Engineers, Planners & Landscape Architects

**Engineering**

- Land/Site Development
- Municipal Infrastructure
- Environmental/ Water Resources
- Traffic/ Transportation
- Recreational

**Planning**

- Land/Site Development
- Planning Application Management
- Municipal Planning
- Urban Design
- Expert Witness (OLT)
- Wireless Industry

**Landscape Architecture**

- Streetscapes & Public Amenities
- Open Space, Parks & Recreation
- Community & Residential
- Commercial & Institutional
- Environmental Restoration

# SerenVita Site
# 2505 and 2707 Solandt Road, Ottawa

## Transportation Impact Assessment

# SerenVita Site
# 2505 and 2707 Solandt Road

# Transportation Impact Assessment

Prepared By:

**NOVATECH**
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario
K2M 1P6

January 2026

Novatech File: 124150A
Ref: R-2025-107

January 28, 2026

City of Ottawa
Planning, Development, and Building Services Department
110 Laurier Avenue West, 4th Floor
Ottawa, ON  K1P 1J1

**Attention:** **Ms. Becca Conrod**
**Transportation Project Manager, Infrastructure Approvals**

Dear Ms. Conrod:

**Reference:** **2505 and 2707 Solandt Road**
**Transportation Impact Assessment**
**Novatech File No. 124150A**

---

We are pleased to submit the following Transportation Impact Assessment (TIA), in support of Zoning By-Law Amendment and Site Plan Control applications at 2505 and 2707 Solandt Road, for your review and signoff. The structure and format of this report is in accordance with the City of Ottawa's *Revised Transportation Impact Assessment Guidelines* (June 2023).

If you have any questions or comments regarding this report, please feel free to contact Jennifer Luong, or the undersigned.

Yours truly,

**NOVATECH**

Joshua Audia, P.Eng.
Project Engineer | Transportation

Cc: Silk Development Group



Suite 200, 240 Michael Cowpland Drive, Ottawa ON  K2M 1P6   Tel: 613.254.9643   Fax: 613.254.5867   www.novatech-eng.com

# Certification Form for Transportation Impact Assessment (TIA) Study Program Manager

## TIA Plan Reports

On April 14, 2022, the Province's Bill 109 received Royal Assent providing legislative direction to implement the More Homes for Everyone Act, 2022 aiming to increase the supply of a range of housing options to make housing more affordable. Revisions have been made to the TIA guidelines to comply with Bill 109 and streamline the process for applicants and staff.

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

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

## Certification

- ☑ I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines (Update Effective July 2023);
- ☑ I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
- ☑ I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and

☑ I am either a licensed or registered[1] professional in good standing, whose field of expertise [check ✓ appropriate field(s)]:

☑ is either transportation engineering

☐ or transportation planning.

Dated at Ottawa this 28th day of January, 20 26.

(City)

Name: Jennifer Luong, P.Eng.

Professional Title: Senior Project Manager

_______________________________________________

Signature of Individual certifier that they meet the above four criteria

| **Office Contact Information (Please Print)** | |
|---|---|
| Address: | 240 Michael Cowpland Drive, Suite 200 |
| City / Postal Code: | Ottawa, ON K2M 1P6 |
| Telephone / Extension: | 613-254-9643 x 254 |
| E-Mail Address: | j.luong@novatech-eng.com |

**Stamp**


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

## TABLE OF CONTENTS

**Figures**



**Tables**

**Appendices**

## EXECUTIVE SUMMARY

This Transportation Impact Assessment (TIA) has been prepared in support of Zoning By-Law Amendment and Site Plan Control applications for the properties located at 2505 and 2707 Solandt Road. The subject site is approximately 4.10 hectares in area. The 2505 Solandt Road site is occupied by a surface parking lot and the 2707 Solandt Road is vacant.

The subject site is surrounded by the following:

- The Marshes Golf Club to the north and east,
- Solandt Road, followed by offices to the south, and
- Offices, followed by Legget Drive to the west.

The proposed development is a wellness centre, consisting of a three-storey primary building with a total gross floor area (GFA) of 47,275 $ft^2$, and several single-storey accessory buildings. A total of 218 at-grade parking spaces are proposed. Access to the proposed development will be provided via a single two-way driveway to Solandt Road. The development will be constructed in a single phase, with a buildout year of 2027.

The subject site is designated as 'Kanata North Economic District' on Schedule B5 of the City of Ottawa's *Official Plan*. The implemented zoning for the property is 'Business Park Industrial Zone (Kanata North Business Park)' (IP6), and the site is not within any community design plan or secondary plan areas.

The study area for this report includes the boundary roadway Solandt Road, as well as the intersections at Terry Fox Drive/Legget Drive, Legget Drive/Solandt Road, March Road/Solandt Road, and March Road/Carling Avenue/Station Road.

The selected time periods for this report are the weekday AM and PM peak hours, as they represent the 'worst case' combination of site generated traffic and adjacent street traffic. As the proposed development will also be a weekend traffic generator, a comparison of Saturday peak hour volumes and weekday peak hour volumes at March Road/Carling Avenue/Station Road was conducted. The weekday peak hours were selected as the only time periods for analysis, as the Saturday peak hour volumes are approximately 50% to 55% of the weekday peak hour volumes and the worst case combination of site traffic and adjacent street traffic is clearly during the weekday peak hours. The buildout year 2027 and horizon year 2032 have been considered.

The conclusions and recommendations of this TIA can be summarized as follows:

<u>*Access Intersections*</u>

- A single full-movement access to Solandt Road is proposed at the terminus of the roadway, in the same location as one of the two existing unused parking lot accesses. The proposed access generally meets the relevant provisions of the City's *Private Approach By-Law* (PABL) and the Transportation Association of Canada (TAC)'s *Geometric Design Guide for Canadian Roads*. A 6.0m-wide emergency access at the community pathway (i.e. at the western limit of the site) is also proposed, but will not provide access to any parking.

*Site-Generated Traffic*

- The proposed spa is projected to generate 150 person trips (including 68 vehicle trips) during the AM peak hour and 300 person trips (including 135 vehicle trips) during the PM peak hour.

*Development Design and Parking*

- A pedestrian walkway is proposed to connect the lower-floor spa entrance and accessible parking spaces to new concrete sidewalks on the north side of Solandt Road at the cul-de-sac. Three pedestrian walkway spines are also proposed within the primary parking lot to connect to the upper-floor spa entrance further north. Of these three spines, the southern and central walkways include stairs, and the north does not. Additionally, a community access pathway is proposed at the western limit of the subject site. The community access pathway will exit the subject site at the northwestern corner, for a possible future connection to existing pathways within 515 Legget Drive and 525 Legget Drive (Brookstreet Hotel). That connection is not a part of this development application. A new bus stop and shelter pad are proposed at the unused stop #7548, on the north side of Solandt Road.

- A total of 18 exterior bicycle parking spaces are proposed adjacent to the lower-floor spa entrance, which is also adjacent to the proposed access location at the Solandt Road cul-de-sac.

- Loading, delivery, garbage, and maintenance vehicles are proposed to enter and exit the facility by entering the Solandt Road access and driving through the parking area to the service area directly north of the main building. These vehicles will drive forward or reverse into the service area as required. The service area will include earth bins at the northwestern corner and designated loading spaces connected to the northern end of the proposed main building.

- The primary fire route for the proposed spa includes the proposed Solandt Road access, the perimeter surrounding the parking area, and drop-off aisle that runs in front of the upper-floor spa entrance. Fire trucks will be able to drive forward along the primary route, as the route forms a continuous loop. Additionally, an emergency access/fire route is proposed at the western limit of the site, part of which shares the proposed community access pathway discussed in the previous section. A hammerhead is proposed within the spa area for fire trucks to turn around on-site, as they would otherwise be required to drive forward in and reverse out.

- All parking/loading requirements will be met by the proposed development.

*Boundary Streets*

- Solandt Road does not achieve the target pedestrian level of service (PLOS) A or bicycle level of service (BLOS) B, and does achieve the target transit level of service (TLOS) E.

- The existing sidewalk on Solandt Road achieves a PLOS D, as it is approximately 1.5m. Widening the sidewalk to 2.0m and maintaining the boulevard along the subject site’s frontage is proposed as part of the spa development.

- The target BLOS B can be achieved while maintaining on-street parking if 1.8m-wide bike lanes are implemented with a minimum buffer of 0.6m to mitigate dooring. Alternatively, the target BLOS B can be achieved while removing on-street parking if 2.0m-wide bike lanes are implemented with a minimum buffer of 0.3m. These options are identified for the City's consideration. Solandt Road has an existing width of 11.0m.

*Transportation Demand Management*

- The proponent will consider implementing the following TDM measures:
    - Display local area maps with walking/cycling access routes and key destinations at major entrances;
    - Display relevant transit schedules and route maps at entrances;
    - Provide online links to OC Transpo and STO information;
    - Provide on-site amenities/services to minimize mid-day or mid-commute errands.

*Intersection MMLOS*

- The results of the intersection MMLOS analysis can be summarized as follows:
    - No study area intersections meet the target PLOS A;
    - No study area intersections meet the target BLOS A or B;
    - Legget Drive/Solandt Road meets the target TLOS, while March Road/Solandt Road and March Road/Carling Avenue/Station Road do not meet the target TLOS A;
    - All study area intersections meet the target Auto LOS E.

- There is limited opportunity in improving any approach to the target PLOS A without restricting turning movements.

- A protected intersection design at each intersection would be required for all approaches to meet the target BLOS. This is identified for the City's consideration as part of the March Road BRT project.

- Future at-grade BRT within the median of March Road from Eagleson Station to Terry Fox Drive is anticipated to achieve the target TLOS A.

*Existing Traffic Operations*

- All movements meet the target Auto LOS E, except for the southbound through movement at March Road/Solandt Road during the AM peak hour.

*Background Traffic Operations*

- The following movements do not meet the target Auto LOS E by the 2032 horizon year:
    - March Road/Solandt Road
        - Northbound through (PM peak hour);
        - Southbound through (AM and PM peak hours).
    - March Road/Carling Avenue/Station Road
        - Northbound through (AM and PM peak hours);
        - Southbound through (PM peak hour).

- At March Road/Solandt Road, a reduction of approximately 640 southbound through vehicles during the AM peak hour, and approximately 170 northbound through vehicles during the PM peak hour would be required to achieve the target Auto LOS E.

- At March Road/Carling Avenue/Station Road, a reduction of approximately 190 northbound through vehicles during the AM peak hour, and approximately ten southbound through vehicles during the PM peak hour would be required.

*Total Traffic Operations*

- The site-generated traffic volumes are generally projected to have marginal impacts to operations within the study area.

- The proposed wellness centre is recommended from a transportation perspective.

# 1.0 SCREENING

## 1.1 Introduction

This Transportation Impact Assessment (TIA) has been prepared in support of Zoning By-Law Amendment and Site Plan Control applications for the properties located at 2505 and 2707 Solandt Road. The subject site is approximately 4.10 hectares in area. The 2505 Solandt Road site is occupied by a surface parking lot and the 2707 Solandt Road is vacant.

The subject site is surrounded by the following:

- The Marshes Golf Club to the north and east,
- Solandt Road, followed by offices to the south, and
- Offices, followed by Legget Drive to the west.

An aerial of the vicinity around the subject site is provided in **Figure 1**.

## 1.2 Proposed Development

The proposed development is a wellness centre, consisting of a three-storey primary building with a total gross floor area (GFA) of 47,275 $ft^2$, and several single-storey accessory buildings. A total of 218 at-grade parking spaces are proposed. Access to the proposed development will be provided via a single two-way driveway to Solandt Road. The development will be constructed in a single phase, with a buildout year of 2027.

The subject site is designated as 'Kanata North Economic District' on Schedule B5 of the City of Ottawa's *Official Plan*. The implemented zoning for the property is 'Business Park Industrial Zone (Kanata North Business Park)' (IP6), and the site is not within any community design plan or secondary plan areas.

A copy of the preliminary site plan is included in **Appendix A**.

## 1.3 Screening Form

The City's *Revised TIA Guidelines* identify three triggers for completing a TIA report, including trip generation, location, and safety. The criteria for each trigger are outlined in the City's TIA Screening Form, which is included in **Appendix B**. The trigger results are as follows:

- Trip Generation Trigger – The development is anticipated to generate over 60 peak hour person trips; further assessment is **required** based on this trigger.

- Location Triggers – The development is located in the Kanata North Economic District Design Priority Area (DPA); further assessment is **required** based on this trigger.

- Safety Triggers – The proposed development does not meet any safety triggers; further assessment is **not required** based on this trigger.

**Figure 1: View of the Subject Site**

# 2.0 SCOPING

## 2.1 Existing Conditions

### 2.1.1 Roadways

All roadways within the study area fall under the jurisdiction of the City of Ottawa.

**March Road** is an arterial road that generally runs on a north-south alignment from Highway 417 to Dunrobin Road, before transitioning to an east-west alignment from Dunrobin Road to Appleton Sideroad in Almonte. South of Highway 417, the roadway continues on a north-south alignment as Eagleson Road. Within the study area, March Road has a four-lane divided urban cross-section, continuous sidewalks on both sides of the roadway and on-street bike lanes. The posted speed limit is generally 80 km/h, except for a 60 km/h zone from 230m north of Carling Avenue to 410m south of Teron Road. March Road is classified as a truck route, allowing full loads. Street parking is not permitted.

**Terry Fox Drive** is a roadway that generally runs on an east-west alignment. It is classified as an arterial roadway from March Road west to Eagleson Road, and a major collector roadway from March Road east to Herzberg Road. Within the study area, Terry Fox Drive is a major collector roadway with a two-lane urban cross-section that is primarily divided, a continuous sidewalk on the south side, on-street bike lanes, and a posted speed limit of 50 km/h. Terry Fox Drive is a designated truck route, allowing full loads west of March Road and restricted loads east of March Road. Street parking is not permitted.

**Carling Avenue** is an arterial roadway that generally runs on an east-west alignment from March Road to Bronson Avenue. West of March Road, the roadway continues as Station Road. Within the study area, Carling Avenue has a two-lane undivided rural cross-section, bike lanes or paved shoulders, and a posted speed limit of 60 km/h. Carling Avenue is a designated truck route, allowing restricted loads. Street parking is not permitted except on the north side between the commercial accesses to 4055 and 4049 Carling Avenue.

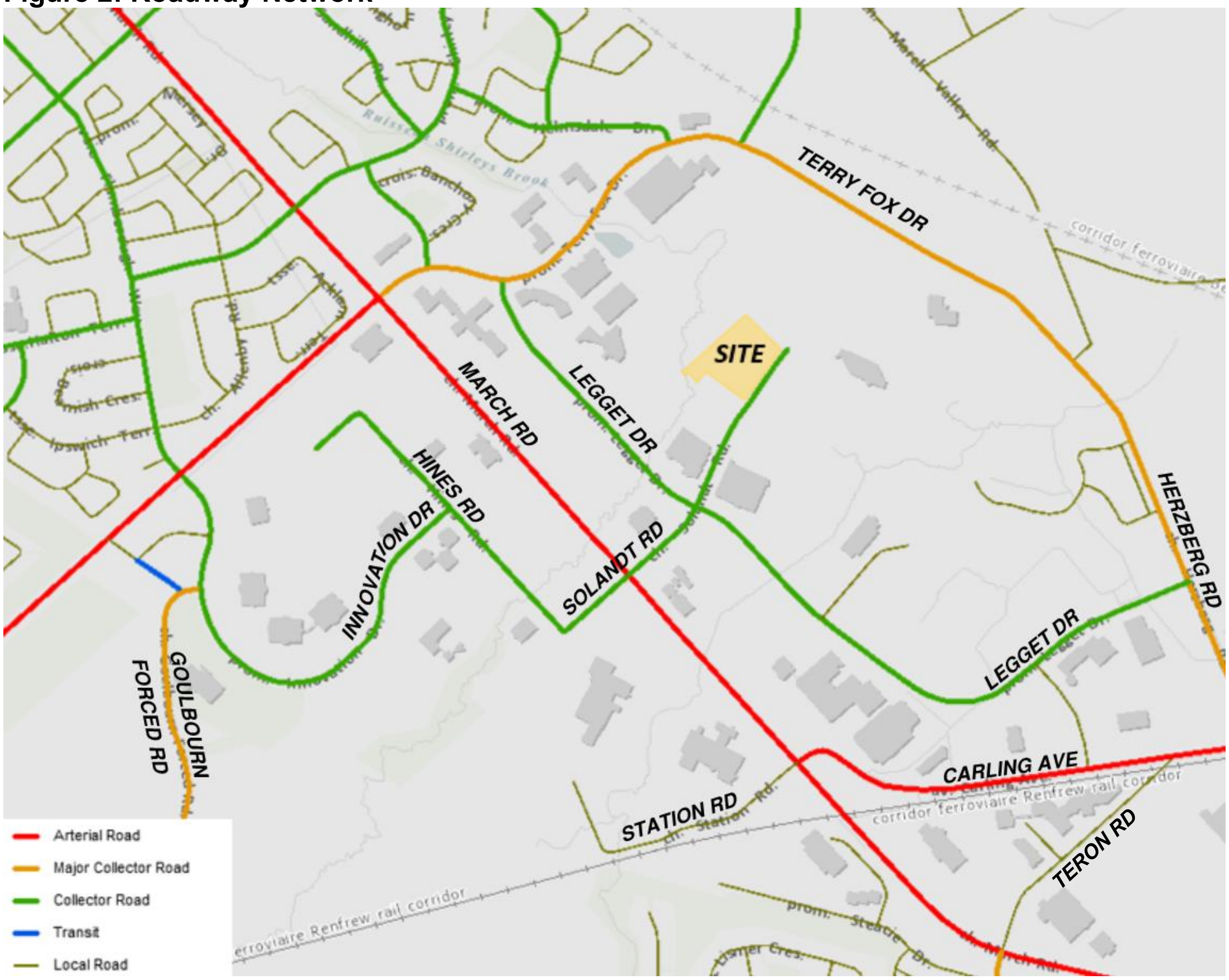
**Legget Drive** is a collector roadway that generally runs on a north-south alignment within the study area, from Terry Fox Drive to Herzberg Road. Within the study area, Legget Drive has a two-lane urban cross-section, on-street bike lanes north of Solandt Road, and a posted speed limit of 50 km/h. Sidewalks are provided along the east side for the entire distance of Legget Drive, as well as the west side between Solandt Road and Herzberg Road. Legget Drive is not classified as a truck route. Within the vicinity of the subject site, street parking is permitted on the east side of Legget Drive north of Solandt Road, and permitted on both sides of Legget Drive south of Solandt Road.

**Solandt Road** is a collector roadway that generally runs on an east-west alignment, starting at Hines Road and terminating approximately 450m east of Legget Drive. Within the study area, Solandt Road has a two-lane urban cross-section and an unposted regulatory speed limit of 50 km/h. Sidewalks are provided along the north side for the entire distance of Solandt Road, as well as the south side between March Road and Legget Drive. Solandt Road is not classified as a truck route. Street parking is generally permitted east of Legget Drive. The right-of-way (ROW) at the subject site is 26m. No widening is required, as a ROW protection of 26m is identified in Schedule C16 of the City's *Official Plan*.

**Station Road** is a dead-end local roadway that generally runs on an east-west alignment, starting at March Road and terminating approximately 500m west of March Road. East of March Road, the roadway continues as Carling Avenue. Within the study area, Station Road has a two-lane rural cross-section, no sidewalks, and an unposted regulatory speed limit of 50 km/h. Station Road is not classified as a truck route. Street parking is permitted.

The roadway network of the greater area surrounding the subject site is illustrated in **Figure 2**.

**Figure 2: Roadway Network**



### 2.1.2 Intersections

*Terry Fox Drive/Legget Drive*

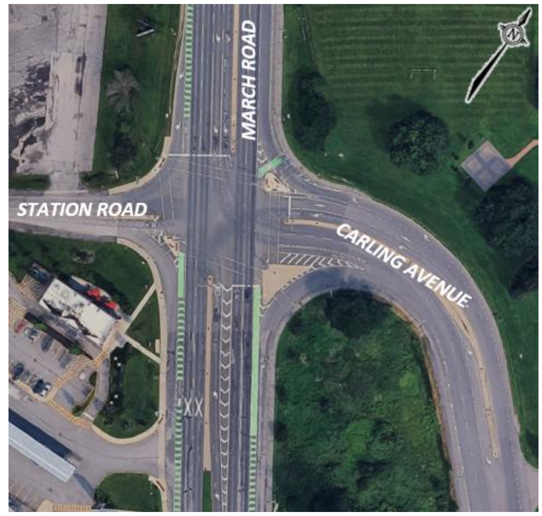
- Unsignalized three-legged intersection
- Stop control on Legget Drive
- South Approach (Legget Drive):
  one shared left turn/right turn lane and one bike lane
- East Approach (Terry Fox Drive):
  one shared left turn/through lane and one bike lane
- West Approach (Terry Fox Drive):
  one shared through/right turn lane and one bike lane
- Standard crosswalks on south approach


*Legget Drive/Solandt Road*

- Signalized four-legged intersection
- North Approach (Legget Drive):
  one left turn lane, one shared through/right turn lane, and one bike lane
- South Approach (Legget Drive):
  one left turn lane and one shared through/right turn lane
- East/West Approaches (Solandt Road):
  one left turn lane and one shared through/right turn lane
- Standard crosswalks on all approaches


*March Road/Solandt Road*

- Signalized four-legged intersection
- North/South Approaches (March Road):
  one left turn lane, two through lanes, one bike lane, and one channelized right turn lane
- East Approach (Solandt Road):
  two left turn lanes, one through lane, and one right turn channel
- West Approach (Solandt Road):
  one left turn lane, one through lane, and one channelized right turn lane
- Standard crosswalks on all approaches
- Two-stage, left-turn bike boxes for northbound and southbound cyclists




<u>*March Road/Carling Avenue/Station Road*</u>

- Signalized four-legged intersection
- North Approach (March Road):
  two left turn lanes, two through lanes, one bike lane, and one right turn lane
- South Approach (March Road):
  one left turn lane, two through lanes, one bike lane, and one channelized right turn lane
- East Approach (Carling Avenue):
  one left turn lane, one through lane, one bike lane, and one channelized right turn lane
- West Approach (Station Road):
  one shared left turn/through lane, one bike lane, and one channelized right turn lane
- Standard crosswalks on all approaches

### 2.1.3 Driveways

In accordance with the *TIA Guidelines*, the existing adjacent driveways along the boundary roads (i.e. within 200m of the subject site) is summarized as follows:

**Solandt Road, north side**

- Two driveways to offices at 425 Legget Drive.

**Solandt Road, south side**

- One driveway to offices at 415 Legget Drive;
- Two driveways to offices at 2500 Solandt Road.

### 2.1.4 Pedestrian and Cycling Facilities

Within the study area, concrete sidewalks are provided on the west side of March Road south of Carling Avenue, on the south side of Terry Fox Drive continuously, and on the west side of Legget Drive along the frontages of 490-500 March Road.

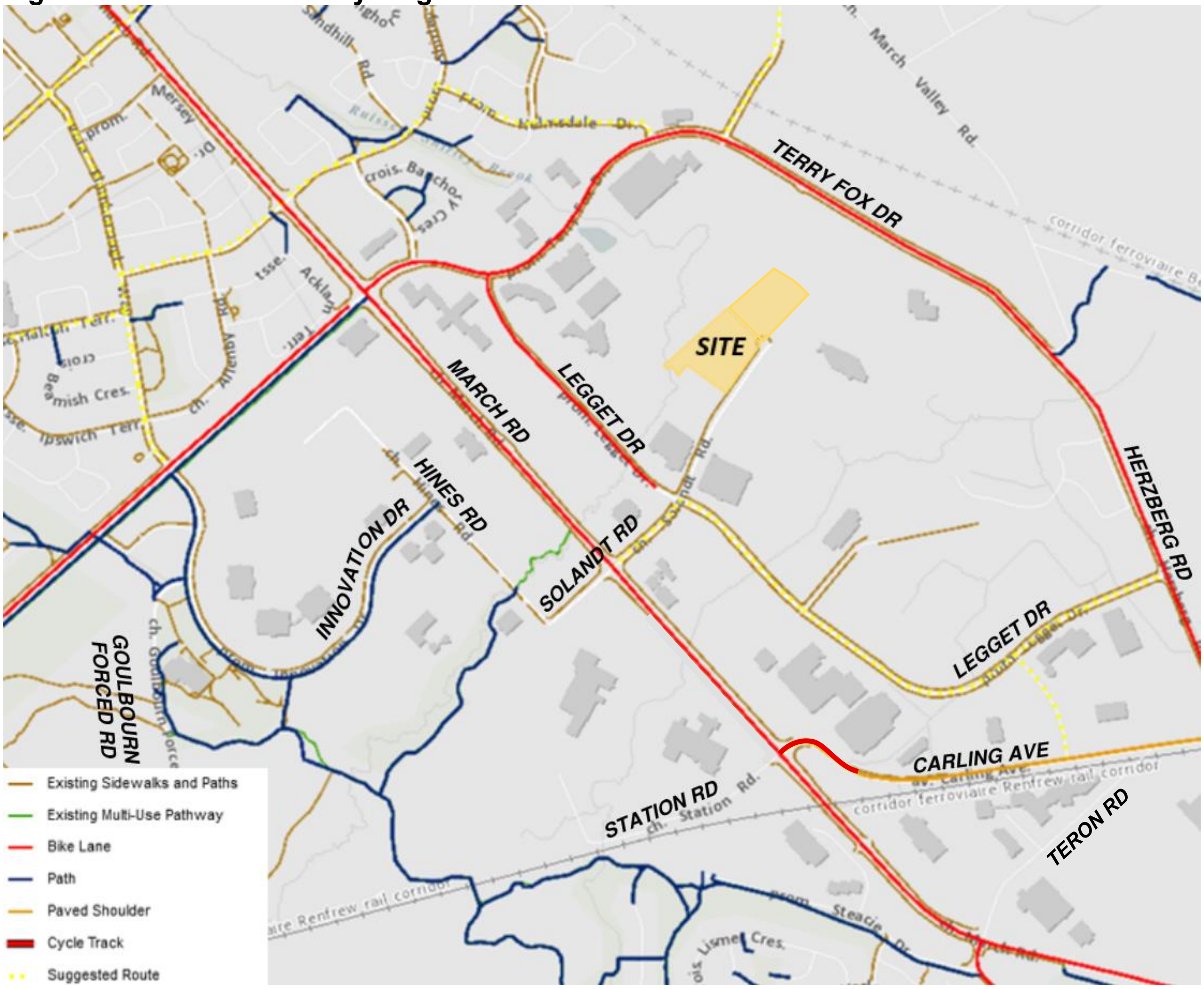
Asphalt sidewalks are provided on the east side of March Road continuously, on the west side of March Road north of 447 March Road, on both sides of Legget Drive south of Solandt Road, on the east side of Legget Drive north of Solandt Road, on both sides of Solandt Road between March Road and Legget Drive, and on the north side of Solandt Road east of Legget Drive.

Within the study area, March Road is identified in the City's Crosstown Bikeway Network. Terry Fox Drive, Legget Drive, Solandt Road, and Carling Avenue are all identified in the City's Primary Cycling Network, per the *2025 Transportation Master Plan (TMP)*.

On-road bike lanes are currently provided on March Road, Terry Fox Drive, Legget Drive north of Solandt Road, and Carling Avenue at March Road.

The pedestrian and cycling network of the greater area surrounding the subject site is illustrated in **Figure 3**.

**Figure 3: Pedestrian and Cycling Network**




### 2.1.5 Area Traffic Management

Within the study area, there are no Area Traffic Management (ATM) studies that are in progress.

### 2.1.6 Transit

The locations of OC Transpo bus stops relevant to the subject site are described in **Table 1**, and are shown in **Figure 4**. A summary of the various routes which serve the study area is included in **Table 2**. Detailed route information and an excerpt from the OC Transpo System Map are included in **Appendix C**.

**Table 1: OC Transpo Transit Stops**

| Stop | Location | Routes |
|---|---|---|
| #6909 | East side of Legget Drive, north of Solandt Road | 63 |
| #7548 | North side of Solandt Road, west of cul-de-sac (not currently in use) | none |
| #7987 | West side of Legget Drive, midblock between Solandt Road & Farrar Road | 63, 110 |
| #7991 | East side of Legget Drive, midblock between Solandt Road & Farrar Road | 63, 110 |

**Figure 4: OC Transpo Bus Stop Locations**


**Table 2: OC Transpo Route Information**

| Route | From ↔ To | Frequency |
|---|---|---|
| **63** | Innovation / Briarbrook ↔ Tunney's Pasture | All day service, seven days a week; 15- to 30-min headways |
| **110** | Innovation / Briarbrook ↔ Limebank & Greenboro | All day service, seven days a week; 30-min headways |

### 2.1.7 Existing Traffic Volumes

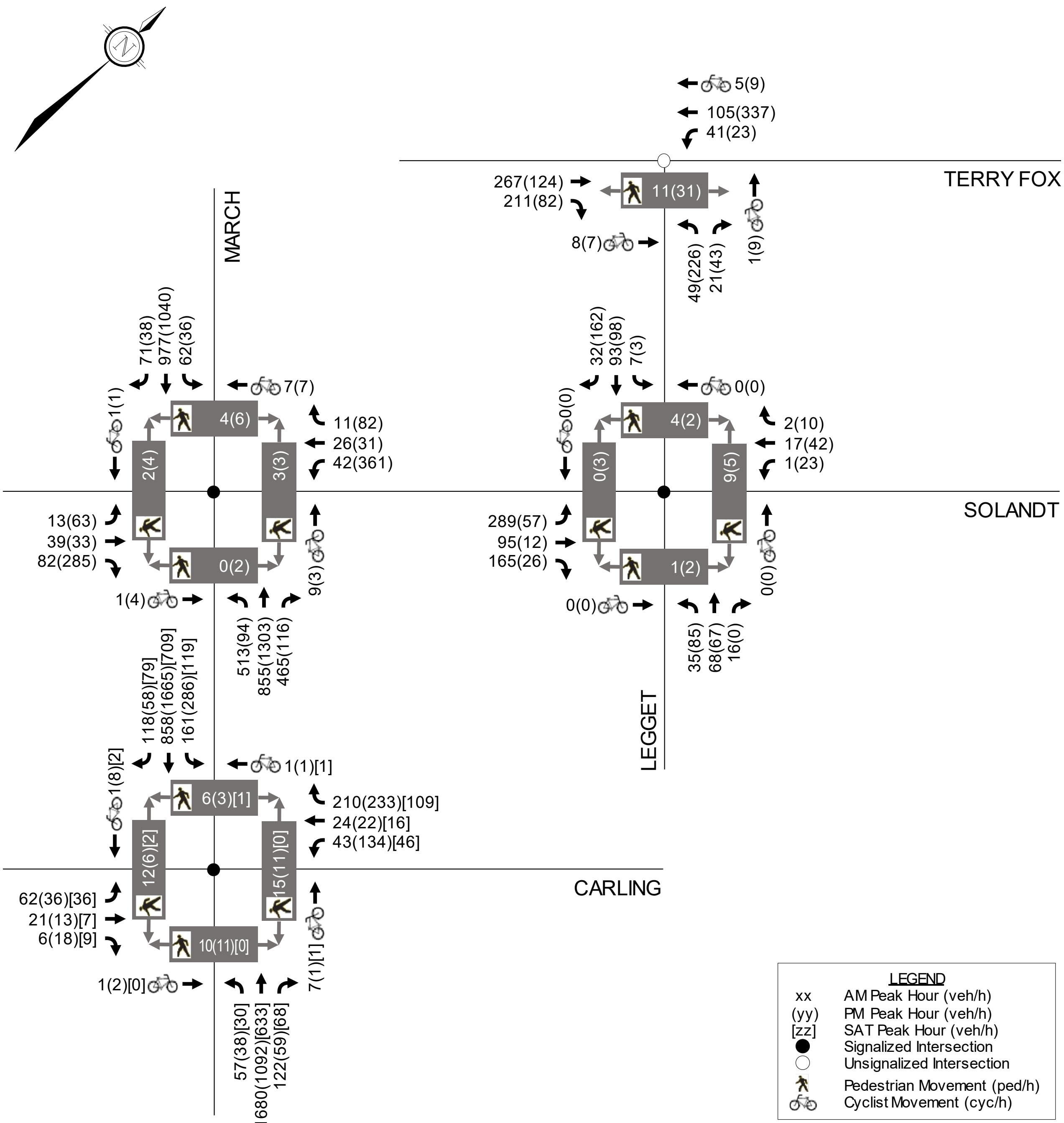
Traffic counts completed by the City of Ottawa were used to determine the existing pedestrian, cyclist, and vehicular traffic volumes at the study area intersections. These counts were completed on the dates listed below:

- Legget Drive/Terry Fox Drive — April 2, 2025 / July 26, 2022
- Legget Drive/Solandt Road — January 9, 2024
- March Road/Solandt Road — September 28, 2023
- March Road/Carling Avenue/Station Road — August 28, 2024 / August 31, 2024

It is noted that active transportation volumes observed at Legget Drive/Solandt Road may be lower than typical conditions, as that count was conducted outside of the warmest months. At Legget Drive/Terry Fox Drive, July 2022 pedestrian and cyclist volumes and April 2025 vehicular volumes have been considered. Based on the traffic count data, the average annual daily traffic (AADT) of Solandt Road east of Legget Drive is approximately 1,240 vehicles per day (vpd).

All traffic count data previously discussed are included in **Appendix D**. Traffic volumes within the study area are shown in **Figure 5**.

**Figure 5: Existing Traffic Volumes**



### 2.1.8 Collision Records

Historical collision data from the last five full years available was obtained from the City's Public Works and Service Department for the study area intersections and midblock segments. Copies of the collision summary reports are included in **Appendix E**. The collision data has been evaluated to determine if there are any identifiable collision patterns, which are defined in the *Revised TIA Guidelines* as 'more than six collisions in five years' for any one movement. The number of collisions at each intersection from January 1, 2019 to December 31, 2024 is summarized in **Table 3**.

**Table 3: Reported Collisions**

| Intersection or Segment | Impact Types | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | Approach | Angle | Rear End | Sideswipe | Turning Movement | SMV(1)/ Other | |
| Terry Fox Drive/ Legget Drive | - | 2 | - | - | - | - | **2** |
| Legget Drive/ Solandt Road | - | - | - | - | - | - | **0** |
| March Road/ Solandt Road | - | 1 | 10 | 7 | 13 | - | **31** |
| March Road/ Carling Avenue/Station Road | 1 | 3 | 18 | 4 | 5 | 2 | **33** |
| Legget Drive btwn Terry Fox Dr & Solandt Rd | - | - | - | - | 1 | - | **1** |
| Solandt Road btwn March Rd & Legget Dr | - | - | - | - | - | - | **0** |
| Solandt Road btwn Legget Dr & End | - | 1 | - | - | - | - | **1** |
| March Road btwn Solandt Rd & Carling Ave | - | - | 7 | 4 | 1 | 4 | **16** |

1. SMV = Single Motor Vehicle

*Legget Drive/Terry Fox Drive*
A total of two collisions were reported at this intersection over the last five years, both of which were angle impacts. Neither collision resulted in injury. Both collisions occurred in poor driving conditions. Neither collision involved cyclists or pedestrians.

*Legget Drive/Solandt Road*
No collisions were reported at this intersection over the last five years.

*March Road/Solandt Road*
A total of 31 collisions were reported at this intersection over the last five years, consisting of one angle impact, ten rear-end impacts, seven sideswipe impacts, and 13 turning movement impacts. Twelve collisions resulted in non-fatal injuries. Fourteen collisions (42%) occurred in poor driving conditions. No collisions involved cyclists or pedestrians.

Of the ten rear-end impacts, two involved northbound vehicles, five involved southbound vehicles, and three involved westbound vehicles. No approach meets the threshold of a collision pattern.

Of the seven sideswipe impacts, four involved northbound vehicles, two involved southbound vehicles, and one involved eastbound vehicles. No approach meets the threshold of a collision pattern.

Of the 13 turning movement impacts, four involved a northbound left turn, two involved a northbound U-turn, three involved a southbound left turn, three involved a southbound U-turn, and one involved a westbound left turn. No movement meets the threshold of a collision pattern.

*March Road/Carling Avenue/Station Road*
A total of 33 collisions were reported at this intersection over the last five years, consisting of one approaching impact, three angle impacts, 18 rear-end impacts, four sideswipe impacts, five turning movement impacts, and two single vehicle/other impacts. Four collisions resulted in non-fatal injuries. Three collisions (9%) occurred in poor driving conditions. One collision involved a cyclist. No collision involved pedestrians.

Of the 18 rear-end impacts, five involved northbound vehicles, seven involved southbound vehicles, and six involved westbound vehicles. The southbound approach meets the threshold of a collision pattern. High traffic volumes and a posted speed limit of 80 km/h are likely factors.

*Legget Drive (Terry Fox Drive to Solandt Road)*
One turning movement impact was reported along this segment over the last five years. This collision did not result in injury and occurred in fair driving conditions.

*Solandt Road (March Road to Legget Drive)*
No collisions were reported along this segment over the last five years.

*Solandt Road (east of Legget Drive)*
One angle impact was reported along this segment over the last five years. This collision did not result in injury and occurred in fair driving conditions.

*March Road (Solandt Road to Carling Avenue)*
A total of 16 collisions were reported at this intersection over the last five years, consisting of seven rear-end impacts, four sideswipe impacts, one turning movement impacts, and four single vehicle/ other impacts. Two collisions resulted in non-fatal injuries. Ten collisions (63%) occurred in poor driving conditions. No collisions involved cyclists or pedestrians.

Of the seven rear-end impacts, four involved northbound vehicles and three involved southbound vehicles. Neither direction meets the threshold of a collision pattern.

## 2.2 Planned Conditions

### 2.2.1 Planned Transportation Projects

*Transit Projects*
Within the study area, the City's *2025 Transportation Master Plan (TMP)* identifies the Kanata North Transitway in the Priority Transit Network. This project includes at-grade bus rapid transit (BRT) within the median of March Road from Eagleson Station to Terry Fox Drive. The Needs-Based Transit Network identifies March Road north of Terry Fox Drive as a future transit corridor. The preliminary preferred design of median BRT lanes on March Road is being developed by Parsons, as part of an ongoing Environmental Assessment (EA) Addendum. An excerpt of the preferred design through the study area is included in **Appendix F**. The priority network is planned to be implemented by 2046 and the needs-based network will be implemented post-2046.

*Roadway Projects*
Within the study area, the City's *2025 TMP* does not identify any roadway projects in its Needs-Based or Priority Road Networks. North of the study area, the City's *2025 TMP* identifies a widening of March Road between Maxwell Bridge Road and Buckbean Avenue, from two lanes to four. This widening is identified in both the Priority and Needs-Based Road Networks. It is a Phase 2 Priority project and not planned for implementation in the ten-year planning horizon (2026-2035).

*Active Transportation Projects*
The City's *2025 TMP* does not identify any pedestrian projects with prioritization within the study area or within proximity of the study area.

Related to prioritized cycling projects, the *2025 TMP* identifies multiple Phase 1 projects within the study area or within proximity of the study area. A pavement markings and signage project is identified to implement bike lanes where feasible on Legget Drive, Solandt Road, Hines Road, Flamborough Way, and Innovation Drive. This will provide cycling connectivity throughout the Kanata Research Park and neighbourhoods north of Terry Fox Drive. East of the study area, a project is identified to convert the Beachburg Rail Corridor to multi-use pathway from Celtic Ridge Crescent to the Capital Pathway east of March Valley Road. This will provide cycling connectivity between neighbourhoods north of the study area, the Kanata Research Park, and the Capital Pathway network.

### 2.2.2 Other Area Developments

The Kanata North Urban Expansion Area (KNUEA) is located north of the study area, but will generate notable traffic volumes that will be observed within the study area. In the *2016 KNUEA TMP*, it was estimated that the development of the Kanata North lands has the potential to consist of 960 single-detached homes, 950 street townhomes, 1,040 multi-unit residential dwellings, 400,000 ft$^2$ GFA of commercial space, three elementary schools, one high school, and a 500-space park and ride. The *KNUEA TMP* identified a buildout year of 2026, but this will not be achieved. Development applications have now been submitted for all KNUEA lands, including the following:

*927 March Road*
A TIA was prepared by Stantec in December 2023, in support of a subdivision with 19 single-detached homes, 32 townhomes, 1,857 apartment units, and 45,000 ft$^2$ of commercial space. The associated TIA identified a buildout year of 2034.

*936 March Road*
A TIA and subsequent technical memo was prepared by CGH in November 2020 and December 2024, respectively, in support of a subdivision with 353 single-detached homes and 575 townhomes. The associated TIA identified a buildout year of 2023, however construction is ongoing.

*1020 & 1070 March Road*
A TIA was prepared by Stantec in May 2020, in support of a subdivision with 297 single-detached homes, 315 townhomes, 116 apartment dwellings, 80,000 ft$^2$ GFA of commercial space, and an elementary school block. The associated TIA identified a buildout year of 2031.

*1053, 1075 & 1145 March Road*
A TIA was prepared by Novatech in October 2018, in support of a subdivision with 295 single-detached homes, 314 townhomes, and 216 multi-unit dwellings. The associated TIA identified a buildout year of 2026.

To the south of the KNUEA, several other developments are under construction, approved, or are in the approval process. The following development applications are significant enough to include site-generated traffic projections to the roadway network.

*359 Terry Fox Drive and 525 Legget Drive*
A TIA was prepared by Novatech in January 2022, in support of a development with 253 apartment dwellings and 3,877 $ft^2$ GFA of restaurant space. The associated TIA identified a buildout year of 2024, however buildout of the development has not yet been achieved.

*457 Terry Fox Drive*
A TIA was prepared by Parsons in January 2017, in support of a subdivision with 159 single-detached homes and 276 townhomes. The associated TIA identified a buildout year of 2021, however buildout of the subdivision has not yet been achieved.

*555-603 March Road*
A TIA was prepared by Novatech in December 2023, in support of a subdivision with 2,100 apartment dwellings, 154,178 $ft^2$ of office space, and 31,482 $ft^2$ of retail space. The associated TIA identified a buildout year of 2037.

*570-600 March Road*
A TIA was prepared by Stantec in July 2022, in support of a mixed-use development including 1,900 residential dwellings, approximately 46,000 $m^2$ of office space, and 11,350 $m^2$ of retail space. The associated TIA identified a buildout year of 2032. A subsequent TIA was prepared by Stantec in May 2025 in support of updates to the commercial portion (570 March Road), which includes approximately 31,948 $m^2$ of general light industrial space, 20,665 $m^2$ of office space, and 1,339 $m^2$ of retail space. The associated TIA identified a buildout year of 2027, and did not account for any residential development at 600 March Road.

*788 March Road*
A TIA addendum was prepared by Parsons in March 2020, in support of a residential development with 92 apartment dwellings. The associated TIA identified a buildout year of 2023. Buildout of the development has not yet been achieved, however it is under construction.

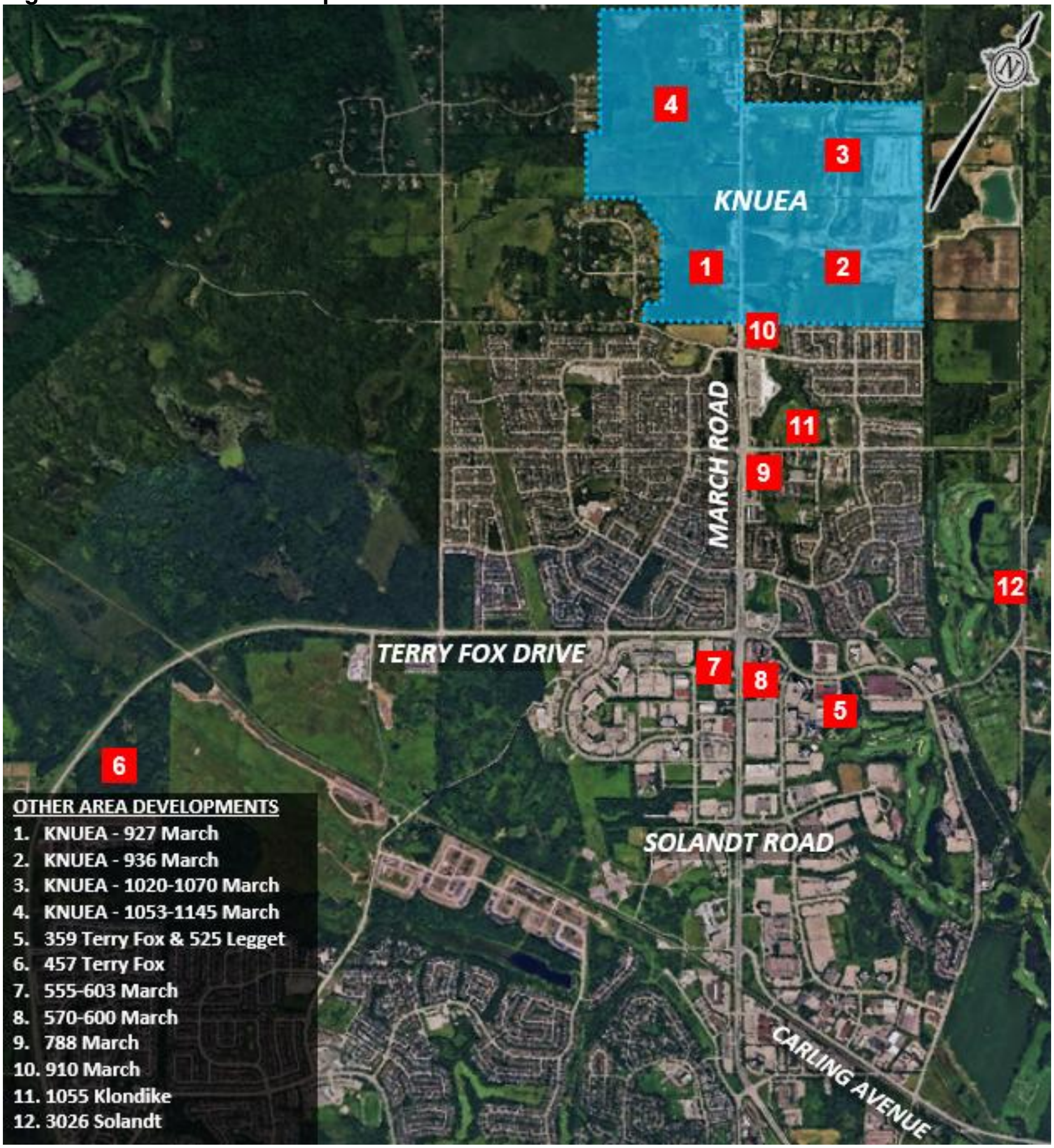
*910 March Road*
A TIA was prepared by CGH Transportation in January 2024, in support of a mixed-use development with 390 residential dwellings and 501 $m^2$ of ground-floor commercial space. The associated TIA identified a buildout year of 2028.

*1055 Klondike Road*
A TIA and technical memorandum were prepared by Novatech in April and June 2021, respectively. These were prepared in support of a residential development with 58 townhomes and 56 apartment dwellings. The associated TIA identified a buildout year of 2024. Buildout of the development has not yet been achieved, however it is under construction.

*3026 Solandt Road*
A TIA was prepared by CIMA+ in March 2020, in support of an office development with approximately 9,290 $m^2$ of office space. The associated TIA identified a buildout year of 2021, however buildout of the development has not yet been achieved.

A map indicating the approximate location of each development is included in **Figure 6**.

**Figure 6: Other Area Developments**




## 2.3 Study Area and Time Periods

The study area for this report includes the boundary roadway Solandt Road, as well as the intersections at Terry Fox Drive/Legget Drive, Legget Drive/Solandt Road, March Road/Solandt Road, and March Road/Carling Avenue/Station Road.

The selected time periods for this report are the weekday AM and PM peak hours, as they represent the ‘worst case’ combination of site generated traffic and adjacent street traffic. As the proposed development will also be a weekend traffic generator, a comparison of Saturday peak hour volumes and weekday peak hour volumes at March Road/Carling Avenue/Station Road was conducted. The weekday peak hours were selected as the only time periods for analysis, as the Saturday peak hour volumes are approximately 50% to 55% of the weekday peak hour volumes and the worst case combination of site traffic and adjacent street traffic is clearly during the weekday peak hours. The buildout year 2027 and horizon year 2032 have been considered.

## 2.4 Access Design

A single full-movement access to Solandt Road is proposed at the terminus of the roadway, in the same location as one of the two existing unused parking lot accesses. The proposed full-movement access has been evaluated using the relevant provisions of the City’s *Private Approach By-Law* (PABL) and the Transportation Association of Canada (TAC)’s *Geometric Design Guide for Canadian Roads*. A 6.0m-wide emergency access at the community pathway (i.e. at the western limit of the site) is also proposed, but will not provide access to any parking.

Section 25(1)(c) of the PABL identifies a maximum width requirement of 9m for any two-way private approach. The proposed access meets this requirement, as a width of 7.2m is proposed at the street line.

Sections 25(1)(o) and 25(1)(p) of the PABL identifies that no private approach shall be within 1.5m of the point of tangency of a corner radius at an intersection, within 6m of the intersecting street line, or within 3m of a property line. The southern edge of the proposed access is located approximately 0.3m from the point where the ROW of the Solandt Road cul-de-sac meets the unopened roadway allowance. There are no concerns regarding the distance from an access to the adjacent property, sightline, or traffic hazards. It is understood that the General Manager can reduce the minimum offset to 0.3m.

Section 25(1)(u) of the PABL identifies a requirement that any private approach serving a parking area with more than 50 parking spaces shall not have a grade exceeding 2% for the first 9m inside the property line. The proposed access grading is approximately 1.0%, meeting this requirement.

TAC’s *Geometric Design Guide* does not outline a minimum clear throat length for accesses serving personal service uses. Measuring from the edge of the existing curbline of Solandt Road, there is approximately 16m of vehicle storage provided prior to the first parking space, which is a distance sufficient to store two passenger vehicles within the access. It is anticipated that this will be sufficient.

## 2.5 Development-Generated Travel Demand

### 2.5.1 Trip Generation

Traffic generated by the proposed development has been estimated using first principles. The proponent has advised that the operating hours of the spa will be 9:00am to 10:00pm on Monday to Thursday and 8:30am to 12:00am on Friday to Sunday. Based on existing data from other area spas relating to attendance and peak times (included in **Appendix G**), the number of patrons from Monday to Thursday are approximately half of the number of patrons from Friday to Sunday, and the busiest hours for patrons are anticipated to be between 10:00am and 4:00pm (staggered arrivals) The capacity of the facility is estimated to be 300 people every four hours.

The following projections apply to the Friday operations, as they represent the heaviest weekday for site-generated traffic.

The proponent has confirmed that all food deliveries will occur on a nightly basis, and pool/cleaning supplies deliveries will occur outside of the peak hours, three to four times per month. The proponent has also confirmed that the employee schedule will be divided into two shifts. The first shift will arrive prior to the AM peak hour and depart prior to the PM peak hour. The second shift will arrive prior to the PM peak hour and depart after the PM peak hour.

The *TRANS Trip Generation Manual* present observed commercial peak hour mode shares for the different regions within Ottawa-Gatineau. For the Kanata-Stittsville district, the commercial mode shares during the peak hours can be summarized as follows:

- Auto Driver: 81% in AM peak hour, 73% in PM peak hour;
- Auto Passenger: 12% in AM peak hour, 22% in PM peak hour;
- Transit: 5% in AM peak hour, 1% in PM peak hour;
- Cyclist: 0% in AM peak hour, 0% in PM peak hour;
- Pedestrian: 2% in AM peak hour, 4% in PM peak hour.

A vehicle occupancy of 2.0 patrons per vehicle has been assumed, along with a 5% transit share and 5% pedestrian share. Therefore, the assumed peak hour mode shares for the proposed spa can be summarized as 45% driver, 45% passenger, 5% transit, 0% cyclist, and 5% pedestrian.

The peak number of arrivals or departures in an hour is assumed to equal 150 patrons (i.e. half of the facility's capacity of 300 people in any four-hour period). This results in peak arrival and departure volumes of 150 person trips per hour. For the purposes of this analysis, it has conservatively been assumed that an hour of peak arrivals will coincide with the AM peak hour, and hours of peak arrivals and peak departures will coincide with the PM peak hour. The person trip generation estimates for the proposed development are shown in **Table 4**.

**Table 4: Person Trip Generation**

| Travel Mode | Mode Share | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|
| | | IN | OUT | TOT | IN | OUT | TOT |
| **Total Person Trips** | | **150** | **-** | ***150*** | **150** | **150** | ***300*** |
| Auto Driver | 45% | 68 | - | *68* | 68 | 67 | *135* |
| Auto Passenger | 45% | 68 | - | *68* | 67 | 68 | *135* |
| Transit | 5% | 7 | - | *7* | 8 | 7 | *15* |
| Cyclist | 0% | - | - | *0* | - | - | *0* |
| Pedestrian | 5% | 7 | - | *7* | 7 | 8 | *15* |

From the previous table, the proposed spa is projected to generate 150 person trips (including 68 vehicle trips) during the AM peak hour and 300 person trips (including 135 vehicle trips) during the PM peak hour.

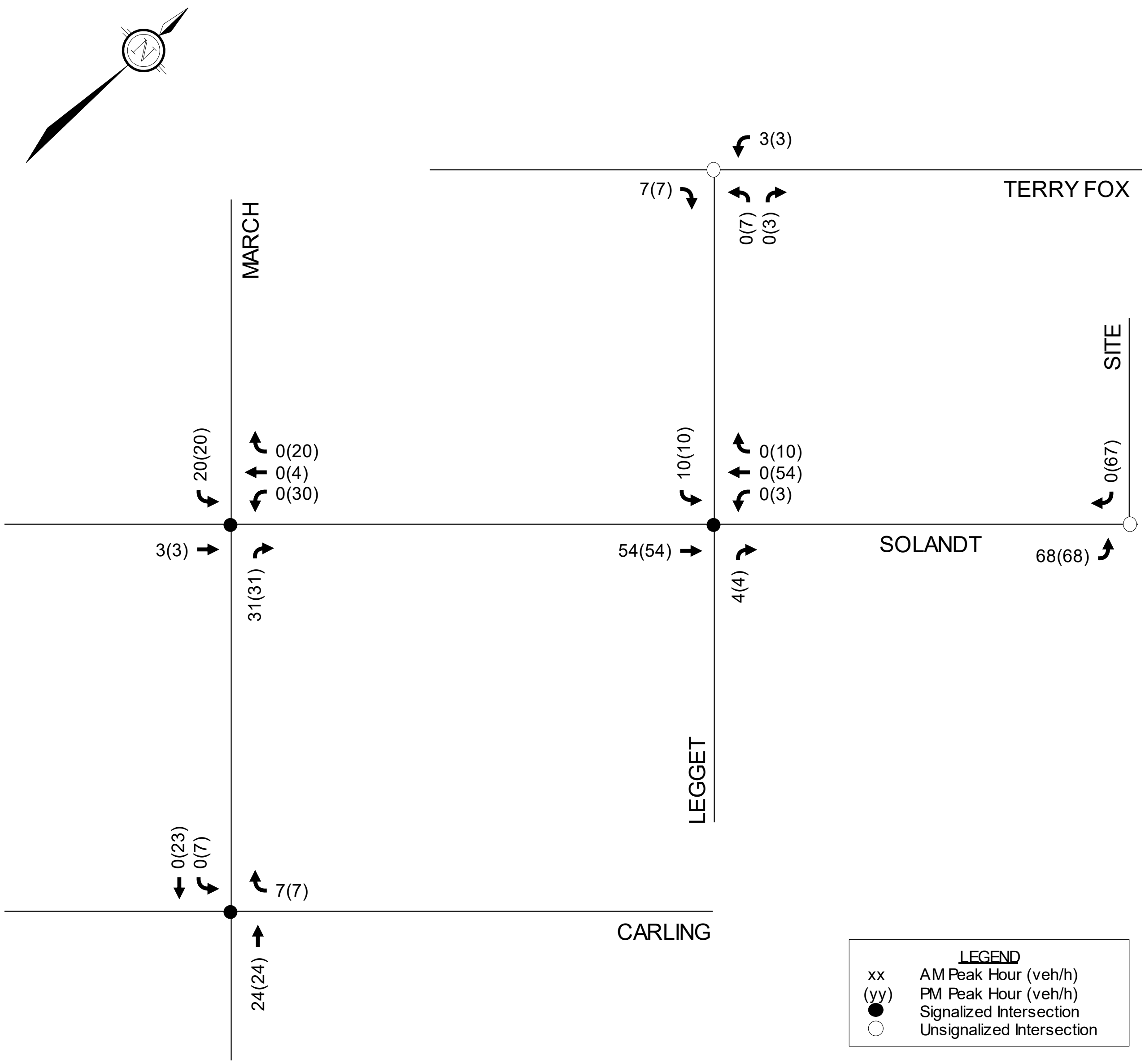
### 2.5.2 Trip Distribution and Assignment

The assumed distribution of trips has been derived from the existing two-way traffic patterns during the midday peak hour. The assumed trip distribution for the proposed development can be summarized as follows.

- 30% to/from the north via March Road;
- 35% to/from the south via March Road;
- 5% to/from the south via Legget Drive;
- 5% to/from the east via Terry Fox Drive;
- 10% to/from the east via Carling Avenue;
- 10% to/from the west via Terry Fox Drive;
- 5% to/from the west via Solandt Road.

All trips generated by the proposed development are assigned to the Solandt Road access. Based on the above, the distribution of site-generated traffic volumes to the study area intersections are shown in **Figure 7**.

**Figure 7: Site-Generated Traffic Volumes**



## 2.6 Exemptions Review

This module reviews possible exemptions from the final TIA, as outlined in the *Revised TIA Guidelines*. The applicable exemptions for this site are shown in **Table 5**.

**Table 5: TIA Exemptions**

| Module | Element | Exemption Criteria | Status |
|---|---|---|---|
| **4.1** Development Design | *4.1.2* Circulation and Access | • Required for site plan control and zoning by-law amendment applications | Not Exempt |
| | *4.1.3* New Street Networks | • Required for draft plan of subdivision applications | Exempt |
| **4.2** Parking | *All elements* | • Required for site plan control and zoning by-law amendment applications | Not Exempt |
| **4.6** Neighbourhood Traffic Calming | *All elements* | • If all of the following criteria are met:<br>1. Access is provided to a collector or local roadway<br>2. Application is for zoning by-law amendment or draft plan of subdivision<br>3. Development generates more than 75 vehicle trips<br>4. Site trip infiltration is expected, and site-generated traffic will increase peak volumes by 50% or more along the route between the site and an arterial<br>5. The subject street segment is adjacent to two or more of the following significant sensitive land uses:<br>○ School (within 250m walking distance)<br>○ Park<br>○ Retirement/older adult facility<br>○ Licensed child care centre<br>○ Community centre<br>○ 50+% of adjacent properties along the route(s) are occupied by residential lands and at least ten dwellings are occupied | Exempt |
| **4.7** Transit | *4.7.1* Transit Route Capacity | • Required when proposed development generates more than 75 transit trips | Exempt |
| | *4.7.2* Transit Priority Requirements | • Required when proposed development generates more than 75 vehicle trips | Not Exempt |
| **4.8** Network Concept | *All elements* | • Required when proposed development generates more than 200 peak hour person trips in excess of the equivalent volume permitted by the established zoning | Exempt |
| **4.9** Intersection Design | *All elements* | • Required when proposed development generates more than 75 vehicle trips | Not Exempt |

Based on the foregoing, the following modules will be included in the TIA report:

- Module 4.1: Development Design
- Module 4.2: Parking
- Module 4.3: Boundary Streets
- Module 4.4: Access Design
- Module 4.5: Transportation Demand Management
- Module 4.7: Transit
- Module 4.9: Intersection Design

# 3.0 BACKGROUND NETWORK TRAVEL DEMAND

## 3.1 Other Area Developments

The following other area developments have been considered in projecting the future background volumes. Relevant excerpts of the TIAs prepared in support of each development below are included in **Appendix H**.

*Kanata North Urban Expansion Area (KNUEA)*
The *KNUEA TMP* (prepared by Novatech in June 2016) estimated that the development of the Kanata North lands has the potential to consist of 960 single-detached homes, 950 street townhomes, 1,040 multi-unit residential dwellings, 400,000 $ft^2$ GFA of commercial space, three elementary schools, one high school, and a 500-space park and ride. The *KNUEA TMP* identified a buildout year of 2026, but this will not be achieved. As the traffic projections in the *KNUEA TMP* are more conservative than the subsequent traffic studies prepared in support of the lands at 927, 936, 1020-1070, and 1053-1145 March Road, the *KNUEA TMP* projections have been considered. For the purposes of this TIA, 50% of the total traffic generated by the Cavanagh (1020-1070 March Road), Claridge Uniform (1053-1145 March Road), and Minto (936 March Road) developments and 0% of the total traffic generated by the Brigil (927 March Road) development have been added to the 2027 background volumes, and 100% of the total traffic generated by the KNUEA has been added to the 2032 background volumes.

*359 Terry Fox Drive and 525 Legget Drive*
This proposed development includes 253 apartment dwellings and 3,877 $ft^2$ GFA of restaurant space. The associated TIA identified a buildout year of 2024, however buildout of the development has not yet been achieved. Traffic generated by this development has been added to the 2032 background volumes.

*457 Terry Fox Drive*
This proposed subdivision includes 159 single-detached homes and 276 townhomes. The associated TIA identified a buildout year of 2021, however buildout of the subdivision has not yet been achieved. Traffic generated by this development has been added to the 2032 background volumes.

*555-603 March Road*
This proposed subdivision includes 2,100 apartment dwellings, 154,178 $ft^2$ of office space, and 31,482 $ft^2$ of retail space. The associated TIA identified a buildout year of 2037. For the purposes of this TIA, 50% of the traffic generated by this development has been added to the 2032 background volumes.

*570-600 March Road*
The proposed development includes 1,900 residential dwellings, approximately 46,000 $m^2$ of office space, and 11,350 $m^2$ of retail space. The associated TIA identified a buildout year of 2032. A subsequent TIA was prepared by Stantec in May 2025 in support of updates to the commercial portion (570 March Road), which includes approximately 31,948 $m^2$ of general light industrial space, 20,665 $m^2$ of office space, and 1,339 $m^2$ of retail space. The associated TIA identified a buildout year of 2027, and did not account for any residential development at 600 March Road. For the purposes of this TIA, all traffic generated by the commercial portion of the development has been added to the 2027 background volumes, the estimated traffic generated by the existing development has been subtracted from the 2027 background volumes, and all traffic generated by the residential portion has been added to the 2032 background volumes.

*788 March Road*
The proposed development includes 92 apartment dwellings. The associated TIA identified a buildout year of 2023. Buildout of the development has not yet been achieved, however it is under construction. Traffic generated by this development has been added to the 2027 and 2032 background volumes.

*910 March Road*
The proposed mixed-use development includes 390 residential dwellings and 501 $m^2$ of ground-floor commercial space. The associated TIA identified a buildout year of 2028. Traffic generated by this development has been added to the 2032 background volumes.

*1055 Klondike Road*
The proposed development includes 58 townhomes and 56 apartment dwellings. The associated TIA identified a buildout year of 2024, and construction is ongoing. Traffic generated by this development has been added to the 2027 and 2032 background volumes.

*3026 Solandt Road*
The proposed development includes approximately 9,290 $m^2$ of office space. The associated TIA identified a buildout year of 2021, however buildout of the development has not yet been achieved. Traffic generated by this development has been added to the 2032 background volumes.

## 3.2 General Background Growth Rate

A review of the City's *Strategic Long-Range Model* has been conducted, comparing snapshots of the 2022 and 2046 AM peak hour traffic volumes. The long-range snapshots are included in **Appendix I**.

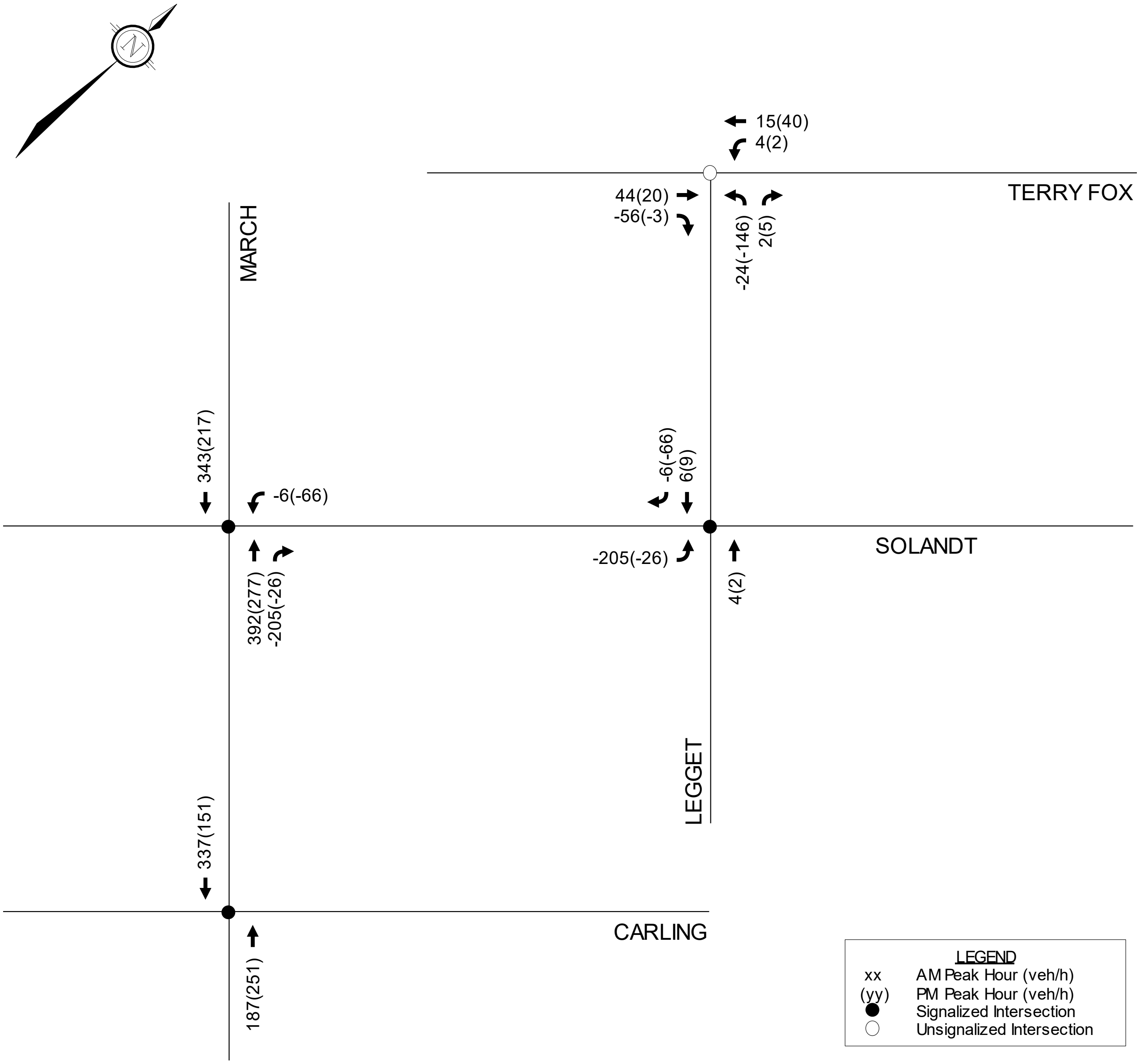
A review of the snapshots identify average annual growth rates of approximately 0% to 1% on March Road, Legget Drive, Solandt Road, and Carling Avenue, and rates of approximately 2% on Terry Fox Drive. Since background volumes from all of the other area developments listed above have been added to the study area volumes, no annual background growth rate has been applied to the study area roadways.

## 3.3 Future Traffic Conditions

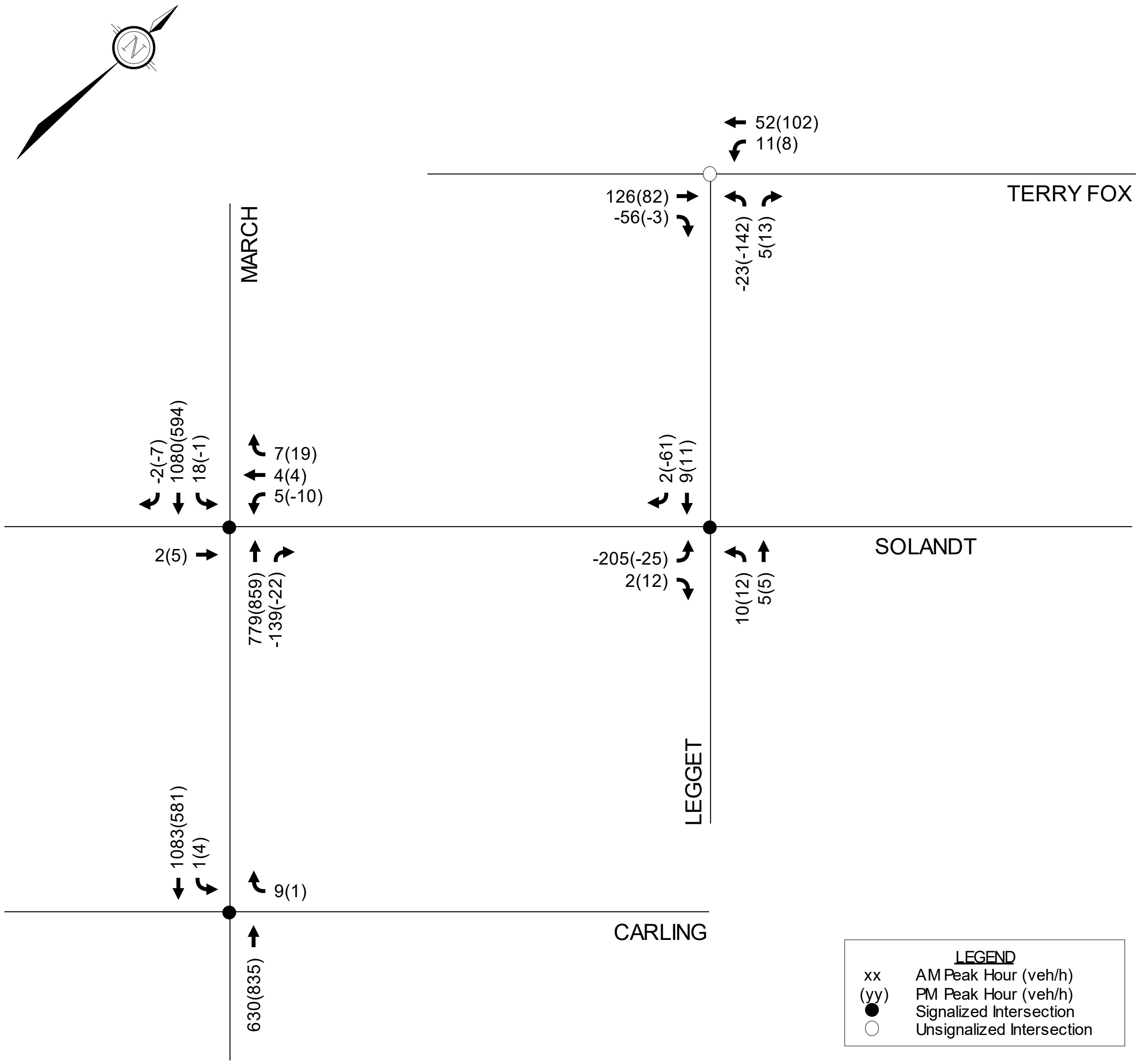
The figures below present the following future traffic conditions:

- Other area development-generated volumes in 2027 are shown in **Figure 8**;
- Other area development-generated volumes in 2032 are shown in **Figure 9**;
- Background traffic volumes in 2027 are shown in **Figure 10**;
- Background traffic volumes in 2032 are shown in **Figure 11**;
- Total traffic volumes in 2027 are shown in **Figure 12**;
- Total traffic volumes in 2032 are shown in **Figure 13**.

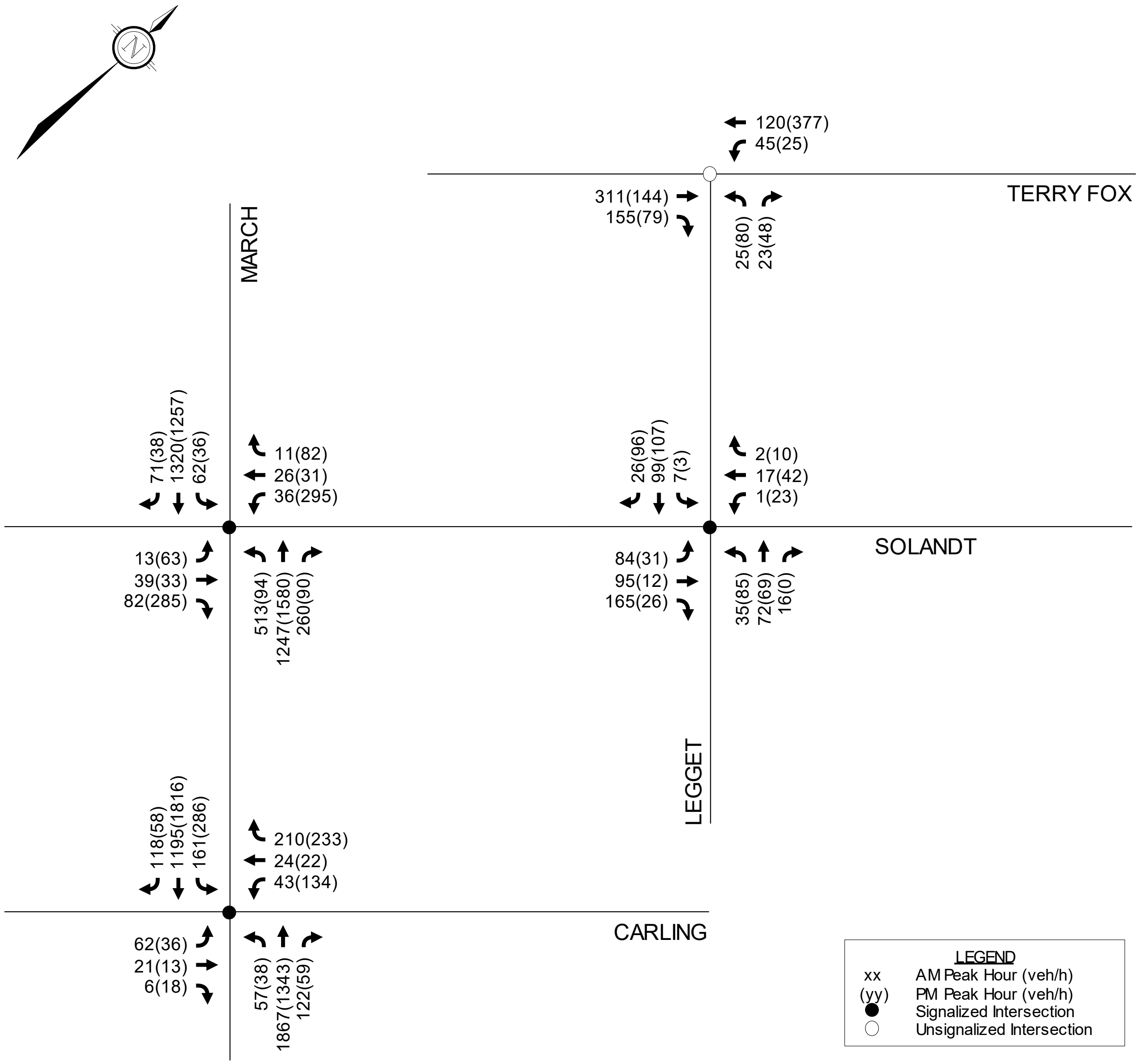
**Figure 8: 2027 Other Area Development-Generated Traffic Volumes**



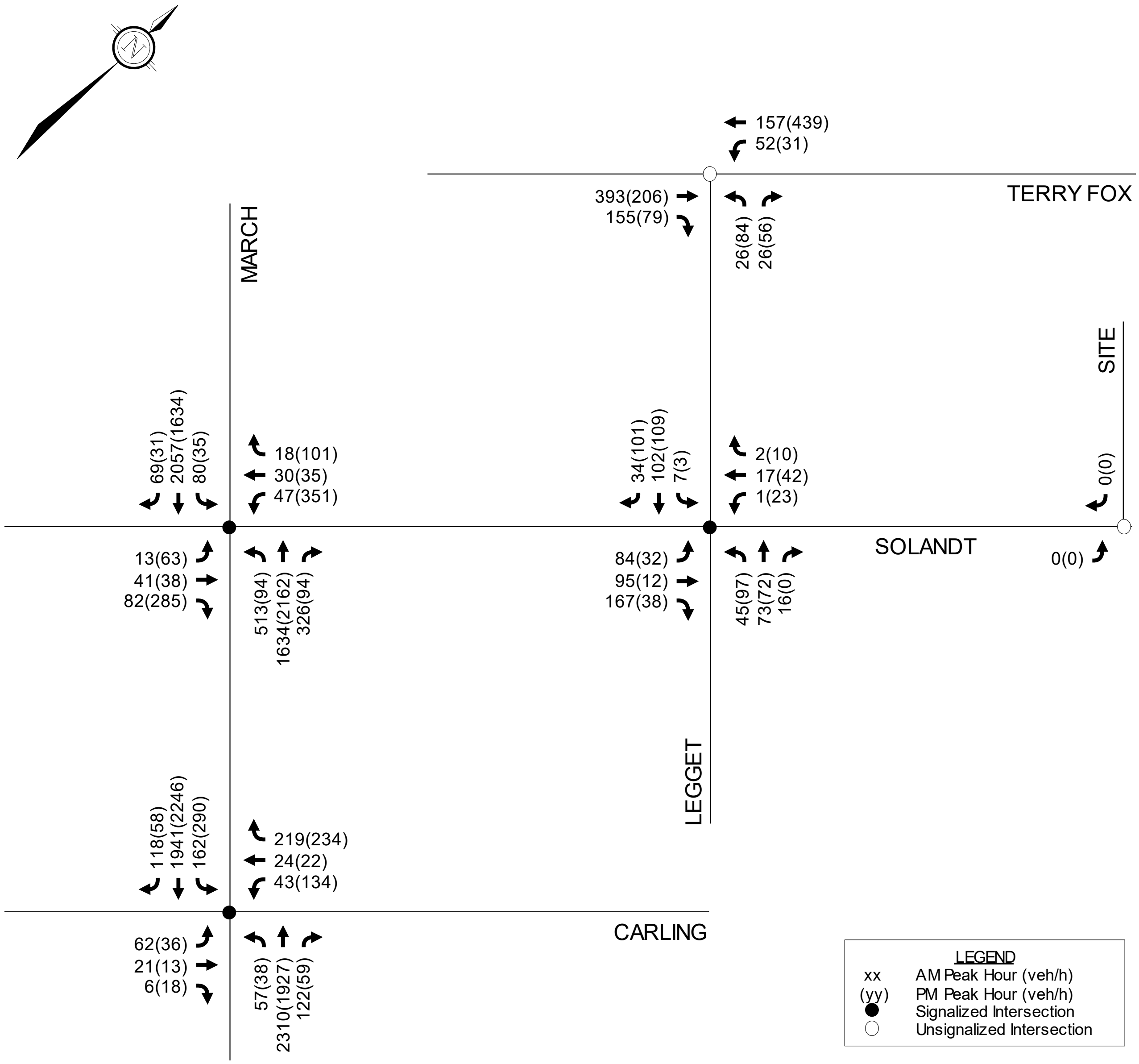
## Figure 9: 2032 Other Area Development-Generated Traffic Volumes



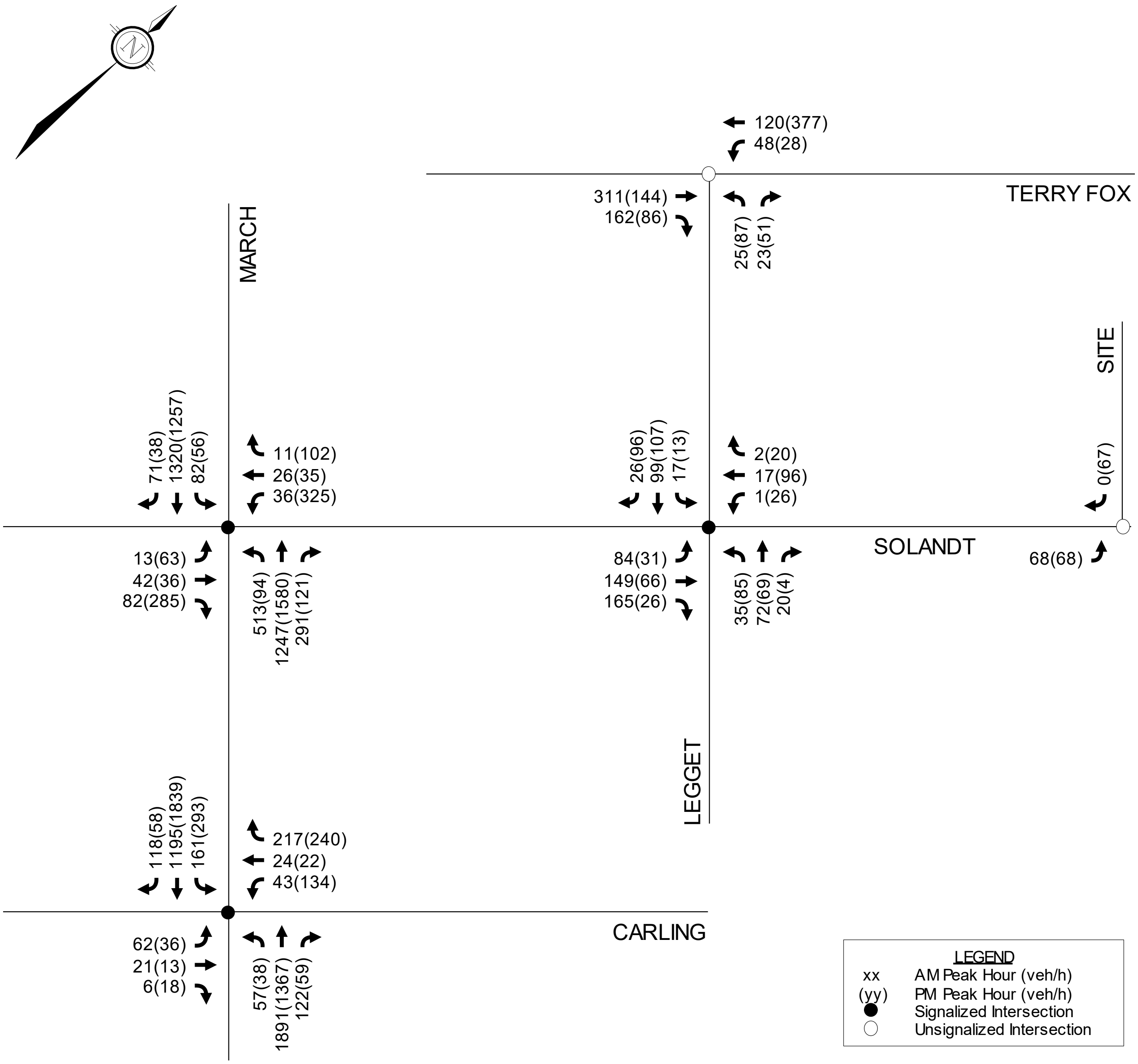
## Figure 10: 2027 Background Traffic Volumes



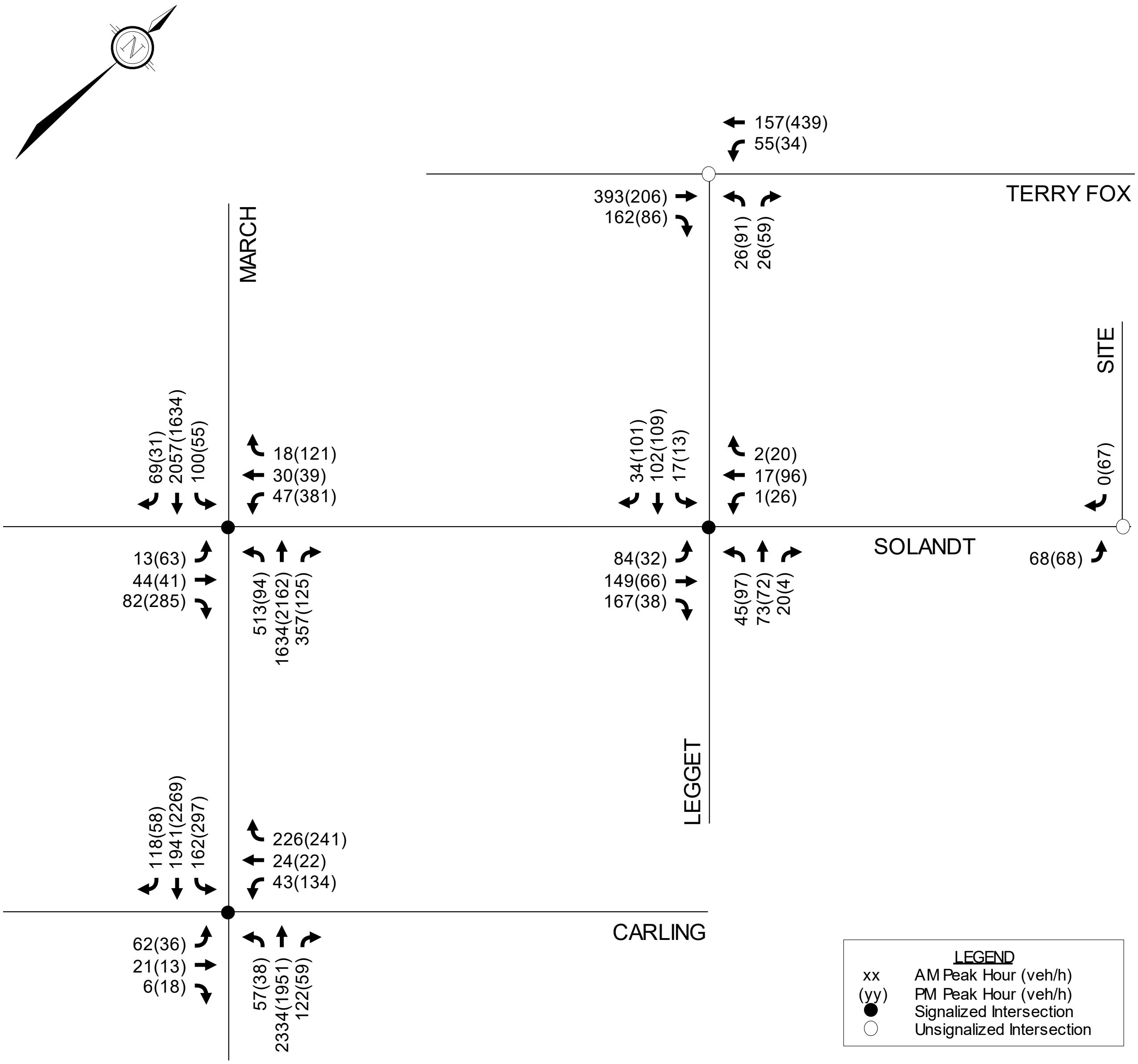
## Figure 11: 2032 Background Traffic Volumes



## Figure 12: 2027 Total Traffic Volumes



## Figure 13: 2032 Total Traffic Volumes



### 3.4 Demand Rationalization

A review of the existing and background intersection operations has been conducted to determine if and when traffic volumes exceed capacity within the study area, using Synchro 11 software. The intersection parameters used in the analysis are consistent with the *TIA Guidelines* (Saturated Flow Rate: 1,800 vphpl, Peak Hour Factor: 0.9 in existing conditions and 1.0 in future conditions). Per Exhibit 2 of the *2025 Multimodal Level of Service (MMLOS) Guidelines Update*, the target vehicular level of service (Auto LOS) is an Auto LOS E for all intersections.

Signal timing plans for the study area intersections are included in **Appendix J**.

#### 3.4.1 Existing Traffic Operations

Intersection capacity analysis has been conducted for the existing traffic conditions. The results of the analysis are summarized in **Table 6** and **Table 7** for the AM and PM peak hours. Detailed reports are included in **Appendix K**.

**Table 6: Existing Intersection Analysis**

| Intersection | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Max v/c or Delay | LOS | Mvmt | Max v/c or Delay | LOS | Mvmt |
| Terry Fox Drive/ Legget Drive(1) | 15 sec | B | NBL/R | 26 sec | D | NBL/R |
| Legget Drive/ Solandt Road(2) | 0.42 | A | EBL | 0.61 | B | SBT/R |
| March Road/ Solandt Road(2) | **1.08** | **F** | **SBT** | 0.87 | D | SBT |
| March Road/ Carling Avenue/Station Road(2) | 0.95 | E | NBT | 0.89 | D | SBT |

1. Unsignalized intersection
2. Signalized intersection

**Table 7: Existing Critical Queues**

| Intersection | Mvmt | Storage/ Spacing(1) | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|---|
| | | | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) |
| March Road/ Solandt Road | NBL | 160m | 0.84 [D] | 81 | **m#164** | 0.66 [B] | 10 | m#36 |
| | NBT | 600m | 0.40 [A] | 35 | m27 | 0.85 [D] | 180 | #224 |
| | SBL | 150m | 0.43 [A] | 13 | 27 | 0.67 [B] | 8 | #29 |
| | SBT | 880m | **1.08 [F]** | **~151** | **#189** | 0.87 [D] | 142 | #186 |
| | EBR | 60m | 0.36 [A] | 0 | 5 | 0.86 [D] | 44 | **#82** |
| | WBL | 135m | 0.30 [A] | 6 | 11 | 0.76 [C] | 47 | 60 |
| March Road/ Carling Avenue | NBT | 150m | 0.95 [E] | **178** | **#319** | 0.67 [B] | 107 | 150 |
| | SBT | 600m | 0.46 [A] | 4 | m117 | 0.89 [D] | 225 | #304 |

1: Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection/rail crossing for through lanes
#: Volume for the 95th percentile cycle exceeds capacity
m: Queue is metered by an upstream signal
~: Approach is above capacity

From the previous table, all movements meet the target Auto LOS except for the southbound through movement at March Road/Solandt Road during the AM peak hour.

The following movements have 50th-percentile (i.e. average) or 95th-percentile (i.e. maximum) queue lengths that exceed the storage length provided or extend into an upstream intersection/rail crossing:

**AM Peak Hour**

- March Road/Solandt Road
  - Northbound left turn: 164m max (exceeds 160m storage length).
- March Road/Carling Avenue/Station Road
  - Northbound through: 178m average/319m max (extends through Renfrew Rail Corridor).

**PM Peak Hour**

- March Road/Solandt Road
  - Eastbound right turn: 82m max (exceeds 60m storage length).

To address the over-capacity movement at March Road/Solandt Road, an alternate AM peak hour timing scenario was developed in Synchro. Two seconds of green time was reallocated from the eastbound/westbound left turn phase to the northbound/southbound through phase, and seven seconds of green time was reallocated from the northbound left turn phase to the southbound through movement. This allows all movements to achieve the target Auto LOS E or better. Detailed Synchro reports with the alternate timing are included in **Appendix K**.

### 3.4.2 2027 Background Traffic Operations

Intersection capacity analysis has been conducted for the 2027 background traffic conditions. The results of the analysis are summarized in **Table 8** and **Table 9** for the AM and PM peak hours. Detailed reports are included in **Appendix L**.

**Table 8: 2027 Background Intersection Analysis**

| Intersection | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Max v/c or Delay | LOS | Mvmt | Max v/c or Delay | LOS | Mvmt |
| Terry Fox Drive/ Legget Drive(1) | 13 sec | B | NBL/R | 14 sec | B | NBL/R |
| Legget Drive/ Solandt Road(2) | 0.30 | A | EBT/R | 0.50 | A | SBT/R |
| March Road/ Solandt Road(2) | **1.16** | **F** | **SBT** | 0.85 | D | SBT |
| March Road/ Carling Avenue/Station Road(2) | 0.94 | E | NBT | 0.85 | D | SBT |

1. Unsignalized intersection
2. Signalized intersection

**Table 9: 2027 Background Critical Queues**

| Intersection | Mvmt | Storage/ Spacing(1) | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|---|
| | | | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) |
| March Road/ Solandt Road | NBL | 160m | 0.80 [C] | 70 | m#141 | 0.56 [A] | 6 | m#25 |
| | NBT | 600m | 0.52 [A] | 73 | m73 | 0.85 [D] | 186 | #259 |
| | SBL | 150m | 0.46 [A] | 12 | 27 | 0.59 [A] | 6 | #27 |
| | SBT | 880m | **1.16 [F]** | **~207** | **#250** | 0.85 [D] | 140 | #213 |
| | EBR | 60m | 0.32 [A] | 0 | 3 | 0.82 [D] | 37 | **61** |
| | WBL | 135m | 0.23 [A] | 4 | 9 | 0.69 [B] | 35 | 47 |
| March Road/ Carling Avenue | NBT | 150m | 0.94 [E] | **171** | **#316** | 0.72 [C] | 119 | **176** |
| | SBT | 600m | 0.57 [A] | 9 | m136 | 0.85 [D] | 215 | #292 |

1: Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection/rail crossing for through lanes
#: Volume for the 95th percentile cycle exceeds capacity
m: Queue is metered by an upstream signal
~: Approach is above capacity

From the previous table, all movements meet the target Auto LOS during the peak hours, except for the southbound through movement at March Road/Solandt Road during the AM peak hour. Some movements appear to improve due to differences in the Peak Hour Factor (0.9 for existing conditions versus 1.0 for future conditions).

The following movements have average or maximum queue lengths that exceed the storage length provided or extend into an upstream intersection/rail crossing:

**AM Peak Hour**

- March Road/Carling Avenue/Station Road
  - Northbound through: 171m average/316m max (average and maximum queues extend through Renfrew Rail Corridor, with the maximum queue also extending through signalized access to Gateway Plaza Shopping Centre).

**PM Peak Hour**

- March Road/Solandt Road
  - Eastbound right turn: 61m max (marginally exceeds 60m storage length).
- March Road/Carling Avenue/Station Road
  - Northbound through: 176m max (extends through Renfrew Rail Corridor).

To address the over-capacity movement, alternate timing scenarios were developed in Synchro. The cycle length at March Road/Solandt Road was increased to 150 seconds. The City's maximum cycle length for analysis is 120 seconds. It is acknowledged that 150-second cycle lengths are not preferred, however they do exist at select major intersections in the City. A summary of the results are provided below. Detailed Synchro reports with the alternate timings are included in **Appendix L**.

*March Road/Solandt Road*

During the AM peak hour, the northbound left turn phase was shortened by three seconds, the northbound through phase was lengthened by 22 seconds, the southbound through phase was lengthened by 25 seconds, the eastbound/westbound left turn phase was shortened by two seconds, and the eastbound/westbound through phase was unchanged. With this alternate timing, the v/c ratio of the southbound through movement improves from 1.16 to 0.93, while all other movements operate at the target Auto LOS E or better.

### 3.4.3 2032 Background Traffic Operations

Intersection capacity analysis has been conducted for the 2032 background traffic conditions. The results of the analysis are summarized in **Table 10** and **Table 11** for the AM and PM peak hours. Detailed reports are included in **Appendix L**.

**Table 10: 2032 Background Intersection Analysis**

| Intersection | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Max v/c or Delay | LOS | Mvmt | Max v/c or Delay | LOS | Mvmt |
| Terry Fox Drive/ Legget Drive(1) | 14 sec | B | NBL/R | 17 sec | C | NBL/R |
| Legget Drive/ Solandt Road(2) | 0.30 | A | EBT/R | 0.51 | C | SBT/R |
| March Road/ Solandt Road(2) | **1.93** | **F** | **SBT** | **1.19** | **F** | **NBT** |
| | | | | **1.14** | **F** | **SBT** |
| March Road/ Carling Avenue/Station Road(2) | **1.16** | **F** | **NBT** | **1.05** | **F** | **SBT** |
| | | | | **1.04** | **F** | **NBT** |

1. Unsignalized intersection
2. Signalized intersection

**Table 11: 2032 Background Critical Queues**

| Intersection | Mvmt | Storage/ Spacing(1) | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|---|
| | | | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) |
| March Road/ Solandt Road | NBL | 160m | 0.80 [C] | 71 | m76 | 0.59 [A] | 7 | m12 |
| | NBT | 600m | 0.70 [B] | 114 | m115 | **1.19 [F]** | **~334** | **m#364** |
| | SBL | 150m | 0.93 [E] | 19 | #49 | 0.65 [B] | 7 | #27 |
| | SBT | 880m | **1.93 [F]** | **~398** | **#440** | **1.14 [F]** | **~243** | **#310** |
| | EBR | 60m | 0.32 [A] | 0 | 3 | 0.83 [D] | 37 | **63** |
| | WBL | 135m | 0.30 [A] | 6 | 11 | 0.73 [C] | 41 | 54 |
| March Road/ Carling Avenue | NBT | 150m | **1.16 [F]** | **~317** | **#429** | **1.04 [F]** | **~260** | **#336** |
| | SBT | 600m | 0.93 [E] | 117 | m142 | **1.05 [F]** | **~319** | **m#335** |

1: Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection/rail crossing for through lanes
#: Volume for the 95th percentile cycle exceeds capacity
m: Queue is metered by an upstream signal
~: Approach is above capacity

From the previous table, the following movements do not meet the target Auto LOS E:

- March Road/Solandt Road
    - Northbound through (PM peak hour);
    - Southbound through (AM and PM peak hours).
- March Road/Carling Avenue/Station Road
    - Northbound through (AM and PM peak hours);
    - Southbound through (PM peak hour).

The following movements have average or maximum queue lengths that exceed the storage length provided or extend into an upstream intersection/rail crossing.

**AM Peak Hour**

- March Road/Carling Avenue/Station Road
    - Northbound through: 317m average/429m max (extends through Renfrew Rail Corridor and upstream signalized access to Gateway Plaza Shopping Centre).

**PM Peak Hour**

- March Road/Solandt Road
    - Eastbound right turn: 63m max (exceeds 60m storage length).
- March Road/Carling Avenue/Station Road
    - Northbound through: 260m average/336m max (average and maximum queues extend through Renfrew Rail Corridor, with the maximum queue also extending through signalized access to Gateway Plaza Shopping Centre).

Alternate timing scenarios were developed in Synchro during both peak hours. The cycle length at both March Road/Solandt Road and March Road/Carling Avenue/Station Road was increased to 150 seconds. In cases where critical movements remain over-capacity, the required demand rationalization is also included in accordance with the City's *TIA Guidelines*. The purpose of demand rationalization is to adjust projected travel demands that cannot physically be accommodated by the road network. Traffic throughout the study area could be displaced or alleviated through a combination of increased use of non-auto modes of transportation, alternate time to travel for drivers using the study area roadways to make use of off-peak capacity, and alternate routes for travel. A summary of the results are provided below.

*March Road/Solandt Road*

During the AM peak hour, the northbound left turn phase was shortened by three seconds, the northbound through phase was lengthened by 22 seconds, the southbound through phase was lengthened by 25 seconds, the eastbound/westbound left turn phase was shortened by two seconds, and the eastbound/westbound through phase was unchanged. With this alternate timing, the v/c ratio of the southbound through movement improves from 1.93 to 1.45, while all other movements operate at the target Auto LOS E or better. To achieve the target Auto LOS E, a reduction of approximately 640 southbound through vehicles would be required.

During the PM peak hour, the northbound left turn phase was unchanged, the northbound and southbound through phases were lengthened by 22 seconds, the eastbound left turn phase was shortened by 16 seconds, the westbound left turn phase was shortened by two seconds, the eastbound through phase was unchanged, and the westbound through phase was lengthened by 14 seconds. With this alternate timing, the v/c ratio of the northbound through movement improves from 1.19 to 1.09 and the v/c ratio of the southbound through movement improves from 1.14 to 0.99 (meeting the target), while all other movements operate at better than the target Auto LOS E. To achieve the target Auto LOS E, a reduction of approximately 170 northbound through vehicles would be required.

*March Road/Carling Avenue/Station Road*

During the AM peak hour, the northbound/southbound left turn phase was shortened by five seconds, the northbound and southbound through phases were lengthened by 25 seconds, and the eastbound/westbound phases were unchanged. With this alternate timing, the v/c ratio of the northbound through movement improves from 1.16 to 1.09, while all other movements operate at better than the target Auto LOS E. To achieve the target Auto LOS E, a reduction of approximately 190 northbound through vehicles would be required.

During the PM peak hour, the northbound/southbound left turn phase was shortened by five seconds, the northbound and southbound through phases were lengthened by 25 seconds, and the eastbound/westbound phases were unchanged. With this alternate timing, the v/c ratio of the northbound through movement improves from 1.04 to 1.00 (meeting the target) and the v/c ratio of the southbound through movement improves from 1.05 to 1.01, while all other movements operate at better than the target Auto LOS E. To achieve the target Auto LOS E, a reduction of approximately ten southbound through vehicles would be required.

Detailed Synchro reports with the alternate timings and rationalized demands described above are included in **Appendix L**.

# 4.0 ANALYSIS

## 4.1 Development Design

### 4.1.1 Design for Sustainable Modes

A pedestrian walkway is proposed to connect the lower-floor spa entrance and accessible parking spaces to new concrete sidewalks on the north side of Solandt Road at the cul-de-sac. Three pedestrian walkway spines are also proposed within the primary parking lot to connect to the upper-floor spa entrance further north. Of these three spines, the southern and central walkways include stairs, and the north does not. Additionally, a community access pathway is proposed at the western limit of the subject site. The community access pathway will exit the subject site at the northwestern corner, for a possible future connection to existing pathways within 515 Legget Drive and 525 Legget Drive (Brookstreet Hotel). That connection is not a part of this development application. A new bus stop and shelter pad are proposed at the unused stop #7548, on the north side of Solandt Road.

A total of 18 exterior bicycle parking spaces are proposed adjacent to the lower-floor spa entrance, which is also adjacent to the proposed access location at the Solandt Road cul-de-sac. A review of the bicycle parking requirements is included in Section 4.2.

A review of the City's *Transportation Demand Management (TDM)-Supportive Development Design and Infrastructure Checklist* has been conducted. A copy of the non-residential TDM checklist is included in **Appendix M**. All applicable required TDM-supportive design and infrastructure measures in the TDM checklist are met. In addition to the required measures, the following 'basic' or 'better' measures are proposed.

- Locate building close to the street, and do not locate parking areas between the street and building entrances;
- Provide safe, direct, and attractive walking routes from building entrances to nearby transit stops;
- Provide on-site amenities to minimize midday or mid-commute errands.

### 4.1.2 Circulation and Access

Loading, delivery, garbage, and maintenance vehicles are proposed to enter and exit the facility by entering the Solandt Road access and driving through the parking area to the service area directly north of the main building. These vehicles will drive forward or reverse into the service area as required. The service area will include earth bins at the northwestern corner and designated loading spaces connected to the northern end of the proposed main building. Turning movements for Wb-12 and Medium Single Unit (MSU) design vehicles travelling in and out of the loading area are included in **Appendix N**.

The primary fire route for the proposed spa includes the proposed Solandt Road access, the perimeter surrounding the parking area, and drop-off aisle that runs in front of the upper-floor spa entrance. Fire trucks will be able to drive forward along the primary route, as the route forms a continuous loop.

Additionally, an emergency access/fire route is proposed at the western limit of the site, part of which shares the proposed community access pathway discussed in the previous section. A hammerhead is proposed within the spa area for fire trucks to turn around on-site, as they would otherwise be required to drive forward in and reverse out. Turning movements for a fire truck along the proposed fire routes are included in **Appendix N**.

## 4.2 Parking

The subject site is located within Area C on Schedules 1 and 1A of the City's *Zoning By-Law* (ZBL). Minimum vehicle parking, bicycle parking, and loading space rates for the proposed development are identified in Sections 101, 111, and 113 of the ZBL, and minimum accessible parking rates are identified in Section 3.1 of the City's *Accessibility Design Standards*.

A rezoning of the subject site to Mixed-Use Centre (MC) with site-specific requirements with no minimum parking rates is being sought as part of this application. While the proposed development includes multiple land uses (i.e. wellness centre, restaurant, etc.), it will function as one site offering multiple services (for example, patrons are arriving to use some or all of the spa services in one visit, versus only arriving to eat at the restaurant). The proposed parking supply will meet the requirements of the current zoning and the anticipated parking demand. A review of the minimum parking requirements and the proposed parking supply is summarized in **Table 12**.

**Table 12: Required and Proposed Parking**

| Land Use | Rate | GFA/Unit | Required | Provided |
|---|---|---|---|---|
| *Minimum Vehicle Parking* | | | | |
| Personal Service Business | 3.4 spaces per 100 $m^2$ GFA | 4,392 $m^2$ | 149 | 218 |
| *Minimum Bicycle Parking* | | | | |
| Personal Service Business | 1 space per 500 $m^2$ GFA | 4,392 $m^2$ | 9 | 18 |
| *Minimum Loading Space* | | | | |
| Other Non-Residential | 2 required when GFA exceeds 2,000 $m^2$ | 4,392 $m^2$ | 2 | 2 |
| *Minimum Accessible Parking* | | | | |
| - | 7 required when total parking supply is 167-250 spaces | 218 spaces | 7 | 8 |

From the previous table, all parking/loading requirements will be met by the proposed development.

## 4.3 Boundary Streets

This section provides a review of the boundary street Solandt Road. The *2025 MMLOS Guidelines Update* has been used to evaluate the pedestrian level of service (PLOS), bicycle level of service (BLOS), transit level of service (TLOS), and public realm level of service (PRLOS), based on the targets for Special District. Solandt Road has been evaluated based on existing conditions.

A detailed segment MMLOS review of Solandt Road is **Appendix O**. A summary of the results is provided in **Table 13**.

**Table 13: Segment MMLOS Summary**

| Segment | PLOS | | BLOS | | TLOS | | PRLOS |
|---|---|---|---|---|---|---|---|
| | Actual | Target | Actual | Target | Actual | Target | Score |
| Solandt Road | **F** | A | **D** | B | C | E | C |

From the previous table, Solandt Road does not achieve the target PLOS A or BLOS B, and does achieve the target TLOS E. Solandt Road achieves a PRLOS C.

The existing sidewalk on Solandt Road achieves a PLOS D, as it is approximately 1.5m. The *2025 MMLOS Guidelines Update* identifies that widening the sidewalk to 1.8m while maintaining a minimum boulevard width of 1.5m will achieve the target PLOS A. Widening the sidewalk to 2.0m and maintaining the boulevard along the subject site's frontage is proposed as part of the spa development.

The *OTM – Book 18* includes a desirable cycling facility pre-selection nomograph, which identifies the desirable facility based on speed limit and AADT. Based on the unposted speed limit of 50 km/h and AADT of approximately 1,240 vpd, the nomograph identifies that a 'designated operation space' is appropriate, which could include bike lanes (as shown in **Figure 14**). The *2025 MMLOS Guidelines Update* identifies that the target BLOS B can be achieved while maintaining on-street parking if 1.8m-wide bike lanes are implemented with a minimum buffer of 0.6m to mitigate dooring. Alternatively, the target BLOS B can be achieved while removing on-street parking if 2.0m-wide bike lanes are implemented with a minimum buffer of 0.3m. These options are identified for the City's consideration. Solandt Road has an existing width of 11.0m.

## 4.4 Transportation Demand Management

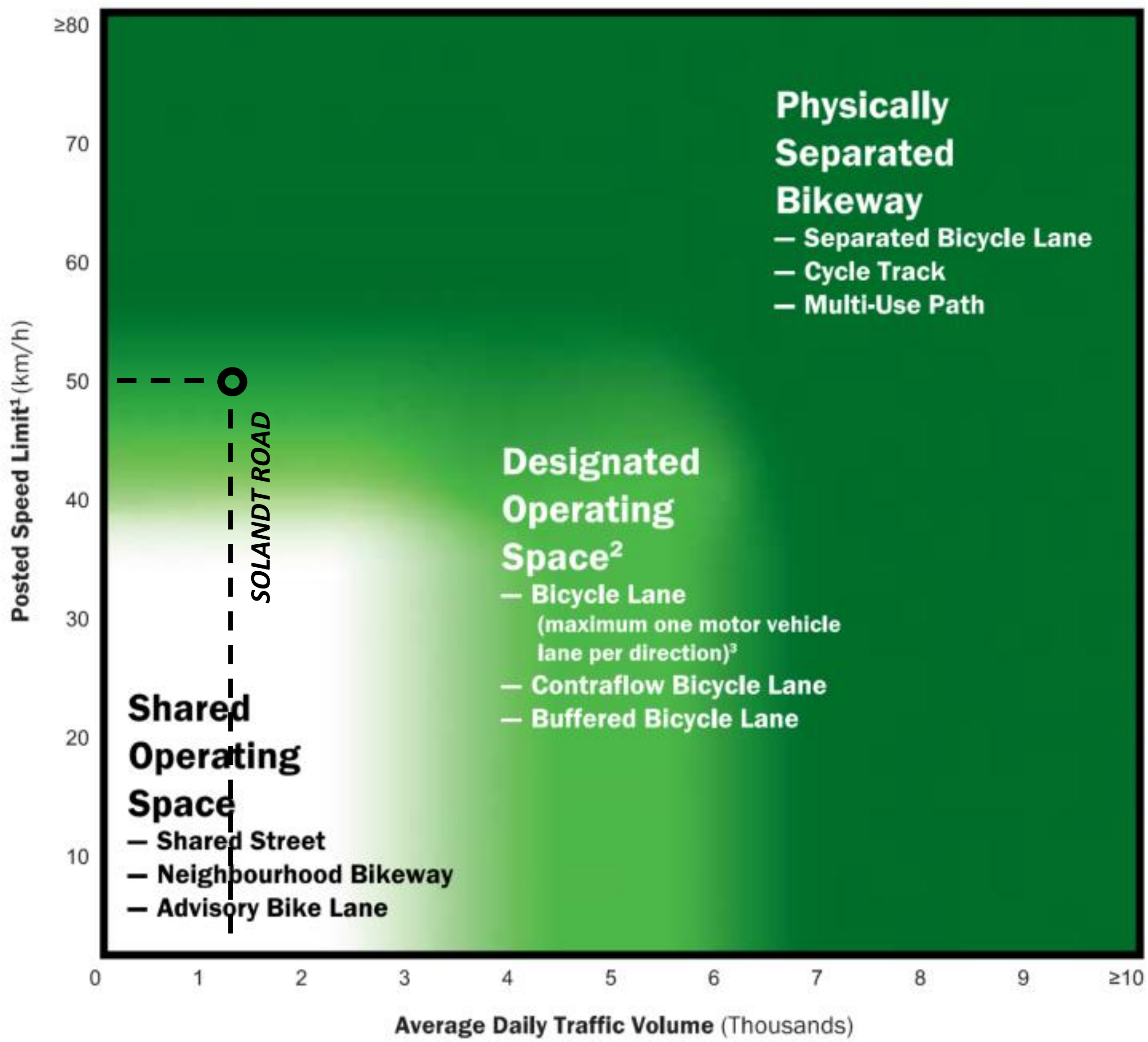
### 4.4.1 Context for TDM

The proposed spa facility includes a primary building where patrons will check in, change, and shower, along with outdoor pools and landscaped spa areas, and a series of small accessory buildings that will include amenities for patrons (such as washrooms, a bar/kitchen, saunas, steam rooms, yoga rooms, treatment rooms, relaxation chambers, and a greenhouse).

### 4.4.2 Need and Opportunity

The subject site is designated as 'Kanata North Economic District' on Schedule B5 of the City of Ottawa's *Official Plan*. The implemented zoning for the property is 'Business Park Industrial Zone (Kanata North Business Park)' (IP6), and the site is not within any community design plan or secondary plan areas.

**Figure 14: Desirable Cycling Facility Pre-Selection Nomograph**




1 Operating speeds are assumed to be similar to posted speeds. If evidence suggests this is not the case, practitioners may consider using 85th percentile speeds or implementing measures to reduce operating speeds.

2 Physically separated bikeways may always be considered in the designated operating space area of the nomograph.

3 On roadways with two or more lanes per direction (including multi-lane one-way roadways), a buffered bicycle lane should be considered the minimum with a typical facility being a physically separated bikeway.

As first discussed in Section 2.5, the assumed mode shares are 45% driver, 45% passenger, 5% transit, and 5% pedestrian. If the assumed driver share was 10% higher than projected (i.e. 55% instead of 45%), this would result in an additional 15 to 30 vehicle trips during the peak hours.

### 4.4.3 TDM Program

A review of the *TDM Measures Checklist* has been conducted and is included in **Appendix M**. The proponent will consider implementing the following TDM measures:

- Display local area maps with walking/cycling access routes and key destinations at major entrances;
- Display relevant transit schedules and route maps at entrances;
- Provide online links to OC Transpo and STO information;
- Provide on-site amenities/services to minimize mid-day or mid-commute errands.

## 4.5 Transit

### 4.5.1 Transit Route Capacity

Per the Exemptions Review included in Section 2.6, this element is exempt from the TIA, as the proposed development is projected to generate fewer than 75 peak hour transit trips. The nearest transit service is provided at Legget Drive/Solandt Road.

### 4.5.2 Transit Priority Requirements

The proposed development includes an access at the terminus of Solandt Road. Stop #7548 (Solandt Loop), which is located along the subject site's frontage to Solandt Road, is not currently served by any transit routes. The addition of site-generated transit traffic is anticipated to have marginal impacts to transit delays, and the location of the proposed access is not anticipated to contribute to transit delays, should stop #7548 be served by future transit routes.

Within the study area, the City's *2025 Transportation Master Plan (TMP)* identifies at-grade BRT within the median of March Road from Eagleson Station to Terry Fox Drive in the Transit Priority Network, extending north of Terry Fox Drive in the Needs-Based Network. The priority network is planned to be implemented by 2046 and the needs-based network will be implemented post-2046.

## 4.6 Intersection Design

### 4.6.1 Intersection MMLOS

This section provides a review of the signalized study area intersections, using complete streets principles. The intersections have been evaluated for PLOS, BLOS, TLOS, and Auto LOS. The MMLOS targets associated for intersections within Special Districts has been used in this review. The full intersection MMLOS analysis is included in **Appendix O**. A summary of the results is shown in **Table 14**.

**Table 14: Intersection MMLOS Summary**

<table>
<tr><th rowspan="2">Intersection</th><th colspan="2">PLOS</th><th colspan="2">BLOS</th><th colspan="2">TLOS</th><th colspan="2">Auto LOS</th></tr>
<tr><th>Actual</th><th>Target</th><th>Actual</th><th>Target</th><th>Actual</th><th>Target</th><th>Actual</th><th>Target</th></tr>
<tr><td>Legget Drive/Solandt Road</td><td>B</td><td rowspan="3">A</td><td>D</td><td>B</td><td>B</td><td>E</td><td>A</td><td rowspan="3">E</td></tr>
<tr><td>March Road/Solandt Road</td><td>D</td><td>F</td><td rowspan="2">A</td><td>D</td><td rowspan="2">A</td><td>C</td></tr>
<tr><td>March Road/Carling Avenue/Station Road</td><td>D</td><td>E</td><td>C</td><td>C</td></tr>
</table>

The results of the intersection MMLOS analysis can be summarized as follows:

- No study area intersections meet the target PLOS A;
- No study area intersections meet the target BLOS A or B;
- Legget Drive/Solandt Road meets the target TLOS E, while March Road/Solandt Road and March Road/Carling Avenue/Station Road do not meet the target TLOS A;
- All study area intersections meet the target Auto LOS E.

*Legget Drive/Solandt Road*
The intersection does not meet the target PLOS A or BLOS B.

All approaches achieve a PLOS B. The highest-weighted metric in scoring PLOS is the number of lanes crossed, and all approaches achieve the best-possible score in this metric. There is limited opportunity in improving any approach to the target PLOS A without restricting turning movements. No approaches meet the City's vehicle/pedestrian conflict threshold for zebra-striped crosswalks (greater than 400,000 vehicle/pedestrian conflicts over an eight-hour period).

The Legget Drive approaches achieve a BLOS D and the Solandt Road approaches achieve a BLOS E or F. A protected intersection design would be required for all approaches to meet the target BLOS B. This is identified for the City's consideration.

*March Road/Solandt Road*
The intersection does not meet the target PLOS A, BLOS A, or TLOS A.

All approaches achieve a PLOS D or E. There is limited opportunity in improving any approach without reducing the number of travel lanes or restricting turning movements. The north approach meets the City's vehicle/pedestrian conflict threshold for zebra-striped crosswalks.

The Solandt Road approaches achieve a BLOS F and the March Road approaches achieve a BLOS E. A protected intersection design with fully protected left turn phases would be required for all approaches to meet the target BLOS A. This is identified for the City's consideration as part of the March Road BRT project.

Each approach achieves a TLOS C to F. Future at-grade BRT within the median of March Road from Eagleson Station to Terry Fox Drive is anticipated to achieve the target TLOS A.

*March Road/Carling Avenue/Station Road*
The intersection does not meet the target PLOS A, BLOS A, or TLOS A.

All approaches achieve a PLOS B, D, or E. There is limited opportunity in improving any approach without reducing the number of travel lanes or restricting turning movements. The north approach meets the City's vehicle/pedestrian conflict threshold for zebra-striped crosswalks.

The Carling Avenue approach achieves a BLOS D, the March Road and Station Road approaches achieve a BLOS E. A protected intersection design with fully protected left turn phases would be required for all approaches to meet the target BLOS A. This is identified for the City's consideration as part of the March Road BRT project.

Each approach achieves a TLOS C or D. Future at-grade BRT within the median of March Road from Eagleson Station to Terry Fox Drive is anticipated to achieve the target TLOS A.

### 4.6.2 2027 Total Traffic Operations

Intersection capacity analysis has been conducted for the 2027 total traffic conditions. The results of the analysis are summarized in **Table 15** and **Table 16** for the weekday AM and PM peak hours. Detailed reports are included in **Appendix P**.

**Table 15: 2027 Total Intersection Analysis**

| Intersection | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Max v/c or Delay | LOS | Mvmt | Max v/c or Delay | LOS | Mvmt |
| Terry Fox Drive/ Legget Drive(1) | 13 sec | B | NBL/R | 15 sec | B | NBL/R |
| Legget Drive/ Solandt Road(2) | 0.36 | A | EBT/R | 0.49 | A | SBT/R |
| March Road/ Solandt Road(2) | **1.16** | **F** | **SBT** | 1.00 | E | SBL |
| March Road/ Carling Avenue/Station Road(2) | 0.95 | E | NBT | 0.86 | D | SBT |
| Site Access to Solandt Road(1) | 7 sec | A | EBL | 9 sec | A | SBR |

1. Unsignalized intersection
2. Signalized intersection

**Table 16: 2027 Total Critical Queues**

| Intersection | Mvmt | Storage/ Spacing(1) | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|---|
| | | | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) |
| March Road/ Solandt Road | NBL | 160m | 0.80 [C] | 69 | m#137 | 0.58 [A] | 6 | m#26 |
| | NBT | 600m | 0.52 [A] | 71 | m69 | 0.86 [D] | 190 | #260 |
| | SBL | 150m | 0.60 [A] | 17 | #41 | 1.00 [E] | ~14 | #42 |
| | SBT | 880m | **1.16 [F]** | **~207** | **#250** | 0.86 [D] | 142 | #213 |
| | EBR | 60m | 0.32 [A] | 0 | 3 | 0.82 [D] | 37 | **62** |
| | WBL | 135m | 0.23 [A] | 4 | 9 | 0.71 [C] | 38 | 51 |
| March Road/ Carling Avenue | NBT | 150m | 0.95 [E] | **176** | **#322** | 0.74 [C] | 124 | **182** |
| | SBT | 600m | 0.57 [A] | 10 | m136 | 0.86 [D] | 219 | #297 |

1: Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection/rail crossing for through lanes
#: Volume for the 95th percentile cycle exceeds capacity
m: Queue is metered by an upstream signal
~: Approach is above capacity

From the previous table, the impact of site-generated traffic is marginal and all movements meet the target Auto LOS during the peak hours, except for the southbound through movement at March Road/Solandt Road during the AM peak hour.

The following movements have average or maximum queue lengths that exceed the storage length provided or extend into an upstream intersection/rail crossing:

**AM Peak Hour**

- March Road/Carling Avenue/Station Road
  - Northbound through: 176m average/322m max (average and maximum queues extend through Renfrew Rail Corridor, with the maximum queue also extending through signalized access to Gateway Plaza Shopping Centre).

**PM Peak Hour**

- March Road/Solandt Road
  - Eastbound right turn: 62m max (exceeds 60m storage length).
- March Road/Carling Avenue/Station Road
  - Northbound through: 182m max (extends through Renfrew Rail Corridor).

To address the over-capacity movement, the alternate timing scenario described in Section 3.4.2 was applied. A summary of the results are provided below.

<u>*March Road/Solandt Road*</u>
With the alternate AM peak hour timing, the v/c ratio of the southbound through movement improves from 1.16 to 0.93, while all other movements operate at the target Auto LOS E or better.

Detailed Synchro reports with the alternate timing are included in **Appendix P**.

### 4.6.3 2032 Total Traffic Operations

Intersection capacity analysis has been conducted for the 2032 total traffic conditions. The results of the analysis are summarized in **Table 17** and **Table 18** for the weekday AM and PM peak hours. Detailed reports are included in **Appendix P**.

**Table 17: 2032 Total Intersection Analysis**

| Intersection | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Max v/c or Delay | LOS | Mvmt | Max v/c or Delay | LOS | Mvmt |
| Terry Fox Drive/ Legget Drive(1) | 15 sec | B | NBL/R | 19 sec | C | NBL/R |
| Legget Drive/ Solandt Road(2) | 0.36 | A | EBT/R | 0.51 | A | SBT/R |
| March Road/ Solandt Road(2) | **1.93** | **F** | **SBT** | **1.21** | **F** | **NBT** |
| | **1.16** | **F** | **SBL** | **1.15** | **F** | **SBT** |
| | | | | **1.02** | **F** | **SBL** |
| March Road/ Carling Avenue/Station Road(2) | **1.17** | **F** | **NBT** | **1.06** | **F** | **SBT** |
| | | | | **1.05** | **F** | **NBT** |
| Site Access to Solandt Road(1) | 7 sec | A | EBL | 9 sec | A | SBR |

1. Unsignalized intersection
2. Signalized intersection

**Table 18: 2032 Total Critical Queues**

| Intersection | Mvmt | Storage/ Spacing(1) | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|---|
| | | | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) | v/c [LOS] | 50th % Queue (m) | 95th % Queue (m) |
| March Road/ Solandt Road | NBL | 160m | 0.80 [C] | 71 | m75 | 0.60 [A] | 7 | m11 |
| | NBT | 600m | 0.70 [B] | 113 | m107 | **1.21 [F]** | **~338** | **m#357** |
| | SBL | 150m | **1.16 [F]** | **~29** | **#63** | **1.02 [F]** | **~14** | **#42** |
| | SBT | 880m | **1.93 [F]** | **~398** | **#440** | **1.15 [F]** | **~247** | **#310** |
| | EBR | 60m | 0.32 [A] | 0 | 3 | 0.84 [D] | 37 | **63** |
| | WBL | 135m | 0.30 [A] | 6 | 11 | 0.75 [C] | 45 | 58 |
| March Road/ Carling Avenue | NBT | 150m | **1.17 [F]** | **~324** | **#435** | **1.05 [F]** | **~267** | **#342** |
| | SBT | 600m | 0.93 [E] | 117 | m142 | **1.06 [F]** | **~324** | **m#337** |

1: Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection/rail crossing for through lanes
#: Volume for the 95th percentile cycle exceeds capacity
m: Queue is metered by an upstream signal
~: Approach is above capacity

From the previous table, the following movements do not meet the target Auto LOS E:

- March Road/Solandt Road
  - Northbound through (PM peak hour);
  - Southbound left turn (AM and PM peak hours);
  - Southbound through (AM and PM peak hours).
- March Road/Carling Avenue/Station Road
  - Northbound through (AM and PM peak hours);
  - Southbound through (PM peak hour).

The following movements have average or maximum queue lengths that exceed the storage length provided or extend into an upstream intersection/rail crossing:

**AM Peak Hour**
- March Road/Carling Avenue/Station Road
  - Northbound through: 324m average/435m max (extends through Renfrew Rail Corridor and upstream signalized access to Gateway Plaza Shopping Centre).

**PM Peak Hour**
- March Road/Solandt Road
  - Eastbound right turn: 63m max (exceeds 60m storage length).
- March Road/Carling Avenue/Station Road
  - Northbound through: 267m average/342m max (average and maximum queues extend through Renfrew Rail Corridor, with the maximum queue also extending through signalized access to Gateway Plaza Shopping Centre).

To address the over-capacity movements, the alternate timing scenarios described in Section 3.4.3 were applied. In cases where critical movements remain over-capacity, the required demand rationalization is also included in accordance with the City's *TIA Guidelines*. A summary of the results are provided as follows.

*March Road/Solandt Road*
With the alternate AM peak hour timing, the v/c ratio of the southbound through movement improves from 1.93 to 1.45 and the v/c ratio of the southbound left turn movement improves from 1.16 to 0.88 (meeting the target), while all other movements operate at the target Auto LOS E or better. To achieve the target Auto LOS E, a reduction of approximately 640 southbound through vehicles would be required.

With the alternate PM peak hour timing, the v/c ratio of the northbound through movement improves from 1.21 to 1.10 and the v/c ratio of the southbound through movement improves from 1.15 to 1.00 (meeting the target). The v/c ratio of the southbound left turn movement downgrades from 1.02 to 1.20. To achieve the target Auto LOS E for all movements, a reduction of approximately 190 northbound through vehicles and ten southbound left turning vehicles would be required.

*March Road/Carling Avenue/Station Road*
With the alternate AM peak hour timing, the v/c ratio of the northbound through movement improves from 1.17 to 1.11, while all other movements operate better than the target Auto LOS E. To achieve the target Auto LOS E, a reduction of approximately 230 northbound through vehicles would be required.

With the alternate PM peak hour timing, the v/c ratio of the northbound through movement improves from 1.05 to 1.02 and the v/c ratio of the southbound through movement improves from 1.06 to 1.02, while all other movements operate at better than the target Auto LOS E. To achieve the target Auto LOS E, a reduction of approximately 30 northbound through vehicles and 30 southbound through vehicles would be required.

Detailed Synchro reports with the alternate timings and rationalized demands described above are included in **Appendix P**. Overall, the site-generated traffic volumes are generally projected to have marginal impacts to operations within the study area.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the foregoing, the conclusions and recommendations of this TIA can be summarized as follows:

*Access Intersections*
- A single full-movement access to Solandt Road is proposed at the terminus of the roadway, in the same location as one of the two existing unused parking lot accesses. The proposed access generally meets the relevant provisions of the City's *Private Approach By-Law* (PABL) and the Transportation Association of Canada (TAC)'s *Geometric Design Guide for Canadian Roads*. A 6.0m-wide emergency access at the community pathway (i.e. at the western limit of the site) is also proposed, but will not provide access to any parking.

*Site-Generated Traffic*
- The proposed spa is projected to generate 150 person trips (including 68 vehicle trips) during the AM peak hour and 300 person trips (including 135 vehicle trips) during the PM peak hour.

*Development Design and Parking*

- A pedestrian walkway is proposed to connect the lower-floor spa entrance and accessible parking spaces to new concrete sidewalks on the north side of Solandt Road at the cul-de-sac. Three pedestrian walkway spines are also proposed within the primary parking lot to connect to the upper-floor spa entrance further north. Of these three spines, the southern and central walkways include stairs, and the north does not. Additionally, a community access pathway is proposed at the western limit of the subject site. The community access pathway will exit the subject site at the northwestern corner, for a possible future connection to existing pathways within 515 Legget Drive and 525 Legget Drive (Brookstreet Hotel). That connection is not a part of this development application. A new bus stop and shelter pad are proposed at the unused stop #7548, on the north side of Solandt Road.

- A total of 18 exterior bicycle parking spaces are proposed adjacent to the lower-floor spa entrance, which is also adjacent to the proposed access location at the Solandt Road cul-de-sac.

- Loading, delivery, garbage, and maintenance vehicles are proposed to enter and exit the facility by entering the Solandt Road access and driving through the parking area to the service area directly north of the main building. These vehicles will drive forward or reverse into the service area as required. The service area will include earth bins at the northwestern corner and designated loading spaces connected to the northern end of the proposed main building.

- The primary fire route for the proposed spa includes the proposed Solandt Road access, the perimeter surrounding the parking area, and drop-off aisle that runs in front of the upper-floor spa entrance. Fire trucks will be able to drive forward along the primary route, as the route forms a continuous loop. Additionally, an emergency access/fire route is proposed at the western limit of the site, part of which shares the proposed community access pathway discussed in the previous section. A hammerhead is proposed within the spa area for fire trucks to turn around on-site, as they would otherwise be required to drive forward in and reverse out.

- All parking/loading requirements will be met by the proposed development.

*Boundary Streets*

- Solandt Road does not achieve the target pedestrian level of service (PLOS) A or bicycle level of service (BLOS) B, and does achieve the target transit level of service (TLOS) E.

- The existing sidewalk on Solandt Road achieves a PLOS D, as it is approximately 1.5m. Widening the sidewalk to 2.0m and maintaining the boulevard along the subject site's frontage is proposed as part of the spa development.

- The target BLOS B can be achieved while maintaining on-street parking if 1.8m-wide bike lanes are implemented with a minimum buffer of 0.6m to mitigate dooring. Alternatively, the target BLOS B can be achieved while removing on-street parking if 2.0m-wide bike lanes are implemented with a minimum buffer of 0.3m. These options are identified for the City's consideration. Solandt Road has an existing width of 11.0m.

*Transportation Demand Management*

- The proponent will consider implementing the following TDM measures:
    - Display local area maps with walking/cycling access routes and key destinations at major entrances;
    - Display relevant transit schedules and route maps at entrances;
    - Provide online links to OC Transpo and STO information;
    - Provide on-site amenities/services to minimize mid-day or mid-commute errands.

*Intersection MMLOS*

- The results of the intersection MMLOS analysis can be summarized as follows:
    - No study area intersections meet the target PLOS A;
    - No study area intersections meet the target BLOS A or B;
    - Legget Drive/Solandt Road meets the target TLOS, while March Road/Solandt Road and March Road/Carling Avenue/Station Road do not meet the target TLOS A;
    - All study area intersections meet the target Auto LOS E.

- There is limited opportunity in improving any approach to the target PLOS A without restricting turning movements.

- A protected intersection design at each intersection would be required for all approaches to meet the target BLOS. This is identified for the City's consideration as part of the March Road BRT project.

- Future at-grade BRT within the median of March Road from Eagleson Station to Terry Fox Drive is anticipated to achieve the target TLOS A.

*Existing Traffic Operations*

- All movements meet the target Auto LOS E, except for the southbound through movement at March Road/Solandt Road during the AM peak hour.

*Background Traffic Operations*

- The following movements do not meet the target Auto LOS E by the 2032 horizon year:
    - March Road/Solandt Road
        - Northbound through (PM peak hour);
        - Southbound through (AM and PM peak hours).
    - March Road/Carling Avenue/Station Road
        - Northbound through (AM and PM peak hours);
        - Southbound through (PM peak hour).

- At March Road/Solandt Road, a reduction of approximately 640 southbound through vehicles during the AM peak hour, and approximately 170 northbound through vehicles during the PM peak hour would be required to achieve the target Auto LOS E.

- At March Road/Carling Avenue/Station Road, a reduction of approximately 190 northbound through vehicles during the AM peak hour, and approximately ten southbound through vehicles during the PM peak hour would be required.

*Total Traffic Operations*

- The site-generated traffic volumes are generally projected to have marginal impacts to operations within the study area.

Based on the foregoing, the proposed wellness centre is recommended from a transportation perspective.

**NOVATECH**

Prepared by:

LICENSED PROFESSIONAL ENGINEER
J. R. AUDIA
100575555
Jan 28, 2026
PROVINCE OF ONTARIO

Joshua Audia, P.Eng.
Project Engineer | Transportation

Reviewed by:

LICENSED PROFESSIONAL ENGINEER
J.L. LUONG
100061569
01/28/2026
PROVINCE OF ONTARIO

Jennifer Luong, P.Eng.
Senior Project Manager | Transportation

# APPENDIX A

Preliminary Site Plan

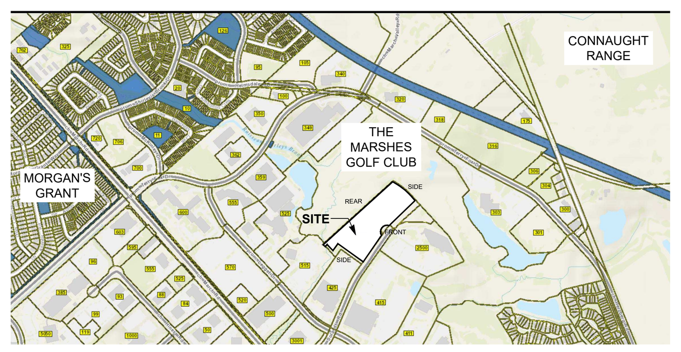
LAYOUT: A004 OVER-ALL SITE PLAN AND SITE STATISTICS

PLOT DATE: 2026-01-27

S:\CSA Jobs\2024 Projects\878-24 SerenVita Wellness\03 Working Drawings\SHEETS\878-24 A00.00-SITE PLAN-SOLANDT.dwg


1 A004 OVER-ALL SITE PLAN AND SITE STATISTICS
1 : 500

SCALE = 1:500
0m 5m 10m 20m 50m




SITE LOCATION PLAN

## SITE STATISTICS

AREA CALCULATIONS ROUNDED TO THE NEAREST m2

**LEGAL DESCRIPTION**

PLAN OF SURVEY OF PART OF BLOCK 29 REGISTERED PLAN M-280 CITY OF KANATA, REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

PLAN OF SURVEY PART OF BLOCK 29 REGISTERED PLAN 4M-280 CITY OF OTTAWA

NOTE:

| ZONING: | MIXED USE CENTRE, EXCEPTION XXXX (MC[XXXX]) | |
|---|---|---|
| | **REQUIRED** BY-LAW REF. # 2008-250 | **PROPOSED** |
| LOT AREA : | NO MINIMUM (TABLE 191(a)) | 40,754 m² (4.08 ha) |
| LOT WIDTH: | NO MINIMUM (TABLE 191(a)) | 308m |
| BUILDING HEIGHT: | 44 m MAX. PER HEIGHT SUFFIX | 12.305 m |
| **LOT COVERAGE:** | n/a | 11.1% |
| LOT COVERAGE (TOTAL) | | 4530.9 m² |
| LOT COV. PROPOSED MAIN BLDG | | 2855.5 m² |
| LOT COVERAGE PROP. ACCESS BLDG: | | 1675.4 m² |
| TOTAL GROSS FLOOR AREA: | | 5,925 m² (63777 ft²) |
| **GROSS FLOOR AREA (MAIN BLDG):** | | 4,392 m² (47275 ft²) |
| **GFA PROP. ACCESS. BLDGS (TOTAL)** | | 1,533 m² (16502 ft²) |
| RELAXATION ROOM 'A' (B1) | | 76.4 m² (822.0 ft²) |
| RELAXATION ROOM 'B' (B3) | | 168.3 m² (1811.8 ft²) |
| RELAXATION ROOM 'C' (B8) | | 111.6 m² (1200.7 ft²) |
| KITCHEN/BAR/WASHROOM (B2) | | 362.7 m² (3904.0 ft²) |
| YOGA PAVILION (B5) | | 67.2 m² (722.9 ft²) |
| SAUNA 'A' (B4) | | 22.1 m² (237.6 ft²) |
| SAUNA 'B' (B6) | | 81.7 m² (879.2 ft²) |
| GREENHOUSE (B7) | | 124.4 m² (1339.0 ft²) |
| STEAM ROOM (B9) | | 22.9 m² (246.8 ft²) |
| ENCLOSED FLOATING POOL(B10) | | 220.8 m² (2377.1 ft²) |
| TREATMENT (B11) | | 252.0 m² (2712.1 ft²) |
| STEAM ROOM (B12) | | 22.9 m² (246.8 ft²) |
| **PARKING REQUIREMENTS (TOTAL) :** | | |
| PERSONAL SERVICES (5,925 m²) | NO MIN. (EXCEPTION XXXX (MC[XXXX]) | 218 SPACES |
| TOTAL | NO MINIMUM | 218 SPACES |
| BARRIER FREE SPOTS | 8 SPOTS CITY OF OTTAWA A.D.S (3.1.2) | 8 (4 TYPE A + 4 TYPE B) |
| SMALL TYPE | < 50% SECTION 106 | 100 SPACES(45.9%) |
| STANDARD TYPE | > 50% SECTION 106 | 118 SPACES (54.1%) |
| LOADING SPACES | 2 STANDARD SPACES | 2 STANDARD SPACES |
| BICYCLE PARKING: | 18-1 per 250m2 GFA (4,392m2/250m2) | 18 SPACES |
| PARKING LOT LANDSCAPING: | n/a | n/a |
| LANDSCAPE BUFFER: | n/a [SEC. 191 (TABLE 191 (i)] | 5-12 m |
| **REQUIRED SETBACKS** | | |
| FRONT YARD: | NO MIN. [SEC. 191(TABLE 191(c)(iii))] | 5 m (12 m) |
| EAST INT. SIDE YARD: | NO MIN. [SEC. 191(TABLE 191(d)(iii))] | 101.7 m |
| WEST INT. SIDE YARD: | NO MIN. [SEC. 191(TABLE 191(d)(iii))] | 15.19 m |
| REAR YARD: | NO MIN. [SEC. 191(TABLE 191(e)(iii))] | 7.5 m |

**PARKING SPACE LEGEND**

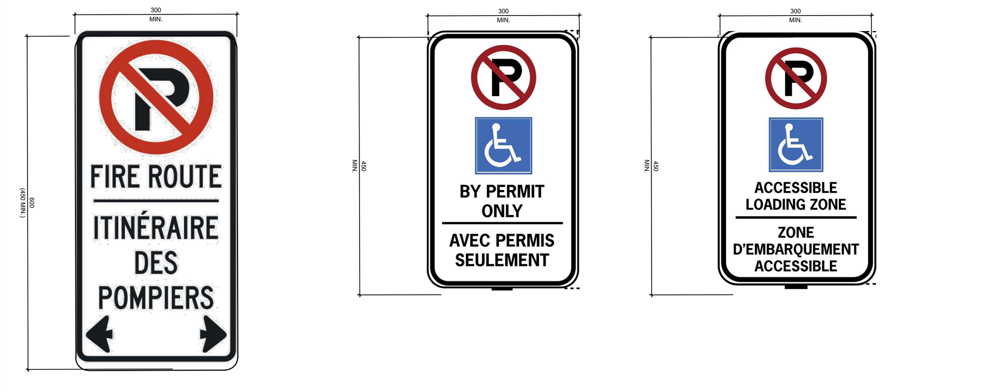
| | |
|---|---|
| ST | STANDARD PARKING SPACE (2.6m X 5.2m) |
| SM | SMALL CAR PARKING SPACE (2.4m X 4.6m) |
| EV | ELECTRIC VEHICLE SPACE (2.6m X 5.2m) |
| HC.a | ACCESSIBLE SPACE TYPE A (3.4m X 5.2m) |
| HC.b | ACCESSIBLE SPACE TYPE B (2.4m X 5.2m) |
| BP | HORIZONTAL BIKE PARKING (1.8m X 0.6m) |
| PLZ | PASSENGER LOADING ZONE (2.4m X 7.4m) |

## SITE PLAN LEGEND

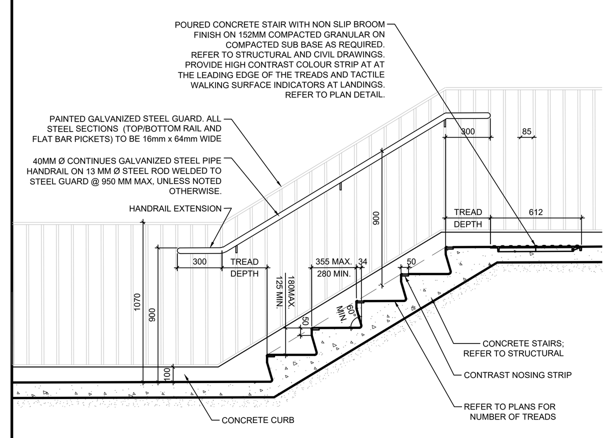
- PROPERTY LINE
- SETBACK
- NEW BUILDING FOOTPRINT
- CANOPY ABOVE
- CHAIN LINK FENCE
- SPECIALTY FENCE (NON OPAQUE)
- DESIGNATED FIRE ROUTE
- OUTLINE OF NEW ROAD/PARKING
- OUTLINE OF EXISTING ROAD
- CONCRETE RETAINING WALL
- MODULAR BLOCK RETAINING WALL
- LANDSCAPE STONE RETAINING WALL
- HEAVY DUTY ASPHALT
- LANDSCAPE BUFFER
- EXTERIOR POOL
- WATER FEATURE

## SYMBOL LEGEND

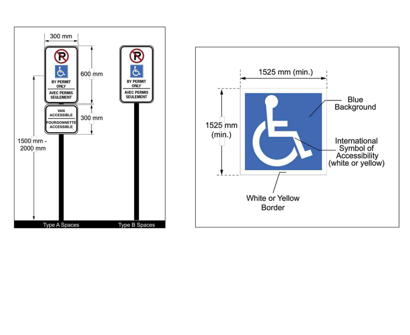
| | |
|---|---|
| | ACCESSIBLE PARKING SPOT |
| BF | ACCESSIBLE PARKING DESIGNATION SIGN |
| ST | STOP SIGN |
| EV | ELECTRIC VEHICLE DESIGNATION SIGN |
| FR | FIRE ROUTE SIGN |
| DC | DEPRESSED CURB |
| | BIKE RACK w/ 1830 x 878 TRANSFER SPACE |
| FH | FIRE HYDRANT |
| SF | SIAMESE FIRE HOSE CONNECTION |
| G W | GAS / WATER METERS |
| LS | LIGHT STANDARD<br>SEE ELEC. FOR TYPE, QUANTITY AND LOCATION |
| BL | BOLLARD LUMINAIRE<br>SEE ELEC. FOR TYPE, QUANTITY AND LOCATION |
| WL | WALL SCONCE LUMINAIRE<br>SEE ELEC. FOR TYPE, QUANTITY AND LOCATION |
| CL | CENTER LINE |
| ▲ | ENTRANCE / EXIT MARKER |
| ▽ | EXIT MARKER |
| | PAINTED LINE FOR CROSSWALK PARKING |
| HP | EXISTING HYDRO POLE |
| | TACTILE WALKING SURFACE INDICATOR (TWSI) |
| BFC | BOARD FORMED CONCRETE FINISH |
| HB | HOSE BIB |
| | BOLLARD 1200 HIGH (SEE STRUC.) |



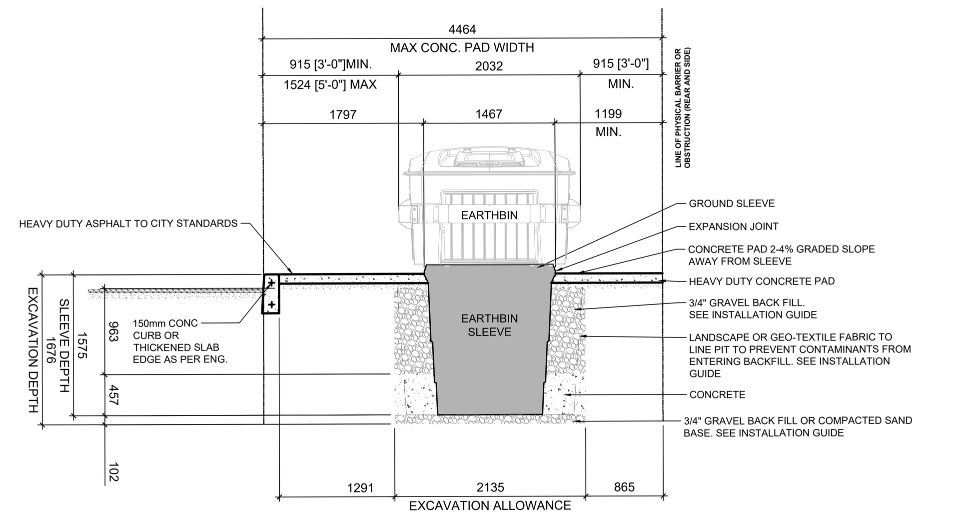

2 A004 PARKING SIGNS
NTS



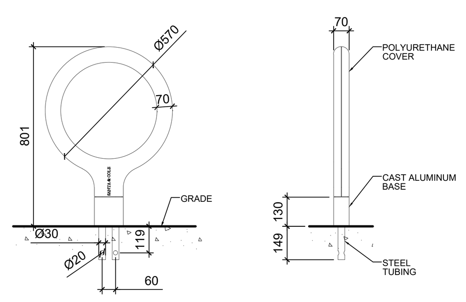
3 A004 TYPICAL EXTERIOR STAIR
1 : 30



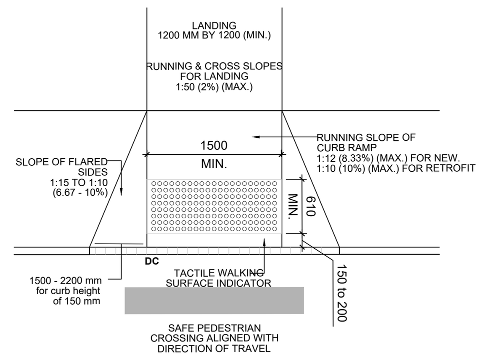
4 A004 ACCESSIBLE SIGNS
NTS



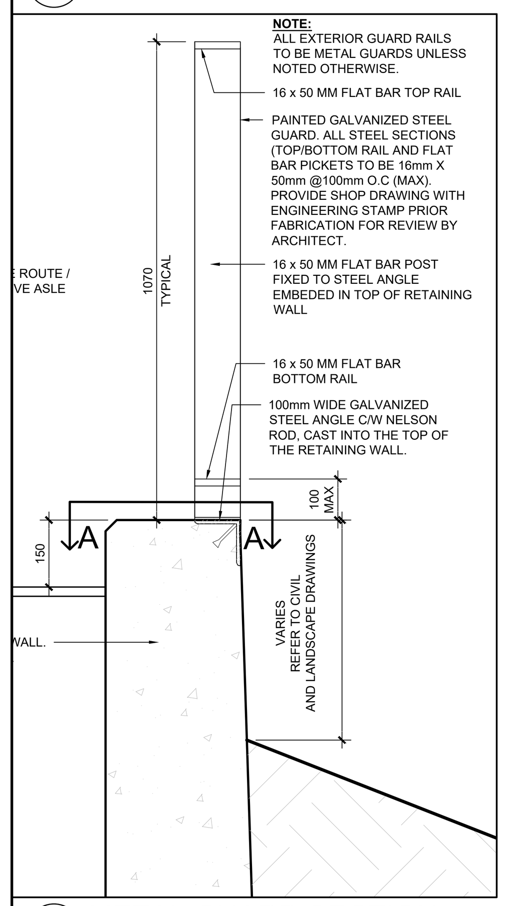

5 A004 EARTH BIN SECTION
1 : 30



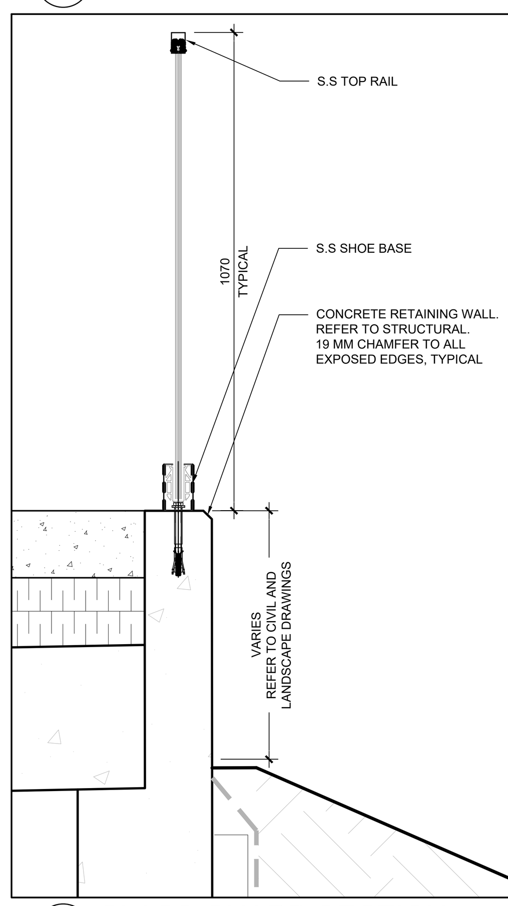
6 A004 BICYCLE PARKING BOLLARD
1 : 20



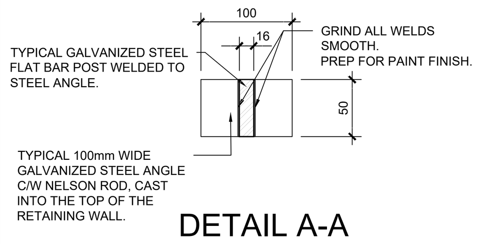

7 A004 CURB RAMP
1 : 20




7 A004 METAL GUARD SECTION
1 : 10




8 A004 GLASS GUARD SECTION
1 : 10




9 A004 METAL GUARD FASTENING
1 : 10

## GENERAL NOTES

A THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ALL DISCREPANCIES TO THE ARCHITECT.

B DO NOT SCALE DRAWINGS.

C ALL WORK SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION.

D THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SIMMONDS ARCHITECTURE ARCHITECT INC. COPYRIGHT RESERVED.

serenvita


**CUNLIFFE & ASSOCIATES**
1550 CARLING AVENUE, SUITE 200
OTTAWA, ONTARIO
K1Z 8S8
PHONE: 613.729.7242
E-MAIL: cunliffe@cunliffe.ca

**NOVATECH**
Engineers, Planners & Landscape Architects
240 MICHAEL COWPLAND DRIVE, SUITE 200
OTTAWA, ONTARIO
K2M 1P6
PHONE: 613.254.9643
E-MAIL: novainfo@novatech-eng.com

**CIMA**
600-1400 BLAIR TOWERS PLACE
OTTAWA, ONTARIO
K1J 9B8
PHONE: 613.860.2462

**FAIRHALL MOFFATT & WOODLAND LTD**
600 TERRY FOX DR, SUITE 100
KANATA, ONTARIO K2L4B6

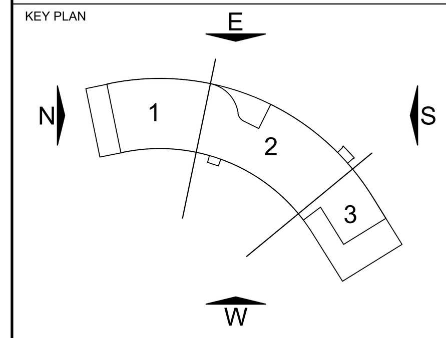
**ANNIS O'SULLIVAN VOLLEBEKK LTD**
14 CONCOURSE GATE, SUITE 500
NEPEAN, ONTARIO K2E 7S6

**GEMTEC**
32 STEACIE DRIVE,
OTTAWA, ONTARIO
PHONE: 613.836.1422
E-MAIL: ottawa@gemtec.ca

**NELLA TORONTO**
148 NORFINCH DRIVE
TORONTO, ON M3N 1X8
PHONE: 416.740.2424
E-MAIL: nellaonline.com

**HARCO**
5610 MCADAM ROAD
MISSISSAUGA, ONTARIO
L4Z 1P1
PHONE: 905.890.1220


KEY PLAN




| No. | DATE | DESCRIPTION |
|---|---|---|
| 04 | 2026.01.26 | ISSUED FOR ZBA AND SPC |
| 03 | 2025.12.12 | ISSUED FOR COORDINATION |
| 02 | 2025.01.07 | ISSUED FOR COORDINATION |
| 01 | 2024.12.06 | ISSUED FOR COORDINATION |

ARCHITECT'S SEAL: PRELIMINARY SET NOT FOR CONSTRUCTION OR PRICING

PROJECT NORTH: N


simmonds ARCHITECTURE
340 Catherine Street
Ottawa, ON K1R 1C4
613.567.7888
simmondsarch.com


PROJECT:
SERENVITA WELLNESS SPA
2505 & 2707 SOLANDT ROAD
OTTAWA, ON

DRAWING TITLE:
OVER-ALL SITE PLAN AND SITE STATISTICS

| | | |
|---|---|---|
| DATE: | 2026.01.26 | DRAWING No: |
| SCALE: | AS NOTED | |
| DRAWN BY: | CA | |
| JOB No: | 878-24 | A004 |

SITE PLAN APPLICATION # PC2025-0256

# APPENDIX B

TIA Screening Form

# City of Ottawa 2017 TIA Guidelines TIA Screening

## 1. Description of Proposed Development

| | |
|---|---|
| Municipal Address | 2505-2707 Solandt Road |
| Description of Location | N side of Solandt at terminus (E of Legget) |
| Land Use Classification | Wellness Centre |
| Development Size (units) | - |
| Development Size square metre ($m^2$) | 4,392 m2 (47,275 ft2) |
| Number of Accesses and Locations | 1 to Solandt (at cul-de-sac) |
| Phase of Development | 1 |
| Buildout Year | 2027 |

**If available, please attach a sketch of the development or site plan to this form.**

## 2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

**Table notes:**

1. Table 2, Table 3 & Table 4 TRANS Trip Generation Manual
2. Institute of Transportation Engineers (ITE) Trip Generation Manual 11.1 Ed.

| Land Use Type | Minimum Development Size |
|---|---|
| **Single-family homes** | **60 units** |
| **Multi-Use Family (Low-Rise)[1]** | **90 units** |
| **Multi-Use Family (High-Rise)[1]** | **150 units** |
| **Office[2]** | **1,400 $m^2$** |
| **Industrial[2]** | **7,000 $m^2$** |
| **Fast-food restaurant or coffee shop[2]** | **110 $m^2$** |
| **Destination retail[2]** | **1,800 $m^2$** |
| **Gas station or convenience market[2]** | **90 $m^2$** |

**If the proposed development size is equal to or greater than the sizes identified above, the Trip Generation Trigger is satisfied.**

## 3. Location Triggers

| | Yes | No |
|---|---|---|
| Does the development propose a new driveway to a boundary street that is designated as part of the Transit Priority Network, Rapid Transit network or Cross-Town Bikeways? | ☐ | ☑ |
| Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)?[2] | ☑ | ☐ |

**If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.**

## 4. Safety Triggers

| | Yes | No |
|---|---|---|
| Are posted speed limits on a boundary street are 80 kilometers per hour (km/h) or greater? | ☐ | ☑ |
| Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway? | ☐ | ☑ |
| Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 metre [m] of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)? | ☐ | ☑ |
| Is the proposed driveway within auxiliary lanes of an intersection? | ☐ | ☑ |
| Does the proposed driveway make use of an existing median break that serves an existing site? | ☐ | ☑ |

[2] Hubs are identified in Schedules B1 to B8 of the City of Ottawa Official Plan. PMTSAs are identified in Schedule C1 of the Official Plan. DPAs are identified in Schedule C7A and C7B of the Official. See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA.

| | Yes | No |
|---|---|---|
| Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development? | ☐ | ☑ |
| Does the development include a drive-thru facility? | ☐ | ☑ |

**If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.**

## 5. Summary

| Results of Screening | Yes | No |
|---|---|---|
| Does the development satisfy the Trip Generation Trigger? | ☑ | ☐ |
| Does the development satisfy the Location Trigger? | ☑ | ☐ |
| Does the development satisfy the Safety Trigger? | ☐ | ☑ |

**If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).**

# APPENDIX C

OC Transpo Route Maps

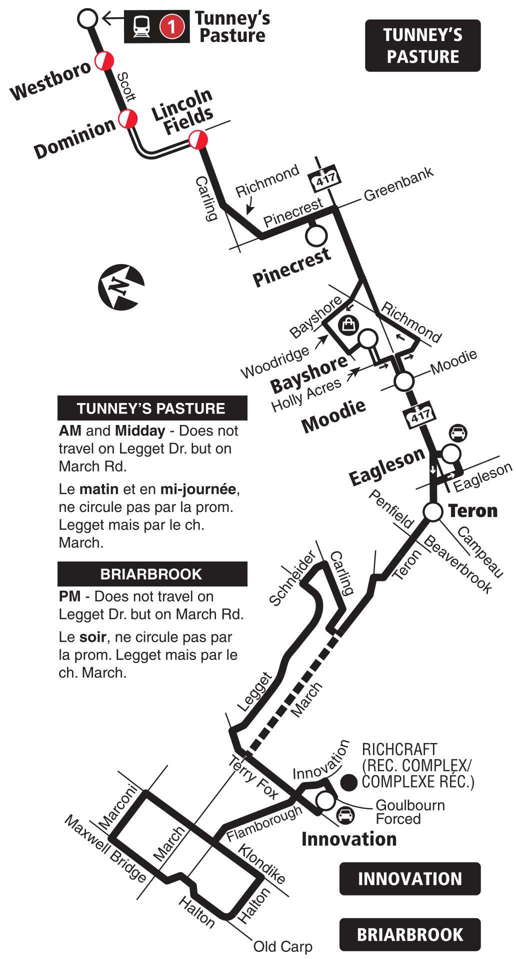
# 63 BRIARBROOK INNOVATION / TUNNEY'S PASTURE

*Fréquent*

**7 days a week / 7 jours par semaine**

All day and limited overnight service

Service toute la journée et limité la nuit




**TUNNEY'S PASTURE**

**AM** and **Midday** - Does not travel on Legget Dr. but on March Rd.

Le **matin** et en **mi-journée**, ne circule pas par la prom. Legget mais par le ch. March.

**BRIARBROOK**

**PM** - Does not travel on Legget Dr. but on March Rd.

Le **soir**, ne circule pas par la prom. Legget mais par le ch. March.

2024

- Transitway & Station
- Eastbound: AM Off only - Westbound: Full Service / Vers l'est AM: Débarquement seulement / Vers l'ouest: Service complet
- Some trips / Certains trajets
- Shopping Centre / Centre commercial
- Park & Ride / Parc relais

2025.04

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

**Ce circuit sera mis en service le 27 avril 2025,** lorsque le réseau L'autobus réinventé entrera en vigueur.

Customer Service / Service à la clientèle . . . . . **613-560-5000**

Security / Sécurité . . . . . . **613-741-2478**

OC Transpo **octranspo.com**

# 110

**LIMEBANK**

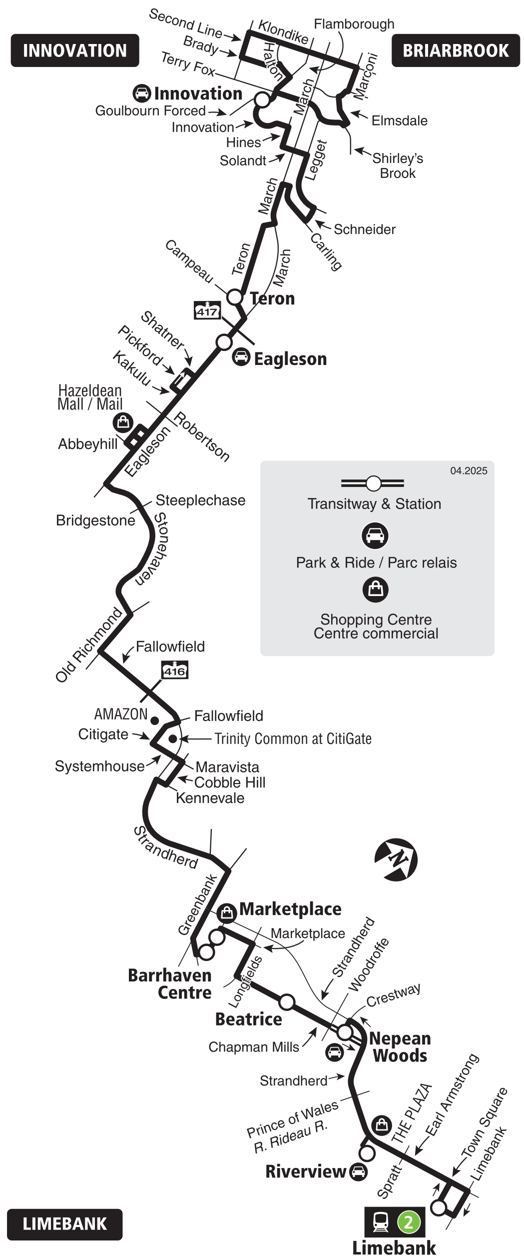
**INNOVATION BRIARBROOK**

*Local*

**7 days a week / 7 jours par semaine**

All day service

Service toute la journée




2025.05

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

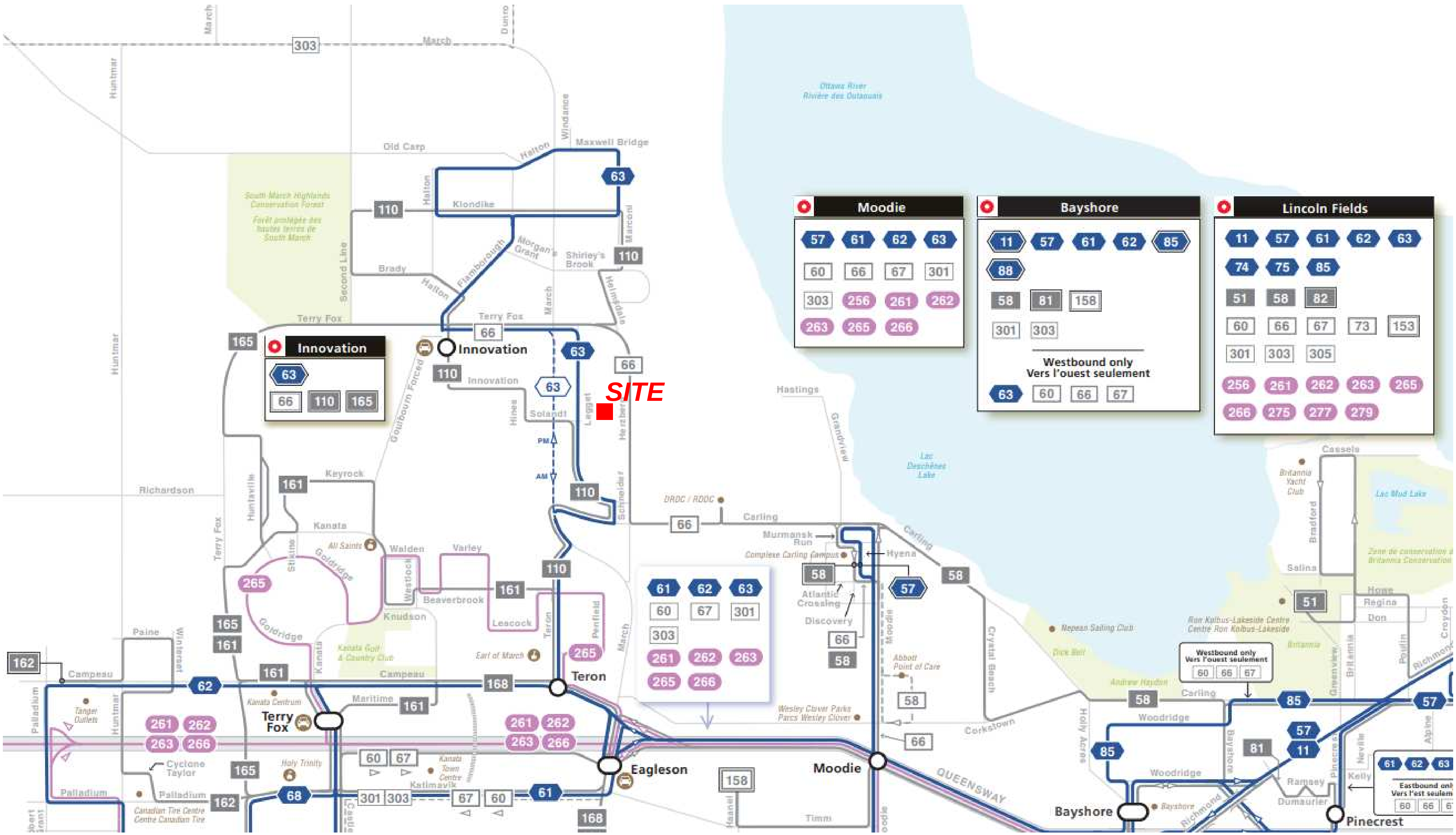
---

**Ce circuit sera mis en service le 27 avril 2025,** lorsque le réseau L'autobus réinventé entrera en vigueur.

Customer Service / Service à la clientèle . . . . . **613-560-5000**

Security / Sécurité . . . . . . **613-741-2478**

OC Transpo **octranspo.com**


SITE
Innovation
63
66
110
165
Moodie
57
61
62
63
60
66
67
301
303
256
261
262
263
265
266
Bayshore
11
57
61
62
85
88
58
81
158
301
303
Westbound only
Vers l'ouest seulement
63
60
66
67
Lincoln Fields
11
57
61
62
63
74
75
85
51
58
82
60
66
67
73
153
301
303
305
256
261
262
263
265
266
275
277
279
Teron
Eagleson
Terry Fox
Moodie
Bayshore
Pinecrest
Ottawa River
Rivière des Outaouais
Lac Deschênes Lake
March
Old Carp
Maxwell Bridge
Klondike
Terry Fox
Innovation
Solandt
Hines
Legget
Herzberg
Carling
Campeau
Richardson
Kanata
Walden
Varley
Beaverbrook
Knudson
Leacock
Goldridge
Maritime
Palladium
Katimavik
Hastings
Corkstown
Queensway
Woodridge
Cassels
Salina
Holly Acres
Crystal Beach
Hyena
Atlantic Crossing
Discovery
Murmansk Run
Timm
Halton
Brady
Keyrock
Huntmar
Cyclone Taylor
Dunrobin
Paine
Hazeldean
Terry Fox
Grandview
Schneider
Penfield
March
Britannia
Pinecrest
Richmond
Ramsey
Kelly
Eastbound only
Vers l'est seulement

# APPENDIX D

Traffic Count Data

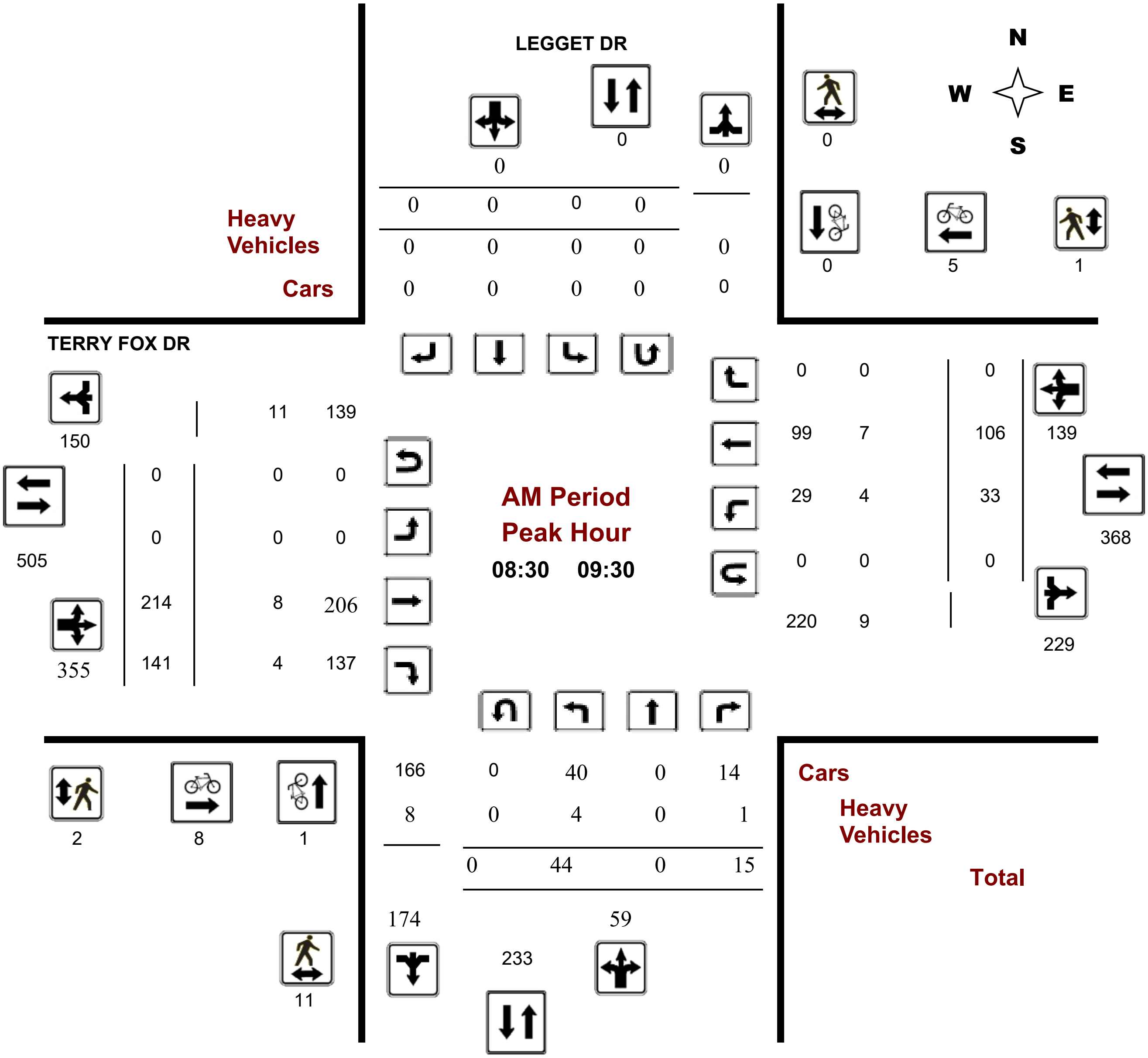
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## LEGGET DR @ TERRY FOX DR

**Survey Date:** Tuesday, July 26, 2022 **WO No:** 40369

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




**Comments**

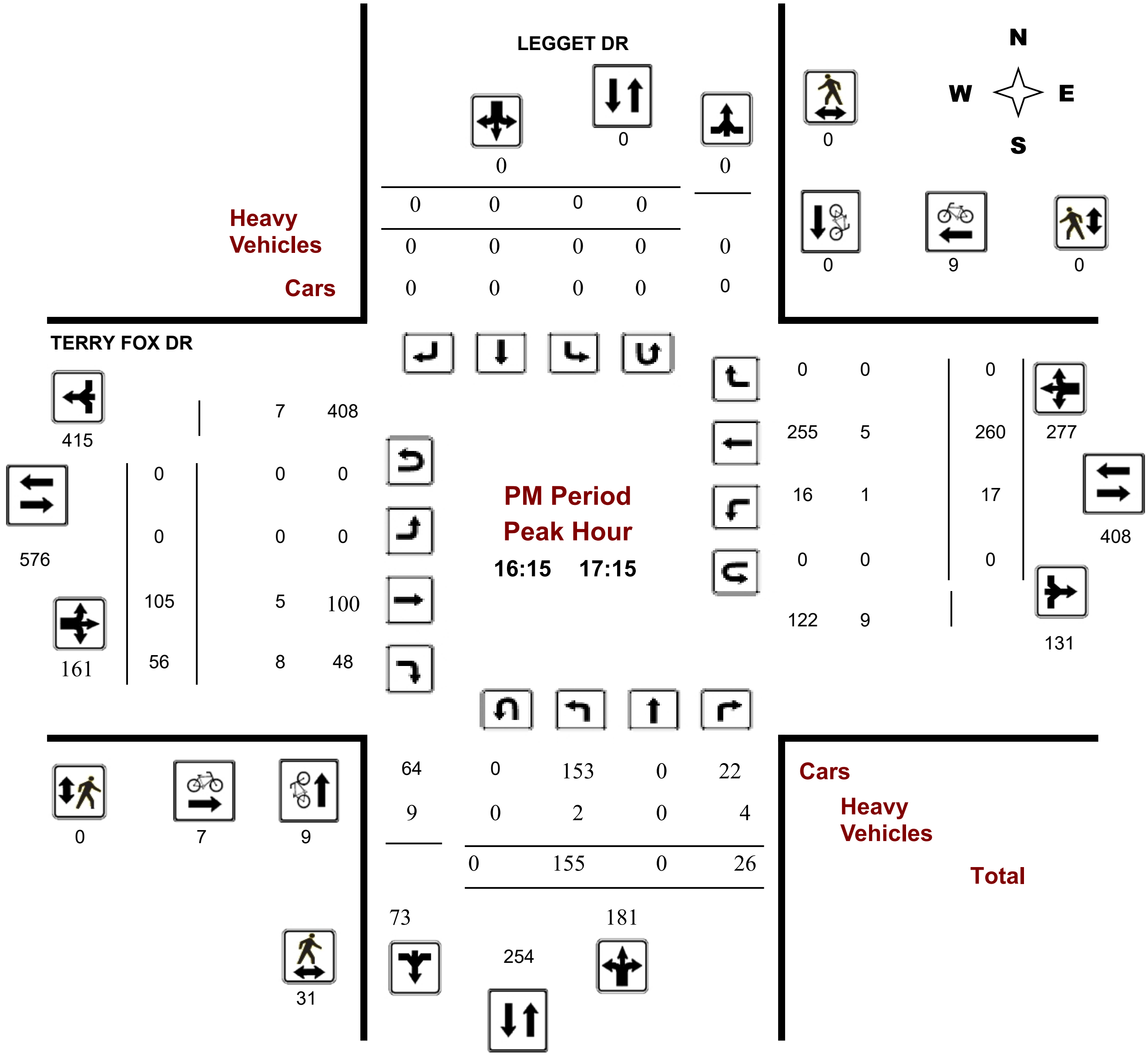
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## LEGGET DR @ TERRY FOX DR

**Survey Date:** Tuesday, July 26, 2022 **WO No:** 40369

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




Comments

Transportation Services - Traffic Services

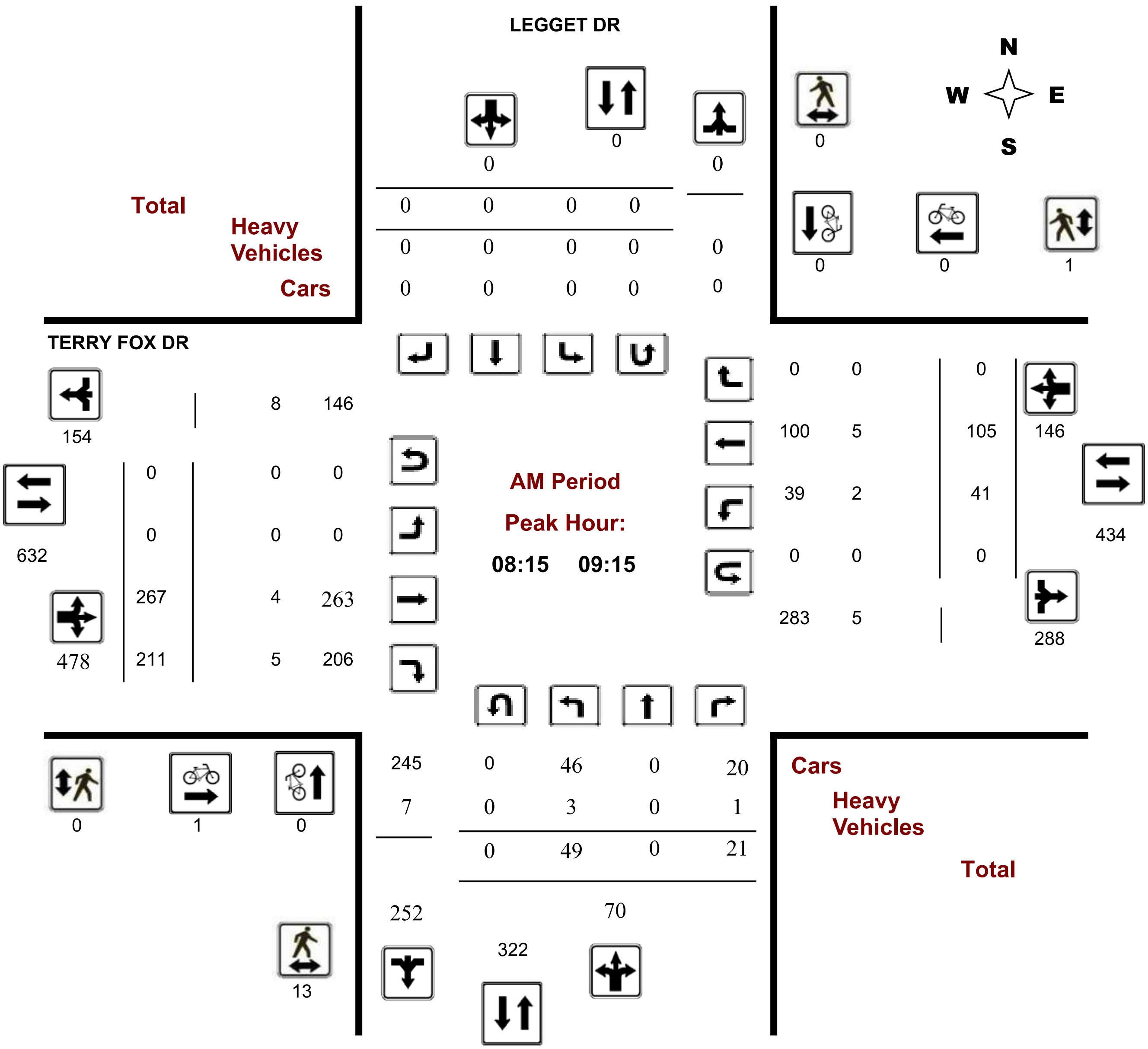
## Turning Movement Count - Study Results

## LEGGET DR @ TERRY FOX DR

**Survey Date:** Wednesday, April 02, 2025 **WO No:** 42647

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

### AM Period Peak Hour Diagram



# Transportation Services - Traffic Services

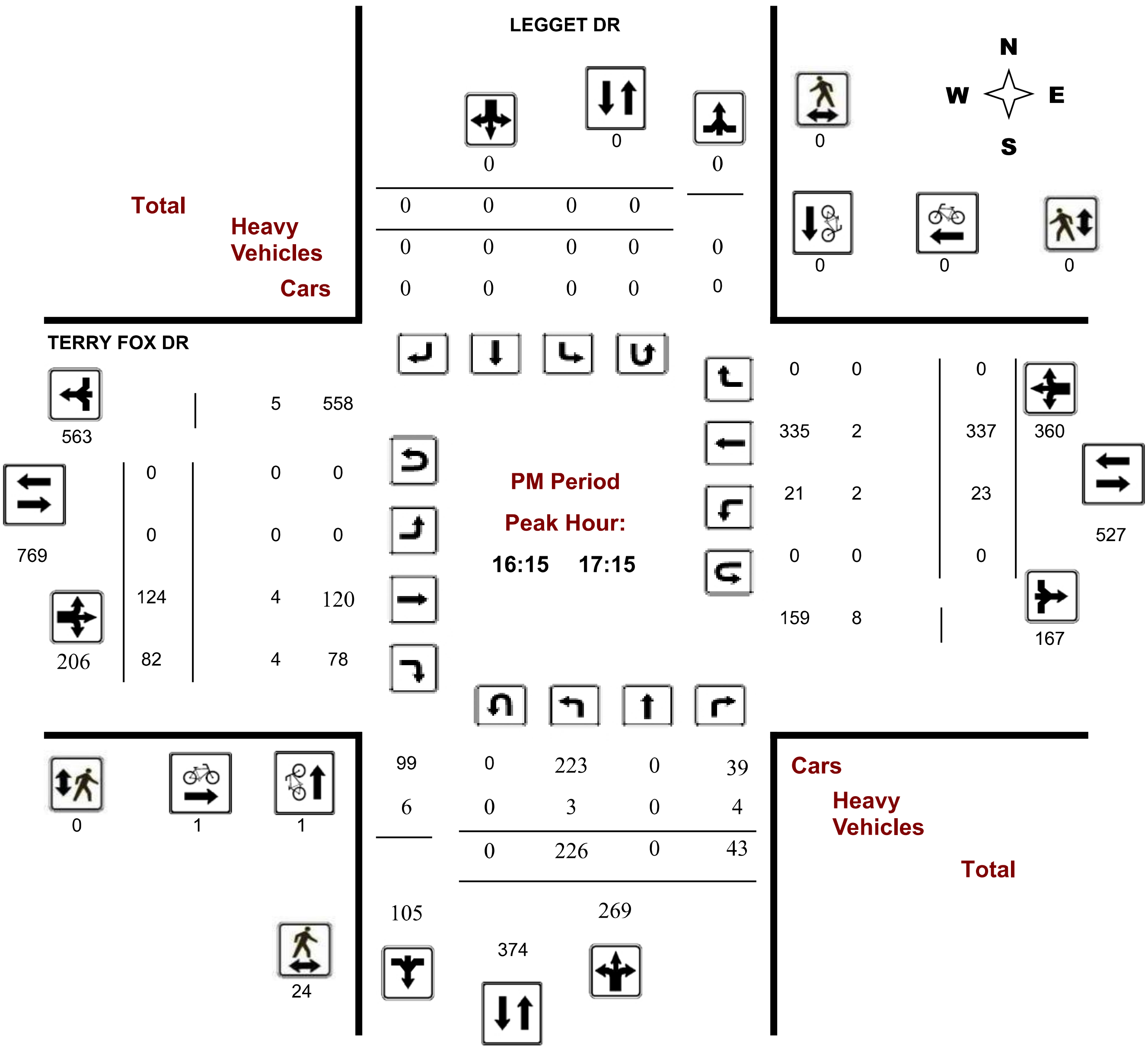
## Turning Movement Count - Study Results

## LEGGET DR @ TERRY FOX DR

**Survey Date:** Wednesday, April 02, 2025 **WO No:** 42647

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

### PM Period Peak Hour Diagram



# Transportation Services - Traffic Services

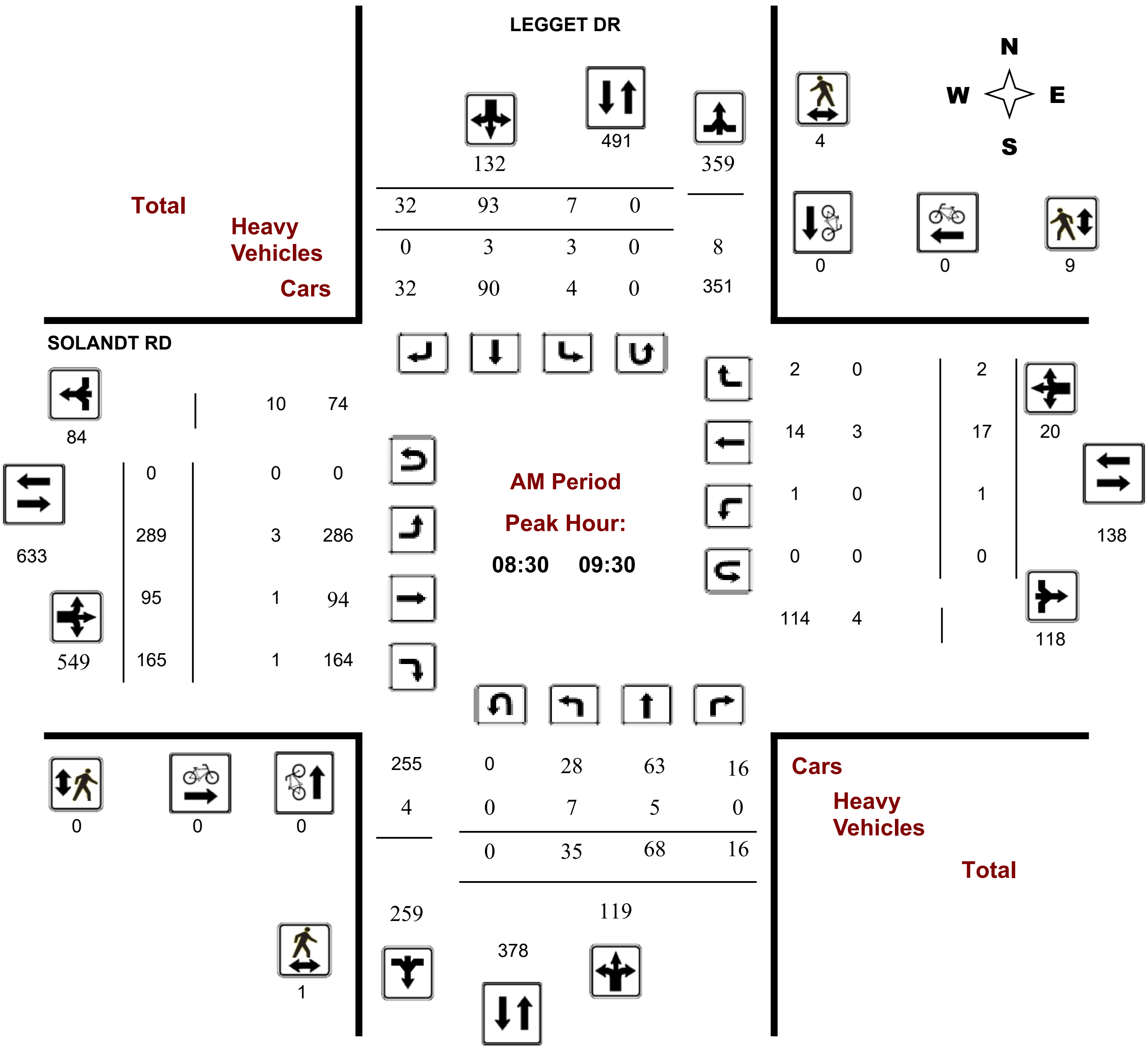
## Turning Movement Count - Study Results

## LEGGET DR @ SOLANDT RD

**Survey Date:** Tuesday, January 09, 2024 **WO No:** 41499

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

### AM Period Peak Hour Diagram



# Transportation Services - Traffic Services

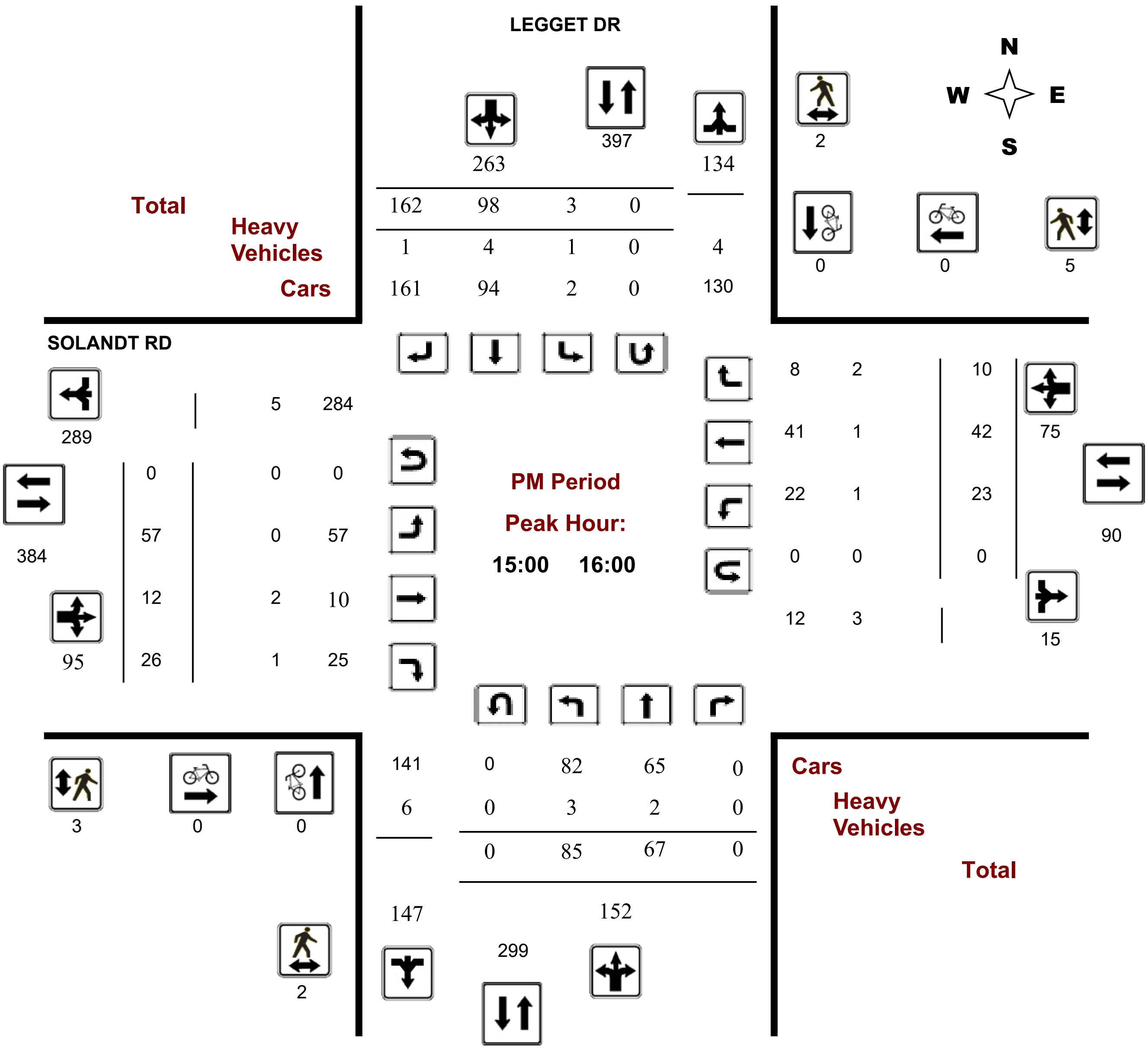
## Turning Movement Count - Study Results

## LEGGET DR @ SOLANDT RD

**Survey Date:** Tuesday, January 09, 2024 **WO No:** 41499

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

### PM Period Peak Hour Diagram



# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## LEGGET DR @ SOLANDT RD

**Survey Date:** Tuesday, January 09, 2024 **WO No:** 41499

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

## Full Study Summary (8 HR Standard)

**Survey Date:** Tuesday, January 09, 2024

**Total Observed U-Turns**

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

**AADT Factor**

1.10

| | LEGGET DR | | | | | | | | | SOLANDT RD | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Period | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | WB TOT | STR TOT | Grand Total |
| 07:00 08:00 | 20 | 44 | 7 | **71** | 5 | 51 | 22 | **78** | **149** | 166 | 44 | 50 | **260** | 2 | 5 | 0 | **7** | **267** | **416** |
| 08:00 09:00 | 29 | 68 | 17 | **114** | 9 | 87 | 40 | **136** | **250** | 259 | 78 | 138 | **475** | 3 | 14 | 2 | **19** | **494** | **744** |
| 09:00 10:00 | 38 | 50 | 10 | **98** | 4 | 67 | 29 | **100** | **198** | 206 | 77 | 113 | **396** | 0 | 20 | 2 | **22** | **418** | **616** |
| 11:30 12:30 | 75 | 66 | 2 | **143** | 4 | 43 | 86 | **133** | **276** | 54 | 9 | 40 | **103** | 6 | 41 | 10 | **57** | **160** | **436** |
| 12:30 13:30 | 55 | 30 | 5 | **90** | 7 | 62 | 80 | **149** | **239** | 58 | 21 | 43 | **122** | 5 | 40 | 2 | **47** | **169** | **408** |
| 15:00 16:00 | 85 | 67 | 0 | **152** | 3 | 98 | 162 | **263** | **415** | 57 | 12 | 26 | **95** | 23 | 42 | 10 | **75** | **170** | **585** |
| 16:00 17:00 | 83 | 61 | 2 | **146** | 1 | 98 | 160 | **259** | **405** | 29 | 5 | 20 | **54** | 10 | 26 | 5 | **41** | **95** | **500** |
| 17:00 18:00 | 44 | 49 | 1 | **94** | 3 | 54 | 98 | **155** | **249** | 20 | 6 | 13 | **39** | 3 | 11 | 5 | **19** | **58** | **307** |
| **Sub Total** | 429 | 435 | 44 | **908** | 36 | 560 | 677 | **1273** | **2181** | 849 | 252 | 443 | **1544** | 52 | 199 | 36 | **287** | **1831** | **4012** |
| **U Turns** | | | | **0** | | | | **0** | **0** | | | | **0** | | | | **0** | **0** | **0** |
| **Total** | 429 | 435 | 44 | **908** | 36 | 560 | 677 | **1273** | **2181** | 849 | 252 | 443 | **1544** | 52 | 199 | 36 | **287** | **1831** | **4012** |
| **EQ 12Hr** | 596 | 605 | 61 | **1262** | 50 | 778 | 941 | **1769** | **3032** | 1180 | 350 | 616 | **2146** | 72 | 277 | 50 | **399** | **2545** | **5577** |

Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AVG 12Hr** | 656 | 666 | 67 | **1388** | 55 | 1122 | 1356 | **1946** | **3335** | 1298 | 385 | 678 | **2361** | 79 | 305 | 55 | **439** | **2800** | **6135** |

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **1.10**

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AVG 24Hr** | 859 | 872 | 88 | **1818** | 72 | 1470 | 1776 | **2549** | **4369** | 1700 | 504 | 888 | **3093** | 103 | 400 | 72 | **575** | **3668** | **8037** |

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

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

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## MARCH RD @ SOLANDT RD

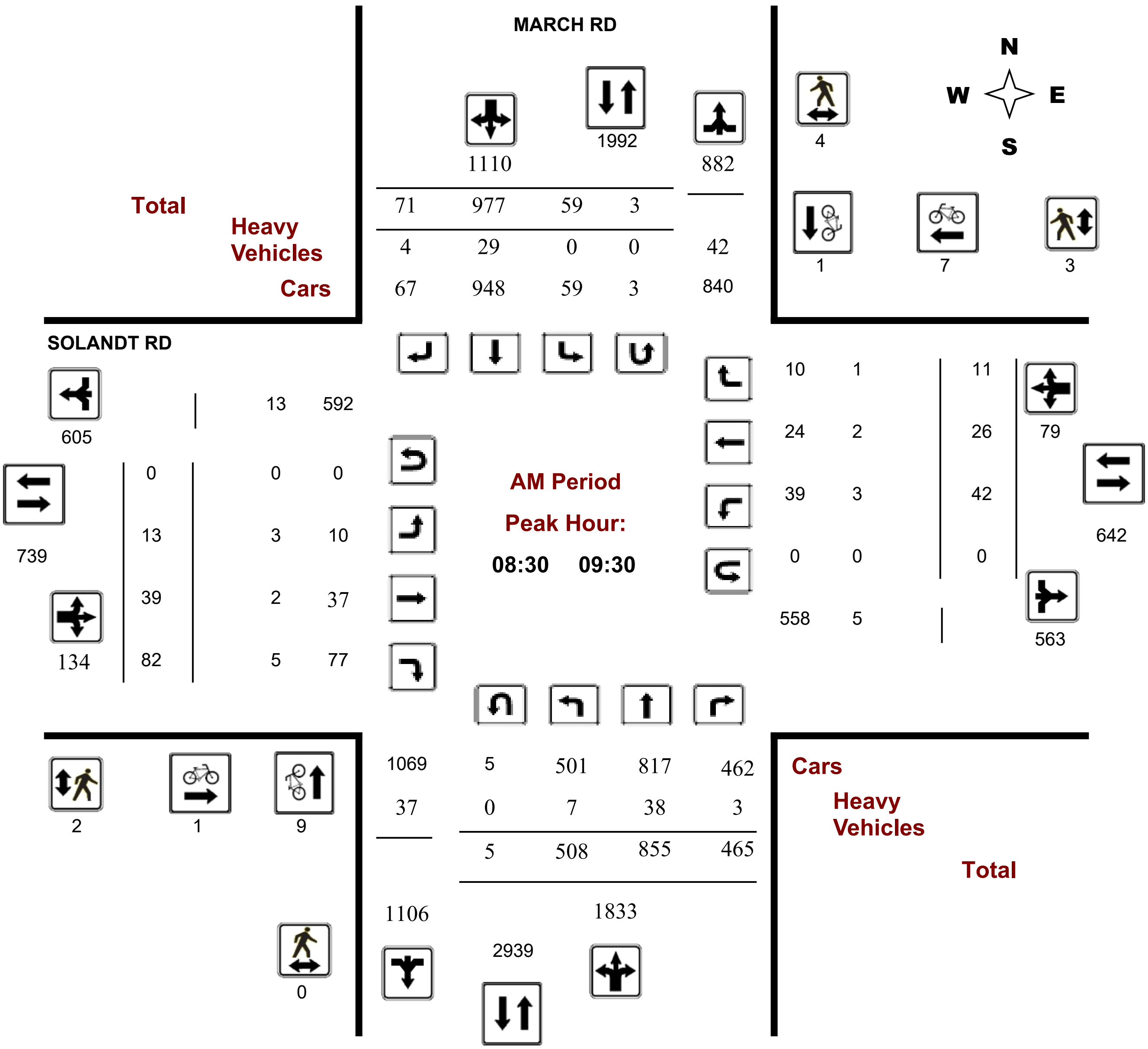
**Survey Date:** Thursday, September 28, 2023

**Start Time:** 07:00

**WO No:** 41209

**Device:** Miovision

### AM Period Peak Hour Diagram



# Transportation Services - Traffic Services

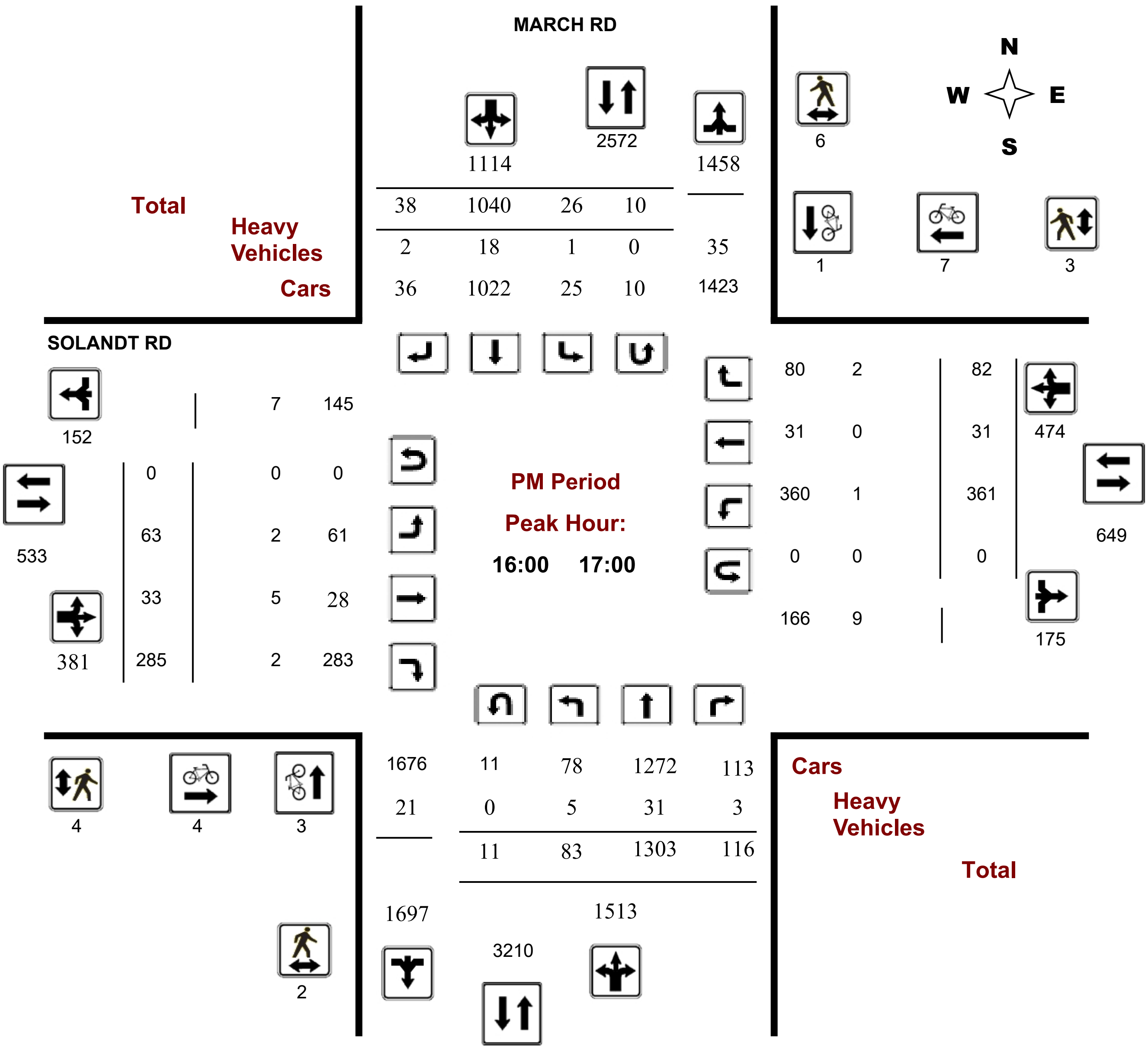
## Turning Movement Count - Study Results

## MARCH RD @ SOLANDT RD

**Survey Date:** Thursday, September 28, 2023 **WO No:** 41209

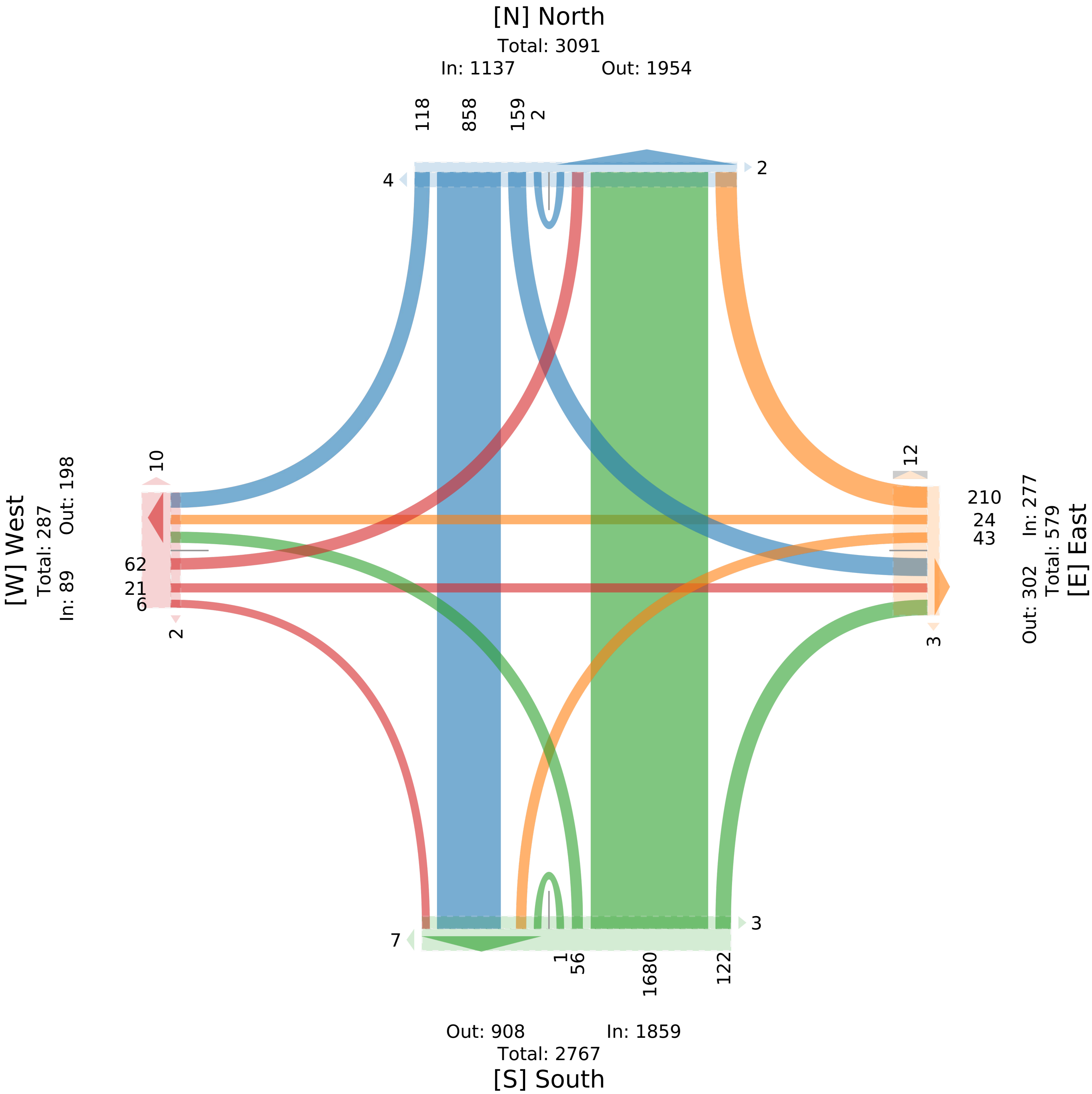
**Start Time:** 07:00 **Device:** Miovision

### PM Period Peak Hour Diagram



**5670056 - Carling and March - Aug 28 2024 - TMC**
Wed Aug 28, 2024
AM Peak (8:15 AM - 9:15 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1226083, Location: 45.338682, -75.911644, Site Code: 41863103

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



## 5670056 - Carling and March - Aug 28 2024 - TMC

Wed Aug 28, 2024
AM Peak (8:15 AM - 9:15 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1226083, Location: 45.338682, -75.911644, Site Code: 41863103

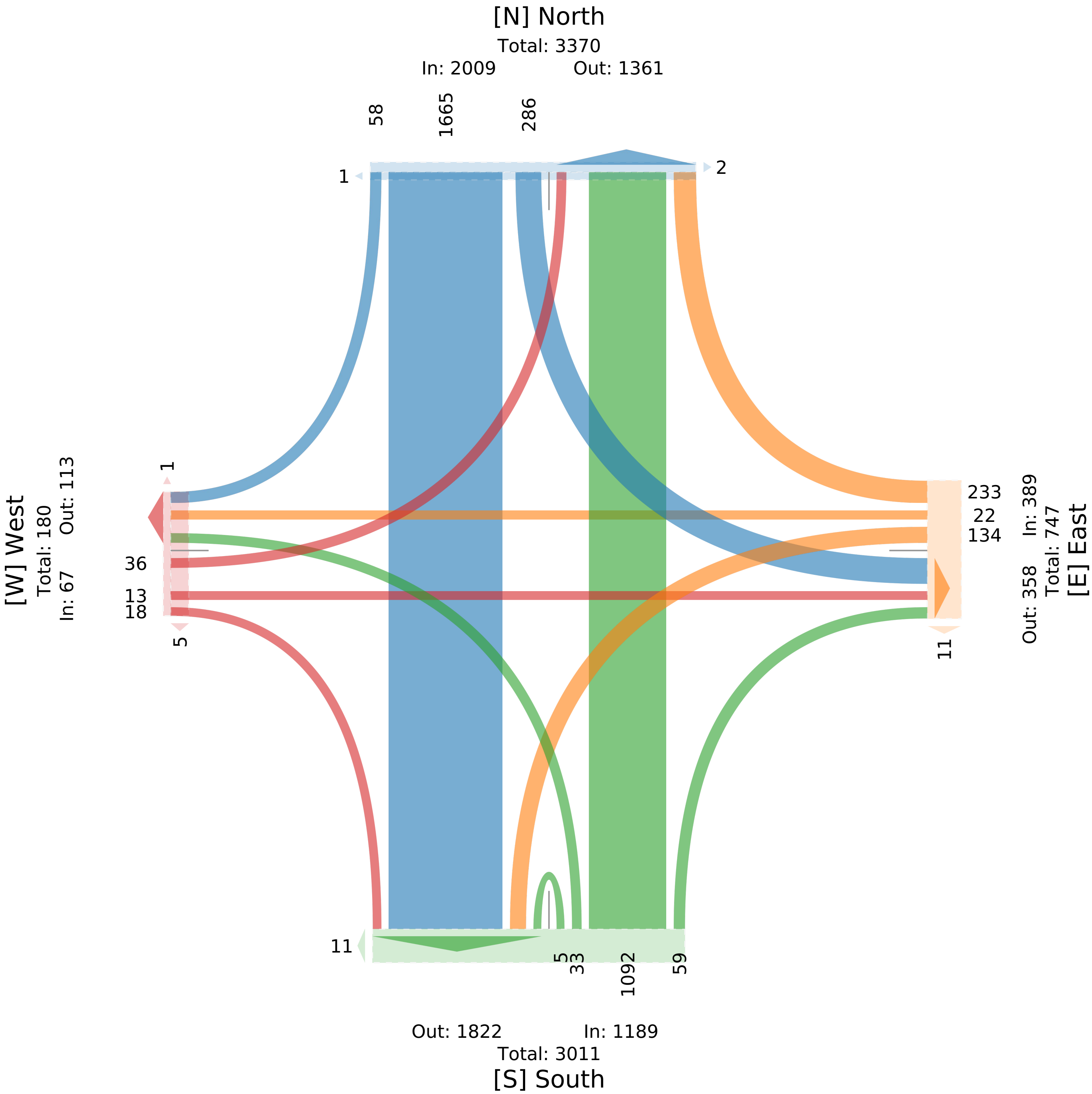
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA

| Leg | North | | | | | | East | | | | | | South | | | | | | West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Southbound | | | | | | Westbound | | | | | | Northbound | | | | | | Eastbound | | | | | | |
| Time | R | T | L | U | **App** | Ped* | R | T | L | U | **App** | Ped* | R | T | L | U | **App** | Ped* | R | T | L | U | **App** | Ped* | **Int** |
| 2024-08-28 8:15AM | 37 | 214 | 43 | 0 | **294** | 1 | 38 | 6 | 10 | 0 | **54** | 0 | 34 | 372 | 13 | 0 | **419** | 1 | 1 | 5 | 16 | 0 | **22** | 2 | **789** |
| 8:30AM | 31 | 191 | 44 | 1 | **267** | 1 | 51 | 2 | 12 | 0 | **65** | 6 | 24 | 397 | 15 | 0 | **436** | 0 | 1 | 6 | 17 | 0 | **24** | 4 | **792** |
| 8:45AM | 29 | 235 | 41 | 1 | **306** | 2 | 68 | 11 | 7 | 0 | **86** | 3 | 36 | 450 | 15 | 1 | **502** | 6 | 3 | 3 | 18 | 0 | **24** | 6 | **918** |
| 9:00AM | 21 | 218 | 31 | 0 | **270** | 2 | 53 | 5 | 14 | 0 | **72** | 6 | 28 | 461 | 13 | 0 | **502** | 3 | 1 | 7 | 11 | 0 | **19** | 0 | **863** |
| **Total** | 118 | 858 | 159 | 2 | **1137** | 6 | 210 | 24 | 43 | 0 | **277** | 15 | 122 | 1680 | 56 | 1 | **1859** | 10 | 6 | 21 | 62 | 0 | **89** | 12 | **3362** |
| **% Approach** | 10.4% | 75.5% | 14.0% | 0.2% | **-** | - | 75.8% | 8.7% | 15.5% | 0% | **-** | - | 6.6% | 90.4% | 3.0% | 0.1% | **-** | - | 6.7% | 23.6% | 69.7% | 0% | **-** | - | - |
| **% Total** | 3.5% | 25.5% | 4.7% | 0.1% | **33.8%** | - | 6.2% | 0.7% | 1.3% | 0% | **8.2%** | - | 3.6% | 50.0% | 1.7% | 0% | **55.3%** | - | 0.2% | 0.6% | 1.8% | 0% | **2.6%** | - | - |
| **PHF** | 0.797 | 0.912 | 0.903 | 0.500 | **0.928** | - | 0.780 | 0.545 | 0.768 | - | **0.812** | - | 0.847 | 0.913 | 0.933 | 0.250 | **0.926** | - | 0.500 | 0.833 | 0.861 | - | **0.917** | - | 0.916 |
| **Lights and Motorcycles** | 114 | 821 | 157 | 2 | **1094** | - | 208 | 24 | 40 | 0 | **272** | - | 114 | 1629 | 54 | 1 | **1798** | - | 6 | 20 | 60 | 0 | **86** | - | 3250 |
| **% Lights and Motorcycles** | 96.6% | 95.7% | 98.7% | 100% | **96.2%** | - | 99.0% | 100% | 93.0% | 0% | **98.2%** | - | 93.4% | 97.0% | 96.4% | 100% | **96.7%** | - | 100% | 95.2% | 96.8% | 0% | **96.6%** | - | 96.7% |
| **Heavy** | 4 | 36 | 2 | 0 | **42** | - | 1 | 0 | 3 | 0 | **4** | - | 8 | 44 | 2 | 0 | **54** | - | 0 | 0 | 2 | 0 | **2** | - | 102 |
| **% Heavy** | 3.4% | 4.2% | 1.3% | 0% | **3.7%** | - | 0.5% | 0% | 7.0% | 0% | **1.4%** | - | 6.6% | 2.6% | 3.6% | 0% | **2.9%** | - | 0% | 0% | 3.2% | 0% | **2.2%** | - | 3.0% |
| **Bicycles on Road** | 0 | 1 | 0 | 0 | **1** | - | 1 | 0 | 0 | 0 | **1** | - | 0 | 7 | 0 | 0 | **7** | - | 0 | 1 | 0 | 0 | **1** | - | 10 |
| **% Bicycles on Road** | 0% | 0.1% | 0% | 0% | **0.1%** | - | 0.5% | 0% | 0% | 0% | **0.4%** | - | 0% | 0.4% | 0% | 0% | **0.4%** | - | 0% | 4.8% | 0% | 0% | **1.1%** | - | 0.3% |
| Pedestrians | - | - | - | - | - | 4 | - | - | - | - | - | 14 | - | - | - | - | - | 7 | - | - | - | - | - | 9 | |
| % Pedestrians | - | - | - | - | - | 66.7% | - | - | - | - | - | 93.3% | - | - | - | - | - | 70.0% | - | - | - | - | - | 75.0% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 2 | - | - | - | - | - | 1 | - | - | - | - | - | 3 | - | - | - | - | - | 3 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 33.3% | - | - | - | - | - | 6.7% | - | - | - | - | - | 30.0% | - | - | - | - | - | 25.0% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**5670056 - Carling and March - Aug 28 2024 - TMC**
Wed Aug 28, 2024
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1226083, Location: 45.338682, -75.911644, Site Code: 41863103

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



## 5670056 - Carling and March - Aug 28 2024 - TMC

Wed Aug 28, 2024
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1226083, Location: 45.338682, -75.911644, Site Code: 41863103

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA

| Leg | North | | | | | | East | | | | | | South | | | | | | West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | Southbound | | | | | | Westbound | | | | | | Northbound | | | | | | Eastbound | | | | | | |
| Time | R | T | L | U | **App** | Ped* | R | T | L | U | **App** | Ped* | R | T | L | U | **App** | Ped* | R | T | L | U | **App** | Ped* | **Int** |
| 2024-08-28 4:30PM | 17 | 419 | 76 | 0 | **512** | 0 | 56 | 9 | 31 | 0 | **96** | 4 | 15 | 275 | 9 | 3 | **302** | 2 | 4 | 3 | 12 | 0 | **19** | 1 | **929** |
| 4:45PM | 8 | 364 | 61 | 0 | **433** | 1 | 50 | 2 | 26 | 0 | **78** | 3 | 11 | 256 | 9 | 0 | **276** | 3 | 2 | 2 | 9 | 0 | **13** | 1 | **800** |
| 5:00PM | 13 | 455 | 87 | 0 | **555** | 0 | 68 | 6 | 45 | 0 | **119** | 2 | 19 | 284 | 7 | 0 | **310** | 4 | 6 | 4 | 9 | 0 | **19** | 1 | **1003** |
| 5:15PM | 20 | 427 | 62 | 0 | **509** | 2 | 59 | 5 | 32 | 0 | **96** | 2 | 14 | 277 | 8 | 2 | **301** | 2 | 6 | 4 | 6 | 0 | **16** | 3 | **922** |
| **Total** | 58 | 1665 | 286 | 0 | **2009** | 3 | 233 | 22 | 134 | 0 | **389** | 11 | 59 | 1092 | 33 | 5 | **1189** | 11 | 18 | 13 | 36 | 0 | **67** | 6 | **3654** |
| **% Approach** | 2.9% | 82.9% | 14.2% | 0% | **-** | - | 59.9% | 5.7% | 34.4% | 0% | **-** | - | 5.0% | 91.8% | 2.8% | 0.4% | **-** | - | 26.9% | 19.4% | 53.7% | 0% | **-** | - | - |
| **% Total** | 1.6% | 45.6% | 7.8% | 0% | **55.0%** | - | 6.4% | 0.6% | 3.7% | 0% | **10.6%** | - | 1.6% | 29.9% | 0.9% | 0.1% | **32.5%** | - | 0.5% | 0.4% | 1.0% | 0% | **1.8%** | - | - |
| **PHF** | 0.700 | 0.916 | 0.822 | - | **0.905** | - | 0.857 | 0.583 | 0.744 | - | **0.822** | - | 0.776 | 0.960 | 0.917 | 0.417 | **0.958** | - | 0.750 | 0.688 | 0.750 | - | **0.855** | - | 0.911 |
| **Lights and Motorcycles** | 56 | 1639 | 284 | 0 | **1979** | - | 232 | 21 | 125 | 0 | **378** | - | 58 | 1070 | 33 | 5 | **1166** | - | 18 | 11 | 36 | 0 | **65** | - | 3588 |
| **% Lights and Motorcycles** | 96.6% | 98.4% | 99.3% | 0% | **98.5%** | - | 99.6% | 95.5% | 93.3% | 0% | **97.2%** | - | 98.3% | 98.0% | 100% | 100% | **98.1%** | - | 100% | 84.6% | 100% | 0% | **97.0%** | - | 98.2% |
| **Heavy** | 0 | 20 | 2 | 0 | **22** | - | 1 | 0 | 9 | 0 | **10** | - | 1 | 21 | 0 | 0 | **22** | - | 0 | 0 | 0 | 0 | **0** | - | 54 |
| **% Heavy** | 0% | 1.2% | 0.7% | 0% | **1.1%** | - | 0.4% | 0% | 6.7% | 0% | **2.6%** | - | 1.7% | 1.9% | 0% | 0% | **1.9%** | - | 0% | 0% | 0% | 0% | **0%** | - | 1.5% |
| **Bicycles on Road** | 2 | 6 | 0 | 0 | **8** | - | 0 | 1 | 0 | 0 | **1** | - | 0 | 1 | 0 | 0 | **1** | - | 0 | 2 | 0 | 0 | **2** | - | 12 |
| **% Bicycles on Road** | 3.4% | 0.4% | 0% | 0% | **0.4%** | - | 0% | 4.5% | 0% | 0% | **0.3%** | - | 0% | 0.1% | 0% | 0% | **0.1%** | - | 0% | 15.4% | 0% | 0% | **3.0%** | - | 0.3% |
| Pedestrians | - | - | - | - | - | 2 | - | - | - | - | - | 9 | - | - | - | - | - | 9 | - | - | - | - | - | 5 | |
| % Pedestrians | - | - | - | - | - | 66.7% | - | - | - | - | - | 81.8% | - | - | - | - | - | 81.8% | - | - | - | - | - | 83.3% | - |
| Bicycles on Crosswalk | - | - | - | - | - | 1 | - | - | - | - | - | 2 | - | - | - | - | - | 2 | - | - | - | - | - | 1 | |
| % Bicycles on Crosswalk | - | - | - | - | - | 33.3% | - | - | - | - | - | 18.2% | - | - | - | - | - | 18.2% | - | - | - | - | - | 16.7% | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

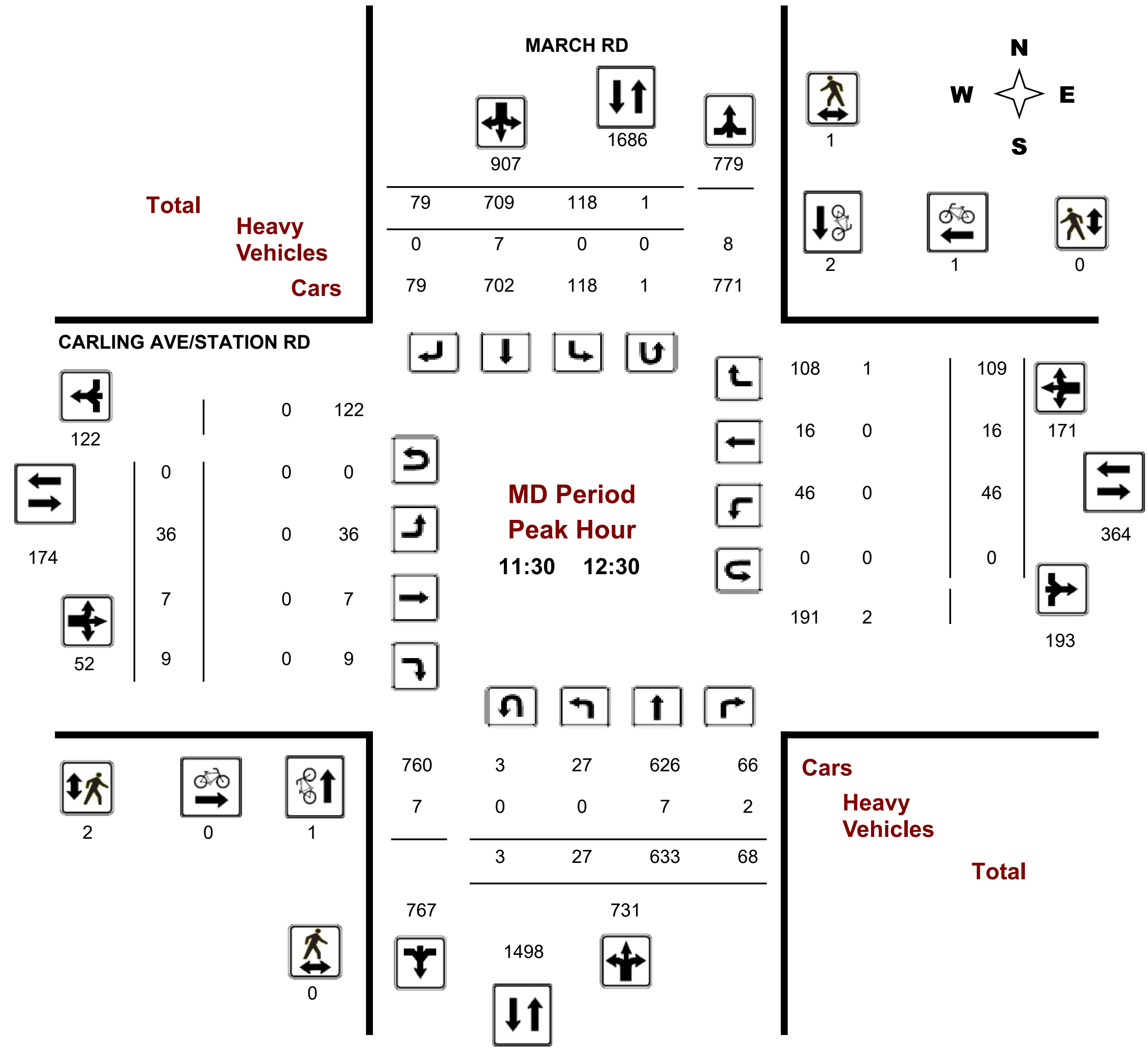
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## CARLING AVE/STATION RD @ MARCH RD

**Survey Date:** Saturday, August 31, 2024  **WO No:** 41862

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




**Comments:**

# APPENDIX E

Collision Records

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** CARLING AVE/STATION RD @ MARCH RD

**Traffic Control:** Traffic signal **Total Collisions:** 33

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Mar-09, Sat,14:00 | Clear | Rear end | Non-fatal injury | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-04, Tue,10:56 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-12, Wed,12:22 | Clear | Rear end | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-27, Thu,22:44 | Rain | Turning movement | Non-fatal injury | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Pick-up truck | Other motor vehicle | |
| 2019-Jul-09, Tue,08:30 | Clear | Rear end | P.D. only | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-07, Wed,16:24 | Clear | Turning movement | Non-fatal injury | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-25, Wed,09:13 | Clear | Rear end | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2020-Jul-29, Wed,07:21 | Clear | Rear end | P.D. only | Wet | North | Turning left | Truck - dump | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2020-Aug-30, Sun,15:35 | Clear | Rear end | P.D. only | Dry | West | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-22, Sun,16:30 | Snow | Rear end | P.D. only | Ice | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2020-Dec-09, Wed,08:10 | Snow | Approaching | P.D. only | Slush | North | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2021-Jan-03, Sun,12:05 | Clear | SMV other | P.D. only | Dry | South | Turning left | Tow truck | Pole (sign, parking meter) | 0 |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** CARLING AVE/STATION RD @ MARCH RD

**Traffic Control:** Traffic signal **Total Collisions:** 33

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2021-Jan-16, Sat,05:53 | Snow | Other | P.D. only | Loose snow | South | Slowing or stopping | Pick-up truck | Pole (sign, parking meter) | 0 |
| | | | | | East | Stopped | Pick-up truck | Other motor vehicle | |
| 2021-Jan-22, Fri,15:35 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2021-May-15, Sat,14:44 | Clear | Rear end | Non-fatal injury | Dry | South | Slowing or stopping | Motorcycle | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2021-Jul-06, Tue,16:25 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| 2021-Jul-06, Tue,16:31 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2021-Aug-21, Sat,15:25 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Turning left | Passenger van | Other motor vehicle | |
| 2022-Feb-12, Sat,12:19 | Drifting Snow | Sideswipe | P.D. only | Ice | South | Going ahead | Automobile, station wagon | Skidding/sliding | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2022-Nov-28, Mon,22:00 | Clear | Angle | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Dec-01, Thu,16:45 | Clear | Angle | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Dec-07, Wed,18:00 | Clear | Rear end | P.D. only | Wet | South | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Dec-14, Wed,16:05 | Clear | Sideswipe | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Overtaking | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** CARLING AVE/STATION RD @ MARCH RD

**Traffic Control:** Traffic signal **Total Collisions:** 33

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2024-Feb-01, Thu,17:30 | Clear | Rear end | P.D. only | Wet | North | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Feb-21, Wed,09:15 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2024-Apr-22, Mon,18:45 | Clear | Rear end | P.D. only | Dry | West | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2024-May-10, Fri,22:55 | Clear | Rear end | P.D. only | Dry | West | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Aug-22, Thu,05:10 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Merging | Automobile, station wagon | Other motor vehicle | |
| 2024-Aug-25, Sun,12:30 | Clear | Sideswipe | P.D. only | Dry | North | Merging | Truck - open | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Sep-08, Sun,16:00 | Clear | Angle | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Sep-13, Fri,18:45 | Clear | Rear end | P.D. only | Dry | South | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Nov-20, Wed,16:30 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2024-Dec-02, Mon,05:30 | Clear | Turning movement | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** LEGGET DR @ TERRY FOX DR

**Traffic Control:** Stop sign **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jan-29, Tue,16:15 | Snow | Angle | P.D. only | Slush | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-21, Wed,17:27 | Rain | Angle | P.D. only | Wet | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** LEGGET DR btwn SOLANDT RD & TERRY FOX DR

**Traffic Control:** No control **Total Collisions:** 1

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2024-Aug-26, Mon,15:00 | Clear | Turning movement | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Motorcycle | Other motor vehicle | |

**Location:** MARCH RD @ SOLANDT RD

**Traffic Control:** Traffic signal **Total Collisions:** 31

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jan-11, Fri,07:27 | Clear | Turning movement | P.D. only | Dry | South | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Jan-28, Mon,17:24 | Clear | Turning movement | Non-fatal injury | Packed snow | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-01, Mon,12:40 | Clear | Rear end | P.D. only | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-08, Sat,10:11 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-10, Wed,10:24 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Truck and trailer | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** MARCH RD @ SOLANDT RD

**Traffic Control:** Traffic signal **Total Collisions:** 31

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jul-27, Sat,21:52 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-24, Tue,08:59 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-19, Thu,10:15 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-30, Mon,20:00 | Freezing Rain | Rear end | P.D. only | Ice | North | Going ahead | Automobile, station wagon | Skidding/sliding | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Jan-05, Sun,10:55 | Clear | Turning movement | P.D. only | Wet | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Jan-21, Tue,18:06 | Clear | Turning movement | P.D. only | Wet | South | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2021-Jan-17, Sun,11:25 | Clear | Sideswipe | P.D. only | Wet | North | Unknown | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2021-Feb-04, Thu,08:32 | Clear | Rear end | P.D. only | Dry | West | Slowing or stopping | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| 2021-Mar-15, Mon,12:08 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2021-Oct-28, Thu,15:30 | Clear | Turning movement | P.D. only | Dry | North | Making "U" turn | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Mar-31, Thu,08:40 | Rain | Turning movement | P.D. only | Wet | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Apr-07, Thu,09:55 | Rain | Sideswipe | P.D. only | Wet | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |

# Transportation Services - Traffic Services
## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** MARCH RD @ SOLANDT RD

**Traffic Control:** Traffic signal **Total Collisions:** 31

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2022-Apr-29, Fri,08:15 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2022-Oct-18, Tue,16:30 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2022-Nov-01, Tue,11:00 | Clear | Sideswipe | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2023-Dec-08, Fri,19:30 | Clear | Turning movement | P.D. only | Dry | North | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-May-30, Thu,15:06 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Jun-05, Wed,16:47 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Municipal transit bus | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Jun-11, Tue,12:10 | Clear | Turning movement | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2024-Aug-09, Fri,12:00 | Rain | Sideswipe | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Unknown | Truck - closed | Other motor vehicle | |
| 2024-Aug-14, Wed,08:46 | Clear | Turning movement | Non-fatal injury | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Aug-14, Wed,16:30 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | South | Merging | Automobile, station wagon | Other motor vehicle | |
| 2024-Sep-05, Thu,12:14 | Clear | Angle | Non-fatal injury | Dry | West | Going ahead | Bicycle | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Cyclist | |
| | | | | | South | Going ahead | Automobile, station wagon | Cyclist | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** MARCH RD @ SOLANDT RD

**Traffic Control:** Traffic signal **Total Collisions:** 31

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2024-Nov-20, Wed,17:15 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2024-Nov-24, Sun,19:00 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Pick-up truck | Other motor vehicle | |
| 2024-Dec-11, Wed,17:20 | Other | Turning movement | P.D. only | Wet | South | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** MARCH RD btwn SOLANDT RD & STATION RD

**Traffic Control:** No control **Total Collisions:** 16

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jan-23, Wed,21:25 | Snow | Rear end | P.D. only | Loose snow | North | Slowing or stopping | Truck - dump | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-May-02, Thu,14:11 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-10, Wed,17:06 | Clear | Rear end | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-13, Sat,16:15 | Clear | Rear end | Non-fatal injury | Dry | North | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-01, Tue,09:15 | Rain | Rear end | Non-fatal injury | Wet | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-02, Mon,16:30 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services
## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2024

**Location:** MARCH RD btwn SOLANDT RD & STATION RD

**Traffic Control:** No control **Total Collisions:** 16

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2020-Aug-13, Thu,21:26 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Oct-01, Thu,06:55 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |
| 2021-Feb-25, Thu,01:04 | Clear | Other | P.D. only | Packed snow | South | Going ahead | Automobile, station wagon | Skidding/sliding | 0 |
| | | | | | North | Going ahead | Snow plow | Other motor vehicle | |
| 2022-Jan-21, Fri,02:20 | Clear | SMV other | P.D. only | Slush | North | Going ahead | Automobile, station wagon | Curb | 0 |
| 2022-Apr-03, Sun,19:54 | Clear | SMV other | P.D. only | Dry | South | Going ahead | Pick-up truck | Animal - wild | 0 |
| 2022-Sep-23, Fri,15:50 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Oct-11, Tue,18:00 | Clear | Turning movement | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |
| 2024-Feb-03, Sat,22:00 | Clear | SMV other | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other | 0 |
| 2024-May-24, Fri,14:30 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Jul-04, Thu,16:21 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** SOLANDT RD btwn LEGGET DR & END

**Traffic Control:** No control **Total Collisions:** 1

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2020-Feb-25, Tue,17:15 | Clear | Angle | P.D. only | Wet | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |

# APPENDIX F

March Road BRT Functional Design


# KANATA NORTH TRANSITWAY - HIGHWAY 417 TO URBAN BOUNDARY
# TRANSITWAY DE KANATA-NORD - AUTOROUTE 417 JUSQU'À LA LIMITE DU SECTEUR URBAIN

PARSONS

0m 10 20 40 60 80

November 14, 2025
Le 14 novmebre, 2025

LEGEND/ LÉGENDE

- EXISTING WOOD UTILITY POLE/ POTEAU ACTUEL DE SERVICES PUBLICS EN BOIS
- EXISTING STREET LIGHT/ ÉCLAIRAGE PUBLIC ACTUEL
- EXISTING FIRE HYDRANT/ BORNE-FONTAINE ACTUELLE
- EXISTING PROPERTY LINE/ LIMITE ACTUELLE DE PROPRIÉTÉ
- DESIGN FOR OTHER ADJACENT PROJECT/ PLAN POUR PROJET ADJACENT
- NEW RIGHT OF WAY/ NOUVELLE EMPRISE
- 2014 PROJECT FOOTPRINT/ EMPREINTE DU PROJET EN 2014
- HERITAGE PROPERTY/ BIEN PATRIMONIAL
- EXISTING TREE/ ARBRE EXISTANT
- THIRD PARTY SOURCE PROPERTY LINE/ LIMITE DE PROPRIÉTÉ TIERCE
- EXISTING WATERCOURSE OR DITCH/ COURS D'EAU ET FOSSÉ ACTUELS
- GRASSED AREA/ ZONE GAZONNÉE
- CONCRETE AREA/ ZONE EN BÉTON
- BUS LANE/ VOIE D'AUTOBUS

# APPENDIX G

Peak Times at Other Area Spa Facilities

Based on the Google Maps Popular Time charts attached, the table below shows the peak times per day for each of the spas.

Nordik, Thermea, Scandinave and Vetta provide a similar experience to what we are building. With the social aspect that we will also be promoting, we will be looking for a similar client that Koena, BotaBota, Scandinave QC and Strom have – the after work unwind, social client. The number in brackets below is the second highest peak time. This shows that all of the spas have the daytime clients and some have the evening client.

| | Monday | Tuesday | Wed | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|
| Nordik | 1 | 12 | 1 | 2 | 1 | 4 | 1 |
| Koena | 12 (6) | 6 (1) | 7 | 7 (1) | 7 (2) | 3 | 3 |
| BotaBota | 5 (1) | 5 (12) | 6 | 5 (1) | 6 (12) | 4 | 2 |
| Scandinave QC | 5 (2) | 6 (2) | 2 | 6 (2) | 12 (5) | 3 | 4 |
| Strom | 1 (6) | 6 (1) | 6 | 1 (6) | 7 (1) | 6 | 1 |
| Thermea | 1 | 1 | 2 | 2 | 3 | 4 | 4 |
| Scandinave ON | 2 | 2 | 2 | 1 | 2 | 4 | 2 |
| Vetta | 1 | 12 | 3 | 2 | 2 | 4 | 2 |
| Daytime | 1-2 | 12-1 | 2 | 1-2 | 1-3 | 4 | 2-4 |
| After 4 | 5-6 | 6 | 6 | 6 | 6-7 | | |

Monday to Thursday will have a maximum attendance between 1 and 2. Allowing for a 1 hour window on both sides for arrival the maximum traffic would be expected between 12 and 3, with maximum departures between 4 and 7pm. For the evening client, allow an arrival time between 5 and 6 and departures between 9 and 10pm

On Saturdays the most popular time is 4pm. Allow arrivals between 3 and 5 and departures between 7 and 9pm.

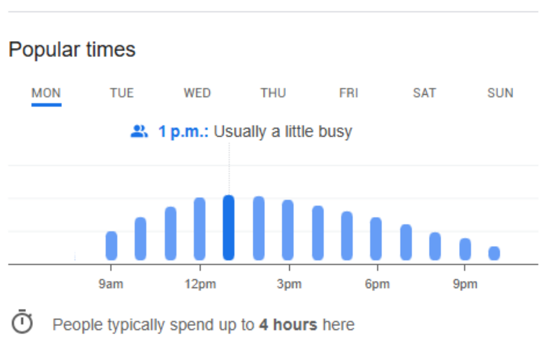
For Sundays the popular time will range between 1 and 4 for arrivals. Departures will be between 5 and 8pm.

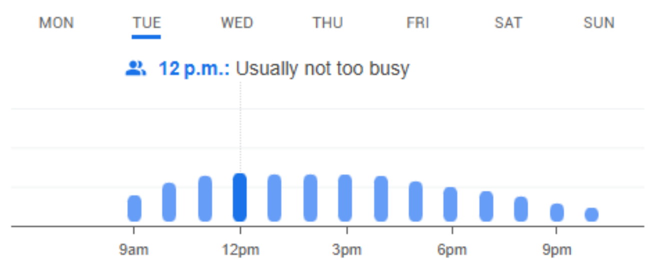
Using current real numbers from one of the above local spas, the attendance number averages per day are as follows:

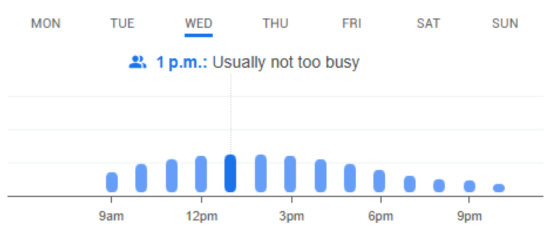
| | Avg. Attendance | 30% attendance expected | Peak Time Window | # of Vehicles * |
|---|---|---|---|---|
| Monday | 523 | 157 | 1-2pm | 118 |
| Tuesday | 384 | 154 | 12-1pm | 115 |
| Wednesday | 355 | 142 | 1:30-2:30pm | 107 |
| Thursday | 505 | 202 | 1-2pm | 152 |
| Friday | 839 | 336 | 1-3pm | 252 |
| Saturday | 1016 | 406 | 3:00-4:30pm | 305 |
| Sunday | 787 | 315 | 2-4 | 236 |

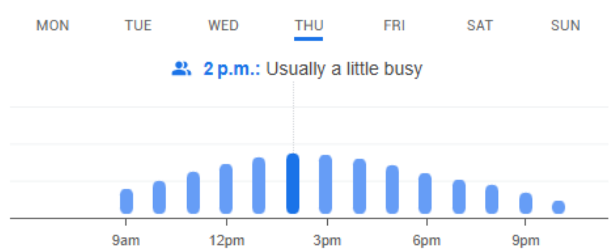
*We have assumed that 50% of attendance will share a vehicle

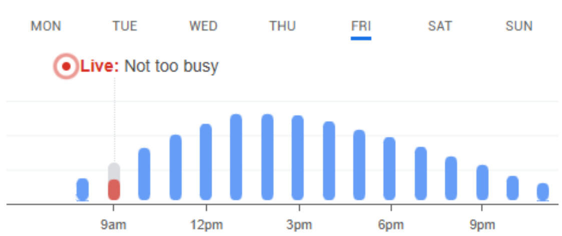
Nordik - Chelsea

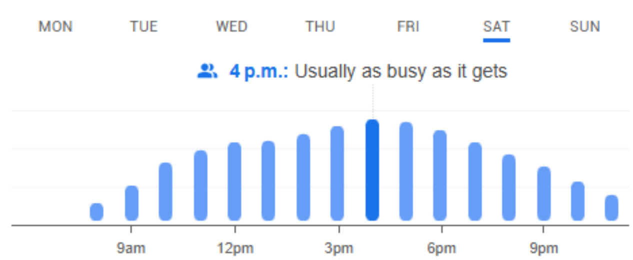


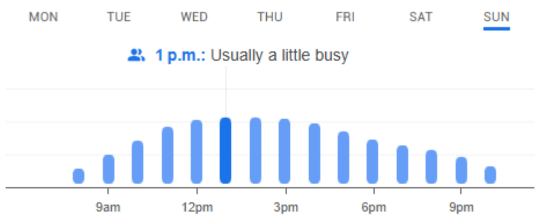



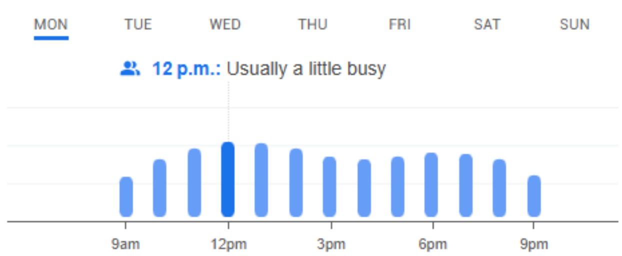



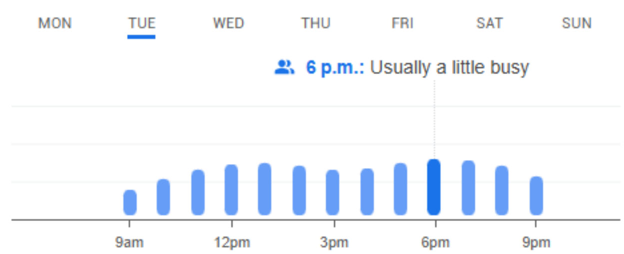



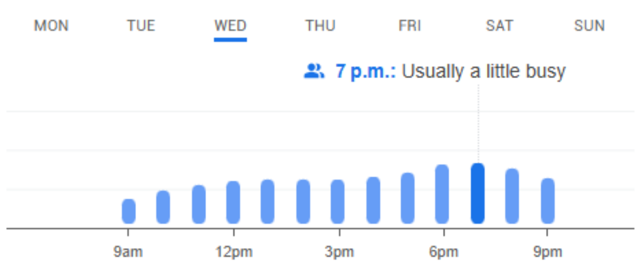



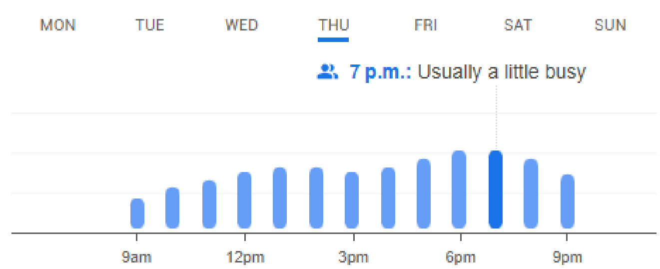

MON TUE WED THU FRI SAT SUN
1 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

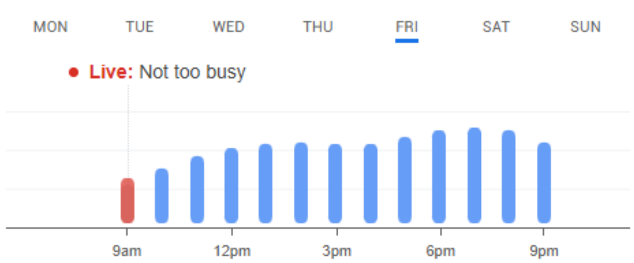
## Koena Spa

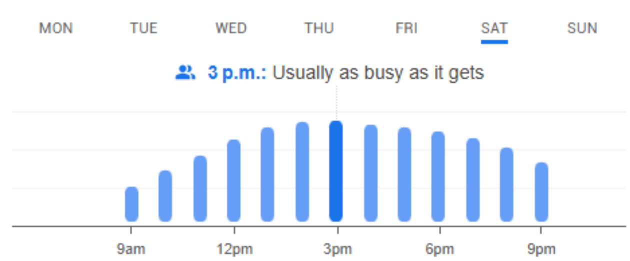

MON TUE WED THU FRI SAT SUN
12 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

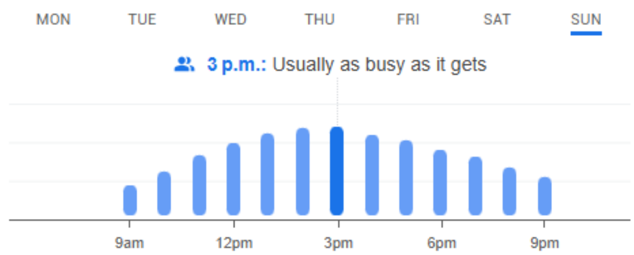

MON TUE WED THU FRI SAT SUN
6 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm


MON TUE WED THU FRI SAT SUN
7 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

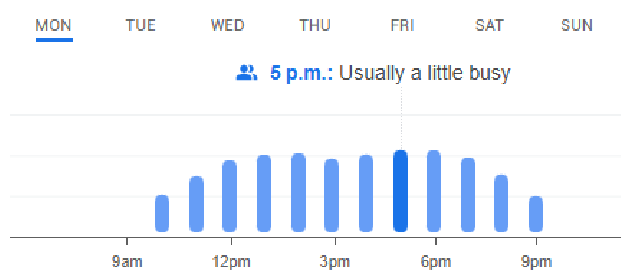

MON TUE WED THU FRI SAT SUN
7 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

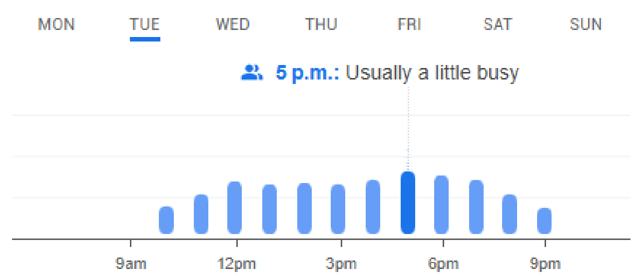

MON TUE WED THU FRI SAT SUN
Live: Not too busy
9am 12pm 3pm 6pm 9pm

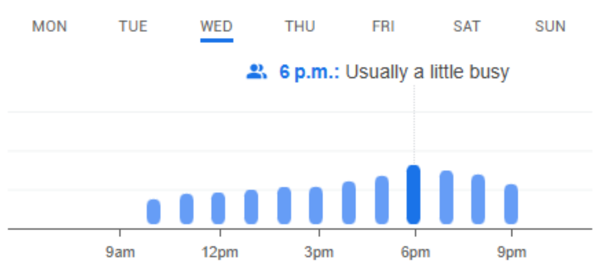

MON TUE WED THU FRI SAT SUN
3 p.m.: Usually as busy as it gets
9am 12pm 3pm 6pm 9pm

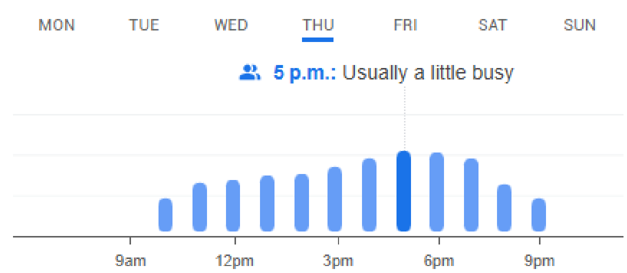


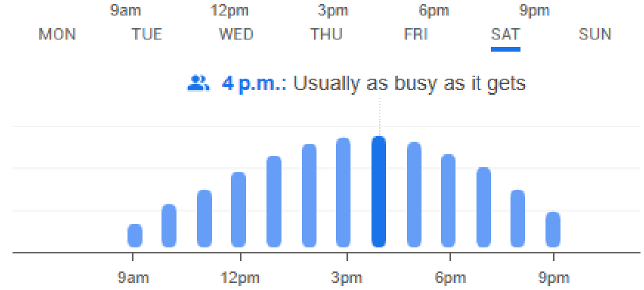

## Bota Bota Montreal, QC

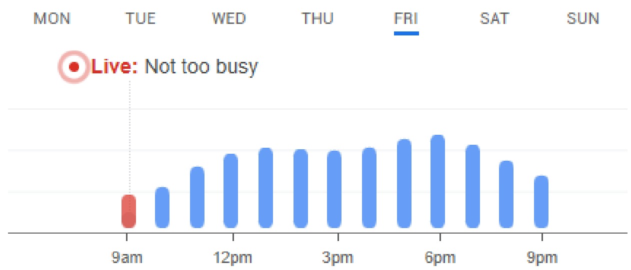


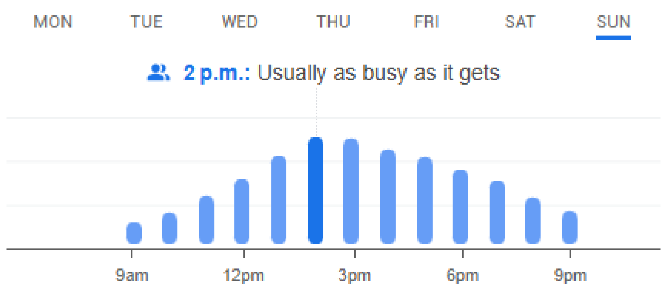



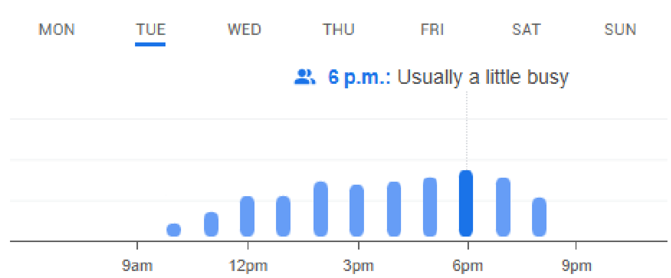



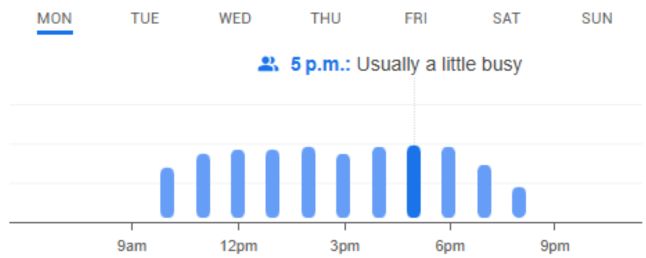



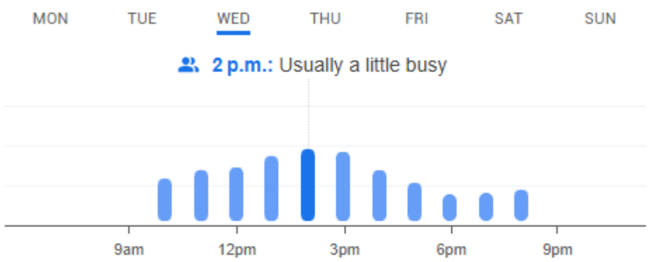


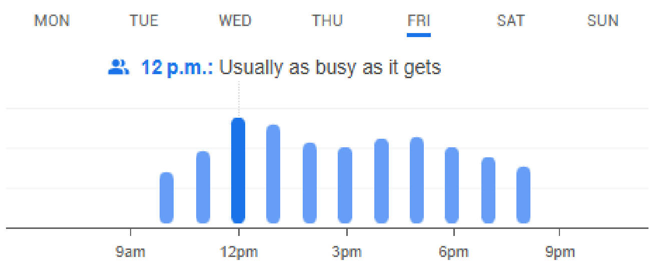



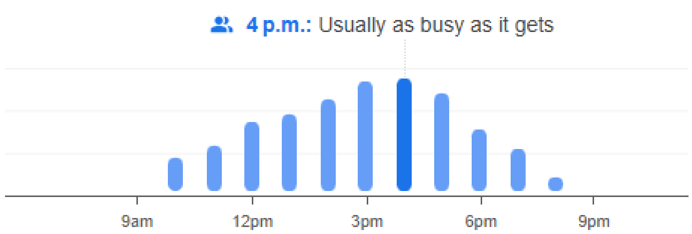

Scandinave Old Montreal

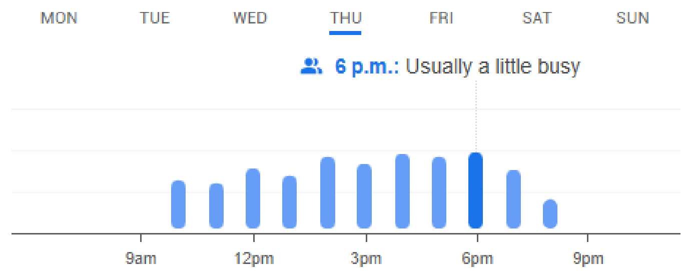


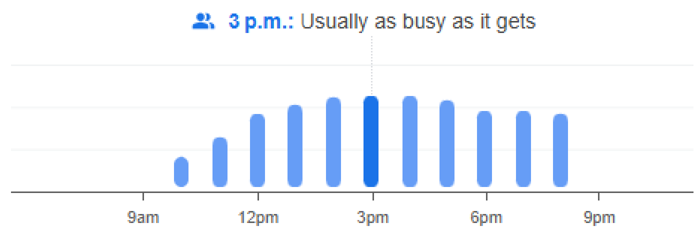


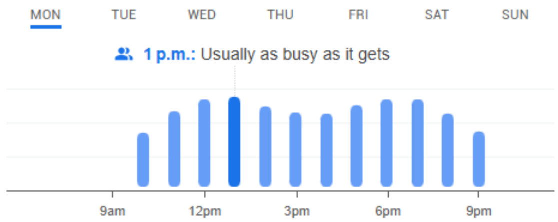



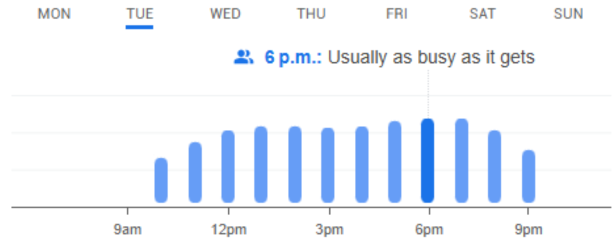



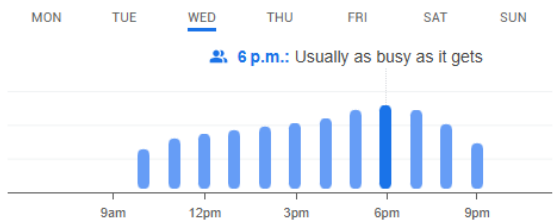



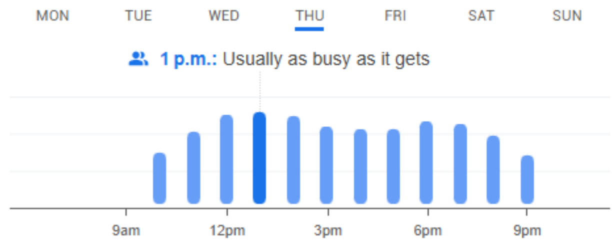



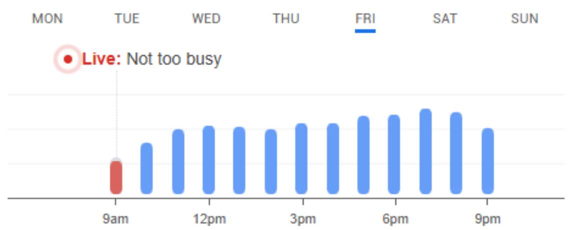

Strom Spa – Nuns Island

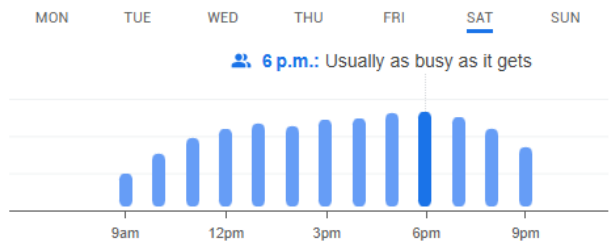


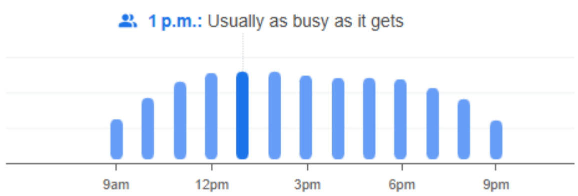



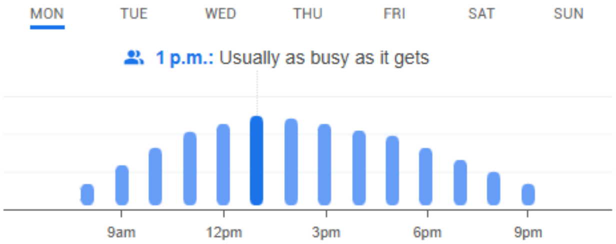



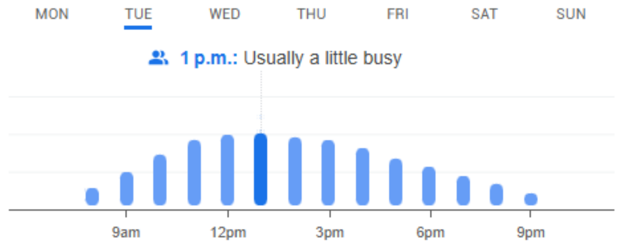



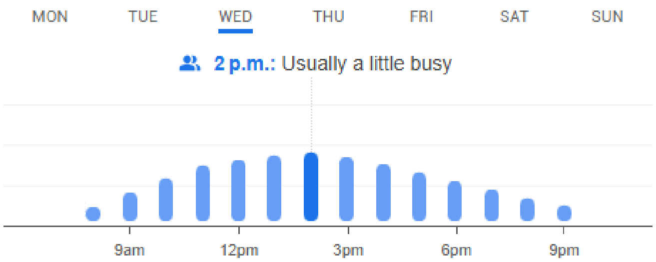



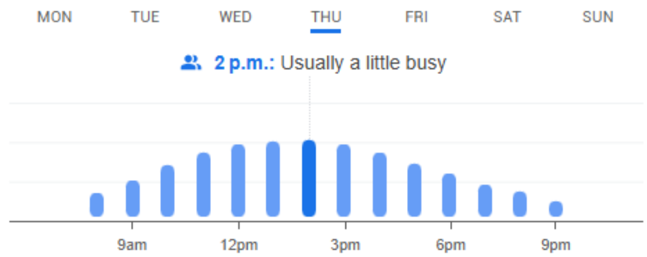



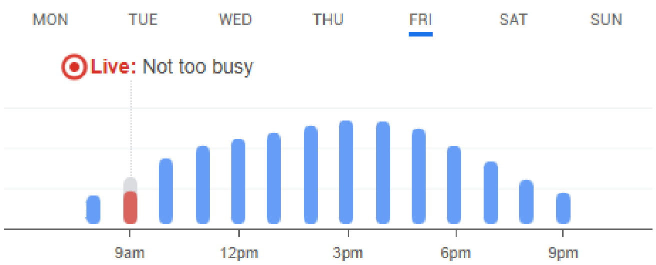

Thermea Whitby

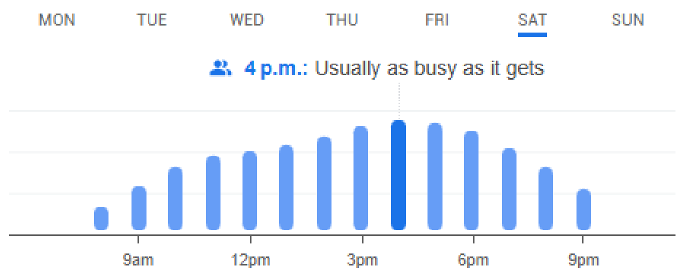


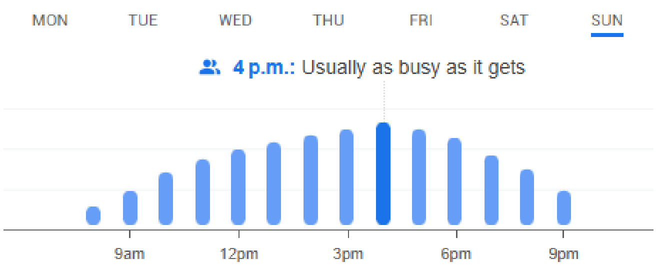



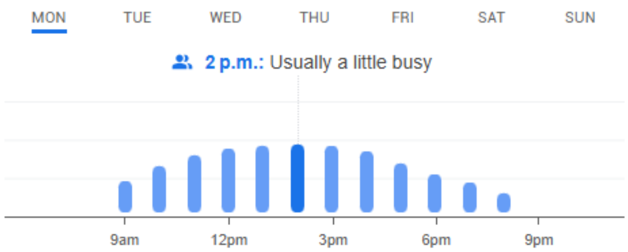



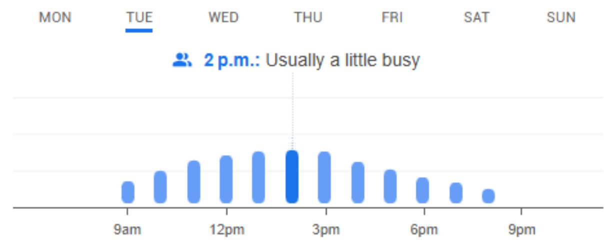



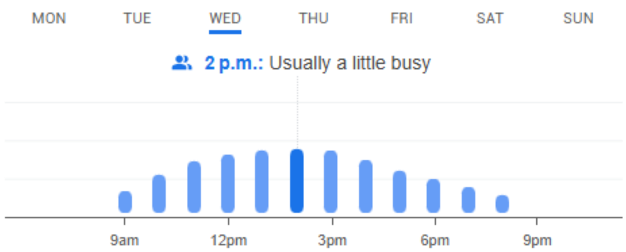



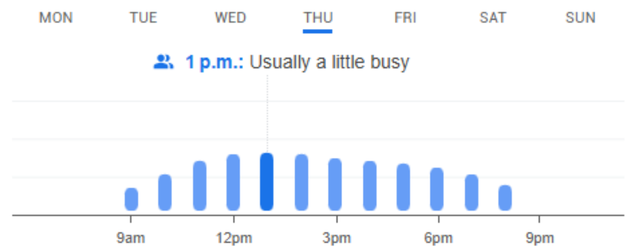



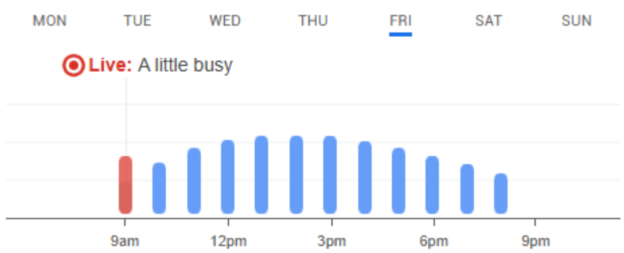

Scandinave Blue Mountain

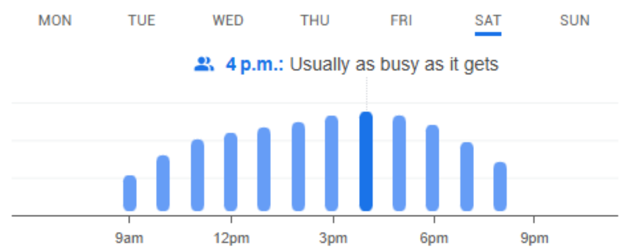

MON TUE WED THU FRI SAT SUN
2 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

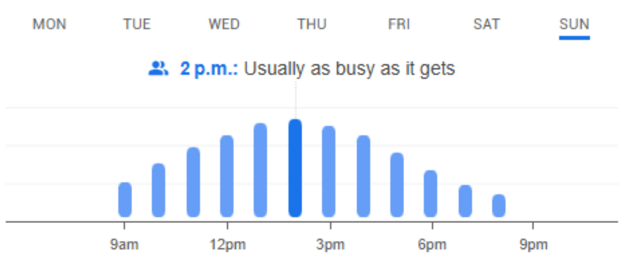

MON TUE WED THU FRI SAT SUN
2 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm


MON TUE WED THU FRI SAT SUN
2 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

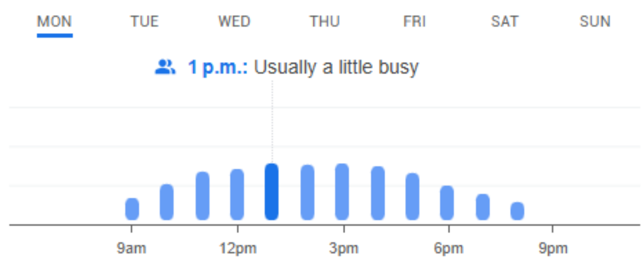

MON TUE WED THU FRI SAT SUN
1 p.m.: Usually a little busy
9am 12pm 3pm 6pm 9pm

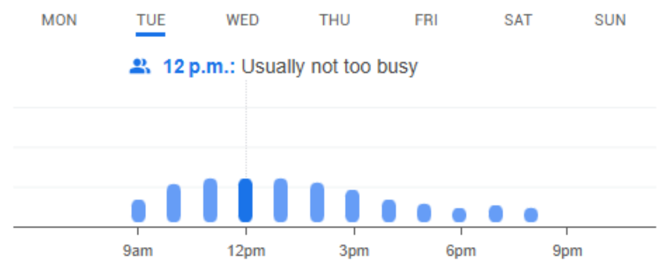

MON TUE WED THU FRI SAT SUN
Live: A little busy
9am 12pm 3pm 6pm 9pm

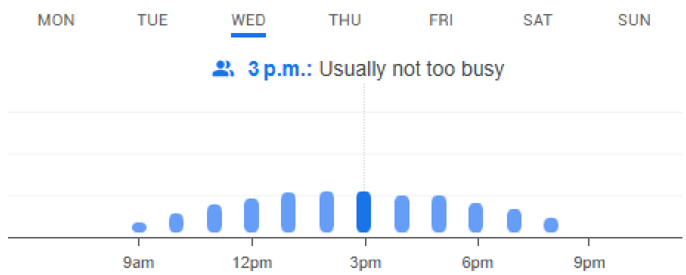

MON TUE WED THU FRI SAT SUN
4 p.m.: Usually as busy as it gets
9am 12pm 3pm 6pm 9pm

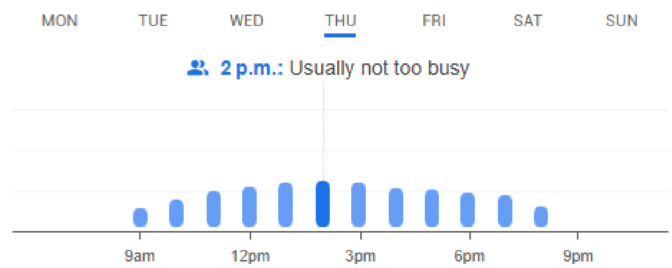

MON TUE WED THU FRI SAT SUN
2 p.m.: Usually as busy as it gets
9am 12pm 3pm 6pm 9pm

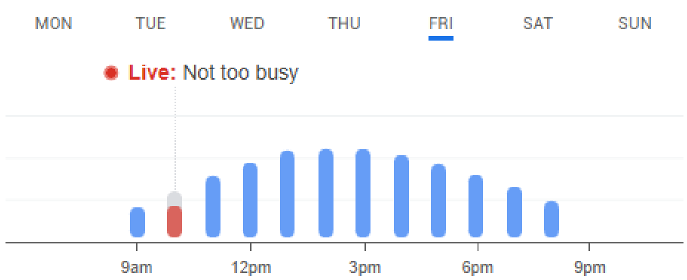
Vetta – Horseshoe Valley

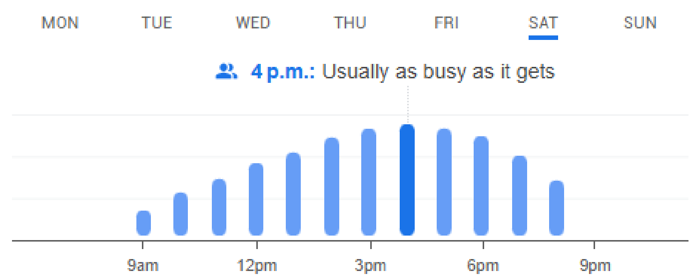


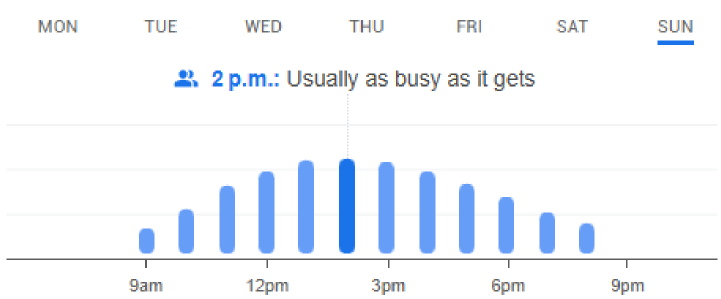



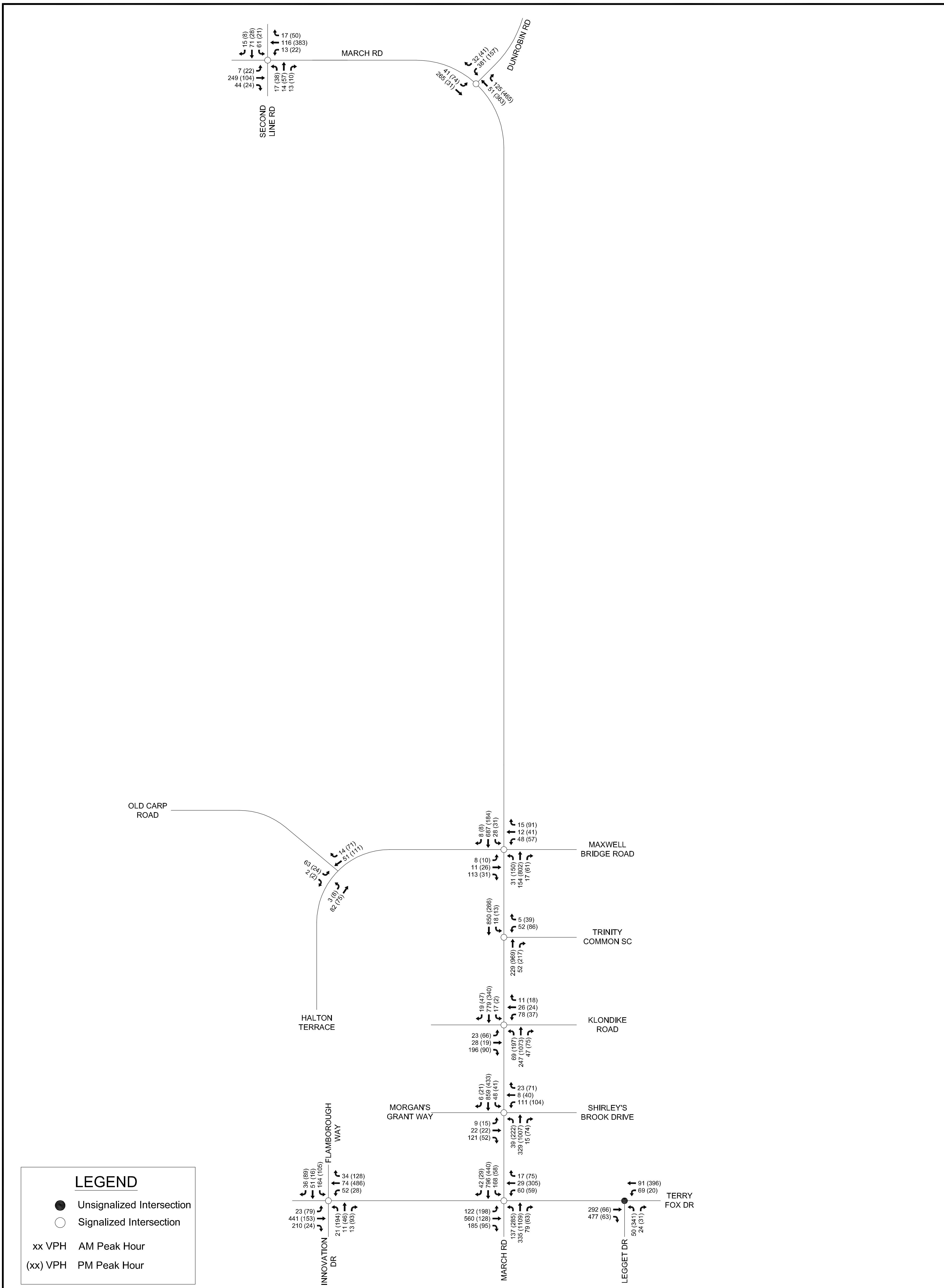



# APPENDIX H

Other Area Developments


**Figure 35 – Demonstration Plan**

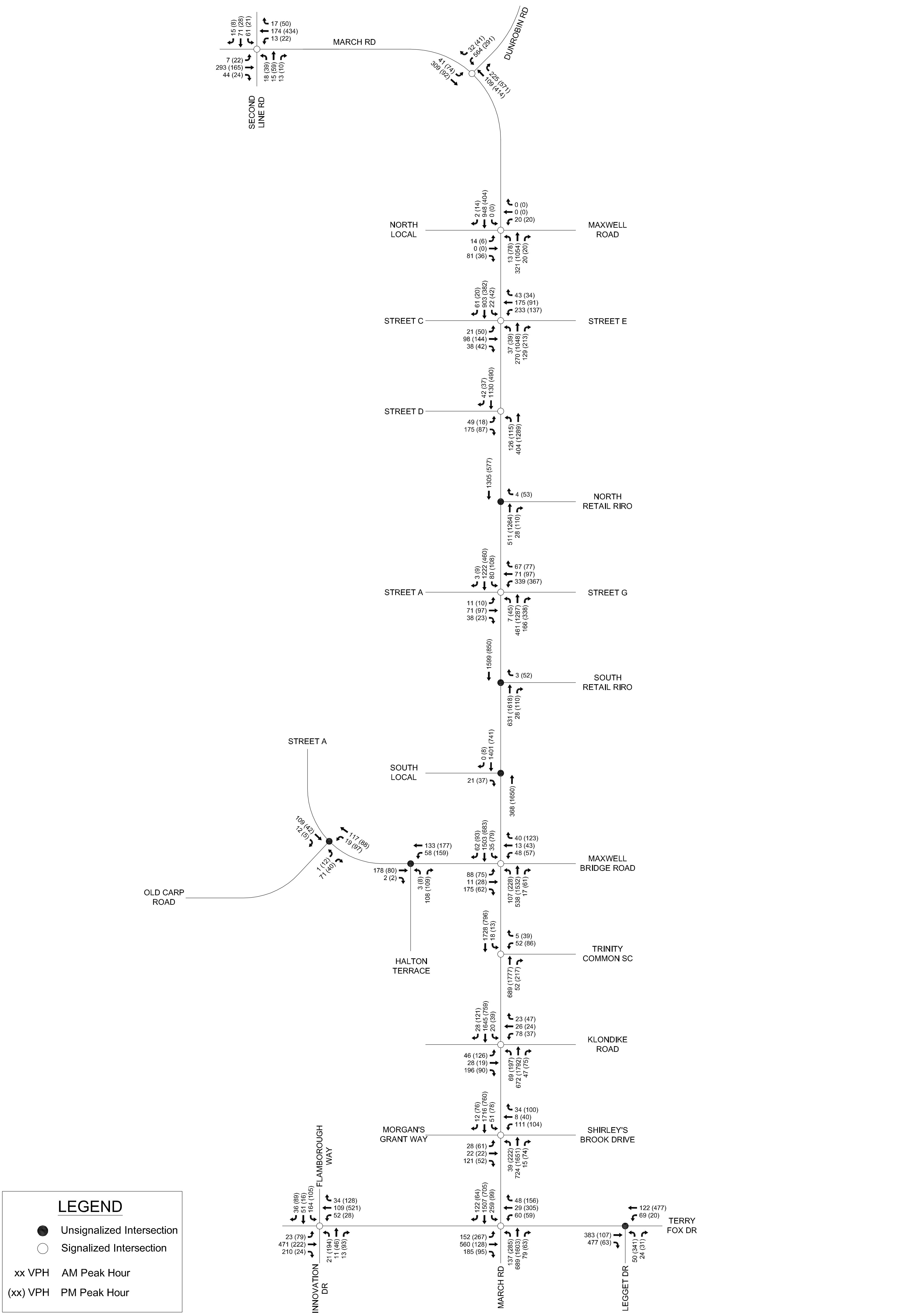



# KANATA NORTH
COMMUNITY DESIGN PLAN

**FIGURE NO. 11**
2026 BACKGROUND TRAFFIC VOLUMES

DATE JUN 2016 JOB 112117
SCALE N.T.S.

NOVATECH
Engineers, Planners & Landscape Architects




KANATA NORTH
COMMUNITY DESIGN PLAN

**FIGURE NO. 36**
2026 TOTAL TRAFFIC VOLUMES

DATE JUN 2016 JOB 112117
SCALE N.T.S.

NOVATECH
Engineers, Planners & Landscape Architects

**Figure 12 - Site Traffic Volumes| Site build Out (2034)**

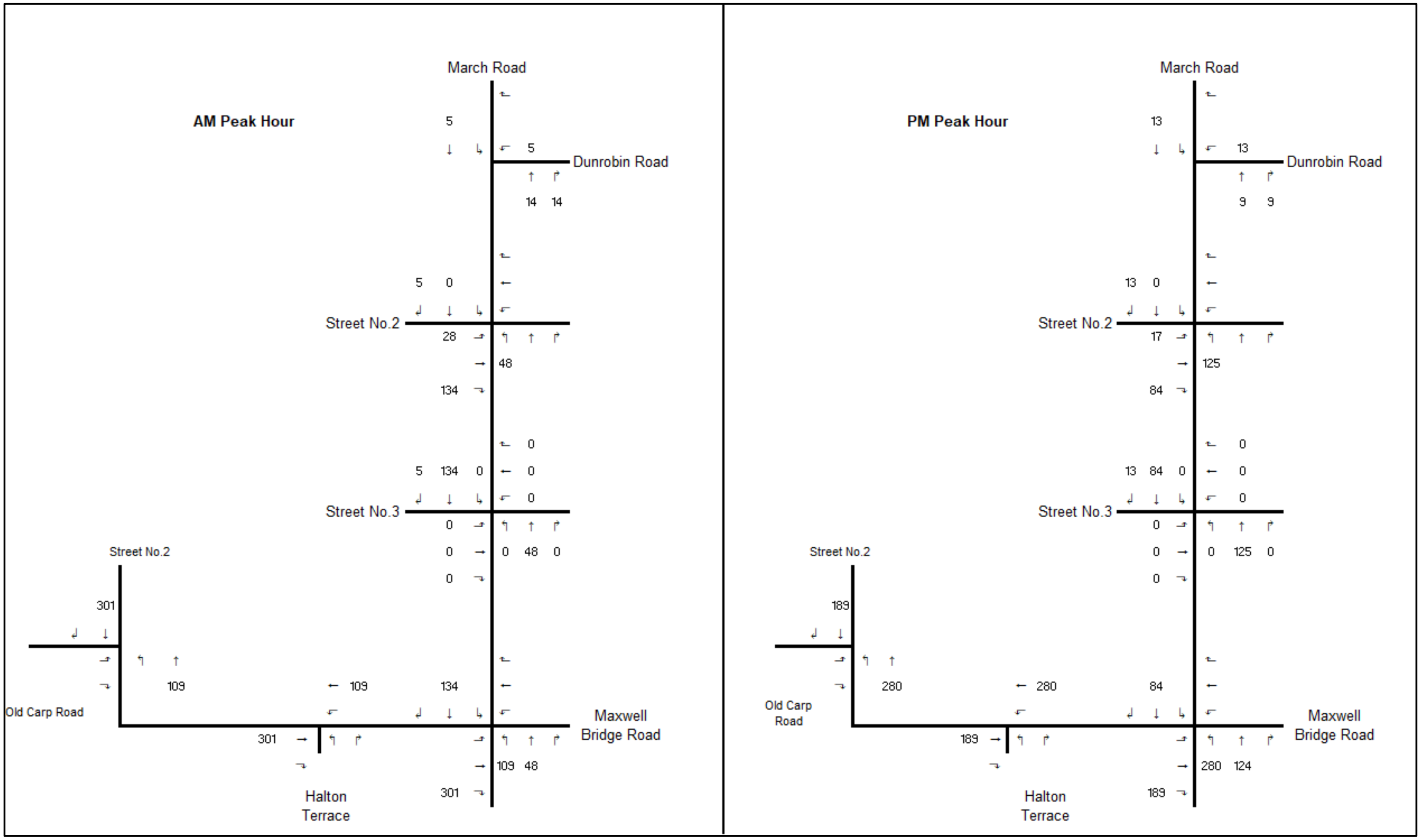


*Figure 8: Assignment (Volumes)*

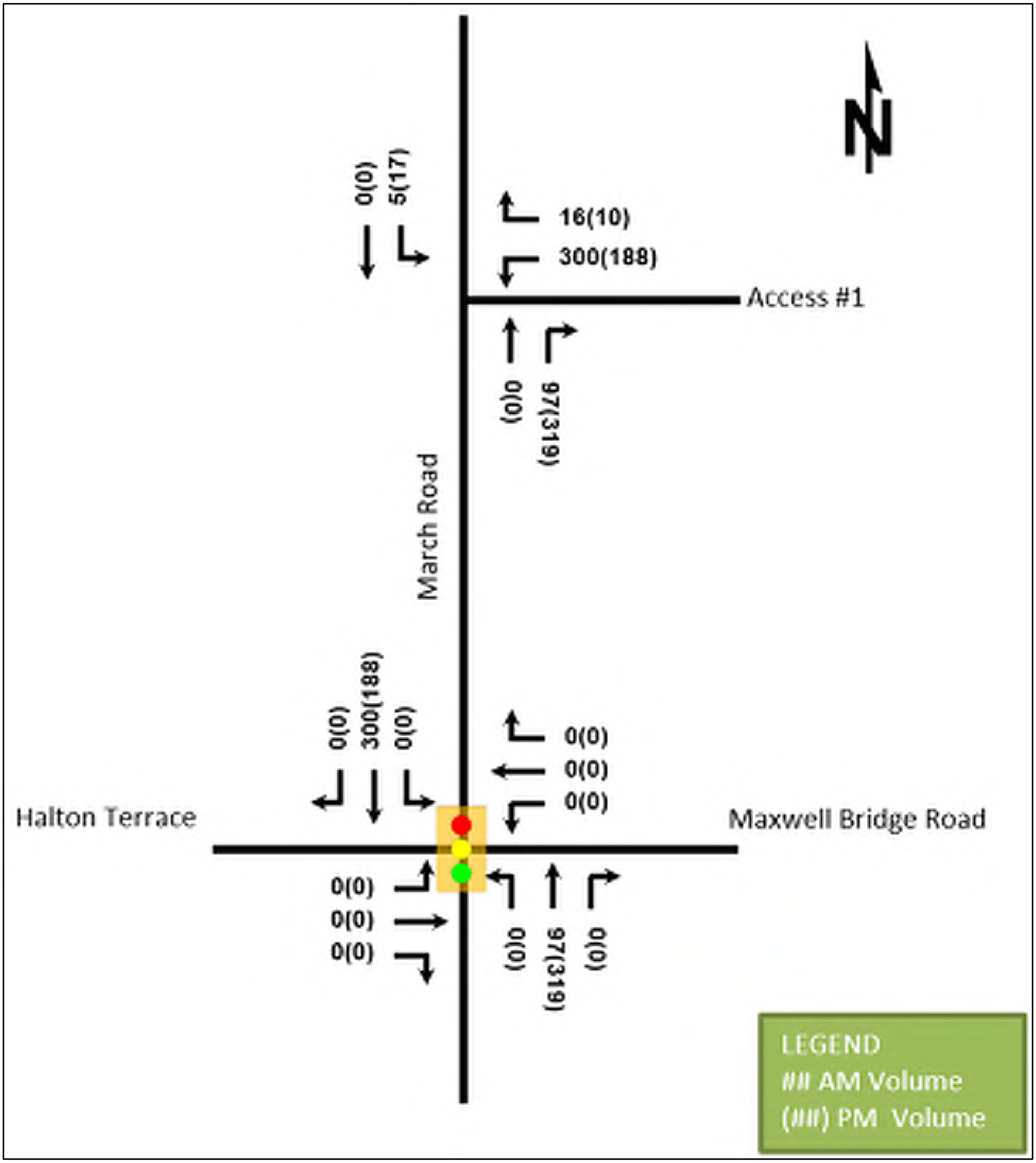
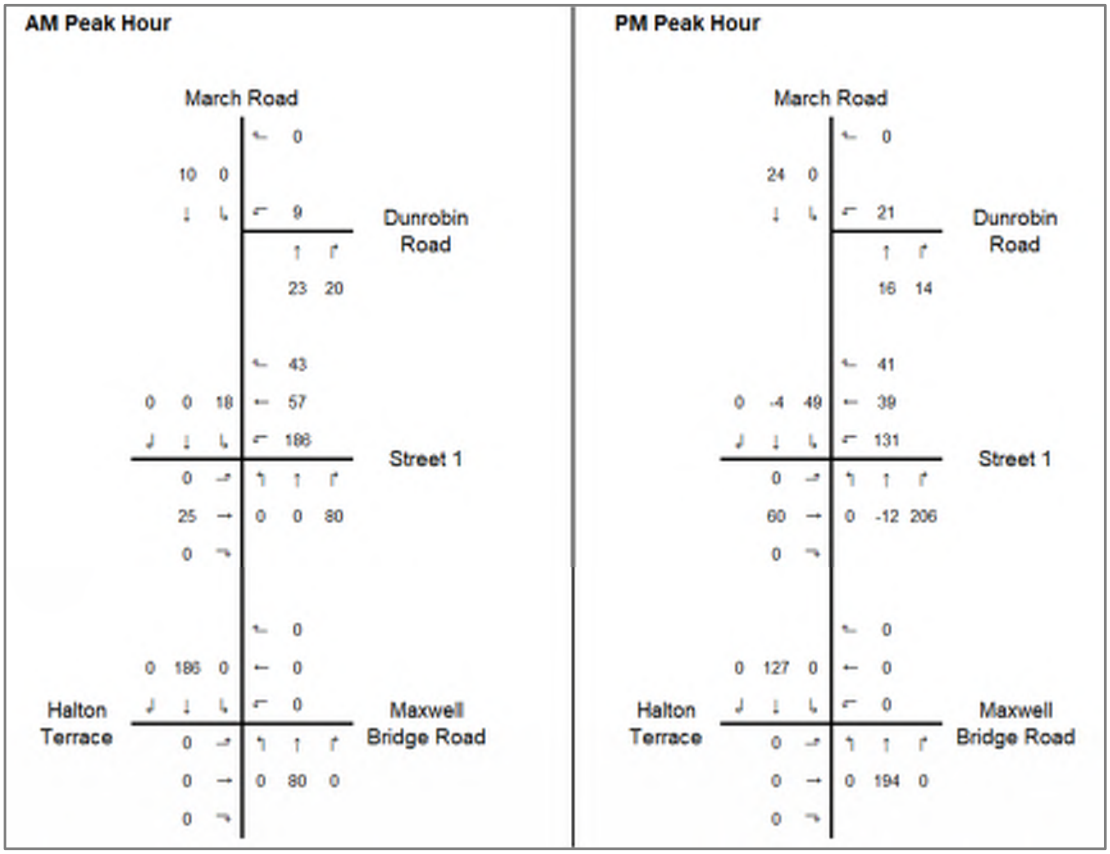


**Figure 9 - Site Traffic Volumes**




## 3.2 BACKGROUND NETWORK TRAVEL DEMAND

### 3.2.1 Transportation Network Plans

As outlined in **Table 3** in **Section 2.1.3.1**, the March Road widening and March Road Transit projects are anticipated to occur within the study area. In the absence of any definitive timelines in the TMP, these transportation improvements are not assumed to be in place for the study horizons of the subject TIA.

### 3.2.2 Background Growth

Existing traffic volumes were grown at a rate of 0.5% annually, non-compounding, to represent 2031 background traffic volumes. This rate of growth is consistent with the approved *Kanata North Community Design Plan Transportation Master Plan* (Novatech, June 2016).

The modal shares associated with the proposed development are anticipated to be consistent with the KNUEA CDP TMP. The transit modal share in the KNUEA CDP TMP was developed based on the 2031 target in the City's 2013 TMP for the Kanata/Stittsville area. The modal shares identified in the 2011 TRANS O-D Survey Report for the Kanata/Stittsville area were adjusted to reflect the increased transit modal share of 21%, with the auto driver share reduced accordingly. A comparison of the person trips by modal share between the proposed development and the assumed development in the KNUEA CDP TMP is provided in the following table.

**Table 4: Site-Generated Trips by Modal Share**

| Travel Mode | Modal Share | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|---|
| | | IN | OUT | TOTAL | IN | OUT | TOTAL |
| *KNUEA CDP TMP* | | | | | | | |
| **Total Person Trips** | | **140** | **531** | **671** | **542** | **294** | **836** |
| Auto Driver | 59% | 82 | 314 | 396 | 320 | 173 | 493 |
| Auto Passenger | 15% | 21 | 79 | 100 | 81 | 44 | 125 |
| Transit | 21% | 30 | 111 | 141 | 114 | 62 | 176 |
| Non-Auto | 5% | 7 | 27 | 34 | 27 | 15 | 42 |
| *Proposed Development* | | | | | | | |
| **Total Person Trips** | | **138** | **434** | **572** | **442** | **259** | **701** |
| Auto Driver | 59% | 82 | 256 | 338 | 261 | 153 | 414 |
| Auto Passenger | 15% | 21 | 65 | 86 | 66 | 39 | 105 |
| Transit | 21% | 29 | 92 | 121 | 93 | 54 | 147 |
| Non-Auto | 5% | 6 | 21 | 27 | 22 | 13 | 35 |
| **Auto Driver (Difference)** | | **0** | **-58** | **-58** | **-59** | **-20** | **-79** |
| **Auto Passenger (Difference)** | | **0** | **-14** | **-14** | **-15** | **-5** | **-20** |
| **Transit (Difference)** | | **-1** | **-19** | **-20** | **-21** | **-8** | **-29** |
| **Non-Auto (Difference)** | | **-1** | **-6** | **-7** | **-5** | **-2** | **-7** |

Based on the foregoing, the proposed development is anticipated to generate approximately 60 to 80 less vehicle trips compared to the assumed development in the KNUEA CDP TMP.

### 3.1.2 Trip Distribution

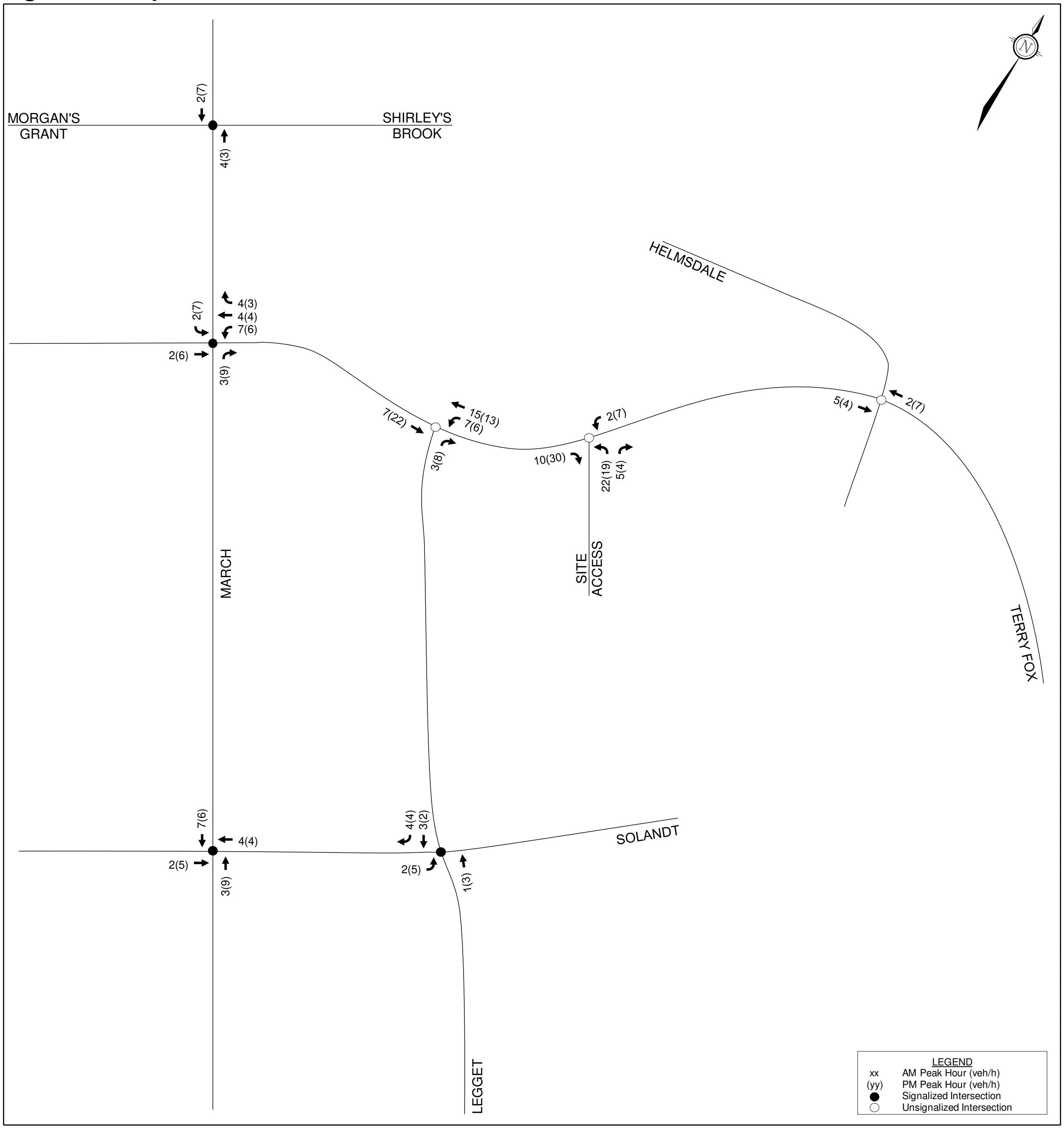
The distribution of traffic generated by the proposed development is anticipated be consistent with the distribution presented in the KNUEA CDP TMP, and is summarized as follows:

- 85% to/from the south
- 15% to/from the north

As the trips generated by the proposed development are anticipated to be less than the assumed development in the KNUEA CDP TMP, the site traffic projections in the TMP are considered a

- Other area development-generated traffic volumes in 2029 are shown in **Figure 12**;
- Background traffic volumes in 2024 are shown in **Figure 13**;
- Background traffic volumes in 2029 are shown in **Figure 14**;
- Total traffic volumes in 2024 are shown in **Figure 15**;
- Total traffic volumes in 2029 are shown in **Figure 16**.

**Figure 8: Proposed Site-Generated Volumes**



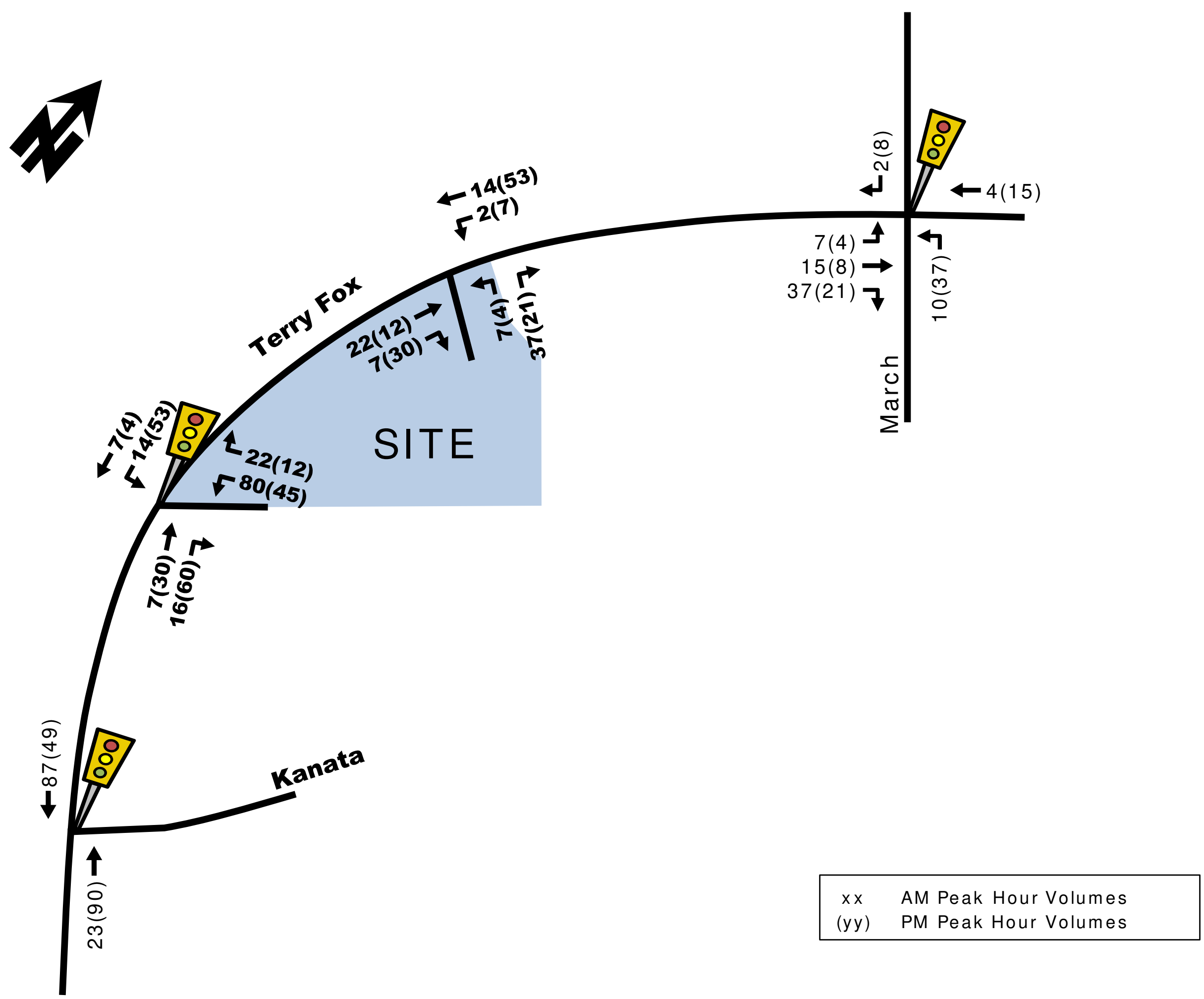
As shown in Table 4, the resulting number of potential “new” two-way vehicle trips generated by the proposed subdivision and approximately 185 veh/h and 230 veh/h during the morning and afternoon peak hours, respectively. It is these volumes that will be assigned to the proposed site intersections and the study area’s signalized intersections to determine impacts and requirements.

## 4.5. TRAFFIC DISTRIBUTION AND ASSIGNMENT

Traffic distribution is impacted by a number of factors when considering a residential site plan. Included are locations of employment and retail, subdivision driveway connections to adjacent arterial roads and connectivity to the area’s main commuter/highway routes. Given the location of the proposed subdivision, located between too major arterials (Terry Fox Drive and March Road) that both provide access to HWY 417, the distribution to/from the site is estimated to be 60% to the south via Terry Fox Drive and 40% to the east towards March Road. Applying this distribution to the Table 4 projected peak hour traffic generation and assigning it to the subdivision’s two proposed roadway connections to Terry Fox Drive results in the traffic assignment depicted in Figure 6. It is noteworthy that the percentage distribution at the Terry Fox/March intersection is approximately the same as existing conditions.

With regard to subdivision access to Terry Fox Drive, given the southern driveway connection will be shared with the Richardson Ridge subdivision to the south, it is likely this access will warrant signalization. As such, a greater percentage of left-turning vehicles into and out of the site were assigned to the southern intersection under the assumption it will be signalized.

Figure 6: Site-Generated Peak Hour Traffic Assignment



## Figure 10: Net Site-Generated Volumes

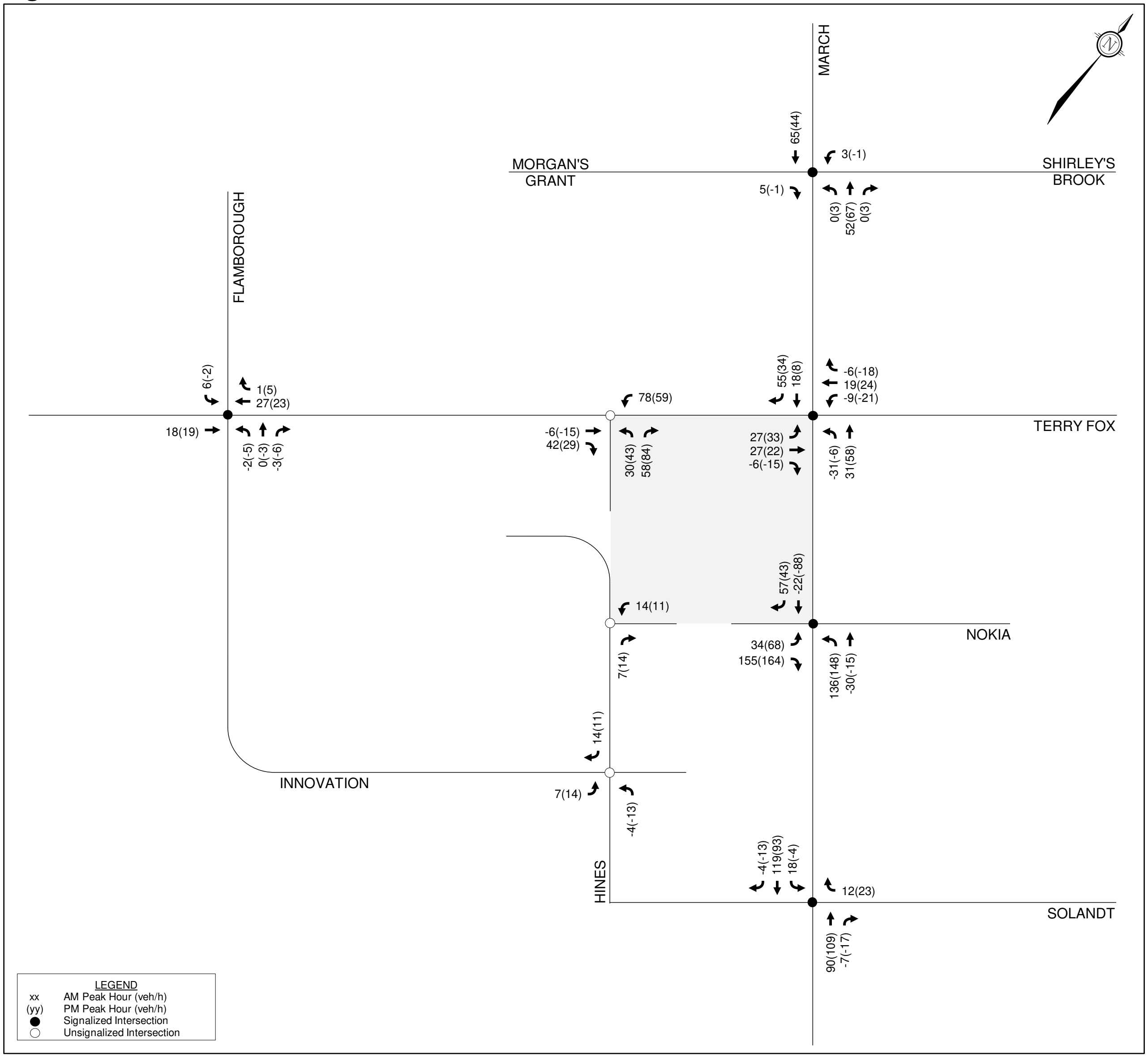


**Figure 13 - Site Generated Traffic Volumes – Residential Land Use**

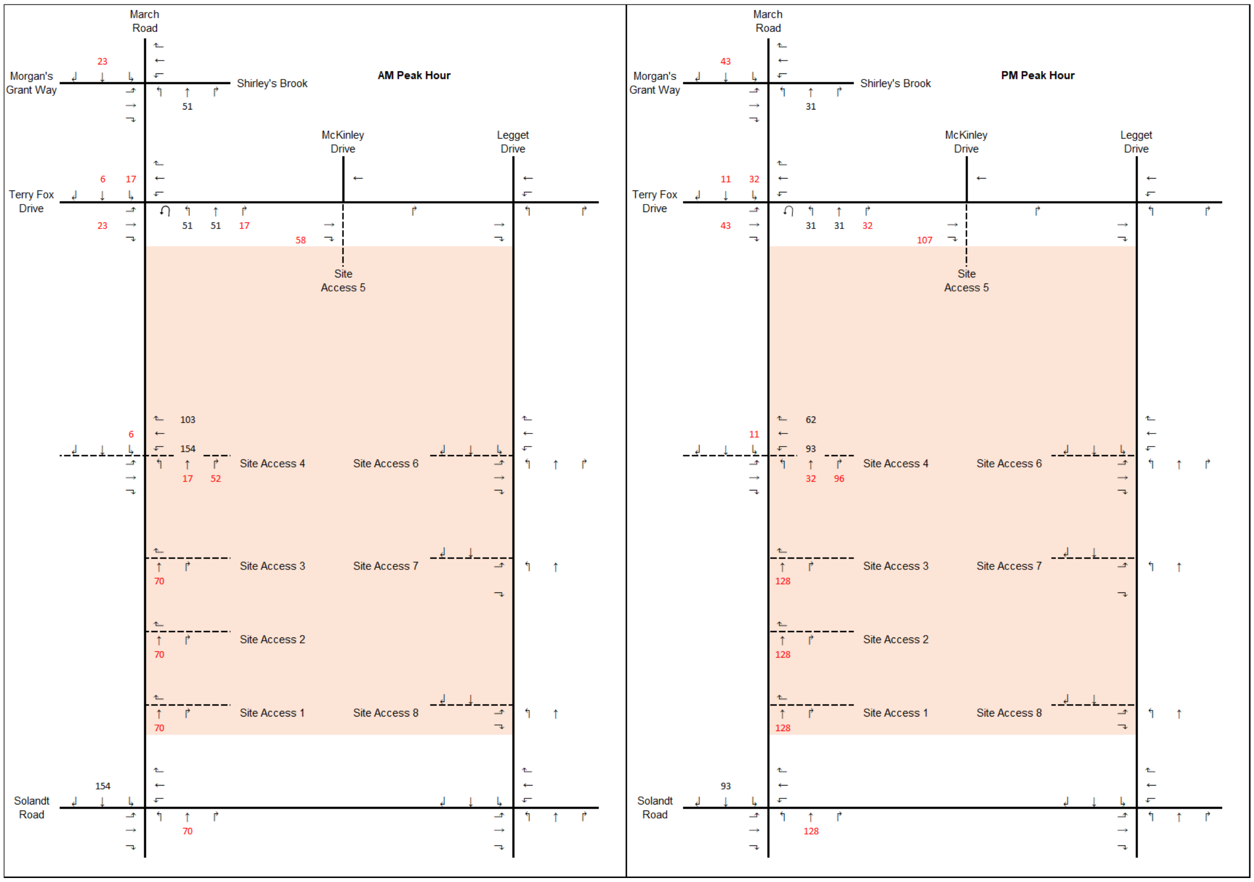


**Figure 11 - Decommissioned 600 March Road Trips Removed from the Network**

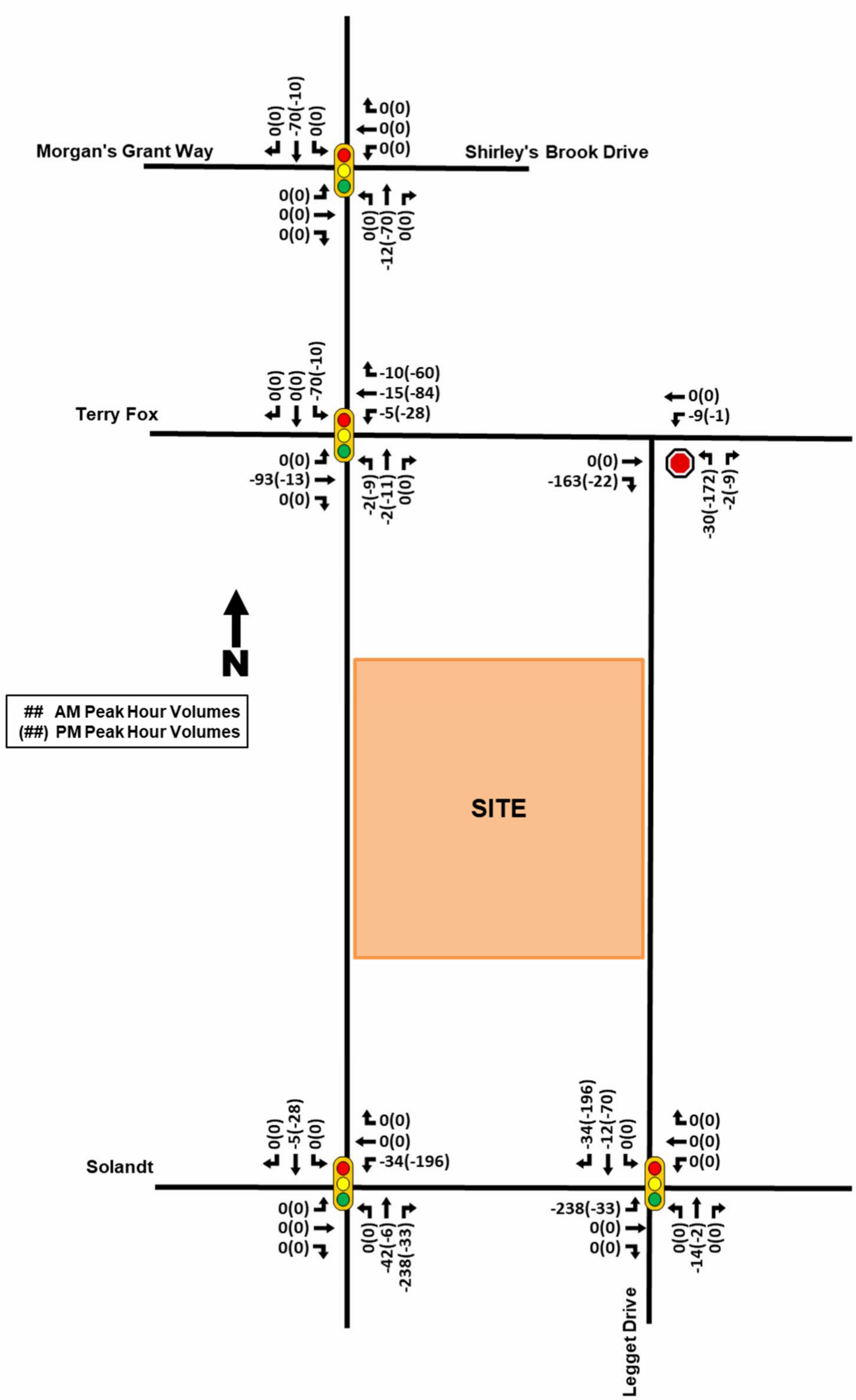


**Figure 12 - Projected Site-Generated Traffic**

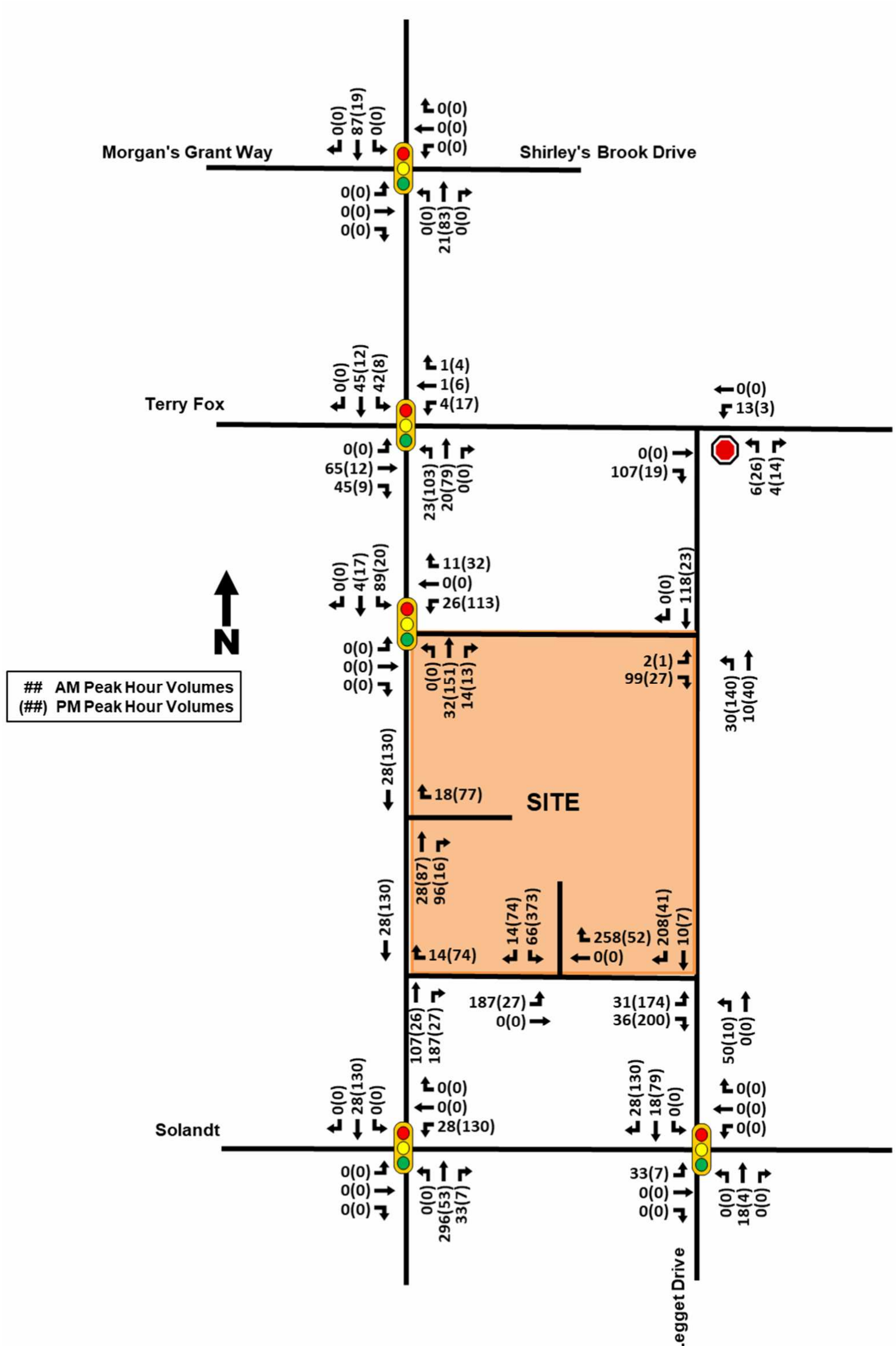
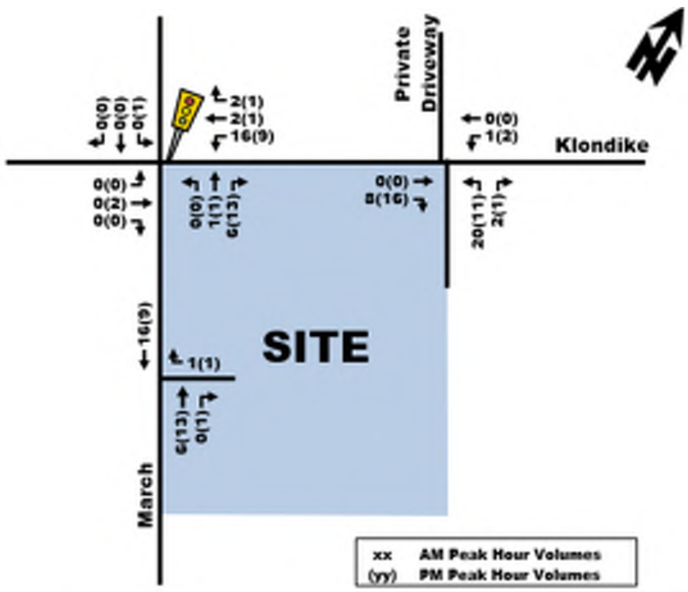


Table 2: Site Person Trip Generation Using OD-Survey Mode Share – Updated

| Travel Mode | AM Mode Share | AM Peak (persons/h) | | | PM Peak (persons/h) | | |
|---|---|---|---|---|---|---|---|
| | | In | Out | Total | In | Out | Total |
| Auto Driver | 50% | 9 | 23 | 32 | 19 | 13 | 32 |
| Auto Passenger | 10% | 1 | 5 | 6 | 4 | 3 | 7 |
| Transit | 25% | 4 | 13 | 17 | 9 | 7 | 16 |
| Non-motorized | 15% | 3 | 7 | 10 | 5 | 5 | 10 |
| Total People Trips | 100% | 17 | 48 | 65 | 37 | 28 | 65 |
| Total 'New' High-Rise Condominium (2023) Auto Trips | | 9 | 23 | 32 | 19 | 13 | 32 |

The total two-way anticipated site generated person trips are 65 for the AM and PM peak hours, and the total two-way vehicle generated trips are 32 trips for the AM and PM peak hours. Figure 1, below shows the updated vehicle volumes assigned to the local roadways within the study area.

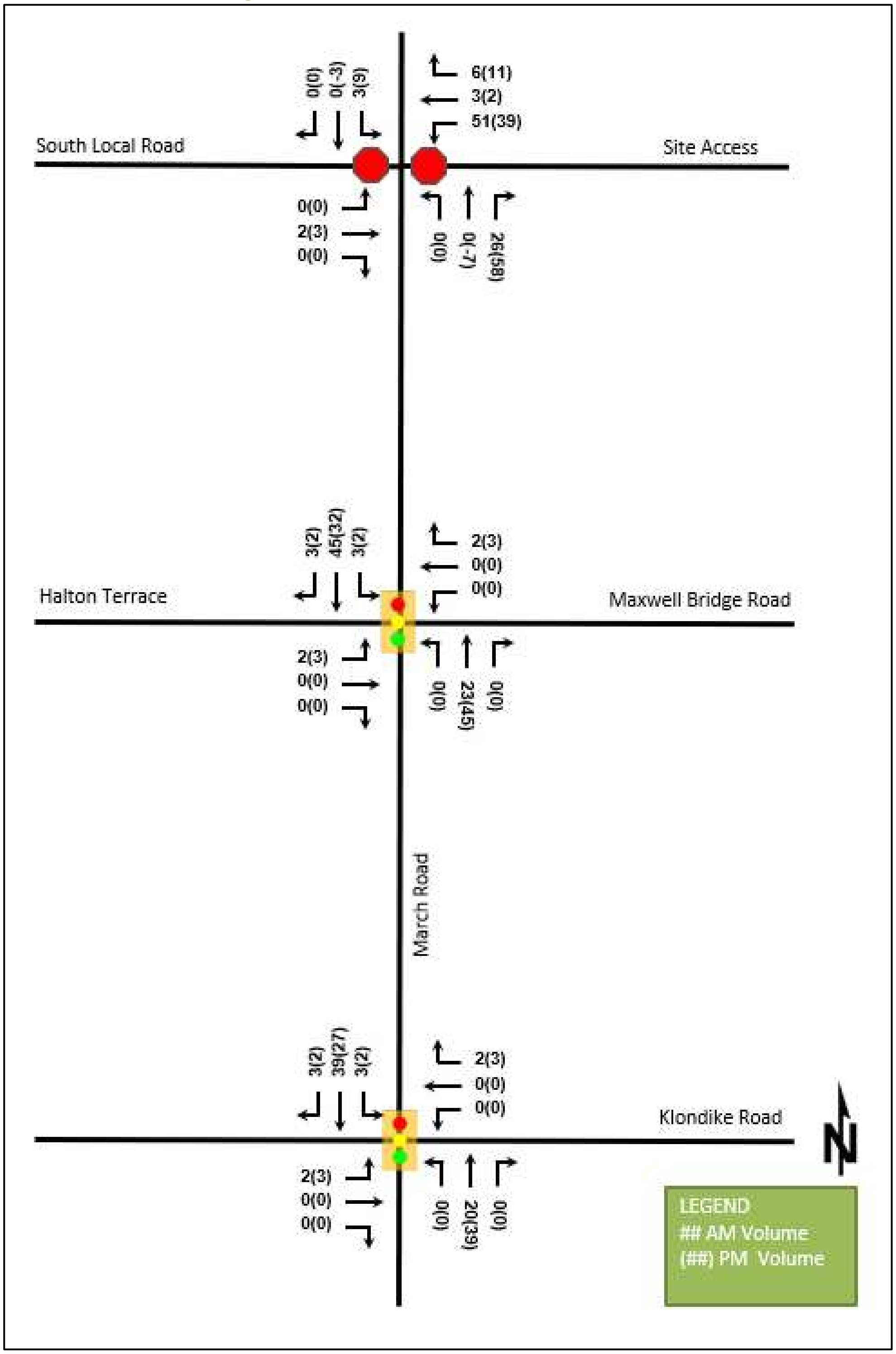
Figure 1: Updated Total Site Generated Vehicle Trips



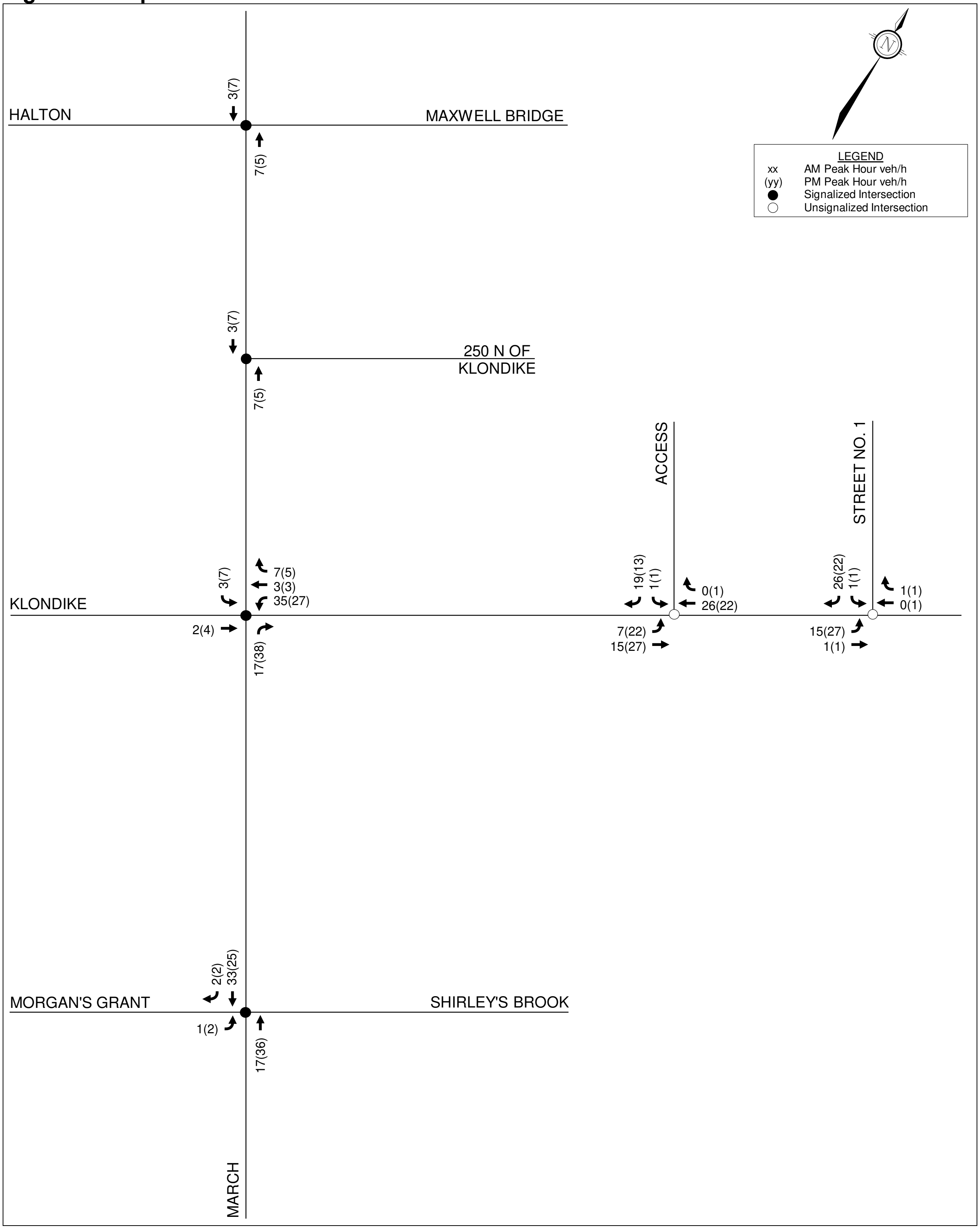

## 2.3. Difference in Forecasted Trips

To understand the difference between the previous Site Plan and the updated Site Plan with regard to trip generation, the forecasted volumes from the original TIA were compared to those associated with the updated Site Plan. Table 3 summarizes the difference (Table 2 - Table 1 values).

*Figure 20: Net New Site Generation Auto Volumes*



## Figure 9: Proposed Site-Generated Traffic



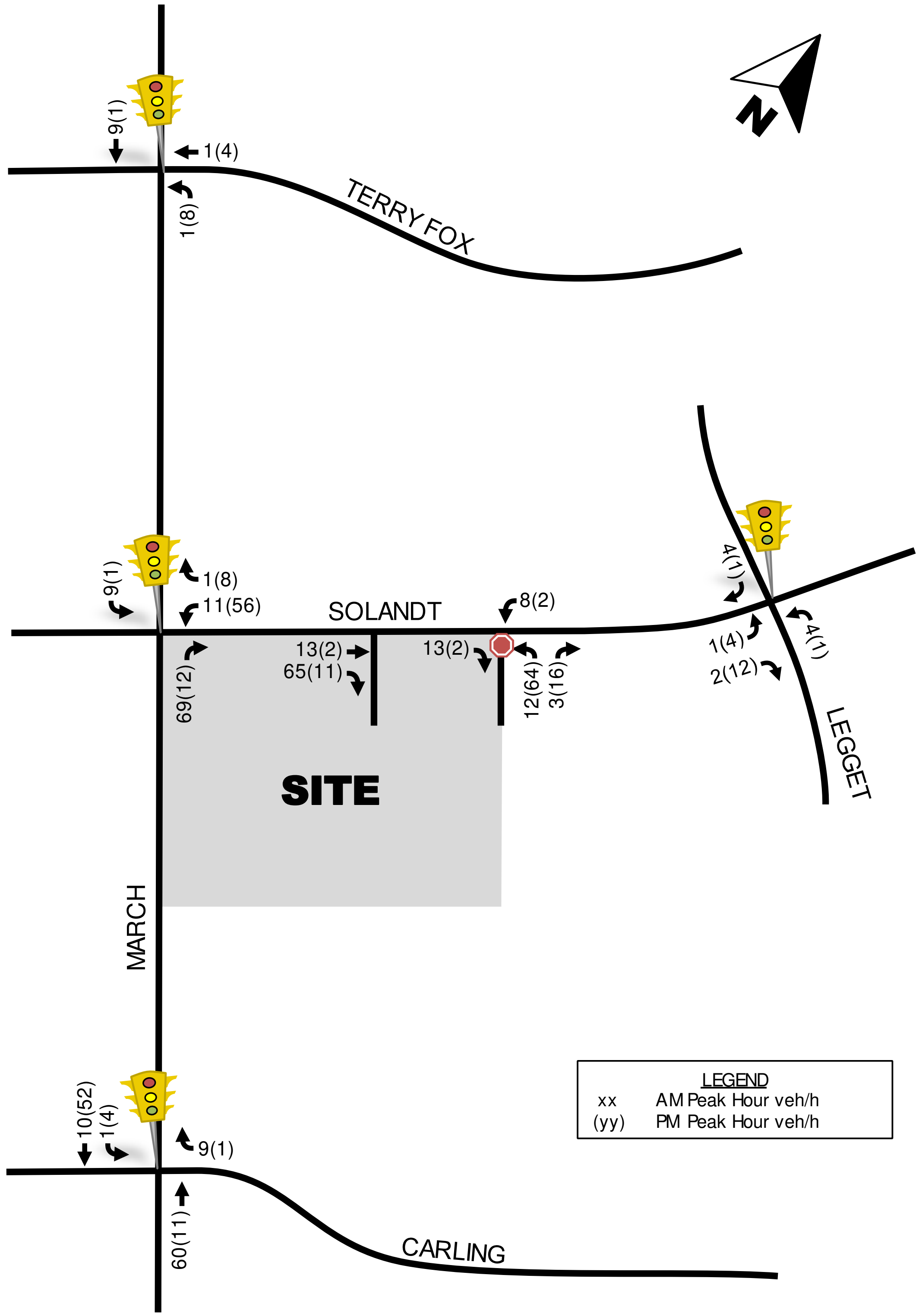



*Figure 7: Projected Site-Generated Traffic*

# APPENDIX I

Long-Range Model Snapshots

# TRANS Regional Model

Version 1.01 - Assigned December, 2024

**AM Peak Hour Total Traffic Volume**

**Kanata Research Park**

2022 Model - Basecase

*N/A*

User Initials: PMA
Plot Prepared: Nov, 2025
EMME Scenario: 22002

TRANS

## Legend

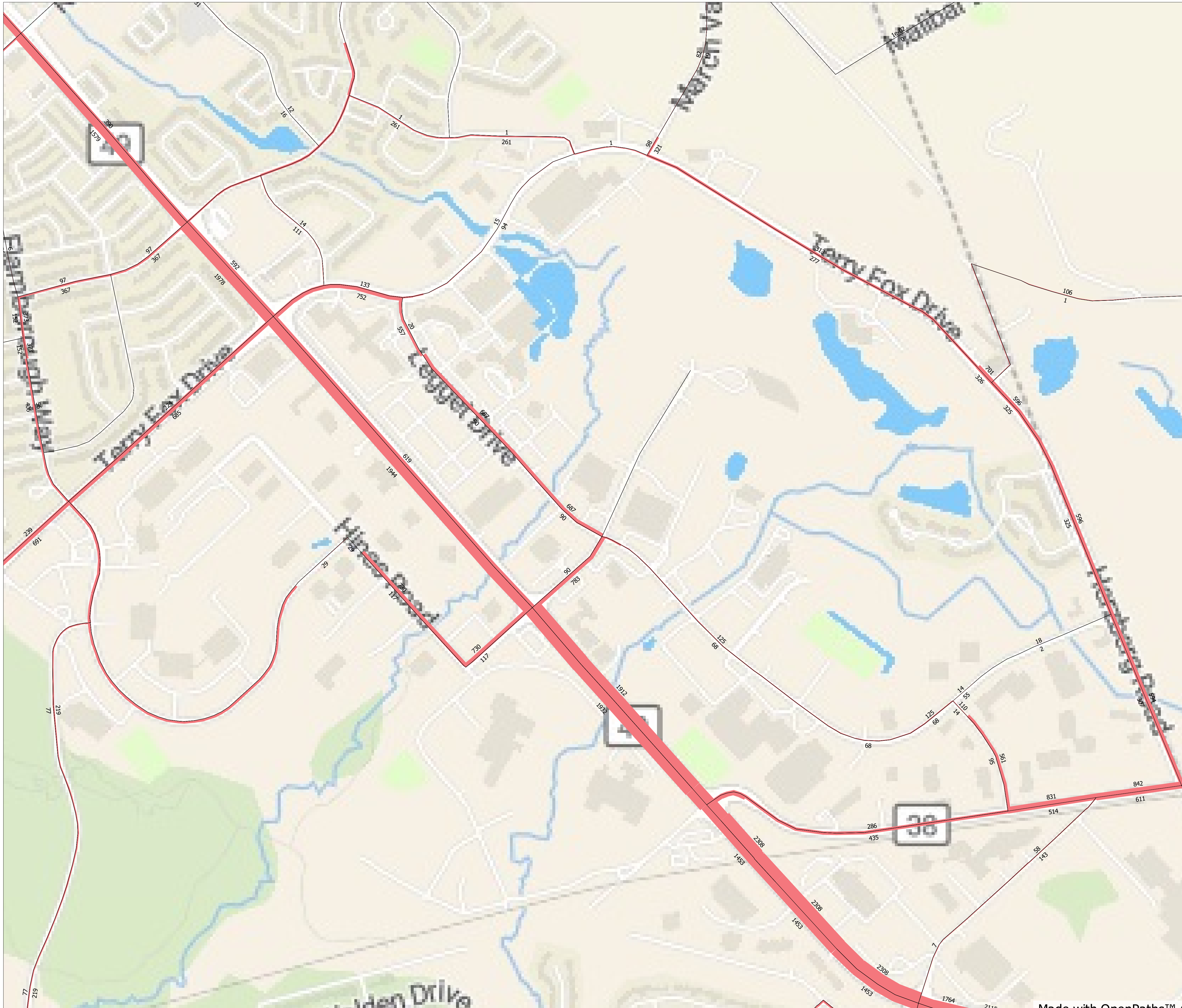
AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

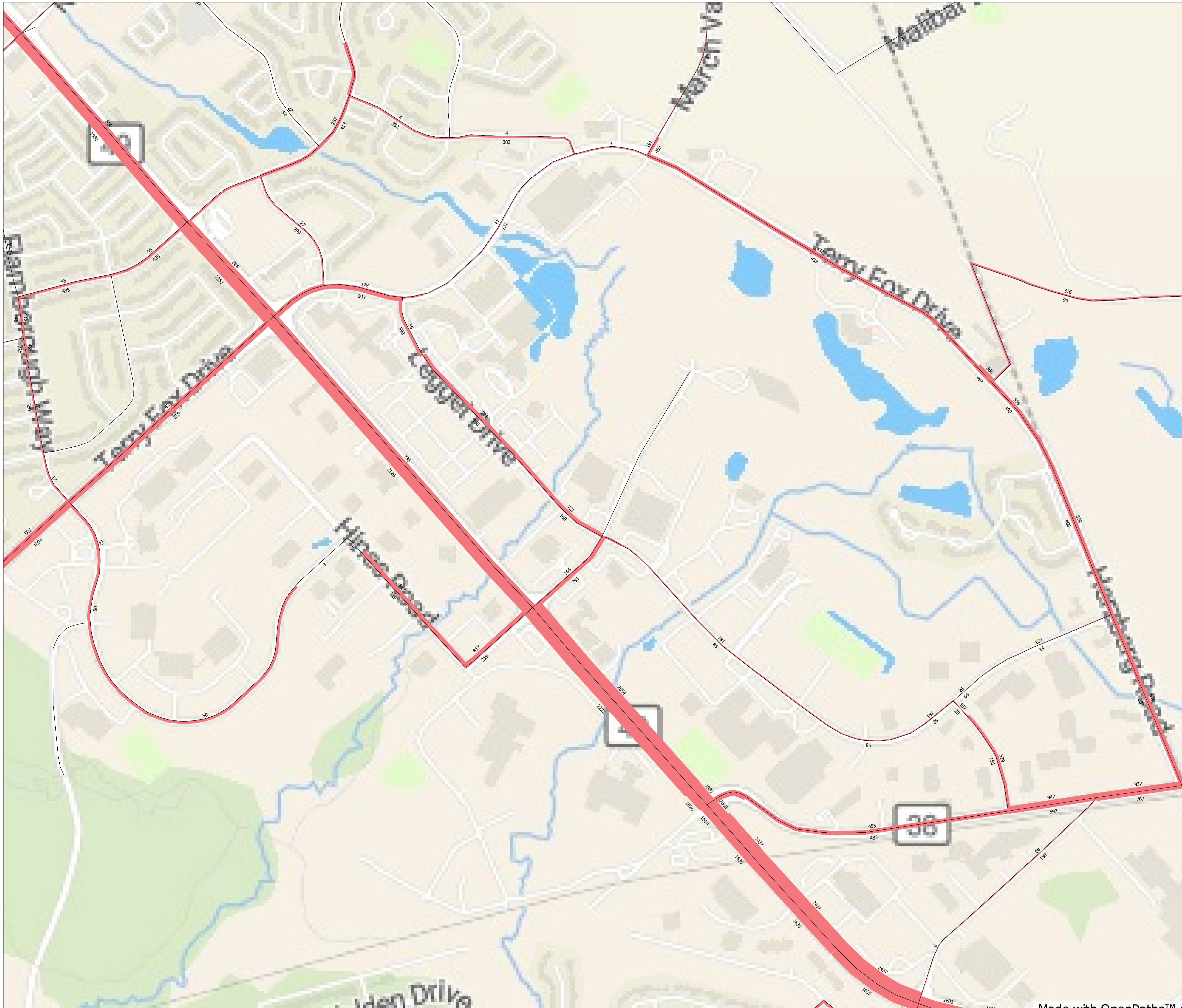
100 200 300 400 500




The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.




# TRANS Regional Model

Version 1.01 - Assigned December, 2024

**AM Peak Hour Total Traffic Volume**

**Kanata Research Park**

2046 Model - Priority Network

*N/A*

User Initials: PMA
Plot Prepared: Nov, 2025
EMME Scenario: 46011

TRANS

## Legend

AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

100 200 300 400 500

The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

# APPENDIX J

Signal Timing Plans

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

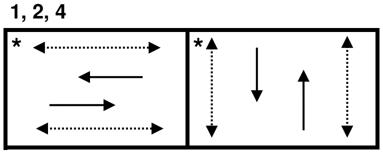
| | | | | |
|---|---|---|---|---|
| **Intersection:** | *Main:* | Legget | *Side:* | Solandt |
| **Controller:** | **ATC3** | | **TSD:** | **6537** |
| **Author:** | Othman Benamrane | | **Date:** | 26-Sep-2025 |

## Existing Timing Plans†

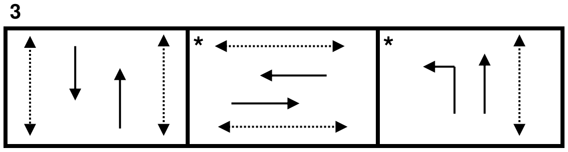
| | Plan | | | | Ped Minimum Time | | |
|---|---|---|---|---|---|---|---|
| | **AM Peak** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | Free | Free | Free | Free | | | |
| **Offset** | X | X | X | X | | | |
| NB Thru | max 46.2 | max 46.2 | max 71.2 | max 25.2 | 7 | 12 | 3.3+2.9 |
| SB Thru | max 46.2 | max 46.2 | max 46.2 | max 25.2 | 7 | 12 | 3.3+2.9 |
| EB Thru | max 66.2 | max 46.2 | max 41.2 | max 25.2 | 7 | 12 | 3.3+2.9 |
| WB Thru | max 66.2 | max 46.2 | max 41.2 | max 25.2 | 7 | 12 | 3.3+2.9 |
| *NB Left* | - | - | max 31.2 | - | - | - | 3.3+2.9 |

## Phasing Sequence‡

**Plan:** **1, 2, 4**



**Plan:** **3**



**Notes:** 1) For plans 1, 2 and 4, the EW movements have a min recall of 15 seconds green
2) For plan 3, the NS movement has a ped recall

## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:10 | 4 |
| 6:00 | 1 |
| 9:50 | 2 |
| 15:00 | 3 |
| 19:00 | 4 |

**Weekend**

| Time | Plan |
|---|---|
| 0:10 | 4 |

## Notes

†: Time for each direction includes amber and all red intervals

‡: Start of first phase should be used as reference point for offset

Asterisk (*) Indicates actuated phase

(fp): Fully Protected Left Turn

◄·········► Pedestrian signal

Cost is $63.94 ($56.58 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

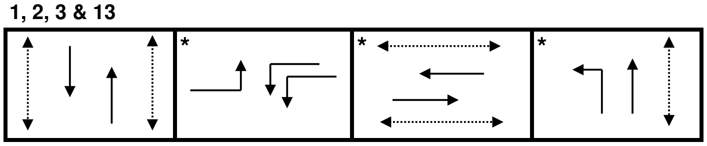
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** March | ***Side:*** | Solandt |
| **Controller:** | **MS 3200** | **TSD:** | **5359** |
| **Author:** | Othman Benamrane | **Date:** | 26-Sep-2025 |

## Existing Timing Plans†

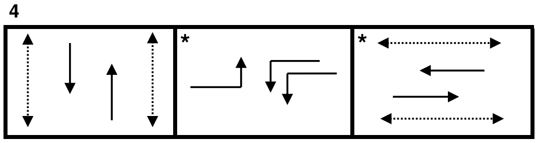
| | **Plan** | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|
| | **AM Peak** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **PM Heavy** 13 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 130 | 110 | 120 | 85 | 130 | | | |
| **Offset** | 15 | 16 | 21 | X | 30 | | | |
| NB Thru | 85 | 60 | 59 | 38 | 64 | 7 | 12 | 4.6+1.7 |
| SB Thru | 46 | 47 | 47 | 38 | 52 | 7 | 12 | 4.6+1.7 |
| *EB Left (fp)* | 13 | 18 | 29 | 16 | 34 | - | - | 3.3+2.6 |
| *WB Left (fp)* | 13 | 18 | 29 | 16 | 34 | - | - | 3.3+2.6 |
| EB Thru | 32 | 32 | 32 | 31 | 32 | 7 | 18 | 3.3+3.2 |
| WB Thru | 32 | 32 | 32 | 31 | 32 | 7 | 18 | 3.3+3.2 |
| *NB Left* | 39 | 13 | 12 | - | 12 | - | - | 4.6+1.7 |

## Phasing Sequence‡

**Plan: 1, 2, 3 & 13**



**Plan: 4**



**<u>Notes:</u>** 1) In Plan 1, if the EW pedestrian phase is not actuated, the EW Thru will force off after 10s
2) In Plan 1, any unused time in the cycle will go to the NS Thru phases

## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:10 | 4 |
| 6:30 | 1 |
| 9:30 | 2 |
| 15:00 | 3 |
| 16:30 | 13 |
| 18:00 | 3 |
| 18:30 | 2 |
| 22:00 | 4 |

**Weekend**

| Time | Plan |
|---|---|
| 0:10 | 4 |
| 8:00 | 2 |
| 22:00 | 4 |

## Notes

†: Time for each direction includes amber and all red intervals
‡: Start of first phase should be used as reference point for offset
Asterisk (*) Indicates actuated phase
(fp): Fully Protected Left Turn
Pedestrian signal

Cost is $63.94 ($56.58 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

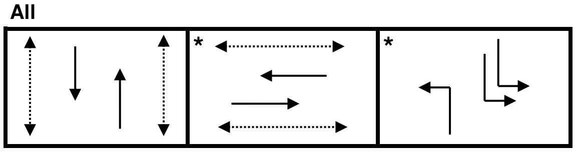
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** March | ***Side:*** | Carling / Station |
| **Controller:** | **MS 3200** | **TSD:** | **5830** |
| **Author:** | Othman Benamrane | **Date:** | 26-Sep-2025 |

## Existing Timing Plans†

| | **Plan** | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|
| | **AM Peak** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Heavy PM** 13 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 130 | 110 | 120 | 95 | 130 | | | |
| **Offset** | 68 | 76 | 96 | X | 102 | | | |
| NB Thru | 67 | 47 | 57 | 32 | 67 | 7 | 17 | 3.7+2.6 |
| SB Thru | 67 | 47 | 57 | 32 | 67 | 7 | 17 | 3.7+2.6 |
| EB Thru | 40 | 40 | 40 | 40 | 40 | 7 | 26 | 3.7+2.8 |
| WB Thru | 40 | 40 | 40 | 40 | 40 | 7 | 26 | 3.7+2.8 |
| *NB Left (fp)* | 23 | 23 | 23 | 23 | 23 | - | - | 3.7+2.8 |
| *SB Left (fp)* | 23 | 23 | 23 | 23 | 23 | - | - | 3.7+2.8 |

## Phasing Sequence‡

**Plan:** **All**




**Notes:** 1) All unused time will go to the NS Thru phases

## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:10 | 4 |
| 6:30 | 1 |
| 9:30 | 2 |
| 15:00 | 3 |
| 16:30 | 13 |
| 18:00 | 3 |
| 18:30 | 2 |
| 22:00 | 4 |

**Weekend**

| Time | Plan |
|---|---|
| 0:10 | 4 |
| 8:00 | 2 |
| 22:00 | 4 |

## Notes

†: Time for each direction includes amber and all red intervals

‡: Start of first phase should be used as reference point for offset

Asterisk (*) Indicates actuated phase

(fp): Fully Protected Left Turn

Pedestrian signal

Cost is $63.94 ($56.58 + HST)

# APPENDIX K

---

Existing Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 267 | 211 | 41 | 105 | 49 | 21 |
| Future Volume (vph) | 267 | 211 | 41 | 105 | 49 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.941 | | | | 0.960 | |
| Flt Protected | | | | 0.986 | 0.966 | |
| Satd. Flow (prot) | 1642 | 0 | 0 | 1672 | 1562 | 0 |
| Flt Permitted | | | | 0.986 | 0.966 | |
| Satd. Flow (perm) | 1642 | 0 | 0 | 1672 | 1562 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 11 | 11 | | | |
| Confl. Bikes (#/hr) | | 8 | | | | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 6% | 5% |
| Adj. Flow (vph) | 297 | 234 | 46 | 117 | 54 | 23 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 531 | 0 | 0 | 163 | 77 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 51.4% | ICU Level of Service A |
| Analysis Period (min) 15 | |

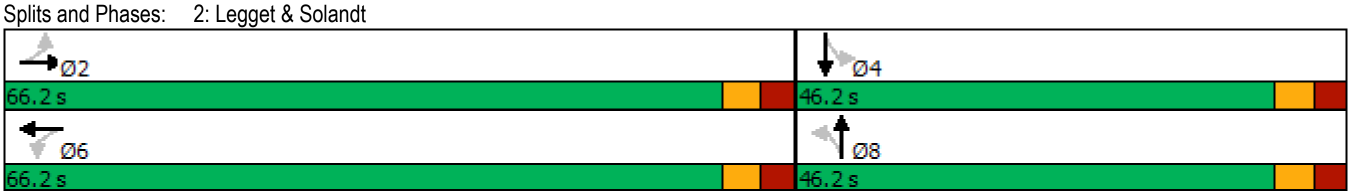
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 289 | 95 | 165 | 1 | 17 | 2 | 35 | 68 | 16 | 7 | 93 | 32 |
| Future Volume (vph) | 289 | 95 | 165 | 1 | 17 | 2 | 35 | 68 | 16 | 7 | 93 | 32 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | 0.98 | | |
| Frt | | 0.905 | | | 0.986 | | | 0.971 | | | 0.961 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1572 | 0 | 1674 | 1539 | 0 | 1409 | 1618 | 0 | 1208 | 1669 | 0 |
| Flt Permitted | 0.744 | | | 0.583 | | | 0.668 | | | 0.696 | | |
| Satd. Flow (perm) | 1296 | 1572 | 0 | 1026 | 1539 | 0 | 991 | 1618 | 0 | 864 | 1669 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 119 | | | 2 | | | 12 | | | 17 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | 9 | 9 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 15% | 1% | 20% | 7% | 1% | 40% | 3% | 1% |
| Adj. Flow (vph) | 321 | 106 | 183 | 1 | 19 | 2 | 39 | 76 | 18 | 8 | 103 | 36 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 321 | 289 | 0 | 1 | 21 | 0 | 39 | 94 | 0 | 8 | 139 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 66.2 | 66.2 | | 66.2 | 66.2 | | 46.2 | 46.2 | | 46.2 | 46.2 | |
| Total Split (%) | 58.9% | 58.9% | | 58.9% | 58.9% | | 41.1% | 41.1% | | 41.1% | 41.1% | |
| Maximum Green (s) | 60.0 | 60.0 | | 60.0 | 60.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 4 | 4 | | 9 | 9 | | 1 | 1 | |
| Act Effct Green (s) | 28.0 | 28.0 | | 28.0 | 28.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Actuated g/C Ratio | 0.59 | 0.59 | | 0.59 | 0.59 | | 0.25 | 0.25 | | 0.25 | 0.25 | |
| v/c Ratio | 0.42 | 0.29 | | 0.00 | 0.02 | | 0.16 | 0.22 | | 0.04 | 0.32 | |
| Control Delay | 10.1 | 5.3 | | 7.0 | 6.3 | | 18.6 | 16.5 | | 17.4 | 17.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 10.1 | 5.3 | | 7.0 | 6.3 | | 18.6 | 16.5 | | 17.4 | 17.4 | |
| LOS | B | A | | A | A | | B | B | | B | B | |
| Approach Delay | | 7.8 | | | 6.3 | | | 17.1 | | | 17.4 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Queue Length 50th (m) | 13.6 | 6.1 | | 0.0 | 0.6 | | 2.1 | 4.5 | | 0.4 | 6.8 | |
| Queue Length 95th (m) | 37.7 | 20.2 | | 0.6 | 3.4 | | 9.9 | 17.1 | | 3.4 | 23.7 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 1259 | 1531 | | 997 | 1495 | | 857 | 1401 | | 747 | 1446 | |
| 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 | 0.25 | 0.19 | | 0.00 | 0.01 | | 0.05 | 0.07 | | 0.01 | 0.10 | |

Intersection Summary

Area Type: Other
Cycle Length: 112.4
Actuated Cycle Length: 47.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 57.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legget & Solandt



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 39 | 82 | 42 | 26 | 11 | 5 | 508 | 855 | 465 | 3 | 59 |
| Future Volume (vph) | 13 | 39 | 82 | 42 | 26 | 11 | 5 | 508 | 855 | 465 | 3 | 59 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.956 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1549 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.094 | | | | 0.301 |
| Satd. Flow (perm) | 1401 | 1695 | 1395 | 3095 | 1549 | 0 | 0 | 166 | 3252 | 1445 | 0 | 529 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 12 | | | | | 517 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 14 | 43 | 91 | 47 | 29 | 12 | 6 | 564 | 950 | 517 | 3 | 66 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 14 | 43 | 91 | 47 | 41 | 0 | 0 | 570 | 950 | 517 | 0 | 69 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 977 | 71 |
| Future Volume (vph) | 977 | 71 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1086 | 79 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1086 | 79 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 13.0 | 32.0 | 32.0 | 13.0 | 32.0 | | 39.0 | 39.0 | 85.0 | 85.0 | 46.0 | 46.0 |
| Total Split (%) | 10.0% | 24.6% | 24.6% | 10.0% | 24.6% | | 30.0% | 30.0% | 65.4% | 65.4% | 35.4% | 35.4% |
| Maximum Green (s) | 7.1 | 25.5 | 25.5 | 7.1 | 25.5 | | 32.7 | 32.7 | 78.7 | 78.7 | 39.7 | 39.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | 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 | C-Max | C-Max | C-Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 6.4 | 13.0 | 13.0 | 6.7 | 18.1 | | | 93.9 | 93.9 | 93.9 | | 39.7 |
| Actuated g/C Ratio | 0.05 | 0.10 | 0.10 | 0.05 | 0.14 | | | 0.72 | 0.72 | 0.72 | | 0.31 |
| v/c Ratio | 0.20 | 0.25 | 0.36 | 0.30 | 0.18 | | | 0.84 | 0.40 | 0.44 | | 0.43 |
| Control Delay | 65.9 | 55.6 | 6.2 | 64.1 | 38.8 | | | 27.7 | 3.4 | 1.5 | | 46.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 65.9 | 55.6 | 6.2 | 64.1 | 38.8 | | | 27.7 | 3.4 | 1.5 | | 46.1 |
| LOS | E | E | A | E | D | | | C | A | A | | D |
| Approach Delay | | 26.2 | | | 52.4 | | | | 9.7 | | | |
| Approach LOS | | C | | | D | | | | A | | | |
| Queue Length 50th (m) | 3.2 | 9.8 | 0.0 | 5.5 | 5.8 | | | 80.7 | 35.0 | 8.4 | | 13.0 |
| Queue Length 95th (m) | 9.6 | 18.3 | 5.3 | 11.4 | 15.0 | | | m#164.4 | m26.9 | m6.5 | | 27.4 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 76 | 332 | 378 | 169 | 313 | | | 675 | 2348 | 1187 | | 161 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.18 | 0.13 | 0.24 | 0.28 | 0.13 | | | 0.84 | 0.40 | 0.44 | | 0.43 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 38.9 Intersection LOS: D
Intersection Capacity Utilization 91.8% 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: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 46.0 | 46.0 |
| Total Split (%) | 35.4% | 35.4% |
| Maximum Green (s) | 39.7 | 39.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 39.7 | 39.7 |
| Actuated g/C Ratio | 0.31 | 0.31 |
| v/c Ratio | 1.08 | 0.15 |
| Control Delay | 96.6 | 1.2 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 96.6 | 1.2 |
| LOS | F | A |
| Approach Delay | 87.7 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~150.8 | 0.0 |
| Queue Length 95th (m) | #189.0 | 1.3 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1002 | 520 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.08 | 0.15 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 210 | 1 | 56 | 1680 | 122 | 2 | 159 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 210 | 1 | 56 | 1680 | 122 | 2 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.98 | 0.99 | | 0.98 | | 0.99 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.762 | | 0.697 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1316 | 1461 | 1137 | 1762 | 1468 | 0 | 1613 | 3283 | 1359 | 0 | 3238 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 172 | | | | 89 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 69 | 23 | 7 | 48 | 27 | 233 | 1 | 62 | 1867 | 136 | 2 | 177 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 92 | 7 | 48 | 27 | 233 | 0 | 63 | 1867 | 136 | 0 | 179 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 858 | 118 |
| Future Volume (vph) | 858 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.95 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1392 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 84 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 0.90 | 0.90 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 953 | 131 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 953 | 131 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 23.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 17.7% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 16.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| Lead-Lag Optimize? | | | | | | | Yes | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | | 10.4 | 77.8 | 77.8 | | 12.5 |
| Actuated g/C Ratio | | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | | 0.08 | 0.60 | 0.60 | | 0.10 |
| v/c Ratio | | 0.44 | 0.02 | 0.27 | 0.10 | 0.62 | | 0.48 | 0.95 | 0.16 | | 0.58 |
| Control Delay | | 53.5 | 0.2 | 47.7 | 42.3 | 20.6 | | 68.9 | 37.6 | 6.9 | | 84.3 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 53.5 | 0.2 | 47.7 | 42.3 | 20.6 | | 68.9 | 37.6 | 6.9 | | 84.3 |
| LOS | | D | A | D | D | C | | E | D | A | | F |
| Approach Delay | | 49.7 | | | 26.7 | | | | 36.5 | | | |
| Approach LOS | | D | | | C | | | | D | | | |
| Queue Length 50th (m) | | 21.1 | 0.0 | 10.7 | 5.8 | 13.6 | | 14.5 | 178.1 | 3.8 | | 23.1 |
| Queue Length 95th (m) | | 31.8 | 0.0 | 18.8 | 12.0 | 33.2 | | 27.3 | #319.3 | 16.6 | | m19.3 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 339 | 437 | 292 | 454 | 505 | | 206 | 1964 | 848 | | 412 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.27 | 0.02 | 0.16 | 0.06 | 0.46 | | 0.31 | 0.95 | 0.16 | | 0.43 |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 29.5 Intersection LOS: C

Intersection Capacity Utilization 105.9% ICU Level of Service G

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: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 67.0 | 67.0 |
| Total Split (%) | 51.5% | 51.5% |
| Maximum Green (s) | 60.7 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 82.4 | 82.4 |
| Actuated g/C Ratio | 0.63 | 0.63 |
| v/c Ratio | 0.46 | 0.14 |
| Control Delay | 6.7 | 1.2 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 6.7 | 1.2 |
| LOS | A | A |
| Approach Delay | 17.1 | |
| Approach LOS | B | |
| Queue Length 50th (m) | 3.9 | 0.0 |
| Queue Length 95th (m) | m112.4 | m4.9 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2061 | 913 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.46 | 0.14 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 39 | 82 | 42 | 26 | 11 | 5 | 508 | 855 | 465 | 3 | 59 |
| Future Volume (vph) | 13 | 39 | 82 | 42 | 26 | 11 | 5 | 508 | 855 | 465 | 3 | 59 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.956 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1549 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.078 | | | | 0.301 |
| Satd. Flow (perm) | 1401 | 1695 | 1395 | 3095 | 1549 | 0 | 0 | 137 | 3252 | 1445 | 0 | 529 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 12 | | | | | 517 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 14 | 43 | 91 | 47 | 29 | 12 | 6 | 564 | 950 | 517 | 3 | 66 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 14 | 43 | 91 | 47 | 41 | 0 | 0 | 570 | 950 | 517 | 0 | 69 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 977 | 71 |
| Future Volume (vph) | 977 | 71 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1404 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1086 | 79 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1086 | 79 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | |
| Total Split (%) | 8.5% | 24.6% | 24.6% | 8.5% | 24.6% | |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | |
| Act Effct Green (s) | 5.1 | 13.0 | 13.0 | 5.1 | 17.4 | |
| Actuated g/C Ratio | 0.04 | 0.10 | 0.10 | 0.04 | 0.13 | |
| v/c Ratio | 0.25 | 0.25 | 0.36 | 0.39 | 0.19 | |
| Control Delay | 72.1 | 55.6 | 6.2 | 70.5 | 39.3 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 72.1 | 55.6 | 6.2 | 70.5 | 39.3 | |
| LOS | E | E | A | E | D | |
| Approach Delay | | 26.8 | | | 55.9 | |
| Approach LOS | | C | | | E | |
| Queue Length 50th (m) | 3.3 | 9.8 | 0.0 | 5.6 | 5.9 | |
| Queue Length 95th (m) | 9.8 | 18.3 | 5.3 | 11.7 | 15.0 | |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | |
| Base Capacity (vph) | 55 | 332 | 378 | 121 | 313 | |
| 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 | 0.25 | 0.13 | 0.24 | 0.39 | 0.13 | |

| Lane Group | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 32.0 | 32.0 | 87.0 | 87.0 | 55.0 | 55.0 |
| Total Split (%) | 24.6% | 24.6% | 66.9% | 66.9% | 42.3% | 42.3% |
| Maximum Green (s) | 25.7 | 25.7 | 80.7 | 80.7 | 48.7 | 48.7 |
| Yellow Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lead | | | Lag | Lag |
| Lead-Lag Optimize? | Yes | 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 | C-Max | C-Max |
| Walk Time (s) | | | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | | 95.4 | 95.4 | 95.4 | | 48.7 |
| Actuated g/C Ratio | | 0.73 | 0.73 | 0.73 | | 0.37 |
| v/c Ratio | | 0.99 | 0.40 | 0.43 | | 0.35 |
| Control Delay | | 49.8 | 6.3 | 3.0 | | 35.6 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 49.8 | 6.3 | 3.0 | | 35.6 |
| LOS | | D | A | A | | D |
| Approach Delay | | | 17.6 | | | |
| Approach LOS | | | B | | | |
| Queue Length 50th (m) | | 108.1 | 54.0 | 13.7 | | 11.6 |
| Queue Length 95th (m) | | m#187.6 | m56.3 | m19.4 | | 24.5 |
| Internal Link Dist (m) | | | 610.3 | | | |
| Turn Bay Length (m) | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | | 578 | 2386 | 1197 | | 198 |
| 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 | | 0.99 | 0.40 | 0.43 | | 0.35 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 91.8% ICU Level of Service F
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 55.0 | 55.0 |
| Total Split (%) | 42.3% | 42.3% |
| Maximum Green (s) | 48.7 | 48.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 48.7 | 48.7 |
| Actuated g/C Ratio | 0.37 | 0.37 |
| v/c Ratio | 0.88 | 0.13 |
| Control Delay | 47.8 | 0.9 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 47.8 | 0.9 |
| LOS | D | A |
| Approach Delay | 44.2 | |
| Approach LOS | D | |
| Queue Length 50th (m) | 125.1 | 0.0 |
| Queue Length 95th (m) | #153.2 | 1.2 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1229 | 608 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.88 | 0.13 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 124 | 82 | 23 | 337 | 226 | 43 |
| Future Volume (vph) | 124 | 82 | 23 | 337 | 226 | 43 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.946 | | | | 0.978 | |
| Flt Protected | | | | 0.997 | 0.960 | |
| Satd. Flow (prot) | 1622 | 0 | 0 | 1748 | 1634 | 0 |
| Flt Permitted | | | | 0.997 | 0.960 | |
| Satd. Flow (perm) | 1622 | 0 | 0 | 1748 | 1634 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 24 | 24 | | | |
| Confl. Bikes (#/hr) | | 1 | | | | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 5% | 9% | 1% | 1% | 9% |
| Adj. Flow (vph) | 138 | 91 | 26 | 374 | 251 | 48 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 229 | 0 | 0 | 400 | 299 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

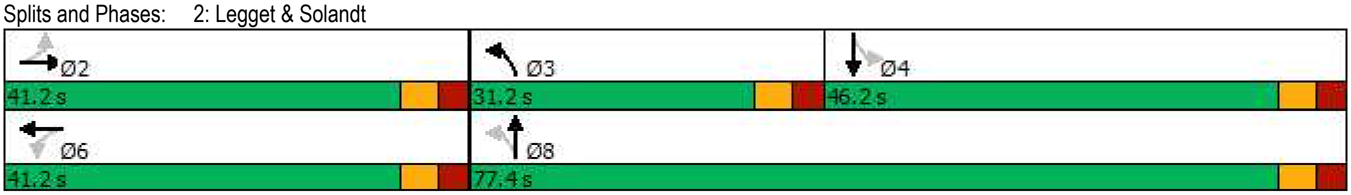
| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 59.3% | ICU Level of Service B |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 57 | 12 | 26 | 23 | 42 | 10 | 85 | 67 | 0 | 3 | 98 | 162 |
| Future Volume (vph) | 57 | 12 | 26 | 23 | 42 | 10 | 85 | 67 | 0 | 3 | 98 | 162 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.98 | | 0.99 | 1.00 | | 1.00 | | | 0.99 | 0.98 | |
| Frt | | 0.896 | | | 0.972 | | | | | | 0.907 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1458 | 0 | 1610 | 1621 | 0 | 1642 | 1728 | 0 | 1271 | 1552 | 0 |
| Flt Permitted | 0.719 | | | 0.730 | | | 0.366 | | | 0.709 | | |
| Satd. Flow (perm) | 1260 | 1458 | 0 | 1230 | 1621 | 0 | 630 | 1728 | 0 | 936 | 1552 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 29 | | | 10 | | | | | | 76 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 3 | | 5 | 5 | | 3 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 1% | 15% | 4% | 5% | 3% | 20% | 3% | 3% | 1% | 33% | 4% | 1% |
| Adj. Flow (vph) | 63 | 13 | 29 | 26 | 47 | 11 | 94 | 74 | 0 | 3 | 109 | 180 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 42 | 0 | 26 | 58 | 0 | 94 | 74 | 0 | 3 | 289 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 11.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 41.2 | 41.2 | | 41.2 | 41.2 | | 31.2 | 77.4 | | 46.2 | 46.2 | |
| Total Split (%) | 34.7% | 34.7% | | 34.7% | 34.7% | | 26.3% | 65.3% | | 39.0% | 39.0% | |
| Maximum Green (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 71.2 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| 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 | |
| Recall Mode | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 2 | 2 | | | 5 | | 3 | 3 | |
| Act Effct Green (s) | 16.2 | 16.2 | | 16.2 | 16.2 | | 24.9 | 24.9 | | 14.6 | 14.6 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.30 | 0.30 | | 0.46 | 0.46 | | 0.27 | 0.27 | |
| v/c Ratio | 0.17 | 0.09 | | 0.07 | 0.12 | | 0.22 | 0.09 | | 0.01 | 0.61 | |
| Control Delay | 18.7 | 10.3 | | 17.9 | 15.6 | | 8.7 | 7.6 | | 15.7 | 19.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 18.7 | 10.3 | | 17.9 | 15.6 | | 8.7 | 7.6 | | 15.7 | 19.5 | |
| LOS | B | B | | B | B | | A | A | | B | B | |
| Approach Delay | | 15.4 | | | 16.3 | | | 8.2 | | | 19.4 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (m) | 4.3 | 0.9 | | 1.7 | 3.2 | | 4.2 | 3.2 | | 0.2 | 16.7 | |
| Queue Length 95th (m) | 13.6 | 7.1 | | 7.1 | 11.5 | | 10.5 | 8.6 | | 1.8 | 39.2 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 850 | 993 | | 830 | 1096 | | 831 | 1728 | | 709 | 1193 | |
| 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 | 0.07 | 0.04 | | 0.03 | 0.05 | | 0.11 | 0.04 | | 0.00 | 0.24 | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 118.6 | |
| Actuated Cycle Length: 54 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.61 | |
| Intersection Signal Delay: 15.5 | Intersection LOS: B |
| Intersection Capacity Utilization 49.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 2: Legget & Solandt



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 33 | 285 | 361 | 31 | 82 | 11 | 83 | 1303 | 116 | 10 | 26 |
| Future Volume (vph) | 63 | 33 | 285 | 361 | 31 | 82 | 11 | 83 | 1303 | 116 | 10 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 1.00 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.891 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1526 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1639 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.072 | | | | 0.088 |
| Satd. Flow (perm) | 1629 | 1548 | 1469 | 3232 | 1526 | 0 | 0 | 122 | 3316 | 1421 | 0 | 152 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 91 | | | | | 93 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 70 | 37 | 317 | 401 | 34 | 91 | 12 | 92 | 1448 | 129 | 11 | 29 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 70 | 37 | 317 | 401 | 125 | 0 | 0 | 104 | 1448 | 129 | 0 | 40 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

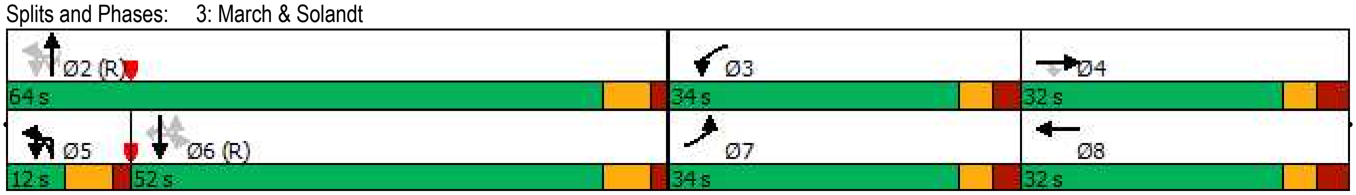
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1040 | 38 |
| Future Volume (vph) | 1040 | 38 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1411 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 0.90 | 0.90 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1156 | 42 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1156 | 42 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 34.0 | 32.0 | 32.0 | 34.0 | 32.0 | | 12.0 | 12.0 | 64.0 | 64.0 | 52.0 | 52.0 |
| Total Split (%) | 26.2% | 24.6% | 24.6% | 26.2% | 24.6% | | 9.2% | 9.2% | 49.2% | 49.2% | 40.0% | 40.0% |
| Maximum Green (s) | 28.1 | 25.5 | 25.5 | 28.1 | 25.5 | | 5.7 | 5.7 | 57.7 | 57.7 | 45.7 | 45.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | 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 | C-Max | C-Max | C-Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.9 | 23.4 | 23.4 | 21.2 | 36.2 | | | 66.7 | 66.7 | 66.7 | | 52.1 |
| Actuated g/C Ratio | 0.08 | 0.18 | 0.18 | 0.16 | 0.28 | | | 0.51 | 0.51 | 0.51 | | 0.40 |
| v/c Ratio | 0.51 | 0.13 | 0.86 | 0.76 | 0.26 | | | 0.66 | 0.85 | 0.17 | | 0.67 |
| Control Delay | 69.1 | 43.3 | 51.2 | 61.1 | 12.7 | | | 38.5 | 26.2 | 2.7 | | 87.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 69.1 | 43.3 | 51.2 | 61.1 | 12.7 | | | 38.5 | 26.2 | 2.7 | | 87.2 |
| LOS | E | D | D | E | B | | | D | C | A | | F |
| Approach Delay | | 53.5 | | | 49.6 | | | | 25.1 | | | |
| Approach LOS | | D | | | D | | | | C | | | |
| Queue Length 50th (m) | 16.1 | 7.2 | 43.5 | 47.1 | 5.9 | | | 10.0 | 179.5 | 6.0 | | 8.3 |
| Queue Length 95th (m) | 29.3 | 16.1 | #81.7 | 60.1 | 19.7 | | | m#35.7 | #223.5 | m7.5 | | #29.1 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 354 | 319 | 406 | 702 | 490 | | | 157 | 1701 | 774 | | 60 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.20 | 0.12 | 0.78 | 0.57 | 0.26 | | | 0.66 | 0.85 | 0.17 | | 0.67 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 30 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 38.1 Intersection LOS: D
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: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 52.0 | 52.0 |
| Total Split (%) | 40.0% | 40.0% |
| Maximum Green (s) | 45.7 | 45.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 52.1 | 52.1 |
| Actuated g/C Ratio | 0.40 | 0.40 |
| v/c Ratio | 0.87 | 0.07 |
| Control Delay | 45.7 | 0.2 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 45.7 | 0.2 |
| LOS | D | A |
| Approach Delay | 45.5 | |
| Approach LOS | D | |
| Queue Length 50th (m) | 141.8 | 0.0 |
| Queue Length 95th (m) | #186.3 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1327 | 644 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.87 | 0.07 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 233 | 5 | 33 | 1092 | 59 | 286 | 1665 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 233 | 5 | 33 | 1092 | 59 | 286 | 1665 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 0.99 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1699 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.780 | | 0.722 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1371 | 1458 | 1187 | 1762 | 1474 | 0 | 1672 | 3316 | 1439 | 3230 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 257 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 40 | 14 | 20 | 149 | 24 | 259 | 6 | 37 | 1213 | 66 | 318 | 1850 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 54 | 20 | 149 | 24 | 259 | 0 | 43 | 1213 | 66 | 318 | 1850 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

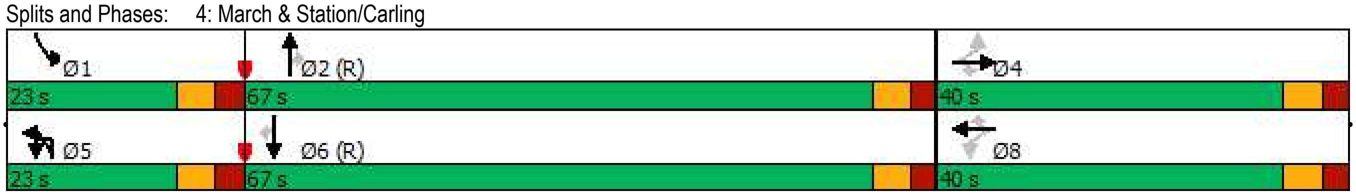
| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1435 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 84 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 0.90 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 64 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 64 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 67.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 51.5% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 | | 8.7 | 70.6 | 70.6 | 16.9 | 81.1 |
| Actuated g/C Ratio | | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | | 0.07 | 0.54 | 0.54 | 0.13 | 0.62 |
| v/c Ratio | | 0.22 | 0.06 | 0.71 | 0.08 | 0.55 | | 0.38 | 0.67 | 0.08 | 0.76 | 0.89 |
| Control Delay | | 44.7 | 0.3 | 66.5 | 40.9 | 9.4 | | 66.9 | 25.5 | 2.5 | 65.1 | 26.5 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 44.7 | 0.3 | 66.5 | 40.9 | 9.4 | | 66.9 | 25.5 | 2.5 | 65.1 | 26.5 |
| LOS | | D | A | E | D | A | | E | C | A | E | C |
| Approach Delay | | 32.7 | | | 30.9 | | | | 25.7 | | | 31.3 |
| Approach LOS | | C | | | C | | | | C | | | C |
| Queue Length 50th (m) | | 11.0 | 0.0 | 33.3 | 4.8 | 0.4 | | 9.9 | 107.3 | 0.0 | 34.0 | 220.4 |
| Queue Length 95th (m) | | 20.2 | 0.0 | 50.2 | 10.7 | 19.6 | | 20.7 | 149.8 | 4.8 | m45.4 | #303.9 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 353 | 436 | 305 | 454 | 570 | | 212 | 1800 | 819 | 437 | 2089 |
| 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 | | 0.15 | 0.05 | 0.49 | 0.05 | 0.45 | | 0.20 | 0.67 | 0.08 | 0.73 | 0.89 |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 29.4 Intersection LOS: C
Intersection Capacity Utilization 98.6% ICU Level of Service F
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling



| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 67.0 |
| Total Split (%) | 51.5% |
| Maximum Green (s) | 60.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | Yes |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 81.1 |
| Actuated g/C Ratio | 0.62 |
| v/c Ratio | 0.07 |
| Control Delay | 1.9 |
| Queue Delay | 0.0 |
| Total Delay | 1.9 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 0.5 |
| Queue Length 95th (m) | m3.1 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 926 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.07 |

Intersection Summary

# APPENDIX L

Background Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 311 | 155 | 45 | 120 | 25 | 23 |
| Future Volume (vph) | 311 | 155 | 45 | 120 | 25 | 23 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.955 | | | | 0.935 | |
| Flt Protected | | | | 0.987 | 0.975 | |
| Satd. Flow (prot) | 1667 | 0 | 0 | 1673 | 1538 | 0 |
| Flt Permitted | | | | 0.987 | 0.975 | |
| Satd. Flow (perm) | 1667 | 0 | 0 | 1673 | 1538 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 11 | 11 | | | |
| Confl. Bikes (#/hr) | | 8 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 6% | 5% |
| Adj. Flow (vph) | 311 | 155 | 45 | 120 | 25 | 23 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 466 | 0 | 0 | 165 | 48 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 50.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 84 | 95 | 165 | 1 | 17 | 2 | 35 | 72 | 16 | 7 | 99 | 26 |
| Future Volume (vph) | 84 | 95 | 165 | 1 | 17 | 2 | 35 | 72 | 16 | 7 | 99 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | 0.98 | | |
| Frt | | 0.905 | | | 0.984 | | | 0.973 | | | 0.969 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1572 | 0 | 1674 | 1538 | 0 | 1409 | 1622 | 0 | 1208 | 1681 | 0 |
| Flt Permitted | 0.745 | | | 0.599 | | | 0.677 | | | 0.700 | | |
| Satd. Flow (perm) | 1298 | 1572 | 0 | 1054 | 1538 | 0 | 1004 | 1622 | 0 | 869 | 1681 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 119 | | | 2 | | | 11 | | | 13 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | 9 | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 15% | 1% | 20% | 7% | 1% | 40% | 3% | 1% |
| Adj. Flow (vph) | 84 | 95 | 165 | 1 | 17 | 2 | 35 | 72 | 16 | 7 | 99 | 26 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 84 | 260 | 0 | 1 | 19 | 0 | 35 | 88 | 0 | 7 | 125 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 66.2 | 66.2 | | 66.2 | 66.2 | | 46.2 | 46.2 | | 46.2 | 46.2 | |
| Total Split (%) | 58.9% | 58.9% | | 58.9% | 58.9% | | 41.1% | 41.1% | | 41.1% | 41.1% | |
| Maximum Green (s) | 60.0 | 60.0 | | 60.0 | 60.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 4 | 4 | | 9 | 9 | | 1 | 1 | |
| Act Effct Green (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 11.6 | 11.6 | | 11.6 | 11.6 | |
| Actuated g/C Ratio | 0.52 | 0.52 | | 0.52 | 0.52 | | 0.29 | 0.29 | | 0.29 | 0.29 | |
| v/c Ratio | 0.13 | 0.30 | | 0.00 | 0.02 | | 0.12 | 0.18 | | 0.03 | 0.25 | |
| Control Delay | 9.4 | 6.5 | | 9.0 | 8.3 | | 11.5 | 10.6 | | 10.4 | 11.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 9.4 | 6.5 | | 9.0 | 8.3 | | 11.5 | 10.6 | | 10.4 | 11.3 | |
| LOS | A | A | | A | A | | B | B | | B | B | |
| Approach Delay | | 7.2 | | | 8.3 | | | 10.9 | | | 11.3 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Queue Length 50th (m) | 2.9 | 5.0 | | 0.0 | 0.6 | | 1.5 | 3.4 | | 0.3 | 5.0 | |
| Queue Length 95th (m) | 11.0 | 19.7 | | 0.7 | 3.6 | | 5.8 | 10.3 | | 2.1 | 13.8 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 1298 | 1572 | | 1054 | 1538 | | 962 | 1555 | | 833 | 1612 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.06 | 0.17 | | 0.00 | 0.01 | | 0.04 | 0.06 | | 0.01 | 0.08 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 112.4
Actuated Cycle Length: 39.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 8.8 Intersection LOS: A
Intersection Capacity Utilization 50.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Legget & Solandt

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 39 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 260 | 3 | 59 |
| Future Volume (vph) | 13 | 39 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 260 | 3 | 59 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.955 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1548 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.084 | | | | 0.224 |
| Satd. Flow (perm) | 1401 | 1695 | 1395 | 3095 | 1548 | 0 | 0 | 148 | 3252 | 1445 | 0 | 394 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 11 | | | | | 260 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 39 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 260 | 3 | 59 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 39 | 82 | 36 | 37 | 0 | 0 | 513 | 1247 | 260 | 0 | 62 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

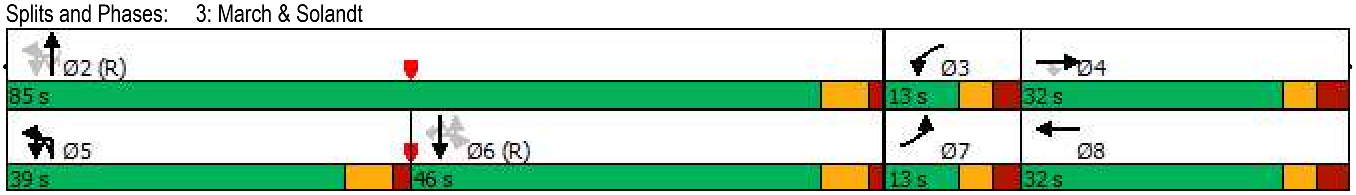
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1320 | 71 |
| Future Volume (vph) | 1320 | 71 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1320 | 71 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1320 | 71 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 13.0 | 32.0 | 32.0 | 13.0 | 32.0 | | 39.0 | 39.0 | 85.0 | 85.0 | 46.0 | 46.0 |
| Total Split (%) | 10.0% | 24.6% | 24.6% | 10.0% | 24.6% | | 30.0% | 30.0% | 65.4% | 65.4% | 35.4% | 35.4% |
| Maximum Green (s) | 7.1 | 25.5 | 25.5 | 7.1 | 25.5 | | 32.7 | 32.7 | 78.7 | 78.7 | 39.7 | 39.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 6.4 | 13.0 | 13.0 | 6.6 | 15.6 | | | 96.4 | 96.4 | 96.4 | | 45.1 |
| Actuated g/C Ratio | 0.05 | 0.10 | 0.10 | 0.05 | 0.12 | | | 0.74 | 0.74 | 0.74 | | 0.35 |
| v/c Ratio | 0.19 | 0.23 | 0.32 | 0.23 | 0.19 | | | 0.80 | 0.52 | 0.23 | | 0.46 |
| Control Delay | 65.4 | 55.0 | 4.6 | 62.7 | 39.6 | | | 26.5 | 4.5 | 0.7 | | 48.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 65.4 | 55.0 | 4.6 | 62.7 | 39.6 | | | 26.5 | 4.5 | 0.7 | | 48.8 |
| LOS | E | D | A | E | D | | | C | A | A | | D |
| Approach Delay | | 25.2 | | | 51.0 | | | | 9.6 | | | |
| Approach LOS | | C | | | D | | | | A | | | |
| Queue Length 50th (m) | 3.0 | 8.9 | 0.0 | 4.2 | 5.2 | | | 69.7 | 73.2 | 4.4 | | 11.9 |
| Queue Length 95th (m) | 9.4 | 17.0 | 2.7 | 9.4 | 14.1 | | | m#141.1 | m73.4 | m3.3 | | 27.3 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 76 | 332 | 378 | 169 | 312 | | | 638 | 2412 | 1139 | | 136 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.17 | 0.12 | 0.22 | 0.21 | 0.12 | | | 0.80 | 0.52 | 0.23 | | 0.46 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 51.0 Intersection LOS: D
Intersection Capacity Utilization 101.8% ICU Level of Service G
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: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 46.0 | 46.0 |
| Total Split (%) | 35.4% | 35.4% |
| Maximum Green (s) | 39.7 | 39.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 45.1 | 45.1 |
| Actuated g/C Ratio | 0.35 | 0.35 |
| v/c Ratio | 1.16 | 0.12 |
| Control Delay | 119.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 119.8 | 0.5 |
| LOS | F | A |
| Approach Delay | 110.9 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~207.0 | 0.0 |
| Queue Length 95th (m) | #250.4 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1139 | 573 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.16 | 0.12 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 210 | 1 | 56 | 1867 | 122 | 2 | 159 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 210 | 1 | 56 | 1867 | 122 | 2 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.98 | 0.99 | | 0.98 | | 0.99 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1322 | 1461 | 1146 | 1762 | 1468 | 0 | 1617 | 3283 | 1359 | 0 | 3238 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 172 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 210 | 1 | 56 | 1867 | 122 | 2 | 159 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 210 | 0 | 57 | 1867 | 122 | 0 | 161 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

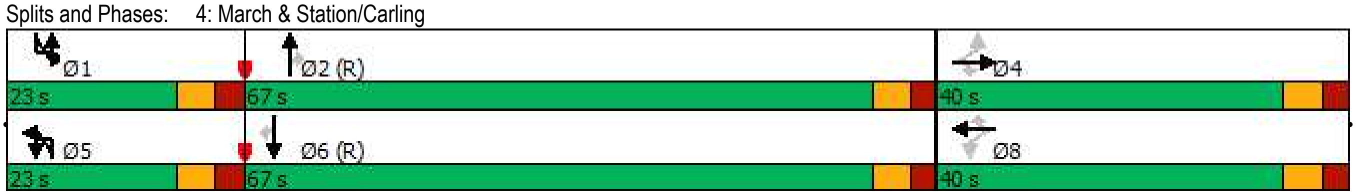
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1195 | 118 |
| Future Volume (vph) | 1195 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.95 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1392 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 84 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1195 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1195 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 23.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 17.7% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 16.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | | 9.9 | 78.9 | 78.9 | | 11.8 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.08 | 0.61 | 0.61 | | 0.09 |
| v/c Ratio | | 0.41 | 0.02 | 0.24 | 0.09 | 0.57 | | 0.46 | 0.94 | 0.14 | | 0.55 |
| Control Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 16.2 | | 68.6 | 35.3 | 6.4 | | 86.3 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 16.2 | | 68.6 | 35.3 | 6.4 | | 86.3 |
| LOS | | D | A | D | D | B | | E | D | A | | F |
| Approach Delay | | 48.9 | | | 23.2 | | | | 34.5 | | | |
| Approach LOS | | D | | | C | | | | C | | | |
| Queue Length 50th (m) | | 19.1 | 0.0 | 9.6 | 5.2 | 8.4 | | 13.1 | 170.5 | 2.9 | | 20.8 |
| Queue Length 95th (m) | | 29.1 | 0.0 | 17.3 | 10.8 | 26.5 | | 25.3 | #316.4 | 14.6 | | m16.6 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 340 | 437 | 295 | 454 | 505 | | 206 | 1991 | 857 | | 412 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.24 | 0.01 | 0.15 | 0.05 | 0.42 | | 0.28 | 0.94 | 0.14 | | 0.39 |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 27.3 — Intersection LOS: C
Intersection Capacity Utilization 111.3% — ICU Level of Service H
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 67.0 | 67.0 |
| Total Split (%) | 51.5% | 51.5% |
| Maximum Green (s) | 60.7 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 83.2 | 83.2 |
| Actuated g/C Ratio | 0.64 | 0.64 |
| v/c Ratio | 0.57 | 0.13 |
| Control Delay | 8.9 | 1.0 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 8.9 | 1.0 |
| LOS | A | A |
| Approach Delay | 16.7 | |
| Approach LOS | B | |
| Queue Length 50th (m) | 9.4 | 0.0 |
| Queue Length 95th (m) | m136.0 | m3.5 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2080 | 920 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.13 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 39 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 260 | 3 | 59 |
| Future Volume (vph) | 13 | 39 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 260 | 3 | 59 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.955 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1547 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.059 | | | | 0.224 |
| Satd. Flow (perm) | 1400 | 1695 | 1395 | 3095 | 1547 | 0 | 0 | 104 | 3252 | 1443 | 0 | 394 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 113 | | 11 | | | | | 260 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 39 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 260 | 3 | 59 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 39 | 82 | 36 | 37 | 0 | 0 | 513 | 1247 | 260 | 0 | 62 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1320 | 71 |
| Future Volume (vph) | 1320 | 71 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 114 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1320 | 71 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1320 | 71 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | | 36.0 | 36.0 | 107.0 | 107.0 | 71.0 | 71.0 |
| Total Split (%) | 7.3% | 21.3% | 21.3% | 7.3% | 21.3% | | 24.0% | 24.0% | 71.3% | 71.3% | 47.3% | 47.3% |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | | 29.7 | 29.7 | 100.7 | 100.7 | 64.7 | 64.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 5.1 | 13.0 | 13.0 | 5.1 | 17.4 | | | 115.4 | 115.4 | 115.4 | | 64.7 |
| Actuated g/C Ratio | 0.03 | 0.09 | 0.09 | 0.03 | 0.12 | | | 0.77 | 0.77 | 0.77 | | 0.43 |
| v/c Ratio | 0.28 | 0.27 | 0.37 | 0.34 | 0.20 | | | 0.94 | 0.50 | 0.22 | | 0.37 |
| Control Delay | 85.3 | 66.3 | 7.9 | 79.9 | 47.0 | | | 50.7 | 15.9 | 4.2 | | 36.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 85.3 | 66.3 | 7.9 | 79.9 | 47.0 | | | 50.7 | 15.9 | 4.2 | | 36.7 |
| LOS | F | E | A | E | D | | | D | B | A | | D |
| Approach Delay | | 32.4 | | | 63.2 | | | | 23.3 | | | |
| Approach LOS | | C | | | E | | | | C | | | |
| Queue Length 50th (m) | 3.6 | 10.4 | 0.0 | 5.1 | 6.3 | | | 128.0 | 106.0 | 9.0 | | 11.4 |
| Queue Length 95th (m) | 10.6 | 19.4 | 6.4 | 10.8 | 16.0 | | | m#217.4 | 182.0 | m21.7 | | 24.4 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 47 | 288 | 330 | 105 | 272 | | | 544 | 2501 | 1169 | | 169 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.28 | 0.14 | 0.25 | 0.34 | 0.14 | | | 0.94 | 0.50 | 0.22 | | 0.37 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 124 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 34.9 Intersection LOS: C
Intersection Capacity Utilization 101.8% ICU Level of Service G
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: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 71.0 | 71.0 |
| Total Split (%) | 47.3% | 47.3% |
| Maximum Green (s) | 64.7 | 64.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 64.7 | 64.7 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 0.93 | 0.11 |
| Control Delay | 53.2 | 1.0 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 53.2 | 1.0 |
| LOS | D | A |
| Approach Delay | 49.9 | |
| Approach LOS | D | |
| Queue Length 50th (m) | 179.2 | 0.0 |
| Queue Length 95th (m) | #222.4 | 1.7 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 669 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.93 | 0.11 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 144 | 79 | 25 | 377 | 80 | 48 |
| Future Volume (vph) | 144 | 79 | 25 | 377 | 80 | 48 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.952 | | | | 0.949 | |
| Flt Protected | | | | 0.997 | 0.970 | |
| Satd. Flow (prot) | 1634 | 0 | 0 | 1748 | 1576 | 0 |
| Flt Permitted | | | | 0.997 | 0.970 | |
| Satd. Flow (perm) | 1634 | 0 | 0 | 1748 | 1576 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 24 | 24 | | | |
| Confl. Bikes (#/hr) | | 1 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 5% | 9% | 1% | 1% | 9% |
| Adj. Flow (vph) | 144 | 79 | 25 | 377 | 80 | 48 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 223 | 0 | 0 | 402 | 128 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 54.1% ICU Level of Service A

Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 31 | 12 | 26 | 23 | 42 | 10 | 85 | 69 | 0 | 3 | 107 | 96 |
| Future Volume (vph) | 31 | 12 | 26 | 23 | 42 | 10 | 85 | 69 | 0 | 3 | 107 | 96 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.98 | | 0.99 | 0.99 | | 0.99 | | | 0.99 | 0.99 | |
| Frt | | 0.897 | | | 0.971 | | | | | | 0.929 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1459 | 0 | 1610 | 1618 | 0 | 1642 | 1728 | 0 | 1271 | 1590 | 0 |
| Flt Permitted | 0.723 | | | 0.732 | | | 0.418 | | | 0.712 | | |
| Satd. Flow (perm) | 1267 | 1459 | 0 | 1234 | 1618 | 0 | 719 | 1728 | 0 | 939 | 1590 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 26 | | | 10 | | | | | | 41 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 3 | | 5 | 5 | | 3 |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 15% | 4% | 5% | 3% | 20% | 3% | 3% | 1% | 33% | 4% | 1% |
| Adj. Flow (vph) | 31 | 12 | 26 | 23 | 42 | 10 | 85 | 69 | 0 | 3 | 107 | 96 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 31 | 38 | 0 | 23 | 52 | 0 | 85 | 69 | 0 | 3 | 203 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 11.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 41.2 | 41.2 | | 41.2 | 41.2 | | 31.2 | 77.4 | | 46.2 | 46.2 | |
| Total Split (%) | 34.7% | 34.7% | | 34.7% | 34.7% | | 26.3% | 65.3% | | 39.0% | 39.0% | |
| Maximum Green (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 71.2 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | Lead | | | Lag | 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 | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 2 | 2 | | | 5 | | 3 | 3 | |
| Act Effct Green (s) | 16.1 | 16.1 | | 16.1 | 16.1 | | 22.5 | 22.5 | | 12.2 | 12.2 | |
| Actuated g/C Ratio | 0.31 | 0.31 | | 0.31 | 0.31 | | 0.44 | 0.44 | | 0.24 | 0.24 | |
| v/c Ratio | 0.08 | 0.08 | | 0.06 | 0.10 | | 0.19 | 0.09 | | 0.01 | 0.50 | |
| Control Delay | 15.9 | 9.4 | | 15.8 | 13.7 | | 9.0 | 8.1 | | 16.7 | 19.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 15.9 | 9.4 | | 15.8 | 13.7 | | 9.0 | 8.1 | | 16.7 | 19.4 | |
| LOS | B | A | | B | B | | A | A | | B | B | |
| Approach Delay | | 12.3 | | | 14.3 | | | 8.6 | | | 19.4 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (m) | 1.9 | 0.7 | | 1.4 | 2.5 | | 3.7 | 3.0 | | 0.2 | 12.1 | |
| Queue Length 95th (m) | 7.5 | 6.3 | | 6.2 | 9.8 | | 9.9 | 8.4 | | 1.8 | 29.1 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 891 | 1034 | | 867 | 1140 | | 846 | 1728 | | 741 | 1264 | |
| 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 | 0.03 | 0.04 | | 0.03 | 0.05 | | 0.10 | 0.04 | | 0.00 | 0.16 | |

Intersection Summary

Area Type: Other
Cycle Length: 118.6
Actuated Cycle Length: 51.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 14.4 | Intersection LOS: B
Intersection Capacity Utilization 46.0% | ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Legget & Solandt

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 33 | 285 | 295 | 31 | 82 | 11 | 83 | 1580 | 90 | 10 | 26 |
| Future Volume (vph) | 63 | 33 | 285 | 295 | 31 | 82 | 11 | 83 | 1580 | 90 | 10 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 1.00 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.891 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1526 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1639 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.074 | | | | 0.080 |
| Satd. Flow (perm) | 1629 | 1548 | 1469 | 3232 | 1526 | 0 | 0 | 125 | 3316 | 1421 | 0 | 138 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 82 | | | | | 79 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 33 | 285 | 295 | 31 | 82 | 11 | 83 | 1580 | 90 | 10 | 26 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 33 | 285 | 295 | 113 | 0 | 0 | 94 | 1580 | 90 | 0 | 36 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

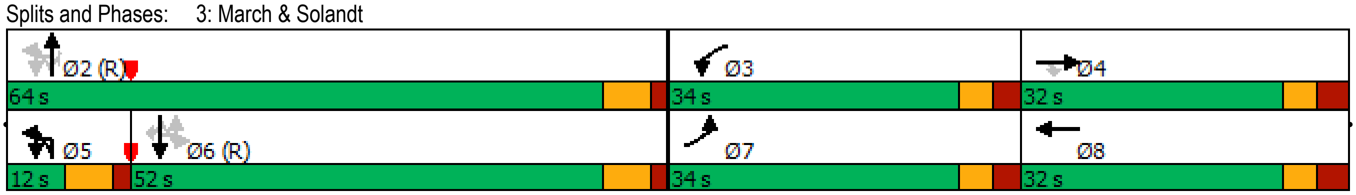
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1257 | 38 |
| Future Volume (vph) | 1257 | 38 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1411 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1257 | 38 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1257 | 38 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 34.0 | 32.0 | 32.0 | 34.0 | 32.0 | | 12.0 | 12.0 | 64.0 | 64.0 | 52.0 | 52.0 |
| Total Split (%) | 26.2% | 24.6% | 24.6% | 26.2% | 24.6% | | 9.2% | 9.2% | 49.2% | 49.2% | 40.0% | 40.0% |
| Maximum Green (s) | 28.1 | 25.5 | 25.5 | 28.1 | 25.5 | | 5.7 | 5.7 | 57.7 | 57.7 | 45.7 | 45.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.4 | 21.1 | 21.1 | 17.1 | 30.2 | | | 73.1 | 73.1 | 73.1 | | 58.2 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.13 | 0.23 | | | 0.56 | 0.56 | 0.56 | | 0.45 |
| v/c Ratio | 0.48 | 0.13 | 0.82 | 0.69 | 0.27 | | | 0.56 | 0.85 | 0.11 | | 0.59 |
| Control Delay | 68.6 | 43.6 | 46.3 | 62.3 | 14.2 | | | 29.1 | 22.1 | 1.4 | | 74.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 68.6 | 43.6 | 46.3 | 62.3 | 14.2 | | | 29.1 | 22.1 | 1.4 | | 74.4 |
| LOS | E | D | D | E | B | | | C | C | A | | E |
| Approach Delay | | 49.7 | | | 49.0 | | | | 21.4 | | | |
| Approach LOS | | D | | | D | | | | C | | | |
| Queue Length 50th (m) | 14.5 | 6.8 | 36.6 | 34.7 | 5.9 | | | 5.5 | 186.3 | 1.9 | | 6.4 |
| Queue Length 95th (m) | 27.3 | 14.1 | 60.8 | 46.8 | 18.3 | | | m#24.7 | #258.9 | m4.0 | | #26.8 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 354 | 320 | 407 | 702 | 424 | | | 168 | 1864 | 833 | | 61 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.18 | 0.10 | 0.70 | 0.42 | 0.27 | | | 0.56 | 0.85 | 0.11 | | 0.59 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 30 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 33.5 Intersection LOS: C
Intersection Capacity Utilization 95.2% ICU Level of Service F
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 52.0 | 52.0 |
| Total Split (%) | 40.0% | 40.0% |
| Maximum Green (s) | 45.7 | 45.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 58.2 | 58.2 |
| Actuated g/C Ratio | 0.45 | 0.45 |
| v/c Ratio | 0.85 | 0.05 |
| Control Delay | 40.3 | 0.2 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 40.3 | 0.2 |
| LOS | D | A |
| Approach Delay | 40.1 | |
| Approach LOS | D | |
| Queue Length 50th (m) | 139.7 | 0.0 |
| Queue Length 95th (m) | #212.8 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1484 | 704 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.85 | 0.05 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 233 | 5 | 33 | 1343 | 59 | 286 | 1816 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 233 | 5 | 33 | 1343 | 59 | 286 | 1816 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.785 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1380 | 1458 | 1191 | 1762 | 1474 | 0 | 1672 | 3316 | 1439 | 3233 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 233 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 233 | 5 | 33 | 1343 | 59 | 286 | 1816 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 233 | 0 | 38 | 1343 | 59 | 286 | 1816 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1435 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 84 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 67.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 51.5% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | | 8.4 | 73.0 | 73.0 | 15.8 | 82.8 |
| Actuated g/C Ratio | | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | | 0.06 | 0.56 | 0.56 | 0.12 | 0.64 |
| v/c Ratio | | 0.21 | 0.06 | 0.67 | 0.07 | 0.53 | | 0.36 | 0.72 | 0.07 | 0.72 | 0.85 |
| Control Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 9.5 | | 66.4 | 25.8 | 1.9 | 62.4 | 26.8 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 9.5 | | 66.4 | 25.8 | 1.9 | 62.4 | 26.8 |
| LOS | | D | A | E | D | A | | E | C | A | E | C |
| Approach Delay | | 33.3 | | | 30.6 | | | | 25.9 | | | 30.8 |
| Approach LOS | | C | | | C | | | | C | | | C |
| Queue Length 50th (m) | | 10.1 | 0.0 | 30.0 | 4.4 | 0.0 | | 8.8 | 119.3 | 0.0 | 30.7 | 215.3 |
| Queue Length 95th (m) | | 18.9 | 0.0 | 45.4 | 10.4 | 18.4 | | 18.9 | 176.2 | 3.7 | m39.6 | #292.0 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 355 | 436 | 306 | 454 | 552 | | 212 | 1861 | 844 | 425 | 2133 |
| 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 | | 0.14 | 0.04 | 0.44 | 0.05 | 0.42 | | 0.18 | 0.72 | 0.07 | 0.67 | 0.85 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 29.1 — Intersection LOS: C
Intersection Capacity Utilization 103.0% — ICU Level of Service G
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: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 67.0 |
| Total Split (%) | 51.5% |
| Maximum Green (s) | 60.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 82.8 |
| Actuated g/C Ratio | 0.64 |
| v/c Ratio | 0.06 |
| Control Delay | 2.0 |
| Queue Delay | 0.0 |
| Total Delay | 2.0 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 0.7 |
| Queue Length 95th (m) | m3.2 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 944 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 393 | 155 | 52 | 157 | 26 | 26 |
| Future Volume (vph) | 393 | 155 | 52 | 157 | 26 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.962 | | | | 0.932 | |
| Flt Protected | | | | 0.988 | 0.976 | |
| Satd. Flow (prot) | 1679 | 0 | 0 | 1675 | 1535 | 0 |
| Flt Permitted | | | | 0.988 | 0.976 | |
| Satd. Flow (perm) | 1679 | 0 | 0 | 1675 | 1535 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 11 | 11 | | | |
| Confl. Bikes (#/hr) | | 8 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 6% | 5% |
| Adj. Flow (vph) | 393 | 155 | 52 | 157 | 26 | 26 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 548 | 0 | 0 | 209 | 52 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

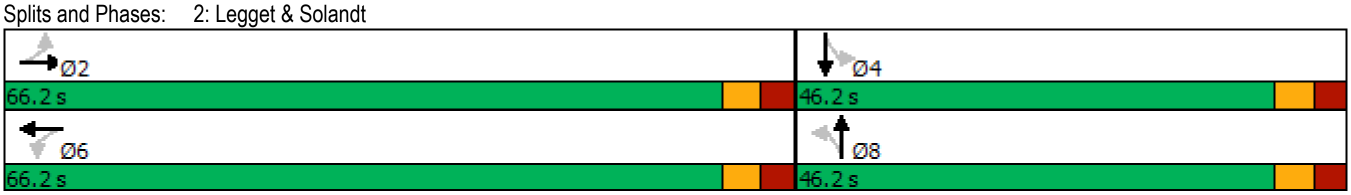
| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 57.2% | ICU Level of Service B |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 84 | 95 | 167 | 1 | 17 | 2 | 45 | 73 | 16 | 7 | 102 | 34 |
| Future Volume (vph) | 84 | 95 | 167 | 1 | 17 | 2 | 45 | 73 | 16 | 7 | 102 | 34 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | 0.98 | | |
| Frt | | 0.904 | | | 0.984 | | | 0.973 | | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1570 | 0 | 1674 | 1538 | 0 | 1409 | 1622 | 0 | 1208 | 1671 | 0 |
| Flt Permitted | 0.745 | | | 0.597 | | | 0.670 | | | 0.699 | | |
| Satd. Flow (perm) | 1298 | 1570 | 0 | 1050 | 1538 | 0 | 994 | 1622 | 0 | 868 | 1671 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 121 | | | 2 | | | 11 | | | 17 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | 9 | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 15% | 1% | 20% | 7% | 1% | 40% | 3% | 1% |
| Adj. Flow (vph) | 84 | 95 | 167 | 1 | 17 | 2 | 45 | 73 | 16 | 7 | 102 | 34 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 84 | 262 | 0 | 1 | 19 | 0 | 45 | 89 | 0 | 7 | 136 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 66.2 | 66.2 | | 66.2 | 66.2 | | 46.2 | 46.2 | | 46.2 | 46.2 | |
| Total Split (%) | 58.9% | 58.9% | | 58.9% | 58.9% | | 41.1% | 41.1% | | 41.1% | 41.1% | |
| Maximum Green (s) | 60.0 | 60.0 | | 60.0 | 60.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 4 | 4 | | 9 | 9 | | 1 | 1 | |
| Act Effct Green (s) | 20.5 | 20.5 | | 20.5 | 20.5 | | 11.6 | 11.6 | | 11.6 | 11.6 | |
| Actuated g/C Ratio | 0.52 | 0.52 | | 0.52 | 0.52 | | 0.29 | 0.29 | | 0.29 | 0.29 | |
| v/c Ratio | 0.13 | 0.30 | | 0.00 | 0.02 | | 0.16 | 0.19 | | 0.03 | 0.27 | |
| Control Delay | 9.4 | 6.5 | | 9.0 | 8.3 | | 12.0 | 10.6 | | 10.4 | 11.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 9.4 | 6.5 | | 9.0 | 8.3 | | 12.0 | 10.6 | | 10.4 | 11.4 | |
| LOS | A | A | | A | A | | B | B | | B | B | |
| Approach Delay | | 7.2 | | | 8.3 | | | 11.1 | | | 11.3 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Queue Length 50th (m) | 2.9 | 5.0 | | 0.0 | 0.6 | | 2.0 | 3.4 | | 0.3 | 5.3 | |
| Queue Length 95th (m) | 11.0 | 19.7 | | 0.7 | 3.6 | | 7.0 | 10.5 | | 2.1 | 14.6 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 1298 | 1570 | | 1050 | 1538 | | 953 | 1555 | | 832 | 1603 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.06 | 0.17 | | 0.00 | 0.01 | | 0.05 | 0.06 | | 0.01 | 0.08 | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 112.4 | |
| Actuated Cycle Length: 39.8 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.30 | |
| Intersection Signal Delay: 8.9 | Intersection LOS: A |
| Intersection Capacity Utilization 50.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 2: Legget & Solandt



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Future Volume (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.944 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1527 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.089 | | | | 0.151 |
| Satd. Flow (perm) | 1401 | 1695 | 1395 | 3095 | 1527 | 0 | 0 | 157 | 3252 | 1445 | 0 | 266 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 18 | | | | | 293 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 41 | 82 | 47 | 48 | 0 | 0 | 513 | 1634 | 326 | 0 | 80 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 2057 | 69 |
| Future Volume (vph) | 2057 | 69 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 2057 | 69 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 2057 | 69 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 13.0 | 32.0 | 32.0 | 13.0 | 32.0 | | 39.0 | 39.0 | 85.0 | 85.0 | 46.0 | 46.0 |
| Total Split (%) | 10.0% | 24.6% | 24.6% | 10.0% | 24.6% | | 30.0% | 30.0% | 65.4% | 65.4% | 35.4% | 35.4% |
| Maximum Green (s) | 7.1 | 25.5 | 25.5 | 7.1 | 25.5 | | 32.7 | 32.7 | 78.7 | 78.7 | 39.7 | 39.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 6.4 | 13.0 | 13.0 | 6.7 | 18.1 | | | 93.9 | 93.9 | 93.9 | | 42.2 |
| Actuated g/C Ratio | 0.05 | 0.10 | 0.10 | 0.05 | 0.14 | | | 0.72 | 0.72 | 0.72 | | 0.32 |
| v/c Ratio | 0.19 | 0.24 | 0.32 | 0.30 | 0.21 | | | 0.80 | 0.70 | 0.29 | | 0.93 |
| Control Delay | 65.4 | 55.3 | 4.6 | 64.1 | 35.8 | | | 22.5 | 7.5 | 0.7 | | 125.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 65.4 | 55.3 | 4.6 | 64.1 | 35.8 | | | 22.5 | 7.5 | 0.7 | | 125.3 |
| LOS | E | E | A | E | D | | | C | A | A | | F |
| Approach Delay | | 25.7 | | | 49.8 | | | | 9.7 | | | |
| Approach LOS | | C | | | D | | | | A | | | |
| Queue Length 50th (m) | 3.0 | 9.3 | 0.0 | 5.5 | 6.0 | | | 70.7 | 113.5 | 4.8 | | 18.5 |
| Queue Length 95th (m) | 9.4 | 17.5 | 2.7 | 11.4 | 16.1 | | | m76.2 | m115.1 | m3.1 | | #49.2 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 76 | 332 | 378 | 169 | 313 | | | 643 | 2348 | 1124 | | 86 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.17 | 0.12 | 0.22 | 0.28 | 0.15 | | | 0.80 | 0.70 | 0.29 | | 0.93 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.93
Intersection Signal Delay: 196.9 Intersection LOS: F
Intersection Capacity Utilization 123.4% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 46.0 | 46.0 |
| Total Split (%) | 35.4% | 35.4% |
| Maximum Green (s) | 39.7 | 39.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 42.2 | 42.2 |
| Actuated g/C Ratio | 0.32 | 0.32 |
| v/c Ratio | 1.93 | 0.13 |
| Control Delay | 449.3 | 0.5 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 449.3 | 0.5 |
| LOS | F | A |
| Approach Delay | 423.5 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~398.1 | 0.0 |
| Queue Length 95th (m) | #439.5 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1065 | 544 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.93 | 0.13 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2310 | 122 | 2 | 160 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2310 | 122 | 2 | 160 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.98 | 0.99 | | 0.98 | | 1.00 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1322 | 1461 | 1146 | 1762 | 1468 | 0 | 1623 | 3283 | 1359 | 0 | 3243 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 170 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2310 | 122 | 2 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 219 | 0 | 57 | 2310 | 122 | 0 | 162 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1941 | 118 |
| Future Volume (vph) | 1941 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.95 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1392 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 84 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1941 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1941 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 23.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 17.7% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 16.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | | 9.9 | 78.8 | 78.8 | | 11.8 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.08 | 0.61 | 0.61 | | 0.09 |
| v/c Ratio | | 0.41 | 0.02 | 0.24 | 0.09 | 0.59 | | 0.46 | 1.16 | 0.14 | | 0.55 |
| Control Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 18.4 | | 68.6 | 104.1 | 6.4 | | 85.3 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 18.4 | | 68.6 | 104.1 | 6.4 | | 85.3 |
| LOS | | D | A | D | D | B | | E | F | A | | F |
| Approach Delay | | 48.9 | | | 24.7 | | | | 98.5 | | | |
| Approach LOS | | D | | | C | | | | F | | | |
| Queue Length 50th (m) | | 19.1 | 0.0 | 9.6 | 5.2 | 10.9 | | 13.1 | ~317.4 | 2.9 | | 21.1 |
| Queue Length 95th (m) | | 29.1 | 0.0 | 17.3 | 10.8 | 29.4 | | 25.3 | #429.2 | 14.6 | | m10.5 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 340 | 437 | 295 | 454 | 504 | | 206 | 1990 | 856 | | 412 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.24 | 0.01 | 0.15 | 0.05 | 0.43 | | 0.28 | 1.16 | 0.14 | | 0.39 |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 61.7 Intersection LOS: E
Intersection Capacity Utilization 120.3% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 67.0 | 67.0 |
| Total Split (%) | 51.5% | 51.5% |
| Maximum Green (s) | 60.7 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 83.2 | 83.2 |
| Actuated g/C Ratio | 0.64 | 0.64 |
| v/c Ratio | 0.93 | 0.13 |
| Control Delay | 22.3 | 1.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 22.3 | 1.1 |
| LOS | C | A |
| Approach Delay | 25.7 | |
| Approach LOS | C | |
| Queue Length 50th (m) | 116.8 | 0.0 |
| Queue Length 95th (m) | m141.4 | m1.7 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2080 | 920 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.93 | 0.13 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Future Volume (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.944 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1525 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.059 | | | | 0.151 |
| Satd. Flow (perm) | 1400 | 1695 | 1395 | 3095 | 1525 | 0 | 0 | 104 | 3252 | 1443 | 0 | 266 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 113 | | 17 | | | | | 304 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 41 | 82 | 47 | 48 | 0 | 0 | 513 | 1634 | 326 | 0 | 80 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 2057 | 69 |
| Future Volume (vph) | 2057 | 69 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 114 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 2057 | 69 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 2057 | 69 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | | 36.0 | 36.0 | 107.0 | 107.0 | 71.0 | 71.0 |
| Total Split (%) | 7.3% | 21.3% | 21.3% | 7.3% | 21.3% | | 24.0% | 24.0% | 71.3% | 71.3% | 47.3% | 47.3% |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | | 29.7 | 29.7 | 100.7 | 100.7 | 64.7 | 64.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 5.1 | 13.1 | 13.1 | 5.1 | 17.5 | | | 115.3 | 115.3 | 115.3 | | 64.7 |
| Actuated g/C Ratio | 0.03 | 0.09 | 0.09 | 0.03 | 0.12 | | | 0.77 | 0.77 | 0.77 | | 0.43 |
| v/c Ratio | 0.28 | 0.28 | 0.37 | 0.45 | 0.25 | | | 0.94 | 0.65 | 0.28 | | 0.70 |
| Control Delay | 85.3 | 66.7 | 7.9 | 84.7 | 44.2 | | | 34.2 | 21.0 | 4.5 | | 68.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 85.3 | 66.7 | 7.9 | 84.7 | 44.2 | | | 34.2 | 21.0 | 4.5 | | 68.8 |
| LOS | F | E | A | F | D | | | C | C | A | | E |
| Approach Delay | | 33.0 | | | 64.3 | | | | 21.5 | | | |
| Approach LOS | | C | | | E | | | | C | | | |
| Queue Length 50th (m) | 3.6 | 11.0 | 0.0 | 6.6 | 7.6 | | | 121.0 | 177.3 | 9.3 | | 17.6 |
| Queue Length 95th (m) | 10.6 | 20.5 | 6.4 | 13.1 | 18.8 | | | m#156.2 | m206.0 | m18.7 | | #45.2 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 47 | 288 | 330 | 105 | 273 | | | 543 | 2500 | 1179 | | 114 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.28 | 0.14 | 0.25 | 0.45 | 0.18 | | | 0.94 | 0.65 | 0.28 | | 0.70 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 124 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.45
Intersection Signal Delay: 115.0 Intersection LOS: F
Intersection Capacity Utilization 123.4% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 71.0 | 71.0 |
| Total Split (%) | 47.3% | 47.3% |
| Maximum Green (s) | 64.7 | 64.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 64.7 | 64.7 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 1.45 | 0.10 |
| Control Delay | 240.8 | 0.8 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 240.8 | 0.8 |
| LOS | F | A |
| Approach Delay | 227.0 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~403.2 | 0.0 |
| Queue Length 95th (m) | #440.3 | 1.3 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 669 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.45 | 0.10 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2310 | 122 | 2 | 160 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2310 | 122 | 2 | 160 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1321 | 1459 | 1145 | 1762 | 1467 | 0 | 1623 | 3283 | 1354 | 0 | 3242 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 79 | | | | 73 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2310 | 122 | 2 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 219 | 0 | 57 | 2310 | 122 | 0 | 162 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1941 | 118 |
| Future Volume (vph) | 1941 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.94 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1385 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 73 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1941 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1941 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 18.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 12.0% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 11.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | | 10.0 | 96.6 | 96.6 | | 11.5 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.07 | 0.64 | 0.64 | | 0.08 |
| v/c Ratio | | 0.42 | 0.02 | 0.25 | 0.09 | 0.76 | | 0.53 | 1.09 | 0.14 | | 0.65 |
| Control Delay | | 61.3 | 0.2 | 55.7 | 50.5 | 54.1 | | 84.7 | 77.0 | 6.1 | | 83.5 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 61.3 | 0.2 | 55.7 | 50.5 | 54.1 | | 84.7 | 77.0 | 6.1 | | 83.5 |
| LOS | | E | A | E | D | D | | F | E | A | | F |
| Approach Delay | | 57.2 | | | 54.1 | | | | 73.7 | | | |
| Approach LOS | | E | | | D | | | | E | | | |
| Queue Length 50th (m) | | 21.3 | 0.0 | 10.7 | 5.9 | 38.5 | | 15.3 | ~371.5 | 4.6 | | 24.3 |
| Queue Length 95th (m) | | 33.8 | 0.0 | 20.1 | 12.7 | 60.2 | | 29.1 | #445.1 | 14.5 | | m18.1 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 295 | 380 | 255 | 393 | 388 | | 126 | 2114 | 897 | | 259 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.28 | 0.02 | 0.17 | 0.06 | 0.56 | | 0.45 | 1.09 | 0.14 | | 0.63 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 49.3 Intersection LOS: D
Intersection Capacity Utilization 120.3% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 92.0 | 92.0 |
| Total Split (%) | 61.3% | 61.3% |
| Maximum Green (s) | 85.7 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 100.7 | 100.7 |
| Actuated g/C Ratio | 0.67 | 0.67 |
| v/c Ratio | 0.89 | 0.12 |
| Control Delay | 17.1 | 0.0 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 17.1 | 0.0 |
| LOS | B | A |
| Approach Delay | 21.1 | |
| Approach LOS | C | |
| Queue Length 50th (m) | 76.1 | 0.0 |
| Queue Length 95th (m) | m7.2 | m0.0 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2182 | 953 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.89 | 0.12 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Future Volume (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.944 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1525 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.059 | | | | 0.151 |
| Satd. Flow (perm) | 1400 | 1695 | 1395 | 3095 | 1525 | 0 | 0 | 104 | 3252 | 1443 | 0 | 266 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 113 | | 17 | | | | | 304 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 41 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 326 | 3 | 77 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 41 | 82 | 47 | 48 | 0 | 0 | 513 | 1634 | 326 | 0 | 80 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1417 | 69 |
| Future Volume (vph) | 1417 | 69 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 114 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1417 | 69 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1417 | 69 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | | 36.0 | 36.0 | 107.0 | 107.0 | 71.0 | 71.0 |
| Total Split (%) | 7.3% | 21.3% | 21.3% | 7.3% | 21.3% | | 24.0% | 24.0% | 71.3% | 71.3% | 47.3% | 47.3% |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | | 29.7 | 29.7 | 100.7 | 100.7 | 64.7 | 64.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 5.1 | 13.1 | 13.1 | 5.1 | 17.5 | | | 115.3 | 115.3 | 115.3 | | 64.7 |
| Actuated g/C Ratio | 0.03 | 0.09 | 0.09 | 0.03 | 0.12 | | | 0.77 | 0.77 | 0.77 | | 0.43 |
| v/c Ratio | 0.28 | 0.28 | 0.37 | 0.45 | 0.25 | | | 0.94 | 0.65 | 0.28 | | 0.70 |
| Control Delay | 85.3 | 66.7 | 7.9 | 84.7 | 44.2 | | | 45.2 | 20.8 | 4.6 | | 68.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 85.3 | 66.7 | 7.9 | 84.7 | 44.2 | | | 45.2 | 20.8 | 4.6 | | 68.8 |
| LOS | F | E | A | F | D | | | D | C | A | | E |
| Approach Delay | | 33.0 | | | 64.3 | | | | 23.7 | | | |
| Approach LOS | | C | | | E | | | | C | | | |
| Queue Length 50th (m) | 3.6 | 11.0 | 0.0 | 6.6 | 7.6 | | | 122.7 | 174.4 | 9.0 | | 17.6 |
| Queue Length 95th (m) | 10.6 | 20.5 | 6.4 | 13.1 | 18.8 | | | m#180.1 | m223.1 | m23.9 | | #45.2 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 47 | 288 | 330 | 105 | 273 | | | 543 | 2500 | 1179 | | 114 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.28 | 0.14 | 0.25 | 0.45 | 0.18 | | | 0.94 | 0.65 | 0.28 | | 0.70 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 124 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 39.5 Intersection LOS: D
Intersection Capacity Utilization 104.7% ICU Level of Service G
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: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 71.0 | 71.0 |
| Total Split (%) | 47.3% | 47.3% |
| Maximum Green (s) | 64.7 | 64.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 64.7 | 64.7 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 1.00 | 0.10 |
| Control Delay | 66.3 | 0.8 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 66.3 | 0.8 |
| LOS | E | A |
| Approach Delay | 63.6 | |
| Approach LOS | E | |
| Queue Length 50th (m) | ~202.6 | 0.0 |
| Queue Length 95th (m) | #251.1 | 1.3 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 669 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.00 | 0.10 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2120 | 122 | 2 | 160 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2120 | 122 | 2 | 160 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1321 | 1459 | 1145 | 1762 | 1467 | 0 | 1623 | 3283 | 1354 | 0 | 3240 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 81 | | | | 76 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 219 | 1 | 56 | 2120 | 122 | 2 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 219 | 0 | 57 | 2120 | 122 | 0 | 162 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1941 | 118 |
| Future Volume (vph) | 1941 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.94 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1385 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 73 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1941 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1941 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 18.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 12.0% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 11.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | | 10.0 | 96.7 | 96.7 | | 11.5 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.07 | 0.64 | 0.64 | | 0.08 |
| v/c Ratio | | 0.42 | 0.02 | 0.25 | 0.09 | 0.76 | | 0.53 | 1.00 | 0.14 | | 0.65 |
| Control Delay | | 61.5 | 0.2 | 55.8 | 50.6 | 53.4 | | 84.7 | 47.1 | 5.9 | | 87.6 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 61.5 | 0.2 | 55.8 | 50.6 | 53.4 | | 84.7 | 47.1 | 5.9 | | 87.6 |
| LOS | | E | A | E | D | D | | F | D | A | | F |
| Approach Delay | | 57.3 | | | 53.5 | | | | 45.8 | | | |
| Approach LOS | | E | | | D | | | | D | | | |
| Queue Length 50th (m) | | 21.3 | 0.0 | 10.8 | 5.9 | 37.9 | | 15.3 | 284.5 | 4.3 | | 23.7 |
| Queue Length 95th (m) | | 33.8 | 0.0 | 20.1 | 12.7 | 59.6 | | 29.1 | #389.8 | 14.1 | | m28.0 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 295 | 380 | 255 | 393 | 390 | | 126 | 2116 | 900 | | 259 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.28 | 0.02 | 0.17 | 0.06 | 0.56 | | 0.45 | 1.00 | 0.14 | | 0.63 |

**Intersection Summary**

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 34.3 Intersection LOS: C
Intersection Capacity Utilization 119.2% ICU Level of Service H
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 92.0 | 92.0 |
| Total Split (%) | 61.3% | 61.3% |
| Maximum Green (s) | 85.7 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 100.8 | 100.8 |
| Actuated g/C Ratio | 0.67 | 0.67 |
| v/c Ratio | 0.89 | 0.12 |
| Control Delay | 14.4 | 0.3 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 14.4 | 0.3 |
| LOS | B | A |
| Approach Delay | 19.0 | |
| Approach LOS | B | |
| Queue Length 50th (m) | 39.4 | 0.0 |
| Queue Length 95th (m) | m#318.4 | m0.1 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2184 | 954 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.89 | 0.12 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 206 | 79 | 31 | 439 | 84 | 56 |
| Future Volume (vph) | 206 | 79 | 31 | 439 | 84 | 56 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.963 | | | | 0.946 | |
| Flt Protected | | | | 0.997 | 0.971 | |
| Satd. Flow (prot) | 1655 | 0 | 0 | 1748 | 1569 | 0 |
| Flt Permitted | | | | 0.997 | 0.971 | |
| Satd. Flow (perm) | 1655 | 0 | 0 | 1748 | 1569 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 24 | 24 | | | |
| Confl. Bikes (#/hr) | | 1 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 5% | 9% | 1% | 1% | 9% |
| Adj. Flow (vph) | 206 | 79 | 31 | 439 | 84 | 56 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 285 | 0 | 0 | 470 | 140 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 61.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 12 | 38 | 23 | 42 | 10 | 97 | 72 | 0 | 3 | 109 | 101 |
| Future Volume (vph) | 32 | 12 | 38 | 23 | 42 | 10 | 97 | 72 | 0 | 3 | 109 | 101 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.98 | | 0.99 | 0.99 | | 0.99 | | | 0.99 | 0.99 | |
| Frt | | 0.886 | | | 0.971 | | | | | | 0.928 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1450 | 0 | 1610 | 1618 | 0 | 1642 | 1728 | 0 | 1271 | 1588 | 0 |
| Flt Permitted | 0.723 | | | 0.724 | | | 0.419 | | | 0.710 | | |
| Satd. Flow (perm) | 1267 | 1450 | 0 | 1220 | 1618 | 0 | 720 | 1728 | 0 | 937 | 1588 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 38 | | | 10 | | | | | | 42 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 3 | | 5 | 5 | | 3 |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 15% | 4% | 5% | 3% | 20% | 3% | 3% | 1% | 33% | 4% | 1% |
| Adj. Flow (vph) | 32 | 12 | 38 | 23 | 42 | 10 | 97 | 72 | 0 | 3 | 109 | 101 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 32 | 50 | 0 | 23 | 52 | 0 | 97 | 72 | 0 | 3 | 210 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 11.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 41.2 | 41.2 | | 41.2 | 41.2 | | 31.2 | 77.4 | | 46.2 | 46.2 | |
| Total Split (%) | 34.7% | 34.7% | | 34.7% | 34.7% | | 26.3% | 65.3% | | 39.0% | 39.0% | |
| Maximum Green (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 71.2 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | Lead | | | Lag | 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 | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 2 | 2 | | | 5 | | 3 | 3 | |
| Act Effct Green (s) | 16.1 | 16.1 | | 16.1 | 16.1 | | 22.9 | 22.9 | | 12.5 | 12.5 | |
| Actuated g/C Ratio | 0.31 | 0.31 | | 0.31 | 0.31 | | 0.44 | 0.44 | | 0.24 | 0.24 | |
| v/c Ratio | 0.08 | 0.10 | | 0.06 | 0.10 | | 0.22 | 0.09 | | 0.01 | 0.51 | |
| Control Delay | 16.3 | 8.6 | | 16.2 | 14.0 | | 9.1 | 8.0 | | 16.7 | 19.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 16.3 | 8.6 | | 16.2 | 14.0 | | 9.1 | 8.0 | | 16.7 | 19.6 | |
| LOS | B | A | | B | B | | A | A | | B | B | |
| Approach Delay | | 11.6 | | | 14.7 | | | 8.6 | | | 19.5 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (m) | 2.0 | 0.7 | | 1.4 | 2.6 | | 4.3 | 3.1 | | 0.2 | 12.7 | |
| Queue Length 95th (m) | 7.8 | 7.1 | | 6.1 | 9.9 | | 11.0 | 8.6 | | 1.8 | 30.3 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 883 | 1022 | | 850 | 1130 | | 843 | 1728 | | 733 | 1252 | |
| 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 | 0.04 | 0.05 | | 0.03 | 0.05 | | 0.12 | 0.04 | | 0.00 | 0.17 | |

Intersection Summary

Area Type: Other
Cycle Length: 118.6
Actuated Cycle Length: 51.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 14.2 — Intersection LOS: B
Intersection Capacity Utilization 46.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Legget & Solandt

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑ | ↱ | ↰↰ | ↱ | | | ↰ | ↑↑ | ↱ | | ↰ |
| Traffic Volume (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 2162 | 94 | 10 | 25 |
| Future Volume (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 2162 | 94 | 10 | 25 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 1.00 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.889 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1522 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1639 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.065 | | | | 0.073 |
| Satd. Flow (perm) | 1629 | 1548 | 1469 | 3232 | 1522 | 0 | 0 | 110 | 3316 | 1421 | 0 | 126 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 99 | | | | | 79 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 2162 | 94 | 10 | 25 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 38 | 285 | 351 | 136 | 0 | 0 | 94 | 2162 | 94 | 0 | 35 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

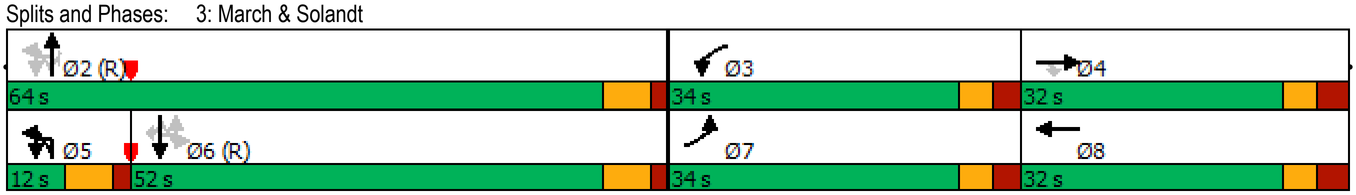
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1634 | 31 |
| Future Volume (vph) | 1634 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1411 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1634 | 31 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1634 | 31 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 34.0 | 32.0 | 32.0 | 34.0 | 32.0 | | 12.0 | 12.0 | 64.0 | 64.0 | 52.0 | 52.0 |
| Total Split (%) | 26.2% | 24.6% | 24.6% | 26.2% | 24.6% | | 9.2% | 9.2% | 49.2% | 49.2% | 40.0% | 40.0% |
| Maximum Green (s) | 28.1 | 25.5 | 25.5 | 28.1 | 25.5 | | 5.7 | 5.7 | 57.7 | 57.7 | 45.7 | 45.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.4 | 20.8 | 20.8 | 19.3 | 32.1 | | | 71.2 | 71.2 | 71.2 | | 56.2 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.15 | 0.25 | | | 0.55 | 0.55 | 0.55 | | 0.43 |
| v/c Ratio | 0.48 | 0.15 | 0.83 | 0.73 | 0.30 | | | 0.59 | 1.19 | 0.12 | | 0.65 |
| Control Delay | 68.6 | 44.9 | 47.5 | 61.7 | 13.7 | | | 29.9 | 109.8 | 1.4 | | 88.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 68.6 | 44.9 | 47.5 | 61.7 | 13.7 | | | 29.9 | 109.8 | 1.4 | | 88.1 |
| LOS | E | D | D | E | B | | | C | F | A | | F |
| Approach Delay | | 50.7 | | | 48.3 | | | | 102.3 | | | |
| Approach LOS | | D | | | D | | | | F | | | |
| Queue Length 50th (m) | 14.5 | 7.8 | 36.6 | 41.3 | 6.9 | | | 6.5 | ~333.8 | 1.6 | | 6.6 |
| Queue Length 95th (m) | 27.3 | 15.9 | 62.5 | 53.8 | 20.6 | | | m11.8 | m#363.8 | m2.8 | | #26.9 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 354 | 315 | 402 | 702 | 450 | | | 160 | 1816 | 813 | | 54 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.18 | 0.12 | 0.71 | 0.50 | 0.30 | | | 0.59 | 1.19 | 0.12 | | 0.65 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 30 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 93.6 Intersection LOS: F
Intersection Capacity Utilization 117.7% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 52.0 | 52.0 |
| Total Split (%) | 40.0% | 40.0% |
| Maximum Green (s) | 45.7 | 45.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 56.2 | 56.2 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 1.14 | 0.05 |
| Control Delay | 106.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 106.6 | 0.1 |
| LOS | F | A |
| Approach Delay | 104.3 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~243.2 | 0.0 |
| Queue Length 95th (m) | #310.4 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1433 | 685 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.14 | 0.05 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2246 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2246 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.785 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1380 | 1458 | 1191 | 1762 | 1474 | 0 | 1673 | 3316 | 1439 | 3241 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 234 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2246 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 234 | 0 | 38 | 1927 | 59 | 290 | 2246 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1435 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 84 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 67.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 51.5% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | | 8.4 | 72.9 | 72.9 | 15.9 | 82.8 |
| Actuated g/C Ratio | | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | | 0.06 | 0.56 | 0.56 | 0.12 | 0.64 |
| v/c Ratio | | 0.21 | 0.06 | 0.67 | 0.07 | 0.53 | | 0.36 | 1.04 | 0.07 | 0.73 | 1.05 |
| Control Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 9.5 | | 66.4 | 60.4 | 1.9 | 62.8 | 56.8 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 9.5 | | 66.4 | 60.4 | 1.9 | 62.8 | 56.8 |
| LOS | | D | A | E | D | A | | E | E | A | E | E |
| Approach Delay | | 33.3 | | | 30.5 | | | | 58.8 | | | 56.2 |
| Approach LOS | | C | | | C | | | | E | | | E |
| Queue Length 50th (m) | | 10.1 | 0.0 | 30.0 | 4.4 | 0.0 | | 8.8 | ~259.5 | 0.0 | 31.3 | ~318.7 |
| Queue Length 95th (m) | | 18.9 | 0.0 | 45.4 | 10.4 | 18.2 | | 18.9 | #335.8 | 3.7 | m31.9 | m#334.6 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 355 | 436 | 306 | 454 | 553 | | 212 | 1858 | 843 | 426 | 2133 |
| 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 | | 0.14 | 0.04 | 0.44 | 0.05 | 0.42 | | 0.18 | 1.04 | 0.07 | 0.68 | 1.05 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 55.0 Intersection LOS: D
Intersection Capacity Utilization 115.6% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 67.0 |
| Total Split (%) | 51.5% |
| Maximum Green (s) | 60.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 82.8 |
| Actuated g/C Ratio | 0.64 |
| v/c Ratio | 0.06 |
| Control Delay | 2.1 |
| Queue Delay | 0.0 |
| Total Delay | 2.1 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 0.5 |
| Queue Length 95th (m) | m2.5 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 944 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 2162 | 94 | 10 | 25 |
| Future Volume (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 2162 | 94 | 10 | 25 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 0.99 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.889 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1523 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1639 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.050 | | | | 0.054 |
| Satd. Flow (perm) | 1627 | 1548 | 1467 | 3230 | 1523 | 0 | 0 | 84 | 3316 | 1419 | 0 | 93 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 156 | | 59 | | | | | 111 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 2162 | 94 | 10 | 25 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 38 | 285 | 351 | 136 | 0 | 0 | 94 | 2162 | 94 | 0 | 35 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

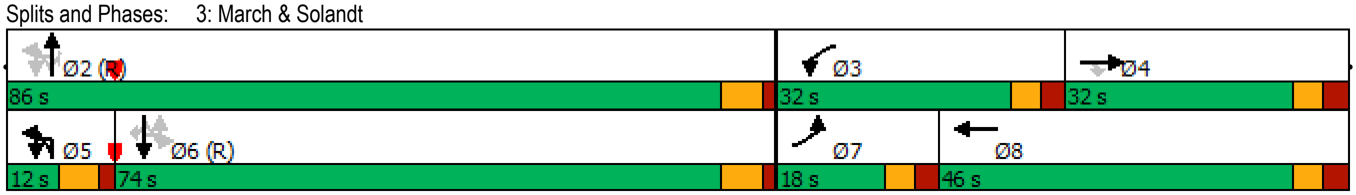
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1634 | 31 |
| Future Volume (vph) | 1634 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1410 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 157 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1634 | 31 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1634 | 31 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 18.0 | 32.0 | 32.0 | 32.0 | 46.0 | | 12.0 | 12.0 | 86.0 | 86.0 | 74.0 | 74.0 |
| Total Split (%) | 12.0% | 21.3% | 21.3% | 21.3% | 30.7% | | 8.0% | 8.0% | 57.3% | 57.3% | 49.3% | 49.3% |
| Maximum Green (s) | 12.1 | 25.5 | 25.5 | 26.1 | 39.5 | | 5.7 | 5.7 | 79.7 | 79.7 | 67.7 | 67.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.2 | 20.0 | 20.0 | 21.3 | 33.5 | | | 90.0 | 90.0 | 90.0 | | 75.0 |
| Actuated g/C Ratio | 0.07 | 0.13 | 0.13 | 0.14 | 0.22 | | | 0.60 | 0.60 | 0.60 | | 0.50 |
| v/c Ratio | 0.56 | 0.18 | 0.86 | 0.76 | 0.35 | | | 0.68 | 1.09 | 0.10 | | 0.76 |
| Control Delay | 86.5 | 56.9 | 52.3 | 72.9 | 29.1 | | | 56.6 | 60.2 | 0.6 | | 116.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 86.5 | 56.9 | 52.3 | 72.9 | 29.1 | | | 56.6 | 60.2 | 0.6 | | 116.9 |
| LOS | F | E | D | E | C | | | E | E | A | | F |
| Approach Delay | | 58.3 | | | 60.7 | | | | 57.7 | | | |
| Approach LOS | | E | | | E | | | | E | | | |
| Queue Length 50th (m) | 16.9 | 9.3 | 36.0 | 48.3 | 17.7 | | | 14.7 | ~349.7 | 0.3 | | 8.0 |
| Queue Length 95th (m) | 31.4 | 19.2 | #66.9 | 62.0 | 34.0 | | | m#17.9 | m#387.7 | m0.4 | | #30.7 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 132 | 266 | 380 | 565 | 444 | | | 138 | 1990 | 896 | | 46 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.48 | 0.14 | 0.75 | 0.62 | 0.31 | | | 0.68 | 1.09 | 0.10 | | 0.76 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 57.5 Intersection LOS: E
Intersection Capacity Utilization 117.7% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 74.0 | 74.0 |
| Total Split (%) | 49.3% | 49.3% |
| Maximum Green (s) | 67.7 | 67.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 75.0 | 75.0 |
| Actuated g/C Ratio | 0.50 | 0.50 |
| v/c Ratio | 0.99 | 0.04 |
| Control Delay | 56.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 56.0 | 0.1 |
| LOS | E | A |
| Approach Delay | 56.2 | |
| Approach LOS | E | |
| Queue Length 50th (m) | ~254.2 | 0.0 |
| Queue Length 95th (m) | #303.6 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1658 | 783 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.99 | 0.04 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2246 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2246 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.784 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1378 | 1455 | 1189 | 1762 | 1473 | 0 | 1673 | 3316 | 1435 | 3240 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 138 | | | | 73 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2246 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 234 | 0 | 38 | 1927 | 59 | 290 | 2246 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1433 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 73 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 92.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 61.3% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 | | 8.7 | 87.4 | 87.4 | 18.7 | 99.8 |
| Actuated g/C Ratio | | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | | 0.06 | 0.58 | 0.58 | 0.12 | 0.67 |
| v/c Ratio | | 0.22 | 0.06 | 0.69 | 0.08 | 0.66 | | 0.40 | 1.00 | 0.07 | 0.72 | 1.01 |
| Control Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 31.2 | | 79.1 | 51.1 | 2.1 | 58.1 | 53.4 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 31.2 | | 79.1 | 51.1 | 2.1 | 58.1 | 53.4 |
| LOS | | D | A | E | D | C | | E | D | A | E | D |
| Approach Delay | | 39.1 | | | 47.5 | | | | 50.2 | | | 52.9 |
| Approach LOS | | D | | | D | | | | D | | | D |
| Queue Length 50th (m) | | 11.9 | 0.0 | 35.3 | 5.2 | 24.8 | | 10.2 | ~292.8 | 0.0 | 37.0 | ~340.4 |
| Queue Length 95th (m) | | 21.9 | 0.0 | 53.0 | 12.0 | 48.2 | | 21.4 | #330.5 | 4.2 | m#59.3 | m#401.8 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 307 | 380 | 265 | 393 | 436 | | 128 | 1932 | 866 | 405 | 2229 |
| 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 | | 0.16 | 0.05 | 0.51 | 0.06 | 0.54 | | 0.30 | 1.00 | 0.07 | 0.72 | 1.01 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 51.2 Intersection LOS: D
Intersection Capacity Utilization 115.6% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 92.0 |
| Total Split (%) | 61.3% |
| Maximum Green (s) | 85.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 99.8 |
| Actuated g/C Ratio | 0.67 |
| v/c Ratio | 0.06 |
| Control Delay | 7.4 |
| Queue Delay | 0.0 |
| Total Delay | 7.4 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 1.4 |
| Queue Length 95th (m) | m4.1 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 978 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 1992 | 94 | 10 | 25 |
| Future Volume (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 1992 | 94 | 10 | 25 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 0.99 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.889 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1523 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1639 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.050 | | | | 0.054 |
| Satd. Flow (perm) | 1627 | 1548 | 1467 | 3230 | 1523 | 0 | 0 | 84 | 3316 | 1419 | 0 | 93 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 156 | | 61 | | | | | 111 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 38 | 285 | 351 | 35 | 101 | 11 | 83 | 1992 | 94 | 10 | 25 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 38 | 285 | 351 | 136 | 0 | 0 | 94 | 1992 | 94 | 0 | 35 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

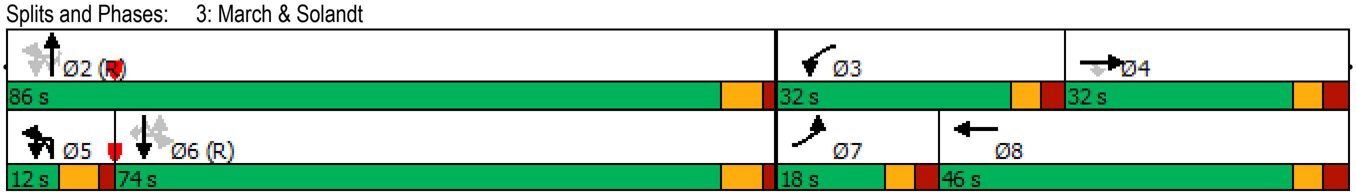
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1634 | 31 |
| Future Volume (vph) | 1634 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1410 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 157 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1634 | 31 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1634 | 31 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 18.0 | 32.0 | 32.0 | 32.0 | 46.0 | | 12.0 | 12.0 | 86.0 | 86.0 | 74.0 | 74.0 |
| Total Split (%) | 12.0% | 21.3% | 21.3% | 21.3% | 30.7% | | 8.0% | 8.0% | 57.3% | 57.3% | 49.3% | 49.3% |
| Maximum Green (s) | 12.1 | 25.5 | 25.5 | 26.1 | 39.5 | | 5.7 | 5.7 | 79.7 | 79.7 | 67.7 | 67.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.2 | 20.0 | 20.0 | 21.3 | 33.5 | | | 90.0 | 90.0 | 90.0 | | 75.0 |
| Actuated g/C Ratio | 0.07 | 0.13 | 0.13 | 0.14 | 0.22 | | | 0.60 | 0.60 | 0.60 | | 0.50 |
| v/c Ratio | 0.56 | 0.18 | 0.86 | 0.76 | 0.35 | | | 0.68 | 1.00 | 0.10 | | 0.76 |
| Control Delay | 86.5 | 56.9 | 52.3 | 72.9 | 28.3 | | | 55.3 | 27.5 | 0.5 | | 116.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 86.5 | 56.9 | 52.3 | 72.9 | 28.3 | | | 55.3 | 27.5 | 0.5 | | 116.9 |
| LOS | F | E | D | E | C | | | E | C | A | | F |
| Approach Delay | | 58.3 | | | 60.4 | | | | 27.5 | | | |
| Approach LOS | | E | | | E | | | | C | | | |
| Queue Length 50th (m) | 16.9 | 9.3 | 36.0 | 48.3 | 17.3 | | | 14.8 | ~67.0 | 0.3 | | 8.0 |
| Queue Length 95th (m) | 31.4 | 19.2 | #66.9 | 62.0 | 33.5 | | | m#17.6 | m#334.7 | m0.4 | | #30.7 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 132 | 266 | 380 | 565 | 445 | | | 138 | 1990 | 896 | | 46 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.48 | 0.14 | 0.75 | 0.62 | 0.31 | | | 0.68 | 1.00 | 0.10 | | 0.76 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 43.7 Intersection LOS: D
Intersection Capacity Utilization 115.3% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 74.0 | 74.0 |
| Total Split (%) | 49.3% | 49.3% |
| Maximum Green (s) | 67.7 | 67.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 75.0 | 75.0 |
| Actuated g/C Ratio | 0.50 | 0.50 |
| v/c Ratio | 0.99 | 0.04 |
| Control Delay | 56.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 56.0 | 0.1 |
| LOS | E | A |
| Approach Delay | 56.2 | |
| Approach LOS | E | |
| Queue Length 50th (m) | ~254.2 | 0.0 |
| Queue Length 95th (m) | #303.6 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1658 | 783 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.99 | 0.04 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2236 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2236 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.784 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1378 | 1455 | 1189 | 1762 | 1473 | 0 | 1673 | 3316 | 1435 | 3240 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 138 | | | | 73 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 234 | 5 | 33 | 1927 | 59 | 290 | 2236 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 234 | 0 | 38 | 1927 | 59 | 290 | 2236 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1433 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 73 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 92.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 61.3% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 | | 8.7 | 87.4 | 87.4 | 18.7 | 99.8 |
| Actuated g/C Ratio | | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | | 0.06 | 0.58 | 0.58 | 0.12 | 0.67 |
| v/c Ratio | | 0.22 | 0.06 | 0.69 | 0.08 | 0.66 | | 0.40 | 1.00 | 0.07 | 0.72 | 1.00 |
| Control Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 31.2 | | 79.1 | 51.1 | 2.1 | 57.9 | 52.4 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 31.2 | | 79.1 | 51.1 | 2.1 | 57.9 | 52.4 |
| LOS | | D | A | E | D | C | | E | D | A | E | D |
| Approach Delay | | 39.1 | | | 47.5 | | | | 50.2 | | | 52.0 |
| Approach LOS | | D | | | D | | | | D | | | D |
| Queue Length 50th (m) | | 11.9 | 0.0 | 35.3 | 5.2 | 24.8 | | 10.2 | ~292.8 | 0.0 | 36.9 | ~337.1 |
| Queue Length 95th (m) | | 21.9 | 0.0 | 53.0 | 12.0 | 48.2 | | 21.4 | #330.5 | 4.2 | m#59.3 | m#398.8 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 307 | 380 | 265 | 393 | 436 | | 128 | 1932 | 866 | 405 | 2229 |
| 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 | | 0.16 | 0.05 | 0.51 | 0.06 | 0.54 | | 0.30 | 1.00 | 0.07 | 0.72 | 1.00 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 50.7 Intersection LOS: D
Intersection Capacity Utilization 115.3% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBR |
| --- | --- |
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 92.0 |
| Total Split (%) | 61.3% |
| Maximum Green (s) | 85.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 99.8 |
| Actuated g/C Ratio | 0.67 |
| v/c Ratio | 0.06 |
| Control Delay | 7.4 |
| Queue Delay | 0.0 |
| Total Delay | 7.4 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 1.4 |
| Queue Length 95th (m) | m4.1 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 978 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

Intersection Summary

# APPENDIX M

Transportation Demand Management

# TDM-Supportive Development Design and Infrastructure Checklist:
*Non-Residential Developments (office, institutional, retail or industrial)*

***Legend***

| | |
|---|---|
| REQUIRED | The Official Plan or Zoning By-law provides related guidance that must be followed |
| BASIC | The measure is generally feasible and effective, and in most cases would benefit the development and its users |
| BETTER | The measure could maximize support for users of sustainable modes, and optimize development performance |

| | | TDM-supportive design & infrastructure measures: *Non-residential developments* | Check if completed & add descriptions, explanations or plan/drawing references |
|---|---|---|---|
| | **1.** | **WALKING & CYCLING: ROUTES** | |
| | **1.1** | **Building location & access points** | |
| BASIC | 1.1.1 | Locate building close to the street, and do not locate parking areas between the street and building entrances | ☑ |
| BASIC | 1.1.2 | Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations | ☐ |
| BASIC | 1.1.3 | Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort | ☐ |
| | **1.2** | **Facilities for walking & cycling** | |
| REQUIRED | 1.2.1 | Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)* | ☐ - N/A; no rapid transit routes within 600m |
| REQUIRED | 1.2.2 | Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)* | ☑ |

| | TDM-supportive design & infrastructure measures: *Non-residential developments* | | Check if completed & add descriptions, explanations or plan/drawing references |
|---|---|---|---|
| REQUIRED | 1.2.3 | Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)* | ☑ |
| REQUIRED | 1.2.4 | Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)* | ☑ |
| REQUIRED | 1.2.5 | Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)* | ☑ |
| BASIC | 1.2.6 | Provide safe, direct and attractive walking routes from building entrances to nearby transit stops | ☑ |
| BASIC | 1.2.7 | Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible | ☐ |
| BASIC | 1.2.8 | Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility | ☐ |
| | **1.3** | **Amenities for walking & cycling** | |
| BASIC | 1.3.1 | Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails | ☐ |
| BASIC | 1.3.2 | Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious) | ☐ |

| | | TDM-supportive design & infrastructure measures: *Non-residential developments* | Check if completed & add descriptions, explanations or plan/drawing references |
|---|---|---|---|
| | **2.** | **WALKING & CYCLING: END-OF-TRIP FACILITIES** | |
| | **2.1** | **Bicycle parking** | |
| REQUIRED | 2.1.1 | Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)* | ☑ |
| REQUIRED | 2.1.2 | Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)* | ☑ |
| REQUIRED | 2.1.3 | Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)* | ☑ |
| BASIC | 2.1.4 | Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists | ☐ |
| BETTER | 2.1.5 | Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season | ☐ |
| | **2.2** | **Secure bicycle parking** | |
| REQUIRED | 2.2.1 | Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)* | ☐ - N/A |
| BETTER | 2.2.2 | Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met) | ☐ |
| | **2.3** | **Shower & change facilities** | |
| BASIC | 2.3.1 | Provide shower and change facilities for the use of active commuters | ☐ - Shower and change facilities are provided for patrons |
| BETTER | 2.3.2 | In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters | ☐ |
| | **2.4** | **Bicycle repair station** | |
| BETTER | 2.4.1 | Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided) | ☐ |

| | TDM-supportive design & infrastructure measures: *Non-residential developments* | Check if completed & add descriptions, explanations or plan/drawing references |
|---|---|---|
| | **3. TRANSIT** | |
| | **3.1 Customer amenities** | |
| BASIC | 3.1.1 Provide shelters, lighting and benches at any on-site transit stops | ☐ |
| BASIC | 3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter | ☐ |
| BETTER | 3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building | ☐ |
| | **4. RIDESHARING** | |
| | **4.1 Pick-up & drop-off facilities** | |
| BASIC | 4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones | ☐ |
| | **4.2 Carpool parking** | |
| BASIC | 4.2.1 Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools | ☐ |
| BETTER | 4.2.2 At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement | ☐ |
| | **5. CARSHARING & BIKESHARING** | |
| | **5.1 Carshare parking spaces** | |
| BETTER | 5.1.1 Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces *(see Zoning By-law Section 94)* | ☐ |
| | **5.2 Bikeshare station location** | |
| BETTER | 5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection | ☐ |

| | TDM-supportive design & infrastructure measures: *Non-residential developments* | Check if completed & add descriptions, explanations or plan/drawing references |
|---|---|---|
| | **6. PARKING** | |
| | **6.1 Number of parking spaces** | |
| REQUIRED | 6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for | ☑ |
| BASIC | 6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking | ☐ |
| BASIC | 6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)* | ☐ |
| BETTER | 6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)* | ☐ |
| | **6.2 Separate long-term & short-term parking areas** | |
| BETTER | 6.2.1 Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa) | ☐ |
| | **7. OTHER** | |
| | **7.1 On-site amenities to minimize off-site trips** | |
| BETTER | 7.1.1 Provide on-site amenities to minimize mid-day or mid-commute errands | ☑ |

## TDM Measures Checklist:
*Non-Residential Developments (office, institutional, retail or industrial)*

***Legend***

| | |
|---|---|
| BASIC | The measure is generally feasible and effective, and in most cases would benefit the development and its users |
| BETTER | The measure could maximize support for users of sustainable modes, and optimize development performance |
| ★ | The measure is one of the most dependably effective tools to encourage the use of sustainable modes |

| | | TDM measures: *Non-residential developments* | Check if proposed & add descriptions |
|---|---|---|---|
| | **1.** | **TDM PROGRAM MANAGEMENT** | |
| | **1.1** | **Program coordinator** | |
| BASIC ★ | 1.1.1 | Designate an internal coordinator, or contract with an external coordinator | ☐ |
| | **1.2** | **Travel surveys** | |
| BETTER | 1.2.1 | Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress | ☐ |
| | **2.** | **WALKING AND CYCLING** | |
| | **2.1** | **Information on walking/cycling routes & destinations** | |
| BASIC | 2.1.1 | Display local area maps with walking/cycling access routes and key destinations at major entrances | ☑ |
| | **2.2** | **Bicycle skills training**<br>*Commuter travel* | |
| BETTER ★ | 2.2.1 | Offer on-site cycling courses for commuters, or subsidize off-site courses | ☐ |
| | **2.3** | **Valet bike parking**<br>*Visitor travel* | |
| BETTER | 2.3.1 | Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games) | ☐ |

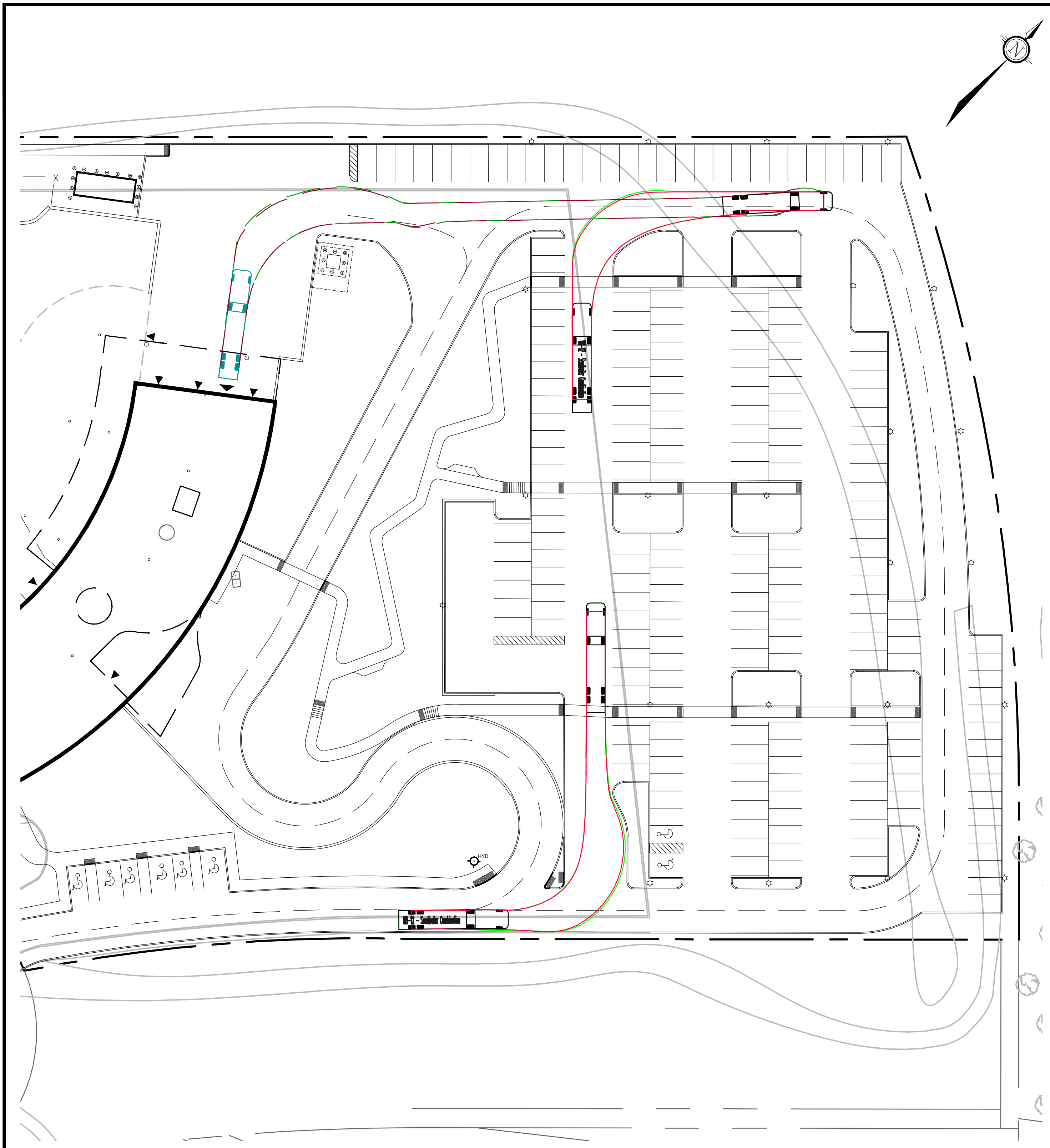
| | | TDM measures: *Non-residential developments* | Check if proposed & add descriptions |
|---|---|---|---|
| | **3.** | **TRANSIT** | |
| | **3.1** | **Transit information** | |
| BASIC | 3.1.1 | Display relevant transit schedules and route maps at entrances | ☑ |
| BASIC | 3.1.2 | Provide online links to OC Transpo and STO information | ☑ |
| BETTER | 3.1.3 | Provide real-time arrival information display at entrances | ☐ |
| | **3.2** | **Transit fare incentives** | |
| | | *Commuter travel* | |
| BETTER | 3.2.1 | Offer preloaded PRESTO cards to encourage commuters to use transit | ☐ |
| BETTER ★ | 3.2.2 | Subsidize or reimburse monthly transit pass purchases by employees | ☐ |
| | | *Visitor travel* | |
| BETTER | 3.2.3 | Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games) | ☐ |
| | **3.3** | **Enhanced public transit service** | |
| | | *Commuter travel* | |
| BETTER | 3.3.1 | Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends) | ☐ |
| | | *Visitor travel* | |
| BETTER | 3.3.2 | Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games) | ☐ |
| | **3.4** | **Private transit service** | |
| | | *Commuter travel* | |
| BETTER | 3.4.1 | Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends) | ☐ |
| | | *Visitor travel* | |
| BETTER | 3.4.2 | Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games) | ☐ |

| | | | TDM measures: *Non-residential developments* | Check if proposed & add descriptions |
|---|---|---|---|---|
| | | **4.** | **RIDESHARING** | |
| | | **4.1** | **Ridematching service** | |
| | | | *Commuter travel* | |
| BASIC | ★ | 4.1.1 | Provide a dedicated ridematching portal at OttawaRideMatch.com | ☐ |
| | | **4.2** | **Carpool parking price incentives** | |
| | | | *Commuter travel* | |
| BETTER | | 4.2.1 | Provide discounts on parking costs for registered carpools | ☐ |
| | | **4.3** | **Vanpool service** | |
| | | | *Commuter travel* | |
| BETTER | | 4.3.1 | Provide a vanpooling service for long-distance commuters | ☐ |
| | | **5.** | **CARSHARING & BIKESHARING** | |
| | | **5.1** | **Bikeshare stations & memberships** | |
| BETTER | | 5.1.1 | Contract with provider to install on-site bikeshare station for use by commuters and visitors | ☐ |
| | | | *Commuter travel* | |
| BETTER | | 5.1.2 | Provide employees with bikeshare memberships for local business travel | ☐ |
| | | **5.2** | **Carshare vehicles & memberships** | |
| | | | *Commuter travel* | |
| BETTER | | 5.2.1 | Contract with provider to install on-site carshare vehicles and promote their use by tenants | ☐ |
| BETTER | | 5.2.2 | Provide employees with carshare memberships for local business travel | ☐ |
| | | **6.** | **PARKING** | |
| | | **6.1** | **Priced parking** | |
| | | | *Commuter travel* | |
| BASIC | ★ | 6.1.1 | Charge for long-term parking (daily, weekly, monthly) | ☐ |
| BASIC | | 6.1.2 | Unbundle parking cost from lease rates at multi-tenant sites | ☐ |
| | | | *Visitor travel* | |
| BETTER | | 6.1.3 | Charge for short-term parking (hourly) | ☐ |

| | | | TDM measures: *Non-residential developments* | Check if proposed & add descriptions |
|---|---|---|---|---|
| | | **7.** | **TDM MARKETING & COMMUNICATIONS** | |
| | | **7.1** | **Multimodal travel information** | |
| | | | *Commuter travel* | |
| BASIC | ★ | 7.1.1 | Provide a multimodal travel option information package to new/relocating employees and students | ☐ |
| | | | *Visitor travel* | |
| BETTER | ★ | 7.1.2 | Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games) | ☐ |
| | | **7.2** | **Personalized trip planning** | |
| | | | *Commuter travel* | |
| BETTER | ★ | 7.2.1 | Offer personalized trip planning to new/relocating employees | ☐ |
| | | **7.3** | **Promotions** | |
| | | | *Commuter travel* | |
| BETTER | | 7.3.1 | Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes | ☐ |
| | | **8.** | **OTHER INCENTIVES & AMENITIES** | |
| | | **8.1** | **Emergency ride home** | |
| | | | *Commuter travel* | |
| BETTER | ★ | 8.1.1 | Provide emergency ride home service to non-driving commuters | ☐ |
| | | **8.2** | **Alternative work arrangements** | |
| | | | *Commuter travel* | |
| BASIC | ★ | 8.2.1 | Encourage flexible work hours | ☐ |
| BETTER | | 8.2.2 | Encourage compressed workweeks | ☐ |
| BETTER | ★ | 8.2.3 | Encourage telework | ☐ |
| | | **8.3** | **Local business travel options** | |
| | | | *Commuter travel* | |
| BASIC | ★ | 8.3.1 | Provide local business travel options that minimize the need for employees to bring a personal car to work | ☐ |
| | | **8.4** | **Commuter incentives** | |
| | | | *Commuter travel* | |
| BETTER | | 8.4.1 | Offer employees a taxable, mode-neutral commuting allowance | ☐ |
| | | **8.5** | **On-site amenities** | |
| | | | *Commuter travel* | |
| BETTER | | 8.5.1 | Provide on-site amenities/services to minimize mid-day or mid-commute errands | ☑ |

# APPENDIX N

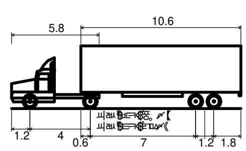
Turning Movements




M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com




WB-12 - Tractor & Semi-Trailer

| | |
|---|---|
| Overall Length | 16.20m |
| Overall Width | 2.60m |
| Overall Body Height | 4.15m |
| Min Body Ground Clearance | 0.435m |
| Track Width | 2.60m |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 12.20m |

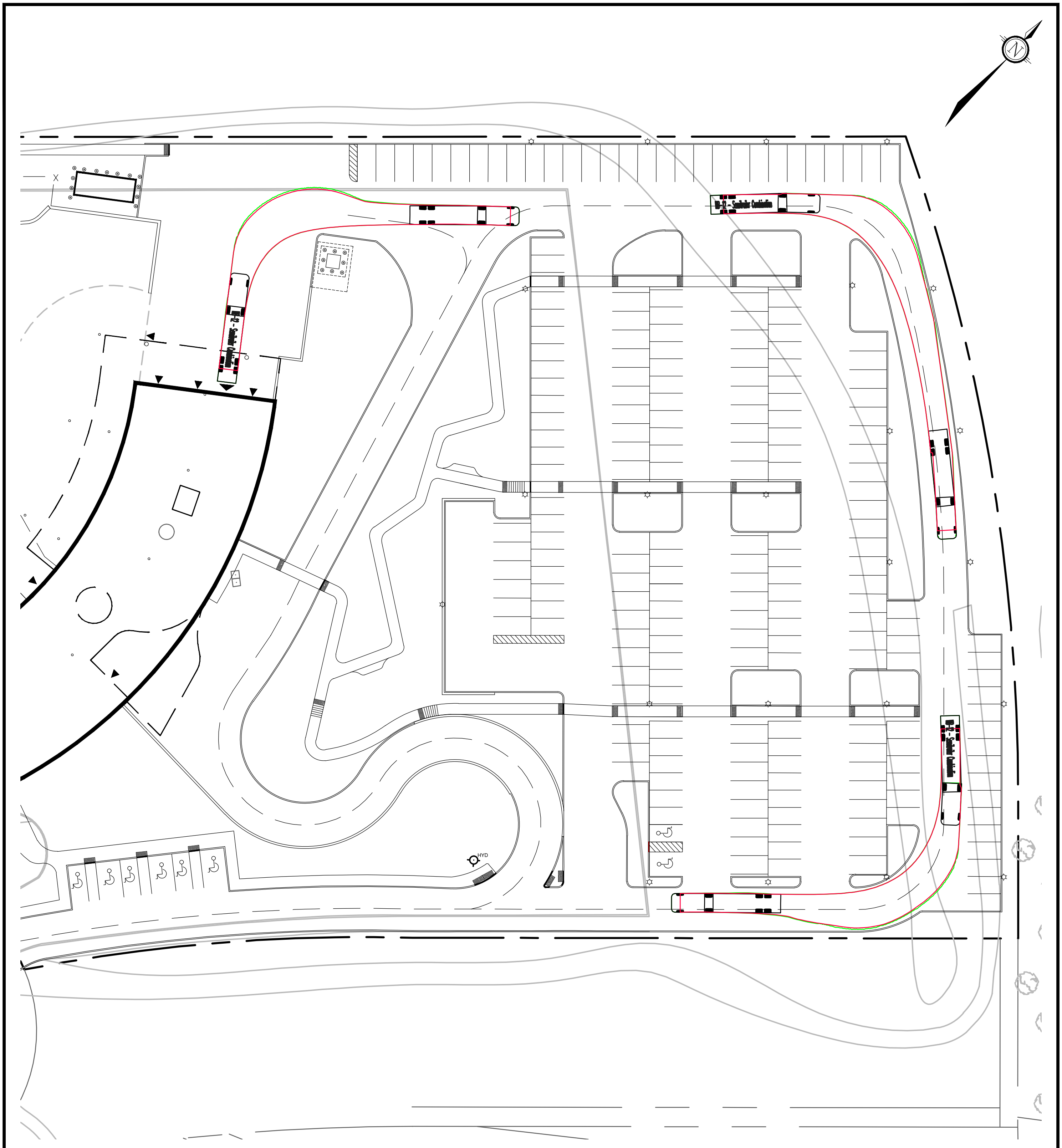
# SERENVITA

## TURNING MOVEMENT (WB-12)

SCALE 1 : 750 (0 10 20 30)

DATE JAN 2026 | JOB 124150A | FIGURE FIGURE 1

SHT8X11.DWG - 216mmx279mm

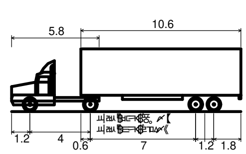



NOVATECH

Engineers, Planners & Landscape Architects

Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com




WB-12 - Tractor & Semi-Trailer

| | |
|---|---|
| Overall Length | 16.20m |
| Overall Width | 2.60m |
| Overall Body Height | 4.15m |
| Min Body Ground Clearance | 0.435m |
| Track Width | 2.60m |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 12.20m |

# SERENVITA

## TURNING MOVEMENT (WB-12)

SCALE 1 : 750 (0 10 20 30)

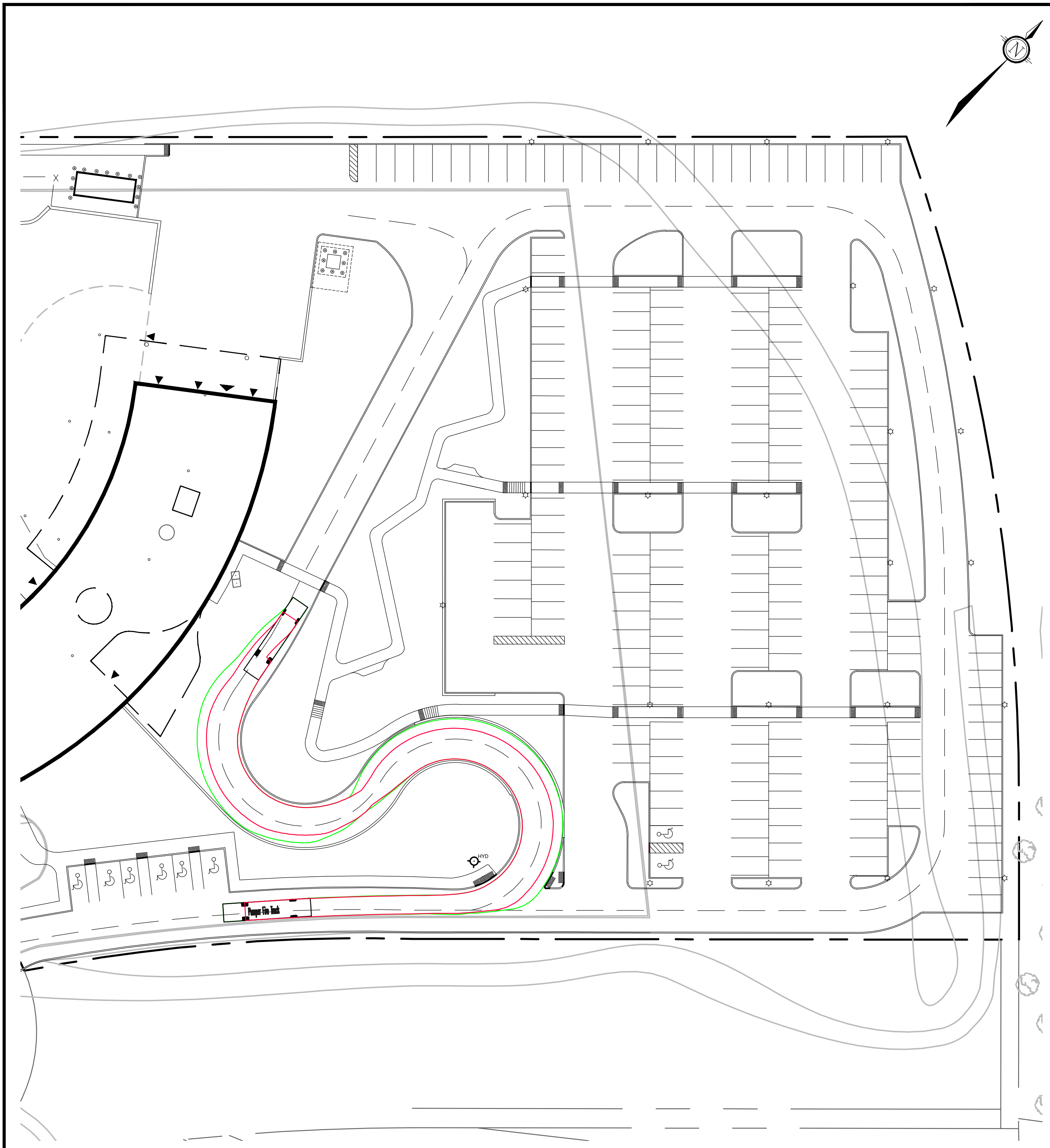
DATE JAN 2026

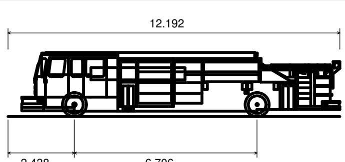
JOB 124150A

FIGURE FIGURE 2

M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER

SHT8X11.DWG - 216mmx279mm




Pumper Fire Truck

| | |
|---|---|
| Overall Length | 12.192m |
| Overall Width | 2.489m |
| Overall Body Height | 2.361m |
| Min Body Ground Clearance | 0.200m |
| Track Width | 2.489m |
| Lock-to-lock time | 5.00s |
| Max Wheel Angle | |

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

# SERENVITA

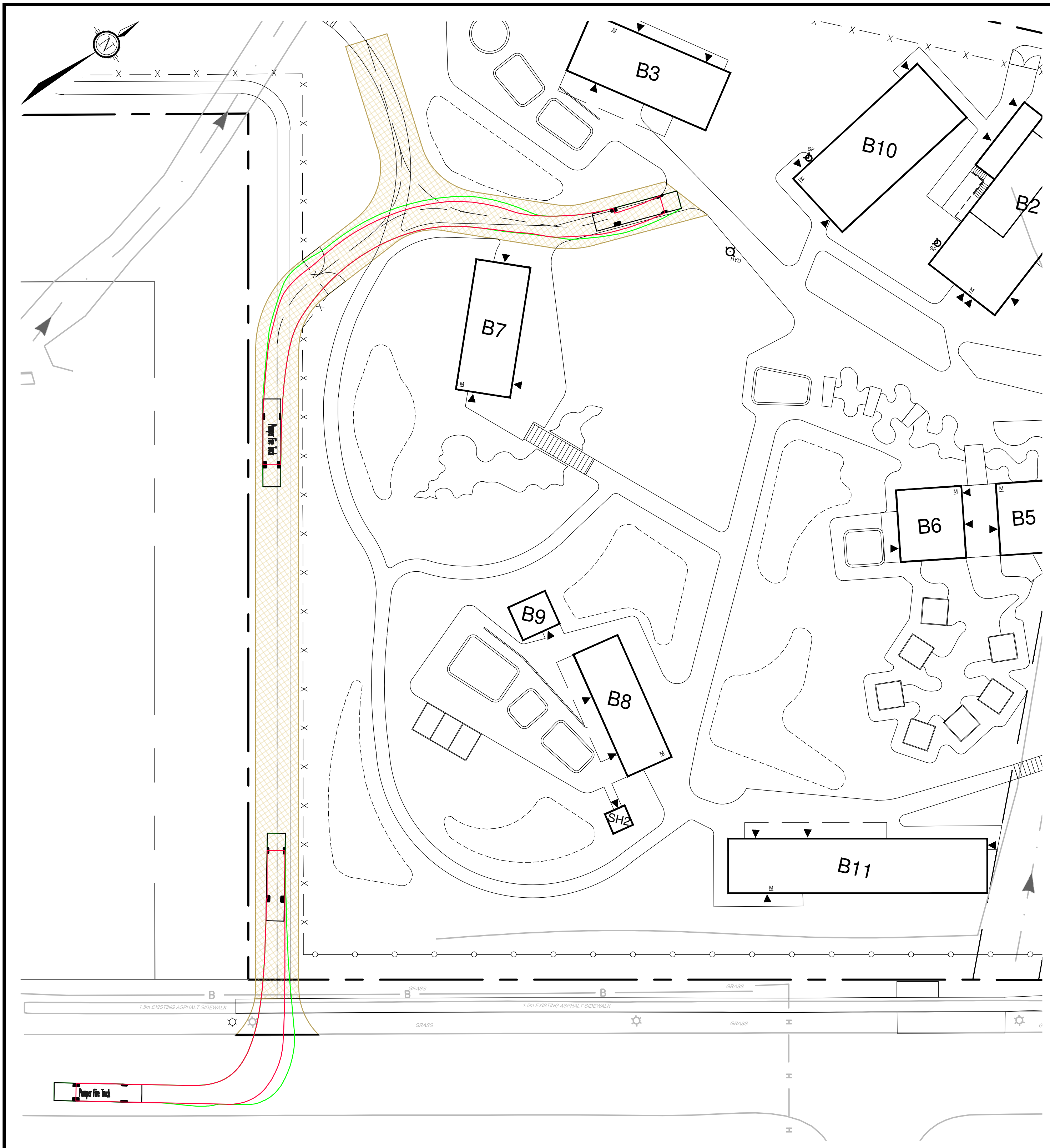
## TURNING MOVEMENT (FIRE TRUCK)

SCALE 1 : 750 (0 10 20 30)

DATE JAN 2026 | JOB 124150A | FIGURE FIGURE 3

M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER

SHT8X11.DWG - 216mmx279mm

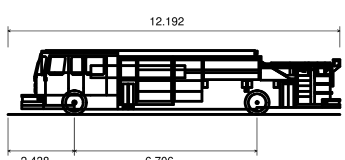



M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER


NOVATECH
Engineers, Planners & Landscape Architects

Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com


Pumper Fire Truck

| | |
|---|---|
| Overall Length | 12.192m |
| Overall Width | 2.489m |
| Overall Body Height | 2.361m |
| Min Body Ground Clearance | 0.200m |
| Track Width | 2.489m |
| Lock-to-lock time | 5.00s |
| Max Wheel Angle | |

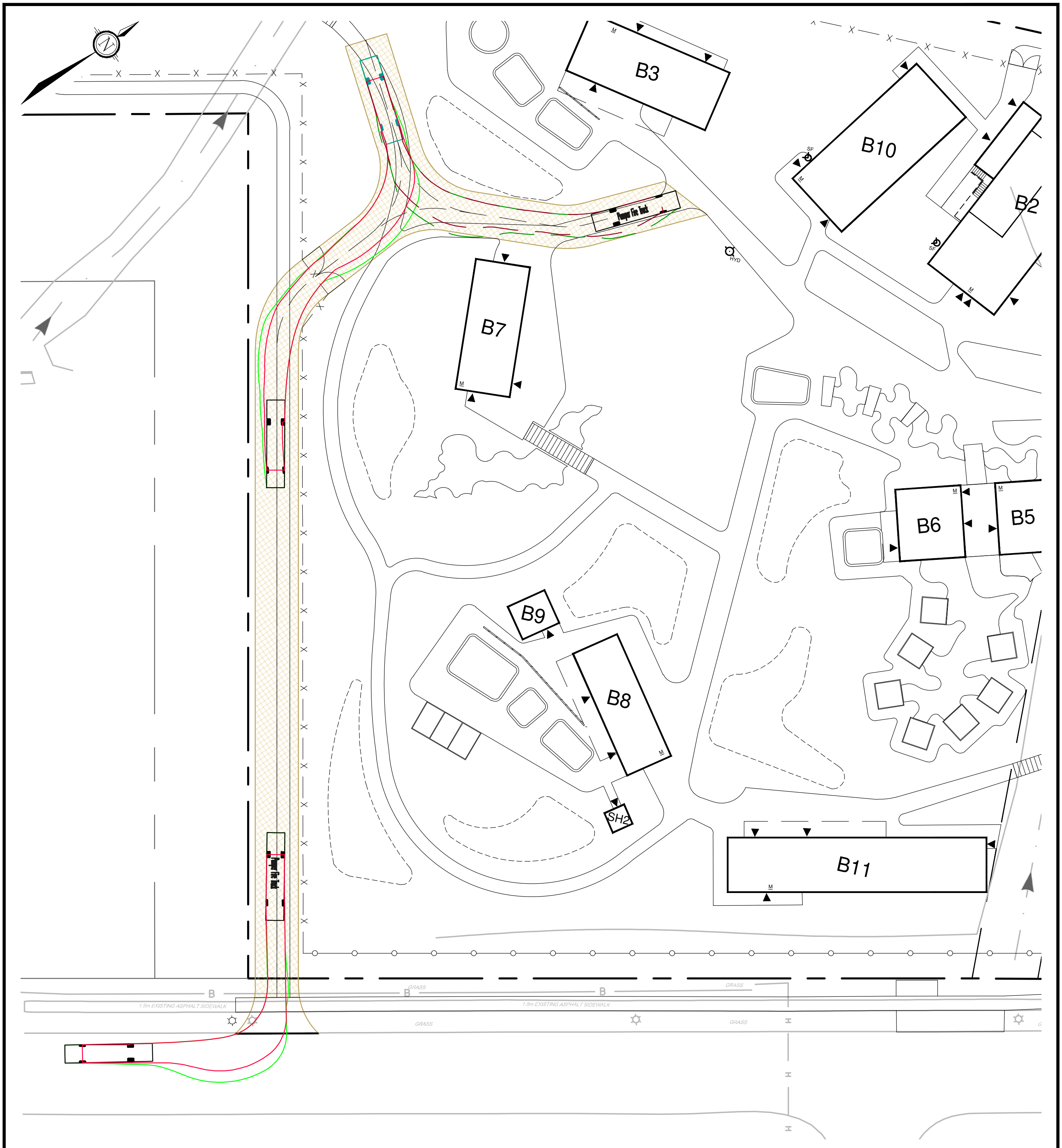
# SERENVITA

## TURNING MOVEMENT (FIRE TRUCK)

SCALE 1 : 750 (0 10 20 30)

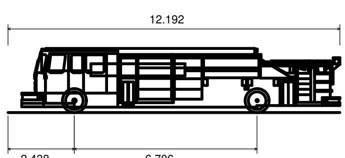
| DATE | JOB | FIGURE |
|---|---|---|
| JAN 2026 | 124150A | FIGURE 4 |

SHT8X11.DWG - 216mmx279mm




NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

| | |
|---|---|
| Telephone | (613) 254-9643 |
| Facsimile | (613) 254-5867 |
| Website | www.novatech-eng.com |




Pumper Fire Truck

| | |
|---|---|
| Overall Length | 12.192m |
| Overall Width | 2.489m |
| Overall Body Height | 2.361m |
| Min Body Ground Clearance | 0.200m |
| Track Width | 2.489m |
| Lock-to-lock time | 5.00s |
| Max Wheel Angle | |

# SERENVITA

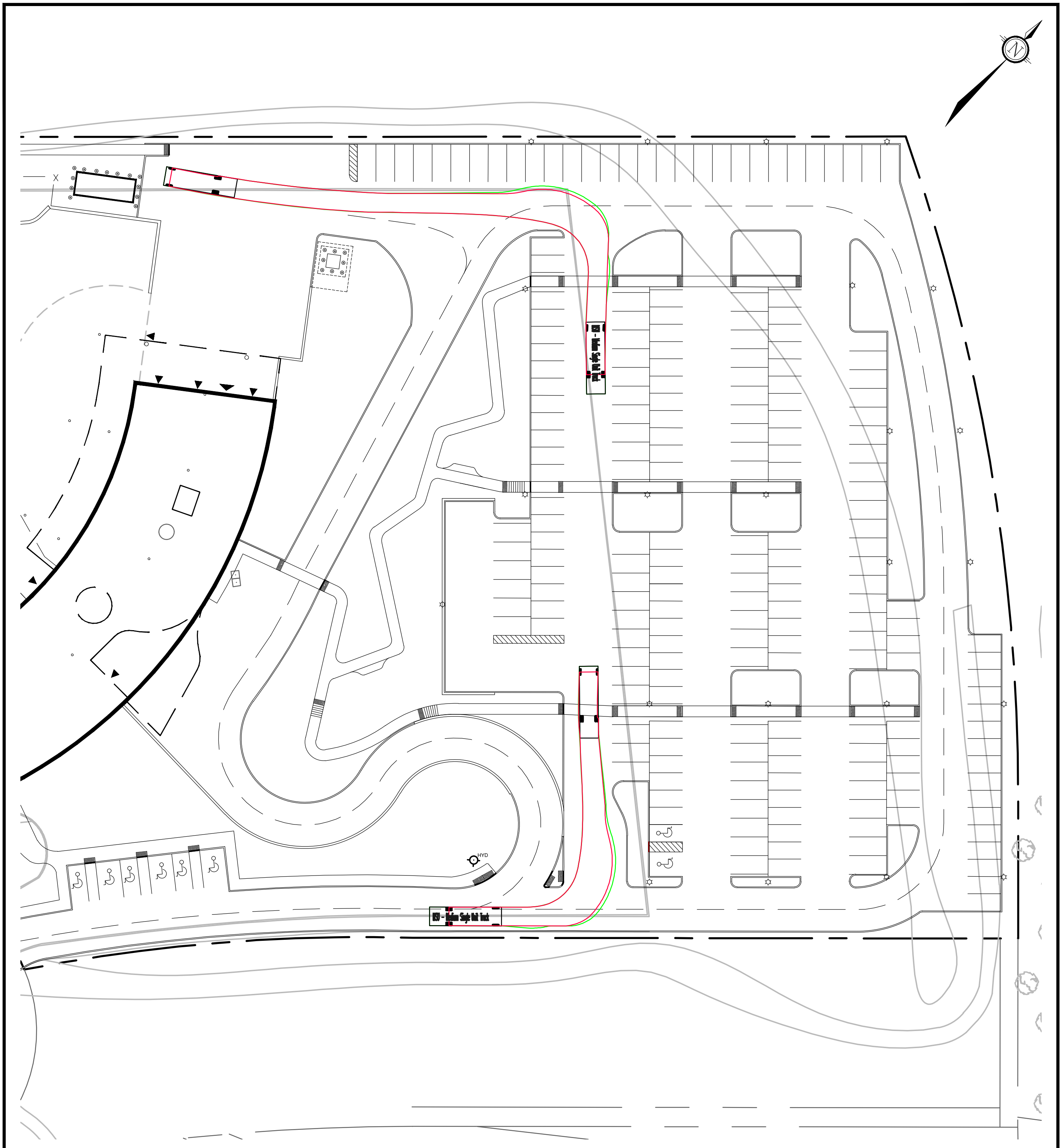
## TURNING MOVEMENT (FIRE TRUCK)

SCALE 1 : 750 (0, 10, 20, 30)

| DATE | JOB | FIGURE |
|---|---|---|
| JAN 2026 | 124150A | FIGURE 5 |

SHT8X11.DWG - 216mmx279mm

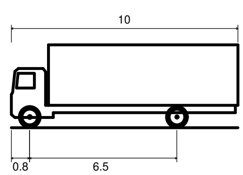
M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER





NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com


MSU - Medium Single Unit Truck

| | |
|---|---|
| Overall Length | 10.000m |
| Overall Width | 2.600m |
| Overall Body Height | 3.650m |
| Min Body Ground Clearance | 0.445m |
| Track Width | 2.600m |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 11.100m |

# SERENVITA

## TURNING MOVEMENT (MSU / GARBAGE TRUCK)

SCALE 1 : 750 (0 10 20 30)

DATE JAN 2026

JOB 124150A

FIGURE FIGURE 6

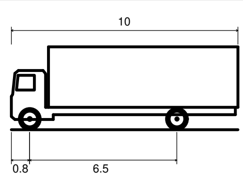
M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER

SHT8X11.DWG - 216mmx279mm


M:\2024\124150\124150A SOLANDT\CAD\CIVIL\FIGURES\TRAFFIC\124150A-TM.DWG 1/26/2026 1:51 PM - RHILLIER


NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com


MSU - Medium Single Unit Truck

| | |
|---|---|
| Overall Length | 10.000m |
| Overall Width | 2.600m |
| Overall Body Height | 3.650m |
| Min Body Ground Clearance | 0.445m |
| Track Width | 2.600m |
| Lock-to-lock time | 4.00s |
| Curb to Curb Turning Radius | 11.100m |

# SERENVITA

## TURNING MOVEMENT (MSU / GARBAGE TRUCK)

SCALE 1 : 750 0 10 20 30

DATE JAN 2026

JOB 124150A

FIGURE FIGURE 7

SHT8X11.DWG - 216mmx279mm

# APPENDIX O

MMLOS Analysis

**Multi-Modal Level of Service - Segments Form**

**Project:** 2505 & 2707 Solandt
**Consultant:** Novatech
**Date:** Jan 2026
**Scenario:** Existing Conditions

| | | | | | |
|---|---|---|---|---|---|
| | Segment Name | SOLANDT ROAD | | | |
| | OP Transect / Policy Area | Downtown Core, Inner Urban,Hub and/or Special District | | | |
| | Segment Component | Majority (>50%) | | Critical | |
| | Side of Street | N | S | N | S |
| Pedestrian | PLOS Inputs | | | | |
| | Posted Speed (km/h) | 50 km/h | | 50 km/h | |
| | Two-Way ADT | 1,240 | | 1,240 | |
| | Pedestrian Facility | Sidewalk | None | Sidewalk | None |
| | Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users? | Yes | No | Yes | No |
| | Facility Width (m) | 1.50m | - | 1.50m | - |
| | Offset from Motor Vehicle Travel Lanes (m) | - | - | - | - |
| | Presence of Adjacent Parking? | - | - | - | - |
| | General Purpose Curb Lane ADT | - | - | - | - |
| | Max. Distance between Controlled Crossings (m) | - | - | - | - |
| | Score | 2.00 | 0.00 | 2.00 | 0.00 |
| | PLOS | D | F | D | F |
| | Target PLOS | A | | | |
| Bicycle | BLOS Inputs | | | | |
| | Cycling Route Classification | Elsewhere | | | |
| | Cycling Facility | Shared Operating Space | Shared Operating Space | Shared Operating Space | Shared Operating Space |
| | Is the minimum level of separation provided according to OTM Book 18 Pre-Selection Nomograph - Rural Context (Figure 5.6)? (for paved shoulders) | - | - | - | - |
| | Facility Operation | - | - | - | - |
| | Pedestrian/Cyclist Volume | - | - | - | - |
| | Facility Width | - | - | - | - |
| | Boulevard/Buffer Width (excluding curb) | - | - | - | - |
| | Unsignalized Roadway Crossing Type (where cyclists are required to yield) | None | None | None | None |
| | Number of Travel Lanes at Crossing | - | - | - | - |
| | Crossing includes Median Refuge (≥ 2.7m) | - | - | - | - |
| | Cross-street Posted Speed (km/h) | - | - | - | - |
| | Cycling Path Blockages (e.g. bus stops and/or loading zones) | Rare | Rare | Rare | Rare |
| | Score | 1.60 | 1.60 | 1.60 | 1.60 |
| | BLOS | D | D | D | D |
| | Target BLOS | B | | | |
| Transit | TLOS Inputs | | | | |
| | Transit Facility | Mixed Traffic | | | |
| | Facility Type | Mixed Traffic | Mixed Traffic | | |
| | Expected Transit Running Time | Slightly Impeded | Slightly Impeded | | |
| | Transit Travel Speed (if available) | Enter Speed (if available) | Enter Speed (if available) | | |
| | TLOS | C | C | | |
| | Target TLOS | E (D for frequent transit routes) | | | |
| Public Realm | PRLOS Inputs | | | | |
| | Context | Other Streets | Other Streets | | |
| | Inner Boulevard Width | 2.0-3.99m | ≤ 0.6m | | |
| | Middle Boulevard Width | ≤ 0.5m | ≤ 0.5m | | |
| | Outer Boulevard (Frontage) Width | ≥ 3.0m | ≥ 3.0m | | |
| | Transit Route on Segment? | Yes | No | | |
| | Bus Stop Elements | No platform, landing zone or shelter | - | | |
| | Number of Midblock Traffic Lanes (both travel directions) | ≤ 2 | | | |
| | Score | 19.20 | 18.60 | | |
| | PRLOS | C | C | | |
| | | C | | | |

**Multi-Modal Level of Service - Intersections Form**

**Project:** 2505 & 2707 Solandt
**Consultant:** Novatech
**Date:** Jan 2026
**Scenario:** Existing Conditions

| Mode | Intersection Name | LEGGET DRIVE / SOLANDT ROAD | | | |
|---|---|---|---|---|---|
| | OP Transect / Policy Area | Downtown Core, Inner Urban,Hub and/or Special District | | | |
| Pedestrian | PLOS Inputs | | | | |
| Pedestrian | Pedestrians Crossing the | North Leg | South Leg | East Leg | West Leg |
| Pedestrian | Number of Travel Lanes Crossed | 1-3 | 1-3 | 1-3 | 1-3 |
| Pedestrian | Median Refuge (≥2.7m) | No | No | No | No |
| Pedestrian | Crosswalk Treatment | Std Transverse Markings | Std Transverse Markings | Std Transverse Markings | Std Transverse Markings |
| Pedestrian | Signal Cycle Length (sec) | 112.4 | | | |
| Pedestrian | Effective Walk Time (sec) | 48.0 | 48.0 | 28.0 | 28.0 |
| Pedestrian | Conflict with Right-Turn Vehicles (For PLOS & BLOS) | WBR | EBR | NBR | SBR |
| Pedestrian | Right-Turn Geometry | Right-Turn With No Channel | Right-Turn With No Channel | Right-Turn With No Channel | Right-Turn With No Channel |
| Pedestrian | Right-Turn Signal Phasing | Permissive | Permissive | Permissive | Permissive |
| Pedestrian | Right-Turn Volume | ≤ 150 veh/h | > 150 to 300 veh/h | ≤ 150 veh/h | > 150 to 300 veh/h |
| Pedestrian | Right-Turn Effective Corner Radius | > 8m | > 8m | > 8m | > 8m |
| Pedestrian | Cross-street Posted Speed (km/h) | 50 km/h | | 50 km/h | |
| Pedestrian | Conflict with Left-Turn Vehicles (For PLOS & BLOS) | EBL | WBL | SBL | NBL |
| Pedestrian | Left-Turn Signal Phasing | Perm or Prot+Perm | Perm or Prot+Perm | Perm or Prot+Perm | Perm or Prot+Perm |
| Pedestrian | Left-Turn Volume | > 100 veh/h | ≤ 50 veh/h | ≤ 50 veh/h | > 50 to 100 veh/h |
| Pedestrian | Left-Turn Opposing Lanes | - | - | - | ≤ 1 |
| Pedestrian | Score | 4.40 | 4.15 | 4.30 | 3.85 |
| Pedestrian | PLOS | B | B | B | B |
| Pedestrian | PLOS | B | | | |
| Pedestrian | Target PLOS | A | | | |
| Bicycle | BLOS Inputs | | | | |
| Bicycle | Cycling Route Classification | Elsewhere | | | |
| Bicycle | Cyclists Crossing the | North Leg | South Leg | East Leg | West Leg |
| Bicycle | Type of Cycling Facility Across Leg | Mixed Traffic | Mixed Traffic | Mixed Traffic | Bike Lane Through Intersection |
| Bicycle | Two-Way ADT (in Cyclist Travel Direction) | 3,670 | | 4,370 | |
| Bicycle | Floating Bike Lane or Right-Turn Lane Crossover Approaching the Crossing? | No | No | No | No |
| Bicycle | Crosside Operation | - | - | - | - |
| Bicycle | Target Crossride Setback Met? | - | - | - | - |
| Bicycle | Right-Turn Vehicle Volume from Adjacent Roadway > 100 veh/h? | - | - | - | - |
| Bicycle | Cyclist Left-Turn Operation | WBL | EBL | NBL | SBL |
| Bicycle | Cyclist Left-Turn Treatment Type | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Through-Left or Single Left-Turn Lane |
| Bicycle | Vehicle Lanes Crossed by Cyclists | One Lane Crossed | One Lane Crossed | One Lane Crossed | One Lane Crossed |
| Bicycle | Score | 10 | 20 | 50 | 45 |
| Bicycle | BLOS | F | E | D | D |
| Bicycle | BLOS | D | | | |
| Bicycle | Target BLOS | B | | | |
| Transit | TLOS Inputs | | | | |
| Transit | Transit Facility | Mixed Traffic | | | |
| Transit | Vehicles Travelling | Southbound | Northbound | Westbound | Eastbound |
| Transit | Average Transit Delay (if available) | 11-20 sec | 11-20 sec | | 11-20 sec |
| Transit | Example Transit Priority Treatment | - | - | | - |
| Transit | TLOS | B | B | - | B |
| Transit | TLOS | B | | | |
| Transit | Target TLOS | E (D for frequent transit routes) | | | |
| Auto | AutoLOS Inputs | | | | |
| Auto | Overall Intersection Volume to Capacity Ratio | 0 to 0.60 | | | |
| Auto | Individual Movements V/C Ratios and Queue Lengths | See Separate Traffic Operations Table | | | |
| Auto | AutoLOS | A | | | |
| Auto | Target AutoLOS | E | | | |

| Mode | Intersection Name | MARCH ROAD / SOLANDT ROAD | | | |
|---|---|---|---|---|---|
| | OP Transect / Policy Area | Downtown Core, Inner Urban,Hub and/or Special District | | | |
| Pedestrian | PLOS Inputs | | | | |
| Pedestrian | Pedestrians Crossing the | North Leg | South Leg | East Leg | West Leg |
| Pedestrian | Number of Travel Lanes Crossed | 7 | 7 | 6 | 6 |
| Pedestrian | Median Refuge (≥2.7m) | No | No | No | No |
| Pedestrian | Crosswalk Treatment | Std Transverse Markings | Std Transverse Markings | Std Transverse Markings | Std Transverse Markings |
| Pedestrian | Signal Cycle Length (sec) | 130.0 | | | |
| Pedestrian | Effective Walk Time (sec) | 7.5 | 7.5 | 27.7 | 45.7 |
| Pedestrian | Conflict with Right-Turn Vehicles (For PLOS & BLOS) | WBR | EBR | NBR | SBR |
| Pedestrian | Right-Turn Geometry | Conventional Right-Turn Channel | Conventional Right-Turn Channel | Conventional Right-Turn Channel | Conventional Right-Turn Channel |
| Pedestrian | Right-Turn Signal Phasing | - | - | - | - |
| Pedestrian | Right-Turn Volume | ≤ 150 veh/h | > 150 to 300 veh/h | > 300 veh/h | ≤ 150 veh/h |
| Pedestrian | Right-Turn Effective Corner Radius | - | - | - | - |
| Pedestrian | Cross-street Posted Speed (km/h) | 50 km/h | | 80 km/h | |
| Pedestrian | Conflict with Left-Turn Vehicles (For PLOS & BLOS) | EBL | WBL | SBL | NBL |
| Pedestrian | Left-Turn Signal Phasing | Fully Protected | Fully Protected | Perm or Prot+Perm | Perm or Prot+Perm |
| Pedestrian | Left-Turn Volume | - | - | > 50 to 100 veh/h | > 100 veh/h |
| Pedestrian | Left-Turn Opposing Lanes | - | - | ≥ 2 | - |
| Pedestrian | Score | 1.30 | 1.30 | 1.55 | 2.00 |
| Pedestrian | PLOS | E | E | D | D |
| Pedestrian | PLOS | D | | | |
| Pedestrian | Target PLOS | A | | | |
| Bicycle | BLOS Inputs | | | | |
| Bicycle | Cycling Route Classification | Cross-Town Bikeway | | | |
| Bicycle | Cyclists Crossing the | North Leg | South Leg | East Leg | West Leg |
| Bicycle | Type of Cycling Facility Across Leg | Mixed Traffic | Mixed Traffic | Bike Lane Through Intersection | Bike Lane Through Intersection |
| Bicycle | Two-Way ADT (in Cyclist Travel Direction) | 6,580 | | 34,010 | |
| Bicycle | Floating Bike Lane or Right-Turn Lane Crossover Approaching the Crossing? | No | No | Yes | Yes |
| Bicycle | Crosside Operation | - | - | - | - |
| Bicycle | Target Crossride Setback Met? | - | - | - | - |
| Bicycle | Right-Turn Vehicle Volume from Adjacent Roadway > 100 veh/h? | - | - | - | - |
| Bicycle | Cyclist Left-Turn Operation | WBL | EBL | NBL | SBL |
| Bicycle | Cyclist Left-Turn Treatment Type | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Through-Left or Single Left-Turn Lane | Two-Stage Queue Box | Two-Stage Queue Box |
| Bicycle | Vehicle Lanes Crossed by Cyclists | Two or More Lanes Crossed | Two or More Lanes Crossed | - | - |
| Bicycle | Score | 10 | 10 | 15 | 15 |
| Bicycle | BLOS | F | F | E | E |
| Bicycle | BLOS | F | | | |
| Bicycle | Target BLOS | A | | | |
| Transit | TLOS Inputs | | | | |
| Transit | Transit Facility | Rapid Transit Corridor | | | |
| Transit | Vehicles Travelling | Southbound | Northbound | Westbound | Eastbound |
| Transit | Average Transit Delay (if available) | > 80 sec | 21-35 sec | 36-55 sec | 36-55 sec |
| Transit | Example Transit Priority Treatment | - | - | - | - |
| Transit | TLOS | F | C | D | D |
| Transit | TLOS | D | | | |
| Transit | Target TLOS | A | | | |
| Auto | AutoLOS Inputs | | | | |
| Auto | Overall Intersection Volume to Capacity Ratio | 0.71 to 0.80 | | | |
| Auto | Individual Movements V/C Ratios and Queue Lengths | See Separate Traffic Operations Table | | | |
| Auto | AutoLOS | C | | | |
| Auto | Target AutoLOS | E | | | |

| Mode | Intersection Name | MARCH ROAD / CARLING AVENUE / STATION ROAD | | | |
|---|---|---|---|---|---|
| | OP Transect / Policy Area | Downtown Core, Inner Urban,Hub and/or Special District | | | |
| Pedestrian | PLOS Inputs | | | | |
| Pedestrian | Pedestrians Crossing the | North Leg | South Leg | East Leg | West Leg |
| Pedestrian | Number of Travel Lanes Crossed | 8 | 8 | 6 | 1-3 |
| Pedestrian | Median Refuge (≥2.7m) | No | No | No | No |
| Pedestrian | Crosswalk Treatment | Std Transverse Markings | Std Transverse Markings | Std Transverse Markings | Std Transverse Markings |
| Pedestrian | Signal Cycle Length (sec) | 130.0 | | | |
| Pedestrian | Effective Walk Time (sec) | 7.5 | 7.5 | 43.7 | 43.7 |
| Pedestrian | Conflict with Right-Turn Vehicles (For PLOS & BLOS) | WBR | EBR | NBR | SBR |
| Pedestrian | Right-Turn Geometry | Conventional Right-Turn Channel | Conventional Right-Turn Channel | Conventional Right-Turn Channel | Right-Turn With No Channel |
| Pedestrian | Right-Turn Signal Phasing | - | - | - | Permissive |
| Pedestrian | Right-Turn Volume | > 150 to 300 veh/h | ≤ 150 veh/h | ≤ 150 veh/h | ≤ 150 veh/h |
| Pedestrian | Right-Turn Effective Corner Radius | - | - | - | > 8m |
| Pedestrian | Cross-street Posted Speed (km/h) | 60 km/h | | 60 km/h | |
| Pedestrian | Conflict with Left-Turn Vehicles (For PLOS & BLOS) | EBL | WBL | SBL | NBL |
| Pedestrian | Left-Turn Signal Phasing | Perm or Prot+Perm | Perm or Prot+Perm | Fully Protected | Fully Protected |
| Pedestrian | Left-Turn Volume | > 50 to 100 veh/h | > 100 veh/h | - | - |
| Pedestrian | Left-Turn Opposing Lanes | ≤ 1 | - | - | - |
| Pedestrian | Score | 0.70 | 0.50 | 2.20 | 4.30 |
| Pedestrian | PLOS | E | E | D | B |
| Pedestrian | PLOS | D | | | |
| Pedestrian | Target PLOS | A | | | |
| Bicycle | BLOS Inputs | | | | |
| Bicycle | Cycling Route Classification | Cross-Town Bikeway | | | |
| Bicycle | Cyclists Crossing the | North Leg | South Leg | East Leg | West Leg |
| Bicycle | Type of Cycling Facility Across Leg | Bike Lane Through Intersection | Bike Lane Through Intersection | Bike Lane Through Intersection | Bike Lane Through Intersection |
| Bicycle | Two-Way ADT (in Cyclist Travel Direction) | 5,330 | | 36,550 | |
| Bicycle | Floating Bike Lane or Right-Turn Lane Crossover Approaching the Crossing? | Yes | No | Yes | Yes |
| Bicycle | Crosside Operation | - | - | - | - |
| Bicycle | Target Crossride Setback Met? | - | - | - | - |
| Bicycle | Right-Turn Vehicle Volume from Adjacent Roadway > 100 veh/h? | - | - | - | - |
| Bicycle | Cyclist Left-Turn Operation | WBL | EBL | NBL | SBL |
| Bicycle | Cyclist Left-Turn Treatment Type | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Through-Left or Single Left-Turn Lane | General Purpose Dual Left-Turn Lanes |
| Bicycle | Vehicle Lanes Crossed by Cyclists | One Lane Crossed | No Lane Crossed | Two or More Lanes Crossed | - |
| Bicycle | Score | 35 | 15 | 25 | 25 |
| Bicycle | BLOS | D | E | E | E |
| Bicycle | BLOS | E | | | |
| Bicycle | Target BLOS | A | | | |
| Transit | TLOS Inputs | | | | |
| Transit | Transit Facility | Rapid Transit Corridor | | | |
| Transit | Vehicles Travelling | Southbound | Northbound | Westbound | Eastbound |
| Transit | Average Transit Delay (if available) | 21-35 sec | 36-55 sec | 21-35 sec | |
| Transit | Example Transit Priority Treatment | - | - | - | |
| Transit | TLOS | C | D | C | - |
| Transit | TLOS | C | | | |
| Transit | Target TLOS | A | | | |
| Auto | AutoLOS Inputs | | | | |
| Auto | Overall Intersection Volume to Capacity Ratio | 0.71 to 0.80 | | | |
| Auto | Individual Movements V/C Ratios and Queue Lengths | See Separate Traffic Operations Table | | | |
| Auto | AutoLOS | C | | | |
| Auto | Target AutoLOS | E | | | |

# APPENDIX P

Total Synchro Reports

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 311 | 162 | 48 | 120 | 25 | 23 |
| Future Volume (vph) | 311 | 162 | 48 | 120 | 25 | 23 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.954 | | | | 0.935 | |
| Flt Protected | | | | 0.986 | 0.975 | |
| Satd. Flow (prot) | 1665 | 0 | 0 | 1672 | 1538 | 0 |
| Flt Permitted | | | | 0.986 | 0.975 | |
| Satd. Flow (perm) | 1665 | 0 | 0 | 1672 | 1538 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 11 | 11 | | | |
| Confl. Bikes (#/hr) | | 8 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 6% | 5% |
| Adj. Flow (vph) | 311 | 162 | 48 | 120 | 25 | 23 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 473 | 0 | 0 | 168 | 48 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

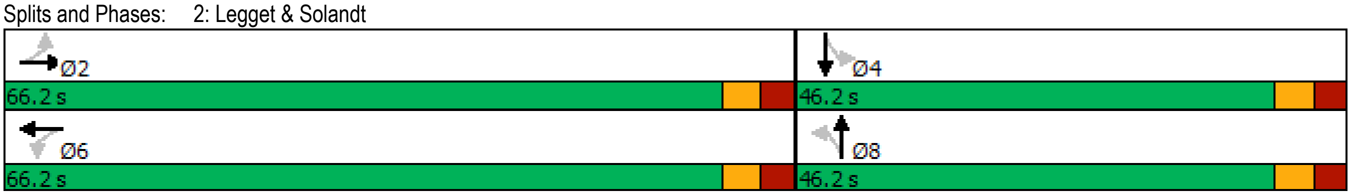
| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 50.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 84 | 149 | 165 | 1 | 17 | 2 | 35 | 72 | 20 | 17 | 99 | 26 |
| Future Volume (vph) | 84 | 149 | 165 | 1 | 17 | 2 | 35 | 72 | 20 | 17 | 99 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | 0.98 | | |
| Frt | | 0.921 | | | 0.984 | | | 0.967 | | | 0.969 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1604 | 0 | 1674 | 1538 | 0 | 1409 | 1612 | 0 | 1208 | 1681 | 0 |
| Flt Permitted | 0.745 | | | 0.570 | | | 0.677 | | | 0.697 | | |
| Satd. Flow (perm) | 1298 | 1604 | 0 | 1003 | 1538 | 0 | 1004 | 1612 | 0 | 865 | 1681 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 76 | | | 2 | | | 14 | | | 13 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | 9 | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 15% | 1% | 20% | 7% | 1% | 40% | 3% | 1% |
| Adj. Flow (vph) | 84 | 149 | 165 | 1 | 17 | 2 | 35 | 72 | 20 | 17 | 99 | 26 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 84 | 314 | 0 | 1 | 19 | 0 | 35 | 92 | 0 | 17 | 125 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 66.2 | 66.2 | | 66.2 | 66.2 | | 46.2 | 46.2 | | 46.2 | 46.2 | |
| Total Split (%) | 58.9% | 58.9% | | 58.9% | 58.9% | | 41.1% | 41.1% | | 41.1% | 41.1% | |
| Maximum Green (s) | 60.0 | 60.0 | | 60.0 | 60.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 4 | 4 | | 9 | 9 | | 1 | 1 | |
| Act Effct Green (s) | 21.4 | 21.4 | | 21.4 | 21.4 | | 11.6 | 11.6 | | 11.6 | 11.6 | |
| Actuated g/C Ratio | 0.53 | 0.53 | | 0.53 | 0.53 | | 0.29 | 0.29 | | 0.29 | 0.29 | |
| v/c Ratio | 0.12 | 0.36 | | 0.00 | 0.02 | | 0.12 | 0.20 | | 0.07 | 0.26 | |
| Control Delay | 9.0 | 8.3 | | 8.0 | 7.9 | | 12.4 | 11.2 | | 11.9 | 12.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 9.0 | 8.3 | | 8.0 | 7.9 | | 12.4 | 11.2 | | 11.9 | 12.1 | |
| LOS | A | A | | A | A | | B | B | | B | B | |
| Approach Delay | | 8.5 | | | 7.9 | | | 11.5 | | | 12.1 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Queue Length 50th (m) | 2.9 | 8.9 | | 0.0 | 0.6 | | 1.5 | 3.4 | | 0.7 | 5.0 | |
| Queue Length 95th (m) | 10.8 | 28.9 | | 0.7 | 3.5 | | 6.4 | 11.6 | | 4.0 | 15.2 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 1298 | 1604 | | 1003 | 1538 | | 953 | 1531 | | 821 | 1596 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.06 | 0.20 | | 0.00 | 0.01 | | 0.04 | 0.06 | | 0.02 | 0.08 | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 112.4 | |
| Actuated Cycle Length: 40.6 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.36 | |
| Intersection Signal Delay: 9.8 | Intersection LOS: A |
| Intersection Capacity Utilization 53.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 2: Legget & Solandt



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 42 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 291 | 3 | 79 |
| Future Volume (vph) | 13 | 42 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 291 | 3 | 79 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.955 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1548 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.084 | | | | 0.224 |
| Satd. Flow (perm) | 1401 | 1695 | 1395 | 3095 | 1548 | 0 | 0 | 148 | 3252 | 1445 | 0 | 394 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 11 | | | | | 291 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 42 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 291 | 3 | 79 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 42 | 82 | 36 | 37 | 0 | 0 | 513 | 1247 | 291 | 0 | 82 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1320 | 71 |
| Future Volume (vph) | 1320 | 71 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1320 | 71 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1320 | 71 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 13.0 | 32.0 | 32.0 | 13.0 | 32.0 | | 39.0 | 39.0 | 85.0 | 85.0 | 46.0 | 46.0 |
| Total Split (%) | 10.0% | 24.6% | 24.6% | 10.0% | 24.6% | | 30.0% | 30.0% | 65.4% | 65.4% | 35.4% | 35.4% |
| Maximum Green (s) | 7.1 | 25.5 | 25.5 | 7.1 | 25.5 | | 32.7 | 32.7 | 78.7 | 78.7 | 39.7 | 39.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 6.4 | 13.0 | 13.0 | 6.6 | 15.6 | | | 96.4 | 96.4 | 96.4 | | 45.1 |
| Actuated g/C Ratio | 0.05 | 0.10 | 0.10 | 0.05 | 0.12 | | | 0.74 | 0.74 | 0.74 | | 0.35 |
| v/c Ratio | 0.19 | 0.25 | 0.32 | 0.23 | 0.19 | | | 0.80 | 0.52 | 0.25 | | 0.60 |
| Control Delay | 65.4 | 55.5 | 4.6 | 62.7 | 39.6 | | | 26.3 | 4.4 | 0.7 | | 58.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 65.4 | 55.5 | 4.6 | 62.7 | 39.6 | | | 26.3 | 4.4 | 0.7 | | 58.4 |
| LOS | E | E | A | E | D | | | C | A | A | | E |
| Approach Delay | | 26.0 | | | 51.0 | | | | 9.3 | | | |
| Approach LOS | | C | | | D | | | | A | | | |
| Queue Length 50th (m) | 3.0 | 9.6 | 0.0 | 4.2 | 5.2 | | | 68.7 | 70.5 | 4.8 | | 16.7 |
| Queue Length 95th (m) | 9.4 | 17.9 | 2.7 | 9.4 | 14.1 | | | m#136.9 | m69.2 | m3.6 | | #41.1 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 76 | 332 | 378 | 169 | 312 | | | 638 | 2412 | 1147 | | 136 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.17 | 0.13 | 0.22 | 0.21 | 0.12 | | | 0.80 | 0.52 | 0.25 | | 0.60 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 50.7 Intersection LOS: D
Intersection Capacity Utilization 101.8% ICU Level of Service G
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: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 46.0 | 46.0 |
| Total Split (%) | 35.4% | 35.4% |
| Maximum Green (s) | 39.7 | 39.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 45.1 | 45.1 |
| Actuated g/C Ratio | 0.35 | 0.35 |
| v/c Ratio | 1.16 | 0.12 |
| Control Delay | 119.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 119.8 | 0.5 |
| LOS | F | A |
| Approach Delay | 110.6 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~207.0 | 0.0 |
| Queue Length 95th (m) | #250.4 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1139 | 573 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.16 | 0.12 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 217 | 1 | 56 | 1891 | 122 | 2 | 159 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 217 | 1 | 56 | 1891 | 122 | 2 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.98 | 0.99 | | 0.98 | | 0.99 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1322 | 1461 | 1146 | 1762 | 1468 | 0 | 1617 | 3283 | 1359 | 0 | 3239 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 172 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 217 | 1 | 56 | 1891 | 122 | 2 | 159 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 217 | 0 | 57 | 1891 | 122 | 0 | 161 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1195 | 118 |
| Future Volume (vph) | 1195 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.95 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1392 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 84 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1195 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1195 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 23.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 17.7% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 16.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | | 9.9 | 78.9 | 78.9 | | 11.8 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.08 | 0.61 | 0.61 | | 0.09 |
| v/c Ratio | | 0.41 | 0.02 | 0.24 | 0.09 | 0.58 | | 0.46 | 0.95 | 0.14 | | 0.55 |
| Control Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 17.5 | | 68.6 | 36.9 | 6.4 | | 86.3 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 17.5 | | 68.6 | 36.9 | 6.4 | | 86.3 |
| LOS | | D | A | D | D | B | | E | D | A | | F |
| Approach Delay | | 48.9 | | | 24.1 | | | | 35.9 | | | |
| Approach LOS | | D | | | C | | | | D | | | |
| Queue Length 50th (m) | | 19.1 | 0.0 | 9.6 | 5.2 | 10.0 | | 13.1 | 176.0 | 2.9 | | 20.8 |
| Queue Length 95th (m) | | 29.1 | 0.0 | 17.3 | 10.8 | 28.7 | | 25.3 | #322.3 | 14.6 | | m16.6 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 340 | 437 | 295 | 454 | 505 | | 206 | 1991 | 857 | | 412 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.24 | 0.01 | 0.15 | 0.05 | 0.43 | | 0.28 | 0.95 | 0.14 | | 0.39 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 28.1 Intersection LOS: C
Intersection Capacity Utilization 112.4% ICU Level of Service H
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 67.0 | 67.0 |
| Total Split (%) | 51.5% | 51.5% |
| Maximum Green (s) | 60.7 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 83.2 | 83.2 |
| Actuated g/C Ratio | 0.64 | 0.64 |
| v/c Ratio | 0.57 | 0.13 |
| Control Delay | 8.9 | 1.0 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 8.9 | 1.0 |
| LOS | A | A |
| Approach Delay | 16.7 | |
| Approach LOS | B | |
| Queue Length 50th (m) | 9.4 | 0.0 |
| Queue Length 95th (m) | m136.0 | m3.5 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2080 | 920 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.13 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1658 | 0 | 1745 | 0 | 0 | 1745 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1658 | 0 | 1745 | 0 | 0 | 1745 |
| Link Speed (k/h) | | 50 | 50 | | 50 | |
| Link Distance (m) | | 156.7 | 29.0 | | 88.7 | |
| Travel Time (s) | | 11.3 | 2.1 | | 6.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 0.0 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | 5.0 | | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | | 14 | 24 | 14 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 7.3% ICU Level of Service A
Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 42 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 291 | 3 | 79 |
| Future Volume (vph) | 13 | 42 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 291 | 3 | 79 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.955 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1547 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.059 | | | | 0.224 |
| Satd. Flow (perm) | 1400 | 1695 | 1395 | 3095 | 1547 | 0 | 0 | 104 | 3252 | 1443 | 0 | 394 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 113 | | 11 | | | | | 291 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 42 | 82 | 36 | 26 | 11 | 5 | 508 | 1247 | 291 | 3 | 79 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 42 | 82 | 36 | 37 | 0 | 0 | 513 | 1247 | 291 | 0 | 82 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1320 | 71 |
| Future Volume (vph) | 1320 | 71 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 114 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1320 | 71 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1320 | 71 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | | 36.0 | 36.0 | 107.0 | 107.0 | 71.0 | 71.0 |
| Total Split (%) | 7.3% | 21.3% | 21.3% | 7.3% | 21.3% | | 24.0% | 24.0% | 71.3% | 71.3% | 47.3% | 47.3% |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | | 29.7 | 29.7 | 100.7 | 100.7 | 64.7 | 64.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 5.1 | 13.1 | 13.1 | 5.1 | 17.5 | | | 115.3 | 115.3 | 115.3 | | 64.7 |
| Actuated g/C Ratio | 0.03 | 0.09 | 0.09 | 0.03 | 0.12 | | | 0.77 | 0.77 | 0.77 | | 0.43 |
| v/c Ratio | 0.28 | 0.28 | 0.36 | 0.34 | 0.19 | | | 0.94 | 0.50 | 0.25 | | 0.49 |
| Control Delay | 85.3 | 66.8 | 7.9 | 79.9 | 46.9 | | | 50.4 | 16.1 | 4.3 | | 42.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 85.3 | 66.8 | 7.9 | 79.9 | 46.9 | | | 50.4 | 16.1 | 4.3 | | 42.6 |
| LOS | F | E | A | E | D | | | D | B | A | | D |
| Approach Delay | | 33.3 | | | 63.2 | | | | 23.0 | | | |
| Approach LOS | | C | | | E | | | | C | | | |
| Queue Length 50th (m) | 3.6 | 11.2 | 0.0 | 5.1 | 6.3 | | | 128.0 | 109.3 | 9.8 | | 16.0 |
| Queue Length 95th (m) | 10.6 | 20.7 | 6.4 | 10.8 | 16.0 | | | m#213.1 | 181.3 | m24.2 | | 33.5 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 47 | 288 | 330 | 105 | 272 | | | 543 | 2499 | 1176 | | 169 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.28 | 0.15 | 0.25 | 0.34 | 0.14 | | | 0.94 | 0.50 | 0.25 | | 0.49 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 124 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 34.8 Intersection LOS: C
Intersection Capacity Utilization 101.8% ICU Level of Service G
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: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 71.0 | 71.0 |
| Total Split (%) | 47.3% | 47.3% |
| Maximum Green (s) | 64.7 | 64.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 64.7 | 64.7 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 0.93 | 0.11 |
| Control Delay | 53.2 | 1.0 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 53.2 | 1.0 |
| LOS | D | A |
| Approach Delay | 50.1 | |
| Approach LOS | D | |
| Queue Length 50th (m) | 179.2 | 0.0 |
| Queue Length 95th (m) | #222.4 | 1.7 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 669 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.93 | 0.11 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 144 | 86 | 28 | 377 | 87 | 51 |
| Future Volume (vph) | 144 | 86 | 28 | 377 | 87 | 51 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.950 | | | | 0.950 | |
| Flt Protected | | | | 0.997 | 0.969 | |
| Satd. Flow (prot) | 1630 | 0 | 0 | 1748 | 1576 | 0 |
| Flt Permitted | | | | 0.997 | 0.969 | |
| Satd. Flow (perm) | 1630 | 0 | 0 | 1748 | 1576 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 24 | 24 | | | |
| Confl. Bikes (#/hr) | | 1 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 5% | 9% | 1% | 1% | 9% |
| Adj. Flow (vph) | 144 | 86 | 28 | 377 | 87 | 51 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 230 | 0 | 0 | 405 | 138 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 55.3% | ICU Level of Service B |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 31 | 66 | 26 | 26 | 96 | 20 | 85 | 69 | 4 | 13 | 107 | 96 |
| Future Volume (vph) | 31 | 66 | 26 | 26 | 96 | 20 | 85 | 69 | 4 | 13 | 107 | 96 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 0.99 | |
| Frt | | 0.958 | | | 0.974 | | | 0.992 | | | 0.929 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1513 | 0 | 1610 | 1629 | 0 | 1642 | 1713 | 0 | 1271 | 1590 | 0 |
| Flt Permitted | 0.682 | | | 0.697 | | | 0.420 | | | 0.709 | | |
| Satd. Flow (perm) | 1196 | 1513 | 0 | 1175 | 1629 | 0 | 722 | 1713 | 0 | 936 | 1590 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 17 | | | 9 | | | 4 | | | 41 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 3 | | 5 | 5 | | 3 |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 15% | 4% | 5% | 3% | 20% | 3% | 3% | 1% | 33% | 4% | 1% |
| Adj. Flow (vph) | 31 | 66 | 26 | 26 | 96 | 20 | 85 | 69 | 4 | 13 | 107 | 96 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 31 | 92 | 0 | 26 | 116 | 0 | 85 | 73 | 0 | 13 | 203 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 11.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 41.2 | 41.2 | | 41.2 | 41.2 | | 31.2 | 77.4 | | 46.2 | 46.2 | |
| Total Split (%) | 34.7% | 34.7% | | 34.7% | 34.7% | | 26.3% | 65.3% | | 39.0% | 39.0% | |
| Maximum Green (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 71.2 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | Lead | | | Lag | 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 | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 2 | 2 | | | 5 | | 3 | 3 | |
| Act Effct Green (s) | 16.1 | 16.1 | | 16.1 | 16.1 | | 22.7 | 22.7 | | 12.4 | 12.4 | |
| Actuated g/C Ratio | 0.31 | 0.31 | | 0.31 | 0.31 | | 0.44 | 0.44 | | 0.24 | 0.24 | |
| v/c Ratio | 0.08 | 0.19 | | 0.07 | 0.23 | | 0.19 | 0.10 | | 0.06 | 0.49 | |
| Control Delay | 16.2 | 14.5 | | 16.1 | 16.1 | | 8.9 | 7.8 | | 17.2 | 19.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 16.2 | 14.5 | | 16.1 | 16.1 | | 8.9 | 7.8 | | 17.2 | 19.2 | |
| LOS | B | B | | B | B | | A | A | | B | B | |
| Approach Delay | | 14.9 | | | 16.1 | | | 8.4 | | | 19.1 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (m) | 1.9 | 4.6 | | 1.6 | 6.7 | | 3.7 | 3.0 | | 0.9 | 12.1 | |
| Queue Length 95th (m) | 7.5 | 15.1 | | 6.6 | 19.3 | | 9.9 | 8.4 | | 4.2 | 29.1 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 838 | 1065 | | 823 | 1144 | | 846 | 1713 | | 737 | 1260 | |
| 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 | 0.04 | 0.09 | | 0.03 | 0.10 | | 0.10 | 0.04 | | 0.02 | 0.16 | |

| Intersection Summary | | |
|---|---|---|
| Area Type: Other | | |
| Cycle Length: 118.6 | | |
| Actuated Cycle Length: 51.6 | | |
| Natural Cycle: 65 | | |
| Control Type: Actuated-Uncoordinated | | |
| Maximum v/c Ratio: 0.49 | | |
| Intersection Signal Delay: 15.0 | Intersection LOS: B | |
| Intersection Capacity Utilization 46.0% | ICU Level of Service A | |
| Analysis Period (min) 15 | | |

Splits and Phases: 2: Legget & Solandt

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 36 | 285 | 325 | 35 | 102 | 11 | 83 | 1580 | 121 | 10 | 46 |
| Future Volume (vph) | 63 | 36 | 285 | 325 | 35 | 102 | 11 | 83 | 1580 | 121 | 10 | 46 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 1.00 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.888 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1520 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1634 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.068 | | | | 0.075 |
| Satd. Flow (perm) | 1629 | 1548 | 1469 | 3232 | 1520 | 0 | 0 | 115 | 3316 | 1421 | 0 | 129 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 100 | | | | | 80 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 36 | 285 | 325 | 35 | 102 | 11 | 83 | 1580 | 121 | 10 | 46 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 36 | 285 | 325 | 137 | 0 | 0 | 94 | 1580 | 121 | 0 | 56 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1257 | 38 |
| Future Volume (vph) | 1257 | 38 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1411 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1257 | 38 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1257 | 38 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

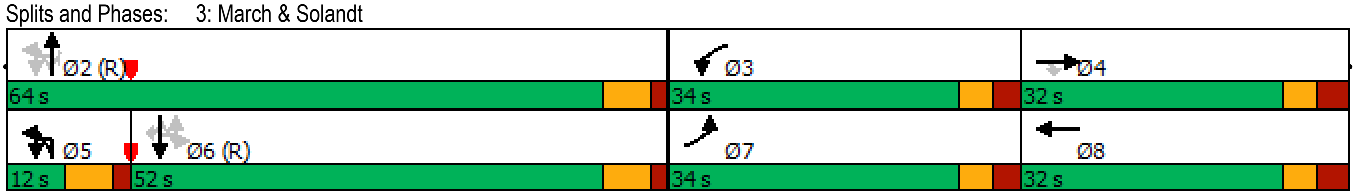
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 34.0 | 32.0 | 32.0 | 34.0 | 32.0 | | 12.0 | 12.0 | 64.0 | 64.0 | 52.0 | 52.0 |
| Total Split (%) | 26.2% | 24.6% | 24.6% | 26.2% | 24.6% | | 9.2% | 9.2% | 49.2% | 49.2% | 40.0% | 40.0% |
| Maximum Green (s) | 28.1 | 25.5 | 25.5 | 28.1 | 25.5 | | 5.7 | 5.7 | 57.7 | 57.7 | 45.7 | 45.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.4 | 21.0 | 21.0 | 18.3 | 31.4 | | | 72.0 | 72.0 | 72.0 | | 57.0 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.14 | 0.24 | | | 0.55 | 0.55 | 0.55 | | 0.44 |
| v/c Ratio | 0.48 | 0.14 | 0.82 | 0.71 | 0.31 | | | 0.58 | 0.86 | 0.15 | | 1.00 |
| Control Delay | 68.6 | 44.3 | 46.6 | 62.0 | 13.9 | | | 31.9 | 23.2 | 1.9 | | 164.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 68.6 | 44.3 | 46.6 | 62.0 | 13.9 | | | 31.9 | 23.2 | 1.9 | | 164.3 |
| LOS | E | D | D | E | B | | | C | C | A | | F |
| Approach Delay | | 50.0 | | | 47.7 | | | | 22.2 | | | |
| Approach LOS | | D | | | D | | | | C | | | |
| Queue Length 50th (m) | 14.5 | 7.4 | 36.6 | 38.2 | 7.0 | | | 5.9 | 189.8 | 3.4 | | ~14.0 |
| Queue Length 95th (m) | 27.3 | 15.1 | 61.7 | 50.5 | 20.6 | | | m#25.5 | #259.6 | m6.1 | | #42.3 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 354 | 317 | 404 | 702 | 444 | | | 163 | 1835 | 822 | | 56 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.18 | 0.11 | 0.71 | 0.46 | 0.31 | | | 0.58 | 0.86 | 0.15 | | 1.00 |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 30 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 35.9 — Intersection LOS: D
Intersection Capacity Utilization 102.5% — ICU Level of Service G
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: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 52.0 | 52.0 |
| Total Split (%) | 40.0% | 40.0% |
| Maximum Green (s) | 45.7 | 45.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 57.0 | 57.0 |
| Actuated g/C Ratio | 0.44 | 0.44 |
| v/c Ratio | 0.86 | 0.05 |
| Control Delay | 42.1 | 0.2 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 42.1 | 0.2 |
| LOS | D | A |
| Approach Delay | 46.0 | |
| Approach LOS | D | |
| Queue Length 50th (m) | 142.4 | 0.0 |
| Queue Length 95th (m) | #212.8 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1454 | 692 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.86 | 0.05 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 240 | 5 | 33 | 1367 | 59 | 293 | 1839 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 240 | 5 | 33 | 1367 | 59 | 293 | 1839 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.785 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1380 | 1458 | 1191 | 1762 | 1474 | 0 | 1672 | 3316 | 1439 | 3234 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 240 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 240 | 5 | 33 | 1367 | 59 | 293 | 1839 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 240 | 0 | 38 | 1367 | 59 | 293 | 1839 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1435 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 84 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 67.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 51.5% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | | 8.4 | 72.8 | 72.8 | 16.0 | 82.8 |
| Actuated g/C Ratio | | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | | 0.06 | 0.56 | 0.56 | 0.12 | 0.64 |
| v/c Ratio | | 0.21 | 0.06 | 0.67 | 0.07 | 0.54 | | 0.36 | 0.74 | 0.07 | 0.73 | 0.86 |
| Control Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 9.6 | | 66.4 | 26.4 | 1.9 | 63.3 | 26.6 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 9.6 | | 66.4 | 26.4 | 1.9 | 63.3 | 26.6 |
| LOS | | D | A | E | D | A | | E | C | A | E | C |
| Approach Delay | | 33.3 | | | 30.2 | | | | 26.4 | | | 30.9 |
| Approach LOS | | C | | | C | | | | C | | | C |
| Queue Length 50th (m) | | 10.1 | 0.0 | 30.0 | 4.4 | 0.0 | | 8.8 | 123.5 | 0.0 | 31.4 | 219.0 |
| Queue Length 95th (m) | | 18.9 | 0.0 | 45.4 | 10.4 | 18.6 | | 18.9 | 181.5 | 3.7 | m40.6 | #297.2 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 355 | 436 | 306 | 454 | 557 | | 212 | 1856 | 842 | 427 | 2133 |
| 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 | | 0.14 | 0.04 | 0.44 | 0.05 | 0.43 | | 0.18 | 0.74 | 0.07 | 0.69 | 0.86 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 103.7% ICU Level of Service G
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: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 67.0 |
| Total Split (%) | 51.5% |
| Maximum Green (s) | 60.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 82.8 |
| Actuated g/C Ratio | 0.64 |
| v/c Ratio | 0.06 |
| Control Delay | 1.9 |
| Queue Delay | 0.0 |
| Total Delay | 1.9 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 0.6 |
| Queue Length 95th (m) | m3.2 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 944 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Future Volume (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1658 | 0 | 1745 | 0 | 0 | 1510 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1658 | 0 | 1745 | 0 | 0 | 1510 |
| Link Speed (k/h) | | 50 | 50 | | 50 | |
| Link Distance (m) | | 156.7 | 29.0 | | 88.7 | |
| Travel Time (s) | | 11.3 | 2.1 | | 6.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 0.0 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | 5.0 | | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 97 | | | 97 | 97 | 97 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 7.7% ICU Level of Service A
Analysis Period (min) 15

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 393 | 162 | 55 | 157 | 26 | 26 |
| Future Volume (vph) | 393 | 162 | 55 | 157 | 26 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.961 | | | | 0.932 | |
| Flt Protected | | | | 0.987 | 0.976 | |
| Satd. Flow (prot) | 1677 | 0 | 0 | 1673 | 1535 | 0 |
| Flt Permitted | | | | 0.987 | 0.976 | |
| Satd. Flow (perm) | 1677 | 0 | 0 | 1673 | 1535 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 11 | 11 | | | |
| Confl. Bikes (#/hr) | | 8 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 6% | 5% |
| Adj. Flow (vph) | 393 | 162 | 55 | 157 | 26 | 26 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 555 | 0 | 0 | 212 | 52 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.8% ICU Level of Service B

Analysis Period (min) 15

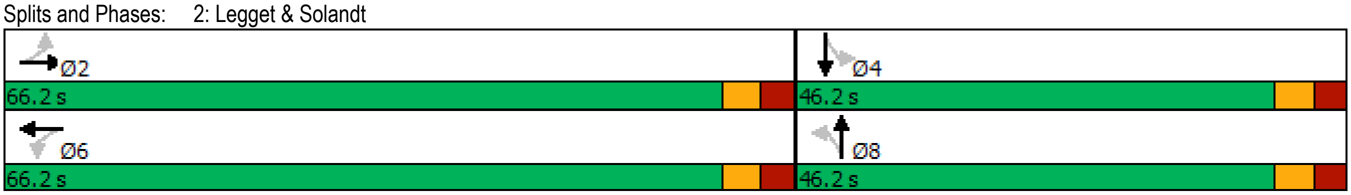
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 84 | 149 | 167 | 1 | 17 | 2 | 45 | 73 | 20 | 17 | 102 | 34 |
| Future Volume (vph) | 84 | 149 | 167 | 1 | 17 | 2 | 45 | 73 | 20 | 17 | 102 | 34 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 1.00 | 1.00 | | | 0.99 | | 0.98 | | |
| Frt | | 0.921 | | | 0.984 | | | 0.968 | | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1604 | 0 | 1674 | 1538 | 0 | 1409 | 1614 | 0 | 1208 | 1671 | 0 |
| Flt Permitted | 0.745 | | | 0.569 | | | 0.670 | | | 0.697 | | |
| Satd. Flow (perm) | 1298 | 1604 | 0 | 1001 | 1538 | 0 | 994 | 1614 | 0 | 865 | 1671 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 77 | | | 2 | | | 14 | | | 17 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | 9 | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 15% | 1% | 20% | 7% | 1% | 40% | 3% | 1% |
| Adj. Flow (vph) | 84 | 149 | 167 | 1 | 17 | 2 | 45 | 73 | 20 | 17 | 102 | 34 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 84 | 316 | 0 | 1 | 19 | 0 | 45 | 93 | 0 | 17 | 136 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 66.2 | 66.2 | | 66.2 | 66.2 | | 46.2 | 46.2 | | 46.2 | 46.2 | |
| Total Split (%) | 58.9% | 58.9% | | 58.9% | 58.9% | | 41.1% | 41.1% | | 41.1% | 41.1% | |
| Maximum Green (s) | 60.0 | 60.0 | | 60.0 | 60.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 4 | 4 | | 9 | 9 | | 1 | 1 | |
| Act Effct Green (s) | 21.4 | 21.4 | | 21.4 | 21.4 | | 11.6 | 11.6 | | 11.6 | 11.6 | |
| Actuated g/C Ratio | 0.53 | 0.53 | | 0.53 | 0.53 | | 0.29 | 0.29 | | 0.29 | 0.29 | |
| v/c Ratio | 0.12 | 0.36 | | 0.00 | 0.02 | | 0.16 | 0.20 | | 0.07 | 0.28 | |
| Control Delay | 9.0 | 8.3 | | 8.0 | 7.9 | | 13.0 | 11.2 | | 11.9 | 12.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 9.0 | 8.3 | | 8.0 | 7.9 | | 13.0 | 11.2 | | 11.9 | 12.2 | |
| LOS | A | A | | A | A | | B | B | | B | B | |
| Approach Delay | | 8.5 | | | 7.9 | | | 11.8 | | | 12.2 | |
| Approach LOS | | A | | | A | | | B | | | B | |
| Queue Length 50th (m) | 2.9 | 9.0 | | 0.0 | 0.6 | | 2.0 | 3.5 | | 0.7 | 5.3 | |
| Queue Length 95th (m) | 10.8 | 29.1 | | 0.7 | 3.5 | | 7.8 | 11.8 | | 4.0 | 16.1 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 1298 | 1604 | | 1001 | 1538 | | 943 | 1533 | | 821 | 1587 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.06 | 0.20 | | 0.00 | 0.01 | | 0.05 | 0.06 | | 0.02 | 0.09 | |

Intersection Summary

Area Type: Other
Cycle Length: 112.4
Actuated Cycle Length: 40.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.36
Intersection Signal Delay: 9.9 Intersection LOS: A
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Legget & Solandt



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Future Volume (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.944 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1527 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.089 | | | | 0.151 |
| Satd. Flow (perm) | 1401 | 1695 | 1395 | 3095 | 1527 | 0 | 0 | 157 | 3252 | 1445 | 0 | 266 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 18 | | | | | 320 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 44 | 82 | 47 | 48 | 0 | 0 | 513 | 1634 | 357 | 0 | 100 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 2057 | 69 |
| Future Volume (vph) | 2057 | 69 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 2057 | 69 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 2057 | 69 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 13.0 | 32.0 | 32.0 | 13.0 | 32.0 | | 39.0 | 39.0 | 85.0 | 85.0 | 46.0 | 46.0 |
| Total Split (%) | 10.0% | 24.6% | 24.6% | 10.0% | 24.6% | | 30.0% | 30.0% | 65.4% | 65.4% | 35.4% | 35.4% |
| Maximum Green (s) | 7.1 | 25.5 | 25.5 | 7.1 | 25.5 | | 32.7 | 32.7 | 78.7 | 78.7 | 39.7 | 39.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 6.4 | 13.0 | 13.0 | 6.7 | 18.1 | | | 93.9 | 93.9 | 93.9 | | 42.2 |
| Actuated g/C Ratio | 0.05 | 0.10 | 0.10 | 0.05 | 0.14 | | | 0.72 | 0.72 | 0.72 | | 0.32 |
| v/c Ratio | 0.19 | 0.26 | 0.32 | 0.30 | 0.21 | | | 0.80 | 0.70 | 0.32 | | 1.16 |
| Control Delay | 65.4 | 55.7 | 4.6 | 64.1 | 35.8 | | | 22.7 | 7.4 | 0.7 | | 188.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 65.4 | 55.7 | 4.6 | 64.1 | 35.8 | | | 22.7 | 7.4 | 0.7 | | 188.7 |
| LOS | E | E | A | E | D | | | C | A | A | | F |
| Approach Delay | | 26.5 | | | 49.8 | | | | 9.6 | | | |
| Approach LOS | | C | | | D | | | | A | | | |
| Queue Length 50th (m) | 3.0 | 10.0 | 0.0 | 5.5 | 6.0 | | | 70.9 | 112.5 | 5.3 | | ~28.6 |
| Queue Length 95th (m) | 9.4 | 18.5 | 2.7 | 11.4 | 16.1 | | | m74.8 | m107.2 | m3.4 | | #62.5 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 76 | 332 | 378 | 169 | 313 | | | 642 | 2348 | 1132 | | 86 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.17 | 0.13 | 0.22 | 0.28 | 0.15 | | | 0.80 | 0.70 | 0.32 | | 1.16 |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.93
Intersection Signal Delay: 196.5 — Intersection LOS: F
Intersection Capacity Utilization 123.4% — ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 46.0 | 46.0 |
| Total Split (%) | 35.4% | 35.4% |
| Maximum Green (s) | 39.7 | 39.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 42.2 | 42.2 |
| Actuated g/C Ratio | 0.32 | 0.32 |
| v/c Ratio | 1.93 | 0.13 |
| Control Delay | 449.3 | 0.5 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 449.3 | 0.5 |
| LOS | F | A |
| Approach Delay | 423.7 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~398.1 | 0.0 |
| Queue Length 95th (m) | #439.5 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1065 | 544 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.93 | 0.13 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2334 | 122 | 2 | 160 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2334 | 122 | 2 | 160 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.98 | 0.99 | | 0.98 | | 1.00 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1322 | 1461 | 1146 | 1762 | 1468 | 0 | 1623 | 3283 | 1359 | 0 | 3243 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 170 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2334 | 122 | 2 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 226 | 0 | 57 | 2334 | 122 | 0 | 162 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1941 | 118 |
| Future Volume (vph) | 1941 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.95 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1392 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 84 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1941 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1941 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 23.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 17.7% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 16.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | | 9.9 | 78.8 | 78.8 | | 11.8 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.08 | 0.61 | 0.61 | | 0.09 |
| v/c Ratio | | 0.41 | 0.02 | 0.24 | 0.09 | 0.61 | | 0.46 | 1.17 | 0.14 | | 0.55 |
| Control Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 19.8 | | 68.6 | 109.2 | 6.4 | | 85.3 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 52.4 | 0.2 | 47.1 | 42.2 | 19.8 | | 68.6 | 109.2 | 6.4 | | 85.3 |
| LOS | | D | A | D | D | B | | E | F | A | | F |
| Approach Delay | | 48.9 | | | 25.7 | | | | 103.2 | | | |
| Approach LOS | | D | | | C | | | | F | | | |
| Queue Length 50th (m) | | 19.1 | 0.0 | 9.6 | 5.2 | 12.5 | | 13.1 | ~323.6 | 2.9 | | 21.1 |
| Queue Length 95th (m) | | 29.1 | 0.0 | 17.3 | 10.8 | 31.4 | | 25.3 | #435.4 | 14.6 | | m10.5 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 340 | 437 | 295 | 454 | 504 | | 206 | 1990 | 856 | | 412 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.24 | 0.01 | 0.15 | 0.05 | 0.45 | | 0.28 | 1.17 | 0.14 | | 0.39 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 68 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 64.2 Intersection LOS: E
Intersection Capacity Utilization 120.6% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 67.0 | 67.0 |
| Total Split (%) | 51.5% | 51.5% |
| Maximum Green (s) | 60.7 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 83.2 | 83.2 |
| Actuated g/C Ratio | 0.64 | 0.64 |
| v/c Ratio | 0.93 | 0.13 |
| Control Delay | 22.3 | 1.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 22.3 | 1.1 |
| LOS | C | A |
| Approach Delay | 25.7 | |
| Approach LOS | C | |
| Queue Length 50th (m) | 116.8 | 0.0 |
| Queue Length 95th (m) | m141.4 | m1.7 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2080 | 920 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.93 | 0.13 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1658 | 0 | 1745 | 0 | 0 | 1745 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1658 | 0 | 1745 | 0 | 0 | 1745 |
| Link Speed (k/h) | | 50 | 50 | | 50 | |
| Link Distance (m) | | 156.7 | 29.0 | | 88.7 | |
| Travel Time (s) | | 11.3 | 2.1 | | 6.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 68 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 0.0 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | 5.0 | | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 97 | | | 97 | 97 | 97 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 7.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Future Volume (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.944 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1525 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.059 | | | | 0.151 |
| Satd. Flow (perm) | 1400 | 1695 | 1395 | 3095 | 1525 | 0 | 0 | 104 | 3252 | 1443 | 0 | 266 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 113 | | 17 | | | | | 333 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 44 | 82 | 47 | 48 | 0 | 0 | 513 | 1634 | 357 | 0 | 100 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 2057 | 69 |
| Future Volume (vph) | 2057 | 69 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 114 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 2057 | 69 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 2057 | 69 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | | 36.0 | 36.0 | 107.0 | 107.0 | 71.0 | 71.0 |
| Total Split (%) | 7.3% | 21.3% | 21.3% | 7.3% | 21.3% | | 24.0% | 24.0% | 71.3% | 71.3% | 47.3% | 47.3% |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | | 29.7 | 29.7 | 100.7 | 100.7 | 64.7 | 64.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 5.1 | 13.2 | 13.2 | 5.1 | 17.6 | | | 115.2 | 115.2 | 115.2 | | 64.7 |
| Actuated g/C Ratio | 0.03 | 0.09 | 0.09 | 0.03 | 0.12 | | | 0.77 | 0.77 | 0.77 | | 0.43 |
| v/c Ratio | 0.28 | 0.30 | 0.36 | 0.45 | 0.25 | | | 0.95 | 0.65 | 0.30 | | 0.88 |
| Control Delay | 85.3 | 67.2 | 7.9 | 84.7 | 44.1 | | | 34.1 | 21.1 | 4.7 | | 97.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 85.3 | 67.2 | 7.9 | 84.7 | 44.1 | | | 34.1 | 21.1 | 4.7 | | 97.5 |
| LOS | F | E | A | F | D | | | C | C | A | | F |
| Approach Delay | | 33.9 | | | 64.2 | | | | 21.4 | | | |
| Approach LOS | | C | | | E | | | | C | | | |
| Queue Length 50th (m) | 3.6 | 11.8 | 0.0 | 6.6 | 7.6 | | | 120.8 | 180.6 | 10.8 | | 24.7 |
| Queue Length 95th (m) | 10.6 | 21.2 | 6.4 | 13.1 | 18.8 | | | m#152.5 | m201.9 | m19.8 | | #60.0 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 47 | 288 | 330 | 105 | 273 | | | 542 | 2498 | 1185 | | 114 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.28 | 0.15 | 0.25 | 0.45 | 0.18 | | | 0.95 | 0.65 | 0.30 | | 0.88 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 124 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.45
Intersection Signal Delay: 114.7 Intersection LOS: F
Intersection Capacity Utilization 123.4% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 71.0 | 71.0 |
| Total Split (%) | 47.3% | 47.3% |
| Maximum Green (s) | 64.7 | 64.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 64.7 | 64.7 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 1.45 | 0.10 |
| Control Delay | 240.8 | 0.8 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 240.8 | 0.8 |
| LOS | F | A |
| Approach Delay | 226.9 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~403.2 | 0.0 |
| Queue Length 95th (m) | #440.3 | 1.3 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 669 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.45 | 0.10 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2334 | 122 | 2 | 160 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2334 | 122 | 2 | 160 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1321 | 1459 | 1145 | 1762 | 1467 | 0 | 1624 | 3283 | 1354 | 0 | 3242 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 79 | | | | 73 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2334 | 122 | 2 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 226 | 0 | 57 | 2334 | 122 | 0 | 162 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1941 | 118 |
| Future Volume (vph) | 1941 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.94 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1385 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 73 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1941 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1941 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 18.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 12.0% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 11.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 | | 10.0 | 96.0 | 96.0 | | 11.5 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.07 | 0.64 | 0.64 | | 0.08 |
| v/c Ratio | | 0.41 | 0.02 | 0.24 | 0.09 | 0.77 | | 0.53 | 1.11 | 0.14 | | 0.65 |
| Control Delay | | 60.5 | 0.2 | 55.1 | 50.2 | 55.2 | | 84.7 | 84.5 | 6.2 | | 84.0 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 60.5 | 0.2 | 55.1 | 50.2 | 55.2 | | 84.7 | 84.5 | 6.2 | | 84.0 |
| LOS | | E | A | E | D | E | | F | F | A | | F |
| Approach Delay | | 56.4 | | | 54.7 | | | | 80.7 | | | |
| Approach LOS | | E | | | D | | | | F | | | |
| Queue Length 50th (m) | | 21.0 | 0.0 | 10.6 | 5.8 | 40.1 | | 15.3 | ~384.3 | 4.8 | | 24.3 |
| Queue Length 95th (m) | | 33.8 | 0.0 | 20.1 | 12.7 | 62.8 | | 29.1 | #452.3 | 14.5 | | m18.1 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 295 | 380 | 255 | 393 | 388 | | 126 | 2101 | 892 | | 259 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.28 | 0.02 | 0.17 | 0.06 | 0.58 | | 0.45 | 1.11 | 0.14 | | 0.63 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 53.0 Intersection LOS: D
Intersection Capacity Utilization 120.6% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 92.0 | 92.0 |
| Total Split (%) | 61.3% | 61.3% |
| Maximum Green (s) | 85.7 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 100.1 | 100.1 |
| Actuated g/C Ratio | 0.67 | 0.67 |
| v/c Ratio | 0.89 | 0.12 |
| Control Delay | 17.3 | 0.0 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 17.3 | 0.0 |
| LOS | B | A |
| Approach Delay | 21.2 | |
| Approach LOS | C | |
| Queue Length 50th (m) | 76.1 | 0.0 |
| Queue Length 95th (m) | m7.2 | m0.0 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2169 | 948 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.89 | 0.12 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Future Volume (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.99 | | 0.99 | | | | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | 0.944 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1409 | 1695 | 1414 | 3095 | 1525 | 0 | 0 | 1674 | 3252 | 1498 | 0 | 1674 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.059 | | | | 0.151 |
| Satd. Flow (perm) | 1400 | 1695 | 1395 | 3095 | 1525 | 0 | 0 | 104 | 3252 | 1443 | 0 | 266 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 113 | | 17 | | | | | 333 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 4 | | | | | 4 | | 2 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 1 | | | 7 | | | | 9 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 20% | 5% | 7% | 6% | 9% | 9% | 1% | 1% | 4% | 1% | 1% | 1% |
| Adj. Flow (vph) | 13 | 44 | 82 | 47 | 30 | 18 | 5 | 508 | 1634 | 357 | 3 | 97 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 44 | 82 | 47 | 48 | 0 | 0 | 513 | 1634 | 357 | 0 | 100 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1417 | 69 |
| Future Volume (vph) | 1417 | 69 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3283 | 1427 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3283 | 1403 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 114 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 2 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 6% |
| Adj. Flow (vph) | 1417 | 69 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1417 | 69 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 11.0 | 32.0 | 32.0 | 11.0 | 32.0 | | 36.0 | 36.0 | 107.0 | 107.0 | 71.0 | 71.0 |
| Total Split (%) | 7.3% | 21.3% | 21.3% | 7.3% | 21.3% | | 24.0% | 24.0% | 71.3% | 71.3% | 47.3% | 47.3% |
| Maximum Green (s) | 5.1 | 25.5 | 25.5 | 5.1 | 25.5 | | 29.7 | 29.7 | 100.7 | 100.7 | 64.7 | 64.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 4 | 4 | | 1 | | | | 3 | 3 | 2 | 2 |
| Act Effct Green (s) | 5.1 | 13.2 | 13.2 | 5.1 | 17.6 | | | 115.2 | 115.2 | 115.2 | | 64.7 |
| Actuated g/C Ratio | 0.03 | 0.09 | 0.09 | 0.03 | 0.12 | | | 0.77 | 0.77 | 0.77 | | 0.43 |
| v/c Ratio | 0.28 | 0.30 | 0.36 | 0.45 | 0.25 | | | 0.95 | 0.65 | 0.30 | | 0.88 |
| Control Delay | 85.3 | 67.2 | 7.9 | 84.7 | 44.1 | | | 46.4 | 20.7 | 4.7 | | 97.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 85.3 | 67.2 | 7.9 | 84.7 | 44.1 | | | 46.4 | 20.7 | 4.7 | | 97.5 |
| LOS | F | E | A | F | D | | | D | C | A | | F |
| Approach Delay | | 33.9 | | | 64.2 | | | | 23.7 | | | |
| Approach LOS | | C | | | E | | | | C | | | |
| Queue Length 50th (m) | 3.6 | 11.8 | 0.0 | 6.6 | 7.6 | | | 121.1 | 176.2 | 10.0 | | 24.7 |
| Queue Length 95th (m) | 10.6 | 21.2 | 6.4 | 13.1 | 18.8 | | | m#182.6 | m223.4 | m26.7 | | #60.0 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 47 | 288 | 330 | 105 | 273 | | | 542 | 2498 | 1185 | | 114 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.28 | 0.15 | 0.25 | 0.45 | 0.18 | | | 0.95 | 0.65 | 0.30 | | 0.88 |

**Intersection Summary**

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 124 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 40.2 Intersection LOS: D
Intersection Capacity Utilization 104.7% ICU Level of Service G
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: 3: March & Solandt

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 71.0 | 71.0 |
| Total Split (%) | 47.3% | 47.3% |
| Maximum Green (s) | 64.7 | 64.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 2 | 2 |
| Act Effct Green (s) | 64.7 | 64.7 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 1.00 | 0.10 |
| Control Delay | 66.3 | 0.8 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 66.3 | 0.8 |
| LOS | E | A |
| Approach Delay | 65.4 | |
| Approach LOS | E | |
| Queue Length 50th (m) | ~202.6 | 0.0 |
| Queue Length 95th (m) | #251.1 | 1.3 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 669 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.00 | 0.10 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2104 | 122 | 2 | 160 |
| Future Volume (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2104 | 122 | 2 | 160 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | | 2 |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | | 60.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 0.97 |
| Ped Bike Factor | | 0.99 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.96 | | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.964 | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 0 | 1674 | 1498 | 1566 | 1762 | 1498 | 0 | 1627 | 3283 | 1414 | 0 | 3248 |
| Flt Permitted | | 0.765 | | 0.703 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (perm) | 0 | 1321 | 1459 | 1145 | 1762 | 1467 | 0 | 1623 | 3283 | 1354 | 0 | 3240 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 81 | | | | 77 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | |
| Confl. Peds. (#/hr) | 6 | | 10 | 10 | | 6 | | 12 | | 15 | | 15 |
| Confl. Bikes (#/hr) | | | 1 | | | 1 | | | | 7 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 1% | 1% | 8% | 1% | 1% | 1% | 4% | 3% | 7% | 1% | 1% |
| Adj. Flow (vph) | 62 | 21 | 6 | 43 | 24 | 226 | 1 | 56 | 2104 | 122 | 2 | 160 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 83 | 6 | 43 | 24 | 226 | 0 | 57 | 2104 | 122 | 0 | 162 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 1 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 1 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1941 | 118 |
| Future Volume (vph) | 1941 | 118 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 20.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.94 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3252 | 1469 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3252 | 1385 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 73 |
| Link Speed (k/h) | 60 | |
| Link Distance (m) | 634.3 | |
| Travel Time (s) | 38.1 | |
| Confl. Peds. (#/hr) | | 12 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 4% | 3% |
| Adj. Flow (vph) | 1941 | 118 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1941 | 118 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 10.5 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 5.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 17.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 18.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 12.0% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 11.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.8 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | Lead | Lead |
| 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | |
| Act Effct Green (s) | | 23.1 | 23.1 | 23.1 | 23.1 | 23.1 | | 10.0 | 96.1 | 96.1 | | 11.5 |
| Actuated g/C Ratio | | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | | 0.07 | 0.64 | 0.64 | | 0.08 |
| v/c Ratio | | 0.41 | 0.02 | 0.24 | 0.09 | 0.77 | | 0.53 | 1.00 | 0.14 | | 0.65 |
| Control Delay | | 60.6 | 0.2 | 55.2 | 50.2 | 54.5 | | 84.7 | 47.1 | 5.8 | | 88.0 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | | 60.6 | 0.2 | 55.2 | 50.2 | 54.5 | | 84.7 | 47.1 | 5.8 | | 88.0 |
| LOS | | E | A | E | D | D | | F | D | A | | F |
| Approach Delay | | 56.6 | | | 54.3 | | | | 45.8 | | | |
| Approach LOS | | E | | | D | | | | D | | | |
| Queue Length 50th (m) | | 21.0 | 0.0 | 10.6 | 5.8 | 39.6 | | 15.3 | ~289.4 | 4.4 | | 23.7 |
| Queue Length 95th (m) | | 33.8 | 0.0 | 20.1 | 12.7 | 62.2 | | 29.1 | #385.3 | 14.0 | | m28.0 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | | 185.0 |
| Base Capacity (vph) | | 295 | 380 | 255 | 393 | 390 | | 126 | 2103 | 895 | | 259 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | | 0.28 | 0.02 | 0.17 | 0.06 | 0.58 | | 0.45 | 1.00 | 0.14 | | 0.63 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 34.4 Intersection LOS: C
Intersection Capacity Utilization 119.1% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 30.6 | 30.6 |
| Total Split (s) | 92.0 | 92.0 |
| Total Split (%) | 61.3% | 61.3% |
| Maximum Green (s) | 85.7 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 |
| All-Red Time (s) | 2.6 | 2.6 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | 12 | 12 |
| Act Effct Green (s) | 100.2 | 100.2 |
| Actuated g/C Ratio | 0.67 | 0.67 |
| v/c Ratio | 0.89 | 0.12 |
| Control Delay | 14.7 | 0.3 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 14.7 | 0.3 |
| LOS | B | A |
| Approach Delay | 19.3 | |
| Approach LOS | B | |
| Queue Length 50th (m) | 40.7 | 0.0 |
| Queue Length 95th (m) | m#318.4 | m0.1 |
| Internal Link Dist (m) | 610.3 | |
| Turn Bay Length (m) | | 20.0 |
| Base Capacity (vph) | 2171 | 949 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 0.89 | 0.12 |

Intersection Summary

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 206 | 86 | 34 | 439 | 91 | 59 |
| Future Volume (vph) | 206 | 86 | 34 | 439 | 91 | 59 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.960 | | | | 0.947 | |
| Flt Protected | | | | 0.996 | 0.971 | |
| Satd. Flow (prot) | 1650 | 0 | 0 | 1745 | 1572 | 0 |
| Flt Permitted | | | | 0.996 | 0.971 | |
| Satd. Flow (perm) | 1650 | 0 | 0 | 1745 | 1572 | 0 |
| Link Speed (k/h) | 50 | | | 50 | 50 | |
| Link Distance (m) | 336.6 | | | 459.4 | 751.0 | |
| Travel Time (s) | 24.2 | | | 33.1 | 54.1 | |
| Confl. Peds. (#/hr) | | 24 | 24 | | | |
| Confl. Bikes (#/hr) | | 1 | | | | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 3% | 5% | 9% | 1% | 1% | 9% |
| Adj. Flow (vph) | 206 | 86 | 34 | 439 | 91 | 59 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 292 | 0 | 0 | 473 | 150 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 3.0 | | | 3.0 | 3.5 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 5.0 | | | 5.0 | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 | 24 | | 24 | 14 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 63.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 66 | 38 | 26 | 96 | 20 | 97 | 72 | 4 | 13 | 109 | 101 |
| Future Volume (vph) | 32 | 66 | 38 | 26 | 96 | 20 | 97 | 72 | 4 | 13 | 109 | 101 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 110.0 | | 0.0 | 40.0 | | 0.0 | 50.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 70.0 | | | 30.0 | | | 60.0 | | | 30.0 | | |
| 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 |
| Ped Bike Factor | 0.99 | 0.99 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 0.99 | |
| Frt | | 0.945 | | | 0.974 | | | 0.992 | | | 0.928 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1674 | 1501 | 0 | 1610 | 1629 | 0 | 1642 | 1713 | 0 | 1271 | 1588 | 0 |
| Flt Permitted | 0.682 | | | 0.690 | | | 0.419 | | | 0.708 | | |
| Satd. Flow (perm) | 1196 | 1501 | 0 | 1163 | 1629 | 0 | 720 | 1713 | 0 | 934 | 1588 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 25 | | | 9 | | | 4 | | | 42 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 245.5 | | | 306.0 | | | 489.3 | | | 751.0 | |
| Travel Time (s) | | 17.7 | | | 22.0 | | | 35.2 | | | 54.1 | |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 3 | | 5 | 5 | | 3 |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 15% | 4% | 5% | 3% | 20% | 3% | 3% | 1% | 33% | 4% | 1% |
| Adj. Flow (vph) | 32 | 66 | 38 | 26 | 96 | 20 | 97 | 72 | 4 | 13 | 109 | 101 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 32 | 104 | 0 | 26 | 116 | 0 | 97 | 76 | 0 | 13 | 210 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 7.0 | | | 3.5 | | | 3.5 | | | 3.5 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | | 18.6 | 93.0 | |
| Trailing Detector (m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Position(m) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Size(m) | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | | 18.6 | 5.5 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | 87.5 | | | 87.5 | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | 5.5 | | | 5.5 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | | 2 | | | 6 | | 3 | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 2 | 2 | | 6 | 6 | | 3 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 25.2 | 25.2 | | 25.2 | 25.2 | | 11.2 | 25.2 | | 25.2 | 25.2 | |
| Total Split (s) | 41.2 | 41.2 | | 41.2 | 41.2 | | 31.2 | 77.4 | | 46.2 | 46.2 | |
| Total Split (%) | 34.7% | 34.7% | | 34.7% | 34.7% | | 26.3% | 65.3% | | 39.0% | 39.0% | |
| Maximum Green (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 25.0 | 71.2 | | 40.0 | 40.0 | |
| Yellow Time (s) | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | | 3.3 | 3.3 | |
| All-Red Time (s) | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | | 2.9 | 2.9 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | | 6.2 | 6.2 | |
| Lead/Lag | | | | | | | Lead | | | Lag | 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 | Min | Min | | Min | Min | | None | None | | None | None | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 2 | 2 | | | 5 | | 3 | 3 | |
| Act Effct Green (s) | 16.1 | 16.1 | | 16.1 | 16.1 | | 22.9 | 22.9 | | 12.5 | 12.5 | |
| Actuated g/C Ratio | 0.31 | 0.31 | | 0.31 | 0.31 | | 0.44 | 0.44 | | 0.24 | 0.24 | |
| v/c Ratio | 0.09 | 0.22 | | 0.07 | 0.23 | | 0.22 | 0.10 | | 0.06 | 0.51 | |
| Control Delay | 16.4 | 14.2 | | 16.3 | 16.3 | | 9.1 | 7.7 | | 17.3 | 19.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 16.4 | 14.2 | | 16.3 | 16.3 | | 9.1 | 7.7 | | 17.3 | 19.6 | |
| LOS | B | B | | B | B | | A | A | | B | B | |
| Approach Delay | | 14.7 | | | 16.3 | | | 8.5 | | | 19.4 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (m) | 2.0 | 4.9 | | 1.6 | 6.8 | | 4.3 | 3.1 | | 0.9 | 12.7 | |
| Queue Length 95th (m) | 7.8 | 16.2 | | 6.7 | 19.4 | | 11.0 | 8.7 | | 4.3 | 30.3 | |
| Internal Link Dist (m) | | 221.5 | | | 282.0 | | | 465.3 | | | 727.0 | |
| Turn Bay Length (m) | 110.0 | | | 40.0 | | | 50.0 | | | 30.0 | | |
| Base Capacity (vph) | 833 | 1054 | | 810 | 1138 | | 843 | 1713 | | 731 | 1252 | |
| 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 | 0.04 | 0.10 | | 0.03 | 0.10 | | 0.12 | 0.04 | | 0.02 | 0.17 | |

| Intersection Summary | | |
|---|---|---|
| Area Type: | Other | |
| Cycle Length: 118.6 | | |
| Actuated Cycle Length: 51.9 | | |
| Natural Cycle: 65 | | |
| Control Type: Actuated-Uncoordinated | | |
| Maximum v/c Ratio: 0.51 | | |
| Intersection Signal Delay: 15.0 | | Intersection LOS: B |
| Intersection Capacity Utilization 46.9% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |

Splits and Phases: 2: Legget & Solandt

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 2162 | 125 | 10 | 45 |
| Future Volume (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 2162 | 125 | 10 | 45 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 1.00 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.887 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1518 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1635 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.066 | | | | 0.074 |
| Satd. Flow (perm) | 1629 | 1548 | 1469 | 3232 | 1518 | 0 | 0 | 111 | 3316 | 1421 | 0 | 127 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 130 | | 107 | | | | | 79 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 2162 | 125 | 10 | 45 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 41 | 285 | 381 | 160 | 0 | 0 | 94 | 2162 | 125 | 0 | 55 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

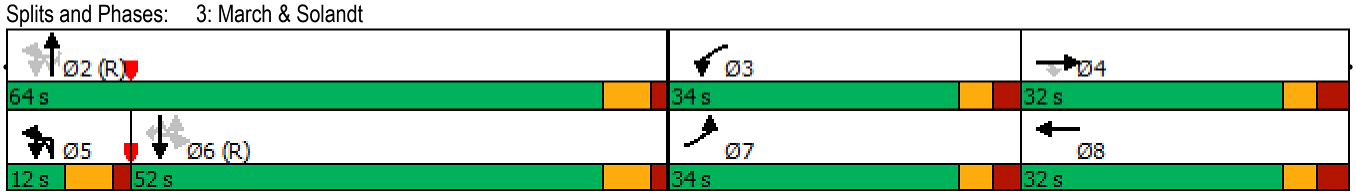
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1634 | 31 |
| Future Volume (vph) | 1634 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1411 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 132 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1634 | 31 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1634 | 31 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 34.0 | 32.0 | 32.0 | 34.0 | 32.0 | | 12.0 | 12.0 | 64.0 | 64.0 | 52.0 | 52.0 |
| Total Split (%) | 26.2% | 24.6% | 24.6% | 26.2% | 24.6% | | 9.2% | 9.2% | 49.2% | 49.2% | 40.0% | 40.0% |
| Maximum Green (s) | 28.1 | 25.5 | 25.5 | 28.1 | 25.5 | | 5.7 | 5.7 | 57.7 | 57.7 | 45.7 | 45.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.4 | 20.5 | 20.5 | 20.5 | 33.0 | | | 70.3 | 70.3 | 70.3 | | 55.5 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.16 | 0.25 | | | 0.54 | 0.54 | 0.54 | | 0.43 |
| v/c Ratio | 0.48 | 0.17 | 0.84 | 0.75 | 0.34 | | | 0.60 | 1.21 | 0.16 | | 1.02 |
| Control Delay | 68.6 | 45.7 | 48.6 | 61.3 | 15.5 | | | 29.9 | 116.7 | 1.8 | | 174.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 68.6 | 45.7 | 48.6 | 61.3 | 15.5 | | | 29.9 | 116.7 | 1.8 | | 174.2 |
| LOS | E | D | D | E | B | | | C | F | A | | F |
| Approach Delay | | 51.5 | | | 47.8 | | | | 107.2 | | | |
| Approach LOS | | D | | | D | | | | F | | | |
| Queue Length 50th (m) | 14.5 | 8.4 | 36.6 | 44.7 | 9.9 | | | 6.6 | ~338.2 | 2.9 | | ~14.3 |
| Queue Length 95th (m) | 27.3 | 17.0 | 63.4 | 57.5 | 25.1 | | | m11.3 | m#357.4 | m4.4 | | #41.5 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 354 | 311 | 399 | 702 | 465 | | | 157 | 1793 | 804 | | 54 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.18 | 0.13 | 0.71 | 0.54 | 0.34 | | | 0.60 | 1.21 | 0.16 | | 1.02 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 30 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 98.3 Intersection LOS: F
Intersection Capacity Utilization 118.7% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 52.0 | 52.0 |
| Total Split (%) | 40.0% | 40.0% |
| Maximum Green (s) | 45.7 | 45.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 55.5 | 55.5 |
| Actuated g/C Ratio | 0.43 | 0.43 |
| v/c Ratio | 1.15 | 0.05 |
| Control Delay | 112.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 112.5 | 0.1 |
| LOS | F | A |
| Approach Delay | 112.5 | |
| Approach LOS | F | |
| Queue Length 50th (m) | ~247.1 | 0.0 |
| Queue Length 95th (m) | #310.4 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1416 | 678 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.15 | 0.05 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1951 | 59 | 297 | 2269 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1951 | 59 | 297 | 2269 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.785 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1380 | 1458 | 1191 | 1762 | 1474 | 0 | 1673 | 3316 | 1439 | 3242 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 82 | | | 236 | | | | 84 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1951 | 59 | 297 | 2269 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 241 | 0 | 38 | 1951 | 59 | 297 | 2269 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1435 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 84 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 23.0 | 23.0 | 67.0 | 67.0 | 23.0 | 67.0 |
| Total Split (%) | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 30.8% | 17.7% | 17.7% | 51.5% | 51.5% | 17.7% | 51.5% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 16.5 | 16.5 | 60.7 | 60.7 | 16.5 | 60.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | | 8.4 | 72.6 | 72.6 | 16.2 | 82.8 |
| Actuated g/C Ratio | | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | | 0.06 | 0.56 | 0.56 | 0.12 | 0.64 |
| v/c Ratio | | 0.21 | 0.06 | 0.67 | 0.07 | 0.54 | | 0.36 | 1.05 | 0.07 | 0.74 | 1.06 |
| Control Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 10.2 | | 66.4 | 65.7 | 1.9 | 63.0 | 60.3 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 45.3 | 0.3 | 65.3 | 41.7 | 10.2 | | 66.4 | 65.7 | 1.9 | 63.0 | 60.3 |
| LOS | | D | A | E | D | B | | E | E | A | E | E |
| Approach Delay | | 33.3 | | | 30.6 | | | | 63.9 | | | 59.3 |
| Approach LOS | | C | | | C | | | | E | | | E |
| Queue Length 50th (m) | | 10.1 | 0.0 | 30.0 | 4.4 | 1.0 | | 8.8 | ~266.7 | 0.0 | 32.1 | ~323.5 |
| Queue Length 95th (m) | | 18.9 | 0.0 | 45.4 | 10.4 | 19.9 | | 18.9 | #342.0 | 3.7 | m32.9 | m#337.1 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 355 | 436 | 306 | 454 | 555 | | 212 | 1852 | 841 | 429 | 2133 |
| 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 | | 0.14 | 0.04 | 0.44 | 0.05 | 0.43 | | 0.18 | 1.05 | 0.07 | 0.69 | 1.06 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 58.6 Intersection LOS: E
Intersection Capacity Utilization 116.2% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 67.0 |
| Total Split (%) | 51.5% |
| Maximum Green (s) | 60.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 82.8 |
| Actuated g/C Ratio | 0.64 |
| v/c Ratio | 0.06 |
| Control Delay | 2.0 |
| Queue Delay | 0.0 |
| Total Delay | 2.0 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 0.5 |
| Queue Length 95th (m) | m2.3 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 944 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

| Intersection Summary |
|---|

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Future Volume (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1658 | 0 | 1745 | 0 | 0 | 1510 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1658 | 0 | 1745 | 0 | 0 | 1510 |
| Link Speed (k/h) | | 50 | 50 | | 50 | |
| Link Distance (m) | | 156.7 | 29.0 | | 88.7 | |
| Travel Time (s) | | 11.3 | 2.1 | | 6.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 68 | 0 | 0 | 0 | 0 | 67 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 3.5 | 3.5 | | 0.0 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 5.0 | 5.0 | | 5.0 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 97 | | | 97 | 97 | 97 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 7.7% ICU Level of Service A
Analysis Period (min) 15

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 2162 | 125 | 10 | 45 |
| Future Volume (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 2162 | 125 | 10 | 45 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 0.99 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.887 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1518 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1635 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.050 | | | | 0.055 |
| Satd. Flow (perm) | 1628 | 1548 | 1467 | 3230 | 1518 | 0 | 0 | 84 | 3316 | 1419 | 0 | 95 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 156 | | 59 | | | | | 111 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 2162 | 125 | 10 | 45 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 41 | 285 | 381 | 160 | 0 | 0 | 94 | 2162 | 125 | 0 | 55 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

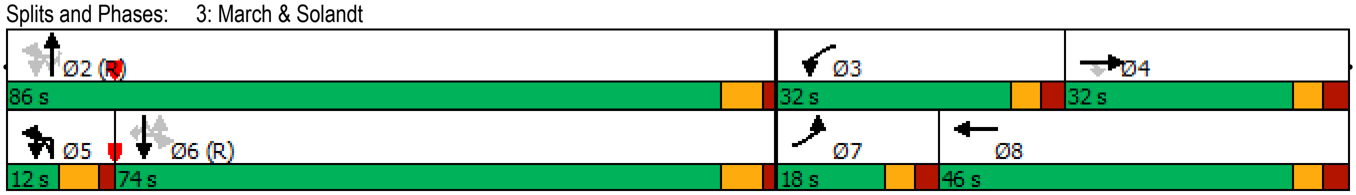
| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1634 | 31 |
| Future Volume (vph) | 1634 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1410 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 157 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1634 | 31 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1634 | 31 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 18.0 | 32.0 | 32.0 | 32.0 | 46.0 | | 12.0 | 12.0 | 86.0 | 86.0 | 74.0 | 74.0 |
| Total Split (%) | 12.0% | 21.3% | 21.3% | 21.3% | 30.7% | | 8.0% | 8.0% | 57.3% | 57.3% | 49.3% | 49.3% |
| Maximum Green (s) | 12.1 | 25.5 | 25.5 | 26.1 | 39.5 | | 5.7 | 5.7 | 79.7 | 79.7 | 67.7 | 67.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.2 | 19.9 | 19.9 | 22.3 | 34.5 | | | 89.0 | 89.0 | 89.0 | | 74.3 |
| Actuated g/C Ratio | 0.07 | 0.13 | 0.13 | 0.15 | 0.23 | | | 0.59 | 0.59 | 0.59 | | 0.50 |
| v/c Ratio | 0.56 | 0.20 | 0.86 | 0.79 | 0.41 | | | 0.70 | 1.10 | 0.14 | | 1.20 |
| Control Delay | 86.5 | 57.4 | 52.5 | 73.6 | 32.9 | | | 56.2 | 65.4 | 1.2 | | 229.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 86.5 | 57.4 | 52.5 | 73.6 | 32.9 | | | 56.2 | 65.4 | 1.2 | | 229.7 |
| LOS | F | E | D | E | C | | | E | E | A | | F |
| Approach Delay | | 58.5 | | | 61.6 | | | | 61.6 | | | |
| Approach LOS | | E | | | E | | | | E | | | |
| Queue Length 50th (m) | 16.9 | 10.1 | 36.0 | 52.4 | 23.6 | | | 14.6 | ~354.4 | 0.6 | | ~18.8 |
| Queue Length 95th (m) | 31.4 | 20.5 | #66.9 | 67.2 | 41.8 | | | m#18.1 | m#378.7 | m0.7 | | #35.6 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 132 | 265 | 380 | 565 | 443 | | | 135 | 1968 | 887 | | 46 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.48 | 0.15 | 0.75 | 0.67 | 0.36 | | | 0.70 | 1.10 | 0.14 | | 1.20 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 62.0 Intersection LOS: E
Intersection Capacity Utilization 118.7% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 74.0 | 74.0 |
| Total Split (%) | 49.3% | 49.3% |
| Maximum Green (s) | 67.7 | 67.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 74.3 | 74.3 |
| Actuated g/C Ratio | 0.50 | 0.50 |
| v/c Ratio | 1.00 | 0.04 |
| Control Delay | 58.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 58.9 | 0.1 |
| LOS | E | A |
| Approach Delay | 63.3 | |
| Approach LOS | E | |
| Queue Length 50th (m) | ~259.1 | 0.0 |
| Queue Length 95th (m) | #303.6 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1641 | 777 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.00 | 0.04 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1951 | 59 | 297 | 2269 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1951 | 59 | 297 | 2269 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.784 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1378 | 1455 | 1189 | 1762 | 1473 | 0 | 1673 | 3316 | 1435 | 3241 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 137 | | | | 73 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1951 | 59 | 297 | 2269 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 241 | 0 | 38 | 1951 | 59 | 297 | 2269 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1433 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 73 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 92.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 61.3% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 | | 8.7 | 86.9 | 86.9 | 19.2 | 99.8 |
| Actuated g/C Ratio | | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | | 0.06 | 0.58 | 0.58 | 0.13 | 0.67 |
| v/c Ratio | | 0.22 | 0.06 | 0.69 | 0.08 | 0.68 | | 0.40 | 1.02 | 0.07 | 0.72 | 1.02 |
| Control Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 33.5 | | 79.1 | 55.8 | 2.1 | 57.8 | 56.1 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 33.5 | | 79.1 | 55.8 | 2.1 | 57.8 | 56.1 |
| LOS | | D | A | E | D | C | | E | E | A | E | E |
| Approach Delay | | 39.1 | | | 48.6 | | | | 54.7 | | | 55.2 |
| Approach LOS | | D | | | D | | | | D | | | E |
| Queue Length 50th (m) | | 11.9 | 0.0 | 35.3 | 5.2 | 27.1 | | 10.2 | ~300.0 | 0.0 | 38.0 | ~346.8 |
| Queue Length 95th (m) | | 21.9 | 0.0 | 53.0 | 12.0 | 51.1 | | 21.4 | #337.4 | 4.2 | m#61.2 | m#405.0 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 307 | 380 | 265 | 393 | 435 | | 128 | 1921 | 862 | 415 | 2229 |
| 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 | | 0.16 | 0.05 | 0.51 | 0.06 | 0.55 | | 0.30 | 1.02 | 0.07 | 0.72 | 1.02 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 54.3 Intersection LOS: D
Intersection Capacity Utilization 116.2% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 92.0 |
| Total Split (%) | 61.3% |
| Maximum Green (s) | 85.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 99.8 |
| Actuated g/C Ratio | 0.67 |
| v/c Ratio | 0.06 |
| Control Delay | 7.2 |
| Queue Delay | 0.0 |
| Total Delay | 7.2 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 1.4 |
| Queue Length 95th (m) | m3.5 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 978 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 1972 | 125 | 10 | 35 |
| Future Volume (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 1972 | 125 | 10 | 35 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 35.0 | | 60.0 | 85.0 | | 0.0 | | 165.0 | | 0.0 | | 155.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | | 1 | | 1 | | 1 |
| Taper Length (m) | 50.0 | | | 95.0 | | | | 40.0 | | | | 25.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.98 | 0.99 | 0.98 | | | | | 0.97 | | |
| Frt | | | 0.850 | | 0.887 | | | | | 0.850 | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.950 | | | | 0.950 |
| Satd. Flow (prot) | 1642 | 1548 | 1498 | 3248 | 1518 | 0 | 0 | 1604 | 3316 | 1469 | 0 | 1636 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.050 | | | | 0.055 |
| Satd. Flow (perm) | 1628 | 1548 | 1467 | 3230 | 1518 | 0 | 0 | 84 | 3316 | 1419 | 0 | 95 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 156 | | 61 | | | | | 111 | | |
| Link Speed (k/h) | | 50 | | | 50 | | | | 80 | | | |
| Link Distance (m) | | 123.9 | | | 245.5 | | | | 634.3 | | | |
| Travel Time (s) | | 8.9 | | | 17.7 | | | | 28.5 | | | |
| Confl. Peds. (#/hr) | 6 | | 2 | 2 | | 6 | | 4 | | 3 | | 3 |
| Confl. Bikes (#/hr) | | | 4 | | | 7 | | | | 3 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 3% | 15% | 1% | 1% | 1% | 2% | 1% | 6% | 2% | 3% | 1% | 4% |
| Adj. Flow (vph) | 63 | 41 | 285 | 381 | 39 | 121 | 11 | 83 | 1972 | 125 | 10 | 35 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 63 | 41 | 285 | 381 | 160 | 0 | 0 | 94 | 1972 | 125 | 0 | 45 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | R NA | Left |
| Median Width(m) | | 7.0 | | | 10.5 | | | | 7.0 | | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 14 | 24 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Left | Thru | Right | Left | Left |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 5 | 2 | | | |
| Permitted Phases | | | 4 | | | | 2 | 2 | | 2 | 6 | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 5 | 2 | 2 | 6 | 6 |

| Lane Group | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1634 | 31 |
| Future Volume (vph) | 1634 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 |
| Storage Length (m) | | 75.0 |
| Storage Lanes | | 1 |
| Taper Length (m) | | |
| Lane Util. Factor | 0.95 | 1.00 |
| Ped Bike Factor | | 0.98 |
| Frt | | 0.850 |
| Flt Protected | | |
| Satd. Flow (prot) | 3316 | 1441 |
| Flt Permitted | | |
| Satd. Flow (perm) | 3316 | 1410 |
| Right Turn on Red | | Yes |
| Satd. Flow (RTOR) | | 157 |
| Link Speed (k/h) | 80 | |
| Link Distance (m) | 855.0 | |
| Travel Time (s) | 38.5 | |
| Confl. Peds. (#/hr) | | 4 |
| Confl. Bikes (#/hr) | | 1 |
| Peak Hour Factor | 1.00 | 1.00 |
| Heavy Vehicles (%) | 2% | 5% |
| Adj. Flow (vph) | 1634 | 31 |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | 1634 | 31 |
| Enter Blocked Intersection | No | No |
| Lane Alignment | Left | Right |
| Median Width(m) | 7.0 | |
| Link Offset(m) | 0.0 | |
| Crosswalk Width(m) | 5.0 | |
| Two way Left Turn Lane | | |
| Headway Factor | 1.09 | 1.09 |
| Turning Speed (k/h) | | 14 |
| Number of Detectors | 2 | 1 |
| Detector Template | Thru | Right |
| Leading Detector (m) | 93.0 | 18.6 |
| Trailing Detector (m) | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 |
| Detector 1 Size(m) | 5.5 | 18.6 |
| Detector 1 Type | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 |
| Detector 2 Position(m) | 87.5 | |
| Detector 2 Size(m) | 5.5 | |
| Detector 2 Type | Cl+Ex | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | 0.0 | |
| Turn Type | NA | Perm |
| Protected Phases | 6 | |
| Permitted Phases | | 6 |
| Detector Phase | 6 | 6 |

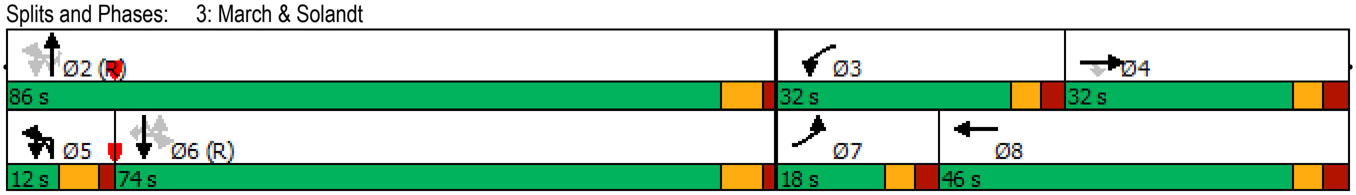
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBU | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 5.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Minimum Split (s) | 10.9 | 31.5 | 31.5 | 10.9 | 31.5 | | 11.3 | 11.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| Total Split (s) | 18.0 | 32.0 | 32.0 | 32.0 | 46.0 | | 12.0 | 12.0 | 86.0 | 86.0 | 74.0 | 74.0 |
| Total Split (%) | 12.0% | 21.3% | 21.3% | 21.3% | 30.7% | | 8.0% | 8.0% | 57.3% | 57.3% | 49.3% | 49.3% |
| Maximum Green (s) | 12.1 | 25.5 | 25.5 | 26.1 | 39.5 | | 5.7 | 5.7 | 79.7 | 79.7 | 67.7 | 67.7 |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| All-Red Time (s) | 2.6 | 3.2 | 3.2 | 2.6 | 3.2 | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 5.9 | 6.5 | 6.5 | 5.9 | 6.5 | | | 6.3 | 6.3 | 6.3 | | 6.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lead | | | Lag | 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 | 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 |
| Flash Dont Walk (s) | | 18.0 | 18.0 | | 18.0 | | | | 12.0 | 12.0 | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | | 6 | 6 | | 2 | | | | 3 | 3 | 4 | 4 |
| Act Effct Green (s) | 10.2 | 19.9 | 19.9 | 22.3 | 34.5 | | | 89.0 | 89.0 | 89.0 | | 74.3 |
| Actuated g/C Ratio | 0.07 | 0.13 | 0.13 | 0.15 | 0.23 | | | 0.59 | 0.59 | 0.59 | | 0.50 |
| v/c Ratio | 0.56 | 0.20 | 0.86 | 0.79 | 0.40 | | | 0.70 | 1.00 | 0.14 | | 0.98 |
| Control Delay | 86.5 | 57.4 | 52.5 | 73.6 | 32.3 | | | 55.2 | 28.2 | 1.1 | | 167.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 86.5 | 57.4 | 52.5 | 73.6 | 32.3 | | | 55.2 | 28.2 | 1.1 | | 167.3 |
| LOS | F | E | D | E | C | | | E | C | A | | F |
| Approach Delay | | 58.5 | | | 61.4 | | | | 27.8 | | | |
| Approach LOS | | E | | | E | | | | C | | | |
| Queue Length 50th (m) | 16.9 | 10.1 | 36.0 | 52.4 | 23.1 | | | 14.8 | ~296.9 | 0.6 | | ~13.1 |
| Queue Length 95th (m) | 31.4 | 20.5 | #66.9 | 67.2 | 41.3 | | | m#17.1 | m#327.5 | m0.7 | | #38.4 |
| Internal Link Dist (m) | | 99.9 | | | 221.5 | | | | 610.3 | | | |
| Turn Bay Length (m) | 35.0 | | 60.0 | 85.0 | | | | 165.0 | | | | 155.0 |
| Base Capacity (vph) | 132 | 265 | 380 | 565 | 444 | | | 135 | 1968 | 887 | | 46 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.48 | 0.15 | 0.75 | 0.67 | 0.36 | | | 0.70 | 1.00 | 0.14 | | 0.98 |

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 45.7 Intersection LOS: D
Intersection Capacity Utilization 115.7% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: March & Solandt



| Lane Group | SBT | SBR |
|---|---|---|
| Switch Phase | | |
| Minimum Initial (s) | 20.0 | 20.0 |
| Minimum Split (s) | 26.3 | 26.3 |
| Total Split (s) | 74.0 | 74.0 |
| Total Split (%) | 49.3% | 49.3% |
| Maximum Green (s) | 67.7 | 67.7 |
| Yellow Time (s) | 4.6 | 4.6 |
| All-Red Time (s) | 1.7 | 1.7 |
| Lost Time Adjust (s) | 0.0 | 0.0 |
| Total Lost Time (s) | 6.3 | 6.3 |
| Lead/Lag | Lag | Lag |
| Lead-Lag Optimize? | | |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max |
| Walk Time (s) | 7.0 | 7.0 |
| Flash Dont Walk (s) | 12.0 | 12.0 |
| Pedestrian Calls (#/hr) | 4 | 4 |
| Act Effct Green (s) | 74.3 | 74.3 |
| Actuated g/C Ratio | 0.50 | 0.50 |
| v/c Ratio | 1.00 | 0.04 |
| Control Delay | 58.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 |
| Total Delay | 58.9 | 0.1 |
| LOS | E | A |
| Approach Delay | 60.7 | |
| Approach LOS | E | |
| Queue Length 50th (m) | ~259.1 | 0.0 |
| Queue Length 95th (m) | #303.6 | 0.0 |
| Internal Link Dist (m) | 831.0 | |
| Turn Bay Length (m) | | 75.0 |
| Base Capacity (vph) | 1641 | 777 |
| Starvation Cap Reductn | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 |
| Storage Cap Reductn | 0 | 0 |
| Reduced v/c Ratio | 1.00 | 0.04 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1921 | 59 | 297 | 2239 |
| Future Volume (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1921 | 59 | 297 | 2239 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 20.0 | 0.0 | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Storage Lanes | 0 | | 1 | 1 | | 2 | | 1 | | 1 | 2 | |
| Taper Length (m) | 20.0 | | | 20.0 | | | | 40.0 | | | 60.0 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | 1.00 | 0.97 | 0.99 | | 0.98 | | 1.00 | | 0.97 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | | 0.850 | | |
| Flt Protected | | 0.965 | | 0.950 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1701 | 1498 | 1580 | 1762 | 1498 | 0 | 1674 | 3316 | 1483 | 3248 | 3349 |
| Flt Permitted | | 0.784 | | 0.725 | | | | 0.950 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1378 | 1455 | 1189 | 1762 | 1473 | 0 | 1673 | 3316 | 1435 | 3240 | 3349 |
| Right Turn on Red | | | Yes | | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | 71 | | | 138 | | | | 73 | | |
| Link Speed (k/h) | | 50 | | | 60 | | | | 60 | | | 60 |
| Link Distance (m) | | 247.8 | | | 333.9 | | | | 554.1 | | | 634.3 |
| Travel Time (s) | | 17.8 | | | 20.0 | | | | 33.2 | | | 38.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | | 6 | | 11 | 11 | |
| Confl. Bikes (#/hr) | | | 2 | | | 1 | | | | 1 | | |
| Peak Hour 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 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 7% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Adj. Flow (vph) | 36 | 13 | 18 | 134 | 22 | 241 | 5 | 33 | 1921 | 59 | 297 | 2239 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 49 | 18 | 134 | 22 | 241 | 0 | 38 | 1921 | 59 | 297 | 2239 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | R NA | Left | Left | Right | Left | Left |
| Median Width(m) | | 1.8 | | | 3.5 | | | | 10.5 | | | 10.5 |
| Link Offset(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | | 5.0 | | | 5.0 | | | | 5.0 | | | 5.0 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 14 | 24 | | 14 | 24 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Left | Thru | Right | Left | Thru |
| Leading Detector (m) | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 18.6 | 93.0 | 18.6 | 18.6 | 93.0 |
| Trailing Detector (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Position(m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Size(m) | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 18.6 | 5.5 | 18.6 | 18.6 | 5.5 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(m) | | 87.5 | | | 87.5 | | | | 87.5 | | | 87.5 |
| Detector 2 Size(m) | | 5.5 | | | 5.5 | | | | 5.5 | | | 5.5 |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | Prot | NA | Perm | Prot | NA |
| Protected Phases | | 4 | | | 8 | | 5 | 5 | 2 | | 1 | 6 |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | 2 | | |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 5 | 5 | 2 | 2 | 1 | 6 |

| Lane Group | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 58 |
| Future Volume (vph) | 58 |
| Ideal Flow (vphpl) | 1800 |
| Storage Length (m) | 20.0 |
| Storage Lanes | 1 |
| Taper Length (m) | |
| Lane Util. Factor | 1.00 |
| Ped Bike Factor | 0.96 |
| Frt | 0.850 |
| Flt Protected | |
| Satd. Flow (prot) | 1498 |
| Flt Permitted | |
| Satd. Flow (perm) | 1433 |
| Right Turn on Red | Yes |
| Satd. Flow (RTOR) | 73 |
| Link Speed (k/h) | |
| Link Distance (m) | |
| Travel Time (s) | |
| Confl. Peds. (#/hr) | 6 |
| Confl. Bikes (#/hr) | 8 |
| Peak Hour Factor | 1.00 |
| Heavy Vehicles (%) | 1% |
| Adj. Flow (vph) | 58 |
| Shared Lane Traffic (%) | |
| Lane Group Flow (vph) | 58 |
| Enter Blocked Intersection | No |
| Lane Alignment | Right |
| Median Width(m) | |
| Link Offset(m) | |
| Crosswalk Width(m) | |
| Two way Left Turn Lane | |
| Headway Factor | 1.09 |
| Turning Speed (k/h) | 14 |
| Number of Detectors | 1 |
| Detector Template | Right |
| Leading Detector (m) | 18.6 |
| Trailing Detector (m) | 0.0 |
| Detector 1 Position(m) | 0.0 |
| Detector 1 Size(m) | 18.6 |
| Detector 1 Type | Cl+Ex |
| Detector 1 Channel | |
| Detector 1 Extend (s) | 0.0 |
| Detector 1 Queue (s) | 0.0 |
| Detector 1 Delay (s) | 0.0 |
| Detector 2 Position(m) | |
| Detector 2 Size(m) | |
| Detector 2 Type | |
| Detector 2 Channel | |
| Detector 2 Extend (s) | |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 6 |
| Detector Phase | 6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 5.0 | 20.0 | 20.0 | 5.0 | 20.0 |
| Minimum Split (s) | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 17.6 | 17.6 | 30.6 | 30.6 | 17.6 | 30.6 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 18.0 | 18.0 | 92.0 | 92.0 | 18.0 | 92.0 |
| Total Split (%) | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 26.7% | 12.0% | 12.0% | 61.3% | 61.3% | 12.0% | 61.3% |
| Maximum Green (s) | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 11.5 | 11.5 | 85.7 | 85.7 | 11.5 | 85.7 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 |
| 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) | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | | 6.5 | 6.3 | 6.3 | 6.5 | 6.3 |
| Lead/Lag | | | | | | | Lead | Lead | Lag | Lag | 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 | 3.0 |
| Recall Mode | None | None | None | None | None | None | None | None | C-Max | C-Max | None | 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) | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | | | 17.0 | 17.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 6 | 6 | 6 | | | 15 | 15 | | 12 |
| Act Effct Green (s) | | 24.6 | 24.6 | 24.6 | 24.6 | 24.6 | | 8.7 | 86.9 | 86.9 | 19.2 | 99.8 |
| Actuated g/C Ratio | | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | | 0.06 | 0.58 | 0.58 | 0.13 | 0.67 |
| v/c Ratio | | 0.22 | 0.06 | 0.69 | 0.08 | 0.68 | | 0.40 | 1.00 | 0.07 | 0.72 | 1.00 |
| Control Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 33.1 | | 79.1 | 51.9 | 2.1 | 57.6 | 52.6 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 53.3 | 0.4 | 75.7 | 49.3 | 33.1 | | 79.1 | 51.9 | 2.1 | 57.6 | 52.6 |
| LOS | | D | A | E | D | C | | E | D | A | E | D |
| Approach Delay | | 39.1 | | | 48.4 | | | | 51.0 | | | 52.2 |
| Approach LOS | | D | | | D | | | | D | | | D |
| Queue Length 50th (m) | | 11.9 | 0.0 | 35.3 | 5.2 | 26.8 | | 10.2 | ~291.1 | 0.0 | 37.9 | ~338.1 |
| Queue Length 95th (m) | | 21.9 | 0.0 | 53.0 | 12.0 | 50.8 | | 21.4 | #328.7 | 4.2 | m#61.1 | m#395.1 |
| Internal Link Dist (m) | | 223.8 | | | 309.9 | | | | 530.1 | | | 610.3 |
| Turn Bay Length (m) | | | 20.0 | | | 60.0 | | 100.0 | | 80.0 | 185.0 | |
| Base Capacity (vph) | | 307 | 380 | 265 | 393 | 436 | | 128 | 1921 | 862 | 415 | 2229 |
| 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 | | 0.16 | 0.05 | 0.51 | 0.06 | 0.55 | | 0.30 | 1.00 | 0.07 | 0.72 | 1.00 |

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 51.2 Intersection LOS: D

Intersection Capacity Utilization 115.4% ICU Level of Service H

Analysis Period (min) 15

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

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

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

Splits and Phases: 4: March & Station/Carling

| Lane Group | SBR |
|---|---|
| Switch Phase | |
| Minimum Initial (s) | 20.0 |
| Minimum Split (s) | 30.6 |
| Total Split (s) | 92.0 |
| Total Split (%) | 61.3% |
| Maximum Green (s) | 85.7 |
| Yellow Time (s) | 3.7 |
| All-Red Time (s) | 2.6 |
| Lost Time Adjust (s) | 0.0 |
| Total Lost Time (s) | 6.3 |
| Lead/Lag | Lag |
| Lead-Lag Optimize? | |
| Vehicle Extension (s) | 3.0 |
| Recall Mode | C-Max |
| Walk Time (s) | 7.0 |
| Flash Dont Walk (s) | 17.0 |
| Pedestrian Calls (#/hr) | 12 |
| Act Effct Green (s) | 99.8 |
| Actuated g/C Ratio | 0.67 |
| v/c Ratio | 0.06 |
| Control Delay | 7.4 |
| Queue Delay | 0.0 |
| Total Delay | 7.4 |
| LOS | A |
| Approach Delay | |
| Approach LOS | |
| Queue Length 50th (m) | 1.6 |
| Queue Length 95th (m) | m3.8 |
| Internal Link Dist (m) | |
| Turn Bay Length (m) | 20.0 |
| Base Capacity (vph) | 978 |
| Starvation Cap Reductn | 0 |
| Spillback Cap Reductn | 0 |
| Storage Cap Reductn | 0 |
| Reduced v/c Ratio | 0.06 |

Intersection Summary