | 259 | 35 | 7 |
| Future Vol, veh/h | 170 | 14 | 4 | 259 | 35 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 7 | 21 | 25 | 10 | 4 | 14 |
| Mvmt Flow | 185 | 15 | 4 | 282 | 38 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 200 | 0 | 483 | 193 |
| Stage 1 | - | - | - | - | 193 | - |
| Stage 2 | - | - | - | - | 290 | - |
| Critical Hdwy | - | - | 4.35 | - | 6.44 | 6.34 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.44 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.44 | - |
| Follow-up Hdwy | - | - | 2.425 | - | 3.536 | 3.426 |
| Pot Cap-1 Maneuver | - | - | 1246 | - | 539 | 819 |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 755 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1246 | - | 537 | 819 |
| Mov Cap-2 Maneuver | - | - | - | - | 537 | - |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 752 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.1 | 11.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 570 | - | - | 1246 | - |
| HCM Lane V/C Ratio | 0.08 | - | - | 0.003 | - |
| HCM Control Delay (s) | 11.9 | - | - | 7.9 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 32.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 201 | 0 | 23 | 5 | 52 | 45 | 10 | 280 | 5 | 40 | 346 | 70 |
| Future Vol, veh/h | 201 | 0 | 23 | 5 | 52 | 45 | 10 | 280 | 5 | 40 | 346 | 70 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 218 | 0 | 25 | 5 | 57 | 49 | 11 | 304 | 5 | 43 | 376 | 76 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 882 | 831 | 414 | 842 | 867 | 307 | 452 | 0 | 0 | 309 | 0 | 0 |
| Stage 1 | 500 | 500 | - | 329 | 329 | - | - | - | - | - | - | - |
| Stage 2 | 382 | 331 | - | 513 | 538 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 267 | 305 | 638 | 284 | 291 | 733 | 1109 | - | - | 1252 | - | - |
| Stage 1 | 553 | 543 | - | 684 | 646 | - | - | - | - | - | - | - |
| Stage 2 | 640 | 645 | - | 544 | 522 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 201 | 288 | 638 | 261 | 274 | 733 | 1109 | - | - | 1252 | - | - |
| Mov Cap-2 Maneuver | ~ 201 | 288 | - | 261 | 274 | - | - | - | - | - | - | - |
| Stage 1 | 546 | 518 | - | 676 | 638 | - | - | - | - | - | - | - |
| Stage 2 | 538 | 637 | - | 499 | 498 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 146.6 | 18.5 | 0.3 | 0.7 |
| HCM LOS | F | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1109 | - | - | 216 | 377 | 1252 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 1.127 | 0.294 | 0.035 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | - | 146.6 | 18.5 | 8 | 0 | - |
| HCM Lane LOS | A | A | - | F | C | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 11.4 | 1.2 | 0.1 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Intersection | |
|---|---|
| Int Delay, s/veh | 581.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 300 | 0 | 34 | 13 | 78 | 113 | 14 | 502 | 10 | 79 | 409 | 104 |
| Future Vol, veh/h | 300 | 0 | 34 | 13 | 78 | 113 | 14 | 502 | 10 | 79 | 409 | 104 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 50 | - | - | - | - | - | 75 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 326 | 0 | 37 | 14 | 85 | 123 | 15 | 546 | 11 | 86 | 445 | 113 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1360 | 1261 | 502 | 1274 | 1312 | 552 | 558 | 0 | 0 | 557 | 0 | 0 |
| Stage 1 | 674 | 674 | - | 582 | 582 | - | - | - | - | - | - | - |
| Stage 2 | 686 | 587 | - | 692 | 730 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | ~ 126 | 170 | 569 | 144 | 159 | 533 | 1013 | - | - | 1014 | - | - |
| Stage 1 | 444 | 454 | - | 499 | 499 | - | - | - | - | - | - | - |
| Stage 2 | 438 | 497 | - | 434 | 428 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 47 | 152 | 569 | 124 | 142 | 533 | 1013 | - | - | 1014 | - | - |
| Mov Cap-2 Maneuver | ~ 47 | 152 | - | 124 | 142 | - | - | - | - | - | - | - |
| Stage 1 | 435 | 415 | - | 489 | 489 | - | - | - | - | - | - | - |
| Stage 2 | ~ 273 | 487 | - | 371 | 392 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, $ | 2844.5 | 61.6 | 0.2 | 1.2 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1013 | - | - | 52 | 124 | 251 | 1014 | - | - |
| HCM Lane V/C Ratio | 0.015 | - | - | 6.982 | 0.114 | 0.827 | 0.085 | - | - |
| HCM Control Delay (s) | 8.6 | 0 | - | $ 2844.5 | 37.7 | 63.2 | 8.9 | - | - |
| HCM Lane LOS | A | A | - | F | E | F | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 42.1 | 0.4 | 6.5 | 0.3 | - | - |

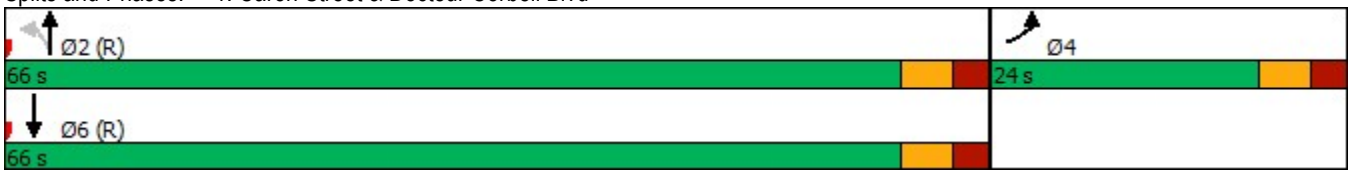
| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 131 | 131 | 115 | 649 | 857 | 115 |
| Future Volume (vph) | 131 | 131 | 115 | 649 | 857 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | 0.0 | 20.0 | | | 0.0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (m) | 2.5 | | 2.5 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.932 | | | | 0.984 | |
| Flt Protected | 0.976 | | 0.950 | | | |
| Satd. Flow (prot) | 1649 | 0 | 1674 | 1700 | 1771 | 0 |
| Flt Permitted | 0.976 | | 0.127 | | | |
| Satd. Flow (perm) | 1649 | 0 | 224 | 1700 | 1771 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 50 | | | | 16 | |
| Link Speed (k/h) | 48 | | | 50 | 50 | |
| Link Distance (m) | 172.7 | | | 277.3 | 120.1 | |
| Travel Time (s) | 13.0 | | | 20.0 | 8.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 10% | 9% | 13% | 7% | 5% |
| Adj. Flow (vph) | 142 | 142 | 125 | 705 | 932 | 125 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 284 | 0 | 125 | 705 | 1057 | 0 |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | | 66.0 | 66.0 | 66.0 | |
| Total Split (%) | 26.7% | | 73.3% | 73.3% | 73.3% | |
| Maximum Green (s) | 18.0 | | 60.0 | 60.0 | 60.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 16.3 | | 61.7 | 61.7 | 61.7 | |
| Actuated g/C Ratio | 0.18 | | 0.69 | 0.69 | 0.69 | |
| v/c Ratio | 0.84 | | 0.82 | 0.60 | 0.87 | |
| Control Delay | 51.2 | | 45.0 | 7.4 | 21.3 | |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 51.2 | | 45.0 | 7.4 | 21.3 | |
| LOS | D | | D | A | C | |
| Approach Delay | 51.2 | | | 13.0 | 21.3 | |
| Approach LOS | D | | | B | C | |
| Queue Length 50th (m) | 38.7 | | 8.5 | 17.4 | 130.8 | |
| Queue Length 95th (m) | #75.6 | | m13.5 | m37.2 | #240.5 | |
| Internal Link Dist (m) | 148.7 | | | 253.3 | 96.1 | |
| Turn Bay Length (m) | | | 20.0 | | | |
| Base Capacity (vph) | 369 | | 153 | 1166 | 1219 | |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.77 | | 0.82 | 0.60 | 0.87 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 90 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.87 | | | |
| Intersection Signal Delay: 22.0 | | Intersection LOS: C | |
| Intersection Capacity Utilization 88.7% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |
| m Volume for 95th percentile queue is metered by upstream signal. | | | |

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd

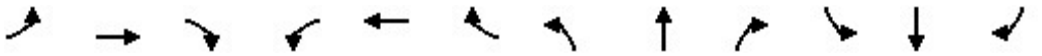


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 327 | 102 | 653 | 399 | 172 | 798 |
| Future Volume (vph) | 327 | 102 | 653 | 399 | 172 | 798 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | 0.0 | | 50.0 | 45.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1217 | 1601 | 1865 | 1601 | 1755 | 1746 |
| Flt Permitted | 0.950 | | | | 0.091 | |
| Satd. Flow (perm) | 1217 | 1601 | 1865 | 1601 | 168 | 1746 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 111 | | 321 | | |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 331.3 | | 361.0 | | | 126.2 |
| Travel Time (s) | 23.9 | | 26.0 | | | 9.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 50% | 2% | 3% | 2% | 4% | 10% |
| Adj. Flow (vph) | 355 | 111 | 710 | 434 | 187 | 867 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 355 | 111 | 710 | 434 | 187 | 867 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 34.0 | 34.0 | 44.0 | 44.0 | 12.0 | 56.0 |
| Total Split (%) | 37.8% | 37.8% | 48.9% | 48.9% | 13.3% | 62.2% |
| Maximum Green (s) | 28.0 | 28.0 | 38.0 | 38.0 | 6.0 | 50.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | C-Max | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | | 0 |
| Act Effct Green (s) | 27.5 | 27.5 | 38.0 | 38.0 | 50.5 | 50.5 |
| Actuated g/C Ratio | 0.31 | 0.31 | 0.42 | 0.42 | 0.56 | 0.56 |
| v/c Ratio | 0.96 | 0.20 | 0.90 | 0.50 | 0.89 | 0.88 |
| Control Delay | 69.8 | 5.6 | 41.3 | 7.2 | 48.0 | 31.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Total Delay | 69.8 | 5.6 | 41.3 | 7.2 | 48.0 | 31.0 |
| LOS | E | A | D | A | D | C |
| Approach Delay | 54.5 | | 28.4 | | | 34.0 |
| Approach LOS | D | | C | | | C |
| Queue Length 50th (m) | 59.3 | 0.0 | 111.4 | 11.8 | 24.3 | 139.5 |
| Queue Length 95th (m) | #111.4 | 11.0 | #179.6 | 34.2 | m#32.0 | m#188.3 |
| Internal Link Dist (m) | 307.3 | | 337.0 | | | 102.2 |
| Turn Bay Length (m) | 75.0 | | | 50.0 | 45.0 | |
| Base Capacity (vph) | 378 | 574 | 787 | 861 | 209 | 980 |
| 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 | 0.94 | 0.19 | 0.90 | 0.50 | 0.89 | 0.88 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 90 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.96 | | | |
| Intersection Signal Delay: 35.2 | | Intersection LOS: D | |
| Intersection Capacity Utilization 77.0% | | 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. | | | |
| m Volume for 95th percentile queue is metered by upstream signal. | | | |

Splits and Phases: 2: Caron Street & David Street



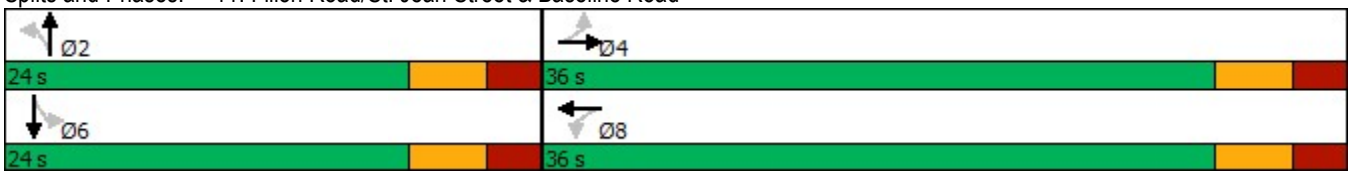
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 397 | 392 | 0 | 1 | 177 | 77 | 0 | 1 | 1 | 66 | 2 | 237 |
| Future Volume (vph) | 397 | 392 | 0 | 1 | 177 | 77 | 0 | 1 | 1 | 66 | 2 | 237 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.959 | | | 0.932 | | | 0.851 | |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1715 | 0 | 0 | 1742 | 0 | 0 | 1755 | 0 | 1789 | 1572 | 0 |
| Flt Permitted | 0.626 | | | | 0.999 | | | | | 0.757 | | |
| Satd. Flow (perm) | 1179 | 1715 | 0 | 0 | 1740 | 0 | 0 | 1755 | 0 | 1426 | 1572 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 52 | | | 1 | | | 258 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 280.0 | | | 1373.9 | | | 82.7 | | | 605.0 | |
| Travel Time (s) | | 16.8 | | | 82.4 | | | 5.0 | | | 36.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 12% | 2% | 2% | 7% | 3% | 2% | 2% | 2% | 2% | 2% | 4% |
| Adj. Flow (vph) | 432 | 426 | 0 | 1 | 192 | 84 | 0 | 1 | 1 | 72 | 2 | 258 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 432 | 426 | 0 | 0 | 277 | 0 | 0 | 2 | 0 | 72 | 260 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (%) | 60.0% | 60.0% | | 60.0% | 60.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 18.0 | 18.0 | | 18.0 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | | 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 | |
| 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) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 24.2 | 24.2 | | | 24.2 | | | 18.3 | | 18.3 | 18.3 | |
| Actuated g/C Ratio | 0.44 | 0.44 | | | 0.44 | | | 0.34 | | 0.34 | 0.34 | |
| v/c Ratio | 0.83 | 0.56 | | | 0.35 | | | 0.00 | | 0.15 | 0.37 | |
| Control Delay | 28.5 | 14.1 | | | 8.8 | | | 13.0 | | 16.1 | 4.5 | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | 0.0 | |

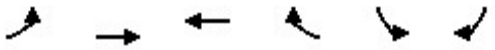
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 28.5 | 14.1 | | | 8.8 | | | 13.0 | | 16.1 | 4.5 | |
| LOS | C | B | | | A | | | B | | B | A | |
| Approach Delay | | 21.3 | | | 8.8 | | | 13.0 | | | 7.0 | |
| Approach LOS | | C | | | A | | | B | | | A | |
| Queue Length 50th (m) | 34.6 | 28.7 | | | 13.1 | | | 0.1 | | 5.4 | 0.2 | |
| Queue Length 95th (m) | #78.6 | 49.3 | | | 25.5 | | | 1.3 | | 13.9 | 13.7 | |
| Internal Link Dist (m) | | 256.0 | | | 1349.9 | | | 58.7 | | | 581.0 | |
| Turn Bay Length (m) | 75.0 | | | | | | | | | 75.0 | | |
| Base Capacity (vph) | 656 | 955 | | | 992 | | | 587 | | 476 | 697 | |
| 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 | 0.66 | 0.45 | | | 0.28 | | | 0.00 | | 0.15 | 0.37 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 54.6 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.83 | | | |
| Intersection Signal Delay: 15.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 65.8% | | 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: 11: Filion Road/St. Jean Street & Baseline Road





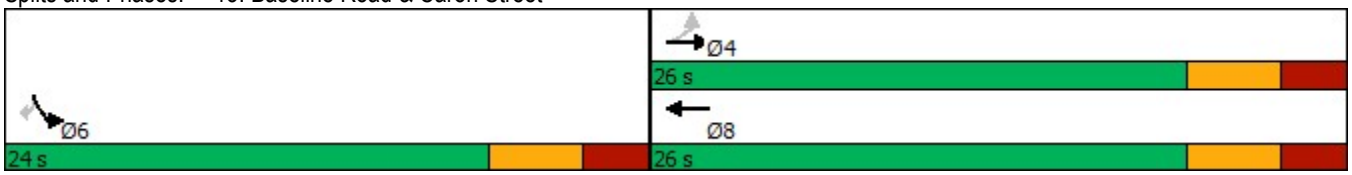
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 280 | 182 | 88 | 192 | 203 | 174 |
| Future Volume (vph) | 280 | 182 | 88 | 192 | 203 | 174 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | | 0.0 | 75.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.907 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1715 | 1708 | 0 | 1755 | 1601 |
| Flt Permitted | 0.570 | | | | 0.950 | |
| Satd. Flow (perm) | 1074 | 1715 | 1708 | 0 | 1755 | 1601 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 209 | | | 189 |
| Link Speed (k/h) | | 80 | 80 | | 50 | |
| Link Distance (m) | | 500.9 | 877.6 | | 681.1 | |
| Travel Time (s) | | 22.5 | 39.5 | | 49.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 12% | 2% | 2% | 4% | 2% |
| Adj. Flow (vph) | 304 | 198 | 96 | 209 | 221 | 189 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 304 | 198 | 305 | 0 | 221 | 189 |
| Turn Type | Perm | NA | NA | | Prot | Perm |
| Protected Phases | | 4 | 8 | | 6 | |
| Permitted Phases | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 8 | | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 |
| Total Split (s) | 26.0 | 26.0 | 26.0 | | 24.0 | 24.0 |
| Total Split (%) | 52.0% | 52.0% | 52.0% | | 48.0% | 48.0% |
| Maximum Green (s) | 20.0 | 20.0 | 20.0 | | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 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 |
| Recall Mode | None | None | None | | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 16.7 | 16.7 | 16.7 | | 18.1 | 18.1 |
| Actuated g/C Ratio | 0.36 | 0.36 | 0.36 | | 0.39 | 0.39 |
| v/c Ratio | 0.80 | 0.33 | 0.41 | | 0.33 | 0.26 |
| Control Delay | 31.5 | 12.3 | 5.7 | | 12.9 | 3.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 31.5 | 12.3 | 5.7 | | 12.9 | 3.4 |
| LOS | C | B | A | | B | A |
| Approach Delay | | 23.9 | 5.7 | | 8.5 | |
| Approach LOS | | C | A | | A | |
| Queue Length 50th (m) | 21.5 | 11.4 | 5.2 | | 13.5 | 0.0 |
| Queue Length 95th (m) | #53.9 | 22.8 | 17.4 | | 27.2 | 9.4 |
| Internal Link Dist (m) | | 476.9 | 853.6 | | 657.1 | |
| Turn Bay Length (m) | 75.0 | | | | 75.0 | |
| Base Capacity (vph) | 461 | 737 | 853 | | 678 | 735 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.66 | 0.27 | 0.36 | | 0.33 | 0.26 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 46.9 | | | |
| Natural Cycle: 55 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.80 | | | |
| Intersection Signal Delay: 14.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 58.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 13: Baseline Road & Caron Street



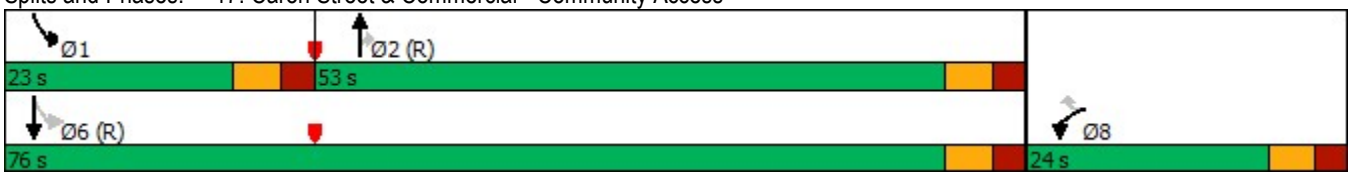
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 123 | 323 | 783 | 70 | 365 | 902 |
| Future Volume (vph) | 123 | 323 | 783 | 70 | 365 | 902 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 50.0 | 0.0 | | 50.0 | 75.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1601 | 1883 | 1601 | 1789 | 1883 |
| Flt Permitted | 0.950 | | | | 0.075 | |
| Satd. Flow (perm) | 1789 | 1601 | 1883 | 1601 | 141 | 1883 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 351 | | 46 | | |
| Link Speed (k/h) | 48 | | 48 | | | 48 |
| Link Distance (m) | 338.5 | | 319.0 | | | 293.1 |
| Travel Time (s) | 25.4 | | 23.9 | | | 22.0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 134 | 351 | 851 | 76 | 397 | 980 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 134 | 351 | 851 | 76 | 397 | 980 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 53.0 | 53.0 | 23.0 | 76.0 |
| Total Split (%) | 24.0% | 24.0% | 53.0% | 53.0% | 23.0% | 76.0% |
| Maximum Green (s) | 18.0 | 18.0 | 47.0 | 47.0 | 17.0 | 70.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | C-Max | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | | 0 |
| Act Effct Green (s) | 12.8 | 12.8 | 47.0 | 47.0 | 75.2 | 75.2 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.47 | 0.47 | 0.75 | 0.75 |
| v/c Ratio | 0.59 | 0.69 | 0.96 | 0.10 | 0.84 | 0.69 |
| Control Delay | 51.1 | 11.8 | 49.2 | 7.5 | 32.4 | 11.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.1 | 11.8 | 49.2 | 7.5 | 32.4 | 11.5 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| LOS | D | B | D | A | C | B |
| Approach Delay | 22.7 | | 45.8 | | | 17.5 |
| Approach LOS | C | | D | | | B |
| Queue Length 50th (m) | 24.8 | 0.0 | 154.2 | 3.1 | 61.2 | 114.5 |
| Queue Length 95th (m) | 41.1 | 23.9 | #236.2 | 10.6 | m#77.8 | m131.6 |
| Internal Link Dist (m) | 314.5 | | 295.0 | | | 269.1 |
| Turn Bay Length (m) | 50.0 | | | 50.0 | 75.0 | |
| Base Capacity (vph) | 322 | 576 | 885 | 776 | 472 | 1416 |
| 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 | 0.42 | 0.61 | 0.96 | 0.10 | 0.84 | 0.69 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.96 | | | |
| Intersection Signal Delay: 27.8 | | Intersection LOS: C | |
| Intersection Capacity Utilization 83.2% | | 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Caron Street & Commercial - Community Access



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 153 | 173 | 450 | 36 | 122 | 173 | 336 | 727 | 44 | 224 | 780 | 121 |
| Future Volume (vph) | 153 | 173 | 450 | 36 | 122 | 173 | 336 | 727 | 44 | 224 | 780 | 121 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 0.0 | 35.0 | | 35.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 1 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | 0.991 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1883 | 1601 | 1789 | 1883 | 1601 | 1789 | 1866 | 0 | 1789 | 1883 | 1601 |
| Flt Permitted | 0.649 | | | 0.506 | | | 0.074 | | | 0.159 | | |
| Satd. Flow (perm) | 1222 | 1883 | 1601 | 953 | 1883 | 1601 | 139 | 1866 | 0 | 299 | 1883 | 1601 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 275 | | | 188 | | 5 | | | | 98 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 413.5 | | | 239.5 | | | 293.1 | | | 361.0 | |
| Travel Time (s) | | 29.8 | | | 17.2 | | | 21.1 | | | 26.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 166 | 188 | 489 | 39 | 133 | 188 | 365 | 790 | 48 | 243 | 848 | 132 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 166 | 188 | 489 | 39 | 133 | 188 | 365 | 838 | 0 | 243 | 848 | 132 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | pm+pt | NA | | pm+pt | NA | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 2 | | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 | | 11.0 | 24.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.0 | 60.0 | | 16.0 | 54.0 | 54.0 |
| Total Split (%) | 24.0% | 24.0% | 24.0% | 24.0% | 24.0% | 24.0% | 22.0% | 60.0% | | 16.0% | 54.0% | 54.0% |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 16.0 | 54.0 | | 10.0 | 48.0 | 48.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 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) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | Yes |
| 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 | None | None | C-Max | | None | 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) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 17.4 | 17.4 | 17.4 | 17.4 | 17.4 | 17.4 | 70.6 | 55.0 | | 57.6 | 48.0 | 48.0 |
| Actuated g/C Ratio | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.71 | 0.55 | | 0.58 | 0.48 | 0.48 |
| v/c Ratio | 0.78 | 0.57 | 0.97 | 0.24 | 0.41 | 0.43 | 0.98 | 0.82 | | 0.77 | 0.94 | 0.16 |
| Control Delay | 65.3 | 45.4 | 52.0 | 39.4 | 40.7 | 8.8 | 61.9 | 21.5 | | 30.9 | 44.3 | 5.4 |
| 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 | 65.3 | 45.4 | 52.0 | 39.4 | 40.7 | 8.8 | 61.9 | 21.5 | | 30.9 | 44.3 | 5.4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | E | D | D | D | D | A | E | C | | C | D | A |
| Approach Delay | | 53.2 | | | 23.9 | | | 33.8 | | | 37.4 | |
| Approach LOS | | D | | | C | | | C | | | D | |
| Queue Length 50th (m) | 30.8 | 33.5 | 44.4 | 6.5 | 23.0 | 0.0 | ~62.8 | 81.8 | | 14.7 | 149.9 | 3.4 |
| Queue Length 95th (m) | #62.5 | 55.2 | #107.2 | 16.2 | 40.4 | 17.7 | m#82.1 | m100.3 | | #49.4 | #231.2 | 12.9 |
| Internal Link Dist (m) | | 389.5 | | | 215.5 | | | 269.1 | | | 337.0 | |
| Turn Bay Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | | 35.0 | | 35.0 |
| Base Capacity (vph) | 219 | 338 | 513 | 171 | 338 | 442 | 372 | 1027 | | 322 | 903 | 819 |
| 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 | 0.76 | 0.56 | 0.95 | 0.23 | 0.39 | 0.43 | 0.98 | 0.82 | | 0.75 | 0.94 | 0.16 |

**Intersection Summary**

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 38.5 Intersection LOS: D
Intersection Capacity Utilization 94.6% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Caron Street & Bronze Avenue

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 3 | 412 | 156 | 27 | 336 | 5 | 91 | 0 | 27 | 3 | 0 | 2 |
| Future Vol, veh/h | 3 | 412 | 156 | 27 | 336 | 5 | 91 | 0 | 27 | 3 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 7 | 2 | 2 | 29 | 40 | 2 | 2 | 2 | 33 | 2 | 2 |
| Mvmt Flow | 3 | 448 | 170 | 29 | 365 | 5 | 99 | 0 | 29 | 3 | 0 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 370 | 0 | 0 | 618 | 0 | 0 | 966 | 967 | 533 | 980 | 1050 | 368 |
| Stage 1 | - | - | - | - | - | - | 539 | 539 | - | 426 | 426 | - |
| Stage 2 | - | - | - | - | - | - | 427 | 428 | - | 554 | 624 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.43 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.43 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.43 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.797 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1189 | - | - | 962 | - | - | 234 | 254 | 547 | 201 | 227 | 677 |
| Stage 1 | - | - | - | - | - | - | 527 | 522 | - | 550 | 586 | - |
| Stage 2 | - | - | - | - | - | - | 606 | 585 | - | 465 | 478 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1189 | - | - | 962 | - | - | 226 | 243 | 547 | 184 | 217 | 677 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 226 | 243 | - | 184 | 217 | - |
| Stage 1 | - | - | - | - | - | - | 525 | 520 | - | 548 | 564 | - |
| Stage 2 | - | - | - | - | - | - | 581 | 563 | - | 438 | 476 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0.7 | 31.4 | 19.1 |
| HCM LOS | | | D | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 261 | 1189 | - | - | 962 | - | - | 260 |
| HCM Lane V/C Ratio | 0.491 | 0.003 | - | - | 0.031 | - | - | 0.021 |
| HCM Control Delay (s) | 31.4 | 8 | 0 | - | 8.9 | 0 | - | 19.1 |
| HCM Lane LOS | D | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 2.5 | 0 | - | - | 0.1 | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 467 | 1 | 0 | 391 | 1 | 1 |
| Future Vol, veh/h | 467 | 1 | 0 | 391 | 1 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 3 | 2 | 2 | 4 | 2 | 2 |
| Mvmt Flow | 508 | 1 | 0 | 425 | 1 | 1 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 509 | 0 | 934 | 509 |
| Stage 1 | - | - | - | - | 509 | - |
| Stage 2 | - | - | - | - | 425 | - |
| 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 | - | - | 1056 | - | 295 | 564 |
| Stage 1 | - | - | - | - | 604 | - |
| Stage 2 | - | - | - | - | 659 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1056 | - | 295 | 564 |
| Mov Cap-2 Maneuver | - | - | - | - | 295 | - |
| Stage 1 | - | - | - | - | 604 | - |
| Stage 2 | - | - | - | - | 659 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 14.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 387 | - | - | 1056 | - |
| HCM Lane V/C Ratio | 0.006 | - | - | - | - |
| HCM Control Delay (s) | 14.4 | - | - | 0 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 22 | 420 | 346 | 18 | 21 | 23 |
| Future Vol, veh/h | 22 | 420 | 346 | 18 | 21 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 24 | 457 | 376 | 20 | 23 | 25 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 396 | 0 | - | 0 | 891 | 386 |
| Stage 1 | - | - | - | - | 386 | - |
| Stage 2 | - | - | - | - | 505 | - |
| 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 | 1163 | - | - | - | 313 | 662 |
| Stage 1 | - | - | - | - | 687 | - |
| Stage 2 | - | - | - | - | 606 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1163 | - | - | - | 304 | 662 |
| Mov Cap-2 Maneuver | - | - | - | - | 304 | - |
| Stage 1 | - | - | - | - | 668 | - |
| Stage 2 | - | - | - | - | 606 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 14.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1163 | - | - | - | 424 |
| HCM Lane V/C Ratio | 0.021 | - | - | - | 0.113 |
| HCM Control Delay (s) | 8.2 | 0 | - | - | 14.6 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 429 | 367 | 13 | 0 | 0 |
| Future Vol, veh/h | 13 | 429 | 367 | 13 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 466 | 399 | 14 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 413 | 0 | - | 0 | 900 | 406 |
| Stage 1 | - | - | - | - | 406 | - |
| Stage 2 | - | - | - | - | 494 | - |
| 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 | 1146 | - | - | - | 309 | 645 |
| Stage 1 | - | - | - | - | 673 | - |
| Stage 2 | - | - | - | - | 613 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1146 | - | - | - | 304 | 645 |
| Mov Cap-2 Maneuver | - | - | - | - | 304 | - |
| Stage 1 | - | - | - | - | 662 | - |
| Stage 2 | - | - | - | - | 613 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1146 | - | - | - | - |
| HCM Lane V/C Ratio | 0.012 | - | - | - | - |
| HCM Control Delay (s) | 8.2 | 0 | - | - | 0 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 331 | 98 | 17 | 332 | 48 | 16 |
| Future Vol, veh/h | 331 | 98 | 17 | 332 | 48 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 360 | 107 | 18 | 361 | 52 | 17 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 467 | 0 | 811 | 414 |
| Stage 1 | - | - | - | - | 414 | - |
| Stage 2 | - | - | - | - | 397 | - |
| 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 | - | - | 1094 | - | 349 | 638 |
| Stage 1 | - | - | - | - | 667 | - |
| Stage 2 | - | - | - | - | 679 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1094 | - | 342 | 638 |
| Mov Cap-2 Maneuver | - | - | - | - | 342 | - |
| Stage 1 | - | - | - | - | 667 | - |
| Stage 2 | - | - | - | - | 665 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.4 | 16.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 387 | - | - | 1094 | - |
| HCM Lane V/C Ratio | 0.18 | - | - | 0.017 | - |
| HCM Control Delay (s) | 16.3 | - | - | 8.3 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.6 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 10.2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 63 | 112 | 237 | 32 | 81 | 266 |
| Future Vol, veh/h | 63 | 112 | 237 | 32 | 81 | 266 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 13 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 68 | 122 | 258 | 35 | 88 | 289 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 190 | 0 | 680 | 129 |
| Stage 1 | - | - | - | - | 129 | - |
| Stage 2 | - | - | - | - | 551 | - |
| 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 | - | - | 1384 | - | 417 | 921 |
| Stage 1 | - | - | - | - | 897 | - |
| Stage 2 | - | - | - | - | 577 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1384 | - | 338 | 921 |
| Mov Cap-2 Maneuver | - | - | - | - | 338 | - |
| Stage 1 | - | - | - | - | 897 | - |
| Stage 2 | - | - | - | - | 467 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 7.2 | 17.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 657 | - | - | 1384 | - |
| HCM Lane V/C Ratio | 0.574 | - | - | 0.186 | - |
| HCM Control Delay (s) | 17.6 | - | - | 8.2 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 3.7 | - | - | 0.7 | - |

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

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 444 | 11 | 15 | 242 | 10 | 13 |
| Future Vol, veh/h | 444 | 11 | 15 | 242 | 10 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 8 | 11 | 30 | 5 | 0 | 33 |
| Mvmt Flow | 483 | 12 | 16 | 263 | 11 | 14 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 495 | 0 | 784 | 489 |
| Stage 1 | - | - | - | - | 489 | - |
| Stage 2 | - | - | - | - | 295 | - |
| Critical Hdwy | - | - | 4.4 | - | 6.4 | 6.53 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.47 | - | 3.5 | 3.597 |
| Pot Cap-1 Maneuver | - | - | 939 | - | 365 | 521 |
| Stage 1 | - | - | - | - | 621 | - |
| Stage 2 | - | - | - | - | 760 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 939 | - | 358 | 521 |
| Mov Cap-2 Maneuver | - | - | - | - | 358 | - |
| Stage 1 | - | - | - | - | 621 | - |
| Stage 2 | - | - | - | - | 745 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.5 | 13.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 435 | - | - | 939 | - |
| HCM Lane V/C Ratio | 0.057 | - | - | 0.017 | - |
| HCM Control Delay (s) | 13.8 | - | - | 8.9 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 331 | 39 | 6 | 227 | 39 | 11 |
| Future Vol, veh/h | 331 | 39 | 6 | 227 | 39 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 11 | 3 | 10 | 2 | 3 | 9 |
| Mvmt Flow | 360 | 42 | 7 | 247 | 42 | 12 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 402 | 0 | 642 | 381 |
| Stage 1 | - | - | - | - | 381 | - |
| Stage 2 | - | - | - | - | 261 | - |
| Critical Hdwy | - | - | 4.2 | - | 6.43 | 6.29 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.43 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | - | - | 2.29 | - | 3.527 | 3.381 |
| Pot Cap-1 Maneuver | - | - | 1115 | - | 437 | 651 |
| Stage 1 | - | - | - | - | 688 | - |
| Stage 2 | - | - | - | - | 780 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1115 | - | 434 | 651 |
| Mov Cap-2 Maneuver | - | - | - | - | 434 | - |
| Stage 1 | - | - | - | - | 688 | - |
| Stage 2 | - | - | - | - | 775 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.2 | 13.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 468 | - | - | 1115 | - |
| HCM Lane V/C Ratio | 0.116 | - | - | 0.006 | - |
| HCM Control Delay (s) | 13.7 | - | - | 8.2 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 18.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 106 | 10 | 14 | 8 | 0 | 65 | 22 | 443 | 10 | 86 | 353 | 179 |
| Future Vol, veh/h | 106 | 10 | 14 | 8 | 0 | 65 | 22 | 443 | 10 | 86 | 353 | 179 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 115 | 11 | 15 | 9 | 0 | 71 | 24 | 482 | 11 | 93 | 384 | 195 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1239 | 1209 | 482 | 1217 | 1301 | 488 | 579 | 0 | 0 | 493 | 0 | 0 |
| Stage 1 | 668 | 668 | - | 536 | 536 | - | - | - | - | - | - | - |
| Stage 2 | 571 | 541 | - | 681 | 765 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 152 | 183 | 584 | 158 | 161 | 580 | 995 | - | - | 1071 | - | - |
| Stage 1 | 448 | 456 | - | 529 | 523 | - | - | - | - | - | - | - |
| Stage 2 | 506 | 521 | - | 440 | 412 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 117 | 154 | 584 | 128 | 135 | 580 | 995 | - | - | 1071 | - | - |
| Mov Cap-2 Maneuver | 117 | 154 | - | 128 | 135 | - | - | - | - | - | - | - |
| Stage 1 | 433 | 396 | - | 512 | 506 | - | - | - | - | - | - | - |
| Stage 2 | 430 | 504 | - | 362 | 358 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 167 | 15.6 | 0.4 | 1.2 |
| HCM LOS | F | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 995 | - | - | 131 | 418 | 1071 | - | - |
| HCM Lane V/C Ratio | 0.024 | - | - | 1.079 | 0.19 | 0.087 | - | - |
| HCM Control Delay (s) | 8.7 | 0 | - | 167 | 15.6 | 8.7 | 0 | - |
| HCM Lane LOS | A | A | - | F | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 8 | 0.7 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 255.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 158 | 14 | 22 | 16 | 0 | 130 | 30 | 564 | 21 | 177 | 581 | 267 |
| Future Vol, veh/h | 158 | 14 | 22 | 16 | 0 | 130 | 30 | 564 | 21 | 177 | 581 | 267 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 50 | - | - | - | - | - | 75 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 172 | 15 | 24 | 17 | 0 | 141 | 33 | 613 | 23 | 192 | 632 | 290 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1922 | 1863 | 777 | 1872 | 1997 | 625 | 922 | 0 | 0 | 636 | 0 | 0 |
| Stage 1 | 1161 | 1161 | - | 691 | 691 | - | - | - | - | - | - | - |
| Stage 2 | 761 | 702 | - | 1181 | 1306 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | ~ 51 | 73 | 397 | 55 | 60 | 485 | 741 | - | - | 947 | - | - |
| Stage 1 | 238 | 270 | - | 435 | 446 | - | - | - | - | - | - | - |
| Stage 2 | 398 | 440 | - | 232 | 230 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 29 | 54 | 397 | 33 | 45 | 485 | 741 | - | - | 947 | - | - |
| Mov Cap-2 Maneuver | ~ 29 | 54 | - | 33 | 45 | - | - | - | - | - | - | - |
| Stage 1 | 222 | 215 | - | 405 | 415 | - | - | - | - | - | - | - |
| Stage 2 | 263 | 410 | - | 162 | 183 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, $ | 2571.9 | 35.7 | 0.5 | 1.7 |
| HCM LOS | F | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 741 | - | - | 34 | 33 | 485 | 947 | - | - |
| HCM Lane V/C Ratio | 0.044 | - | - | 6.202 | 0.527 | 0.291 | 0.203 | - | - |
| HCM Control Delay (s) | 10.1 | 0 | - | $ 2571.9 | 200.5 | 15.4 | 9.8 | - | - |
| HCM Lane LOS | B | A | - | F | F | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 25.2 | 1.8 | 1.2 | 0.8 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

# Annex “D”
# Synchro Analysis – Caron 2043 Ultimate Conditions – Mitigation 1 (3-lane cross-section)

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 79 | 97 | 115 | 774 | 420 | 80 |
| Future Volume (vph) | 79 | 97 | 115 | 774 | 420 | 80 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | 0.0 | 20.0 | | | 0.0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (m) | 2.5 | | 2.5 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.926 | | | | 0.978 | |
| Flt Protected | 0.978 | | 0.950 | | | |
| Satd. Flow (prot) | 1635 | 0 | 1674 | 1700 | 1761 | 0 |
| Flt Permitted | 0.978 | | 0.424 | | | |
| Satd. Flow (perm) | 1635 | 0 | 747 | 1700 | 1761 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 105 | | | | 23 | |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 172.7 | | | 277.3 | 120.1 | |
| Travel Time (s) | 12.4 | | | 20.0 | 8.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 10% | 9% | 13% | 7% | 5% |
| Adj. Flow (vph) | 86 | 105 | 125 | 841 | 457 | 87 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 191 | 0 | 125 | 841 | 544 | 0 |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | | 36.0 | 36.0 | 36.0 | |
| Total Split (%) | 40.0% | | 60.0% | 60.0% | 60.0% | |
| Maximum Green (s) | 18.0 | | 30.0 | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 9.1 | | 38.9 | 38.9 | 38.9 | |
| Actuated g/C Ratio | 0.15 | | 0.65 | 0.65 | 0.65 | |
| v/c Ratio | 0.57 | | 0.26 | 0.76 | 0.47 | |
| Control Delay | 17.8 | | 13.0 | 22.0 | 7.5 | |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 17.8 | | 13.0 | 22.0 | 7.5 | |
| LOS | B | | B | C | A | |
| Approach Delay | 17.8 | | | 20.8 | 7.5 | |
| Approach LOS | B | | | C | A | |
| Queue Length 50th (m) | 8.7 | | 11.2 | 95.5 | 22.9 | |
| Queue Length 95th (m) | 22.2 | | m17.7 | m#140.0 | 53.6 | |
| Internal Link Dist (m) | 148.7 | | | 253.3 | 96.1 | |
| Turn Bay Length (m) | | | 20.0 | | | |
| Base Capacity (vph) | 564 | | 484 | 1102 | 1149 | |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.34 | | 0.26 | 0.76 | 0.47 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 60 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 65 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.76 | | | |
| Intersection Signal Delay: 16.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 61.1% | | ICU Level of Service B | |
| 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. | | | |

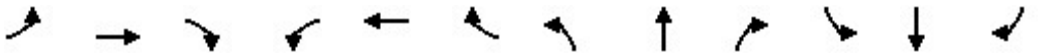
Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 342 | 183 | 686 | 244 | 60 | 456 |
| Future Volume (vph) | 342 | 183 | 686 | 244 | 60 | 456 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | 0.0 | | 50.0 | 45.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1445 | 1731 | 1089 | 1659 | 1795 |
| Flt Permitted | 0.950 | | | | 0.216 | |
| Satd. Flow (perm) | 1789 | 1445 | 1731 | 1089 | 377 | 1795 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 153 | | 265 | | |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 331.3 | | 361.0 | | | 126.2 |
| Travel Time (s) | 23.9 | | 26.0 | | | 9.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 13% | 11% | 50% | 10% | 7% |
| Adj. Flow (vph) | 372 | 199 | 746 | 265 | 65 | 496 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 372 | 199 | 746 | 265 | 65 | 496 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Maximum Green (s) | 18.0 | 18.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 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 |
| Recall Mode | 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 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 16.1 | 16.1 | 31.9 | 31.9 | 31.9 | 31.9 |
| Actuated g/C Ratio | 0.27 | 0.27 | 0.53 | 0.53 | 0.53 | 0.53 |
| v/c Ratio | 0.78 | 0.40 | 0.81 | 0.38 | 0.33 | 0.52 |
| Control Delay | 32.5 | 8.0 | 22.0 | 3.1 | 17.5 | 14.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Total Delay | 32.5 | 8.0 | 22.0 | 3.1 | 17.5 | 14.0 |
| LOS | C | A | C | A | B | B |
| Approach Delay | 24.0 | | 17.0 | | | 14.4 |
| Approach LOS | C | | B | | | B |
| Queue Length 50th (m) | 36.1 | 3.7 | 65.4 | 0.0 | 3.6 | 28.3 |
| Queue Length 95th (m) | #64.6 | 16.5 | #130.7 | 9.5 | m14.0 | 72.2 |
| Internal Link Dist (m) | 307.3 | | 337.0 | | | 102.2 |
| Turn Bay Length (m) | 75.0 | | | 50.0 | 45.0 | |
| Base Capacity (vph) | 536 | 540 | 921 | 703 | 200 | 955 |
| 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 | 0.69 | 0.37 | 0.81 | 0.38 | 0.33 | 0.52 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 60 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.81 | | | |
| Intersection Signal Delay: 18.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 74.2% | | 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. | | | |
| m Volume for 95th percentile queue is metered by upstream signal. | | | |

Splits and Phases: 2: Caron Street & David Street

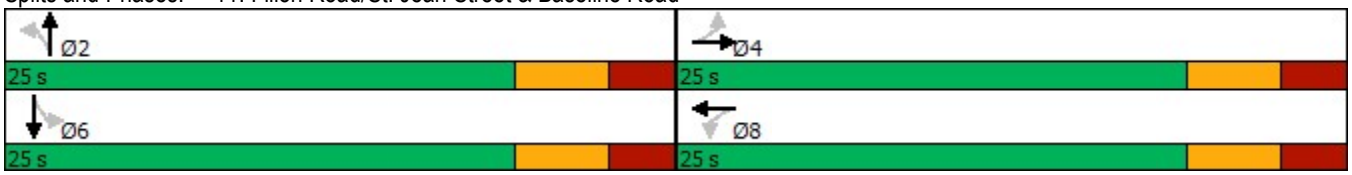


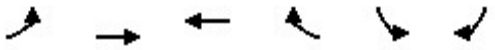
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 153 | 155 | 0 | 0 | 322 | 52 | 1 | 1 | 1 | 8 | 4 | 214 |
| Future Volume (vph) | 153 | 155 | 0 | 0 | 322 | 52 | 1 | 1 | 1 | 8 | 4 | 214 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.981 | | | 0.955 | | | 0.853 | |
| Flt Protected | 0.950 | | | | | | | 0.984 | | 0.950 | | |
| Satd. Flow (prot) | 1690 | 1575 | 0 | 0 | 1750 | 0 | 0 | 1719 | 0 | 1789 | 1564 | 0 |
| Flt Permitted | 0.413 | | | | | | | 0.925 | | 0.756 | | |
| Satd. Flow (perm) | 735 | 1575 | 0 | 0 | 1750 | 0 | 0 | 1616 | 0 | 1424 | 1564 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 19 | | | 1 | | | 233 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 280.0 | | | 1373.9 | | | 82.7 | | | 605.0 | |
| Travel Time (s) | | 16.8 | | | 82.4 | | | 5.0 | | | 36.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 8% | 22% | 2% | 2% | 8% | 6% | 5% | 5% | 5% | 2% | 50% | 4% |
| Adj. Flow (vph) | 166 | 168 | 0 | 0 | 350 | 57 | 1 | 1 | 1 | 9 | 4 | 233 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 166 | 168 | 0 | 0 | 407 | 0 | 0 | 3 | 0 | 9 | 237 | 0 |
| Turn Type | Perm | NA | | | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 19.0 | 19.0 | | 19.0 | 19.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | | 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 | |
| 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) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 14.7 | 14.7 | | | 14.7 | | | 19.1 | | 19.1 | 19.1 | |
| Actuated g/C Ratio | 0.32 | 0.32 | | | 0.32 | | | 0.42 | | 0.42 | 0.42 | |
| v/c Ratio | 0.71 | 0.33 | | | 0.71 | | | 0.00 | | 0.02 | 0.30 | |
| Control Delay | 32.2 | 13.4 | | | 20.4 | | | 8.7 | | 9.6 | 3.3 | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | 0.0 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 32.2 | 13.4 | | | 20.4 | | | 8.7 | | 9.6 | 3.3 | |
| LOS | C | B | | | C | | | A | | A | A | |
| Approach Delay | | 22.7 | | | 20.4 | | | 8.7 | | | 3.5 | |
| Approach LOS | | C | | | C | | | A | | | A | |
| Queue Length 50th (m) | 11.4 | 10.0 | | | 26.4 | | | 0.1 | | 0.4 | 0.2 | |
| Queue Length 95th (m) | #33.3 | 20.7 | | | 48.8 | | | 1.2 | | 2.5 | 10.4 | |
| Internal Link Dist (m) | | 256.0 | | | 1349.9 | | | 58.7 | | | 581.0 | |
| Turn Bay Length (m) | 75.0 | | | | | | | | | 75.0 | | |
| Base Capacity (vph) | 306 | 656 | | | 740 | | | 674 | | 593 | 787 | |
| 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 | 0.54 | 0.26 | | | 0.55 | | | 0.00 | | 0.02 | 0.30 | |

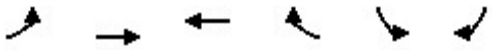
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 45.9 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.71 | | | |
| Intersection Signal Delay: 17.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 57.0% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road





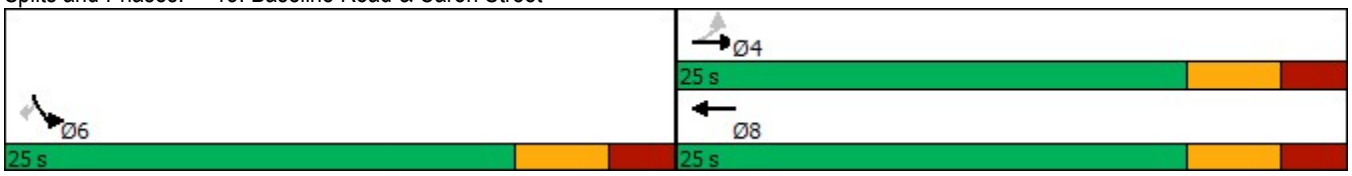
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 112 | 51 | 124 | 183 | 139 | 236 |
| Future Volume (vph) | 112 | 51 | 124 | 183 | 139 | 236 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | | 0.0 | 75.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.920 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1448 | 1715 | 1649 | 0 | 1706 | 1512 |
| Flt Permitted | 0.498 | | | | 0.950 | |
| Satd. Flow (perm) | 759 | 1715 | 1649 | 0 | 1706 | 1512 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 171 | | | 257 |
| Link Speed (k/h) | | 80 | 80 | | 48 | |
| Link Distance (m) | | 500.9 | 877.6 | | 681.1 | |
| Travel Time (s) | | 22.5 | 39.5 | | 51.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 26% | 12% | 9% | 6% | 7% | 8% |
| Adj. Flow (vph) | 122 | 55 | 135 | 199 | 151 | 257 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 122 | 55 | 334 | 0 | 151 | 257 |
| Turn Type | Perm | NA | NA | | Prot | Perm |
| Protected Phases | | 4 | 8 | | 6 | |
| Permitted Phases | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 8 | | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 |
| Total Split (s) | 25.0 | 25.0 | 25.0 | | 25.0 | 25.0 |
| Total Split (%) | 50.0% | 50.0% | 50.0% | | 50.0% | 50.0% |
| Maximum Green (s) | 19.0 | 19.0 | 19.0 | | 19.0 | 19.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 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 |
| Recall Mode | None | None | None | | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 11.6 | 11.6 | 11.6 | | 19.9 | 19.9 |
| Actuated g/C Ratio | 0.27 | 0.27 | 0.27 | | 0.46 | 0.46 |
| v/c Ratio | 0.61 | 0.12 | 0.59 | | 0.19 | 0.31 |
| Control Delay | 26.7 | 11.5 | 11.1 | | 9.7 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 26.7 | 11.5 | 11.1 | | 9.7 | 3.0 |
| LOS | C | B | B | | A | A |
| Approach Delay | | 22.0 | 11.1 | | 5.5 | |
| Approach LOS | | C | B | | A | |
| Queue Length 50th (m) | 7.7 | 3.0 | 9.6 | | 6.1 | 0.0 |
| Queue Length 95th (m) | 19.5 | 8.3 | 24.8 | | 18.5 | 10.5 |
| Internal Link Dist (m) | | 476.9 | 853.6 | | 657.1 | |
| Turn Bay Length (m) | 75.0 | | | | 75.0 | |
| Base Capacity (vph) | 333 | 753 | 820 | | 780 | 831 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.07 | 0.41 | | 0.19 | 0.31 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 43.6 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.61 | | | |
| Intersection Signal Delay: 10.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 46.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 13: Baseline Road & Caron Street

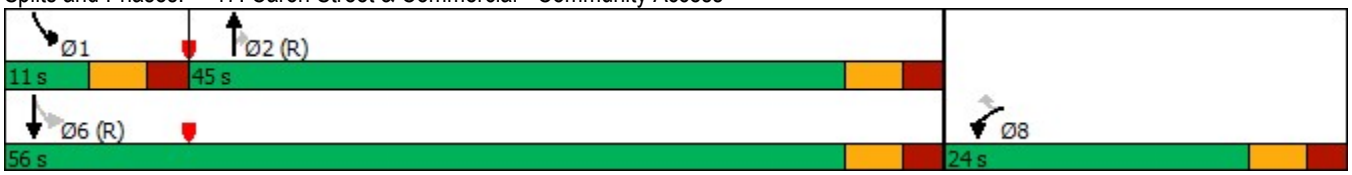


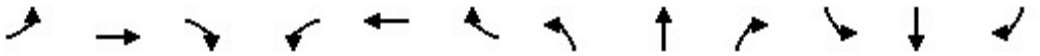
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 41 | 193 | 822 | 93 | 303 | 547 |
| Future Volume (vph) | 41 | 193 | 822 | 93 | 303 | 547 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 50.0 | 0.0 | | 50.0 | 75.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1601 | 1883 | 1601 | 3471 | 1883 |
| Flt Permitted | 0.950 | | | | 0.111 | |
| Satd. Flow (perm) | 1789 | 1601 | 1883 | 1601 | 406 | 1883 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 209 | | 75 | | |
| Link Speed (k/h) | 50 | | 60 | | | 60 |
| Link Distance (m) | 338.5 | | 319.0 | | | 293.1 |
| Travel Time (s) | 24.4 | | 19.1 | | | 17.6 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 45 | 210 | 893 | 101 | 329 | 595 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 45 | 210 | 893 | 101 | 329 | 595 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 45.0 | 45.0 | 11.0 | 56.0 |
| Total Split (%) | 30.0% | 30.0% | 56.3% | 56.3% | 13.8% | 70.0% |
| Maximum Green (s) | 18.0 | 18.0 | 39.0 | 39.0 | 5.0 | 50.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | C-Max | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | | 0 |
| Act Effct Green (s) | 8.0 | 8.0 | 45.2 | 45.2 | 60.0 | 60.0 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.56 | 0.56 | 0.75 | 0.75 |
| v/c Ratio | 0.25 | 0.60 | 0.84 | 0.11 | 0.52 | 0.42 |
| Control Delay | 35.5 | 13.0 | 25.1 | 4.2 | 16.3 | 4.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.5 | 13.0 | 25.1 | 4.2 | 16.3 | 4.0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| LOS | D | B | C | A | B | A |
| Approach Delay | 16.9 | | 23.0 | | | 8.4 |
| Approach LOS | B | | C | | | A |
| Queue Length 50th (m) | 6.5 | 0.2 | 100.6 | 1.6 | 11.2 | 18.8 |
| Queue Length 95th (m) | 14.8 | 17.5 | #206.2 | 9.3 | 27.4 | 38.4 |
| Internal Link Dist (m) | 314.5 | | 295.0 | | | 269.1 |
| Turn Bay Length (m) | 50.0 | | | 50.0 | 75.0 | |
| Base Capacity (vph) | 402 | 522 | 1064 | 937 | 638 | 1411 |
| 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 | 0.11 | 0.40 | 0.84 | 0.11 | 0.52 | 0.42 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 80 | | | |
| Actuated Cycle Length: 80 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.84 | | | |
| Intersection Signal Delay: 16.1 | | Intersection LOS: B | |
| Intersection Capacity Utilization 71.1% | | 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: 17: Caron Street & Commercial - Community Access





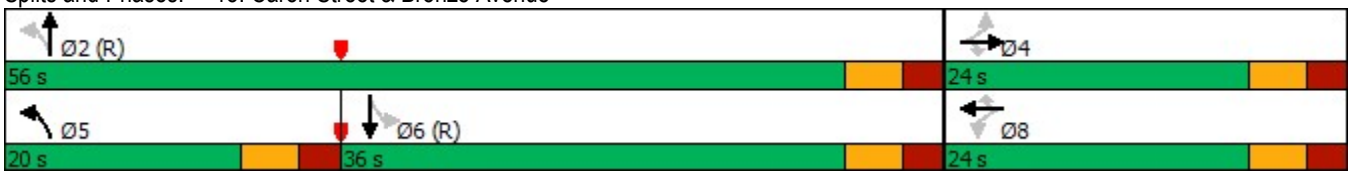
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 93 | 73 | 264 | 40 | 151 | 197 | 353 | 641 | 22 | 104 | 547 | 147 |
| Future Volume (vph) | 93 | 73 | 264 | 40 | 151 | 197 | 353 | 641 | 22 | 104 | 547 | 147 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 0.0 | 50.0 | | 35.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | | 0.850 | | | 0.850 | | 0.995 | | | 0.968 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1883 | 1601 | 1789 | 1883 | 1601 | 1789 | 1874 | 0 | 1789 | 3464 | 0 |
| Flt Permitted | 0.613 | | | 0.706 | | | 0.261 | | | 0.391 | | |
| Satd. Flow (perm) | 1155 | 1883 | 1601 | 1330 | 1883 | 1601 | 492 | 1874 | 0 | 736 | 3464 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 287 | | | 214 | | 4 | | | 49 | |
| Link Speed (k/h) | | 48 | | | 48 | | | 48 | | | 48 | |
| Link Distance (m) | | 413.5 | | | 239.5 | | | 293.1 | | | 361.0 | |
| Travel Time (s) | | 31.0 | | | 18.0 | | | 22.0 | | | 27.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 101 | 79 | 287 | 43 | 164 | 214 | 384 | 697 | 24 | 113 | 595 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 101 | 79 | 287 | 43 | 164 | 214 | 384 | 721 | 0 | 113 | 755 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.0 | 56.0 | | 36.0 | 36.0 | |
| Total Split (%) | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% | 25.0% | 70.0% | | 45.0% | 45.0% | |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 14.0 | 50.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | | | Yes | Yes | |
| 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 | None | None | None | 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) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | 0 | 0 | |
| Act Effct Green (s) | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 55.5 | 55.5 | | 37.0 | 37.0 | |
| Actuated g/C Ratio | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.69 | 0.69 | | 0.46 | 0.46 | |
| v/c Ratio | 0.56 | 0.27 | 0.58 | 0.21 | 0.56 | 0.50 | 0.70 | 0.55 | | 0.33 | 0.46 | |
| Control Delay | 42.4 | 30.5 | 8.9 | 30.1 | 37.9 | 8.5 | 20.7 | 14.0 | | 19.8 | 16.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 42.4 | 30.5 | 8.9 | 30.1 | 37.9 | 8.5 | 20.7 | 14.0 | | 19.8 | 16.1 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | D | C | A | C | D | A | C | B | | B | B | |
| Approach Delay | | 19.8 | | | 22.2 | | | 16.3 | | | 16.6 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Queue Length 50th (m) | 14.4 | 10.8 | 0.0 | 5.8 | 23.4 | 0.0 | 42.9 | 69.7 | | 10.4 | 36.7 | |
| Queue Length 95th (m) | 27.0 | 20.6 | 18.1 | 13.3 | 38.1 | 15.9 | m66.1 | m116.8 | | 26.8 | 60.4 | |
| Internal Link Dist (m) | | 389.5 | | | 215.5 | | | 269.1 | | | 337.0 | |
| Turn Bay Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | | 50.0 | | |
| Base Capacity (vph) | 259 | 423 | 582 | 299 | 423 | 526 | 575 | 1301 | | 340 | 1626 | |
| 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 | 0.39 | 0.19 | 0.49 | 0.14 | 0.39 | 0.41 | 0.67 | 0.55 | | 0.33 | 0.46 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Caron Street & Bronze Avenue

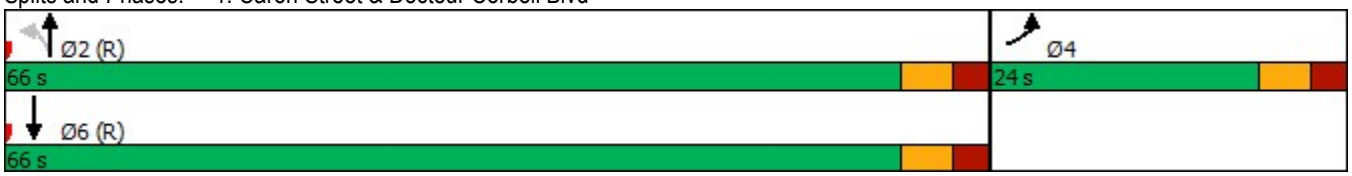


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 131 | 131 | 115 | 649 | 857 | 115 |
| Future Volume (vph) | 131 | 131 | 115 | 649 | 857 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | 0.0 | 20.0 | | | 0.0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (m) | 2.5 | | 2.5 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.932 | | | | 0.984 | |
| Flt Protected | 0.976 | | 0.950 | | | |
| Satd. Flow (prot) | 1649 | 0 | 1674 | 1700 | 1771 | 0 |
| Flt Permitted | 0.976 | | 0.127 | | | |
| Satd. Flow (perm) | 1649 | 0 | 224 | 1700 | 1771 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 50 | | | | 16 | |
| Link Speed (k/h) | 48 | | | 50 | 50 | |
| Link Distance (m) | 172.7 | | | 277.3 | 120.1 | |
| Travel Time (s) | 13.0 | | | 20.0 | 8.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 10% | 9% | 13% | 7% | 5% |
| Adj. Flow (vph) | 142 | 142 | 125 | 705 | 932 | 125 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 284 | 0 | 125 | 705 | 1057 | 0 |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | | 66.0 | 66.0 | 66.0 | |
| Total Split (%) | 26.7% | | 73.3% | 73.3% | 73.3% | |
| Maximum Green (s) | 18.0 | | 60.0 | 60.0 | 60.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 16.3 | | 61.7 | 61.7 | 61.7 | |
| Actuated g/C Ratio | 0.18 | | 0.69 | 0.69 | 0.69 | |
| v/c Ratio | 0.84 | | 0.82 | 0.60 | 0.87 | |
| Control Delay | 51.2 | | 54.5 | 10.8 | 21.3 | |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 51.2 | | 54.5 | 10.8 | 21.3 | |
| LOS | D | | D | B | C | |
| Approach Delay | 51.2 | | | 17.4 | 21.3 | |
| Approach LOS | D | | | B | C | |
| Queue Length 50th (m) | 38.7 | | 14.4 | 61.1 | 130.8 | |
| Queue Length 95th (m) | #75.6 | | #51.7 | 93.3 | #240.5 | |
| Internal Link Dist (m) | 148.7 | | | 253.3 | 96.1 | |
| Turn Bay Length (m) | | | 20.0 | | | |
| Base Capacity (vph) | 369 | | 153 | 1166 | 1219 | |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.77 | | 0.82 | 0.60 | 0.87 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 90 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.87 | | | |
| Intersection Signal Delay: 23.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 88.7% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd



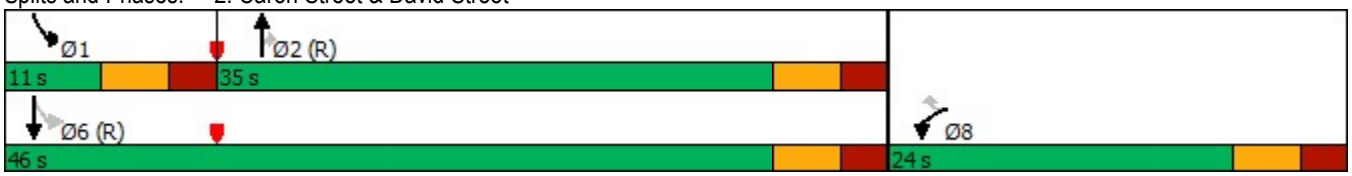
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 327 | 102 | 653 | 399 | 172 | 798 |
| Future Volume (vph) | 327 | 102 | 653 | 399 | 172 | 798 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | 0.0 | | 50.0 | 45.0 | |
| Storage Lanes | 0 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1738 | 1601 | 1865 | 1601 | 1755 | 1746 |
| Flt Permitted | 0.950 | | | | 0.113 | |
| Satd. Flow (perm) | 1738 | 1601 | 1865 | 1601 | 209 | 1746 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 111 | | 407 | | |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 331.3 | | 361.0 | | | 126.2 |
| Travel Time (s) | 23.9 | | 26.0 | | | 9.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 5% | 2% | 3% | 2% | 4% | 10% |
| Adj. Flow (vph) | 355 | 111 | 710 | 434 | 187 | 867 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 355 | 111 | 710 | 434 | 187 | 867 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 35.0 | 35.0 | 11.0 | 46.0 |
| Total Split (%) | 34.3% | 34.3% | 50.0% | 50.0% | 15.7% | 65.7% |
| Maximum Green (s) | 18.0 | 18.0 | 29.0 | 29.0 | 5.0 | 40.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | C-Max | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | | 0 |
| Act Effct Green (s) | 16.9 | 16.9 | 29.4 | 29.4 | 41.1 | 41.1 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.42 | 0.42 | 0.59 | 0.59 |
| v/c Ratio | 0.85 | 0.24 | 0.91 | 0.48 | 0.76 | 0.85 |
| Control Delay | 45.2 | 6.2 | 37.7 | 4.1 | 32.7 | 22.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

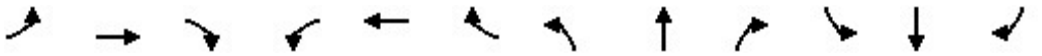
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Total Delay | 45.2 | 6.2 | 37.7 | 4.1 | 32.7 | 22.7 |
| LOS | D | A | D | A | C | C |
| Approach Delay | 35.9 | | 24.9 | | | 24.5 |
| Approach LOS | D | | C | | | C |
| Queue Length 50th (m) | 43.4 | 0.0 | 84.9 | 2.0 | 10.6 | 87.4 |
| Queue Length 95th (m) | #82.4 | 10.5 | #149.4 | 17.4 | #40.5 | #165.7 |
| Internal Link Dist (m) | 307.3 | | 337.0 | | | 102.2 |
| Turn Bay Length (m) | 75.0 | | | 50.0 | 45.0 | |
| Base Capacity (vph) | 446 | 494 | 783 | 908 | 247 | 1024 |
| 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 | 0.80 | 0.22 | 0.91 | 0.48 | 0.76 | 0.85 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 70 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 70 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.91 | | | |
| Intersection Signal Delay: 26.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 77.0% | | 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: 2: Caron Street & David Street





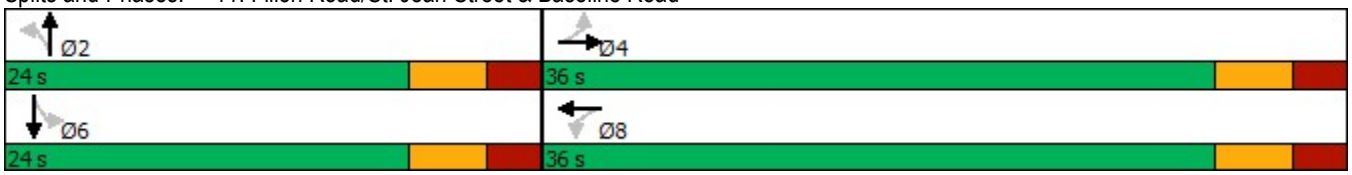
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 397 | 392 | 0 | 1 | 177 | 77 | 0 | 1 | 1 | 66 | 2 | 237 |
| Future Volume (vph) | 397 | 392 | 0 | 1 | 177 | 77 | 0 | 1 | 1 | 66 | 2 | 237 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.959 | | | 0.932 | | | 0.851 | |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1715 | 0 | 0 | 1742 | 0 | 0 | 1755 | 0 | 1789 | 1572 | 0 |
| Flt Permitted | 0.626 | | | | 0.999 | | | | | 0.757 | | |
| Satd. Flow (perm) | 1179 | 1715 | 0 | 0 | 1740 | 0 | 0 | 1755 | 0 | 1426 | 1572 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 52 | | | 1 | | | 258 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 280.0 | | | 1373.9 | | | 82.7 | | | 605.0 | |
| Travel Time (s) | | 16.8 | | | 82.4 | | | 5.0 | | | 36.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 12% | 2% | 2% | 7% | 3% | 2% | 2% | 2% | 2% | 2% | 4% |
| Adj. Flow (vph) | 432 | 426 | 0 | 1 | 192 | 84 | 0 | 1 | 1 | 72 | 2 | 258 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 432 | 426 | 0 | 0 | 277 | 0 | 0 | 2 | 0 | 72 | 260 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (%) | 60.0% | 60.0% | | 60.0% | 60.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 18.0 | 18.0 | | 18.0 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | | 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 | |
| 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) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 24.0 | 24.0 | | | 24.0 | | | 18.2 | | 18.2 | 18.2 | |
| Actuated g/C Ratio | 0.44 | 0.44 | | | 0.44 | | | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.83 | 0.56 | | | 0.35 | | | 0.00 | | 0.15 | 0.37 | |
| Control Delay | 28.8 | 14.1 | | | 8.8 | | | 13.0 | | 16.0 | 4.5 | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | 0.0 | |

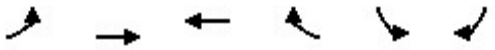
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 28.8 | 14.1 | | | 8.8 | | | 13.0 | | 16.0 | 4.5 | |
| LOS | C | B | | | A | | | B | | B | A | |
| Approach Delay | | 21.5 | | | 8.8 | | | 13.0 | | | 7.0 | |
| Approach LOS | | C | | | A | | | B | | | A | |
| Queue Length 50th (m) | 34.6 | 28.7 | | | 13.1 | | | 0.1 | | 5.3 | 0.2 | |
| Queue Length 95th (m) | #78.6 | 49.3 | | | 25.5 | | | 1.3 | | 13.9 | 13.7 | |
| Internal Link Dist (m) | | 256.0 | | | 1349.9 | | | 58.7 | | | 581.0 | |
| Turn Bay Length (m) | 75.0 | | | | | | | | | 75.0 | | |
| Base Capacity (vph) | 658 | 958 | | | 995 | | | 589 | | 478 | 698 | |
| 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 | 0.66 | 0.44 | | | 0.28 | | | 0.00 | | 0.15 | 0.37 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 54.4 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.83 | | | |
| Intersection Signal Delay: 15.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 65.8% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

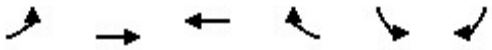
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road





| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 280 | 182 | 88 | 192 | 203 | 174 |
| Future Volume (vph) | 280 | 182 | 88 | 192 | 203 | 174 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | | 0.0 | 75.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.907 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1715 | 1708 | 0 | 1755 | 1601 |
| Flt Permitted | 0.570 | | | | 0.950 | |
| Satd. Flow (perm) | 1074 | 1715 | 1708 | 0 | 1755 | 1601 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 209 | | | 189 |
| Link Speed (k/h) | | 80 | 80 | | 50 | |
| Link Distance (m) | | 500.9 | 877.6 | | 681.1 | |
| Travel Time (s) | | 22.5 | 39.5 | | 49.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 12% | 2% | 2% | 4% | 2% |
| Adj. Flow (vph) | 304 | 198 | 96 | 209 | 221 | 189 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 304 | 198 | 305 | 0 | 221 | 189 |
| Turn Type | Perm | NA | NA | | Prot | Perm |
| Protected Phases | | 4 | 8 | | 6 | |
| Permitted Phases | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 8 | | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 |
| Total Split (s) | 26.0 | 26.0 | 26.0 | | 24.0 | 24.0 |
| Total Split (%) | 52.0% | 52.0% | 52.0% | | 48.0% | 48.0% |
| Maximum Green (s) | 20.0 | 20.0 | 20.0 | | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 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 |
| Recall Mode | None | None | None | | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 16.7 | 16.7 | 16.7 | | 18.1 | 18.1 |
| Actuated g/C Ratio | 0.36 | 0.36 | 0.36 | | 0.39 | 0.39 |
| v/c Ratio | 0.80 | 0.33 | 0.41 | | 0.33 | 0.26 |
| Control Delay | 31.5 | 12.3 | 5.7 | | 12.9 | 3.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |

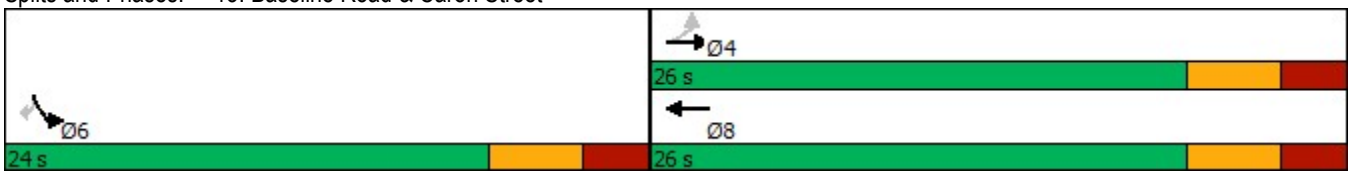


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 31.5 | 12.3 | 5.7 | | 12.9 | 3.4 |
| LOS | C | B | A | | B | A |
| Approach Delay | | 23.9 | 5.7 | | 8.5 | |
| Approach LOS | | C | A | | A | |
| Queue Length 50th (m) | 21.5 | 11.4 | 5.2 | | 13.5 | 0.0 |
| Queue Length 95th (m) | #53.9 | 22.8 | 17.4 | | 27.2 | 9.4 |
| Internal Link Dist (m) | | 476.9 | 853.6 | | 657.1 | |
| Turn Bay Length (m) | 75.0 | | | | 75.0 | |
| Base Capacity (vph) | 461 | 737 | 853 | | 678 | 735 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.66 | 0.27 | 0.36 | | 0.33 | 0.26 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 46.9 | | | |
| Natural Cycle: 55 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.80 | | | |
| Intersection Signal Delay: 14.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 58.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 13: Baseline Road & Caron Street



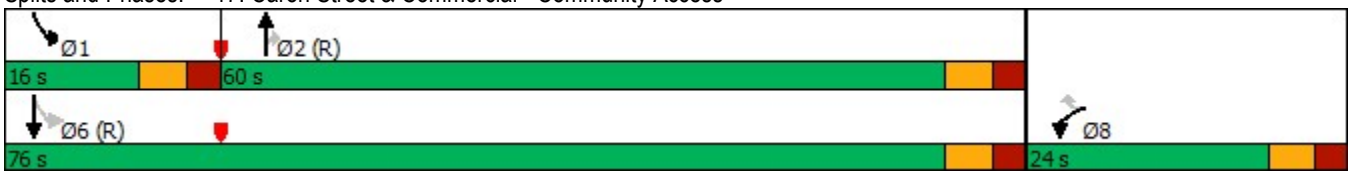
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 123 | 323 | 783 | 70 | 365 | 902 |
| Future Volume (vph) | 123 | 323 | 783 | 70 | 365 | 902 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 50.0 | 0.0 | | 50.0 | 75.0 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1601 | 1883 | 1601 | 3471 | 1883 |
| Flt Permitted | 0.950 | | | | 0.160 | |
| Satd. Flow (perm) | 1789 | 1601 | 1883 | 1601 | 585 | 1883 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 286 | | 53 | | |
| Link Speed (k/h) | 48 | | 48 | | | 48 |
| Link Distance (m) | 338.5 | | 319.0 | | | 293.1 |
| Travel Time (s) | 25.4 | | 23.9 | | | 22.0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 134 | 351 | 851 | 76 | 397 | 980 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 134 | 351 | 851 | 76 | 397 | 980 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 24.0 | 24.0 | 60.0 | 60.0 | 16.0 | 76.0 |
| Total Split (%) | 24.0% | 24.0% | 60.0% | 60.0% | 16.0% | 76.0% |
| Maximum Green (s) | 18.0 | 18.0 | 54.0 | 54.0 | 10.0 | 70.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | C-Max | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | | 0 |
| Act Effct Green (s) | 12.8 | 12.8 | 60.3 | 60.3 | 75.2 | 75.2 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.60 | 0.60 | 0.75 | 0.75 |
| v/c Ratio | 0.59 | 0.77 | 0.75 | 0.08 | 0.57 | 0.69 |
| Control Delay | 50.7 | 21.2 | 21.2 | 4.6 | 7.2 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.7 | 21.2 | 21.2 | 4.6 | 7.2 | 10.5 |

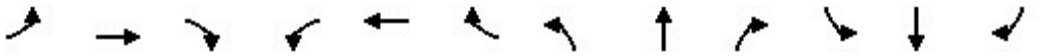
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| LOS | D | C | C | A | A | B |
| Approach Delay | 29.4 | | 19.8 | | | 9.5 |
| Approach LOS | C | | B | | | A |
| Queue Length 50th (m) | 24.8 | 11.6 | 109.9 | 1.7 | 9.1 | 81.2 |
| Queue Length 95th (m) | 40.9 | 39.8 | #193.6 | 8.3 | 16.4 | 153.2 |
| Internal Link Dist (m) | 314.5 | | 295.0 | | | 269.1 |
| Turn Bay Length (m) | 50.0 | | | 50.0 | 75.0 | |
| Base Capacity (vph) | 322 | 522 | 1134 | 985 | 733 | 1415 |
| 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 | 0.42 | 0.67 | 0.75 | 0.08 | 0.54 | 0.69 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.77 | | | |
| Intersection Signal Delay: 16.4 | | Intersection LOS: B | |
| Intersection Capacity Utilization 73.4% | | 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: 17: Caron Street & Commercial - Community Access





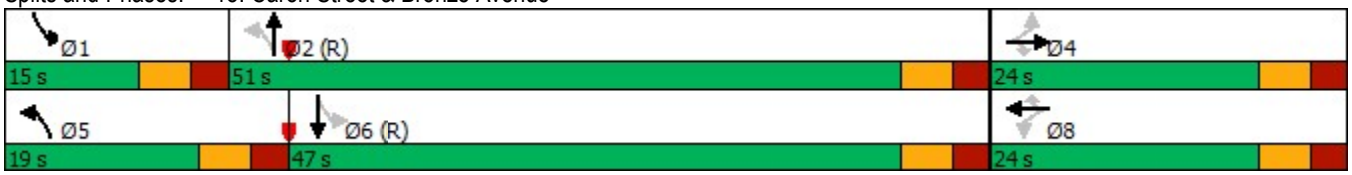
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 153 | 173 | 450 | 36 | 122 | 173 | 336 | 727 | 44 | 224 | 780 | 121 |
| Future Volume (vph) | 153 | 173 | 450 | 36 | 122 | 173 | 336 | 727 | 44 | 224 | 780 | 121 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 0.0 | 50.0 | | 35.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | | 0.850 | | | 0.850 | | 0.991 | | | 0.980 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1883 | 1601 | 1789 | 1883 | 1601 | 1789 | 1866 | 0 | 1789 | 3507 | 0 |
| Flt Permitted | 0.672 | | | 0.542 | | | 0.192 | | | 0.113 | | |
| Satd. Flow (perm) | 1266 | 1883 | 1601 | 1021 | 1883 | 1601 | 362 | 1866 | 0 | 213 | 3507 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 272 | | | 188 | | 5 | | | 25 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 413.5 | | | 239.5 | | | 293.1 | | | 361.0 | |
| Travel Time (s) | | 29.8 | | | 17.2 | | | 21.1 | | | 26.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 166 | 188 | 489 | 39 | 133 | 188 | 365 | 790 | 48 | 243 | 848 | 132 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 166 | 188 | 489 | 39 | 133 | 188 | 365 | 838 | 0 | 243 | 980 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 19.0 | 51.0 | | 15.0 | 47.0 | |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 21.1% | 56.7% | | 16.7% | 52.2% | |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.0 | 45.0 | | 9.0 | 41.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | | | | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | |
| 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 | None | None | None | C-Max | | None | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | 0 | |
| Act Effct Green (s) | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 58.3 | 46.1 | | 52.3 | 43.1 | |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.65 | 0.51 | | 0.58 | 0.48 | |
| v/c Ratio | 0.71 | 0.54 | 0.94 | 0.21 | 0.38 | 0.42 | 0.85 | 0.88 | | 0.85 | 0.58 | |
| Control Delay | 51.3 | 38.9 | 44.9 | 33.2 | 35.0 | 8.0 | 31.5 | 32.2 | | 47.2 | 18.7 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 51.3 | 38.9 | 44.9 | 33.2 | 35.0 | 8.0 | 31.5 | 32.2 | | 47.2 | 18.7 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | D | D | D | C | D | A | C | C | | D | B | |
| Approach Delay | | 44.8 | | | 20.7 | | | 32.0 | | | 24.4 | |
| Approach LOS | | D | | | C | | | C | | | C | |
| Queue Length 50th (m) | 26.6 | 29.1 | 38.6 | 5.7 | 20.0 | 0.0 | 25.5 | 124.5 | | 23.2 | 63.1 | |
| Queue Length 95th (m) | #52.1 | 49.4 | #97.0 | 14.4 | 36.2 | 16.5 | #70.9 | #202.8 | | #64.8 | 82.4 | |
| Internal Link Dist (m) | | 389.5 | | | 215.5 | | | 269.1 | | | 337.0 | |
| Turn Bay Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | | 50.0 | | |
| Base Capacity (vph) | 253 | 376 | 537 | 204 | 376 | 470 | 443 | 957 | | 285 | 1691 | |
| 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 | 0.66 | 0.50 | 0.91 | 0.19 | 0.35 | 0.40 | 0.82 | 0.88 | | 0.85 | 0.58 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 90 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.94 | | | |
| Intersection Signal Delay: 31.3 | | Intersection LOS: C | |
| Intersection Capacity Utilization 88.2% | | 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: 18: Caron Street & Bronze Avenue



# Annex “E”
# Synchro Analysis – Caron 2043 Ultimate Conditions – Mitigation 2 (4-lane cross-section)

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 79 | 97 | 115 | 774 | 420 | 80 |
| Future Volume (vph) | 79 | 97 | 115 | 774 | 420 | 80 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | 0.0 | 20.0 | | | 0.0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (m) | 2.5 | | 2.5 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.926 | | | | 0.978 | |
| Flt Protected | 0.978 | | 0.950 | | | |
| Satd. Flow (prot) | 1635 | 0 | 1674 | 1700 | 1761 | 0 |
| Flt Permitted | 0.978 | | 0.425 | | | |
| Satd. Flow (perm) | 1635 | 0 | 749 | 1700 | 1761 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 94 | | | | 23 | |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 172.7 | | | 277.3 | 120.1 | |
| Travel Time (s) | 12.4 | | | 20.0 | 8.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 10% | 9% | 13% | 7% | 5% |
| Adj. Flow (vph) | 86 | 105 | 125 | 841 | 457 | 87 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 191 | 0 | 125 | 841 | 544 | 0 |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | | 41.0 | 41.0 | 41.0 | |
| Total Split (%) | 36.9% | | 63.1% | 63.1% | 63.1% | |
| Maximum Green (s) | 18.0 | | 35.0 | 35.0 | 35.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 9.7 | | 43.3 | 43.3 | 43.3 | |
| Actuated g/C Ratio | 0.15 | | 0.67 | 0.67 | 0.67 | |
| v/c Ratio | 0.59 | | 0.25 | 0.74 | 0.46 | |
| Control Delay | 20.8 | | 7.0 | 14.2 | 7.3 | |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 20.8 | | 7.0 | 14.2 | 7.3 | |
| LOS | C | | A | B | A | |
| Approach Delay | 20.8 | | | 13.3 | 7.3 | |
| Approach LOS | C | | | B | A | |
| Queue Length 50th (m) | 10.8 | | 4.9 | 54.2 | 24.1 | |
| Queue Length 95th (m) | 25.3 | | 15.2 | #148.6 | 54.8 | |
| Internal Link Dist (m) | 148.7 | | | 253.3 | 96.1 | |
| Turn Bay Length (m) | | | 20.0 | | | |
| Base Capacity (vph) | 520 | | 499 | 1132 | 1180 | |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.37 | | 0.25 | 0.74 | 0.46 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 65 | | | |
| Actuated Cycle Length: 65 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 65 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.74 | | | |
| Intersection Signal Delay: 12.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 61.1% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd

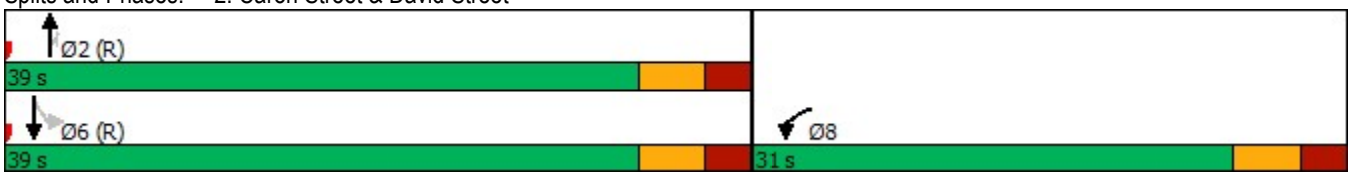
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 342 | 183 | 686 | 244 | 60 | 456 |
| Future Volume (vph) | 342 | 183 | 686 | 244 | 60 | 456 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | 0.0 | | 0.0 | 45.0 | |
| Storage Lanes | 1 | 0 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.948 | | | 0.850 | | |
| Flt Protected | 0.968 | | | | 0.950 | |
| Satd. Flow (prot) | 3232 | 0 | 1731 | 1089 | 1659 | 1795 |
| Flt Permitted | 0.968 | | | | 0.263 | |
| Satd. Flow (perm) | 3232 | 0 | 1731 | 1089 | 459 | 1795 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 135 | | | 265 | | |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 331.3 | | 361.0 | | | 126.2 |
| Travel Time (s) | 23.9 | | 26.0 | | | 9.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 13% | 11% | 50% | 10% | 7% |
| Adj. Flow (vph) | 372 | 199 | 746 | 265 | 65 | 496 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 571 | 0 | 746 | 265 | 65 | 496 |
| Turn Type | Prot | | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 31.0 | | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 31.0 | | 39.0 | 39.0 | 39.0 | 39.0 |
| Total Split (%) | 44.3% | | 55.7% | 55.7% | 55.7% | 55.7% |
| Maximum Green (s) | 25.0 | | 33.0 | 33.0 | 33.0 | 33.0 |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 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 |
| Recall Mode | None | | C-Max | C-Max | C-Max | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 18.0 | | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 15.3 | | 42.7 | 42.7 | 42.7 | 42.7 |
| Actuated g/C Ratio | 0.22 | | 0.61 | 0.61 | 0.61 | 0.61 |
| v/c Ratio | 0.70 | | 0.71 | 0.35 | 0.23 | 0.45 |
| Control Delay | 23.6 | | 15.7 | 2.6 | 10.4 | 9.9 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |

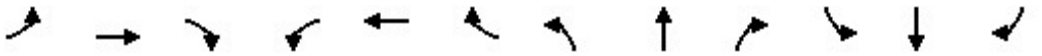
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Total Delay | 23.6 | | 15.7 | 2.6 | 10.4 | 9.9 |
| LOS | C | | B | A | B | A |
| Approach Delay | 23.6 | | 12.3 | | | 10.0 |
| Approach LOS | C | | B | | | A |
| Queue Length 50th (m) | 27.0 | | 58.8 | 0.0 | 3.4 | 30.7 |
| Queue Length 95th (m) | 37.8 | | #139.7 | 9.6 | 11.9 | 62.5 |
| Internal Link Dist (m) | 307.3 | | 337.0 | | | 102.2 |
| Turn Bay Length (m) | 75.0 | | | | 45.0 | |
| Base Capacity (vph) | 1241 | | 1055 | 767 | 279 | 1094 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.46 | | 0.71 | 0.35 | 0.23 | 0.45 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 70 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 70 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.71 | | | |
| Intersection Signal Delay: 14.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 70.8% | | 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: 2: Caron Street & David Street



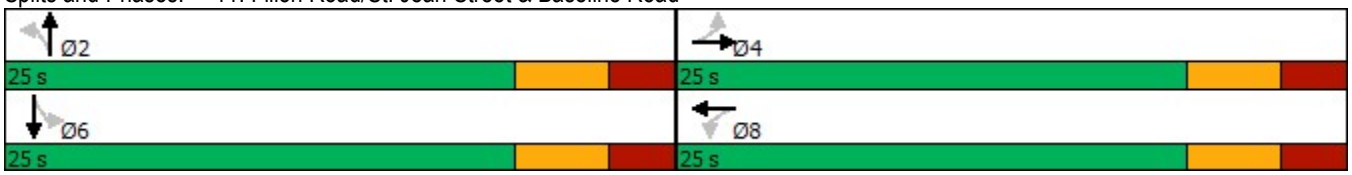


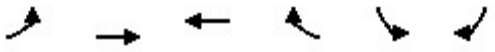
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 153 | 155 | 0 | 0 | 322 | 52 | 1 | 1 | 1 | 8 | 4 | 214 |
| Future Volume (vph) | 153 | 155 | 0 | 0 | 322 | 52 | 1 | 1 | 1 | 8 | 4 | 214 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.981 | | | 0.955 | | | 0.853 | |
| Flt Protected | 0.950 | | | | | | | 0.984 | | 0.950 | | |
| Satd. Flow (prot) | 1690 | 1575 | 0 | 0 | 1750 | 0 | 0 | 1719 | 0 | 1789 | 1564 | 0 |
| Flt Permitted | 0.413 | | | | | | | 0.925 | | 0.756 | | |
| Satd. Flow (perm) | 735 | 1575 | 0 | 0 | 1750 | 0 | 0 | 1616 | 0 | 1424 | 1564 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 19 | | | 1 | | | 233 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 280.0 | | | 1373.9 | | | 82.7 | | | 605.0 | |
| Travel Time (s) | | 16.8 | | | 82.4 | | | 5.0 | | | 36.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 8% | 22% | 2% | 2% | 8% | 6% | 5% | 5% | 5% | 2% | 50% | 4% |
| Adj. Flow (vph) | 166 | 168 | 0 | 0 | 350 | 57 | 1 | 1 | 1 | 9 | 4 | 233 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 166 | 168 | 0 | 0 | 407 | 0 | 0 | 3 | 0 | 9 | 237 | 0 |
| Turn Type | Perm | NA | | | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Maximum Green (s) | 19.0 | 19.0 | | 19.0 | 19.0 | | 19.0 | 19.0 | | 19.0 | 19.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | | 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 | |
| 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) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 14.7 | 14.7 | | | 14.7 | | | 19.1 | | 19.1 | 19.1 | |
| Actuated g/C Ratio | 0.32 | 0.32 | | | 0.32 | | | 0.42 | | 0.42 | 0.42 | |
| v/c Ratio | 0.71 | 0.33 | | | 0.71 | | | 0.00 | | 0.02 | 0.30 | |
| Control Delay | 32.2 | 13.4 | | | 20.4 | | | 8.7 | | 9.6 | 3.3 | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | 0.0 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 32.2 | 13.4 | | | 20.4 | | | 8.7 | | 9.6 | 3.3 | |
| LOS | C | B | | | C | | | A | | A | A | |
| Approach Delay | | 22.7 | | | 20.4 | | | 8.7 | | | 3.5 | |
| Approach LOS | | C | | | C | | | A | | | A | |
| Queue Length 50th (m) | 11.4 | 10.0 | | | 26.4 | | | 0.1 | | 0.4 | 0.2 | |
| Queue Length 95th (m) | #33.3 | 20.7 | | | 48.8 | | | 1.2 | | 2.5 | 10.4 | |
| Internal Link Dist (m) | | 256.0 | | | 1349.9 | | | 58.7 | | | 581.0 | |
| Turn Bay Length (m) | 75.0 | | | | | | | | | 75.0 | | |
| Base Capacity (vph) | 306 | 656 | | | 740 | | | 674 | | 593 | 787 | |
| 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 | 0.54 | 0.26 | | | 0.55 | | | 0.00 | | 0.02 | 0.30 | |

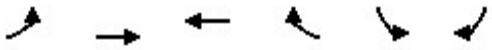
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 45.9 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.71 | | | |
| Intersection Signal Delay: 17.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 57.0% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road





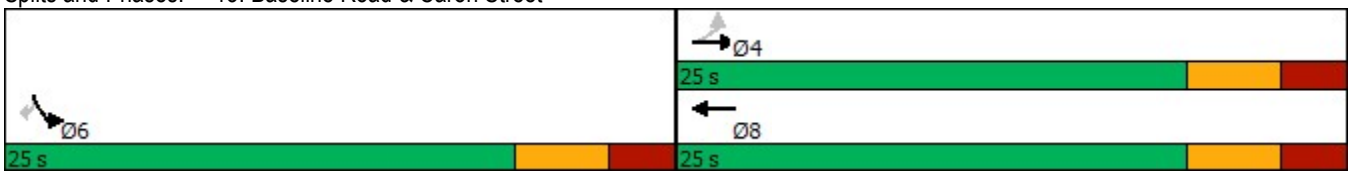
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 112 | 51 | 124 | 183 | 139 | 236 |
| Future Volume (vph) | 112 | 51 | 124 | 183 | 139 | 236 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | | 0.0 | 75.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.920 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1448 | 1715 | 1649 | 0 | 1706 | 1512 |
| Flt Permitted | 0.498 | | | | 0.950 | |
| Satd. Flow (perm) | 759 | 1715 | 1649 | 0 | 1706 | 1512 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 171 | | | 257 |
| Link Speed (k/h) | | 80 | 80 | | 48 | |
| Link Distance (m) | | 500.9 | 877.6 | | 592.2 | |
| Travel Time (s) | | 22.5 | 39.5 | | 44.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 26% | 12% | 9% | 6% | 7% | 8% |
| Adj. Flow (vph) | 122 | 55 | 135 | 199 | 151 | 257 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 122 | 55 | 334 | 0 | 151 | 257 |
| Turn Type | Perm | NA | NA | | Prot | Perm |
| Protected Phases | | 4 | 8 | | 6 | |
| Permitted Phases | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 8 | | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 |
| Total Split (s) | 25.0 | 25.0 | 25.0 | | 25.0 | 25.0 |
| Total Split (%) | 50.0% | 50.0% | 50.0% | | 50.0% | 50.0% |
| Maximum Green (s) | 19.0 | 19.0 | 19.0 | | 19.0 | 19.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 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 |
| Recall Mode | None | None | None | | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 11.6 | 11.6 | 11.6 | | 19.9 | 19.9 |
| Actuated g/C Ratio | 0.27 | 0.27 | 0.27 | | 0.46 | 0.46 |
| v/c Ratio | 0.61 | 0.12 | 0.59 | | 0.19 | 0.31 |
| Control Delay | 26.7 | 11.5 | 11.1 | | 9.7 | 3.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |

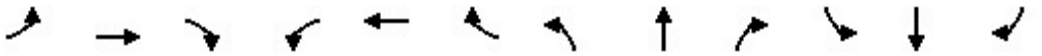


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 26.7 | 11.5 | 11.1 | | 9.7 | 3.0 |
| LOS | C | B | B | | A | A |
| Approach Delay | | 22.0 | 11.1 | | 5.5 | |
| Approach LOS | | C | B | | A | |
| Queue Length 50th (m) | 7.7 | 3.0 | 9.6 | | 6.1 | 0.0 |
| Queue Length 95th (m) | 19.5 | 8.3 | 24.8 | | 18.5 | 10.5 |
| Internal Link Dist (m) | | 476.9 | 853.6 | | 568.2 | |
| Turn Bay Length (m) | 75.0 | | | | 75.0 | |
| Base Capacity (vph) | 333 | 753 | 820 | | 780 | 831 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.07 | 0.41 | | 0.19 | 0.31 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 43.6 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.61 | | | |
| Intersection Signal Delay: 10.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 46.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 13: Baseline Road & Caron Street





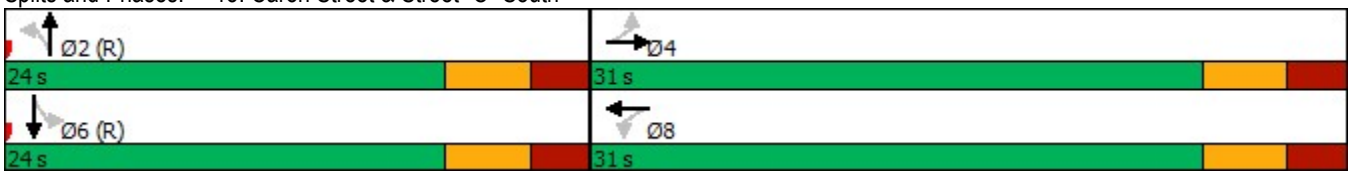
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 201 | 0 | 23 | 5 | 52 | 45 | 10 | 280 | 5 | 40 | 346 | 70 |
| Future Volume (vph) | 201 | 0 | 23 | 5 | 52 | 45 | 10 | 280 | 5 | 40 | 346 | 70 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 40.0 | | 0.0 | 40.0 | | 0.0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.986 | | | 0.940 | | | 0.998 | | | 0.975 | |
| Flt Protected | | 0.957 | | | 0.998 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1777 | 0 | 0 | 1767 | 0 | 1789 | 3571 | 0 | 1789 | 3489 | 0 |
| Flt Permitted | | 0.671 | | | 0.980 | | 0.491 | | | 0.564 | | |
| Satd. Flow (perm) | 0 | 1246 | 0 | 0 | 1735 | 0 | 925 | 3571 | 0 | 1062 | 3489 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 60 | | | 49 | | | 3 | | | 46 | |
| Link Speed (k/h) | | 48 | | | 50 | | | 60 | | | 60 | |
| Link Distance (m) | | 173.1 | | | 394.4 | | | 88.9 | | | 312.5 | |
| Travel Time (s) | | 13.0 | | | 28.4 | | | 5.3 | | | 18.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 218 | 0 | 25 | 5 | 57 | 49 | 11 | 304 | 5 | 43 | 376 | 76 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 243 | 0 | 0 | 111 | 0 | 11 | 309 | 0 | 43 | 452 | 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) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (%) | 56.4% | 56.4% | | 56.4% | 56.4% | | 43.6% | 43.6% | | 43.6% | 43.6% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 18.0 | 18.0 | | 18.0 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 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 | |
| Recall Mode | 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 | |
| Flash Dont Walk (s) | 18.0 | 18.0 | | 18.0 | 18.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 13.9 | | | 13.9 | | 29.1 | 29.1 | | 29.1 | 29.1 | |
| Actuated g/C Ratio | | 0.25 | | | 0.25 | | 0.53 | 0.53 | | 0.53 | 0.53 | |
| v/c Ratio | | 0.68 | | | 0.23 | | 0.02 | 0.16 | | 0.08 | 0.24 | |
| Control Delay | | 22.4 | | | 9.7 | | 9.2 | 8.3 | | 20.7 | 16.4 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 22.4 | | | 9.7 | | 9.2 | 8.3 | | 20.7 | 16.4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | C | | | A | | A | A | | C | B | |
| Approach Delay | | 22.4 | | | 9.7 | | | 8.3 | | | 16.8 | |
| Approach LOS | | C | | | A | | | A | | | B | |
| Queue Length 50th (m) | | 15.9 | | | 4.8 | | 0.5 | 7.4 | | 2.5 | 12.9 | |
| Queue Length 95th (m) | | 28.9 | | | 11.5 | | 3.1 | 17.1 | | m12.6 | 36.5 | |
| Internal Link Dist (m) | | 149.1 | | | 370.4 | | | 64.9 | | | 288.5 | |
| Turn Bay Length (m) | | | | | | | 40.0 | | | 40.0 | | |
| Base Capacity (vph) | | 599 | | | 815 | | 489 | 1891 | | 562 | 1868 | |
| 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 | | 0.41 | | | 0.14 | | 0.02 | 0.16 | | 0.08 | 0.24 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 55 | | | |
| Actuated Cycle Length: 55 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | | | |
| Natural Cycle: 55 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.68 | | | |
| Intersection Signal Delay: 15.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 50.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 15: Caron Street & Street "C" South



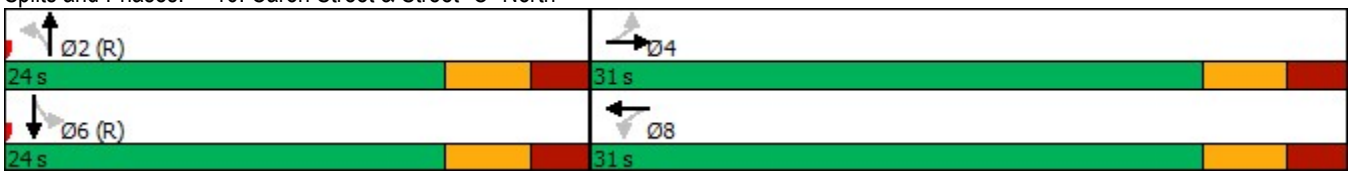
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 300 | 0 | 34 | 13 | 78 | 113 | 14 | 502 | 10 | 79 | 409 | 104 |
| Future Volume (vph) | 300 | 0 | 34 | 13 | 78 | 113 | 14 | 502 | 10 | 79 | 409 | 104 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 40.0 | | 0.0 | 50.0 | | 0.0 | 50.0 | | 50.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | | 0.911 | | | 0.997 | | | 0.970 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1601 | 0 | 1789 | 1716 | 0 | 1789 | 3568 | 0 | 1789 | 3471 | 0 |
| Flt Permitted | 0.628 | | | 0.733 | | | 0.440 | | | 0.441 | | |
| Satd. Flow (perm) | 1183 | 1601 | 0 | 1381 | 1716 | 0 | 829 | 3568 | 0 | 831 | 3471 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 183 | | | 120 | | | 4 | | | 61 | |
| Link Speed (k/h) | | 48 | | | 48 | | | 48 | | | 48 | |
| Link Distance (m) | | 123.1 | | | 399.5 | | | 312.5 | | | 319.0 | |
| Travel Time (s) | | 9.2 | | | 30.0 | | | 23.4 | | | 23.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 326 | 0 | 37 | 14 | 85 | 123 | 15 | 546 | 11 | 86 | 445 | 113 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 326 | 37 | 0 | 14 | 208 | 0 | 15 | 557 | 0 | 86 | 558 | 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) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (%) | 56.4% | 56.4% | | 56.4% | 56.4% | | 43.6% | 43.6% | | 43.6% | 43.6% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 18.0 | 18.0 | | 18.0 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 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 | |
| Recall Mode | 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 | |
| Flash Dont Walk (s) | 18.0 | 18.0 | | 18.0 | 18.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 19.6 | 19.6 | | 19.6 | 19.6 | | 23.4 | 23.4 | | 23.4 | 23.4 | |
| Actuated g/C Ratio | 0.36 | 0.36 | | 0.36 | 0.36 | | 0.43 | 0.43 | | 0.43 | 0.43 | |
| v/c Ratio | 0.77 | 0.05 | | 0.03 | 0.30 | | 0.04 | 0.37 | | 0.24 | 0.37 | |
| Control Delay | 28.0 | 0.1 | | 9.2 | 6.0 | | 14.6 | 13.0 | | 15.1 | 11.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 28.0 | 0.1 | | 9.2 | 6.0 | | 14.6 | 13.0 | | 15.1 | 11.7 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | C | A | | A | A | | B | B | | B | B | |
| Approach Delay | | 25.1 | | | 6.2 | | | 13.0 | | | 12.1 | |
| Approach LOS | | C | | | A | | | B | | | B | |
| Queue Length 50th (m) | 27.0 | 0.0 | | 0.9 | 5.6 | | 0.5 | 10.1 | | 5.4 | 17.1 | |
| Queue Length 95th (m) | 45.3 | 0.0 | | 3.1 | 14.2 | | m4.2 | 42.9 | | 16.0 | 31.7 | |
| Internal Link Dist (m) | | 99.1 | | | 375.5 | | | 288.5 | | | 295.0 | |
| Turn Bay Length (m) | 40.0 | | | 50.0 | | | 50.0 | | | 75.0 | | |
| Base Capacity (vph) | 537 | 827 | | 627 | 845 | | 352 | 1518 | | 353 | 1510 | |
| 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 | 0.61 | 0.04 | | 0.02 | 0.25 | | 0.04 | 0.37 | | 0.24 | 0.37 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 55 | |
| Actuated Cycle Length: 55 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.77 | |
| Intersection Signal Delay: 14.3 | Intersection LOS: B |
| Intersection Capacity Utilization 66.4% | ICU Level of Service C |
| Analysis Period (min) 15 | |

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

Splits and Phases: 16: Caron Street & Street "C" North

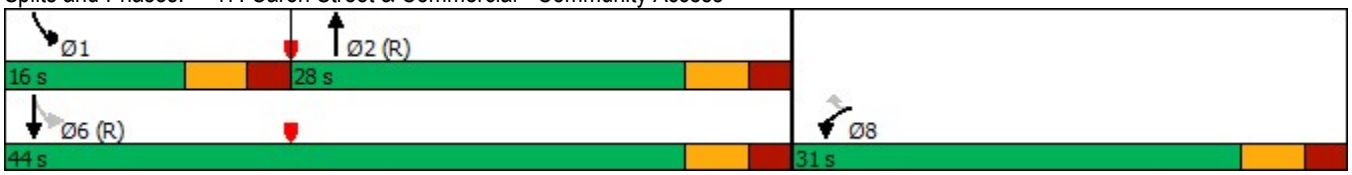


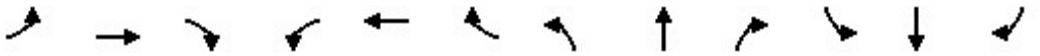
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 41 | 193 | 822 | 93 | 303 | 547 |
| Future Volume (vph) | 41 | 193 | 822 | 93 | 303 | 547 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 50.0 | 0.0 | | 50.0 | 75.0 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 |
| Frt | | 0.850 | 0.985 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1601 | 3525 | 0 | 1789 | 3579 |
| Flt Permitted | 0.950 | | | | 0.162 | |
| Satd. Flow (perm) | 1789 | 1601 | 3525 | 0 | 305 | 3579 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 210 | 16 | | | |
| Link Speed (k/h) | 50 | | 60 | | | 60 |
| Link Distance (m) | 338.5 | | 319.0 | | | 293.1 |
| Travel Time (s) | 24.4 | | 19.1 | | | 17.6 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 45 | 210 | 893 | 101 | 329 | 595 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 45 | 210 | 994 | 0 | 329 | 595 |
| Turn Type | Prot | Perm | NA | | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 31.0 | 31.0 | 24.0 | | 11.0 | 24.0 |
| Total Split (s) | 31.0 | 31.0 | 28.0 | | 16.0 | 44.0 |
| Total Split (%) | 41.3% | 41.3% | 37.3% | | 21.3% | 58.7% |
| Maximum Green (s) | 25.0 | 25.0 | 22.0 | | 10.0 | 38.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | | 7.0 |
| Flash Dont Walk (s) | 18.0 | 18.0 | 11.0 | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | | 0 |
| Act Effct Green (s) | 7.9 | 7.9 | 33.2 | | 55.1 | 55.1 |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.44 | | 0.73 | 0.73 |
| v/c Ratio | 0.24 | 0.59 | 0.63 | | 0.61 | 0.23 |
| Control Delay | 32.7 | 12.1 | 19.8 | | 18.8 | 7.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 32.7 | 12.1 | 19.8 | | 18.8 | 7.7 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| LOS | C | B | B | | B | A |
| Approach Delay | 15.7 | | 19.8 | | | 11.7 |
| Approach LOS | B | | B | | | B |
| Queue Length 50th (m) | 6.0 | 0.0 | 52.7 | | 33.7 | 18.8 |
| Queue Length 95th (m) | 13.9 | 16.7 | #98.3 | | 64.0 | 44.2 |
| Internal Link Dist (m) | 314.5 | | 295.0 | | | 269.1 |
| Turn Bay Length (m) | 50.0 | | | | 75.0 | |
| Base Capacity (vph) | 596 | 673 | 1567 | | 538 | 2627 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.31 | 0.63 | | 0.61 | 0.23 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 75 | | | |
| Actuated Cycle Length: 75 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.63 | | | |
| Intersection Signal Delay: 15.9 | | Intersection LOS: B | |
| Intersection Capacity Utilization 61.6% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 17: Caron Street & Commercial - Community Access





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 93 | 73 | 264 | 40 | 151 | 197 | 353 | 641 | 22 | 104 | 547 | 147 |
| Future Volume (vph) | 93 | 73 | 264 | 40 | 151 | 197 | 353 | 641 | 22 | 104 | 547 | 147 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 0.0 | 50.0 | | 35.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | | 0.850 | | | 0.850 | | 0.995 | | | 0.968 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1883 | 1601 | 1789 | 1883 | 1601 | 1789 | 3561 | 0 | 1789 | 3464 | 0 |
| Flt Permitted | 0.637 | | | 0.706 | | | 0.201 | | | 0.378 | | |
| Satd. Flow (perm) | 1200 | 1883 | 1601 | 1330 | 1883 | 1601 | 379 | 3561 | 0 | 712 | 3464 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 287 | | | 180 | | 7 | | | 47 | |
| Link Speed (k/h) | | 48 | | | 48 | | | 48 | | | 48 | |
| Link Distance (m) | | 413.5 | | | 239.5 | | | 293.1 | | | 361.0 | |
| Travel Time (s) | | 31.0 | | | 18.0 | | | 22.0 | | | 27.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 101 | 79 | 287 | 43 | 164 | 214 | 384 | 697 | 24 | 113 | 595 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 101 | 79 | 287 | 43 | 164 | 214 | 384 | 721 | 0 | 113 | 755 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 11.0 | 29.0 | | 29.0 | 29.0 | |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 15.0 | 44.0 | | 29.0 | 29.0 | |
| Total Split (%) | 41.3% | 41.3% | 41.3% | 41.3% | 41.3% | 41.3% | 20.0% | 58.7% | | 38.7% | 38.7% | |
| Maximum Green (s) | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 9.0 | 38.0 | | 23.0 | 23.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | | | Yes | Yes | |
| 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 | None | None | None | 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 | 18.0 | | 16.0 | | 16.0 | 16.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | 0 | 0 | |
| Act Effct Green (s) | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 50.9 | 50.9 | | 25.3 | 25.3 | |
| Actuated g/C Ratio | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.68 | 0.68 | | 0.34 | 0.34 | |
| v/c Ratio | 0.52 | 0.26 | 0.58 | 0.20 | 0.54 | 0.52 | 0.61 | 0.30 | | 0.47 | 0.63 | |
| Control Delay | 37.5 | 28.1 | 8.5 | 27.7 | 34.7 | 11.5 | 25.9 | 10.3 | | 28.3 | 22.7 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 37.5 | 28.1 | 8.5 | 27.7 | 34.7 | 11.5 | 25.9 | 10.3 | | 28.3 | 22.7 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | D | C | A | C | C | B | C | B | | C | C | |
| Approach Delay | | 18.1 | | | 22.2 | | | 15.7 | | | 23.4 | |
| Approach LOS | | B | | | C | | | B | | | C | |
| Queue Length 50th (m) | 13.3 | 10.0 | 0.0 | 5.4 | 21.7 | 4.2 | 45.1 | 21.4 | | 12.1 | 42.5 | |
| Queue Length 95th (m) | 25.1 | 19.2 | 17.3 | 12.5 | 35.5 | 19.7 | #81.2 | 62.5 | | 29.2 | 64.2 | |
| Internal Link Dist (m) | | 389.5 | | | 215.5 | | | 269.1 | | | 337.0 | |
| Turn Bay Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | | 50.0 | | |
| Base Capacity (vph) | 400 | 627 | 725 | 443 | 627 | 653 | 625 | 2418 | | 240 | 1199 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.25 | 0.13 | 0.40 | 0.10 | 0.26 | 0.33 | 0.61 | 0.30 | | 0.47 | 0.63 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
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: 0.63
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 72.5% 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: 18: Caron Street & Bronze Avenue

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 131 | 131 | 115 | 649 | 857 | 115 |
| Future Volume (vph) | 131 | 131 | 115 | 649 | 857 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | 0.0 | 20.0 | | | 0.0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (m) | 2.5 | | 2.5 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.932 | | | | 0.984 | |
| Flt Protected | 0.976 | | 0.950 | | | |
| Satd. Flow (prot) | 1649 | 0 | 1674 | 1700 | 1771 | 0 |
| Flt Permitted | 0.976 | | 0.136 | | | |
| Satd. Flow (perm) | 1649 | 0 | 240 | 1700 | 1771 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 42 | | | | 13 | |
| Link Speed (k/h) | 48 | | | 50 | 50 | |
| Link Distance (m) | 172.7 | | | 277.3 | 120.1 | |
| Travel Time (s) | 13.0 | | | 20.0 | 8.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 10% | 9% | 13% | 7% | 5% |
| Adj. Flow (vph) | 142 | 142 | 125 | 705 | 932 | 125 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 284 | 0 | 125 | 705 | 1057 | 0 |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 31.0 | | 79.0 | 79.0 | 79.0 | |
| Total Split (%) | 28.2% | | 71.8% | 71.8% | 71.8% | |
| Maximum Green (s) | 25.0 | | 73.0 | 73.0 | 73.0 | |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 18.0 | | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | 0 | |
| Act Effct Green (s) | 20.7 | | 77.3 | 77.3 | 77.3 | |
| Actuated g/C Ratio | 0.19 | | 0.70 | 0.70 | 0.70 | |
| v/c Ratio | 0.83 | | 0.74 | 0.59 | 0.85 | |
| Control Delay | 55.8 | | 42.8 | 11.6 | 21.4 | |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 55.8 | | 42.8 | 11.6 | 21.4 | |
| LOS | E | | D | B | C | |
| Approach Delay | 55.8 | | | 16.3 | 21.4 | |
| Approach LOS | E | | | B | C | |
| Queue Length 50th (m) | 50.2 | | 15.3 | 70.5 | 151.4 | |
| Queue Length 95th (m) | 77.8 | | #57.0 | 113.9 | #284.7 | |
| Internal Link Dist (m) | 148.7 | | | 253.3 | 96.1 | |
| Turn Bay Length (m) | | | 20.0 | | | |
| Base Capacity (vph) | 407 | | 168 | 1195 | 1248 | |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.70 | | 0.74 | 0.59 | 0.85 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 110 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.85 | | | |
| Intersection Signal Delay: 24.0 | | Intersection LOS: C | |
| Intersection Capacity Utilization 88.7% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 1: Caron Street & Docteur Corbeil Blvd

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 327 | 102 | 653 | 399 | 172 | 798 |
| Future Volume (vph) | 327 | 102 | 653 | 399 | 172 | 798 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | 0.0 | | 0.0 | 45.0 | |
| Storage Lanes | 1 | 0 | | 1 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.964 | | | 0.850 | | |
| Flt Protected | 0.963 | | | | 0.950 | |
| Satd. Flow (prot) | 2497 | 0 | 1865 | 1601 | 1755 | 1746 |
| Flt Permitted | 0.963 | | | | 0.102 | |
| Satd. Flow (perm) | 2497 | 0 | 1865 | 1601 | 188 | 1746 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 56 | | | 434 | | |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 331.3 | | 361.0 | | | 126.2 |
| Travel Time (s) | 23.9 | | 26.0 | | | 9.1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 50% | 2% | 3% | 2% | 4% | 10% |
| Adj. Flow (vph) | 355 | 111 | 710 | 434 | 187 | 867 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 466 | 0 | 710 | 434 | 187 | 867 |
| Turn Type | Prot | | NA | Perm | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 31.0 | | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 31.0 | | 38.0 | 38.0 | 11.0 | 49.0 |
| Total Split (%) | 38.8% | | 47.5% | 47.5% | 13.8% | 61.3% |
| Maximum Green (s) | 25.0 | | 32.0 | 32.0 | 5.0 | 43.0 |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | C-Max | C-Max | None | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 18.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 18.6 | | 34.2 | 34.2 | 49.4 | 49.4 |
| Actuated g/C Ratio | 0.23 | | 0.43 | 0.43 | 0.62 | 0.62 |
| v/c Ratio | 0.75 | | 0.89 | 0.47 | 0.63 | 0.80 |
| Control Delay | 32.4 | | 41.1 | 8.8 | 24.3 | 20.9 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Total Delay | 32.4 | | 41.1 | 8.8 | 24.3 | 20.9 |
| LOS | C | | D | A | C | C |
| Approach Delay | 32.4 | | 28.9 | | | 21.5 |
| Approach LOS | C | | C | | | C |
| Queue Length 50th (m) | 29.8 | | 73.4 | 11.1 | 10.9 | 90.0 |
| Queue Length 95th (m) | 41.4 | | #162.3 | 33.0 | #48.9 | #191.4 |
| Internal Link Dist (m) | 307.3 | | 337.0 | | | 102.2 |
| Turn Bay Length (m) | 75.0 | | | | 45.0 | |
| Base Capacity (vph) | 818 | | 797 | 932 | 297 | 1078 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | | 0.89 | 0.47 | 0.63 | 0.80 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 80 | | | |
| Actuated Cycle Length: 80 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay: 26.6 | | Intersection LOS: C | |
| Intersection Capacity Utilization 71.4% | | 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: 2: Caron Street & David Street

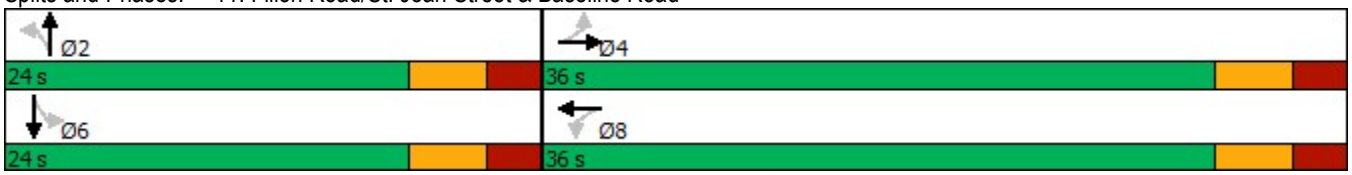
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 397 | 392 | 0 | 1 | 177 | 77 | 0 | 1 | 1 | 66 | 2 | 237 |
| Future Volume (vph) | 397 | 392 | 0 | 1 | 177 | 77 | 0 | 1 | 1 | 66 | 2 | 237 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 0 | | 0 | 0 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.959 | | | 0.932 | | | 0.851 | |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1715 | 0 | 0 | 1742 | 0 | 0 | 1755 | 0 | 1789 | 1572 | 0 |
| Flt Permitted | 0.626 | | | | 0.999 | | | | | 0.757 | | |
| Satd. Flow (perm) | 1179 | 1715 | 0 | 0 | 1740 | 0 | 0 | 1755 | 0 | 1426 | 1572 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | 52 | | | 1 | | | 258 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 280.0 | | | 1373.9 | | | 82.7 | | | 605.0 | |
| Travel Time (s) | | 16.8 | | | 82.4 | | | 5.0 | | | 36.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 12% | 2% | 2% | 7% | 3% | 2% | 2% | 2% | 2% | 2% | 4% |
| Adj. Flow (vph) | 432 | 426 | 0 | 1 | 192 | 84 | 0 | 1 | 1 | 72 | 2 | 258 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 432 | 426 | 0 | 0 | 277 | 0 | 0 | 2 | 0 | 72 | 260 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (%) | 60.0% | 60.0% | | 60.0% | 60.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 18.0 | 18.0 | | 18.0 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | | 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 | |
| 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) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 24.0 | 24.0 | | | 24.0 | | | 18.2 | | 18.2 | 18.2 | |
| Actuated g/C Ratio | 0.44 | 0.44 | | | 0.44 | | | 0.33 | | 0.33 | 0.33 | |
| v/c Ratio | 0.83 | 0.56 | | | 0.35 | | | 0.00 | | 0.15 | 0.37 | |
| Control Delay | 28.8 | 14.1 | | | 8.8 | | | 13.0 | | 16.0 | 4.5 | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | | | 0.0 | | 0.0 | 0.0 | |

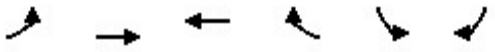
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Delay | 28.8 | 14.1 | | | 8.8 | | | 13.0 | | 16.0 | 4.5 | |
| LOS | C | B | | | A | | | B | | B | A | |
| Approach Delay | | 21.5 | | | 8.8 | | | 13.0 | | | 7.0 | |
| Approach LOS | | C | | | A | | | B | | | A | |
| Queue Length 50th (m) | 34.6 | 28.7 | | | 13.1 | | | 0.1 | | 5.3 | 0.2 | |
| Queue Length 95th (m) | #78.6 | 49.3 | | | 25.5 | | | 1.3 | | 13.9 | 13.7 | |
| Internal Link Dist (m) | | 256.0 | | | 1349.9 | | | 58.7 | | | 581.0 | |
| Turn Bay Length (m) | 75.0 | | | | | | | | | 75.0 | | |
| Base Capacity (vph) | 658 | 958 | | | 995 | | | 589 | | 478 | 698 | |
| 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 | 0.66 | 0.44 | | | 0.28 | | | 0.00 | | 0.15 | 0.37 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 54.4 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.83 | | | |
| Intersection Signal Delay: 15.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 65.8% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

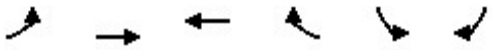
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Filion Road/St. Jean Street & Baseline Road





| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 280 | 182 | 88 | 192 | 203 | 174 |
| Future Volume (vph) | 280 | 182 | 88 | 192 | 203 | 174 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 75.0 | | | 0.0 | 75.0 | 0.0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.907 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1715 | 1708 | 0 | 1755 | 1601 |
| Flt Permitted | 0.570 | | | | 0.950 | |
| Satd. Flow (perm) | 1074 | 1715 | 1708 | 0 | 1755 | 1601 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 209 | | | 189 |
| Link Speed (k/h) | | 80 | 80 | | 50 | |
| Link Distance (m) | | 500.9 | 877.6 | | 592.2 | |
| Travel Time (s) | | 22.5 | 39.5 | | 42.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 12% | 2% | 2% | 4% | 2% |
| Adj. Flow (vph) | 304 | 198 | 96 | 209 | 221 | 189 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 304 | 198 | 305 | 0 | 221 | 189 |
| Turn Type | Perm | NA | NA | | Prot | Perm |
| Protected Phases | | 4 | 8 | | 6 | |
| Permitted Phases | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 8 | | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | | 24.0 | 24.0 |
| Total Split (s) | 26.0 | 26.0 | 26.0 | | 24.0 | 24.0 |
| Total Split (%) | 52.0% | 52.0% | 52.0% | | 48.0% | 48.0% |
| Maximum Green (s) | 20.0 | 20.0 | 20.0 | | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 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 |
| Recall Mode | None | None | None | | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 16.7 | 16.7 | 16.7 | | 18.1 | 18.1 |
| Actuated g/C Ratio | 0.36 | 0.36 | 0.36 | | 0.39 | 0.39 |
| v/c Ratio | 0.80 | 0.33 | 0.41 | | 0.33 | 0.26 |
| Control Delay | 31.5 | 12.3 | 5.7 | | 12.9 | 3.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |

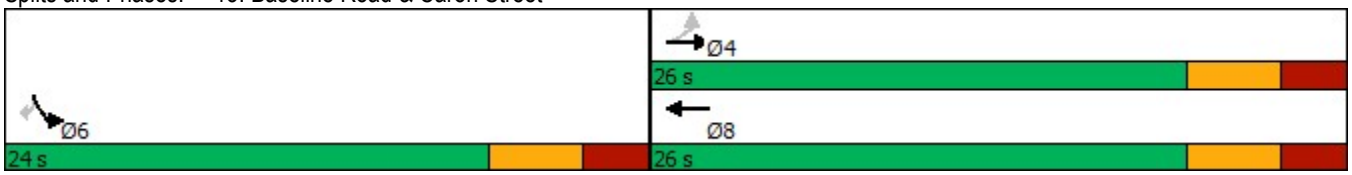


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Total Delay | 31.5 | 12.3 | 5.7 | | 12.9 | 3.4 |
| LOS | C | B | A | | B | A |
| Approach Delay | | 23.9 | 5.7 | | 8.5 | |
| Approach LOS | | C | A | | A | |
| Queue Length 50th (m) | 21.5 | 11.4 | 5.2 | | 13.5 | 0.0 |
| Queue Length 95th (m) | #53.9 | 22.8 | 17.4 | | 27.2 | 9.4 |
| Internal Link Dist (m) | | 476.9 | 853.6 | | 568.2 | |
| Turn Bay Length (m) | 75.0 | | | | 75.0 | |
| Base Capacity (vph) | 461 | 737 | 853 | | 678 | 735 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.66 | 0.27 | 0.36 | | 0.33 | 0.26 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 50 | | | |
| Actuated Cycle Length: 46.9 | | | |
| Natural Cycle: 55 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.80 | | | |
| Intersection Signal Delay: 14.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 58.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 13: Baseline Road & Caron Street

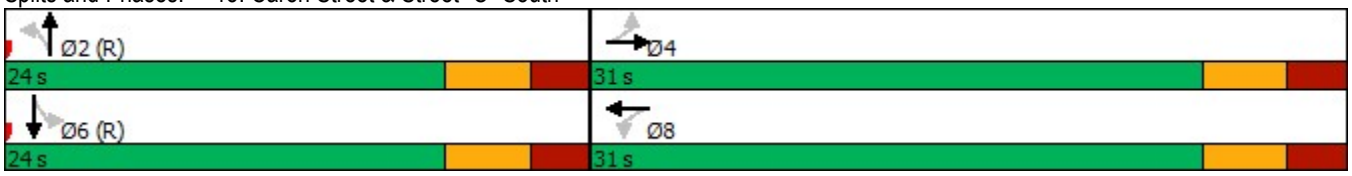


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 106 | 10 | 14 | 8 | 0 | 65 | 22 | 443 | 10 | 86 | 353 | 179 |
| Future Volume (vph) | 106 | 10 | 14 | 8 | 0 | 65 | 22 | 443 | 10 | 86 | 353 | 179 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 40.0 | | 0.0 | 40.0 | | 0.0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.986 | | | 0.880 | | | 0.997 | | | 0.949 | |
| Flt Protected | | 0.961 | | | 0.994 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1785 | 0 | 0 | 1647 | 0 | 1789 | 3568 | 0 | 1789 | 3396 | 0 |
| Flt Permitted | | 0.711 | | | 0.946 | | 0.434 | | | 0.472 | | |
| Satd. Flow (perm) | 0 | 1320 | 0 | 0 | 1568 | 0 | 817 | 3568 | 0 | 889 | 3396 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 14 | | | 71 | | | 4 | | | 172 | |
| Link Speed (k/h) | | 48 | | | 48 | | | 48 | | | 48 | |
| Link Distance (m) | | 173.1 | | | 394.4 | | | 88.9 | | | 312.5 | |
| Travel Time (s) | | 13.0 | | | 29.6 | | | 6.7 | | | 23.4 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 115 | 11 | 15 | 9 | 0 | 71 | 24 | 482 | 11 | 93 | 384 | 195 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 141 | 0 | 0 | 80 | 0 | 24 | 493 | 0 | 93 | 579 | 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) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (%) | 56.4% | 56.4% | | 56.4% | 56.4% | | 43.6% | 43.6% | | 43.6% | 43.6% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 18.0 | 18.0 | | 18.0 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 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 | |
| Recall Mode | 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 | |
| Flash Dont Walk (s) | 18.0 | 18.0 | | 18.0 | 18.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | | 10.6 | | | 10.6 | | 35.9 | 35.9 | | 35.9 | 35.9 | |
| Actuated g/C Ratio | | 0.19 | | | 0.19 | | 0.65 | 0.65 | | 0.65 | 0.65 | |
| v/c Ratio | | 0.53 | | | 0.22 | | 0.05 | 0.21 | | 0.16 | 0.25 | |
| Control Delay | | 24.3 | | | 7.5 | | 6.7 | 6.1 | | 7.5 | 4.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 24.3 | | | 7.5 | | 6.7 | 6.1 | | 7.5 | 4.6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | | C | | | A | | A | A | | A | A | |
| Approach Delay | | 24.3 | | | 7.5 | | | 6.1 | | | 5.0 | |
| Approach LOS | | C | | | A | | | A | | | A | |
| Queue Length 50th (m) | | 11.4 | | | 0.7 | | 0.9 | 10.4 | | 3.7 | 8.5 | |
| Queue Length 95th (m) | | 22.3 | | | 8.2 | | 4.1 | 21.2 | | 11.7 | 18.9 | |
| Internal Link Dist (m) | | 149.1 | | | 370.4 | | | 64.9 | | | 288.5 | |
| Turn Bay Length (m) | | | | | | | 40.0 | | | 40.0 | | |
| Base Capacity (vph) | | 607 | | | 751 | | 533 | 2331 | | 580 | 2277 | |
| 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 | | 0.23 | | | 0.11 | | 0.05 | 0.21 | | 0.16 | 0.25 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 55 | | | |
| Actuated Cycle Length: 55 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | | | |
| Natural Cycle: 55 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.53 | | | |
| Intersection Signal Delay: 7.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 48.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: Caron Street & Street "C" South

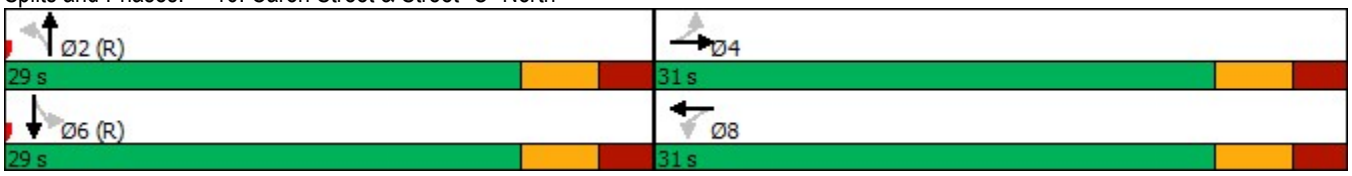


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 158 | 14 | 22 | 16 | 0 | 130 | 30 | 564 | 21 | 177 | 581 | 267 |
| Future Volume (vph) | 158 | 14 | 22 | 16 | 0 | 130 | 30 | 564 | 21 | 177 | 581 | 267 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 40.0 | | 0.0 | 50.0 | | 0.0 | 50.0 | | 50.0 | 75.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.908 | | | 0.850 | | | 0.995 | | | 0.953 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1710 | 0 | 1789 | 1601 | 0 | 1789 | 3561 | 0 | 1789 | 3410 | 0 |
| Flt Permitted | 0.667 | | | 0.732 | | | 0.285 | | | 0.410 | | |
| Satd. Flow (perm) | 1256 | 1710 | 0 | 1379 | 1601 | 0 | 537 | 3561 | 0 | 772 | 3410 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 24 | | | 132 | | | 7 | | | 145 | |
| Link Speed (k/h) | | 48 | | | 48 | | | 48 | | | 48 | |
| Link Distance (m) | | 123.1 | | | 399.5 | | | 312.5 | | | 319.0 | |
| Travel Time (s) | | 9.2 | | | 30.0 | | | 23.4 | | | 23.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 172 | 15 | 24 | 17 | 0 | 141 | 33 | 613 | 23 | 192 | 632 | 290 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 172 | 39 | 0 | 17 | 141 | 0 | 33 | 636 | 0 | 192 | 922 | 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) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 29.0 | 29.0 | | 29.0 | 29.0 | |
| Total Split (%) | 51.7% | 51.7% | | 51.7% | 51.7% | | 48.3% | 48.3% | | 48.3% | 48.3% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 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 | |
| Recall Mode | 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 | |
| Flash Dont Walk (s) | 18.0 | 18.0 | | 18.0 | 18.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 13.6 | 13.6 | | 13.2 | 13.2 | | 38.3 | 38.3 | | 38.3 | 38.3 | |
| Actuated g/C Ratio | 0.23 | 0.23 | | 0.22 | 0.22 | | 0.64 | 0.64 | | 0.64 | 0.64 | |
| v/c Ratio | 0.61 | 0.10 | | 0.06 | 0.31 | | 0.10 | 0.28 | | 0.39 | 0.41 | |
| Control Delay | 29.0 | 9.7 | | 15.8 | 6.0 | | 8.8 | 7.5 | | 12.1 | 7.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 29.0 | 9.7 | | 15.8 | 6.0 | | 8.8 | 7.5 | | 12.1 | 7.3 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | C | A | | B | A | | A | A | | B | A | |
| Approach Delay | | 25.4 | | | 7.1 | | | 7.5 | | | 8.1 | |
| Approach LOS | | C | | | A | | | A | | | A | |
| Queue Length 50th (m) | 17.0 | 1.3 | | 1.5 | 0.8 | | 1.5 | 16.6 | | 10.6 | 21.8 | |
| Queue Length 95th (m) | 29.1 | 6.3 | | 4.8 | 10.3 | | 6.3 | 32.2 | | 31.7 | 43.8 | |
| Internal Link Dist (m) | | 99.1 | | | 375.5 | | | 288.5 | | | 295.0 | |
| Turn Bay Length (m) | 40.0 | | | 50.0 | | | 50.0 | | | 75.0 | | |
| Base Capacity (vph) | 523 | 726 | | 574 | 744 | | 342 | 2275 | | 492 | 2229 | |
| 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 | 0.33 | 0.05 | | 0.03 | 0.19 | | 0.10 | 0.28 | | 0.39 | 0.41 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 60 | | | |
| Actuated Cycle Length: 60 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.61 | | | |
| Intersection Signal Delay: 9.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 65.6% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 16: Caron Street & Street "C" North



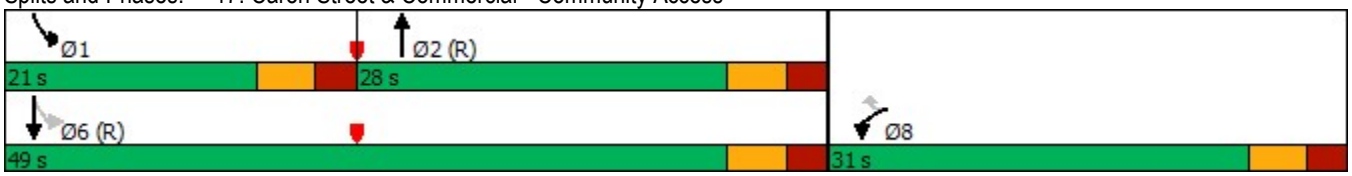
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 123 | 323 | 783 | 70 | 365 | 902 |
| Future Volume (vph) | 123 | 323 | 783 | 70 | 365 | 902 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 50.0 | 0.0 | | 50.0 | 75.0 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (m) | 2.5 | | | | 2.5 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 |
| Frt | | 0.850 | 0.988 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1789 | 1601 | 3536 | 0 | 1789 | 3579 |
| Flt Permitted | 0.950 | | | | 0.164 | |
| Satd. Flow (perm) | 1789 | 1601 | 3536 | 0 | 309 | 3579 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 351 | 11 | | | |
| Link Speed (k/h) | 48 | | 48 | | | 48 |
| Link Distance (m) | 338.5 | | 319.0 | | | 293.1 |
| Travel Time (s) | 25.4 | | 23.9 | | | 22.0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 134 | 351 | 851 | 76 | 397 | 980 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 134 | 351 | 927 | 0 | 397 | 980 |
| Turn Type | Prot | Perm | NA | | pm+pt | NA |
| Protected Phases | 8 | | 2 | | 1 | 6 |
| Permitted Phases | | 8 | | | 6 | |
| Detector Phase | 8 | 8 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 31.0 | 31.0 | 24.0 | | 11.0 | 24.0 |
| Total Split (s) | 31.0 | 31.0 | 28.0 | | 21.0 | 49.0 |
| Total Split (%) | 38.8% | 38.8% | 35.0% | | 26.3% | 61.3% |
| Maximum Green (s) | 25.0 | 25.0 | 22.0 | | 15.0 | 43.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | | 7.0 |
| Flash Dont Walk (s) | 18.0 | 18.0 | 11.0 | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | | 0 |
| Act Effct Green (s) | 11.3 | 11.3 | 32.1 | | 56.7 | 56.7 |
| Actuated g/C Ratio | 0.14 | 0.14 | 0.40 | | 0.71 | 0.71 |
| v/c Ratio | 0.53 | 0.67 | 0.65 | | 0.71 | 0.39 |
| Control Delay | 38.9 | 10.4 | 24.6 | | 19.7 | 13.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 38.9 | 10.4 | 24.6 | | 19.7 | 13.1 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| LOS | D | B | C | | B | B |
| Approach Delay | 18.2 | | 24.6 | | | 15.0 |
| Approach LOS | B | | C | | | B |
| Queue Length 50th (m) | 19.2 | 0.0 | 58.3 | | 45.4 | 57.4 |
| Queue Length 95th (m) | 33.5 | 20.7 | #109.3 | | m75.1 | 90.6 |
| Internal Link Dist (m) | 314.5 | | 295.0 | | | 269.1 |
| Turn Bay Length (m) | 50.0 | | | | 75.0 | |
| Base Capacity (vph) | 559 | 741 | 1423 | | 574 | 2536 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.24 | 0.47 | 0.65 | | 0.69 | 0.39 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 80 | | | |
| Actuated Cycle Length: 80 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.71 | | | |
| Intersection Signal Delay: 18.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 65.9% | | 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: 17: Caron Street & Commercial - Community Access



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 153 | 173 | 450 | 36 | 122 | 173 | 336 | 727 | 44 | 224 | 780 | 121 |
| Future Volume (vph) | 153 | 173 | 450 | 36 | 122 | 173 | 336 | 727 | 44 | 224 | 780 | 121 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 0.0 | 50.0 | | 35.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 2.5 | | | 2.5 | | | 2.5 | | | 2.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | | 0.850 | | | 0.850 | | 0.991 | | | 0.980 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1789 | 1883 | 1601 | 1789 | 1883 | 1601 | 1789 | 3546 | 0 | 1789 | 3507 | 0 |
| Flt Permitted | 0.672 | | | 0.589 | | | 0.128 | | | 0.300 | | |
| Satd. Flow (perm) | 1266 | 1883 | 1601 | 1109 | 1883 | 1601 | 241 | 3546 | 0 | 565 | 3507 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 337 | | | 188 | | 8 | | | 22 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 413.5 | | | 239.5 | | | 293.1 | | | 361.0 | |
| Travel Time (s) | | 29.8 | | | 17.2 | | | 21.1 | | | 26.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 166 | 188 | 489 | 39 | 133 | 188 | 365 | 790 | 48 | 243 | 848 | 132 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 166 | 188 | 489 | 39 | 133 | 188 | 365 | 838 | 0 | 243 | 980 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 19.0 | 33.0 | | 16.0 | 30.0 | |
| Total Split (%) | 38.8% | 38.8% | 38.8% | 38.8% | 38.8% | 38.8% | 23.8% | 41.3% | | 20.0% | 37.5% | |
| Maximum Green (s) | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 13.0 | 27.0 | | 10.0 | 24.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 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 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | | | | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | Yes | |
| 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 | None | None | None | C-Max | | None | C-Max | |
| Walk Time (s) | 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 | 18.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | 0 | |
| Act Effct Green (s) | 17.1 | 17.1 | 17.1 | 17.1 | 17.1 | 17.1 | 49.7 | 35.0 | | 39.5 | 29.6 | |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.62 | 0.44 | | 0.49 | 0.37 | |
| v/c Ratio | 0.61 | 0.47 | 0.81 | 0.16 | 0.33 | 0.38 | 0.82 | 0.54 | | 0.57 | 0.75 | |
| Control Delay | 37.1 | 29.8 | 19.7 | 24.3 | 27.0 | 6.0 | 41.4 | 24.4 | | 15.0 | 27.6 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 37.1 | 29.8 | 19.7 | 24.3 | 27.0 | 6.0 | 41.4 | 24.4 | | 15.0 | 27.6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOS | D | C | B | C | C | A | D | C | | B | C | |
| Approach Delay | | 25.4 | | | 15.7 | | | 29.5 | | | 25.1 | |
| Approach LOS | | C | | | B | | | C | | | C | |
| Queue Length 50th (m) | 23.2 | 25.3 | 20.4 | 4.9 | 17.4 | 0.0 | 47.9 | 33.6 | | 15.7 | 61.3 | |
| Queue Length 95th (m) | 36.7 | 37.7 | 49.7 | 11.0 | 27.7 | 13.1 | #97.3 | 80.5 | | m30.8 | #109.0 | |
| Internal Link Dist (m) | | 389.5 | | | 215.5 | | | 269.1 | | | 337.0 | |
| Turn Bay Length (m) | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | | 50.0 | | |
| Base Capacity (vph) | 395 | 588 | 732 | 346 | 588 | 629 | 447 | 1556 | | 448 | 1313 | |
| 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 | 0.42 | 0.32 | 0.67 | 0.11 | 0.23 | 0.30 | 0.82 | 0.54 | | 0.54 | 0.75 | |

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
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: 0.82
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 78.9% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Caron Street & Bronze Avenue

# Annex “F”
# Synchro Analysis – Caron 2043 Ultimate Conditions – Street “B” Roundabout

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 6.7 |
| Intersection LOS | A |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Entry Lanes | 2 | 2 | 2 | 2 |
| Conflicting Circle Lanes | 2 | 2 | 2 | 2 |
| Adj Approach Flow, veh/h | 352 | 215 | 554 | 623 |
| Demand Flow Rate, veh/h | 357 | 218 | 561 | 632 |
| Vehicles Circulating, veh/h | 535 | 870 | 404 | 112 |
| Vehicles Exiting, veh/h | 209 | 95 | 488 | 976 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 8.7 | 7.7 | 6.7 | 5.1 |
| Approach LOS | A | A | A | A |

| Lane | Left | Right | Left | Right | Left | Right | Left | Right |
|---|---|---|---|---|---|---|---|---|
| Designated Moves | LT | TR | LT | TR | LT | TR | LT | TR |
| Assumed Moves | L | TR | LT | R | LT | TR | LT | TR |
| RT Channelized | | | | | | | | |
| Lane Util | 0.896 | 0.104 | 0.445 | 0.555 | 0.471 | 0.529 | 0.470 | 0.530 |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 |
| Entry Flow, veh/h | 320 | 37 | 97 | 121 | 264 | 297 | 297 | 335 |
| Cap Entry Lane, veh/h | 825 | 901 | 606 | 678 | 931 | 1007 | 1218 | 1291 |
| Entry HV Adj Factor | 0.988 | 0.973 | 0.988 | 0.983 | 0.986 | 0.988 | 0.986 | 0.986 |
| Flow Entry, veh/h | 316 | 36 | 96 | 119 | 260 | 293 | 293 | 330 |
| Cap Entry, veh/h | 815 | 877 | 599 | 667 | 917 | 995 | 1200 | 1273 |
| V/C Ratio | 0.388 | 0.041 | 0.160 | 0.179 | 0.284 | 0.295 | 0.244 | 0.259 |
| Control Delay, s/veh | 9.1 | 4.5 | 7.9 | 7.5 | 6.9 | 6.6 | 5.2 | 5.1 |
| LOS | A | A | A | A | A | A | A | A |
| 95th %tile Queue, veh | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.0 |
| Intersection LOS | A |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Entry Lanes | 2 | 2 | 2 | 2 |
| Conflicting Circle Lanes | 2 | 2 | 2 | 2 |
| Adj Approach Flow, veh/h | 204 | 154 | 648 | 1079 |
| Demand Flow Rate, veh/h | 206 | 156 | 656 | 1095 |
| Vehicles Circulating, veh/h | 827 | 802 | 366 | 49 |
| Vehicles Exiting, veh/h | 317 | 220 | 667 | 909 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 8.5 | 7.1 | 7.0 | 6.7 |
| Approach LOS | A | A | A | A |

| Lane | Left | Right | Left | Right | Left | Right | Left | Right |
|---|---|---|---|---|---|---|---|---|
| Designated Moves | LT | TR | LT | TR | LT | TR | LT | TR |
| Assumed Moves | L | TR | LT | R | LT | TR | LT | TR |
| RT Channelized | | | | | | | | |
| Lane Util | 0.816 | 0.184 | 0.109 | 0.891 | 0.470 | 0.530 | 0.470 | 0.530 |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 |
| Entry Flow, veh/h | 168 | 38 | 17 | 139 | 308 | 348 | 515 | 580 |
| Cap Entry Lane, veh/h | 631 | 703 | 645 | 718 | 964 | 1040 | 1290 | 1362 |
| Entry HV Adj Factor | 0.988 | 0.995 | 1.000 | 0.986 | 0.988 | 0.986 | 0.985 | 0.986 |
| Flow Entry, veh/h | 166 | 38 | 17 | 137 | 304 | 343 | 507 | 572 |
| Cap Entry, veh/h | 623 | 699 | 645 | 708 | 953 | 1026 | 1271 | 1344 |
| V/C Ratio | 0.266 | 0.054 | 0.026 | 0.194 | 0.320 | 0.334 | 0.399 | 0.426 |
| Control Delay, s/veh | 9.2 | 5.7 | 5.9 | 7.3 | 7.1 | 6.9 | 6.7 | 6.8 |
| LOS | A | A | A | A | A | A | A | A |
| 95th %tile Queue, veh | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 2 |